Comhairle Contae Fhine Gall
Fingal County Council

Minutes of the County Council Meeting held on Monday, 11th December, 2023 in the Council Chamber - County Hall, Swords, at 5.00 pm

MEMBERS PRESENT

Councillors:

Boland, Cathal
Butler, Darragh
Carey, Ian
Conroy, Pamela
Dennehy, Brian
Dennison, Kieran
Donnelly, Angela
Doyle, Tania
Graves, Ann
Guerin, Jimmy
Hanaphy, Breda
Healy, David
Henchy, Adrian
Hopkins, Joan
Humphreys, James
Kitt, Tom
Lavin, Anthony
Maguire, Grainne

Councillors:

Mahony, Howard
Manton, Brigid
McCamley, Mary
McDonagh, Brian
Mulligan, Dean
Mulville, Paul
Murphy, Tony
Newman, Joe
O'Brien, Eoghan
O'Donoghue, Robert
O'Leary, Tom
Onwumereh, JK
Power, Karen
Rane, Punam
Ryan, Brendan
Shovlin, Siobhan
Tormey, Aoibhinn
Walsh, John

The Mayor, Councillor Adrian Henchy presided.

OFFICIALS PRESENT

AnnMarie Farrelly (Chief Executive); Mary Egan (Director of Services/People, Corporate & Digital); John Quinlivan (Director of Services/Economic, Enterprise, Tourism and Cultural Development); David Storey (Director of Services/Environment, Climate Action, Active Travel & Sports); Mary T Daly (Director of Services/Operations); Oliver Hunt (Head of Finance); Paul Carroll (Director of Housing Services and Community Development); Matthew McAleese (Director of Services Planning and Strategic Infrastructure); Nikki Halleran (A/Senior Executive Officer), Christine Baker (Heritage Officer).

F/462/23 (Agenda Item No)

ANNOUNCEMENT

At the start of the meeting, the Mayor, Councillor. A. Henchy, reminded Members that Standing Orders would apply to all aspects of the meeting.

F/463/23 (Agenda Item No 1)

Confirmation and Re-Affirmation of Minutes

a Confirmation and Re-Affirmation of Minutes of Budget Meeting held on Tuesday 7th November 2023

Minutes of the Annual Budget Meeting held on Tuesday, 7th November 2023 which had been circulated were considered.

It was PROPOSED by Councillor E. O'Brien, seconded by Councillor T. Kitt and RESOLVED –

"That the minutes of the Annual Budget Meeting held on 7th November 2023 be ADOPTED."

b Confirmation and Re-Affirmation of Minutes of Council Meeting held on Monday 13th November 2023

Minutes of the County Council Meeting held on 13th November 2023 which had been circulated were considered.

It was **PROPOSED** by Councillor E. O'Brien, seconded by Councillor J. Humphreys and **RESOLVED –**

"That the minutes of the County Council Meeting held on 13th November 2023 be **ADOPTED."**

F/464/23 (Agenda Item No)

QUESTIONS

It was proposed by Councillor JK. Onwumereh, seconded by Councillor K. Dennison and RESOLVED:

"That in accordance with Standing Order No. 53, Questions numbered 2 to 21 be ADOPTED."

F/465/23 (Agenda Item No 2)
Councillor J. Hopkins - Procedure Relating to Tidy Towns' Biodiversity Programme

F/466/23 (Agenda Item No 3)
Councillor JK Onwumereh - Salting Programme of Roads across Fingal

F/467/23 (Agenda Item No 4)
Councillor C. Boland - Reed bed Waste Water Treatment

F/468/23 (Agenda Item No 5)
Councillor A. Donnelly - Information on the number of Tenant in-situ Applications

F/469/23 (Agenda Item No 6)
Councillor M. McCamley - Mayor's Tea Dance

F/470/23 (Agenda Item No 7)
Councillor S. Shovlin - Grants and Supports available to Sports Clubs in Fingal

F/471/23 (Agenda Item No 8)
Councillor S. Shovlin - Road Sweeper Services - Leaf Sweeping

F/472/23 (Agenda Item No 9)
Councillor D. Healy - Availability of Council services to residents of adjoining Local Authority areas

F/473/23 (Agenda Item No 10)
Councillor P. Mulville - Report of the Inter Departmental Group on National Coastal Change Management Strategy

F/474/23 (Agenda Item No 11)
Councillor B. Ryan - Transfer of Tenancy

F/475/23 (Agenda Item No 12)
Councillor B. Ryan - Removal of Abandoned Cars

F/476/23 (Agenda Item No 13)
Councillor B. Manton - Family Resource Centres Fingal

F/477/23 (Agenda Item No 14)
Councillor A. Henchy - Capital Sports Funding

F/478/23 (Agenda Item No 15)
Councillor B. Dennehy - Exemptions granted for the Residential Zoned Land Tax

F/479/23 (Agenda Item No 16)
Councillor B. Dennehy - The quantity of housing units per acre granted on exemptions for the Residential Zoned Land Tax

F/480/23 (Agenda Item No 17)
Councillor J. Walsh - Non-active Planning Permissions

F/481/23 (Agenda Item No 18)
Councillor K. Dennison - Council Tenants in Rent Arrears

F/482/23 (Agenda Item No 19)
Councillor K. Dennison - Number of Housing in Loan Arrears

F/483/23 (Agenda Item No 20)
Councillor J. Humphreys - Purchase of lands

F/484/23 (Agenda Item No 21)
Councillor J. Humphreys - Alternative Route - Dublin Marathon

F/485/23 (Agenda Item No 22)
Report of Committees

a Report of Organisation, Procedures and Finance Committee Meeting held on Monday 13th November 2023

The report by the Chief Executive, which had been circulated, was CONSIDERED and AGREED.

b Report of Strategic Policy Committees Chairpersons' Annual Report

The reports by the Strategic Policy Committee Chairpersons which had been circulated were CONSIDERED and NOTED.

c Report of Corporate Policy Group Meeting held on Monday 4th December 2023

The report by the Chief Executive, which had been circulated, was **CONSIDERED**. It was proposed by Councillor A. Henchy, seconded by Councillor G. Maguire and **RESOLVED:**

"That the recommendations contained in the report from Corporate Policy Group Meeting held on the 4th December 2023 be **APPROVED.**"

d Report of Howth Malahide Services B Area Committee Meeting held on Wednesday 6th December 2023

The report by the Chief Executive, which had been circulated, was **CONSIDERED**. It was proposed by Councillor B. McDonagh, seconded by Councillor D. Healy and **RESOLVED:**

"That the recommendations contained in the report of Committee of Howth Malahide Services (B) meeting held on 6th December 2023 are hereby **ADOPTED.**"

e Report of Blanchardstown/Mulhuddart/Castleknock-Ongar Services B Area Committee Meeting held on Thursday 7th December 2023

The report by the Chief Executive, which had been circulated, was **CONSIDERED**. It was proposed by Councillor T. Kitt, seconded by Councillor JK. Onwumereh and **RESOLVED:**

"That the recommendations contained in the report of Committee of Blanchardstown-Mulhuddart/Castleknock/Ongar Services B meeting held on 7th December 2023, are hereby **ADOPTED.**"

F/486/23 (Agenda Item No 23)

Financial Matters

a Financial assistance to Approved Housing Bodies under the Capital Assistance Scheme - Call for CAS 2017 to provide units of living

accommodation to provide units of living accommodation in the Fingal area

The attached report by the Chief Executive, which had been circulated, was **CONSIDERED.** It was then proposed by Councillor B. McDonagh, seconded by Councillor J. Guerin and **RESOLVED**:

"That the recommendations contained in the attached report be **ADOPTED.**"

F/487/23 (Agenda Item No 24)

Proposed Disposal of Properties

a Proposed Disposal of Land and Grant of Wayleave at Old Road, Hayestown, Rush, Co. Dublin to ESB Networks

The attached report by the Chief Executive which had been circulated was **CONSIDERED.** It was proposed by Councillor R. O'Donoghue and seconded by Councillor B. Dennehy and **RESOLVED**:

"That lands and grant of a permanent wayleave at at Old Road, Hayestown, Rush, Co. Dublin to ESB Networks as referred to in the Notice under S183 of the Local Government Act 2001 as amended and dated 29th November 2023, be granted and disposed of to the ESB Networks in accordance with the terms specified therein."

F/488/23 (Agenda Item No 25)

Declarations of Roads

a Glen Ellan Road Extension, Swords, Co Dublin

The report by the Chief Executive which had been circulated was **CONSIDERED.** It was proposed by Councillor J. Humphreys, seconded by Councillor D. Mulligan and **RESOLVED**:

"That the roads referred to in the attached report be, and are hereby declared to be, public roads."

F/489/23 (Agenda Item No 26)

LADP/009/23 - Proposed Development of 119 no. Apartments, Creche & Associated Site Works at Mayeston, Poppintree, Dublin 11

The notice of intention to undertake development at Mayeston, Poppintree, Dublin 11 was **NOTED.**

F/490/23 (Agenda Item No 27)

Draft Annual Service Delivery Plan

The attached report by the Chief Executive which had been circulated was **CONSIDERED.** It was proposed by Councillor A. Henchy, seconded by Councillor G. Maguire and **RESOLVED:**

"In accordance with Section 134a of the Local Government Act 2001, as amended, the Annual Service Delivery Plan 2024 as recommended by the Chief Executive is hereby **ADOPTED.**"

F/491/23 (Agenda Item No 28)

Draft Standing Orders

Draft Standing Orders (November 2023) which had been circulated were considered.

It was **PROPOSED** by Councillor K. Dennison, seconded by Councillor M. McCamley and **RESOLVED –**

"That the revisions contained in the draft Fingal County Council Standing Orders (November 2023) be **ADOPTED** as the Standing Orders of Fingal County Council".

F/492/23 (Agenda Item No 29)

Draft Fingal Heritage Plan 2024 - 2030

The report by the Chief Executive which had been circulated was **CONSIDERED.** A presentation was given to the Members by MS. Christine Baker, Heritage Officer.

Following discussion, the Draft Fingal Heritage Plan 2024 – 2030 was **NOTED.**

F/493/23 (Agenda Item No 30)

Fingal Local Community Development Committee Annual Report 2022

The attached report by the Chief Executive which had been circulated was CONSIDERED and the report was NOTED.

F/494/23 (Agenda Item No 31)

2023 Arts Act Funding

The report by the Chief Executive which had been circulated was CONSIDERED. It was proposed by Councillor A. Henchy, seconded by Councillor G. Maguire and RESOLVED:

"That the award of Arts Act Funding as set out in the foregoing report is hereby APPROVED."

F/495/23 (Agenda Item No 32)

Youth Sports Grant Report

The report by the Chief Executive which had been circulated was CONSIDERED. It was proposed by Councillor T. Kitt, seconded by Councillor D. Mulligan and RESOLVED:

"That the award of Youth Sports Grant Funding as set out in the foregoing report is hereby APPROVED."

F/496/23 (Agenda Item No 33)

Chief Executive's Report

The report by the Chief Executive, which had been circulated, was CONSIDERED.

Following discussion, the Chief Executive's report was NOTED.

F/497/23 (Agenda Item No 34)

Conference Report

a NMCI's Seafarer's Conference 2024 on the 22nd February 2024 in the Castletroy Park Hotel in Co. Limerick

The notice which had been circulated was NOTED.

F/498/23 (Agenda Item No 35)

Mayor's Business - Councillor A. Henchy

a Councillor A. Henchy - Letter of Appreciation and support to Emergency and Frontline Services

The motion, in the name of Councillor A. Henchy was proposed by Councillor A. Henchy and seconded by Councillor M. McCamley.

Following a discussion, it was AGREED to include those organisations that represent retail and hospitality workers. Following further discussions the motion was AGREED.

F/499/23 (Agenda Item No 36)

Correspondence

a Letter from Clare County Council dated 14th November 2203 re - Resolution - Introducing Medical Certificates to all individuals with physical disabilities

The correspondence, which had been received, was NOTED

b Email from Cavan County Council dated 29th November 2023 re Proposal to remove Cavan from the Allianz Hurling League in 2025

The correspondence, which had been received, was NOTED

F/500/23 (Agenda Item No 37)

Departmental/Ministerial Correspondence

a Email dated 16th November 2023 from Minister D. O'Brien - re Item 35 - Cllr. B. McDonagh - An Bord Pleanála - Council Meeting 2022

The correspondence, which had been received, was NOTED

F/501/23 (Agenda Item No)

MOTIONS

F/502/23 (Agenda Item No 38)

Councillor A. Tormey - Establishment of Working Group/Subcommittee - Off-Leash Areas

The motion, in the name of Councillor A. Tormey was proposed by Councillor A. Tormey and seconded by Councillor K. Power.

During the course of discussions, an amended motion was received from Councillor K. Power. The amended motion was proposed by Councillor K. Power, seconded by Councillor D. Healy and AGREED.

Amendment
to Item 38:
Delete “provision” and replace with “suitability”.

Amended motion to read:
“That the Chief Executive establish a working group or subcommittee to examine the suitability of our "off leash areas" within the County, membership to include Councillors, officials, and other interested parties.”

Following further discussion, the Mayor instructed that a roll call vote be taken on the amended motion and on a division the voting resulted as follows:

FOR: 11 ELEVEN

AGAINST: 20 TWENTY

ABSTAIN: 0 ZERO

FOR: Councillors Mulligan, Dean; Donnelly, Angela; Hanaphy, Breda; Graves, Ann; Carey, Ian; Power, Karen; Walsh, John; Tormey, Aoibhinn; Doyle, Tania; Healy, David; Rane, Punam.

AGAINST: Councillors Henchy, Adrian; Mulville, Paul; Maguire, Grainne; Murphy, Tony; Kitt, Tom; Manton, Brigid; Ryan, Brendan; McCamley, Mary; Shovlin, Siobhan; Lavin, Anthony; Newman, Joe; Guerin, Jimmy; Mahony, Howard; Butler, Darragh; Onwumereh, JK; Dennehy, Brian; O’Donoghue, Robert; McDonagh, Brian; Humphreys, James; Dennison, Kieran.

The Mayor then DECLARED the Amended Motion LOST.

F/503/23 (Agenda Item No 39)
Councillor P. Conroy - Differential surface around cycling infrastructure

The motion, in the name of Councillor P. Conroy was proposed by Councillor D. Healy and seconded by Councillor K. Power.

The report was ACCEPTED.

F/504/23 (Agenda Item No 40)
Councillor JK Onwumereh - Incentivising Sports Development in Fingal

The motion, in the name of Councillor JK. Onwumereh was proposed by Councillor JK. Onwumereh and seconded by Councillor D. Butler.

The report was ACCEPTED.

F/505/23 (Agenda Item No 41)
Councillor E. O'Brien - Message in a Bottle Programme - Local Lions Club

The report on the motion in the name of Councillor E. O'Brien was ACCEPTED.

F/506/23 (Agenda Item No 42)
Councillor P. Rane - Toilet and Changing Facilities for all Parks and Pitches

The motion, in the name of Councillor P. Rane was proposed by Councillor P. Rane and seconded by Councillor K. Dennison.

Following discussions, the report was ACCEPTED.

F/507/23 (Agenda Item No 43)
Councillor C. Boland - Planning Breaches in respect of daa Lands

It was AGREED to defer this item to the next meeting.

F/508/23 (Agenda Item No 44)
Councillor A. Donnelly - Review of Dog Runs in Fingal

The motion, in the name of Councillor A. Donnelly was proposed by Councillor A. Donnelly and seconded by Councillor B. Hanaphy.

Following discussions, the report was ACCEPTED.

F/509/23 (Agenda Item No 45)
Councillor P. Mulville - Map of current Fingal County Council Housing areas

The motion, in the name of Councillor P. Mulville was proposed by Councillor P. Mulville and seconded by Councillor B. McDonagh.

Following discussions, the report was ACCEPTED.

F/510/23 (Agenda Item No 46)
Councillor D. Healy - Designated Postering Areas

The motion, in the name of Councillor D. Healy was proposed by Councillor D. Healy and seconded by Councillor I. Carey.

It was AGREED to extend the meeting to conclude Item 46.

Following discussion, the Mayor Councillor. A. Henchy, instructed that a roll call vote be taken and on a division the voting resulted as follows:

FOR : 13 THIRTEEN
AGAINST: 10 TEN
ABSTAIN: 0 ZERO

FOR: Councillors Henchy, Adrian; Mulville, Paul; Mulligan, Dean; Carey, Ian; Power, Karen; Kitt, Tom; Manton, Brigid; Walsh, John; Newman, Joe; Healy, David; Mahony, Howard; Onwumereh, JK; Rane, Punam.

AGAINST: Councillors Donnelly, Angela; Hanaphy, Breda; Graves, Ann; Ryan, Brendan; McCamley, Mary; Shovlin, Siobhan; Lavin, Anthony; O'Donoghue, Robert; Humphreys, James; Dennison, Kieran

The Mayor then DECLARED the Motion PASSED.

F/511/23 (Agenda Item No 47)

Councillor B. Manton - Hospital Access by Public Transport

The report on the motion in the name of Councillor B. Manton was **ACCEPTED**.

The Meeting concluded at 20.07pm.

MAYOR _____ DATE _____

COMHAIRLE CONTAE FHINE GALL
FINGAL COUNTY COUNCIL

COUNTY COUNCIL MEETING

TUESDAY 16TH JANUARY 2024

ITEM NO. 02

NOMINATIONS

COMHAIRLE CONTAE FHINE GALL
FINGAL COUNTY COUNCIL

COUNTY COUNCIL MEETING

TUESDAY 16TH JANUARY 2024

ITEM NO. 02a

FILLING OF CASUAL VACANCY ON FINGAL COUNTY COUNCIL FOLLOWING THE RESIGNATION OF COUNCILLOR DANIEL WHOOLEY

In accordance with Section 19 (2) of the Local Government Act 2001, following the resignation of Councillor Daniel Whooley with effect from Monday 18th September 2023, a causal vacancy now exists in Fingal County Council.

Section 19(3)(a) of the Local Government Act 2001 provides that a casual vacancy shall be filled by the co-option by the local authority to fill the vacancy whereby a Member resigns, subject to such person being nominated by the same registered political party who nominated for election or co-option the Member who caused the casual vacancy.

Section 19(4) provides that the co-option shall be made, after due notice (issued on 18th September 2023), at the next meeting of the Local Authority after the expiration of 14 days from the occurrence of the vacancy or as soon after the expiration of the 14 days as circumstances permit.

COMHAIRLE CONTAE FHINE GALL
FINGAL COUNTY COUNCIL

COUNTY COUNCIL MEETING

TUESDAY 16TH JANUARY 2024

ITEM NO. 02b

APPOINTMENT OF ONE MEMBER TO THE JOINT POLICING COMMITTEE

Following the resignation of Councillor Daniel Whooley nominations are now sought for the appointment of one Member to the Joint Policing Committee.

The Joint Policing Committee (JPC) was established under An Garda Síochána Act, 2005, with the most recent Guidelines for operation of JPCs issued by the Policing Authority in October 2022.

JPCs operate in a manner that offers an opportunity to develop greater consultation, cooperation and accountability between An Garda Síochána, Local Authorities and elected local representatives, with the participation of the community and voluntary sector, on the management of policing and crime issues.

The Fingal Joint Policing Committee meets four times per year (quarterly) and hosts a series of four public meetings each year in each of the Garda Districts within the administrative area of Fingal County Council.

Full details on www.fingal.ie/JPC

COMHAIRLE CONTAE FHINE GALL
FINGAL COUNTY COUNCIL

COUNTY COUNCIL MEETING

TUESDAY 16TH JANUARY 2024

ITEM NO. 02c

APPOINTMENT OF ONE MEMBER TO HOUSING STRATEGIC POLICY COMMITTEE FOLLOWING THE RESIGNATION OF COUNCILLOR DANIEL WHOOLEY

Nominations are now sought for a replacement Member to the Housing Strategic Policy Committee following the resignation of Councillor Daniel Whooley.

COMHAIRLE CONTAE FHINE GALL
FINGAL COUNTY COUNCIL

COUNTY COUNCIL MEETING

TUESDAY 16TH JANUARY 2024

ITEM NO. 02d

APPOINTMENT OF ONE MEMBER TO HANSFIELD STRATEGIC DEVELOPMENT ZONE STEERING GROUP

Nominations are sought for the appointment of one Member to Hansfield Strategic Development Zone Steering Group following the resignation of Councillor Daniel Whooley.

The Hansfield Strategic Development Zone comprises approximately 80.74 hectares of land in south-west Blanchardstown close to the county boundary with County Meath. Under the Statutory Development Plan, the subject lands carry the zoning objective 'RS1' - to provide for new residential communities in accordance with approved Local Area Plans and subject to the provisions of the necessary social and physical infrastructure. Membership comprises of the Elected Members from the Blanchardstown-Mulhuddart, Castleknock and Ongar Local Electoral Areas.

COMHAIRLE CONTAE FHINE GALL
FINGAL COUNTY COUNCIL

COUNTY COUNCIL MEETING

TUESDAY 16TH JANUARY 2024

ITEM NO. 02e

APPOINTMENT OF ONE MEMBER TO COMHAIRLE NA nÓg

Nominations are sought for the appointment of one Member to Comhairle na nÓg following the resignation of Councillor Daniel Whooley.

The Steering Committee for Comhairle na nÓg is made up of representation from Fingal elected council, CYPSC, ETB, Youth Work Ireland, Crosscare, Jigsaw, Fingal County Council and the PPN, as well as members of Fingal Comhairle na nÓg.

By having an Elected Member of the Council from each Area Committee on the Steering Committee, Comhairle na nÓg will have a greater opportunity for their voice and views to be heard on issues across the county which impact them. It will also give Elected Members further opportunity to interact with the young members of our county. This partnership could lead to great initiatives and give the members an opportunity to have their voice heard in relation to planning for their future. There are four meetings scheduled throughout the year. Councillor participation and engagement will bring added value to the committee and will assist in the creation of opportunities for the younger citizens in Fingal.

COMHAIRLE CONTAE FHINE GALL
FINGAL COUNTY COUNCIL

COUNTY COUNCIL MEETING

TUESDAY 16TH JANUARY 2024

ITEM NO. 02f

APPOINTMENT OF ONE MEMBER TO THE BLANCHARDSTOWN LOCAL DRUG & ALCOHOL TASK FORCE

Following the resignation of Councillor Daniel Whooley, the appointment of one Member to the Blanchardstown Local Drug and Alcohol Taks Force now exists.

The Blanchardstown Local Drug & Alcohol Taskforce (BLDATF) serves the Dublin 15 area. The taskforce is responsible for implementing the National Drugs Strategy in the context of the needs identified at local level through the implementation of a local drug and alcohol strategy. Following confirmation from the Blanchardstown Local Drug & Alcohol Task Force, the Council is entitled to nominate three (3) members from the Blanchardstown-Mulhuddart, Castleknock and Ongar Local Electoral Areas.

COMHAIRLE CONTAE FHINE GALL
FINGAL COUNTY COUNCIL

COUNTY COUNCIL MEETING

TUESDAY 16TH JANUARY 2024

ITEM NO. 03

GREEN WASTE MANAGEMENT

Question: Councillor J. Hopkins

"To ask the Chief Executive to outline the procedure for managing green waste in public areas, residents are being told the Council no longer supports the removal of green waste from public areas, how are resident groups to manage green waste they have cleared from public parks and roads, leaf mould cages while welcomed, they require management and are not the answer in all cases?"

Reply:

Community Green Waste – Operations - The Council continues to support communities and associations with the collection of green-waste following community clean-ups of Fingal Public Open Spaces. The position on this has not changed. Currently, the Operations Department provides special bags to official Tidy Towns Committees, Community and Residents Associations upon request for official organised clean-up in the public realm. Requests for these bags to be collected are received from these established groups via the email addresses provided for each of the three Administrative Areas listed below. The Council then arranges for these bags to be collected.

Green waste, including leaves, cleared by the official Tidy Towns Committees, Community and Residents Associations from public parks, open spaces etc. should be placed in these special bags and will continue to be collected by the Council.

Leaf Mould Cages - The Leaf mould cages initiative has been ongoing for 3 years and is very popular/successful with community/resident groups for managing leaf fall, clearing up leaves and recycling leaves into compost. This initiative is

promoted in August/September each year https://www.fingal.ie/community-composting-and-leaf-mould-initiatives and groups sign up if they are interested in getting the Leaf mould cages in their area. A Council trainer is in place who provides online training on leaf cages on behalf of Fingal County Council. The community/resident groups agree to fill, supervise, and maintain the leaves to produce compost. During periods of high leaf fall if the volume of leaves is excessive the community/residents' groups should put the leaves in the special Council bags that are provided, make contact with the relevant Operational area and the bags will be collected.

Residents Green Waste - There has been a marked increase in individual residents requesting the Council to collect green-waste from their properties. This has coincided with the Bin Collection companies introducing green-waste collection charges for residents. We have communicated to these residents that when they are disposing of their green-waste collected from their properties, they need to continue to dispose of the waste in the same manner as they did before the charge was introduced i.e., in the green-waste bin provided to them. The charge for this green-waste collection service applied by the Bin Collection Companies is borne by residents.

The Council has advised and will continue to advise individual residents of the above to clarify any misunderstandings they may have regarding their own residential green-waste collection.

Contact Details:

- Swords Balbriggan area: balswooparea@fingal.ie
- Howth/Malahide: howmaloparea@fingal.ie
- Castleknock Mulhuddart area: casmuloparea@fingal.ie

Source of Reply
Mary T. Daly, Director Operations

COMHAIRLE CONTAE FHINE GALL
FINGAL COUNTY COUNCIL

COUNTY COUNCIL MEETING

TUESDAY 16TH JANUARY 2024

ITEM NO. 04

FUNDING FOR WOMEN'S/SISTER SHEDS

Question: Councillor S. Shovlin

"To ask the Chief Executive what supports are currently available to Women's sheds or Sister sheds through Council funding?"

Reply:

The Community Development Office provides activities funding for eligible items to established and registered community groups and organisations which would include Women's sheds and Sister sheds, of up to €3000 per year for initiatives that support community group development, social inclusion initiatives, community events, climate action/environmental enhancement, integration or intercultural Initiatives. Details of eligible and non-eligible items under this funding scheme may be found on the Council's website under Grants and Funding located at https://www.fingal.ie/council/service/community-activities-funding-scheme

Source of Reply

Paul Carroll, Director of Housing and Community Development

COMHAIRLE CONTAE FHINE GALL
FINGAL COUNTY COUNCIL

COUNTY COUNCIL MEETING

TUESDAY 16TH JANUARY 2024

ITEM NO. 05

COST RENTAL HOUSING

Question: Councillor B. Manton

"To ask the Chief Executive how many Cost Rental Housing Projects in Fingal are due to be rolled out over the next couple of years, and what interest has been shown in the scheme rolled out to date?"

Reply:

Cost Rental homes are delivered by Fingal County Council, Approved Housing Bodies (AHBs), and the Land Development Agency (LDA). They are being delivered via a number of initiatives including Cost Rental Equity Loan (CREL), Secure Tenancy Affordable Rental investment scheme (STAR) and Project Tosaigh. Details of each of these initiatives are found on the Housing Agency website. At the appropriate time, the schemes are advertised via various social media channels by Fingal County Council, the relevant AHB, or the LDA, depending on the scheme provider, as well as on www.affordablehomes.ie.

There are five approved projects, in Rush, Swords, Donabate and Balbriggan, that are either on site or occupied by tenants and interest was strong from potential tenants for these schemes when they were advertised. There is a further four approved Cost Rental schemes due for delivery in 2024 in Swords, Mulhuddart, Finglas and Hansfield.

There are eight other projects advancing through earlier stages of the approvals process at present, with the potential to deliver over 1,000 homes.

Source of Reply:
Paul Carroll, Director of Services, Housing & Community Development Department

COMHAIRLE CONTAE FHINE GALL
FINGAL COUNTY COUNCIL

COUNTY COUNCIL MEETING

TUESDAY 16TH JANUARY 2024

ITEM NO. 06

BIKE SHARE SCHEMES

Question: Councillor A. Henchy

"To ask the Chief Executive to provide an update on existing funding for Bike Share schemes and to ensure additional funding has been ringfenced to support the further growth and development of bike share across the County?"

Reply:

Pedal Bike Share has been operating in Fingal since 2018 through the Bleeper Bike Scheme in Dublin 15, this service quickly expanded to include the North County.

In June 2022, we added eBike to the bike share provision through a pilot scheme with TIER Mobility.

Both pilot schemes have proved extremely successful, and the Active Travel Section is currently preparing tender documents for permanent schemes, we hope to be able to publish these competitions by the end of Q1 2024.

To facilitate the expansion of the pedal bike scheme into the North County, Fingal provide the operator with a subvention per bike.

The eBike pilot was run on a cost neutral basis to Fingal County Council, it is envisaged that any permanent scheme would be subvented to make it more sustainable for the operator and customer.

In order to support further growth and development of Bike Share in Fingal we have increased the funding provision in 2024.

Source of Reply
David Storey, Director of Environment, Climate Action, Active Travel and Sports

COMHAIRLE CONTAE FHINE GALL
FINGAL COUNTY COUNCIL

COUNTY COUNCIL MEETING

TUESDAY 16TH JANUARY 2024

ITEM NO. 07

RESIDENTIAL ZONED LAND TAX MAP - FINGAL

Question: Councillor A. Henchy

"To ask the Chief Executive that, in light of the recent publication of the final Residential Zoned Land Tax (RZLT) map, to provide an update in relation to how this applies to Fingal, how many sites are on the map, how many have been removed and what is the process going forward in 2024?"

Reply:

The Residential Zoned Land Tax (RZLT) is a tax aimed at activating serviced and residentially zoned land for housing. Local authorities are responsible for identifying the land that is subject to RZLT.

Fingal County Council's final RZLT map for 2024 is now available on our website and at our public office at County Hall, Main Street, Swords.

The map includes lands that meet the relevant criteria for inclusion on the map as set out in the current legislation.

- In Scope Residential Lands in Fingal: 3,519 Hectares
- In Scope Mixed Use Lands in Fingal: 209 Hectares

The draft map was out on public display between 1 November 2022 and 1 January 2023. 121 submissions relating to 142 land parcels were received. 32 were removed or part removed from the Draft map. 83 appeals were lodged to An Bord Pleanála. A further 13 land parcels were removed, or part removed.
A draft revised RZLT map for 2025 will be published by 1st February 2024.

The draft revised RZLT map for 2025 will include land that the local authority considers to be in scope for the tax, which may include land already identified on the 2024 final map, published by 1 December 2023. The draft revised final map will reflect any legislative, zoning or servicing changes and any appeal or review outcomes, as of 1 January 2024.

Source of Reply

Matthew McAleese, Director of Services, Planning & Strategic Infrastructure Department

COMHAIRLE CONTAE FHINE GALL
FINGAL COUNTY COUNCIL

COUNTY COUNCIL MEETING

TUESDAY 16TH JANUARY 2024

ITEM NO. 08

LIGHTING PROJECTIONS ON MONUMENTS IN FINGAL

Question: Councillor R. O'Donoghue

"To ask the Chief Executive that in light of the monuments not being lit up with projections for Halloween and Christmas in 2023, that consideration be given in the budget for the projections to return in 2024?"

Reply:

The lighting up of monuments and buildings for Halloween and Christmas was increased during the pandemic when events were unavailable. As events are available again the Events Office focus resources on in-person events such as the recent successful Christmas Lighting up events across the County.

On occasion, subject to budget, the Council will also light up venues for national charities and in conjunction with other stakeholders, such as the upcoming Tradfest when several buildings will be illuminated to promote Tradfest in Fingal 2024.

Fingal's Heritage properties each have the infrastructure to be lit up in a variety of colours, in keeping with the programmed activity on each site throughout the year. Provision is also made for such infrastructure to be provided with the County Library and Arts Centre at the Swords Cultural Quarter (SCQ).

Source of Reply

John Quinlivan, Director of Economic, Enterprise, Tourism & Cultural Development

COMHAIRLE CONTAE FHINE GALL
FINGAL COUNTY COUNCIL

COUNTY COUNCIL MEETING

TUESDAY 16TH JANUARY 2024

ITEM NO. 09

FEASIBILITY STUDY CAPITAL PROGRAMME SWIMMING POOL

Question: Councillor R. O'Donoghue

"To ask the Chief Executive to provide and update on the feasibility study outlined in the Capital Programme for the provision of a swimming pool in Fingal, where 100k was set aside for 2024, can she state as to when the study will commence?"

Reply:

The Fingal Sports and Physical Activity Plan 2023 to 2028 which will provide Fingal's strategic direction in relation to sports and physical activity over the next five years was agreed by the Members at the Council meeting in November.

Alongside this plan, a facilities audit of Sport and Recreational facilities across the County commenced at the end of the summer and it is expected to take eight months to complete. This audit is examining sport and physical activity facilities across the county both public and private. It is focusing on current and projected needs across Fingal in relation to a wide range of sports and leisure activities including swimming. The results from this audit will provide evidence-based data which will inform future decision-making on the provision of Sports and Physical Activities Infrastructure thus ensuring available resources are allocated appropriately. These two projects are being undertaken against the backdrop of a potential national policy/strategy review by the Department of Sport whereby it is anticipated that further direction will emerge nationally on the provision and funding of swimming pool facilities.

In parallel to these two projects, the Council, in recognition of the identification of a site in Castlelands, Balbriggan for the provision of an indoor swimming pool in the Castlelands Masterplan in 2021, has commenced a project to develop an indoor swimming pool facility on this site. This comprehensive piece of work is at an early stage and the project will be subject to obtaining the necessary planning consents and securing the required funding. It is anticipated that the Council will commence the procurement of a design and project management consultant in the coming months to inform this project and an important part of this process will be consultation and liaison with key stakeholders including the community, Elected Representatives, Department of Sport, Swim Ireland and the Land Development Agency (LDA). The LDA is developing infrastructure and housing at the Castlelands site and the plan to develop the swimming pool would be integrated with the development of housing and amenities on the lands. The cost of feasibility study, business planning and design assessments for the development of an indoor swimming pool facility at Castlelands, Balbriggan was included in the Council's 2024 - 2026 Capital Plan.

The results of the Sports and Recreational facilities audit, which will be completed the first half of 2024, will help inform the assessment of need for swimming facilities for the County. Elected Members will be kept informed of progress on these various projects and initiatives.

Source of Reply

David Storey, Director of Environment, Climate Action, Active Travel and Sports

COMHAIRLE CONTAE FHINE GALL
FINGAL COUNTY COUNCIL

COUNTY COUNCIL MEETING

TUESDAY 16TH JANUARY 2024

ITEM NO. 10

POLICY ON REMOVAL OF HEDGEROWS

Question: Councillor P. Conroy

"To ask the Chief Executive to provide information on the Council's policy for removing vegetation from hedgerows beside boundary walls?"

Reply:

All hedgerows which may be on a shared boundary are maintained on an annual basis. It is not our policy to remove vegetation unless there is an issue for public safety or with sightlines for traffic etc. If an issue should arise it is examined on a case-by-case basis.

Under the Roads Act 1993 the owner or occupier of land which may be on the boundary of land owned by the Council must also take all reasonable steps to ensure that trees, shrubs, hedges, and other vegetation on their land is not a hazard and does not obstruct or interfere with the safe use or maintenance of the public road.

Source of Reply

Mary T. Daly, Director of Operations

COMHAIRLE CONTAE FHINE GALL
FINGAL COUNTY COUNCIL

COUNTY COUNCIL MEETING

TUESDAY 16TH JANUARY 2024

ITEM NO. 11

FORESTS ON PUBLIC LANDS SCHEME

Question: Councillor E. O'Brien

"To ask the Chief Executive to outline what engagement this Council has had to date with the Forests on Public Lands Scheme, listing areas that are intended for applications under this scheme?"

Reply:

During 2024 the Council is planning to plant 11 Hectares (Approximately 27.2 Acres) of new woodland at Nevitt, an area of land in Council ownership south of Balbriggan. This involves planting in excess of 20,000 mainly native trees in line with Action Ref: N9 of the Fingal Draft Climate Action Plan 2024-2029 which states: *"Initiate a programme of targeted Strategic Annual Tree Planting including identifying and mapping priority locations, to include sites suitable for woodland creation. Reviewed in an annual works programme, presenting what is planned for the coming year. Taking advantage of government funding programmes such as the New Woodland Creation Scheme on Public Lands".* This initiative is also in line with the actions in the Fingal Biodiversity Acton Plan recommending increased tree cover in the County and with Action 3.1 of *"Forest of Fingal – A Tree Strategy for Fingal"* which states: *"Initiate a programme of targeted Strategic Annual Tree Planting including identifying and mapping priority locations, to include sites suitable for woodland creation. Reviewed in an annual works programme, presenting what is planned for the coming year. Taking advantage of government funding programmes such as the New Woodland Creation Scheme on Public Lands"*. Additional extensive planting is planned for the Nevitt site along with strategically located afforestation projects at other locations including Rogerstown Park / Former Balleally Landfill, Ward

River Valley Park, Tolka Valley Park, Dunsink former landfill and Bremore Regional Park, Balbriggan. The Council will continue to pursue available public funding for these planting initiatives as appropriate.

Source of Reply
Matthew McAleese, Director of Services, Planning and Strategic Infrastructure Department

COMHAIRLE CONTAE FHINE GALL
FINGAL COUNTY COUNCIL

COUNTY COUNCIL MEETING

TUESDAY 16TH JANUARY 2024

ITEM NO. 12

IMPACT OF GUIDELINES FOR CONSULTATIONS – CYCLE LANES/FILTERED PERMEABILITY SYSTEMS

Question: Councillor T. Doyle

"To ask the Chief Executive to advise on the impact of consultations, given that, under new guidelines issued by the Department of Transport, Local Authorities shall no longer conduct public consultations before trialling things, such as, but not limited to, cycle lanes, or filtered permeability systems?"

Reply:

The Department of Transport published Guidelines on Traffic Works Procedures in October 2023, in relation to works undertaken in accordance with Section 38 of the Road Traffic Act 1994. These works include segregated cycle lanes and filtered permeability systems, amongst many more traffic calming measures.

The new guidelines allow Local Authorities to implement infrastructure on a trial basis and undertake consultation on same. This is a practical approach which may be effective in quickly highlighting pros and cons of infrastructure in operation. This approach is, in addition, to regular consultation processes on the designs in advance of works. Fingal County Council will consider our approach to same on a case by case basis.

Source of Reply

David Storey, Director of Environment, Climate Action, Active Travel and Sports

COMHAIRLE CONTAE FHINE GALL
FINGAL COUNTY COUNCIL

COUNTY COUNCIL MEETING

TUESDAY 16TH JANUARY 2024

ITEM NO. 13

DISPLAY OF WORKS BY PROFESSIONAL ARTISTS FUNDED BY THIS COUNCIL

Question: Councillor H. Mahony

"To ask the Chief Executive to outline the details of all the exhibitions where professional artists funded by this Council displayed their work in the county since 2014?"

Reply:

Fingal artists regularly exhibit their work in the galleries at Draíocht and the Seamus Ennis Arts Centre. 2023 also saw the establishment of a new gallery at Ardgillan Castle which has offered further opportunities for professional artists to exhibit their work locally.

Since 2005 the Arts Office has also offered the Amharc Fhine Gall award that enables artists to exhibit their work. Hosted in Draíocht and presented bi-annually through an open call, the event allows the Arts Office to connect with emerging artists and identify practical and relevant ways to support them in the early stages of their careers. The exhibition has also acted as a platform to support recent art-college graduates from Fingal in building their profiles by offering them a chance to show in one of the finest visual art galleries in the county, on a professional level. In more recent years the opportunity has expanded to include mid-late career artists.

Additional exhibits are funded periodically through the 'Artist Support Scheme', details of which are presented annually to Council.

Source of Reply

John Quinlivan, Director of Economic, Enterprise, Tourism & Cultural Development

COMHAIRLE CONTAE FHINE GALL
FINGAL COUNTY COUNCIL

COUNTY COUNCIL MEETING

TUESDAY 16TH JANUARY 2024

ITEM NO. 14

LEGAL PROCEEDINGS RELATING TO THE EXERCISE OR PERFORMANCE OF A RESERVED FUNCTION

Question: Councillor D. Healy

"To ask the Chief Executive for a list of legal proceedings which the Council is involved in which relate to the exercise or performance of a Reserved Function, and to set out how it is proposed to obtain the express authorisation of the elected Council in relation to the doing of any such act, matter, or thing on behalf of the local authority in each legal proceeding, in accordance with s. 153(2) of the Local Government Act 2001?"

Reply:

The Chief Executives report contains a list of the current Judicial review proceedings involving Fingal County Council which includes two cases containing a challenge to the decision of the Elected Members in relation to the adoption of the Development Plan 2023 - 2029. Those cases were first referred to in the Chief Executives Report dated 12th June 2023 and a briefing note was circulated to the Elected Members by e-mail on 29th June 2023.

Those cases will continue to be vigorously and robustly defended to accord with the decision of the Elected Members to adopt the Development Plan 2023 - 2029.

Source of Reply

Matthew McAleese Director of Services, Planning and Strategic Infrastructure

COMHAIRLE CONTAE FHINE GALL
FINGAL COUNTY COUNCIL

COUNTY COUNCIL MEETING

TUESDAY 16TH JANUARY 2024

ITEM NO. 15

TRANSFER OF TENANCY DURING 2023

Question: Councillor B. Ryan

"To ask the Chief Executive to indicate in tabular format the number of applications, by Local Electoral Area, for Transfer of Tenancy during 2023, and the number that have been successful?"

Reply:

90 Transfer of Tenancy Applications were received in 2023 as detailed below.

Each application received is reviewed and assessed taking into consideration the applicant's housing need, rent account status, anti-social behaviour record, eligibility for housing support and good estate management.

- 5 applications granted.
- 50 applications were refused following review and assessment.
- 35 applications currently under review, due to various considerations such as those listed above.

2023 Transfer of Tenancy (TOT) Applications		
Local Electoral Area	**TOT Applications Received in 2023**	**2023 TOT Applications Granted**
Balbriggan	16	0
Rush-Lusk	10	2
Swords	15	0
Howth-Malahide	4	0
Blanch-Mulhuddart	44	3
Ongar	1	0
Castleknock	0	0
Total	**90**	**5**

Source of Reply
Paul Carroll, Director of Services, Housing & Community Development Department

COMHAIRLE CONTAE FHINE GALL
FINGAL COUNTY COUNCIL

COUNTY COUNCIL MEETING

TUESDAY 16TH JANUARY 2024

ITEM NO. 16

DELAY IN TENANTS MOVING INTO NEW SOCIAL HOUSING UNITS ACROSS THE COUNTY

Question: Councillor P. Mulville

"To ask the Chief Executive the reason for the long delay in tenants moving into newly completed social housing units across the county?"

Reply:

As with any process involving families or individuals moving house, the process for tenants to be allocated and move into new properties by its nature takes some time. This includes the time for new tenants to arrange furniture and fittings for their new homes. Every effort is made by Fingal County Council Housing Department to assist new tenants on this with contacts with the Department of Social Protection, where White Goods Grants etc., are available.

The Housing Lettings Team nominate applicants to a number of different Approved Housing Bodies (AHB), the larger ones include Respond, Circle, Clúid and Tuath. These AHBs undergo their own processes in advance of allocating the properties on receipt of the nomination from Fingal County Council.

The Housing Lettings Team allocated/nominated tenants to over 840 units in 2023 of which 405 of these were to an AHB. This equates to c. 4 lettings/nominations per working day and reflects the large and complex workload that is actively progressed by staff in the Housing Department on a daily basis over the course of the year.

Source of Reply
Paul Carroll, Director of Services, Housing & Community Development Department

COMHAIRLE CONTAE FHINE GALL
FINGAL COUNTY COUNCIL

COUNTY COUNCIL MEETING

TUESDAY 16TH JANUARY 2024

ITEM NO. 17

REPORT OF COMMITTEES

COMHAIRLE CONTAE FHINE GALL
FINGAL COUNTY COUNCIL

COUNTY COUNCIL MEETING

TUESDAY 16TH JANUARY 2024

ITEM NO. 17a

STRATEGIC POLICY COMMITTEES' CHAIRPERSONS ANNUAL REPORT TRANSPORT & INFRASTRUCTURE MANGEMENT SPC

Council Members	Cllr Tom O'Leary, Cllr Angela Donnelly, Cllr Jimmy Guerin, Cllr Eoghan O'Brien, Cllr Karen Power.	
Non-Council Members	Michael Lenehan - Public Participation Network Paul Osbourne	
Meeting Date 2023	Theme/Policy issue	Update
8th March 2023	Online presentation of Active Travel Strategy for Fingal	A discussion with questions & answers followed the presentation. The report was **Noted.**
8th March 2023	Online presentation of DRAFT Fingal Burial Ground Byelaws 2023	A discussion with questions & answers followed the presentation. The report was **Noted.**
8th March 2023	Review of Pricing at the Councils Recycling Centres and the Provision of a Free Bulky Waste Service	This motion was deferred to the next TSPC Agenda in Q2 2023.
8th March 2023	Safe & Appropriate Parking Practices	Following discussion, the report was **Noted.**
8th March 2023	Traffic Sensors to Pedestrian Crossings	Following discussion, the report was **Noted.**

8th March 2023	Electric Bikes & Scooters in Public Parks	Following discussion, the report was **Noted.**

Council Members	Cllr Tom. O Leary, Cllr Ann Graves, Cllr Jimmy Guerin, Cllr Eoghan O'Brien, Cllr Karen Power, Cllr Angela Donnelly	
Non-Council Members		
Meeting Date 2023	**Theme/Policy issue**	**Update**
6th June 2023	Online presentation of DRAFT Fingal Harbour Byelaws 2023	A discussion with questions & answers followed the presentation. The report was **Noted.**
6th June 2023	Review of Pricing at the Councils Recycling Centres and the Provision of a Free Bulky Waste Service	A discussion with questions & answers followed the presentation. Pending further review this item was deferred to the next TSPC Agenda in Q1 2024.
6th June 2023	Cycle Buses across the county	Following discussion, the report was **Noted.**
6th June 2023	Review of Traffic Management Process	Following discussion, the report was **Noted.**
6th June 2023	Update on EV charging implementation plan	Following discussion, the report was **Noted.**

Council Members	Cllr Tom. O Leary, Cllr Angela Donnelly, Cllr Ann Graves, Cllr Eoghan O'Brien, Cllr Karen Power, Cllr Jimmy Guerin	
Non-Council Members	Michael Lanigan of the Dublin Inquirer	
Meeting Date 2023	**Theme/Policy issue**	**Update**
4th September 2023	Online presentation of amended DRAFT Burial Ground Byelaws 2023	A discussion with questions & answers followed the presentation. It was **AGREED** that this

		item be listed for the next meeting of the CPG.
4th September 2023	Online presentation of an update on the Public Consultation Process for the DRAFT Harbour Byelaws	Following discussion, the Committee **NOTED** the report.
4th September 2023	Intoxicating Liquor Byelaws	Following discussion, the report was **Noted.**
4th September 2023	Update on the Introduction of E-Scooters to Fingal	Following discussion, the report was **Noted.**
4th September 2023	Discount for Registered Charities using Recycling Centres	Following discussion, the report was **Noted.**

Council Members	Cllr Tom. O Leary, Cllr Angela Donnelly, Cllr Ann Graves, Cllr Eoghan O'Brien, Cllr Karen Power	
Non-Council Members	Michael Lenehan – Public Participation Network Pead Golden – Tier Bikes	
Meeting Date 2023	**Theme/Policy issue**	**Update**
27th November 2023	Presentation by Peadar Golden, Ireland County Manager, Tier; Fingal County Council's E-bike provider	A presentation was provided on the E-Bikes in Fingal area, following discussion the Committee **NOTED** the report.
27th November 2023	Draft Intoxicating Liquor Bye-Laws	An update was provided by Mary T Daly on the Draft Intoxicating Liquor Bye-Laws which will be brough to the next SPC, the Committee **NOTED** the update.
27th November 2023	Draft Harbour Bye-Laws 2023 - Review	A report was presented by Paul Smyth on the Draft Harbour Bye-Laws 2023, it was **AGREED** by the Committee to bring the revised Bye-Laws to the

		Corporate Policy Group and the Full Council Meeting.
27th November 2023	Transportation and Infrastructure Strategic Policy Committee Work Programme 2023 and 2024	A presentation was provided by Mary T Daly which was NOTED by the Committee.
27th November 2023	PPN Representative M. Lenehan - Council Traffic Surveys during Covid -19 Pandemic	The report was ACCEPTED by the Committee.
27th November 2023	Councillor A. Graves - Update on Park and Ride Facilities in the County	The report was ACCEPTED by the Committee.
27th November 2023	Councillor A. Donnelly - Report on Provision of Electric Vehicles Charging Points in Fingal	The report was ACCEPTED by the Committee.

STRATEGIC POLICY COMMITTEE CHAIRPERSONS' ANNUAL REPORT

PLANNING STRATEGIC TRANSPORT & INFRASTRUCTURE DEVELOPMENT SPC

Council Members	Councillor B. Mc Donagh (Chair), Councillor B. Dennehy, Councillor T. Doyle, Councillor D. Mulligan, Councillor T. Kitt and Councillor P. Rane	
Non-Council Members	Mr Paul Arnold	
Meeting Date	Theme/Policy issue	Action
15th March 2023	SPC Work Programme 2023	A presentation report was given to the Members on the SPC Work Programme 2023. Following discussion

		the report was **AGREED.**
	Development Plan 2023 - 2029	An update on the Development Plan 2023 - 2029 and a discussion around the next stage of process following the adoption of the Plan on 22nd February 2023 was given and **NOTED**.
	Major Studies/LAP's	An update on LAP's and studies was given to the Members in relation to a priority list. Following a discussion, the update was **NOTED**.
	NTA – Draft Transport Strategy for the Greater Dublin Area 2022 -2042	A presentation was given to the Members on Draft Transport Strategy for GDA 2022-2042. Following a discussion, the presentation was **NOTED.**
	Major Capital Project Delivery	A detailed presentation was given to the Members on Capital Project Delivery and examples of capital project from inception to delivery. The presentation was **NOTED.**
20th June 2023	Playground Audit	A presentation was given to the Members in relation to a Play Audit. Following a discussion the presentation was **NOTED** and agreed that further information would

		be brought to each of the ACM's specific to each LEA.
	Prioritising Plans and Projects arising out of the Development Plan 2023 - 2029	A presentation on the list of Prioritising Plans and Projects arising from the Development Plan 2023-2029 was given. Following a discussion, the Members were advised that this item would be listed on the Agenda for the CPG Meeting to be held on 26th June and then for consideration at the Full Council Meeting on 3rd July. The presentation was **NOTED**.
	Residential Zoned Land Tax	A presentation was given to the Members on RZLT. Following a discussion, the presentation was **NOTED**.
	Biodiversity Implementation Plan 2023 -2026	A presentation was given to the Members on the Biodiversity Implementation Plan 2023 -2026 Following a discussion and agreement on two action points the presentation was **NOTED.**
	Motion – Councillor B. Dennehy – Update on the Draft Sustainable Swords Strategy	The Chief Executive's Report on the Motion was **NOTED.**
5th September 2023	Transportation Planning in the Development	A presentation report was given to the Members on Transportation Planning in

	Management Process	the Development Management Process. Following a discussion the report was **NOTED.**
	Major Studies/LAP's	An update on LAP's and studies was given to the Members in relation to a priority list. Following a discussion the update was **NOTED**.
	Green Roof Policy	A presentation was given to the Members on a Green Roof Policy and the benefits. Following a discussion the presentation was **NOTED.**
	Fingal Greenway/Cycleways	A presentation was given to the Members on Fingal Greenways/Cycleways and the progress to date throughout the County. Following a discussion the presentation was **NOTED.**
	Flood Risk Assessment	A presentation was given to the Members on Flood Risk Assessment. Following a discussion the presentation was **NOTED.**
	Presentation from Fran Whelan CEO – Action Ireland Trust – Update on the Legacy on Lesotho Planning Project	A presentation was given to the Members with an update on the Legacy on Lesotho Planning Project and an outline of the success of the project to date, acknowledging Fingal

		County Council for their support. Following a discussion the presentation was **NOTED**. The support of the Members of the Committee for the project was also **NOTED.** It was **AGREED** that a request would be brought to the CPG to explore how the Council could continue to work with Action Ireland Trust to support the project.
	Motion Councillor B. Dennehy – Residential Zoned Land Tax (RZLT) – AI090490	The Chief Executive's Report on the Motion was **NOTED.**
Council Members	Councillor B. McDonagh (Chair), Councillor B. Dennehy, Councillor D. Mulligan and Councillor T. Kitt **Apologies:** - Councillor P. Rane, Councillor T. Doyle.	
Non Council Members	**Apologies:** - Mr. Paul Arnold	
Meeting Date	**Theme/Policy issue**	**Action**
5th December 2023	Major Studies/LAP's	An update on Major Studies/LAP's was given to the Members. Following a discussion the update was **NOTED.**
	Fingal Greenways/ Cycleways	An update was given to the Members on Fingal Greenways/Cycleways and the progress to date throughout the County.

		Following a discussion the update was **NOTED.**
	Update on Taking in Charge	A presentation was given to the Members on taking in charge updates throughout the County. Following a discussion and agreement to write to SEAI the update was **NOTED.**
	Update on Biodiversity Action Plan	A presentation was given to the Members titled 'Update on Biodiversity Action Plan'. Following a discussion the presentation was **NOTED.**
	Motion: Councillor B. Dennehy – Report on Residential Zoned Land Tax (RZLT)	Following discussion the Chief Executive's Report on the Motion was **NOTED.**

STRATEGIC POLICY COMMITTEE CHAIRPERSONS' ANNUAL REPORT

HOUSING SPC

Council Members	Cllr. Robert O'Donoghue, Cllr. Brigid Manton, Cllr. Natalie Tracey, Cllr. Daniel Whooley, Cllr. John Burtchaell, Cllr. Kieran Dennison, Cllr. Adrian Henchy
Non-Council	Mr. Finbarr Geaney, Mr. Dayakar Reddy Komirelly

Members	

Meeting Date 2023	Theme/Policy issue	Update
March 27th March	**Housing** **Minutes of meeting of the Housing SPC held on 29/11/2022**	
	Update on Housing Delivery	Presentation outlining the delivery statistics to date, targets and planned developments.
	Update on Fingal's Strategy for Housing Disabled People 2021-2026	Presentation on objectives/strategies and demands of housing disabled people.
	Update on Local Authority Home Loans	Presentation on changes to scheme and statistics to date.
	Notice to Quits and Preventing Homelessness including Tenant in Situ Acquisitions	Report on advice and supports to tenants on available options.
	Motion – Cllr. J. Burtchaell Response to Lifting of Eviction Ban	Following discussion, a vote was taken. The result of the vote was 4 in favour and 2 against.
	Motion – Cllr. B. Manton Housing upgrades for RAS tenants	Following discussion, the report was **NOTED**

Council Members	Cllr. Robert O'Donoghue, Cllr. Brigid Manton, , Cllr. Natalie Tracey, Cllr. Daniel Whooley, Cllr. John Burtchaell, Cllr. Kieran Dennison, Cllr. Adrian Henchy
Non-Council Members	Mr. Finbarr Geaney,

Meeting Date 2023	Theme/Policy issue	Update
Monday 26th June	Minutes of meeting of the Housing SPC held on 27/03/2023.	
	Update on Housing Delivery	Presentation outlining the delivery statistics to date, targets, and planned developments.
	Vacant Homes grants update	Presentation on various vacant home schemes and projects completed to date
	Preventing homelessness, Notice of termination and Tenant-in-situ acquisitions update	Update on the current status of the TIS applications and completed acquisitions
	Fingal Cost Rental Housing	Presentation on social and affordable housing delivery in Fingal
	Motion – Cllr. B. Manton Distribution of Housing	Following discussion, the report was **NOTED**
	Motion – Cllr. J. Burtchaell Increased percentage of Part V social housing in large scale residential developments	Following discussion, the report was **AGREED**
	Motion – Cllr. D. Whooley Explanation of, and reforms to, Fingal's housing and population projections	Following discussion, the report was **NOTED**

Council Members	Cllr. Robert O'Donoghue, Cllr. Brigid Manton, Cllr. James Humphreys, Cllr. John Burtchaell, Cllr. Kieran Dennison, Cllr. Adrian Henchy
Non-Council Members	

Meeting Date 2023	Theme/Policy issue	Update
Tuesday 26th September 2023	Minutes of meeting of the Housing SPC held on 26/06/2023	
	First Homes	Presentation outlining First Homes scheme details, qualification criteria and up to date statistics.
	Housing Delivery Update	Presentation outlining the delivery statistics to date, targets, and planned developments.
	Strategy for Housing Disabled People 2021-2026 Update	Presentation on objectives/strategies and demands of housing disabled people.
	Housing Assessment 2023	Presentation on Housing Need Assessment application process and what is required by applicants.

Council Members	Cllr Robert O'Donoghue, Cllr Brigid Manton, Cllr James Humphreys, Cllr Natalie Tracey Cllr John Burtchaell, Cllr Kieran Dennison, Cllr Adrian Henchy.
Non-Council	Mr. Finbarr Geaney

Members	

Meeting Date 2023	Theme/Policy issue	Update
Tuesday 28th November 2023	Minutes of Housing SPC Meeting held on 26/09/2023	
	Housing Delivery Update	Presentation outlining the delivery statistics to date, targets, and planned developments.
	Advance Purchase Turnkey Update	Presentation outlining potential developments, proposal types and funding.
	Fingal Cost Rental Tenure	Presentation on Cost Rental Scheme to include delivery targets, eligibility, and benefits of scheme.
	Strategy for Housing Disabled People 2021-2026 Update	Presentation on objectives/strategies and demands of housing disabled people.

STRATEGIC POLICY COMMITTEE CHAIRPERSONS' ANNUAL REPORT

MARINE & COASTAL MANAGEMENT SPC

Council Members	Councillor Eoghan O'Brien (Chair), Councillor Brian Dennehy, Councillor Robert O'Donoghue, Councillor Ann Graves, Councillor Paul Mulville, Councillor Cathal Boland, Councillor Karen Power, Councillor David Healy, Councillor Tom O'Leary, Councillor Adrian Henchy
Non-Council	Maire O'Brien PPN, James Magrane IFA

Members	

Meeting Date 2023	Theme/Policy issue	Update
22 March 2023	Preservation of the Dunes – Velvet Strand Portmarnock	A presentation was given by Maire O'Brien and noted.
22 March 2023	Setanta Windfarm Project	A presentation was given by Deborah Coleman and Martin Sweeney. This was followed by Q&A with the members. Presentation noted
22 March 2023	Motion – Analysis of Coastal Erosion from Balbriggan to Howth	Report accepted
22 March 2023	Motion - Policy for Management of Beaches and Dunes	Report accepted
22 March 2023	Motion – Power generated by off-shore Turbine Farms	Report accepted
22 March 2023	Motion – Special Amenity Area Orders for Rogerstown, Malahide & Baldoyle Estuaries	Report accepted
29th June 2023	Climate Action plan update	Presentation given by Ronan O'Reilly, Senior Executive Engineer, Environment giving an update on the Climate Change Action Plan NOTED
29th June 2023	Harbour Byelaws	Presentation on draft harbour byelaws 2023 was given by Paul Smyth, Senior Executive Officer Operations and members informed of consultation period 15.6.23 – 31.7.23
29th June 2023	Motion – Coastal Impact from the placement of Coastal Wind Turbines	Report Accepted

29th June 2023	Motion - Permanent Coastal Measures for Rogerstown (Rush and Portrane)	Following discussion, the report was accepted
29th June 2023	Update on Marine Legislation MAP – Marine Area Plan for Fingal Coast and clarity on Foreshore Licences	Report Accepted
21st September 2023	Draft Harbour Byelaws update	Martina O'Connor, Administrative Officer Operations Department gave an overview on the submissions received during the recent Draft Harbour Byelaws consultation period. Members were advised that a full report will be brought to the next SPC meeting. Noted
21st September 2023	Motion – Nature Based Solutions in the Protection of Dunes and Beaches	Following discussion the report was accepted
29th November 2023	Draft Harbour Byelaws	Report on submissions presented to Members. Report Noted
29th November 2023	Headed Item & Motion – Dune and Beach Management for Coastal Protection	Headed item & motion were taken together. Beach cleaning operations to be reviewed. Report Noted.
29th November 2023	Monitoring of Beach sand Level and Dune Erosion along the Coast of Fingal	Written invitation to issue to OPW to give presentation at future SPC Mtg. Report Noted.
29th November 2023	Presentation – initial Concept Plan for the Renewable Energy Port – Gormanston Co Meath	A written invitation to be issued to Drogheda Port Company Bremore Proposal Team to make a presentation to the SPC Members on the

		concept plan for Renewable Energy Port at Gormanston, Co. Meath. Motion Agreed.
29th November 2023	Pedestrian Boardwalks by the Sea	Motion Agreed.

STRATEGIC POLICY COMMITTEE CHAIRPERSONS' ANNUAL REPORT

ECONOMIC ENTERPRISE & TOURISM DEVELOPMENT SPC

Council Members	Chairperson Councillor Darragh Butler; Councillor Ian Carey; Councillor Ted Leddy; Councillor Siobhan Shovlin; Councillor Breda Hanaphy; Councillor Howard Mahony; Councillor Anthony Lavin.
Non-Council Members	Mr Anthony Cooney, Fingal Chamber; Ms Yetunde Joyce, PPN.

Meeting Date 2023	Theme/Policy issue	Update
21st March 2023	Local Enterprise Office Fingal – outputs 2022 and plan for 2023	Presentation by Oisin Geoghegan, Head of Enterprise Fingal. **Report noted and accepted by Councillors.**
21st March 2023	Tourism Strategy Update	Presentation by Declan Power, Senior Executive Officer. Improvement Plan to be finalised April 2023, draft Strategy & Marketing Plan and SPC review/feedback in May 2023 and SPC sign off in June. **Report noted and accepted by Councillors.**
21st March 2023	Food Policy Update	Presentation by Declan Power. Development of draft

		policy due in April 2023, review and development of final policy in May 2023 and creation of final document for publishing in June 2023. **Report noted and accepted by Councillors.**
21st March 2023	Fingal Festival Feasibility & TASCQ CLG Partnership Funding Update	Presentation by Declan Power. **Report noted and accepted by Councillors.** Proposed to hold two live concerts simultaneously in Balbriggan and Blanchardstown July 2023.
21st March 2023	Shackleton Mills Update	Presentation by Pat Boyle, Senior Architect on Conservation Works at Shackleton Mills. It was agreed a tour of the site would be of benefit for the local council members to see the current condition of the site.
21st March 2023	Councillor D. Butler - Swords Castle Markets	Report provided by Declan Power. **Motion proposed by Councillor Butler and accepted by Councillor Mahony.**
21st March 2023	Councillor H. Mahony - Stall Concessions in Fingal	Report provided by Declan Power. **Motion proposed Councillor Mahony by and accepted by Councillor Butler.**

Council Members	Chairperson Councillor Darragh Butler; Councillor Ian Carey; Councillor Breda Hanaphy; Councillor Anthony Lavin;

	Councillor Ted Leddy; Councillor Howard Mahony; Councillor Tony Murphy; Councillor Siobhan Shovlin;
Non-Council Members	Mr Anthony Cooney, Fingal Chamber; Ms Yetunde Joyce, PPN.

Meeting Date 2023	Theme/Policy issue	Update
21st June 2023	Work Programme Update	John Quinlivan, Director of Services reported that the Fingal Tourism Strategy and Fingal Food policy will be discussed at the next SPC meeting in September. **Report noted and accepted by Councillors.**
21st June 2023	Fingal Economic Strategy	Presentation by Aoife Sheridan, Senior Executive Officer. Fingal Economic Strategy will be complete by year end 2023. **Report noted and accepted by Councillors.**
21st June 2023	Local Economic & Community Plan	Presentation by Aoife Sheridan. Consultation commencing on LECP and draft LECP will be presented at next SPC meeting in September with approval at full Council meeting by end of 2023. **Report noted and accepted by Councillors.**
21st June 2023	Stephenstown Economic Zone	Presentation by Aoife Sheridan. Fingal's application to URBACT successful. Fingal to be Project Lead on EcoCore Project. **Report noted and accepted by Councillors.**
21st June 2023	Fingal Skills Strategy Review	Presentation by Aoife Sheridan. Fingal Skills Strategy Steering Group seeking nomination from

		SPC. Skills Expo to be held 3rd October in The Helix. **Report noted and accepted by Councillors.**
21st June 2023	Sustainable Fingal Progress Monitoring	Report provided by Aoife Sheridan. 2 funding applications lodged on sustainability projects under MoU. Work commencing on an action plan under Circular Cities Declaration. **Report noted and accepted by Councillors.**
21st June 2023	Regeneration/Town Centre First	Presentation by Declan Ryan, Senior Executive Officer. **Report noted and accepted by Councillors.**

Council Members	Chairperson Councillor Darragh Butler; Councillor Ian Carey; Councillor Anthony Lavin; Councillor Howard Mahony; Councillor Tony Murphy;
Non-Council Members	Ms Yetunde Joyce, PPN.

Meeting Date 2023	Theme/Policy issue	Update
12th September 2023	Fingal Tourism Strategy	Declan Power, Senior Executive Officer reported that the Fingal Tourism Strategy is approaching completion and envisaged it will be shared with SPC members for review and approval by the end of October which was agreed by members present. It will then be presented at full Council Meeting on the 13th November 2023. **Report noted and accepted by**

		Councillors.
12th September 2023	Fingal Food Policy	Declan Power, Senior Executive Officer reported that the Fingal Food Policy is approaching completion and envisaged it will be shared with SPC members for review and approval by the end of October which was agreed by members present. It will then be presented at full Council Meeting on the 13th November 2023. **Report noted and accepted by Councillors.**
12th September 2023	Local Economic & Community Plan / Economic Strategy Update	Presentation by Lorcan Blake from Grant Thornton. It was proposed that the draft Economic Development Strategy will be presented to the SPC scheduled for Oct with a view to agreement and submission to CPG and full Council at the November meetings. LECP will be presented at the next SPC in November and subject to approval by EMRA it is proposed to be brought to the December Council meeting. **Report noted and accepted by Councillors.**
12th September 2023	Dublin Belfast Economic Corridor	Presentation by Daragh McGreal from KPMG on the Dublin Belfast Economic Corridor partnership. **Report noted and accepted by Councillors.**
12th September 2023	DBEC – SPC Nomination	Three elected member nominations required on the DBEC partnership. The nominees representing Fingal

		County Council will be Mayor Councillor Adrian Henchy, Councillor Howard Mahony and Councillor Tony Murphy. **This was agreed and accepted by Councillors.**
12th September 2023	Fingal Skills Strategy – SPC Nomination	One elected member nomination required on the Fingal Skills Strategy, Implementation Group. The nominee will be Councillor Tony Murphy. **This was agreed and accepted by Councillors.**
12th September 2023	Update on Expo (Oct) and Skyla Project Visit (Nov)	Ms Aine Donlon Kavanagh, AO EETCD gave an update on the Interreg Europe Skyla Project and pending partner visit and an update on the upcoming XPLORE Your Future – TY Expo in the Helix. **Report noted and accepted by Councillors.**

Council Members	Chairperson Councillor Darragh Butler; Councillor Anthony Lavin; Councillor Ted Leddy; Councillor Howard Mahony; Councillor Tony Murphy;
Non-Council Members	Mr Anthony Cooney, Fingal Chamber; Ms Yetunde Joyce, PPN.

Meeting Date 2023	Theme/Policy issue	Update
23rd October 2023	Fingal Tourism Strategy	Declan Power, Senior Executive Officer gave a presentation on the Fingal Tourism Strategy. It was agreed with the SPC members present that it would be brought to the Corporate Policy Group (CPG) on 6th November and to full

		Council on 13th November 2023. The Fingal Tourism **Strategy was recommended for adaption by SPC members present.**
23rd October 2023	Fingal Food & Drink Policy	Declan Power, Senior Executive Officer gave a presentation on the Fingal Food & Drink Policy. It was agreed with the SPC members present that it would be brought to the Corporate Policy Group (CPG) on 6th November and to full Council on 13th November. **The Fingal Food & Drink Policy was recommended for adaption by SPC members present.**
23rd October 2023	Local Economic & Community Plan (LECP)	Presentation by Andrew Webb & Lorcan Blake from Grant Thornton Consultants. The draft LECP Framework will be presented at the LCDC meeting on the 25th October 2023. It was agreed that the draft Local Economic & Community Plan (LECP) would be submitted to the Eastern Midlands Regional Assembly (EMRA) for consideration at their December meeting. The SEA/AA Screening and LECP Implementation Plan is in preparation for circulation and discussion at sub-committee level in November. Subject to EMRA's commentary it is proposed that the Local Economic & Community Plan (LECP) will

		be brought to the Council's Area Committee Meetings and the next meetings of the SPC & LCDC before being brought forward to the CPG and then to full Council meeting in December 2023/January 2024 for adoption. The draft LECP document will be circulated to the SPC members following the meeting for further comments.

Council Members	Chairperson Councillor Darragh Butler; Councillor Siobhan Shovlin; Councillor Anthony Lavin; Councillor Howard Mahony; Councillor Tony Murphy;
Non-Council Members	

Meeting Date 2023	Theme/Policy issue	Update
30th November 2023	Local Economic & Community Plan (LECP)	Presentation on the LECP by Lorcan Blake of Grant Thornton Consultants. It was proposed that the draft Local Economic & Community Plan (LECP) will be presented to the December ACM's with a view to being presented to the January Council meeting for adoption. **Report noted and accepted by Councillors.**
30th November 2023	Economic Development Strategy	Presentation by Lorcan Blake of Grant Thornton Consultants outlining

		feedback and progress to date on the Fingal Economic Development Strategy. It is anticipated that the Strategy will be brought to the January Council meeting for consideration. **Report noted and accepted by Councillors.**
30th November 2023	Fingal Skills Strategy	Presentation by Aoife Sheridan Senior Executive Officer, on the progress of the Fingal Skills Strategy: • Video was played of the "Xplore your Future" Expo in October in The Helix showing the event highlights along with feedback from students, teachers and exhibitors. The event was very well received. A review of the event with the Fingal Skills Strategy Implementation Group recommended another 1day event to be held by the Council in The Helix in October 2024 for the same TY target audience. **Report noted and accepted by Councillors.** Interreg Europe SKYLA

		Project Presentation by Aoife Sheridan Senior Executive Officer on progress with the Interreg Europe Skyla Project. Updates and the partner visit to Fingal in November where policy workshops were facilitated along with visits to the Baldoyle Training Center and DCU Campus. The next project meeting will be held in Italy in April 2024. Report noted and accepted by Councillors. Fingal Skills Strategy 2024 New chair of the Fingal Skills Strategy to be agreed in Q1 2024. In 2024 the Council will focus on expansion of and participation in the sectoral sub-groups. Workshops will also be facilitated in Q1 2024 to identify and address key sectoral problems. **Report noted and accepted by Councillors.** SPC Members also expressed to their gratitude and appreciation to the outgoing chairperson Siobhan Kinsella of The Noel Recruitment Group for her dedication and work on the development and implementation of the Fingal Skills Strategy.

30th November 2023	Policy Programme 2024	John Quinlivan, Director of Service, EETCD presented the proposed policy programme for consideration in 2024, which outlined the areas of policy. The SPC will further consider the proposed policy programme in Q1 2024

STRATEGIC POLICY COMMITTEE CHAIRPERSONS' ANNUAL REPORT

COMMUNITY DEVELOPMENT, HERITAGE

CULTURE & CREATIVITY SPC

Council Members	Councillor Joan Hopkins Councillor Cathal Boland Councillor Grainne Maguire Councillor Seána Ó Rodaigh Councillor John Walsh Councillor John Kingsley Onwumereh	
Non-Council Members	Abi Wise, PPN	
Meeting Date 2023	Theme/Policy issue	Update
29th March 2023	Draft Workplan 2023 Naomi Weir	Noted and Agreed
29th March 2023	Public Art Policy on Private Developments Caroline Cowley	Presentation Given
29th March 2023	Fingal Heritage Plan 2018 - 2023 – Implementation Christine Baker	Presentation Given
	Creative Ireland Strategy	Presentation Given

29th March 2023	and Funding **Lilian Whelan**	
29th March 2023	Fingal's Play Street Pilot Project **A Playful City** **(External Company)**	Presentation Given
29th March 2023	Motion – Free/Subsidised Swimming Classes	Update Given – NGB recruitment underway re: Swim Officer
29th March 2023	Motion – Literary Festival	Item not reached – **Quorum not met to discuss**

28th June 2023

Council Members	Councillor Joan Hopkins – Chair Councillor Cathal Boland Councillor John Walsh Councillor Grainne Maguire Councillor Brendan Ryan	
Non-Council Members	Abi Wise (PPN) – **Apologies**	
Meeting Date	**Theme/Policy issue**	**Update**
28th June 2023	Confirmation and Re-affirmation of Minutes of the meeting held on Wednesday 29th March 2023	Proposed Cllr Boland Seconded Cllr Hopkins
28th June 2023	Local Economic and Community Plan 2022 – 2027	Presentation given by Aoife Sheridan, Senior Executive Officer, EETCD
28th June 2023	Pre-Draft Consultation of the Heritage Plan	Presentation given by Christine Baker, Heritage Officer
28th June 2023	Draft Libraries	Presentation given by Lilian

	Development Plan 2024 – 2029	Whelan, Senior Executive Librarian
28th June 2023	Motion - Councillor J. Hopkins - Eliminating Plastic Waste in our Libraries - AI090541	Proposed Cllr Hopkins Seconded by Cllr Walsh **Motion agreed by all**
28th June 2023	Motion – Councillor C. Boland - Purpose-Built Community Centres - AI090642	Proposed Cllr Boland Seconded Cllr Maguire **Motion Agreed by all**

Council Members	Councillor Joan Hopkins (Chair) Councillor Cathal Boland Councillor Grainne Maguire Councillor John Walsh	
Non-Council Members	Abi Wise, PPN	
Meeting Date	**Theme/Policy issue**	**Update**
27th September 2023	Local Sport and Physical Activity Plan 2023-2028 **S3 Solutions** **External Consultant**	Presentation Given
27th September 2023	Guidance Manual for Fingal Community Facilities **David Mitchell**	Presentation Given
27th September 2023	Fingal Library Service Development Plan 2024 – 2029 **Betty Boardman**	Presentation Given

27th September 2023	Update from SPC Subgroup on Community Not for Profit Childcare Facilities **Naomi Weir**	Not reached
27th September 2023	Motion – Literary Festival	Proposed Cllr Hopkins Seconded Cllr Walsh Motion amended to read: Countywide Literary Festival **Amended Motion Agreed**
27th September 2023	Motion - €300 Sports & Cultural Vouchers	Proposed Abi Wise Seconded Cllr Hopkins Motion amended to read: FCC to undertake a targeted Fingal appropriate pilot project in one area of socio economic need to increase constructive participation of young people in sport and leisure activities while addressing cultural and ethnic considerations. **Amended motion agreed**
27th September 2023	Motion – QR Codes Roll Out	Proposed Cllr Boland Seconded Cllr Hopkins **Motion agreed**

Council Members	Councillor Joan Hopkins (Chair) Councillor Cathal Boland Councillor John Walsh Councillor Brendan Ryan Councillor John Kingsley Onwumereh	
Non-Council Members	Abi Wise – Absent	
Meeting Date	**Theme/Policy issue**	**Update**
13th December 2023	Fingal Libraries Development Plan	Presentation Given

	2024 – 2029 **Betty Boardman**	
13th December 2023	Update on the Review into the Council's Youth and Education Policy **Julie Clarke**	Presentation Given
13th December 023	Update on Fingal Countywide Sports Facilities Audit **Gerard Reardon**	Verbal Update Given

STRATEGIC POLICY COMMITTEE CHAIRPERSONS' ANNUAL REPORT

CLIMATE ACTION, BIODIVERSITY, ENVIRONMENT SPC

Council Members		Councillor David Healy, Councillor Joe Newman, Councillor Pamela Conroy, Councillor Paul Mulville, Councillor Mary McCamley, Councillor Aoibhinn Tormey
Non-Council Members		Edward Stevenson, Seamus McGrath
Meeting Date 2023	**Theme/Policy**	**Update**

	issue	
28th March 2023	Setanta Wind Park Project	Presentation given by Deborah Coleman & Martin Sweeney from SSE Renewables giving an update on the project. Noted
28th March 2023	RMCEI Plan 2023	Presentation on the Environmental Inspection Plan for 2023 was given by Enda Hoey, Senior Executive Scientist, Environment Department. Noted
28th March 2023	Motion – Implementation of Bye-Laws	Following discussion, the report was Accepted.
28th March 2023	Motion – Special Amenity Area Orders (SAAO) for Rogerstown, Malahide and Baldoyle Estuaries	Following discussion, the report was Accepted.
27th June 2023	District Heating	Presentation on the Blanchardstown District Heating Scheme was given by Neil O'Leary/Joe Hayden, Codema NOTED
27th June 2023	Local Authority Climate Action Plan (LACAP) Update	Presentation given by Ronan O'Reilly, Senior Executive Engineer, Environment giving an update on the Climate Change Action Plan NOTED
27th June 2023	Motion – Biodiversity CRMs	Following discussion regarding the difficulties/confusion experienced with CRMs, it was agreed that this issue be

		referred to the OP&F Committee.
19th September 2023	Motion - 'Deposit and Return' scheme for plastic bottles and aluminium cans	Following discussion, the report was accepted.
19th September 2023	Motion – Raise awareness towards circular consumption and production patterns	Following discussion, the report was **Accepted**.
19th December 2023	Community Climate Action Grant	A presentation was given by Catherine O'Donovan, Senior Executive Offices, Environment Department. Report **NOTED**
19th December 2023	Deposit Return Scheme	A presentation was given by Gillian McCann from Re-Turn on the upcoming Deposit Return Scheme (DRS). Following a discussion, the report was **NOTED**.
19th December 2023	Motion – Funding Streams to tackle Climate Change	Following discussion, the report was **Noted**.
19th December 2023	Motion – Report of Fingal Biodiversity Action Plan 2022-2030	Following a presentation and discussion. Report **Noted**

COMHAIRLE CONTAE FHINE GALL
FINGAL COUNTY COUNCIL

COUNTY COUNCIL MEETING

TUESDAY 16TH JANUARY 2024

ITEM NO. 17b

REPORT OF ORGANISATION, PROCEDURES AND FINANCE COMMITTEE MEETING HELD ON MONDAY 11TH DECEMBER 2023

Matters of Organisation, Procedure and Finance

Councillors' Wellbeing Programme

Ms. Emma Maxwell, Wellbeing Officer, gave the Members a presentation on the Wellbeing Programme.



What Is it? What will I have access to?

Elected Members Assistance Service (EAS)

- Unlimited 24/7, 365 in the moment support and advice service with referral to scheduled counselling, where clinically appropriate to do so. The service includes 6 free counselling session upon referral.
- The service is available to elected members and their family / household members (over 18 only)
- Referral where appropriate to clinically led online Cognitive Behavioural Therapy

Wellbeing Platform & App

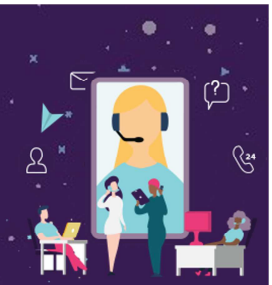
- A customised, digital platform delivering expert content on mental wellbeing, fitness and nutrition, in addition to a step counter and a calorie tracker.
- For example, through the Platform, you will be able to access various Mental Health elearning courses that educates, informs and empowers you in various aspects of mental wellbeing.

spectrum.life

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EAS

How does it work?

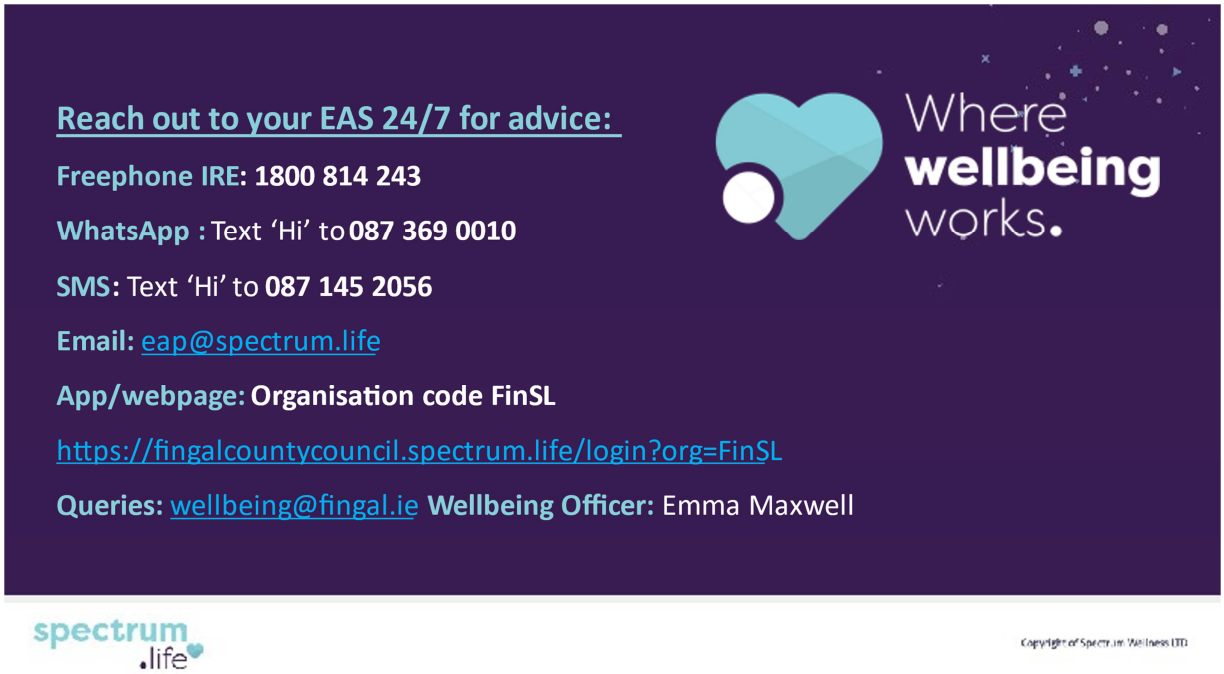


The service is a free, confidential, and independent support for councillors and their household/family members(over 18 only). It provides support, advice, and referral to counselling where appropriate.

- When you call you will speak to a professional counsellor as first point of contact.
- They will carry out an assessment to assess your needs. (This can take approx. 30mins)
- They may be able to give support and advice in the moment to help with any issue you may be facing.
- They will refer you to the 6 free counselling sessions as appropriate.
- The person you are referred to will specialise in the issue you're facing.
- The appointments can be in person, over the phone or online and in other languages.
- You will be matched with someone within 30km of your place of work or home.

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Following discussion, the presentation was **NOTED.**

Finance Matters

Mr. Oliver Hunt, Head of Finance, gave a presentation to the Members on the Financial Standing of the Council, including the Standard Monthly Report on both income and expenditure on both Revenue and Capital Account and matters affecting Council finances.

Following discussion, the report was **NOTED.**

COMHAIRLE CONTAE FHINE GALL
FINGAL COUNTY COUNCIL

COUNTY COUNCIL MEETING

TUESDAY 16TH JANUARY 2024

ITEM NO. 17c

REPORT OF BALBRIGGAN/RUSH-LUSK/SWORDS SERVICES B AREA COMMITTEE MEETING HELD ON THURSDAY 14TH DECEMBER 2023

APPLICATIONS FOR FUNDING

REMEDIAL WORKS FUNDING APPLICATION

Application for funding under the Council's Remedial Works Funding Scheme has been received from the organisation listed below. It is proposed to make funding available to this organisation, in accordance with the conditions of the scheme up to the amount set out hereunder: -

Name of Applicant Group	Total Funding Amount Applied for in Respect of this Application	Summary of What Funding is Required For – Breakdown of Items	Has this Group Applied for Funding Previously? Y/N	Total Amount of Funding Group has Received to Date and Broken Down by Year	Total Amount of Funding Proposed by the Fingal Executive and rationale for Approval
Ballyboughal Boxing Club GA 002769	€ 30,000.00	Skip hire, steel work, timber roof, roof & insulate, electric works, plumbing, windows and doors, plaster and insulate, carpentry	YES	2022 - € 3,000.00 2021 - € 2,000.00	€ 30,000.00

		works, painting & decorating & clean up			

It was **proposed** by Councillor J. Humphreys and **seconded** by Councillor A. Henchy.

That this Committee recommends that the County Council **APPROVE** of the Community Funding in the foregoing report.

Signed: Councillor K. Power
A/Area Chairperson

COMHAIRLE CONTAE FHINE GALL
FINGAL COUNTY COUNCIL

COUNTY COUNCIL MEETING

TUESDAY 16TH JANUARY 2024

ITEM NO. 17d

REPORT OF CORPORATE POLICY GROUP MEETING HELD ON MONDAY 8TH JANUARY 2024

LOCAL ECONOMIC & COMMUNITY PLAN (LECP)

A presentation was given by Mr. Lorcan Blake & Mr. Andrew Webb of Grant Thornton and, following discussion, the Corporate Policy Group **RECOMMENDED** that the Local Economic & Community Plan be brought to the Council Meeting of 16th January for approval.

DRAFT ECONOMIC DEVELOPMENT STRATEGY

A presentation was given by Mr. Lorcan Blake & Mr. Andrew Webb of Grant Thornton and a discussion followed. Mr. John Quinlivan, Director of Services, Economic, Enterprise, Tourism & Cultural Development advised the Corporate Policy Group that a briefing for Members on the draft Strategy is arranged for Thursday, 11th January and will be brought to the Council Meeting of 16th January.

FINGAL LIBRARIES DRAFT DEVELOPMENT PLAN 2024 - 2029

Ms. Betty Boardman, County Librarian, gave a presentation to the Members on the Fingal Libraries Draft Development Plan 2024 - 2029

Following discussion, the Corporate Policy Group **RECOMMENDED** that the draft Plan be brought to the Council Meeting of 16th January for approval.

HARBOUR BYE-LAWS FOR BALBRIGGAN, SKERRIES, RUSH & LOUGHSHINNY 2024

Ms. Mary T. Daly, Director of Services, Operations Department, gave the Members a presentation on the Harbour Bye-Laws for Balbriggan, Skerries, Rush & Loughshinny, 2024.

Following discussion, it was **RECOMMENDED** that each of the four Harbour Bye-Laws be brought to the Council Meeting of 16th January for approval.

LOCAL REPRESENTATION ALLOWANCE (LRA) 2024

Ms. Liz Hartigan, Administrative Officer Corporate Services, informed the Members that the Department of Housing, Local Government & Heritage had issued advice in December 2023 in relation to changes on the administration of the LRA, whereby these expenses would be paid in arrears on receipt of proof of payment. Ms. Hartigan stated that any monies owing to the Council by a Member would prohibit that Member from standing in the upcoming Local Elections.

Signed: Councillor Adrian Henchy
Mayor

COMHAIRLE CONTAE FHINE GALL
FINGAL COUNTY COUNCIL

COUNTY COUNCIL MEETING

TUESDAY 16TH JANUARY 2024

ITEM NO. 17e

REPORT OF BLANCHARDSTOWN/MULHUDDART/CASTLEKNOCK SERVICES B AREA COMMITTEE MEETING HELD ON 9TH JANUARY 2024

APPLICATIONS FOR SPORTS FUNDING

Applications for funding under the Council's Sports Funding Scheme have been received from the organisations listed below. It is proposed to make funding available to these organisations, in accordance with the conditions of the scheme up to the amount set out hereunder: -

ACTIVITY FUNDING GRANTS APPLICATIONS

Name of Applicant Group	Total Funding Amount Applied for in Respect of this Application	Summary of What Funding is Required For – Breakdown of Items	Has this Group Applied for Funding Previously? Y/N	Total Amount of Funding Group has Received to Date and Broken Down by Year	Total Amount of Funding Proposed by the Fingal Executive and rationale for Approval
M and S Powerchair Team	€2895	Purchase of tetherball, goal posts, PC chair programmer and special arm rests	N/A	N/A	€2895

The Application for Funding, which was received, was AGREED
That this Committee recommends that the County Council APPROVE of the funding in the foregoing report.

Signed: _____

Councillor T. Kitt

Area Chairperson

COMHAIRLE CONTAE FHINE GALL
FINGAL COUNTY COUNCIL

COUNTY COUNCIL MEETING

TUESDAY 16TH JANUARY 2024

ITEM NO. 17f

REPORT OF HOWTH/MALAHIDE SERVICES B AREA COMMITTEE MEETING HELD ON 10TH JANUARY 2024

APPLICATIONS FOR SPORTS FUNDING

Applications for funding under the Council's Sports Funding Scheme have been received from the organisations listed below. It is proposed to make funding available to these organisations, in accordance with the conditions of the scheme up to the amount set out hereunder: -

ACTIVITY FUNDING GRANTS APPLICATIONS

Name of Applicant Group	Total Funding Amount Applied for in Respect of this Application	Summary of What Funding is Required For – Breakdown of Items	Has this Group Applied for Funding Previously? Y/N	Total Amount of Funding Group has Received to Date and Broken Down by Year	Total Amount of Funding Proposed by the Fingal Executive and rationale for Approval
Naomh Mearnog GAA Club	€3000	Purchase and installation of ball stop nets on pitch 6 at Naomh Mearnog GAA Club	Youth Sport Grant 2022	2022 - €950	€3000
Malahide Basketball Club	€3000	Purchase of scoreboard, cages for basketballs and first aid equipment	Sport Equipment Grant 2021	2021 - €3000	€3000

Beann Eadair GAA Club Howth	€3000	Purchase of portable goalposts	Sport Equipment 2022	2022 - €2000	€3000

It was **proposed by** Councillor E. O'Brien and **seconded by** Councillor D. Healy
That this Committee recommends that the County Council **APPROVE** of the Community funding in the foregoing report.

Signed: Councillor E. O'Brien
Area Chairperson

COMHAIRLE CONTAE FHINE GALL
FINGAL COUNTY COUNCIL

COUNTY COUNCIL MEETING

TUESDAY 16TH JANUARY 2024

ITEM NO. 17g

REPORT OF BALBRIGGAN/RUSH/LUSK/SWORDS SERVICES B AREA COMMITTEE MEETING HELD ON 11TH JANUARY 2024

APPLICATIONS FOR COMMUNITY FUNDING

Applications for funding under the Council's Community Funding Scheme have been received from the organisations listed below. It is proposed to make funding available to these organisations, in accordance with the conditions of the scheme up to the amount set out hereunder: -

ACTIVITY FUNDING GRANTS APPLICATIONS

Name of Applicant Group	Total Funding Amount Applied for in Respect of this Application	Summary of What Funding is Required For – Breakdown of Items	Has this Group Applied for Funding Previously? Y/N	Total Amount of Funding Group has Received to Date and Broken Down by Year	Total Amount of Funding Proposed by the Fingal Executive and rationale for Approval
Castleland Park Neighbourhood Watch GA 002883	€ 1,064.00	Text alert System, Muintir Na Tire Membership, Insurance, Community Centre Room hire, Printing Costs	YES	2022- € 834.00 2021- € 541.00	€ 1,064.00
Balbriggan Community Council GA	€ 1,659.00	AED, Cabinet for AED, Rent of Rooms for	NO	N/A	€ 1,659.00

002880		Training			
Skerries Chess Club GA 002897	€ 2,316.00	Coaching/tuition, Data projector, Projector screen, Chess sets 2, Chess clocks, Bags for sets 2 and postage	NO	N/A	€ 2,316.00
Chapelgate /Pineridge Residents Association GA 002886	€ 3,000.00	AED Protective case, Barbecue, Lighting, Blower heater, Costumes, Burco water boiler, Batteries	YES	2021- € 478.00	€ 3,000.00

It was proposed by Councillor I. Carey and seconded by Councillor K. Power.

That this Committee recommends that the County Council APPROVE of the Community Funding in the foregoing report.

APPLICATIONS FOR SPORTS FUNDING

Applications for funding under the Council's Sports Funding Scheme have been received from the organisations listed below. It is proposed to make funding available to these organisations, in accordance with the conditions of the scheme up to the amount set out hereunder: -

ACTIVITY FUNDING GRANTS APPLICATIONS

Name of Applicant Group	Total Funding Amount Applied for in Respect of this Application	Summary of What Funding is Required For – Breakdown of Items	Has this Group Applied for Funding Previously? Y/N	Total Amount of Funding Group has Received to Date and Broken Down by Year	Total Amount of Funding Proposed by the Fingal Executive and rationale for Approval
Mourne Celtic FC	€781	Purchase of easy use pitch marker	N/A	N/A	€781
Skerries Hockey Club	€3,000	Purchase of goalkeeper gear and first aid kit	Youth Sport 2022	€950	€3,000

Skerries AC	€3,000	Purchase of portable lights, tripod and running timing gates	Youth Sport Grant 2023	€833	€3,000

It was proposed by **Councillor I. Carey** and seconded by **Councillor K. Power**.

That this Committee recommends that the County Council **APPROVE** of the Sports Funding in the foregoing report.

Signed: Councillor Ian Carey

Area Chairperson

COMHAIRLE CONTAE FHINE GALL
FINGAL COUNTY COUNCIL

COUNTY COUNCIL MEETING

TUESDAY 16TH JANUARY 2024

ITEM NO. 18

FINANCIAL MATTERS

AUDITED

Comhairle Contae Fhine Gall
Fingal County Council



ANNUAL FINANCIAL STATEMENT

FOR YEAR ENDED 31ST DECEMBER 2022

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Financial Review

Introduction:

I am pleased to present the Annual Financial Statement of Fingal County Council for the year ended 31st December 2022. The Annual Financial Statement have been prepared in accordance with the Accounting Code of Practice for Local Authorities. The accounts are prepared on an accruals basis and incorporate a Statement of Comprehensive Income (Income and Expenditure Account), Statement of Financial Position (Balance Sheet), Statement of Funds Flow (Funds Flow Statement), a Statement of Accounting Policies, Notes to the Accounts and Appendices in the prescribed formats.

Income & Expenditure Account

Overall Expenditure for 2022 on the revenue account amounted to €276m, while income on the account amounted to €319.2m. The revenue account outturn for 2022 is €393 credit. When account is taken of the incoming credit balance the Revenue Account shows a credit balance of €15.98m.

Overall expenditure reflects the final round of rates waivers in Q1 relating to the COVID 19 supports. It also reflects the continued increase in services across the county as well as inflationary pressures, particularly energy costs, during 2022. The income and expenditure account also reflects capital transfer to fund elements of our ambitious capital programme. As we have over the past number of years, we continue to make provision to mitigate the effects of possible reduced rates income due to valuation appeals which are still ongoing arising out of the countywide revaluation which became effective on January 1st, 2020.

Balance Sheet

The Annual Financial Statement (AFS) includes valuations for fixed assets and includes local authority houses, land, buildings, equipment, heritage assets, plant and machinery, road networks and the surface water element of our drainage network. The total value of fixed assets reflected in the balance sheet at the 31st December 2022 is €3.032bn.

Capital expenditure amounted to €179.2m includes capital expenditure over a number of areas including housing, strategic infrastructure and active travel.

The total indebtedness of the Council on foot of loans outstanding at the 31st December 2022 was €288.8m. The corresponding figure for the 31st December 2021 was €310m, or a reduction of 6.9%. The reduction in borrowing relates principally to the redemption of mortgage and affordable loan redemptions.

The combined total expenditure impact of our Revenue and Capital Accounts for 2021 is €455.3m.

Debt Collection

Details of the main collection accounts are included in Appendix 7. Commercial Rates continue to be the primary source of funding for the Council. The overall gross collection rate for 2022 was extremely strong at 98.3%. When the effect of the rates waiver is excluded an overall collection rate of 98.1% was achieved.

Financial Outlook

The Council's overall financial position remained relatively stable during 2022 as the country dealt with the remnants of the COVID 19 pandemic, international instability as well as increased inflationary pressure. As we move through 2023, we will continue to keep the Councils finances under review in this context.

I would like to acknowledge the efforts of all staff in the preparation of the final accounts.

AnnMarie Farrelly
Chief Executive
31st March 2023

FINGAL COUNTY COUNCIL

Certificate of Chief Executive and Head of Finance for the year ended 31 December 2022

1.1 We, the Chief Executive and Head of Finance, are responsible for preparing an Annual Financial Statement in accordance with the Accounting Code of Practice issued by the Minister under Section 107 of the Local Government Act, 2001.

1.2 We are responsible for maintaining proper books of account that disclose with reasonable accuracy the financial position of the local authority and enable it to ensure that financial statements prepared comply with the statutory requirements.

1.3 We are responsible for the safeguarding of assets of the local authority and for taking reasonable steps for the prevention and detection of fraud and other irregularities.

1.4 When preparing financial statements, we have:-

- stated that the financial statements have been prepared in accordance with the Accounting Code of Practice and the accounting policies have been applied consistently; and,
- made judgments and estimates that are reasonable and prudent.

1.5 We certify that the financial statements of Fingal County Council for the year ended 31 December 2022, as set out on pages 5 to 24, are in agreement with the books of account and have been prepared in accordance with the accounting requirements as directed by the Minister for Housing, Local Government & Heritage.

Chief Executive

Date 31st March 2023

Head of Finance

Date 31st March 2023

Independent Auditor's Opinion to the Members of Fingal County Council

I have audited the annual financial statement of Fingal County Council for the year ended 31 December 2022 as set out on pages 5 to 24, which comprises the Statement of Accounting Policies, Statement of Comprehensive Income, Statement of Financial Position, Statement of Funds Flow and Notes to and forming part of the Accounts. The financial reporting framework that has been applied in its preparation is the Code of Practice and Accounting Regulations as prescribed by the Minister for Housing, Local Government and Heritage.

Responsibilities of the Council and the Local Government Auditor

The Council, in accordance with Section 107 of the Local Government Act, 2001, is responsible for the maintenance of all accounting records including the preparation of the Annual Financial Statement. It is my responsibility, based on my audit, to form an independent opinion on the statement and to report my opinion to you.

Scope of the audit of the financial statement

I conducted my audit in accordance with the Code of Audit Practice, as prescribed under Section 117 of the Local Government Act, 2001. An audit includes examination, on a test basis, of evidence relevant to the amounts and disclosures in the annual financial statement. It also includes an assessment of the significant estimates and judgements made in the preparation of the financial statement, and of whether the accounting policies are appropriate to the Council's circumstances, consistently applied and adequately disclosed.

I planned and performed my audit so as to obtain all the information and explanations which I considered necessary in order to provide sufficient evidence to give reasonable assurance that the annual financial statement is free from material misstatement, whether caused by fraud or error.

Opinion on the financial statement

In my opinion the annual financial statement, which has been prepared in accordance with the Code of Practice and Accounting Regulations for local authorities, presents fairly the financial position of the Fingal County Council at 31 December 2022 and its income and expenditure for the year then ended.

Statutory Audit Report

I have also prepared an associated audit report as provided for in Section 120(1) (c) of the Local Government Act, 2001.

Daragh Mc Mahon

Daragh Mc Mahon
Principal Auditor

Date: 25 September 2023

STATEMENT OF ACCOUNTING POLICIES

1. General

The accounts have been prepared in accordance with the Accounting Code of Practice ACoP on local authority accounting, as revised by the Department of Housing, Local Government and Heritage (DHLGH) at 31st December 2021. Non-compliance with accounting policies as set out in ACoP must be stated in the Policies and Notes to the Accounts.

2. Statement of Funds Flow (Funds Flow Statement)

A Statement of Funds Flow was introduced as part of AFS 2011. While the guidance of International Accounting Standard 7 Statement of Cash Flows has been followed, the business of local authorities is substantially different to most private sector organisations and therefore some minor changes to the format have been agreed to ensure the data displayed is meaningful and useful within the local government sector. For this reason the statement is being referred to as a 'Statement of Funds Flow'. The financial accounts now include a Statement of Funds Flow shown after the Statement of Financial Position (Balance Sheet). Notes 17 – 22 relate to the Statement of Funds Flow and are shown in the Notes on and forming part of the Accounts section of the AFS. Note 19 details Project/Non Project/Affordable/Voluntary balances, which can be either a debit or a credit balance. The funds flow assumes that these are debit balances and bases the (Increase)/Decrease description on this.

3. Accruals

The revenue and capital accounts have been prepared on an accrual basis in accordance with the Code of Practice.

4. Interest Charges

Loans payable can be divided into the following two categories:

- Mortgage related loans
- Non- mortgage related loans

4.1 Mortgage Related Loans

Mortgage related loans have a corresponding stream of income from long term advances (i.e. monies lent by the local authority to borrowers), for the purchase of houses. Only the interest element is charged or credited to the Statement of Comprehensive Income (Income & Expenditure Statement).

4.2 Non Mortgage Related Loans

Note 7 to the accounts sets out the types of borrowing under this heading. Loans relating to assets/grants, revenue funding will not have a corresponding stream of income. Bridging finance will eventually become part of permanent funding. Loans in respect of the other headings will have a corresponding value in Note 3. The loan repayment cost of principal and interest is funded through the annual budget process. At the end of the financial year the funding element of the principal is transferred and offset against a loan repayment reserve. This transfer is included in the Statement of Comprehensive Income (Income & Expenditure Account Statement) under the heading 'transfers to/from reserves'.

5. Pensions

Payments in respect of pensions and gratuities are charged to the revenue account in the accounting period in which the payments are made. The cost of salaries and wages in the accounts includes deductions in respect of pension contributions (including Widows and Orphans) benefits under the Local Government Superannuation Scheme and the Single Public Service Pension Scheme.

The Single Public Service Pension Scheme ("Single Scheme") commenced with effect from 1 January 2013. Employee contributions for the Single Scheme continue to be deducted by local authorities but are remitted centrally to the Department of Public Expenditure and Reform. The requirements of current accounting standards relating to pensions and their application to local authority accounting remains under consideration.

6. Agency and Other Services

Expenditure on services provided or carried out on behalf of other local authorities is recouped at cost or in accordance with specific agreements.

7. Insurance

The Council is substantially self-insured in the areas of public and employers liability insurance. An excess of €254,000 and €127,000 respectively operates on these policies. Ongoing provision is made in the revenue budget for the cost of the claims. In addition, an insurance fund is in place on an investment basis rather than on an actuarial basis. We are satisfied that the insurance fund will meet any current liabilities that may fall due.

8. Provision for Bad & Doubtful Debts

Provision has been made in the relevant accounts for bad and doubtful debts. We have also provided for any loans not covered by the Mortgage Arrears Resolution Process.

9. Fixed Assets

9.1 Classification of Assets

Fixed assets are classified into categories as set out in the Statement of Financial Position (Balance Sheet). A further breakdown by asset type is set out in Note 1 to the accounts.

9.2 Recognition

All expenditure on the acquisition or construction of fixed assets is capitalised on an accrual basis. Fixed assets that have been constructed by developers in lieu of their development contributions that have not already been included in our fixed assets will be captured in the fixed asset revaluation process.

9.3 Measurement

A Statement of Financial Position (Balance Sheet) incorporating all of the assets of the local authority was included for the first time in the Annual Financial Statement for 2003. The assets were valued based on the 'Valuation Guideline' issued by the Department of Housing, Local Government and Heritage. All assets purchased or constructed as from 1/1/2004 have been included at historical cost. Accounting policies relating to leases are currently being developed and will be reflected in the financial statements at a future date. The valuation of Local Authority Housing is only for the purposes of the AFS and should not be relied upon for any other purpose. All open spaces as at the 31/12/03 were taken on a nil value. Playgrounds taken on since the 1/1/04 have been taken on at cost. Grave spaces are valued at the net realisable value which is there selling price.

9.4 Fixed Assets Revaluation

As set out in a revision to the Accounting Code of Practice it is policy to show fixed assets at cost. Maintenance and enhancement costs associated with Infrastructure assets are not currently included in fixed assets but will be reviewed at a future date. Due to their physical nature the vast majority of assets are unique to local authorities and are not subject to disposal. Any loss or gain associated with the net realisable value of the remaining general assets subject to disposal, are accounted for at time of disposal.

9.5 Disposals

In respect of disposable assets, income is credited to a specific reserve and is generally applied in the purchase of new assets. Proceeds of the sale of local authority houses are to be applied as directed by the Department of Housing, Local Government and Heritage.

9.6 Depreciation

Under the current method of accounting, the charge for depreciation is offset by the amortisation of the source of funding the asset. This method has a neutral impact on the Income & Expenditure Account and consequently the charge for depreciation and the corresponding credit from amortisation is excluded from the Statement of Comprehensive Income (Income & Expenditure Statement).

The policies applied to assets subject to depreciation are as follows:

Asset Type	Bases	Depreciation Rate
Plant and Machinery		
• Long Life	Straight Line	10%
• Short Life	Straight Line	20%
Equipment	Straight Line	20%
Furniture	Straight Line	20%
Heritage Assets		Nil
Library Books		Nil
Play Grounds	Straight Line	20%
Parks	Straight Line	2%
Landfill Sites **(*See Note)**		
Water Assets		
• Water Schemes	Straight Line	Asset Life of 70 Years
• Drainage Schemes	Straight Line	Asset Life of 50 Years

The Council does not charge depreciation in the year of disposal and will charge a full years depreciation in the year of acquisition.

*** The value of landfill sites has been included in Note 1 under land. Depreciation represents the depletion of the landfill asset.**

10. Government Grants

Government grants are accounted for on an accrual basis. Grants received to cover day to day operations are credited to Statement of Comprehensive Income (Income & Expenditure Statement). Grants received, relating to the construction of assets, are shown as part of the income of work-in-progress. On completion of the project the income is transferred to a capitalisation account.

11. Development Debtors & Income

Short term development levy debtors are included in Note 5. Income from development contributions not due to be paid within the current year is deferred and not separately disclosed in the financial statements.

Development contribution cash collected in 2021 due to Irish Water but not paid over to Irish Water in 2021 is shown as a creditor.

All S.49 levies received are only included as refundable deposits as the council is only acting as an agent for the Railway Procurement Agency (R.P.A).

12. Debt Redemption

The proceeds from the early redemption of loans by borrowers, are applied to the redemption of mortgage related borrowings from the HFA.

13. Lease Schemes

Rental payments under operating leases are charged to the Statement of Comprehensive Income (Income & Expenditure Statement). Assets acquired under a finance lease are included in fixed assets. The amount due on outstanding balances is shown under current liabilities and long term creditors. The sum of the digit method is used for calculating all leases.

14. Stock

Stocks are valued on an average cost basis.

15. Work-in-Progress & Preliminary Expenditure

Work-in progress and preliminary expenditure is the accumulated historical cost of various capital related projects. The income accrued in respect of these projects is shown in the Statement of Financial Position (Balance Sheet) as 'Income WIP'.

16. Related Parties

A related party transaction is a transfer of resources, services or obligations between the local authority and a related party. The main related parties for a local authority include the following:

i. Management and Personnel
ii. Council members
iii. Government Departments
iv. Local Authority Companies

Local Authority council members and key personnel are bound under the relevant sections of the Local Government Act 2001 and subsequent amending legislation to:

A. Furnish an annual declaration of 'declarable interests' set out in section 175 of the Act;

B. Disclose under sections 167, 178 and 179 any beneficial interests that they or a connected person has; and

C. Follow a code of conduct issued by the Minister for Housing, Local Government and Heritage under section 169 of the Local Government Act 2001 in 2004.

'Declarable interests' cover both financial and certain other interests such as land etc. Local authority management and personnel salary and remuneration is determined by the Department of Housing, Local Government and Heritage in line with central government policy on rates of pay. Local Authority interests in companies and joint ventures are disclosed in Appendix 8 to the Annual Financial Statements. Local Authority transactions with government departments are governed by central government controls and procedures driven by government accounting rules.

17. Interest in Local Authority Companies

Details of the companies in which the Council has an interest are listed in Appendix 8.

FINANCIAL ACCOUNTS

STATEMENT OF COMPREHENSIVE INCOME (INCOME & EXPENDITURE ACCOUNT STATEMENT)

FOR YEAR ENDING 31st DECEMBER 2022

The Income and Expenditure Account Statement brings together all the revenue related income and expenditure.
It shows the surplus/(deficit) for the year.
Note 16 allocates transfers by service division in the same format as Table A of the adopted Local Authority budget.

Expenditure by Division	Notes	Gross Expenditure 2022 €	Income 2022 €	Net Expenditure 2022 €	Net Expenditure 2021 €
Housing & Building		79,934,862	84,028,141	(4,093,280)	(1,598,021)
Roads Transportation & Safety		34,235,143	9,684,149	24,550,994	20,299,698
Water Services		17,261,184	19,353,548	(2,092,364)	(6,660,380)
Development Management		24,259,274	7,495,298	16,763,975	14,212,082
Environmental Services		45,289,429	10,187,381	35,102,047	36,567,150
Recreation & Amenity		49,984,433	4,191,423	45,793,011	37,743,912
Agriculture, Food and the Marine		1,245,320	478,311	767,008	655,751
Miscellaneous Services		23,828,175	23,816,379	11,796	(4,400,154)
Total Expenditure/Income	**15**	**276,037,820**	**159,234,632**		
Net cost of Divisions to be funded from Rates & Local Property Tax				**116,803,188**	96,820,037
Rates				151,293,793	149,291,077
Local Property Tax				8,698,895	7,503,957
Surplus/(Deficit) for Year before Transfers				**43,189,500**	59,974,997
Transfers from/(to) Reserves	**14**			(43,189,108)	(59,974,864)
Overall Surplus/(Deficit) for Year	**16**			**393**	133
General Reserve @ 1st January 2022				15,979,812	15,979,679
General Reserve @ 31st December 2022				**15,980,204**	15,979,812

STATEMENT OF FINANCIAL POSITION (BALANCE SHEET) AS AT 31st DECEMBER 2022

	Notes	2022	2021
		€	€
Fixed Assets	1		
Operational		1,463,233,189	1,454,712,425
Infrastructural		1,159,631,876	1,163,673,065
Community		103,257,960	103,592,062
Non-Operational		305,980,160	267,218,825
		3,032,103,185	**2,989,196,377**
Work-in-Progress and Preliminary Expenses	2	**113,260,149**	**80,761,249**
Long Term Debtors	3	**300,403,084**	**293,939,594**
Current Assets			
Stock	4	587,836	558,276
Trade Debtors & Prepayments	5	72,077,880	71,600,874
Bank Investments		396,214,369	368,990,180
Cash at Bank		13,543,266	23,149,014
Cash in Transit		2,091,845	312,300
		484,515,197	**464,610,643**
Current Liabilities			
Bank Overdraft		-	-
Creditors & Accruals	6	157,647,528	148,411,602
Finance Leases		872,423	839,338
		158,519,951	**149,250,940**
Net Current Assets / (Liabilities)		**325,995,246**	**315,359,703**
Creditors (Amounts greater than one year)			
Loans Payable	7	272,287,597	291,725,598
Finance Leases		1,389,771	1,119,009
Refundable Deposits	8	49,382,278	43,477,273
Other		103,121,793	88,027,397
		426,181,440	**424,349,276**
Net Assets / (Liabilities)		**3,345,580,224**	**3,254,907,647**
Represented By			
Capitalisation	9	3,032,103,185	2,989,196,377
Income WIP	2	106,031,705	68,319,658
General Revenue Reserve		15,980,204	15,979,812
Other Specific Reserves		-	-
Other Balances	10	191,465,130	181,411,800
Total Reserves		**3,345,580,224**	**3,254,907,647**

STATEMENT OF FUNDS FLOW (FUNDS FLOW STATEMENT)

AS AT 31ST DECEMBER 2022

	Note	2022 €	2022 €
REVENUE ACTIVITIES			
Net Inflow/(outflow) from Operating Activities	**17**		**8,729,753**
CAPITAL ACTIVITIES			
Returns on Investment and Servicing of Finance			
Increase/(Decrease) in Fixed Asset Capitalisation Funding		42,906,808	
Increase/(Decrease) in WIP/Preliminary Funding		37,712,046	
Increase/(Decrease) in Reserves Balances	**18**	7,924,783	
Net Inflow/(Outflow) from Returns on Investment and Servicing of Finance			**88,543,638**
Capital Expenditure & Financial Investment			
(Increase)/Decrease in Fixed Assets		(42,906,808)	
(Increase)/Decrease in WIP/Preliminary Funding		(32,498,900)	
(Increase)/Decrease in Other Capital Balances	**19**	(9,532,767)	
Net Inflow/(Outflow) from Capital Expenditure and Financial Investment			**(84,938,475)**
Financing			
Increase/(Decrease) in Loan & Lease Financing	**20**	(10,503,246)	
(Increase)/Decrease in Reserve Financing	**21**	11,661,313	
Net Inflow/(Outflow) from Financing Activities			**1,158,067**
Third Party Holdings			
Increase/(Decrease) in Refundable Deposits			**5,905,005**
Net Increase/(Decrease) in Cash and Cash Equivalents	**22**		**19,397,988**

1. Fixed Assets

	Land	Parks	Housing	Buildings	Plant & Machinery (Long and Short Life)	Computers, Furniture and Equipment	Heritage	Roads and Infrastructure	Water and Sewerage Network	Total
	€									
Costs										
Accumulated Costs at 1st Jan	298,770,712	27,770,899	1,198,773,341	309,159,538	14,775,915	1,433,833	1,099,130	1,081,406,466	202,059,449	3,135,249,283
Additions - Purchased	37,054,695	-	9,880,708	4,882,551	1,650,051	105,155	-	-	-	53,573,159
Additions - Transfer WIP	-	-	-	-	-	-	-	-		-
Disposals\Statutory Transfers	(2,576,611)	-	(2,172,246)	-	(830,977)	-	-	-	-	(5,579,833)
Revaluation	-	-	-	-	-	-	-	-		-
Historical Costs Adjustments	-	-	-	-	-	-	-	-		-
Accumulated Costs 31/12/2022	**333,248,796**	**27,770,899**	**1,206,481,803**	**314,042,088**	**15,594,989**	**1,538,988**	**1,099,130**	**1,081,406,466**	**202,059,449**	**3,183,242,609**
Depreciation										
Accumulated Depreciation at 1st Jan	-	15,670,044	-	121,695	8,698,077	1,118,108	-	-	120,444,983	146,052,907
Provision for year	-	334,101	-	-	1,265,279	153,380	-	-	4,041,189	5,793,950
Disposals\Statutory Transfers	-	-	-	-	(707,432)	-	-	-	-	(707,432)
Accumulated Depreciation 31/12/2022	**-**	**16,004,145**	**-**	**121,695**	**9,255,925**	**1,271,488**	**-**	**-**	**124,486,172**	**151,139,424**
Net Book Value at 31/12/2022	**333,248,796**	**11,766,754**	**1,206,481,803**	**313,920,394**	**6,339,065**	**267,499**	**1,099,130**	**1,081,406,466**	**77,573,277**	**3,032,103,185**
Net Book Value at 31/12/2021	298,770,712	12,100,855	1,198,773,341	309,037,843	6,077,838	315,725	1,099,130	1,081,406,466	81,614,466	2,989,196,377
Net Book Value by Category										
Operational	41,061,292	-	1,206,481,803	209,083,529	6,339,065	267,499	-	-	-	1,463,233,189
Infrastructural	652,133	-	-	-	-	-	-	1,081,406,466	77,573,277	1,159,631,876
Community	-	11,766,754	-	90,509,276	-	-	981,930	-	-	103,257,960
Non-Operational	291,535,371	-	-	14,327,589	-	-	117,200	-	-	305,980,160
Net Book Value at 31/12/2022	**333,248,796**	**11,766,754**	**1,206,481,803**	**313,920,394**	**6,339,065**	**267,499**	**1,099,130**	**1,081,406,466**	**77,573,277**	**3,032,103,185**

2. Work in Progress and Preliminary Expenses

A summary of work in progress and preliminary expenditure by asset category is as follows:

	Funded 2022 €	Unfunded 2022 €	Total 2022 €	Total 2021 €
Expenditure				
Preliminary Expenses	37,831,901	67,576,658	105,408,559	73,527,900
Work in Progress	7,851,591	-	7,851,591	7,233,350
Total Expenditure	**45,683,491**	**67,576,658**	**113,260,149**	**80,761,249**
Income				
Preliminary Expenses	42,393,611	56,072,860	98,466,472	61,385,410
Work in Progress	7,565,233	-	7,565,233	6,934,248
Total Income	**49,958,844**	**56,072,860**	**106,031,705**	**68,319,658**
Net Expended				
Work in Progress	286,357	-	286,357	299,101
Preliminary Expenses	(4,561,710)	11,503,797	6,942,087	12,142,490
Net Over/(Under) Expenditure	**(4,275,353)**	**11,503,797**	**7,228,444**	**12,441,591**

3. Long Term Debtors

A breakdown of long term debtors is as follows:

	2022 Balance @ 01/01/2022	2022 Loans Issued	2022 Instalments	2022 Early Redemptions	2022 Other Adjustments	2022 Balance @ 31/12/2022	2021 Balance @ 31/12/2021
	€	€	€	€	€	€	€
Long Term Mortgage Advances *	138,775,398	11,820,950	(8,679,136)	(2,363,958)	(842,454)	138,710,800	138,775,398
Tenant Purchase Advances	96,764	-	(111,043)	(159,619)	259,413	85,515	96,764
Shared Ownership Rented Equity	2,911,895	-	-	11,877	(268,585)	2,655,187	2,911,895
	141,784,056	11,820,950	(8,790,179)	(2,511,700)	(851,626)	141,451,502	141,784,056
Recoupable Loan Advances						68,381,031	75,286,434
Capital Advance Leasing Facility						103,121,793	88,027,397
Long Term Investments - Cash						-	-
Long Term Investments - Associated Companies						2	124,464
Other						-	-
						312,954,328	305,222,351
Less: Current Portion of Long Term Debtors (Note 5)						(12,551,244)	(11,282,757)
Total amounts falling due after one year						**300,403,084**	**293,939,594**

* Includes HFA agency loans

4. Stocks

A summary of stock is as follows:

	2022	2021
	€	€
Central Stores	60,582	60,582
Other Depots	527,254	497,694
Total	**587,836**	**558,276**

5. Trade Debtors and Prepayments

A breakdown of debtors and prepayments is as follows:

	2022	2021
	€	€
Government Debtors	16,440,634	22,216,776
Commercial Debtors	12,164,033	13,243,977
Non-Commercial Debtors	10,451,136	9,266,855
Development Contribution Debtors	60,273,226	61,242,962
Other Services	397,739	255,116
Other Local Authorities	5,775,140	4,291,073
Revenue Commissioners	-	-
Other	-	-
Current Portion of Long Term Debtors (Note 3)	12,551,244	11,282,757
Total Gross Debtors	**118,053,153**	**121,799,516**
Less: Provision for Doubtful Debts	(51,178,516)	(52,107,191)
Total Trade Debtors	**66,874,637**	**69,692,325**
Prepayments	5,203,242	1,908,548
Total	**72,077,880**	**71,600,874**

6. Creditors and Accruals

A breakdown of creditors and accruals is as follows:

	2022	2021
	€	€
Trade Creditors	12,715,399	12,222,949
Grants	468,695	342,860
Revenue Commissioners	4,483,200	4,561,061
Other Local Authorities	231,234	56,984
Other Creditors	256,933	276,366
	18,155,461	**17,460,221**
Accruals	84,166,737	70,101,675
Deferred Income	38,833,446	42,526,333
Add:Current Portion of Loans Payable (Note 7)	16,491,884	18,323,373
Total	**157,647,528**	**148,411,602**

7. Loans Payable

(a) Movement in Loans Payable

	2022 HFA €	2022 OPW €	2022 Other €	2022 Total €	2021 Total €
Opening Balance	291,786,954	-	18,262,017	310,048,971	327,479,289
Borrowings	12,019,650	-	-	12,019,650	6,781,850
Repayment of Principal	(15,275,065)	-	(2,663,649)	(17,938,714)	(18,594,695)
Early Redemptions	(13,125,140)	-	(1,885,226)	(15,010,365)	(5,617,473)
Other Adjustments	(340,060)	-	-	(340,060)	-
	275,066,339	**-**	**13,713,143**	**288,779,481**	**310,048,971**
Less: Current Portion of Loans Payable				16,491,884	18,323,373
Total amounts falling due after one year				**272,287,597**	**291,725,598**

(b) Application of Loans

An analysis of loans payable is as follows:

Mortgage					
Mortgage Loans *	134,102,841	-	-	134,102,841	136,089,413
Non Mortgage					
Assets/Grants	28,916,222	-	6,837,607	35,753,829	40,333,445
Revenue Funding	-	-	-	-	-
Bridging Finance	46,784,880	-	-	46,784,880	54,306,136
Recoupable	61,505,494	-	6,875,536	68,381,030	75,286,434
Shared Ownership Rented Equity	3,756,902	-	-	3,756,902	4,033,544
Balance at 31st December	**275,066,339**	**-**	**13,713,143**	**288,779,481**	**310,048,971**
Less: Current Portion of Loans Payable				16,491,884	18,323,373
Total Amounts Due after one year				**272,287,597**	**291,725,598**

* Includes HFA Agency Loans

8. Refundable Deposits

The movement in refundable deposits is as follows:

	2022 €	2021 €
Opening Balance at 1st January	43,477,273	37,230,913
Deposits received	7,720,639	11,100,037
Deposits repaid	(1,815,634)	(4,853,677)
Closing Balance at 31st December	**49,382,278**	**43,477,273**

Note: Short Term Refundable Deposits are included as part of Cash Investments on the Balance Sheet

9. Capitalisation Account

The capitalisation account shows the funding of the assets as follows:

	2022 Balance @ 01/01/2022 €	2022 Purchased €	2022 Transfers WIP €	2022 Disposals/ Statutory T/F's €	2022 Revaluation €	2022 Historical Cost Adjustments €	2022 Balance @ 31/12/2022 €	2021 Balance @ 31/12/2021 €
Grants	619,637,703	15,208,664	-	-	-	(224,786)	634,621,581	619,637,703
Loans	163,091,058	-	-	-	-	-	163,091,058	163,091,058
Revenue Funded	14,904,037	116,471	-	(58,208)	-	-	14,962,301	14,904,037
Leases	11,127,065	1,364,866	-	(635,697)	-	-	11,856,234	11,127,065
Development Contributions	92,270,672	-	-	-	-	-	92,270,672	92,270,672
Tenant Purchase Annuties	-	-	-	-	-	-	-	-
Unfunded	133,020,551	34,942,235	-	(2,271,611)	-	-	165,691,176	133,020,551
Historical	2,064,609,980	1,667,054	-	(334,000)	-	(1,947,460)	2,063,995,575	2,064,609,980
Other	36,588,216	273,869	-	(108,072)	-	-	36,754,013	36,588,216
Total Gross Funding	**3,135,249,283**	**53,573,159**	**-**	**(3,407,588)**	**-**	**(2,172,246)**	**3,183,242,609**	**3,135,249,283**
Less: Amortised							(151,139,424)	(146,052,907)
Total *							**3,032,103,185**	**2,989,196,377**

* As per note 1

10. Other Balances

A breakdown of other balances is as follows:

	Note	2022 Balance @ 01/01/2022 €	2022 * Capital Reclassification €	2022 Expenditure €	2022 Income €	2022 Net Transfers €	2022 Balance @ 31/12/2022 €	2021 Balance @ 31/12/2021 €
Development Contributions Balances	(i)	179,499,832	-	13,854,527	52,531,808	(33,609,422)	184,567,691	179,499,832
Capital Account Balances including Asset Formation and Enhancement	(ii)	(50,973,868)	(1,887,057)	102,501,771	49,767,562	45,148,871	(60,446,263)	(50,973,868)
Voluntary & Affordable Housing Balances								
- Voluntary Housing	(iii)	(353,884)	-	5,228,589	5,186,533	1,600	(394,341)	(353,884)
- Affordable Housing	(iii)	(4,254,318)	-	19,916	-	-	(4,274,233)	(4,254,318)
Reserves Created for Specific Purposes	(iv)	150,676,432	-	13,037,951	5,985,001	9,909,876	153,533,357	150,676,432
Net Capital Balances		**274,594,195**	**(1,887,057)**	**134,642,755**	**113,470,904**	**21,450,925**	**272,986,211**	**274,594,195**
Balance Sheet Accounts relating to Loan Principal outstanding (including Unrealised TP Annuities)	(v)						(81,521,083)	(93,306,858)
Interest in Associated Companies	(vi)						2	124,464
Total Other Balances							**191,465,130**	**181,411,800**

* Capital re-classification represents the change in status and/or funding of opening capital balances.

Note (i) This represents the cumulative balance of development levies i.e. income less expenditure and transfers to date.

Note (ii) This represents the cumulative position on funded and unfunded capital jobs consiting of project (completed assets) and non project (enhancement of assets) balances. Debit balances will require sources of funding to clear.

Note (iii) This represents the cumulative position on voluntary and affordable housing projects.

Note (iv) Relates to reserves and advance funding for future Local Authority assets, insurance liabilities, other purposes and includes realised tenant purchase annuities.

Note (v) Loan related balances including outstanding principal on leases and non-mortgage loans remaining to be funded, historical mortgage funding gap, unrealised principal on tenant purchase annuities to be repaid in the future, and shared ownership rented equity.

Note (vi) Represents the Local Authority's interest in associated companies.

11. Capital Account Analysis

The capital account has been de-aggregated and is comprised of the following accounts in the balance sheet as follows:

	2022	2021
	€	€
Net WIP and Preliminary Expenses (Note 2)	(7,228,444)	(12,441,591)
Capital Balances (Note 10)	272,986,211	274,594,195
Capital Balance Surplus/(Deficit) at 31st December	**265,757,767**	**262,152,604**

A summary of the changes in the Capital account (see Appendix 6) is as follows:

Opening Balance at 1st January	262,152,604	236,469,998
Expenditure	179,234,011	146,188,003
Income		
- Grants	88,972,976	62,785,655
- Loans	-	-
- Other	63,223,126	66,343,836
Total Income	152,196,103	129,129,491
Net Revenue Transfers	30,643,071	42,741,118
Closing Balance	**265,757,767**	**262,152,604**

12. Mortgage Loan Funding Position

The mortgage loan funding position on the balance sheet at year-end is as follows:

	2022 € Loan Annuity	2022 € Rented Equity	2022 € Total	2021 € Total
Mortgage Loans/Equity Receivable (Note 3)	138,710,800	2,655,187	141,365,987	141,687,292
Mortgage Loans/Equity Payable (Note 7)	(134,102,841)	(3,756,902)	(137,859,743)	(140,122,956)
Surplus/(Deficit) in Funding @ 31st of Decembe	**4,607,958**	**(1,101,715)**	**3,506,244**	**1,564,336**

NOTE: Cash on Hand relating to Redemptions and Relending	331,432

13. Summary of Plant and Materials Account

A summary of the operations of the Plant and Materials account is as follows:

	Plant 2022 €	Materials 2022 €	Total 2022 €	Total 2021 €
Expenditure	(1,511,877)	29,560	(1,482,317)	(1,885,322)
Charged to Jobs	1,511,877	-	1,511,877	1,999,097
Surplus/(Deficit) for Year	**-**	**29,560**	**29,560**	**113,775**
Transfers from/(to) Reserves	-	-	-	-
Surplus/(Deficit) before Transfers	**-**	**29,560**	**29,560**	**113,775**

14. Analysis of Transfers to/from Reserves

A summary of the transfers to/from reserves is as follows:

	2022 Transfer From Reserves €	2022 Transfer To Reserves €	2022 Net €	2021 Net €
Principal Repaid - Non Mortgage Loans (Own Asset)	-	(3,566,405)	(3,566,405)	(4,174,801)
Principal Repaid - Non Mortgage Loans (Recoupable)	-	(7,918,614)	(7,918,614)	(12,039,389)
Principal Repaid - Finance Leases	-	(1,061,018)	(1,061,018)	(1,019,555)
Transfers - Other Balance Sheet Reserves	-	-	-	-
Transfers - Capital Account	12,718,929	(43,362,000)	(30,643,071)	(42,741,118)
Surplus/(Deficit) for Year	**12,718,929**	**(55,908,037)**	**(43,189,108)**	**(59,974,864)**

15. Analysis of Revenue Income

A summary of the major sources of revenue income is as follows:

	Appendix No	2022 €		2021 €	
State Grants & Subsidies	3	88,902,594	27.8%	134,766,643	37.8%
Contributions from other Local Authorities		4,493,314	1.4%	2,519,783	0.7%
Goods and Services	4	65,838,724	20.6%	62,353,320	17.5%
		159,234,632	**49.9%**	**199,639,747**	**56.0%**
Local Property Tax		8,698,895	2.7%	7,503,957	2.1%
Rates		151,293,793	47.4%	149,291,077	41.9%
Total Income		**319,227,320**	**100.0%**	**356,434,781**	**100.0%**

16. Over/Under Expenditure

The difference between the adopted budget and the actual outturn is respect of both expenditure and income is as follows:

	EXPENDITURE					INCOME					NET
	Excluding Transfers	Transfers	Including Transfers	Budget	(Over)/Under Budget	Excluding Transfers	Transfers	Including Transfers	Budget	Over/(Under) Budget	(Over)/Under Budget
	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022	2022
	€	€	€	€	€	€	€	€	€	€	€
Housing & Building	79,934,862	7,750,245	87,685,106	89,124,532	1,439,425	84,028,141		84,028,141	85,374,356	(1,346,214)	93,211
Roads Transportation & Safety	34,235,143	1,128,715	35,363,859	32,743,938	(2,619,921)	9,684,149		9,684,149	8,313,799	1,370,351	(1,249,570)
Water Services	17,261,184	3,637,894	20,899,078	19,384,972	(1,514,107)	19,353,548		19,353,548	18,043,828	1,309,720	(204,386)
Development Management	24,259,274	3,861,067	28,120,340	24,902,809	(3,217,532)	7,495,298		7,495,298	5,554,395	1,940,903	(1,276,629)
Environmental Services	45,289,429	4,363,026	49,652,454	49,434,949	(217,505)	10,187,381		10,187,381	7,274,442	2,912,939	2,695,435
Recreation & Amenity	49,984,433	12,299,086	62,283,519	52,295,344	(9,988,175)	4,191,423	(482,100)	3,709,323	2,675,599	1,033,724	(8,954,451)
Agriculture, Education, Health & Welfare	1,245,320	72,257	1,317,577	1,524,993	207,417	478,311		478,311	307,667	170,644	378,061
Miscellaneous Services	23,828,175	22,795,748	46,623,923	30,375,071	(16,248,852)	23,816,379	13,201,029	37,017,408	12,488,912	24,528,496	8,279,644
Total Divisions	**276,037,820**	**55,908,037**	**331,945,857**	**299,786,608**	**(32,159,248)**	**159,234,632**	**12,718,929**	**171,953,561**	**140,032,997**	**31,920,564**	**(238,685)**
Local Property Tax						8,698,895		8,698,895	7,514,600	1,184,295	1,184,295
Rates						151,293,793		151,293,793	152,239,000	(945,206)	(945,206)
Dr/Cr Balance											
Total Divisions						**159,992,688**		**159,992,688**	**159,753,600**	**239,088**	**239,089**
Surplus/(Deficit) for Year	**276,037,820**	**55,908,037**	**331,945,857**	**299,786,608**	**(32,159,248)**	**319,227,320**	**12,718,929**	**331,946,249**	**299,786,597**	**32,159,652**	**404**

17. Net Cash Inflow/(Outflow) from Operating Activities

	2022
	€
Operating Surplus/(Deficit) for Year	393
(Increase)/Decrease in Stocks	(29,560)
(Increase)/Decrease in Trade Debtors	(477,006)
Increase/(Decrease) in Creditors Less than One Year	9,235,926
	8,729,753

18. Increase/(Decrease) in Reserve Balances

Increase/(Decrease) in Development Contributions	5,067,859
Increase/(Decrease) in Reserves created for specific purposes	2,856,925
	7,924,783

19. (Increase)/Decrease in Other Capital Balances

(Increase)/Decrease in Voluntary Housing Balances	(40,457)
(Increase)/Decrease in Affordable Housing Balances	(19,916)
(Increase)/Decrease in Capital account balances including asset formation/enhancement	(9,472,395)
	(9,532,767)

20. Increase/(Decrease) in Loan & Lease Financing

(Increase)/Decrease in Long Term Debtors	(6,463,490)
Increase/(Decrease) in Mortgage Loans	(1,986,571)
Increase/(Decrease) in Asset/Grant Loans	(4,579,616)
Increase/(Decrease) in Revenue Funding Loans	-
Increase/(Decrease) in Bridging Finance Loans	(7,521,256)
Increase/(Decrease) in Recoupable Loans	(6,905,404)
Increase/(Decrease) in Shared Ownership Rented Equity Loans	(276,642)
Increase/(Decrease) in Finance Leasing	303,848
(Increase)/Decrease in Portion Transferred to Current Liabilities	1,831,489
Increase/(Decrease) in Long Term Creditors - Deferred Income	15,094,396
	(10,503,246)

21. Increase/(Decrease) in Reserve Financing

	2022 €
(Increase)/Decrease in Other Specific Reserves	-
(Increase)/Decrease in Balance Sheet accounts relating to loan principal & Unrealised TP Annuities	11,785,775
(Increase)/Decrease in Reserves in Associated Companies	(124,462)
	11,661,313

22. Analysis of Changes in Cash & Cash Equivalents

Increase/(Decrease) in Bank Investments	27,224,190
Increase/(Decrease) in Cash at Bank/Overdraft	(9,605,747)
Increase/(Decrease) in Cash in Transit	1,779,546
	19,397,988

23. Accounting for the Rates Waiver/Credit in Lieu in relation to Commercial Rates

The Government continued its unprecedented support for the local government sector, with the provision of a targeted commercial rates waiver to cover the hospitality, arts, leisure and entertainment sectors, travel agency and airports sector, for quarter 1 of 2022, at a cost of €62 million.

The cost of this support is reported in Appendix 1 as a Payment of Subsidies and Grants under the Operational Expenses heading. The income appears in Appendix 3 under the Department of Housing, Local Government and Heritage under Miscellaneous. The credit in lieu is reported in Appendix 7 under Waivers/Credits. The full Rates Accrued Income for 2022 appears in the Income and Expenditure Account as normal.

24. Accounting for Climate Action

Expenditure in relation to Climate Change is accounted for in the area where the expenditure is incurred e.g. Housing, Roads, etc. This is in line with the Local Authorities costing system where the full cost of a service/sub-service must reflect all the costs associated with the service.

APPENDICES

APPENDIX 1

ANALYSIS OF EXPENDITURE

FOR PERIOD ENDED 31ST DECEMBER 2022

	2022	2021
	€	€
Payroll		
- Salary & Wages	79,321,464	72,975,754
- Pensions (Incl. Gratuities)	19,173,323	17,056,048
- Other Costs	-	-
Total	**98,494,786**	**90,031,802**
Operational Expenses		
- Purchase of Equipment	2,095,053	1,017,133
- Repairs & Maintenance	2,075,119	2,155,684
- Contract Payments	28,440,300	22,421,837
- Agency Services	55,939,340	49,216,844
- Machinery Yard Charges (Incl Plant Hire)	4,351,249	2,442,887
- Purchase of Materials & Issues from Stores	3,183,489	2,718,115
- Payments of Subsidies & Grants	15,465,251	72,522,124
- Members Costs	412,998	345,296
- Travelling & Subsistence	712,664	502,868
- Consultancy & Professional Fees Payments	5,314,843	4,616,364
- Energy Costs	5,905,295	4,558,968
- Other	22,629,286	19,949,951
Total	**146,524,888**	**182,468,071**
Administration Expenses		
- Communication Expenses	1,266,511	1,161,934
- Training	1,003,834	815,227
- Printing & Stationery	433,133	421,221
- Contributions to Other Bodies	2,748,585	2,080,993
- Other	6,298,806	5,089,769
Total	**11,750,870**	**9,569,144**
Establishment Expenses		
- Rent & Rates	1,843,755	1,790,572
- Other	1,018,368	1,061,085
Total	**2,862,124**	**2,851,656**
Financial Expenses	7,728,384	9,583,488
Miscellaneous Expenses	8,676,769	1,955,622
Total Expenditure	**276,037,820**	**296,459,784**

Appendix 2

SERVICE DIVISION A

Housing and Building

Service	EXPENDITURE	INCOME			
	TOTAL	State Grants and Subsidies	Provision of Goods and Services	Contributions from other Local Authorities	TOTAL
A01 Maintenance/Improvement of LA Housing	11,911,244	493,648	21,689,988	14,648	22,198,284
A02 Housing Assessment, Allocation and Transfer	1,775,752	-	37,883	8,060	45,942
A03 Housing Rent and Tenant Purchase Administration	2,032,077	-	37,966	7,362	45,328
A04 Housing Community Development Support	2,151,034	-	43,320	9,216	52,536
A05 Administration of Homeless Service	3,420,196	-	22,870	365,711	388,581
A06 Support to Housing Capital & Affordable Prog.	9,288,524	6,463,478	71,486	15,209	6,550,173
A07 RAS Programme	46,255,333	42,558,302	4,648,710	4,126	47,211,138
A08 Housing Loans	4,882,569	99,724	4,085,587	5,488	4,190,799
A09 Housing Grants	3,327,419	2,231,244	13,988	2,976	2,248,208
A11 Agency & Recoupable Services	2,007,623	897,085	9,236	1,965	908,285
A12 Housing Assistance Programme	633,334	170,719	14,965	3,184	188,868
Total Including Transfers to/from Reserves	**87,685,106**	**52,914,200**	**30,675,998**	**437,943**	**84,028,141**
Less: Transfers to/from Reserves	7,750,245	-	-	-	-
Total Excluding Transfers to/from Reserves	**79,934,862**	**52,914,200**	**30,675,998**	**437,943**	**84,028,141**

SERVICE DIVISION B

Road Transport & Safety

Service	EXPENDITURE	INCOME			
	TOTAL	State Grants and Subsidies	Provision of Goods and Services	Contributions from other Local Authorities	TOTAL
B01 NP Road - Maintenance and Improvement	-	-	-	-	-
B02 NS Road - Maintenance and Improvement	-	-	-	-	-
B03 Regional Road - Maintenance and Improvement	8,324,194	2,622,621	186,579	25,797	2,834,996
B04 Local Road - Maintenance and Improvement	12,846,945	1,957,223	218,760	19,106	2,195,089
B05 Public Lighting	4,892,155	582,502	11,295	2,403	596,200
B06 Traffic Management Improvement	3,315,318	98,000	66,456	7,448	171,904
B07 Road Safety Engineering Improvement	-	-	-	-	-
B08 Road Safety Promotion/Education	2,834,905	128,562	50,319	10,705	189,586
B09 Maintenance & Management of Car Parking	835,284	-	2,107,967	26	2,107,993
B10 Support to Roads Capital Prog.	1,829,809	-	50,776	10,803	61,578
B11 Agency & Recoupable Services	485,249	-	1,526,326	476	1,526,803
Total Including Transfers to/from Reserves	**35,363,859**	**5,388,908**	**4,218,478**	**76,764**	**9,684,149**
Less: Transfers to/from Reserves	1,128,715	-	-	-	-
Total Excluding Transfers to/from Reserves	**34,235,143**	**5,388,908**	**4,218,478**	**76,764**	**9,684,149**

SERVICE DIVISION C

Water Services

Service	EXPENDITURE	INCOME			
	TOTAL	State Grants and Subsidies	Provision of Goods and Services	Contributions from other Local Authorities	TOTAL
C01 Operation and Maintenance of Water Supply	12,473,587	3,425,274	9,066,918	-	12,492,192
C02 Operation and Maintenance of Waste Water Treatment	5,976,933	-	5,979,076	-	5,979,076
C03 Collection of Water and Waste Water Charges	-	-	-	-	-
C04 Operation and Maintenance of Public Conveniences	711,262	-	25,959	1,575	27,534
C05 Admin of Group and Private Installations	2,761	2,254	-	-	2,254
C06 Support to Water Capital Programme	586,001	-	586,001	-	586,001
C07 Agency & Recoupable Services	-	-	-	-	-
C08 Local Authority Water & Sanitary Services	1,148,533	30,542	136,080	99,870	266,492
Total Including Transfers to/from Reserves	**20,899,078**	**3,458,070**	**15,794,034**	**101,444**	**19,353,548**
Less: Transfers to/from Reserves	3,637,894	-	-	-	-
Total Excluding Transfers to/from Reserves	**17,261,184**	**3,458,070**	**15,794,034**	**101,444**	**19,353,548**

SERVICE DIVISION D

Development Management

Service	EXPENDITURE	INCOME			
	TOTAL	State Grants and Subsidies	Provision of Goods and Services	Contributions from other Local Authorities	TOTAL
D01 Forward Planning	2,796,063	-	58,805	11,908	70,713
D02 Development Management	8,723,897	16,138	2,206,211	34,555	2,256,903
D03 Enforcement	826,862	12,500	136,230	2,888	151,618
D04 Op & Mtce of Industrial Sites & Commercial Facilities	707,342	-	20,394	2,185	22,579
D05 Tourism Development and Promotion	1,406,793	9,000	77,089	386	86,475
D06 Community and Enterprise Function	2,237,417	773,830	40,707	6,533	821,070
D07 Unfinished Housing Estates	-	-	-	-	-
D08 Building Control	1,991,165	-	268,882	7,912	276,794
D09 Economic Development and Promotion	6,907,204	2,179,563	78,160	102,052	2,359,776
D10 Property Management	1,492,369	-	593,828	3,838	597,666
D11 Heritage and Conservation Services	1,031,229	848,112	2,962	630	851,704
D12 Agency & Recoupable Services	-	-	-	-	-
Total Including Transfers to/from Reserves	**28,120,340**	**3,839,143**	**3,483,267**	**172,888**	**7,495,298**
Less: Transfers to/from Reserves	3,861,067	-	-	-	-
Total Excluding Transfers to/from Reserves	**24,259,274**	**3,839,143**	**3,483,267**	**172,888**	**7,495,298**

SERVICE DIVISION E

Environmental Services

Service	EXPENDITURE	INCOME			
	TOTAL	State Grants and Subsidies	Provision of Goods and Services	Contributions from other Local Authorities	TOTAL
E01 Operation, Maintenance and Aftercare of Landfill	3,540,245	-	25,604	5,447	31,051
E02 Op & Mtce of Recovery & Recycling Facilities	3,755,445	88,775	1,808,849	38,634	1,936,258
E03 Op & Mtce of Waste to Energy Facilities	854,418	-	-	3,253,656	3,253,656
E04 Provision of Waste to Collection Services	-	-	-	-	-
E05 Litter Management	1,367,145	30,000	81,722	5,836	117,558
E06 Street Cleaning	8,326,898	-	153,680	32,696	186,376
E07 Waste Regulations, Monitoring and Enforcement	1,111,840	331,870	143,737	3,157	478,764
E08 Waste Management Planning	273,782	81,050	4,329	1,228	86,607
E09 Maintenance and Upkeep of Burial Grounds	2,324,099	-	1,598,878	9,933	1,608,811
E10 Safety of Structures and Places	1,093,897	-	20,708	4,406	25,114
E11 Operation of Fire Service	23,417,625	-	-	-	-
E12 Fire Prevention	188,479	-	1,065,570	813	1,066,383
E13 Water Quality, Air and Noise Pollution	2,176,118	-	1,196,442	5,731	1,202,172
E14 Agency & Recoupable Services	-	-	-	-	-
E15 Climate Change and Flooding	1,222,462	182,487	10,014	2,130	194,631
Total Including Transfers to/from Reserves	**49,652,454**	**714,182**	**6,109,532**	**3,363,667**	**10,187,381**
Less: Transfers to/from Reserves	4,363,026	-	-	-	-
Total Excluding Transfers to/from Reserves	**45,289,429**	**714,182**	**6,109,532**	**3,363,667**	**10,187,381**

SERVICE DIVISION F

Recreation and Amenity

Service	EXPENDITURE	INCOME			
	TOTAL	State Grants and Subsidies	Provision of Goods and Services	Contributions from other Local Authorities	TOTAL
F01 Operation and Maintenance of Leisure Facilities	519,272	-	199,035	1,490	200,525
F02 Operation of Library and Archival Service	17,029,370	457,834	287,149	54,261	799,244
F03 Op, Mtce & Imp of Outdoor Leisure Areas	23,497,120	-	1,121,406	92,767	1,214,173
F04 Community Sport and Recreational Development	8,357,742	730,808	74,389	15,770	820,967
F05 Operation of Arts Programme	12,880,015	466,815	197,990	9,608	674,413
F06 Agency & Recoupable Services	-	-	-	-	-
Total Including Transfers to/from Reserves	**62,283,519**	**1,655,457**	**1,879,969**	**173,897**	**3,709,323**
Less: Transfers to/from Reserves	12,299,086	-	(482,100)	-	(482,100)
Total Excluding Transfers to/from Reserves	**49,984,433**	**1,655,457**	**2,362,069**	**173,897**	**4,191,423**

SERVICE DIVISION G

Agriculture, Eductaion,Health and Welfare

Service	EXPENDITURE	INCOME			
	TOTAL	State Grants and Subsidies	Provision of Goods and Services	Contributions from other Local Authorities	TOTAL
G01 Land Drainage Costs	-	-	-	-	-
G02 Operation and Maintenance of Piers and Harbours	266,035	-	4,260	906	5,166
G03 Coastal Protection	-	-	-	-	-
G04 Veterinary Service	962,455	76,254	356,701	947	433,902
G05 Educational Support Services	89,086	39,021	183	39	39,243
G06 Agency & Recoupable Services	-	-	-	-	-
Total Including Transfers to/from Reserves	**1,317,577**	**115,275**	**361,144**	**1,892**	**478,311**
Less: Transfers to/from Reserves	72,257	-	-	-	-
Total Excluding Transfers to/from Reserves	**1,245,320**	**115,275**	**361,144**	**1,892**	**478,311**

SERVICE DIVISION H

Miscellaneous Services

Service	EXPENDITURE TOTAL	INCOME State Grants and Subsidies	Provision of Goods and Services	Contributions from other Local Authorities	TOTAL
H01 Profit/Loss Machinery Account	-	-	-	-	-
H02 Profit/Loss Stores Account	377,125	-	-	-	-
H03 Adminstration of Rates	42,313,815	11,648,586	10,684,548	7,598	22,340,732
H04 Franchise Costs	511,828	-	8,585	1,826	10,412
H05 Operation of Morgue and Coroner Expenses	-	-	-	-	-
H06 Weighbridges	4,562	-	-	-	-
H07 Operation of Markets and Casual Trading	4,590	-	61,903	-	61,903
H08 Malicious Damage	-	-	-	-	-
H09 Local Representation/Civic Leadership	2,705,730	-	16,394	3,488	19,882
H10 Motor Taxation	-	-	-	-	-
H11 Agency & Recoupable Services	706,273	9,168,774	5,263,800	151,906	14,584,479
Total Including Transfers to/from Reserves	**46,623,923**	**20,817,360**	**16,035,230**	**164,818**	**37,017,408**
Less: Transfers to/from Reserves	22,795,748	-	13,201,029	-	13,201,029
Total Excluding Transfers to/from Reserves	**23,828,175**	**20,817,360**	**2,834,201**	**164,818**	**23,816,379**
TOTAL ALL DIVISIONS (Excluding Transfers)	**276,037,820**	**88,902,594**	**65,838,724**	**4,493,314**	**159,234,632**

APPENDIX 3

ANALYSIS OF INCOME FROM GRANTS AND SUBSIDIES

	2022	2021
	€	€
Department of Housing, Local Government, and Heritage		
Housing and Building	52,869,015	42,159,471
Road Transportation & Safety	3,914,446	3,914,446
Water Services	3,458,070	8,010,283
Development Management	826,286	602,859
Environmental Services	-	-
Recreation & Amenity	75,000	107,258
Agriculture, Food & The Marine	-	-
Miscellaneous Services	20,742,460	70,816,350
	81,885,277	**125,610,666**
Other Departments and Bodies		
TII Transport Infrastructure Ireland	582,502	428,453
Tourism, Culture, Arts, Gaeltacht, Sport & Media	-	437,130
National Transport Authority	891,960	994,330
Social Protection	-	-
Defence	-	-
Education	-	-
Library Council	-	-
Arts Council	50,000	49,864
Transport	-	-
Justice	-	-
Agriculture & Marine	76,254	3,350
Enterprise, Trade & Employment	2,109,110	4,600,980
Rural & Community Development	654,748	201,172
Environment, Climate & Communications	625,407	545,720
Food Safety Authority of Ireland	-	-
Other	2,027,337	1,894,979
	7,017,318	**9,155,977**
TOTAL	**88,902,594**	**134,766,643**

APPENDIX 4

ANALYSIS OF INCOME FROM GOODS AND SERVICES

	2022	2021
	€	€
Rents from Houses	26,233,337	25,754,458
Housing Loans Interest & Charges	3,211,678	3,131,819
Domestic Water	-	-
Commercial Water	-	-
Irish Water	15,293,504	14,377,102
Domestic Refuse	986,842	1,120,556
Commercial Refuse	-	-
Domestic Sewerage	-	-
Commercial Sewerage	-	-
Planning Fees	2,223,461	1,636,426
Parking Fines/Charges	2,107,846	1,594,210
Recreation & Amenity Activities	590,200	112,115
Agency Services	130,907	-
Pension Contributions	2,105,936	2,126,862
Property Rental & Leasing of Land	1,395,514	1,367,987
Landfill Charges	-	-
Fire Charges	1,061,749	1,170,629
NPPR	1,049,374	1,477,438
Miscellaneous	9,448,376	8,483,718 *
	65,838,724	**62,353,320**

*Includes Library Fees/Fines re-classified

APPENDIX 5

SUMMARY OF CAPITAL EXPENDITURE AND INCOME

	2022	2021
	€	€
EXPENDITURE		
Payments to Contractors	76,011,509	44,932,910
Purchase of Land	20,237,154	2,809,392
Purchase of Other Assets/Equipment	11,388,668	11,145,760
Professional & Consultancy Fees	13,219,015	10,443,722
Other	58,377,664	76,856,219
Total Expenditure (Net of Internal Transfers)	**179,234,011**	**146,188,003**
Transfers to Revenue	12,718,929	5,291,793
Total Expenditure (Including Transfers)*	**191,952,940**	**151,479,796**
INCOME		
Grants and LPT	88,972,976	62,785,655
Non-Mortgage Loans	-	-
Other Income		
Development Contributions	52,531,808	48,873,985
Property Disposals - Land	135,000	6,452,262
- LA Housing	1,751,902	549,609
- Other Property	234,015	187,461
Tenant Purchase Annuities	(3,562)	64,834
Car Parking	-	-
Other	8,573,963	10,215,684
Total Income (Net of Internal Transfers)	**152,196,103**	**129,129,491**
Transfers from Revenue	43,362,000	48,032,911
Total Income (Including Transfers) *	**195,558,103**	**177,162,402**
Surplus/(Deficit) for year	**3,605,163**	**25,682,606**
Balance (Debit)/Credit @ 1st January	262,152,604	236,469,998
Balance (Debit)/Credit @ 31st December 2022	265,757,767	262,152,604

* Excludes internal transfers, includes transfers to and from Revenue account

APPENDIX 6

ANALYSIS OF INCOME AND EXPENDITURE ON CAPITAL ACCOUNT

				INCOME				TRANSFERS			
		Balance at 01/01/2022	*Expenditure*	*Grants & LPT*	*Non Mortgage Loans **	*Other*	*Total Income*	*Transfers from Revenue*	*Transfers to Revenue*	*Internal Transfers*	*Balance at 31/12/2022*
01	HOUSING & BUILDING	43,437,957	77,247,464	71,681,362	-	3,992,004	75,673,366	2,980,000	-	182,768	45,026,626
02	ROAD TRANSPORTATION & SAFETY	(17,743,232)	30,018,389	12,723,896	-	1,983,423	14,707,319	765,000	-	20,255,829	(12,033,473)
03	WATER SERVICES	12,702,629	1,784,980	-	-	1,236,787	1,236,787	-	-	(1,343,015)	10,811,421
04	DEVELOPMENT MANAGEMENT	133,792,824	35,200,627	4,185,051	-	55,224,364	59,409,414	9,498,500	-	(33,196,188)	134,303,923
05	ENVIRONMENTAL SERVICES	21,282,804	1,896,080	-	-	-	-	1,950,000	-	(33,419)	21,303,306
06	RECREATION & AMENITY	12,695,789	17,769,284	382,667	-	242,717	625,385	3,935,000	(482,100)	14,134,083	14,103,073
07	AGRICULTURE, FOOD, & THE MARINE	-	-	-	-	-	-	-	-	-	-
08	MISCELLANEOUS	55,983,832	15,317,188	-	-	543,831	543,831	24,233,500	13,201,029	(57)	52,242,890
		262,152,604	**179,234,011**	**88,972,976**	**-**	**63,223,126**	**152,196,103**	**43,362,000**	**12,718,929**	**-**	**265,757,767**

Note: Mortgage related transactions are excluded

APPENDIX 7

Summary of Major Revenue Collections for 2022

A	B	C	D	E	F	G	H	I	J	K
Debtor Type	**Opening Arrears at 01/01/2022**	**Accrued**	**Vacant Property Adjustments**	**Write Offs**	**Waivers & Credits**	**Total for Collection**	**Amount Collected**	**Closing Arrears at 31/12/2022**	**Specific Doubtful Arrears***	**% Collected**
						=(B+C-D-E-F)		.=(G-H)		**.=(H)/(G-J)**
	€	€	€	€	€	€	€	€	€	
Commercial Rates	7,154,867	151,293,793	218,646	1,953,715	15,194,281	141,082,017	138,092,637	2,989,380	309,818	98.1
Rents & Annuities	7,188,806	25,810,742		-		32,999,548	25,118,248	7,881,300		76.1
Housing Loans	3,733	17,731,468		-		17,735,200	17,162,914	572,286		96.8

*Specific doubtful arrears = (i) Vacancy applications pending/criteria not met & (ii) Accounts in examinership/receivership/liquidation and no communication

Note 1 Rental income from Shared Ownership has been included under Housing Loans
Note 2 Income from Tenant Purchase Annuities has been included under Housing Loans
Note 3 Arrears brought forward is shown net of credit balances.
Note 4 Housing Loans are showing NET of overpayments and Includes the principal and net interest due for the year.

APPENDIX 8
INTEREST OF LOCAL AUTHORITIES IN COMPANIES

Where a local authority as a corporate body or its members or officers, by virtue of their office have an interest in a company (controlled, jointly controlled and associated), the following disclosures should be made for each entity:

Name of Company or Entity	Voting Power %	Classification: Subsidiary/ Associate / Joint venture	Total Assets	Total Liabilities	Revenue Income	Revenue Expenditure	Cumulative Surplus/ Deficit	Consolidated in Local Authority accounts (Y/N)	Date of financial statements
Ardgillan Castle Ltd*	38	Associate	149,108	-54,584	-	-	94,523	N	31/12/2021
BASE Enterprise Centre CLG*	38	Associate	577,518	-295,480	-	-	282,038	N	31/12/2021
Balbriggan Enterprise and Training Centre CLG*	20	Associate	556,954	-228,090	191,845	200,723	-7,524	N	31/12/2021
Castlecurragh Management CLG.	33	Associate	384,959	-14,434	263,104	230,508	32,596	N	31/08/2022
College Business & Technology Park Management Services CLG	100	Subsidiary	-	-	-	-	-	N	31/05/2021
City of Dublin Energy Management Agency (CODEMA) Limited by Guarantee	20	Associate	809,090	-522,485	1,574,394	1,598,536	-24,142	N	31/12/2021
Domville Woods Property Management Company CLG.	100	Subsidiary	64,728	-9,549	20,261	11,781	8,480	N	31/12/2020
Draiocht CLG.	33	Associate	946,862	-635,055	1,254,467	1,231,170	23,297	N	31/12/2021
Drinan Enterprise Centre CLG*	33	Associate	604,276	-469,366	-	-	-	N	31/12/2021
Fingal Community & Recreation Services limited by guarantee*	75	Subsidiary	627,834	-575,025			-	N	31/12/2021
Fingal Parks & Heritage Trust Ltd.*	67	Subsidiary	31,341	-31,338	-	-	-	N	31/12/2021
Fingal Tourism CLG.*	13		89,101	-63,119	-	-	-	N	31/12/2021
Georges Square Management Limited	50	Subsidiary	186,992	-204,470	-	-	-	N	31/12/2021
Hill Mill Company Limited by Guarantee *	14		420,524	-141,476				N	31/12/2021
Kettle's Lane Management CLG	75	Subsidiary	156,096	-8,927	42,900	49,769	-6,869	N	31/12/2021
Ladyswell Property CLG.	100	Subsidiary	140,299	-10,392	176,220	171,629	4,591	N	31/12/2020
Ladyswell Management CLG	50	Subsidiary	4,902	-1,530	17,452	43,805	-26,353	N	31/12/2021
MALAHIDE CASTLE AND NEWBRIDGE HOUSE LIMITED*	73	Subsidiary	5,612,913	-5,630,295	-	-	-	N	31/12/2021
Montini Property Management Company Ltd by guarantee	43	Associate	12,175	-1,810	6,576	6,803	-227	N	31/12/2021
Mullhuddart Community Centre CLG	33	Associate	293,172	-26,375	522,975	-444,801	78,174	N	31/12/2021
Ongar Community Centre CLG.	33	Associate	215,738	-57,589	197,451	-219,879	-22,428	N	31/12/2021
Parslickstown House Management CLG	50	Subsidiary	237,397	-70,925	615,120	-655,788	-40,668	N	31/12/2021
Rossan Court Owners Mangament Company limited by guarnantee.	100	Subsidiary	17,067	-4,546	34,359	34,621	-262	N	31/12/2021
The Seamus Ennis Cultural Centre Company CLG.	14	Associate	829,082	-352,714	489,813	-342,844	146,969	N	31/12/2020
Tyrellstown Community Centre CLG	20	Associate	207,221	-47,464	172,357	-190,647	-18,290	N	31/12/2021
Whitestown Property Management Company CLG	33	Associate	27,841	-794	8,550	7,630	920	N	31/12/2021

Note* Company claimed abridged financial statements relief for a small company under section 353 of the Companies Act 2014

Rialtas na hÉireann
Government of Ireland

Statutory Audit Report to the Members of Fingal County Council for the Year Ended 31 December 2022

Local Government Audit Service

Prepared by the Department of Housing, Local Government and Heritage
gov.ie/housing

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Auditor's Report to the Members of Fingal County Council

1 Introduction

I have audited the Annual Financial Statement (AFS) of Fingal County Council for the year ended 31 December 2022, which comprises the Statement of Accounting Policies, Statement of Comprehensive Income, Statement of Financial Position, Funds Flow Statement and notes to and forming part of the accounts. The financial reporting framework that has been applied in its preparation is the Code of Practice and Accounting Regulations for Local Authorities, as prescribed by the Minister for Housing, Local Government and Heritage.

My main statutory responsibility, following completion of the audit work, is to express my independent audit opinion on the AFS of the Council, as to whether it presents fairly the financial position at 31 December 2022 and its income and expenditure. My audit opinion, which is unmodified, is stated on page 4 of the AFS.

The Council is by law, responsible for the maintenance of all accounting records including the preparation of the AFS. It is my responsibility, based on my audit, to form an independent opinion on the statement and to report my opinion. I conducted my audit in accordance with the Code of Audit Practice. An audit includes examination, on a test basis, of evidence relevant to the amounts and disclosures in the AFS. It also includes an assessment of the significant estimates and judgments made by the Council's management in the preparation of the AFS, and of whether the accounting policies are appropriate to the Council's circumstances, consistently applied and adequately disclosed.

I planned and performed my audit so as to obtain all the information and explanations, which I considered necessary to provide sufficient evidence to give reasonable assurance that the financial statement is free from material misstatement, whether caused by fraud or error.

This report is prepared in accordance with Section 120(1) (c) of the Local Government Act, 2001 and should be read in conjunction with the audited AFS.

2 Financial Standing

2.1 Statement of Comprehensive Income

The Council broke even for the year with the cumulative revenue surplus remaining at €16m. At the Council's Annual Budget meeting held on the 8 November 2022, the Council approved revised budget expenditure for 2022. On the 11 April 2023, the Council further approved additional expenditure of €6.9m and transfers to the capital account of €7m in accordance with S.104 of the Local Government Act, 2001.

Chief Executive's Response

The additional expenditure was driven by additional capital transfers to a number of key capital projects across the County including libraries, community centres, heritage properties and the Balbriggan economic regeneration scheme. This was funded primarily by additional funding from Central Government and some expenditure savings in other areas.

2.2 Financial Position

The Statement of Financial Position recorded an increase of €91m, resulting in year-end net assets/total reserves of €3,346m (2021: €3,255m). The significant movements are included in the table below:

	31-Dec-22 €	31-Dec-21 €	Increase/ Decrease €	Explanations for Increases or Decreases
Fixed Assets/WIP	€3,145m	€3,070m	€75m	Increase in purchase of land and buildings & WIP construction projects
Long-Term Debtors	€301m	€294m	€7m	Increase in Capital Advance Leasing Facility (CALF) loans & decrease in recoupable loans
Current Assets	€485m	€464m	€21m	Increase in bank/cash
Current Liabilities	(€159m)	(€149m)	(€10m)	Increase in rates revaluation reserve (see paragraph 3.2)
Long-Term Liabilities	(€426m)	(€424m)	(€2m)	Increase in CALF & decrease in loans payable.
	€3,346m	**€3,255m**	**€91m**	

The Statement of Funds Flow Statement on page 12 of the AFS shows an increase in cash & cash equivalents of €19.3m to €411.8m. The increase is mainly as a result of an increase in receipt of refundable deposits and development contributions. The monies held are mainly ring-fenced for specific purposes or created to fund specific capital projects.

Chief Executive's Response

The position reflects the ongoing prudent management of the Council's finances. The overall position needs to be viewed particularly in light of the €1bn three year capital plan, a significant portion of which will need to be funded from the Council's own resources.

In addition, over the past number of years the Council has had to navigate through significant economic disruption due to the COVID-19 pandemic while also maintaining and enhancing services as well as putting financial

mitigations in place to deal with the very significant financial risks arising out of Valuation Tribunal appeals relating to the commercial property revaluation which became effective in 2020.

3 Income Collection

3.1 Summary of Income Collection

Sources of Income	Yield 2022	Yield 2021	Yield 2020	Debtors 31-Dec-22	Debtors 31-Dec-21	Debtors 31-Dec-20
Rates	98%	93%	91%	€3.0m	€7.2m	€6.9m
Rents	76%	77%	80%	€7.9m	€7.2m	€6.0m
Housing Loans	97%	100%	97%	€0.6m	€0.0m	€0.5m

Income from rents and loans is automatically receipted through the Council's financial management system (Agresso). The rent and loan charges are accounted for in the rental system (OHMS) and loans system (Cygnus) respectively. These systems are not fully integrated with Agresso and consequently an adjusting journal is required at year-end to amend the cash receipts amount to the invoiced amount.

It has been continually reported in previous audit reports that the use of both the OHMS and Cygnus systems as currently configured represents a risk to the Council. There are immaterial differences between the amounts recorded in the AFS for rents and housing loans and the amounts recorded on the systems due to reconciliation issues.

Chief Executive's Response

Debt control management in relation to commercial rates, housing loans and rent continues to be a high priority of the Council.

Work is ongoing through the Council's consultants NEC to progress the replacement of the current OHMS system, with testing of the new system (NPS) due to commence in Quarter 4, 2023 and roll-out expected in 2024.

Work is also ongoing to provide a replacement system for Cygnus, the current loans management system, and move to a loans system that has robust alignment with the Council's financial management system. Currently, the Dublin local authorities are working together on the changeover with South Dublin County Council being the pilot local authority. Fingal County Council is monitoring the rollout and implementation. A significant body of work has been completed to progress this and it is expected that the replacement system will be put in place in 2024.

3.2 Rates

The collection yield during the year increased by 5% to 98% with arrears decreasing by €4.2m to €3m. The arrears decrease is mainly as a result of customers who had overpaid their account during the COVID-19 period utilising this overpayment in 2022. The table below also shows the improvement in arrears for every range of debtor balance.

Closing debtor balance (range)	No. of accounts	Total closing balance €	No. of accounts	Total closing balance €	Variance €
Year	2022	2022	2021	2021	Year on Year
=> €10,000	124	3,500,747	173	5,416,305	(1,915,558)
<€10,000 and =>€1,000	417	1,527,872	562	2,052,008	(524,136)
<1,000 and =>€1	193	92,760	345	168,156	(75,396)
<€1, zero, or >(€1)	5,552	10	5,213	9	1
In credit <=(€1)	226	(2,132,009)	167	(481,612)	(1,650,397)
Total	**6,512**	**2,989,380**	**6,460**	**7,154,866**	**(4,165,486)**

Due to the material decrease in rate arrears during the year the Council amended their bad debt provision policy. The Council decreased the bad debt provision by €2.4m to €2.7m. The current provision represents 53% of the rate account customers in arrears. The Council has retained it capital reserve of €14m to cover potential losses due to the future impact on rates income due to COVID-19. The Council should decide on the necessity of this reserve with a 98% collection yield.

Due to the 2020 revaluation of properties, 163 customers originally appealed their new valuation with a potential material loss of income to the Council. 101 appeals have been determined but the remaining appeals are still outstanding including the appeal by the Dublin Airport Authority. During the year, €22.6m was transferred from the revenue account to cover the cost of the €9.7m determined tribunal appeals decisions and €12.9m to further increase the revaluation reserve to €62m.This reserve is to cover future liabilities, where receipts may have to be returned to those rate account customers arising from successful appeals.

To account for a partial reversal of COVID-19 waivers previously received by customers, who had their property valuation decreased on appeal, the Council has recorded income of €1.8m in the Income and Expenditure account. I request that the Council seek clarification from the Department of Housing, Local Government and Heritage (the Department) for this accounting treatment.

Chief Executive's Response

The Council maintained a strong focus on rate accounts following the ending of COVID-19 waivers and the return to normal economic conditions. The rate collection team continue to engage with those in arrears on an ongoing basis to put in place suitable repayment arrangements and takes enforcement measures where there are instances of non-payment of rates.

The COVID-19 reserve was put in place during the pandemic at a time of great uncertainty around the possible financial effect it would have on the Council. This reserve has been partially utilised as part of the 2023 budgetary process to provide funding to capital projects in particular with similar utilisation likely for the 2024 budget.

The Council continues to monitor the financial impact of determinations arising out of Valuation Tribunal appeals relating to the commercial property revaluation which became effective in 2020. The revaluation reserve is in place to mitigate against potential losses of rates revenue arising from these appeals. Since 2020, the Council has had to account for circa €10m of refunds due to valuation tribunal determinations with significant appeals still outstanding.

The income adjustment arising from the partial reversal of COVID-19 rates waivers arising out of valuation appeals determinations were identified to the Department and we await their guidance in relation to this.

3.3 Housing Rents

The collection yield for rents for the year is 76% with tenant accounts in arrears increasing by €873k to €9.5m i.e. excluding those overpaid credit accounts. Council tenants who owe rent for greater than 3 years amount to 75% of the total arrears. The table shows an increase to 170 the number of tenants owing over €10k and 1,690 tenants who owe between €1k and €10k.

Closing debtor balance (range)	No. of accounts	Total closing balance €	No. of accounts	Total closing balance €	Variance €
Year	2022	2022	2021	2021	Year on Year
=>€10,000	170	2,713,257	147	2,402,731	310,526
<€10,000 and =>1000	1,690	5,968,864	1,648	5,497,714	471,150
<€1,000 and =>1	2,579	769,154	2,250	678,376	90,778
<€1, zero, or >(€1)	322	(9)	237	(7)	(2)
In credit <=(€1)	2,584	(1,533,406)	2,893	(1,415,950)	(117,456)
Total	**7,345**	**7,917,860**	**7,175**	**7,162,864**	**754,996**
*Note - Excludes the Parnell Estate apartments rented privately and have minimal arrears					

Due to the debt profile and the high level of rent arrears during the year the Council had to amend their bad debt provision policy. The provision was increased by €1.8m to €7.8m. The current bad debt provision represents 83.2% of rent accounts in arrears, which signifies the Council's level of concern.

Chief Executive's Response

The Council continues to focus on reducing rent arrears. The rent arrears team engage with tenants on an ongoing basis and continue to monitor accounts and escalate actions appropriately.

As part of the Council's rent and tenancy policies, the Council encourages tenants that are in rent arrears to engage with the Council and to put in place payment plans. Tenants are contacted when a payment is missed but where tenants refuse to engage or are unwilling to pay their rents, the Council takes a robust approach to ensure that arrears are recovered up to and including legal action. Since 2021 and through 2022 and 2023, the rents team has redoubled their efforts in engaging with tenants who have significant arrears and who may have previously refused to engage with the team. For many of the tenancies, engagement has re-commenced and payment plans have been agreed and lump-sum payments made.

In a small number of cases where tenants have still refused to engage, legal proceedings have issued and the Council will pursue these cases through the courts.

There have also been issues where delays have occurred following rent review requests from tenants and this has resulted in accounts going into arrears. In order to address this issue a new process was developed in 2022, whereby every tenant has their rent reviewed on a regular basis, at least once every two years. The effect of this change hasn't been felt yet as implementation started in early in 2023. With this change in place, rents are not reviewed outside of this process unless the tenant has a significant loss of income that leaves them unable to pay the rent. The Council expect that the impact of this change will have a meaningful effect on rent management and collections in 2023.

The Council is also looking to further digitise and automate appropriate parts of the rents management process, thus making it easier for Council tenants to submit relevant information and freeing up staff time to engage with the tenants more frequently. As part of enhanced digitisation actions and to help address the issue of tenants with lower levels of arrears, the Council will be implementing the debt collection module as part of a new NPS housing management system which is programmed to go live in Fingal in 2024. Further development in the coming years is expected with a move to an integrated Housing Online System that should streamline engagement with applicants and tenants and facilitate the submission of documents.

3.4 Housing Loans

Arrears increased during the year by €577k mainly due to the resolution of a number of large credit balances redeemed on the loans system. The arrears of €581k results from 241 accounts with arrears of €2m and 960 accounts in credit amounting to €1.4m. The main concern is the 63 accounts with arrears over €10k.

Closing debtor balance (range)	No. of accounts	Total closing balance €	No. of accounts	Total closing balance €	Variance €
Year	2022	2022	2021	2021	Year on Year
=>€10,000	63	1,602,723	61	1,436,438	166,285
<€10,000 and =>1000	94	410,499	116	492,393	(81,894)
<€1,000 and =>1	84	25,539	117	43,510	(17,971)
<€1, zero, or >(€1)	595	(197)	582	(13)	(184)
In credit <=(€1)	960	(1,457,775)	945	(1,968,595)	510,820
Total	**1,796**	**580,789**	**1,821**	**3,733**	**577,056**

There is a bad debt provision in the capital account of €4.2m to cover potential revenue and capital losses for loans that would not qualify for funding under the mortgage arrears resolution process.

Chief Executive's Response

The loans team continue to closely monitor collection rates and proactively engage with borrowers where necessary. The Council continues with actions to maximise collection on housing loan arrears which includes daily monitoring of account balances with graded level of escalation depending on the level of arrears including the commencement of legal proceedings, where appropriate. The level of bad debt provision is considered appropriate but will continue to be kept under review.

4 Control of Council Fixed Assets

The previous audit highlighted the issues that arose from the reconciling work completed by the Council between the Property Interest Register (PIR) and the Fixed Asset Register (FAR). I have outlined below the issues that arose last year and the progress completed by the Council to resolve each of these issues:

- 225 properties included in the PIR are not registered at all with the Property Registration Authority (PRA). The Council has selected 6 law firms to handle the completion of these files with the PRA and have assigned 38 files so far. It is essential the Council continue this work programme without delay to ensure all Council assets are registered with the PRA and reconciliation is completed to the FAR.
- 591 Council properties are included in the PIR but are registered to other individuals or entities with the PRA including 61 properties that originally cost over €10k each. No work has yet to commence on this important issue.
- 575 properties are separately identifiable in the PIR that cost over €10k each that currently cannot be matched to singular properties in the FAR. The Council has competed a large volume of work however no assets have been added to the FAR at year end.

The Council also do not have a housing stock reconciliation for the last 2 years. This is an essential control mechanism for the Council to ensure housing stock is fully accountable.

Chief Executive's Response

The Council continues to issue files to the law firms engaged to progress work on the registration of properties with the PRA. At the end of July 2023, 70 files have now been assigned to them.

Additional staff resources will be in place in the property department in Quarter 3 2023 which will allow the acceleration of this work programme, including the commencement of additions of assets to the FAR. The Council will continue to expedite a resolution of this matter as rapidly as possible.

Work has been ongoing with regard to the housing stock reconciliation and is expected to be completed by the end of Quarter 3 2023.

5 Receipting of Goods and Services

The Council currently cannot rely on the information recorded in the financial management system (FMS) to capture accruals at a particular cut-off date. The controls and procedures to capture and record operational accruals require immediate review and action. The current manual based system is not sufficiently robust and is only operated to capture accruals at year end because the Council's system of receipting both goods and services and also processing of invoices is not sufficiently reliable. The Council need to take action on this issue so that the information contained in the FMS at any particular date can be relied as accurate.

Chief Executive's Response

The auditor's comments are noted and all staff continue to be reminded that where goods have been received that the goods received note process is completed in a timely manner on the financial management system.

It should be noted that where purchase orders are raised for the appointment of consultants and contractors for the delivery of works the manual calculation of accruals is appropriate as assessing the proportion of the works done involves an element of judgement. Departments are requested to assess accruals periodically during the year which feeds into financial reporting.

6 Capital Account

6.1 General

In October 2022 the 2023-2025 capital programme was presented to the members in accordance with Section 135 of the Local Government Act 2001. The balance in the capital account is €266m and the main capital reserves are as follows:

	31-Dec-22	31-Dec-21	Increase/ Decrease
	€	€	€
Development Contributions	184.6m	179.5m	5.1m
Contingency Afford Housing	24.5m	21.9m	2.6m
Insurance Fund	19.1m	19.0m	0.1m
Landfill reserves	14.8m	15.0m	(0.2m)
Asset Management Contingency	14.4m	11.8m	2.6m
Rates COVID-19 Bad debt provision	14.0m	14.0m	-
Miscellaneous Properties Disposal	11.9m	11.9m	-
Community Centres Fund	11.5m	9.2m	2.3m
General Funding Reserve	9.0m	9.0m	-

There is also unfunded expenditure on the purchase of industrial land acquisitions amounting to €77.5m.

Chief Executive's Response

The capital reserves primarily provide the financial underpinning for the delivery of the ambitious capital programme of the Council. A summary of the reserves identified in the table are outlined below.

i. Development contributions are critical to the delivery of infrastructure across the County as outlined in the Capital Plan. The 2023 – 2025 capital plan estimates utilisation of €100m in development levies alone.

ii. There are significant liabilities of both bank debt and unfunded debit balances of circa €76m relating to the legacy stock of unsold affordable housing. The Council continues to engage with the Department on the resolution of this issue.

iii. The insurance fund is in place to chiefly underwrite public liability claims that are made against the Council. The policy of self-insurance is up to €260k and the proactive manner in managing claims has allowed the Council to mitigate against the trend of increased insurance costs in the market, over the past number of years.

iv. The landfill reserve is in place to ensure the Council meets its obligations for the long-term management of historic landfills particularly at Baleally and Dunsink.

v. The asset management contingency in housing is a reserve for the upkeep and maintenance of Fingal County Council's social housing stock which numbers over 5,500 units across the County.

vi. The COVID-19 reserve was put in place at a time of great uncertainty around the possible financial effect the pandemic would have on the Council. This reserve has been partially utilised as part of the 2023 budgetary process to provide funding to capital projects in particular, with similar utilisation likely for the 2024 budget.

vii. The credit balance on property disposals are to be used to offset the very significant unfunded debit balance arising from strategic land acquisitions noted in the audit report.

viii. The community centre fund is in place to fund the development of new community centres as well as the upgrading of community centres already owned by the Council as detailed in the capital plan.

ix. The general funding reserve is in place to mitigate against debit balances elsewhere on the capital account as well as allowing the Council to mitigate against future costs including pension and retirement costs. The Council is estimated to see an increase in pension and retirement costs by €5m annually since 2019.

6.2 Unsold Affordable Properties – General

The Council has 406 housing properties on their Fixed Asset Register that are being managed under the following basis:

- 244 unsold affordable units leased to the Approved Housing Bodies (AHB) under the Social Leasing Scheme to address social housing needs
- 162 unsold affordable units at the Parnell Estate are managed by a property company and an AHB on the Council's behalf.

In March 2022 the Council redeemed €7.2m bridging loans from funding received from the Department to account for the transfer of 31 historical unsold affordable units to social stock. The bridging loan balance at year end amounts to €46.8m. In December 2022 further funding of €4.8m was received from the Department to redeem loans on 71 more units. The Council has yet to use this funding to redeem the loans due to ongoing negotiations on the matter.

At the July 2017 Council meeting, the members approved the renewal of an additional 5 years leases for the original number of unsold affordable units to the Approved Housing Bodies. This 5 year lease on these units has now elapsed.

Chief Executive's Response

This Council continues to actively engage with the Department and the national working group established to consider a long-term solution for unsold affordable properties across the Country.

The discussions are around the utilisation of these funds to redeem unfunded debit balances associated with unsold affordable units also. The position in the Council has been outlined to the Department and we await their response on this matter.

6.3 Unsold Affordable Apartments - Parnell Estate

As reported in previous audit reports, the 162 Council owned apartments in the Parnell Estate, Mulhuddart, were leased by a property company to private tenants. To regularise this situation, the Council made the decision that all vacated apartments were to be allocated to social housing under an AHB caretaker agreement. While the initial (July 2020) 1 year lease for vacated apartments was signed, no agreement could be reached between the Council and the AHB to renew this lease. To maintain progress, as more units became vacant the Council agreed for the AHB to collect the apartment keys and transfer the utilities into their AHB name for their use.

These vacated units were not occupied by a new Council social housing nominee but used by the AHB for decanting purposes while pyrite remediation works were progressing on nearby houses owned by the AHB. Due to the nature of decanting, the vacated apartments have only been sporadically occupied during this period however 11 apartments were never occupied. There is also the matter of pyrite being identified in these Parnell apartments and this needs to be fully assessed and remediation works conducted where necessary. Currently 35 apartments have been vacated and these are being used as follows:

- 14 currently being used for decanting purposes by AHB
- 11 vacant and available for use (subject to minor repairs)
- 8 pyrite affected with further investigation required
- 2 apartments occupied with social housing tenants by AHB

The Council's management agreement with the private property company to manage the private rented apartments has been extended until 31 December 2023. While the provision of these services is not consistent with procurement procedures it provides continuity of services for the existing private tenants.

Chief Executive's Response

The pyrite remediation programme is moving into its final phase and the AHB requires a reducing number of apartments. Any vacant properties that do not require pyrite-related remediation will have pre-let repairs carried out and will be tenanted, primarily, as social housing, with a smaller proportion to be used for cost rental accommodation. This will be completed as soon as possible and no later than the end of Quarter 3, 2024.

The blocks which continue to have private tenants are to be designated cost rental, under an interim scheme, and any that become vacant will be used either for cost rental or social housing, depending on housing need, income eligibility, the relative location of the vacant units within the estate or within apartment blocks, property management considerations and available funding.

The Council have employed an external expert to develop a long-term model for the operation and management of cost rental accommodation. In the interim the existing property management company will manage the units designated as cost rental and either the Council or an AHB will manage the social housing units.

6.4 Dun Emer Affordable Housing Scheme

In February 2021 a development agreement was signed between the Council and the joint venture parties from the winning tender to assist the Council to provide infrastructure and 51 units, comprising 39 affordable and 12 social properties (5 free of charge). At the audit date, all 12 social units have now been completed and are occupied by social tenants. The 39 affordable units have all been assigned to purchasers with 23 units sold. In October 2022 the Department approved the Council's application for the Affordable Housing Fund amounting to €2.9m. The project is expected to be completed before the end of the third quarter 2023.

Chief Executive's Response

The project in Dun Emer forms part of the overall housing delivery strategy in Fingal and the project has progressed well.

6.5 Hayestown Affordable Housing Scheme

In September 2021 the Council purchased land for €1.9m in Hayestown, Rush for an affordable housing scheme. In October 2021, the Council sought expressions of interest for the development, design, construction, delivery and sale of affordable and social houses. The contractor has been appointed and terms have been agreed under a development agreement. In exchange for the land and agreed payment of €3.5m, the developer will provide the 52 affordable homes at a council discounted price, plus the provision of the 10 social houses (7 free of charge). In March 2022 the Department approved the Council's application for the Affordable Housing Fund amounting to €3.9m. The project has commenced and is expected to be completed in 2024.

Chief Executive's Response

This project is also another significant part of the housing delivery programme under 'Housing for All' in Fingal. The offers for the first phase of the affordable sales for this development have been made to the successful applicants with these new homes to be delivered in three phases over the next 12 months.

6.6 Mixed Tenure Residential Development at Ballymastone

The development agreement signed between the Council and developer is to provide 1,194 homes – 60% private (718), 20% private discounted units (238) and 20% social units (238) subject to planning permission. An Bord Pleanála has approved phase 1 of the development for 432 no. residential units (213 houses, 93 apartments & 126 duplexes). The social and affordable units are to be completed on a pro-rata basis.

Chief Executive's Response

Planning consent for this scheme was obtained in June 2023, following approval by An Bord Pleanála with the contractor expected to formally commence on site in Quarter 3 2023. The first phase of 432 new homes will be available in 2024 and the remainder on a phased basis over the next number of years, subject to planning permission.

6.7 Snugborough Interchange Upgrade

The National Transport Authority (NTA) are funding €7.2m of this project, which was originally estimated at €21.7m. The Council is liable to pay from their own resources the balance of the cost of this project, which may also include additional costs due to change orders and contractor claims. This project is ongoing and is currently estimated to be completed in October 2023.

In 2020, the Council appointed engineering consultants for designer services and site supervision services for €499k and €746k exc. VAT, respectively. This appointment was made through a non-competitive tender process. The contracts for both these services to the same consultant has been extended to a current estimated outturn of €970k for designer services and €616k for site supervision services.

Chief Executive's Response

The Snugborough interchange upgrade on the N3 is a significant infrastructure project for the county as well as nationally.

While the background with regards to the appointment of the engineering consultant was outlined in the 2021 Audit Report the modifications on the consultancy services contract on this very complex upgrade were necessary due to COVID-19 delays, diverting third party utilities and property related issues which required additional services which were not foreseeable at the time of the original appointment. The project is currently nearing completion.

6.8 Church Fields Link Road and Cycle Network Project

The NTA are funding €3.9m of this project, which was originally estimated at €11.7m. The Council is liable to pay from their own resources the balance of the cost of this project, which may also include additional costs due to change orders and contractor claims. This project is ongoing and is currently estimated to be completed in April 2024.

In 2019 the Council appointed consultants for road design consultancy services for this project at a contract amount of €319k exc. VAT, through a competitive tender process. The contract for these services for this project has now increased to a current estimated outturn of €1m exc. VAT.

Chief Executive's Response

The development of the Churchfields Link Road and cycling infrastructure is a very significant project which will facilitate the development of hundreds of new homes, a creche, retail units and a new park in Mulhuddart, Dublin 15.

The consultancy services have been extended due to a number of factors that were not foreseeable at the time of the original appointment. These include modifications to incorporate a design review requested by the National Transport Authority, design alterations and improved design guidance not available at previous design iteration. It also includes extended works contract duration and additional construction supervision and quantity surveying services to provide financial oversight and claims management.

6.9 Design and Construction of Cycle Schemes

As part of the NTA's 2020 Stimulus Programme, the Council was awarded funding for the construction of 4 cycle lane schemes. As reported last year, the contractor was appointed by the Council without going to tender. The first 3 schemes, commenced in prior years, have a revised cumulative contract amount of €7.4m. In May 2022 the Council signed a contract for the 4th scheme, Brackenstown Road & St. Cronans Road cycle scheme, for an agreed contract amount of €3.4m.

Chief Executive's Response

The Council continues the implementation of Government policy with regards to rolling out active travel infrastructure across the County. As outlined in last year's Audit Report the initial funding for these projects was part of a Government stimulus package in 2020 which required the rapid delivery of active travel infrastructure.

The Brackenstown Road & St. Cronans Road cycle scheme incorporated a design review of original proposals having regard to updated design guidelines around active travel measures and safe routes to school. This included complex junction upgrades, new and upgraded crossings for vulnerable road users and extended cycle lanes to seamlessly connect with the surrounding cycling network.

6.10 Swords Cultural Quarter (SCQ) Development

Total expenditure incurred on this project of €6.2m mainly relates to the purchase of land, property interests and consultancy fees. The Council has further properties to purchase including St. Michael House (StMH) at Seatown Road. The Council signed a Heads of Agreement with StMH for the exchange of land and property in their respective ownerships to facilitate the delivery of the Swords Civic Centre by the Council and a new day care and clinical support centre by StMH. The Council will pay all reasonable costs in connection with the construction of the new StMH facility, subject to a monetary cap as agreed between the parties.

In relation to the SCQ development, the Council has included in the contract notice for tenders, a residential element at Seatown Road for 36 apartments. Council members resolved that a loan of €40m be raised for the purpose of funding the delivery of the SCQ building while stage 2 funding for the apartments has been approved by the Department.

Chief Executive's Response

The development of the Swords Cultural Quarter remains a flagship project for the Council with a significant amount of progress having been made to date. Planning for the project was received during 2022 with site enabling works currently underway. It is anticipated that procurement of the construction contractor will be underway in Quarter 4 2023.

The Members have given their sanction for a loan facility of up to €40m to be put in place, with the Department having already approved an initial tranche of €20m.

The development of apartments on the Seatown Road site will lead to a more appropriate density at this town centre location.

The adjacency of both sites lends itself to joint procurement which is sensible from programme, cost, efficiency of development and traffic management perspective.

7 Development Contributions Financial Systems

It has been continually reported in previous audit reports that the financial systems for development contributions as currently configured represents a risk to the Council. The planning management system operated by the Council is not integrated with the Council's financial management system. Another separate Contributions Bonds System is used to generate invoices and control the financial element of the planning permissions. None of the systems operate a credit control function and this is performed manually. An urgent course of action is now required.

Chief Executive's Response

A replacement system has been identified and it is expected that it will be in place end Quarter 4 2023. The system will allow for the automation of receipts from the financial management system to the planning system.

8 Corporate Affairs & Governance

8.1 General

Corporate governance comprises the systems and procedures by which enterprises are directed and controlled. It is the responsibility of management and the elected members to ensure that sound systems of financial management and control are in place.

8.2 Internal Audit Function

In April 2023 a new head of Internal Audit was appointed and the unit currently has only 2 staff members. The majority of the audit work is now outsourced to an external provider with a contract for 2 years estimated to cost €214k exc. VAT. The council staff in the Internal Audit unit will coordinate this audit work with the individual departments, track actions on the governance action reports, continue to manage the risk management process, and carry out quality assurance work on the Public Spending Code. There were 7 internal audit reports completed during the year but only 2 were of a financial nature. The unit is currently heavily reliant on the external consultants to provide the necessary support to conduct audit work.

Chief Executive's Response

The Internal Audit Unit now has a staff of three, the Internal Auditor and two Staff Officers. It is envisaged that this will result in a broader balance of work being undertaken- both internally and externally, and should ensure more internal audit reports are produced in coming years. The Internal Auditor is developing new planning processes to ensure greater financial coverage in future, and the plan for 2023 includes 4 audits of a financial nature.

8.3 Audit Committee

The Audit Committee met 6 times during 2022 which included meeting separately with the Chief Executive and the Head of Finance. At the February 2023 Council meeting, the 2022 annual report of the Audit Committee was presented. The Audit Committee continues to deliver on its governance functions by monitoring the progress on the internal audit plan and reviewing the Council's risk registers. The Council's governance action reports are an important tool for the committee on their engagement with the Council Executive to ensure that each Director of Service are resolving recorded audit issues in their directorate in a timely manner.

Chief Executive's Response

The Audit Committee is an important part of the risk management architecture within the Council. The secretary to the committee and the Internal Auditor will continue to support the Committee to deliver on its governance functions.

8.4 Local Authority Companies

The Council recorded either the 2020 or the 2021 results for the Council's 26 associated companies in the Council's draft 2022 AFS. I requested this year that the Council contact the company secretaries of each company outlining importance of completing their annual accounts as soon as practicable for inclusion in the Council's AFS.

Chief Executive's Response

As requested by the Auditor, the company secretary of each company has been written to requesting a copy of their financial statements and this will be done again in advance of the 2023 AFS.

While we may request that the annual accounts for these companies be completed in time for inclusion in the Council's AFS this is in reality a very significant ask of companies that are relatively small with limited resources. From a practical point of view this would require that the accounts are prepared, audited, financial statements completed, approved by their board of directors

and published within a relatively short period after the year end. There is a significant deviation between the Accounting Code of Practice and statutory requirement with regards the timeline for the finalisation of the year end accounts for these companies.

It should be noted that our primary tool to mitigate risk associated with the Council's interest in these companies is ensuring that we have adequately trained board members in place.

8.5 Procurement

In July 2022 the Chief Executive and the Executive Management approved the Council's 2022-2024 corporate procurement plan. It is the function of the centralised procurement unit to deliver on this plan and this includes responsibility for the strategic and operational procurement policy and compliance across the organisation. Monthly procurement compliance reports are produced by the unit and distributed to the Management Team. However, as highlighted in this report there are instances of non-compliance and the Council should ensure that it always follows its own procurement procedures and policies.

Chief Executive's Response

The auditor's comments with regards the importance of the Council following its own procurement procedures and policies are noted and we continue to endeavour to ensure that these are adhered to.

It is the responsibility of each Director to ensure that the public procurement obligations and the relevant procedures and practices are complied with in their areas of responsibility.

In addition to regular reporting to management team, the Head of Procurement meets regularly with the Audit Committee. Also, the monthly Chief Executive report to the Members includes detailed procurement information.

8.6 Fraud and Corruption Policy

The Council was notified at the last audit that its fraud and corruption policy is out of date. There has been a draft policy in place since July 2020 but this needs to be completed and approved as a matter of urgency.

Chief Executive's Response

The draft policy is currently being reviewed and will be approved shortly.

Acknowledgement

I wish to record my appreciation for the courtesy and co-operation extended to audit by the management and staff of the Council.



Daragh Mc Mahon

Principal Auditor

25 September 2023

gov.ie/housing

COMHAIRLE CONTAE FHINE GALL
FINGAL COUNTY COUNCIL

Audit Committee Report on the Audited AFS

Section 121 (3) of the Local Government Act 2001, as amended by Section 60 of the Local Government Reform Act 2014, requires the Audit Committee to report to the Council on its consideration of the audited Annual Financial Statement (AFS) and the Statutory Audit Report.

On 22nd November 2023, the Audit Committee met with the Local Government Auditor, Mr. Daragh McMahon, and considered and discussed the audited Annual Financial Statement and Statutory Audit Report for Fingal County Council for the year ended 31st December 2022.

The audit was carried out in accordance with the Code of Audit Practice, as prescribed under Section 117 of the Local Government Act, 2001.

The Audit Committee is pleased to note the unqualified opinion of the local government auditor as follows:

'In my opinion the annual financial statement, which has been prepared in accordance with the Code of Practice and Accounting Regulations for local authorities, presents fairly the financial position of the Fingal County Council at 31 December 2022 and its income and expenditure for the year then ended.'

Overview of key discussion points:

- The Audit Committee discussed the contents of the Statutory Audit Report with Mr. McMahon, who provided explanations and clarifications on his findings and on the Chief Executive's responses to his findings.

- The Audit Committee reviewed the findings with a view to prioritisation based on the findings of the Local Government Auditor. As per its

legislative requirements, the Audit Committee will be overseeing the implementation of the Local Government Auditor's findings and associated recommendations.

- In relation to Fixed Assets, some time was spent discussing this area. It was noted that the County Council has started the complex and detailed process of reconciling properties from the Property Interest Register (PIR) to the Fixed Assets Register. This process has highlighted:

  - properties included in the PIR but registered to other individuals or entities with the Property Registration Authority (PRA);
  - properties identifiable in the PIR that cannot be matched to singular properties in the FAR; and
  - properties included in the PIR which are not registered at all with the PRA.

  It is essential the Council continue this work to ensure all Council assets are registered with the PRA and the full reconciliation is completed.

- Other matters discussed included accounting systems for recording receipt of goods and services, matters related to affordable housing, and the process around bank reconciliations.

- The Audit Committee wish to confirm that the Audited Annual Financial Statement, the Statutory Audit Report, and our general discussion with Mr. McMahon, will continue to inform the Audit Committee's work and will be considered during the development of the Internal Audit Plan for 2024.

- The Audit Committee will also monitor the implementation of recommendations made by Mr. McMahon during the coming year through meetings with the Internal Audit Team, and through regular management reports and presentations.

Donagh Waters
Chairperson, Fingal Co Co Audit Committee

COMHAIRLE CONTAE FHINE GALL
FINGAL COUNTY COUNCIL

COUNTY COUNCIL MEETING

TUESDAY 16TH JANUARY 2024

ITEM NO. 18c

FINANCIAL ASSISTANCE TO APPROVED HOUSING BODIES UNDER THE CAPITAL ASSISTANCE SCHEME - CALL FOR CAS 2017 TO PROVIDE UNITS OF LIVING ACCOMMODATION IN THE FINGAL AREA

The Department of Housing, Planning & Local Government Circular: Housing 30/2017, advised of the availability of capital funding for the construction or acquisition of social housing to cater for the priority groups under the Capital Assistance Scheme (CAS) such as homeless persons, elderly persons, and people with a disability, with a particular emphasis, but not exclusively, on moving people with a disability from a congregated setting to community living. All proposals must comply with the terms of the CAS scheme as set out in memorandum VHU 2/02 and must reflect actual housing need as identified in the latest Housing Needs Assessment.

Applications received from Approved Housing Bodies are considered by the Council. Applications have been received for the following projects in Fingal and the Department of Housing, Local Government & Heritage is committed to providing funding under the Capital Assistance Scheme for these projects:

Approved Housing Body	***Location***	***Category of Need***	***No. of Housing Units of Accommodation***	***Approved Funding €***
DePaul	Boroimhe Laurels, Swords, Co. Dublin	Homeless	1	€339,048.75
DePaul	Crescent Forster Way, Swords, Co. Dublin,	Homeless	1	€251,838.50

DePaul	Beverton Court, Donabate, Co. Dublin	Homeless	1	€259,635.50
Peter McVerry Trust	Lymewood, Northwood, Santry, Dublin 9	Care Leavers	1	€324,953.71
Hail	Boroimhe Hawthorns, Swords, Co. Dublin	Homeless	1	€374,388.76
DePaul	Ballisk Court, Donabate, Co. Dublin	Homeless	1	€232,185.50
DePaul	Holywell Villas, Feltrim Hall, Swords, Co. Dublin	Homeless	1	€296,711.14
Focus	Kelly's Bay Moorings, Skerries, Co. Dublin	Homeless	1	€298,453.74
Focus	Cooldriona Court, Swords, Co. Dublin	Homeless	1	€227,153.74
Focus	Holywell Rise, Swords, Co. Dublin	Homeless	1	€253,230.00
Focus	Baron's Hall Grove, Balbriggan, Co. Dublin	Homeless	1	€205,131.26

The housing bodies listed in the above table are Approved Voluntary Housing Bodies for the purpose of Section 6 of the Housing (Miscellaneous Provisions) Act, 1992. Under Section 6 of the Housing (Miscellaneous Provisions) Act, 1992, the Council may give financial assistance to approved voluntary organisations to provide housing accommodation, or any substitute property up to a similar amount, in accordance with the requirements of Section 6 of the Housing (Miscellaneous) Act, 1992.

These loans are subject to mortgage agreements on the properties for a term of 30 years. Under the Capital Assistance Scheme, repayments on the loans will be waived by the Council for as long as the terms and conditions outlined in the mortgage agreements are complied with to the satisfaction of the Council. A capital grant for the full amount of each loan will be received from the Department of Housing, Local Government & Heritage.

COMHAIRLE CONTAE FHINE GALL
FINGAL COUNTY COUNCIL

COUNTY COUNCIL MEETING

TUESDAY 16TH JANUARY 2024

ITEM NO. 19

PROPOSED DISPOSAL OF PROPERTIES

COMHAIRLE CONTAE FHINE GALL
FINGAL COUNTY COUNCIL

Property Services,
Economic, Enterprise Tourism
& Cultural Development Dept,
County Hall,
Swords,
Fingal,
Co. Dublin.

File Ref: LD 1499

4th January 2024

TO: Each Member of the Council

RE: Proposed disposal of land at Old Road, Hayestown, Rush, Co. Dublin, to Manley Construction Limited

Housing for All - a New Housing Plan for Ireland, is the government's housing plan until 2030. The delivery of new social and affordable houses is a key priority of the plan. As part of the Housing for All Plan, Fingal County Council has developed a Housing Action Plan 2022 - 2026 setting out details of social and affordable housing delivery over the next 5 years. The plan summarizes the current and projected housing delivery, which will be delivered to meet the targets set by the Department of Housing, Local Government and Heritage (DHLGH) for the delivery of new-build social and affordable housing in Fingal.

This plan provides for the delivery of affordable homes under mixed-tenure schemes and includes schemes supported by funding under the Affordable Housing Fund (AHF). Under the Affordable Housing Fund, Fingal County Council will make homes available at a reduced price for buyers who are seeking to purchase a newly built home but need to bridge the gap between their mortgage and deposit to cover the full price of the home.

The Affordable Housing Act 2021 ("the Act") (No. 25 of 2021) was enacted on 21st July 2021. Part 2 of the ("the Act"), and Regulations (S.I. No. 22 of 2023) Affordable Housing (No. 2) Regulations 2022, Scheme of Priority refers.

A Scheme of Priority was approved by the Elected Members of Fingal County Council on 13th June 2022. The purpose of the Scheme of Priority is to set out the manner in which affordable dwelling purchase arrangements are made available by Fingal County Council and the methodology that will be applied to determine the order of priority to be accorded to eligible households where the demand for such arrangements exceeds the dwellings or resources available. This Scheme of Priority is made under Section 11 of the Act.

The Council successfully obtained approval for Affordable Housing funding for the construction of 52 no. Affordable and 10 no. social units on Fingal County Council's own land at Hayestown in Rush, Co. Dublin.

The site comprises of 3 no. land parcels. Chief Executive's Order EETD /189/2019 approved the purchase of Folio DN204F (0.77 hectares) for aconsideration in the amount of €1,900,000.00. Chief Executive's Order HAF/650/2018 & HAF/145/06 approved the acquisition through a Part V Agreement of Folio's DN4800 and DN67217F, comprising a site area of 3.89 acres from William B. Kilmurray, for a consideration in the amount of €100.00 on February 9th 2006. This acquisition was for housing purposes.

The Council land at this location now comprises c. 2.31 Hectares (c. 5.72 acres) approximately. The proposed site for the development is a T-shaped site located in the townland of Hayestown, Rush, Co. Dublin, at Old Road, approximately 280m from the junction with Whitestown Road. The site is bounded on the north by the Hayestown housing development, to the west and south-west by farmland, to the east and south-east by one-off housing and small developments, and to the north-east by the Hayestown soccer pitch. The southern end of the T-shaped site provides access from Old Road. The site has full planning permission (Planning Reference PARTXI/005/20) for 62 no. units which also includes all associated site development works, including access road, footways, site boundaries, open space, drainage, public lighting, utilities and services.

A procurement process was initiated by Fingal County Council to appoint a Development Partner with a view to progressing the construction of a mixed tenure development of 52 no. affordable and 10 no. social housing units. On foot of that procurement process Chief Executive's Order HSG/1249/2022 appointed Manley Construction Limited as the Development Partner on the Hayestown Development Project on the 14th September 2022.

Planning permission (Planning Reference PART X1/005020) for the provision of 62 no. units at Old Road, Hayestown, Rush, Co. Dublin, with a tenure mix of 52 no. Affordable Units and 10 no. Social Units was granted on the 12th April 2021.

The development will provide for 52 no. Affordable Housing Units and 10 no. Social Housing Units. The types of residential units in this development are as outlined below:

Affordable Housing Units:

6 No. 3 bedroom units (c.99.4m_2)
34 No. 3 bedroom units (c. 98.2 m_2)
4 No. 2 bedroom units (c. 79.2 m_2)
8 No. 2 bedroom units (c. 88 m_2)

Social Housing Units:

5 No. 3 bedroom duplex units
5 No. 2 bedroom apartments

It is proposed to dispose of land at Old Road, Hayestown, Rush, Co. Dublin to Manley Construction Limited in accordance with Section 211 of the Planning and Development Act, 2000 and subject to the provisions of Section 183 of the Local Government Act, 2001 on the following terms and conditions:

1. The purpose of the disposal is for housing purposes.

2. The land to be disposed of comprises 2.31 hectares (5.72 acres) approximately, as shown outlined in red on Drawing No. LA-495-23 dated 11th December 2023, with the exception of those units designated as social units as identified in the Phasing Map at Schedule 5 of the Development Agreement and the land required for the provision of an ESB sub-station and associated wayleave to service the development. Where a development phase contains social units, Fingal shall retain ownership of the social units with works licences, easements and rights of way to be entered into as required to support the completion of the development to taking in charge standards.

3. The Developer's Consideration payable to the Council in respect of the land shall be the delivery of 7 no. social units free of charge to the Council, which has an equivalent monetary value of €2,000,000.00 ex. VAT, the delivery of the social units shall be in accordance with the Development Agreement.

4. Manley Construction Limited has been identified as the preferred tenderer following procurement process FCC/154/20.

5. Planning permission PARTX1/005/20 has been granted for the provision of 62 no. units at Hayestown, Rush, Co. Dublin, with a tenure mix of 52 no. Affordable Units, 10 no. Social Units, inclusive of the development of services, infrastructure and road delivery associated site development works including access road, footways, site boundaries, open space, drainage, public lighting, utilities and services in accordance with Schedule 17 of the Development Agreement to Fingal County Council's Taking-In-Charge and taking into maintenance requirements.

6. The Developer shall carry out the Development on the development site in accordance with Fingal County Council's Employers Requirements, the planning permission (Planning Reference PARTX1/005/20), the Developer's Tender and the terms and conditions set out in the Development Agreement.

7. Fingal County Council has agreed with the Developer, following practical completion of the affordable units in each phase, to transfer title to Manley Construction Limited,

except for the Fingal County Council social units (10 no.) where Fingal County Council shall retain title to these units, in accordance with the Development Agreement. The consideration payable by the Council to the Developer in respect of 3 no. social units will be the amount of €859,030.83 ex. VAT, paid in accordance with the Development Agreement, with 7 no. social units being delivered free of charge.

8. The 52 Affordable units shall comprise of:

   4 x 2-Bed units with a base price of €269,500
   4 x 2-Bed units with a base price of €267,000
   4 x 2-Bed units with a base price of €269,500
   20x 3-Bed units at a base price of €284,500
   6 x 3-Bed units at a base price of €287,000
   6 X 3-Bed units at a base price of €299,500
   6 x 3-Bed units at a base price of €297,000
   2 x -3 Bed units at a base price of €294,500

   The consideration in respect of the above-listed Affordable Units will be payable to the Developer including VAT by the Council. Fingal County Council may take equity in each Affordable Unit.

9. The Affordable Housing Units will be sold by the Developer to Affordable Housing Applicants (the Nominees) nominated by Fingal County Council all in accordance with the Affordable Housing Act 2021.

10. The consideration payable by the Council to the Developer in respect of the Affordable Units and the Affordable Unit base prices are fixed for the term of the Development Agreement.

11. The term of the Development Agreement shall be for a duration of 1.5 years (80 weeks) from the date of execution of the Development Agreement.

12. The Developer is obliged to comply with all insurance related obligations in the Development Agreement. The Developer is responsible for maintaining All Risks insurance in respect of damage to the Works being completed on the Development Site (until practical completion of each part of the Works). The Developer (who is also the building contractor) is obliged to maintain market levels of Public Liability Insurance and Employer's Liability Insurance in accordance with the Development Agreement and each policy is required to contain provisions which require a specific indemnity in favour of Fingal County Council. The Developer is also obliged to maintain Professional Indemnity Insurance in accordance with the terms of the Development Agreement.

13. The development shall be subject to the Council's Development Contribution Scheme in operation at the time.

14. A planning bond in respect of the development will be lodged to secure the Developer's compliance with conditions in the grant of planning permission.

15. The Council shall grant a licence to the Developer (and its sub-contractors, professional team etc.) to enter the site for the purpose delivering the development.

16. The Development Agreement is non-assignable or transferrable by the Developer to any other party, save in the case of a financial institution which has entered into a mortgage with the Developer for the purposes of financing the development, which mortgage must be approved by Fingal County Council in writing and must have been entered into specifically for the purpose of financing the Developer to undertake the development of the site.

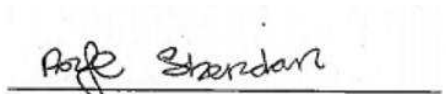
17. That each party will be responsible for their respective fees in the transaction.

18. That each party shall be responsible for their own VAT, Stamp Duty or other costs arising on the Affordable Units only.

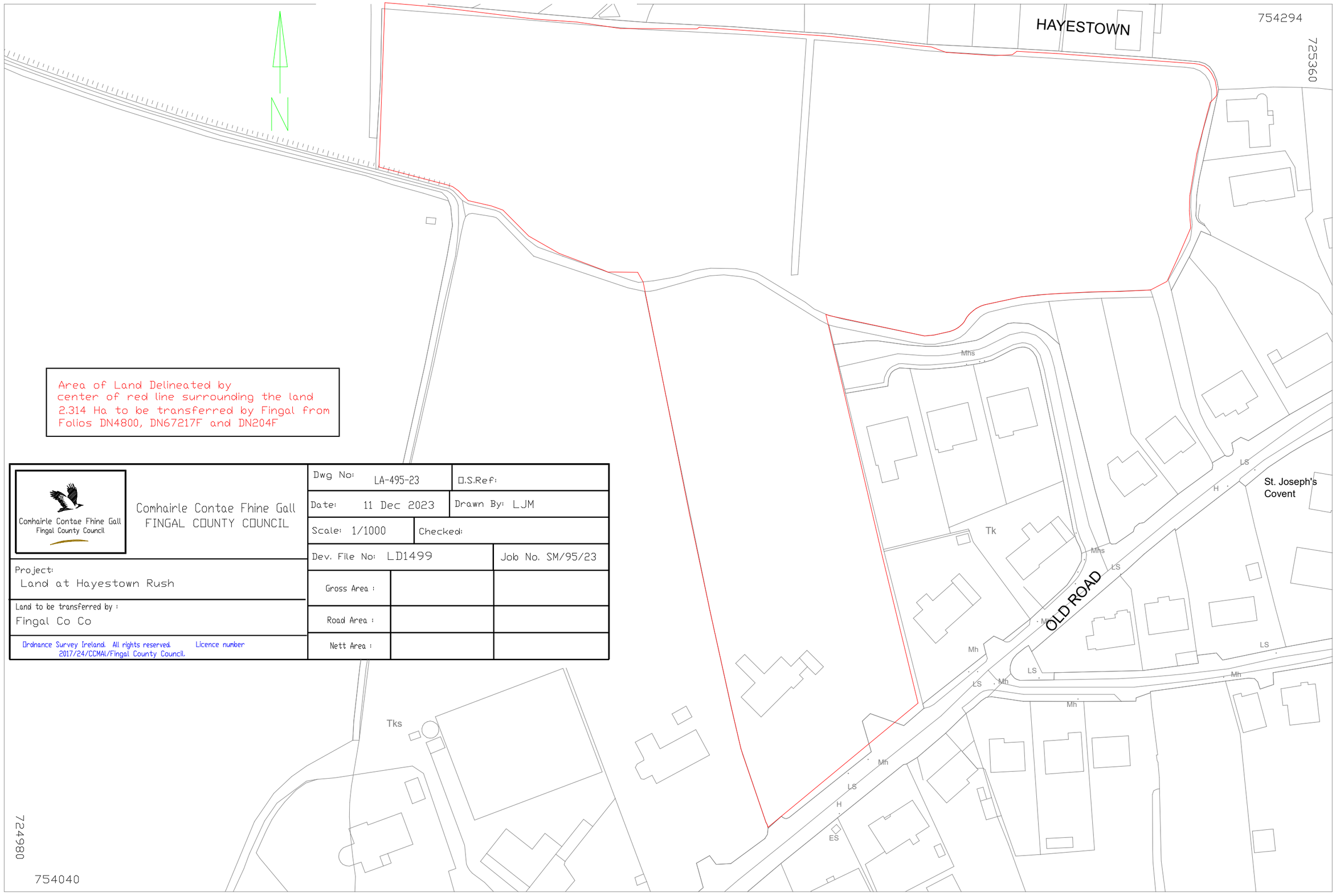
19. All other terms and conditions will be set out in the Development Agreement and associated legal documentation.

The land to be disposed of was acquired from William B Kilmurray in 2006 and SPV Ltd in 2019 for housing purposes.

A report on this matter will be included on the agenda for the Meeting of the Balbriggan, Rush/Lusk, Swords Area Committee (Services B) scheduled to be held on Thursday 11th January 2024.



Senior Executive Officer,
Economic, Enterprise, Tourism &
Cultural Development Department



Comhairle Contae Fhine Gall
Fingal County Council

Comhairle Contae Fhine Gall
FINGAL COUNTY COUNCIL

Dwg No: LA-495-23		O.S.Ref:	
Date: 11 Dec 2023		Drawn By: LJM	
Scale: 1/1000	Checked:		
Dev. File No: LD1499		Job No. SM/95/23	
Gross Area :			
Road Area :			
Nett Area :			

Project:
Land at Hayestown Rush

Land to be transferred by :
Fingal Co Co

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COMHAIRLE CONTAE FHINE GALL
FINGAL COUNTY COUNCIL

Property Services Division,
Economic, Enterprise, Tourism &
Cultural Development Dept,
County Hall,
Swords,
Fingal,
Co. Dublin.

File Ref: LD 0964

4th January 2024

TO: Each Member of the Council

Re: Proposed disposal of land to rear of No. 1 Seaview Park, Portrane, Co. Dublin to Mr. Tony Fagan and Ms. Jackie Fagan

An application has been received from Mr Tony Fagan and Ms Jackie Fagan to acquire land to the rear of No. 1 Seaview Park, Portrane, Co. Dublin.

It is proposed to dispose of land comprising a total area of 72 square metres approximately as shown outlined in red on Drawing No. LA-461-23, dated 28th August 2023 in accordance with Section 211 of the Planning and Development Act, 2000 and subject to the provisions of Section 183 of the Local Government Act, 2001, on the following terms and conditions:

1. The proposed disposal is to facilitate the construction of a new dwelling.

2. The land is shown outlined in red on Drawing No. LA-461-2023, dated 28th August 2023 and comprises 72 square metres approximately.

3. The consideration will be in the amount €7,500.00 (seven thousand, five hundred Euro) plus VAT and Stamp Duty, if applicable.

4. The purchaser will make a contribution of €1,500.00 towards the Council's costs in this matter.

5. The purchaser will be responsible for all boundary treatments.

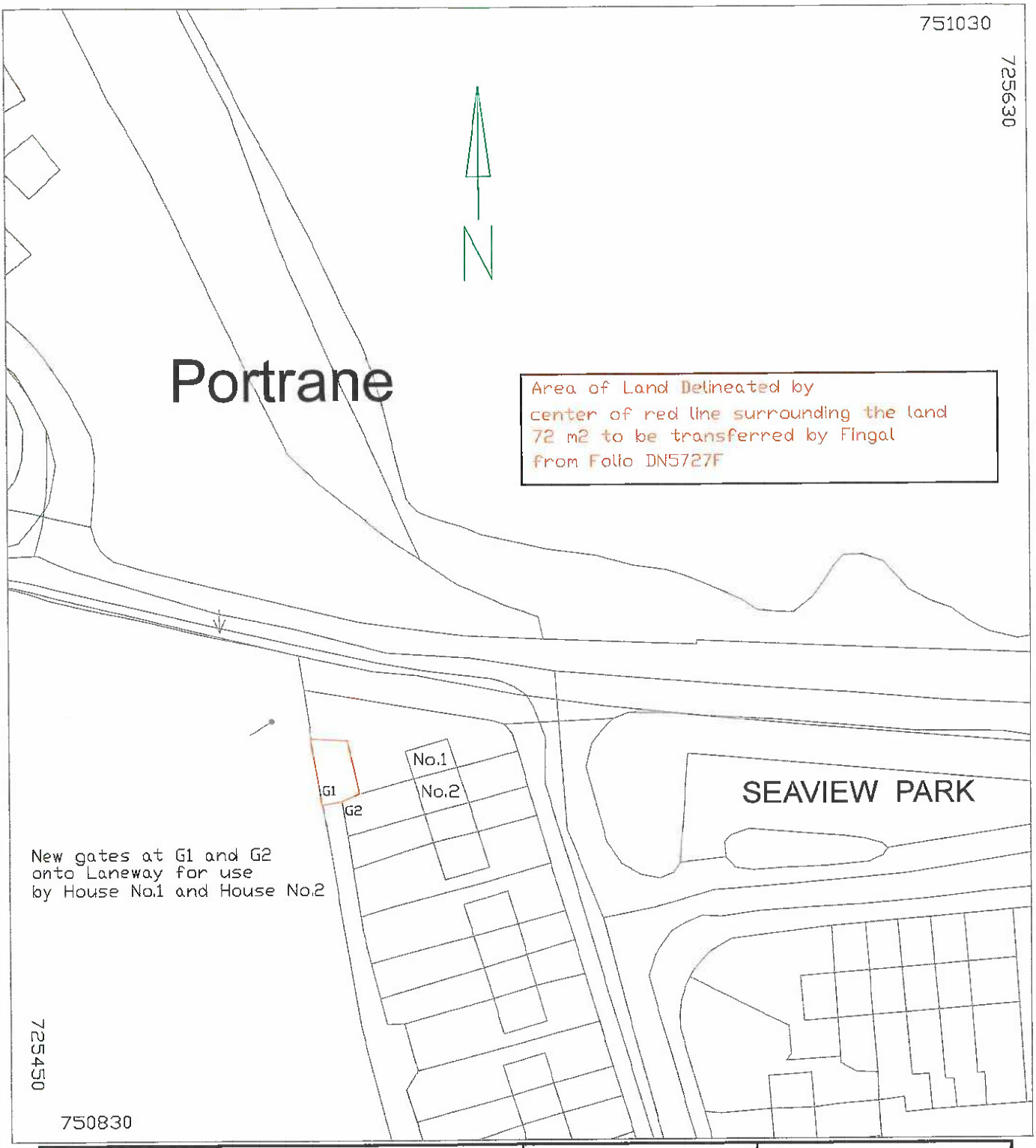
6. The Council will prepare the required Property Registration Authority mapping and provide same to the purchaser.
7. Any other terms and conditions will be set out in the legal documentation.

The land to be disposed forms part of Folio DN5727F and was acquired by the Council from the Dublin Health Authority in 1970 for housing purposes.

A report on this matter will be included on the agenda for the Meeting of the Balbriggan Swords Area Committee (Services B) scheduled to be held on Thursday 11th January 2024.

Pat Brendan

Senior Executive Officer,
Economic, Enterprise, Tourism &
Cultural Development.



Comhairle Contae Fhine Gall
Fingal County Council

Comhairle Contae Fhine Gall
FINGAL COUNTY COUNCIL

Dwg No: LA-461-23		O.S.Ref:	
Date: 28 Aug 2023		Drawn By: LJM	
Scale: 1/1000		Checked:	
Dev. File No: LD.0964		Job No. SM/61/23	
Gross Area :			
Road Area :			
Nett Area :			

Project:
Land at No 1 Seaview Park Portrane

Land to be transferred by :
Fingal Co Co

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2017/24/CCMAI/Fingal County Council.

COMHAIRLE CONTAE FHINE GALL
FINGAL COUNTY COUNCIL

Property Services Division,
Economic, Enterprise, Tourism &
Cultural Development Dept,
County Hall,
Swords,
Fingal,
Co. Dublin,

File Ref: LD 1454

4th January 2024

To: Each Member of the Council

Re: Proposed disposal of land adjacent 1 Moyclare Road, Baldoyle to Kerrie Fox

---

An application was received from Kerrie Fox to acquire land adjacent 1 Moyclare Road, Baldoyle, Co. Dublin.

It is proposed to dispose of land comprising 30 square meters approximately as outlined in red on Drawing No LA-284-22 dated 22nd September 2022, contained within Folio DN2187 to Kerrie Fox, in accordance with Section 211 of the Planning and Development Act, 2000 and subject to the provisions of Section 183 of the Local Government Act, 2001 on the following terms and conditions:

1. That the purpose of the disposal is for the provision of additional garden space.

2. That the subject land is shown outlined in red on Drawing No. LA-284-22 dated 22nd September 2022, comprising 30 square metres approximately.

3. That the Council shall dispose of the subject lands for a consideration of €3,000.00 (three thousand euro) plus VAT and Stamp Duty (if applicable).

4. That the land shall be disposed of with full unencumbered freehold title.

5. That the purchaser shall be prepared to pay the Council's reasonable legal costs, valuer's fee and surveyor's fee incurred in this transaction, estimated at c. €3,500.00 plus VAT (if applicable).

6. That this disposal is subject to the necessary approvals and consents.

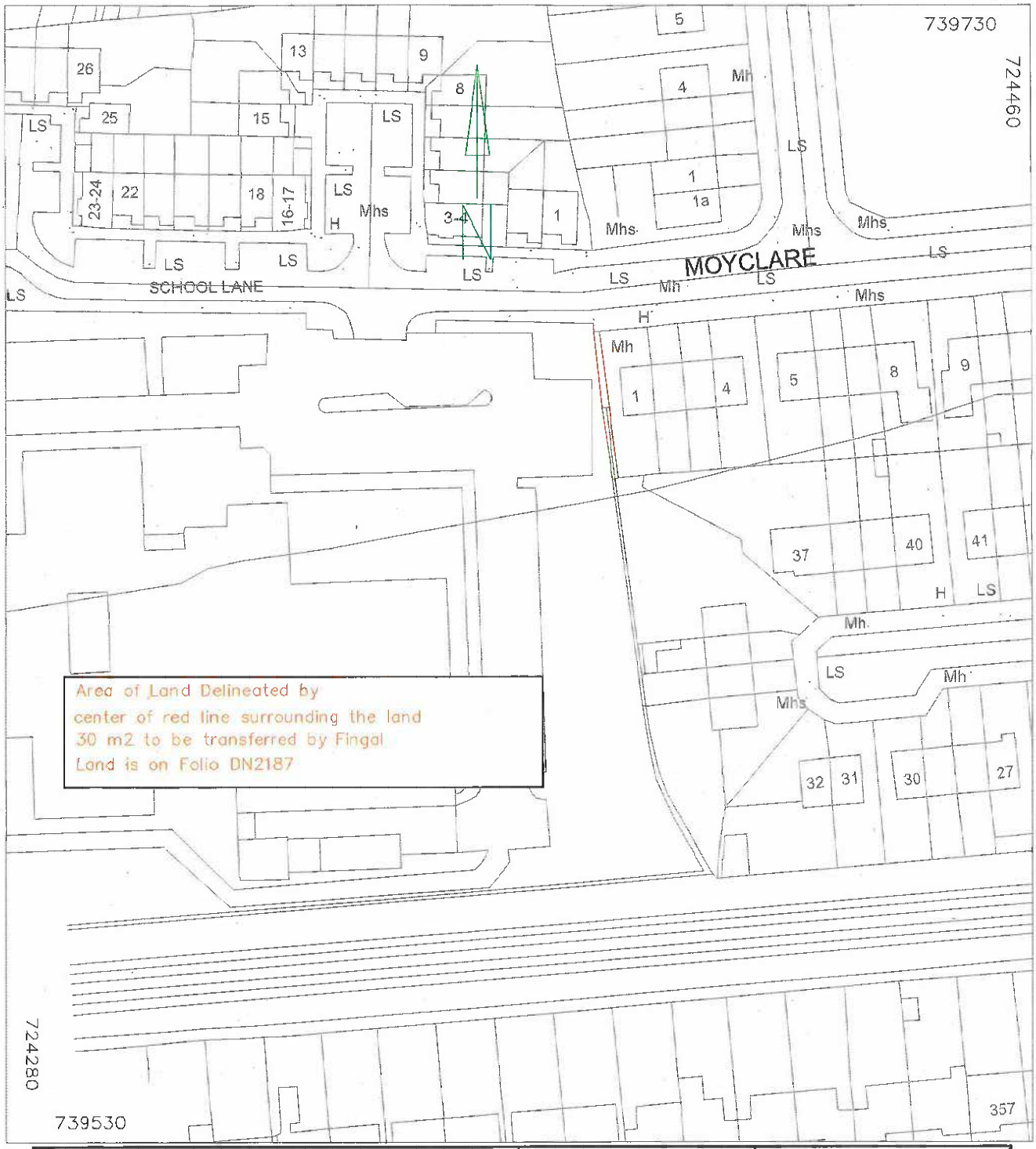
7. That all other terms and conditions shall be set out in the legal documentation.

The land to be disposed of was transferred from Dublin Corporation to Fingal County Council under the Local Government (Dublin) Act 1993 – Transfer of Housing Interests of Dublin Corporation to Fingal County Council.

A report on this matter is included on the agenda for the meeting of the Blanchardstown-Mulhuddart/Castleknock/Ongar Area Committee (Services B) to be held on Tuesday 9th January 2024.

Aoife Brendan

Senior Executive Officer,
Economic, Enterprise, Tourism &
Cultural Development.



Comhairle Contae Fhine Gall Fingal County Council	Comhairle Contae Fhine Gall FINGAL COUNTY COUNCIL	Dwg No: LA-284-22	O.S.Ref:
		Date: 22 Sept 2022	Drawn By: LJM
		Scale: 1/1000	Checked:
		Dev. File No: LD1454	Job No. SM/84/22
Project: Land at Moyglare Road D13		Gross Area :	
Land to be transferred by : Fingal Co Co		Road Area :	
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COMHAIRLE CONTAE FHINE GALL
FINGAL COUNTY COUNCIL

Property Services Division,
Economic, Enterprise, Tourism &
Cultural Development Dept,
County Hall,
Swords,
Fingal,
Co. Dublin.

File Ref: LD 1503

4th January 2024

To: Each Member of the Council

Re: Proposed disposal of land at No. 4 Hacketstown Cottages, Skerries, Co. Dublin to Jennifer Howell

---

An application was received from Jennifer Howell to acquire land at No. 4 Hacketstown Cottages, Skerries, Co. Dublin.

It is proposed to dispose of land comprising 31 square meters approximately as outlined in red on Drawing No LA-100-22 dated 24th October 2023, contained within Folio DN132158F to Jennifer Howell, in accordance with Section 211 of the Planning and Development Act, 2000 and subject to the provisions of Section 183 of the Local Government Act, 2001 on the following terms and conditions:

1. That the purpose of the disposal is for the provision of additional garden space.

2. That the subject plot of land is shown outlined in red on Drawing No. LA-100-22 comprising an area of 31 square metres approximately.

3. That the Council shall dispose of the subject land for a consideration of €2,500.00 (two thousand, five hundred euro) exclusive of VAT and Stamp Duty (if applicable).

4. That the existing right of way shall remain on the properties between No. 4 and No. 4A Hacketstown Cottages and is not affected by this transaction.

5. That the purchaser shall be responsible for any VAT or stamp duty arising.

6. That the purchaser shall be prepared to pay the Council's legal fee, valuer's fee and surveyor's fee incurred in this transaction.

7. That the above proposal is subject to the necessary approvals and consents being obtained.

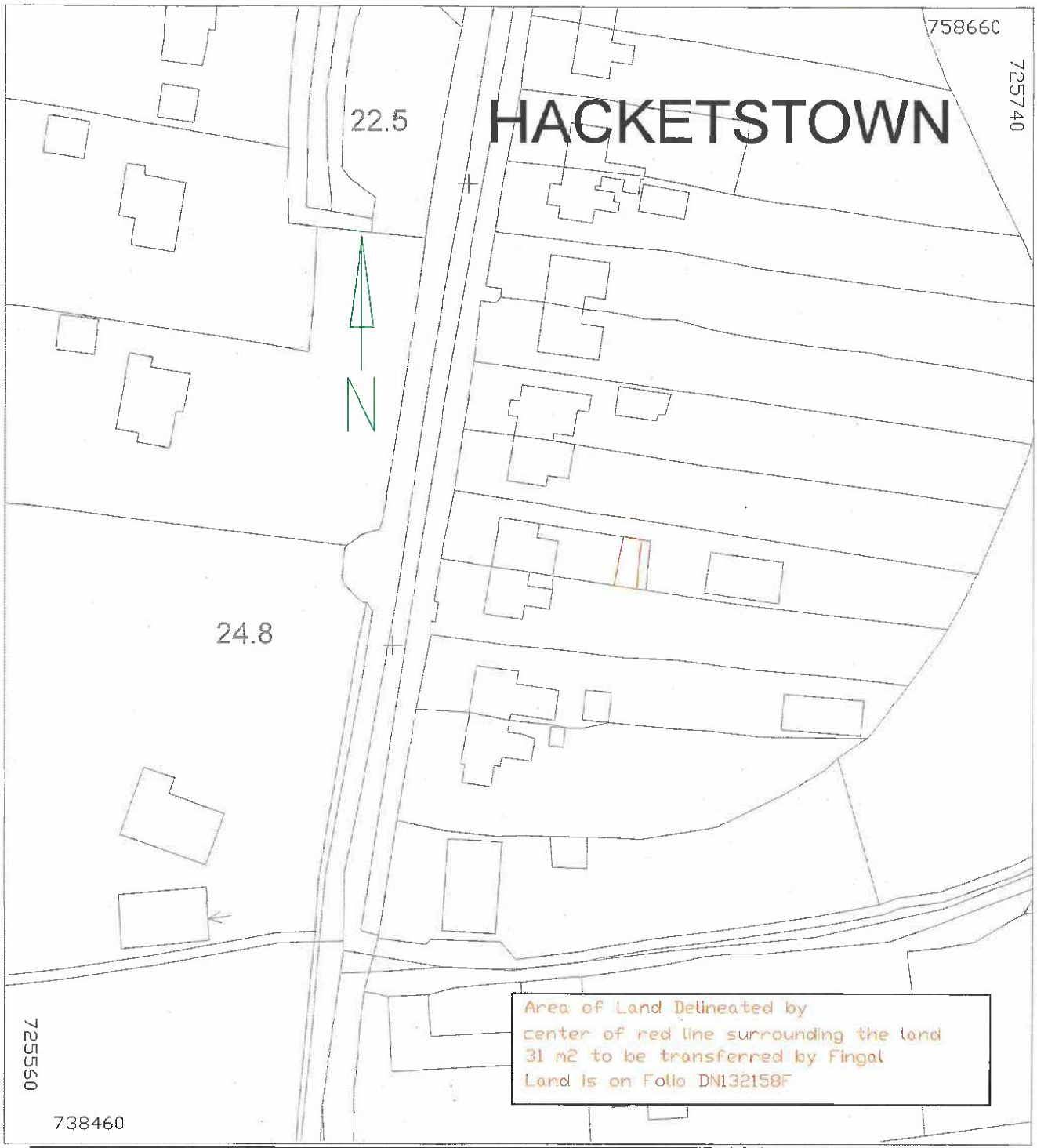
8. That all other terms and conditions shall be set out in the legal documentation.

The land to be disposed of was acquired in 1999 from the Gilsenan Family for housing purposes.

A report on this matter is included on the agenda for the meeting of the Balbriggan/Rush-Lusk/Swords Area Committee (Services B) to be held on Thursday 11th January 2024.

Paula Strandar

Senior Executive Officer,
Economic, Enterprise, Tourism &
Cultural Development.



Comhairle Contae Fhine Gall Fingal County Council	Comhairle Contae Fhine Gall FINGAL COUNTY COUNCIL	Dwg No: LA-100-22	O.S.Ref:
		Date: 24 Oct 2023	Drawn By: LJM
		Scale: 1/1000	Checked:
Project: Land at Rush Road Skerries		Dev. File No:	Job No. SM/100/22
Land to be transferred by : Fingal Co Co		Gross Area :	
		Road Area :	
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COMHAIRLE CONTAE FHINE GALL
FINGAL COUNTY COUNCIL

COUNTY COUNCIL MEETING

TUESDAY 16TH JANUARY 2024

ITEM NO. 20

DECLARATIONS OF ROADS

COMHAIRLE CONTAE FHINE GALL
FINGAL COUNTY COUNCIL

COUNTY COUNCIL MEETING

TUESDAY 16TH JANUARY 2024

ITEM NO. 20a

BAY MEADOWS, PHASE 2, HOLLYSTOWN, DUBLIN 15

DECLARATION OF ROADS TO BE PUBLIC ROADS

Statutory Notice has been given in the press of the Council's intention to consider the making of a declaration that the road set out hereunder be public roads. No objections have been received and it is recommended that the road be taken in charge.

Road Schedule

BC Number – BC 1736
Taking In Charge –Bay Meadows, Phase 2, Dublin 15.
DED Hollywoodrath. TL Hollystown.

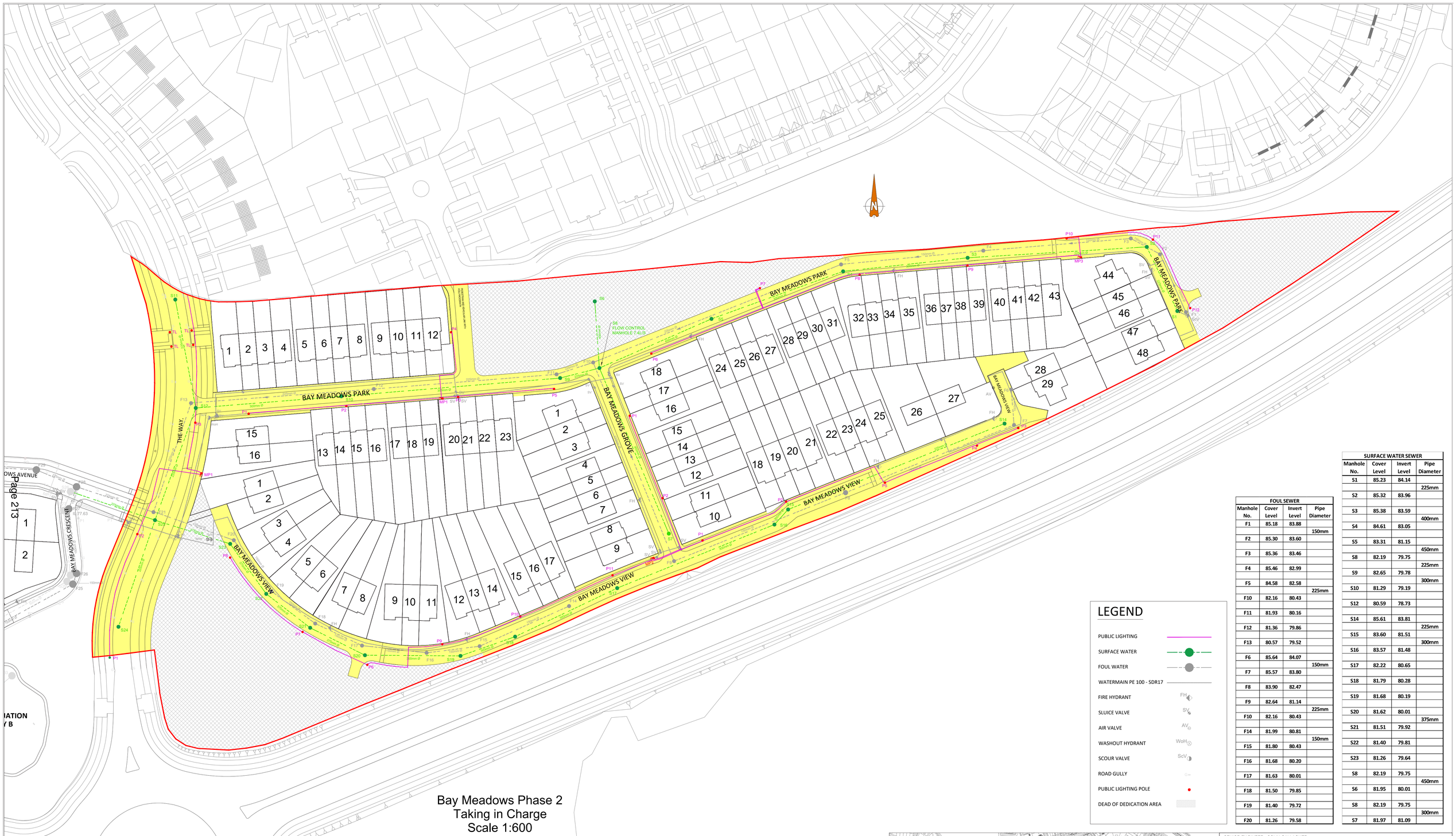
Road Name	Length	Description
Bay Meadows Way	130m	From the Entrance to Bay Meadows Avenue Head North for 130m, To outside No.13 Hollywoodrath Way.
Bay Meadows Crescent	375m	From Bay Meadows Way and junction of Bay Meadows Park, outside No.1 Bay Meadows Park head east for 325m, turn right outside No.44 head South for 72m to outside No.48 Bay Meadow Park and to include turning Head.

Bay Meadows Grove	75m	From Bay Meadows Park and junction of Bay Meadows Grove, outside No.1 Bay Meadows Grove head South for 75m to outside No.10 Bay Meadows Grove at Bay Meadows Grove and junction of Bay Meadows View.
Bay Meadows View	335m 35m	From outside No.1 Bay Meadows View Head East for 335m to outside No.28 Bay Meadows View and to include turning Head. From outside the entrance at Bay Meadows Park outside No.12 Bay Meadows Park head North for 35m to end of junction.
No. of Units = 97	Total Length = 950m	

Road Schedule

BC Number – BC 1736
Taking In Charge –Bay Meadows, Phase 2, Dublin 15.
DED Hollywoodrath. TL Hollystown.

Road Name	Length	Description
Bay Meadows Way	130m	From the Entrance to Bay Meadows Avenue Head North for 130m, To Outside No.13 Hollywoodrath Way.
Bay Meadows Crescent	375m	From Bay Meadows Way and junction of Bay Meadows Park, outside No.1 Bay Meadows Park head east for 325m, turn right outside No.44 head South for 72m to outside No.48 Bay Meadow Park and to include turning Head.
Bay Meadows Grove	75m	From Bay Meadows Park and junction of Bay Meadows Grove, outside No.1 Bay Meadows Grove head South for 75m to outside No.10 Bay Meadows Grove at Bay Meadows Grove and junction of Bay Meadows View.
Bay Meadows View	335m	From outside No.1 Bay Meadows View Head East for 335m to outside No.28 Bay Meadows View and to include turning Head.
	35m	From outside the entrance at Bay Meadows Park outside No.12 Bay Meadows Park head North for 35m to end of Junction.
No. of Units = 97	Total Length = 950m	

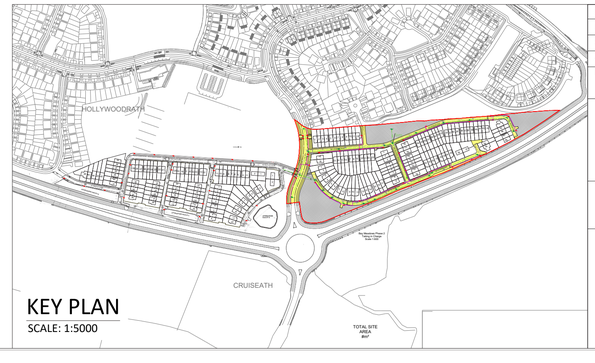


FOUL SEWER			
Manhole No.	Cover Level	Invert Level	Pipe Diameter
F1	85.18	83.88	
			150mm
F2	85.30	83.60	
F3	85.36	83.46	
F4	85.46	82.99	
F5	84.58	82.58	
			225mm
F10	82.16	80.43	
F11	81.93	80.16	
F12	81.36	79.86	
F13	80.57	79.52	
F6	85.64	84.07	
			150mm
F7	85.57	83.80	
F8	83.90	82.47	
F9	82.64	81.14	
			225mm
F10	82.16	80.43	
F14	81.99	80.81	
			150mm
F15	81.80	80.43	
F16	81.68	80.20	
F17	81.63	80.01	
F18	81.50	79.85	
F19	81.40	79.72	
F20	81.26	79.58	

SURFACE WATER SEWER			
Manhole No.	Cover Level	Invert Level	Pipe Diameter
S1	85.23	84.14	
			225mm
S2	85.32	83.96	
S3	85.38	83.59	
			400mm
S4	84.61	83.05	
S5	83.31	81.15	
			450mm
S8	82.19	79.75	
			225mm
S9	82.65	79.78	
			300mm
S10	81.29	79.19	
S12	80.59	78.73	
S14	85.61	83.81	
			225mm
S15	83.60	81.51	
			300mm
S16	83.57	81.48	
S17	82.22	80.65	
S18	81.79	80.28	
S19	81.68	80.19	
S20	81.62	80.01	
			375mm
S21	81.51	79.92	
S22	81.40	79.81	
S23	81.26	79.64	
S8	82.19	79.75	
			450mm
S6	81.95	80.01	
S8	82.19	79.75	
			300mm
S7	81.97	81.09	

LEGEND

- PUBLIC LIGHTING
- SURFACE WATER
- FOUL WATER
- WATERMAIN PE 100 - SDR17
- FIRE HYDRANT (FH)
- SLUICE VALVE (SV)
- AIR VALVE (AV)
- WASHOUT HYDRANT (WoH)
- SCOUR VALVE (ScV)
- ROAD GULLY
- PUBLIC LIGHTING POLE
- DEAD OF DEDICATION AREA



SENIOR ENGINEER: COLIN GALLAGHER

DATE:	Sep 2023	SURVEYED BY:	S. Boylan
CHECKED BY:	C. Gallagher	DRAWN BY:	S. Boylan
APPROVED BY:	C. Gallagher	BC .	BC 1736
DRAWING NUMBER:	REV.	SCALE:	1:600 @ A1
BC-1736-1000		OS Ref.	3062-A

ALL FOUL AND SURFACE WATER SEWERS ARE 225mm DIA UNLESS STATED.
SCALED DIMENSIONS T TO BE USED.
LENGTH OF ROADS ARE AS ON THE ATTACHED ROAD SCHEDULE.
WATER MAINS 100mm DIA. UNLESS OTHERWISE STATED.

Comhairle Contae Fhine Gall
Fingal County Council

Inspectorate Division

TAKING IN CHARGE

Bay Meadwos Phase 2
Hollystown Mulhudart

Areas proposed to be taken in charge

Foul Water System proposed to be taken in charge.

Surface Water System proposed to be taken in charge.

Watermains proposed to be taken in charge.

Hydrant

Sluice Valve

COMHAIRLE CONTAE FHINE GALL
FINGAL COUNTY COUNCIL

COUNTY COUNCIL MEETING
TUESDAY 16 JANUARY, 2024

Report pursuant to Part XI of the Planning and Development Act 2000 (as amended) and Part 8 of the Planning and Development Regulations 2001 (as amended) for proposed Public Realm Improvements for a pedestrianised New Street, Malahide, Co. Dublin

Public Realm Improvements for a Pedestrianised New Street, Malahide, Co. Dublin

CHIEF EXECUTIVE REPORT

Chief Executive Report prepared in accordance with section 179 (3) of the Planning and Development Act 2000 (as amended) and Part 8 of the Planning and Development Regulations 2001 (as amended)

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PUBLIC CONSULTATION:

Public Notice:

In accordance with Section 179 of the Planning and Development Act 2000 (as amended) and Part 8 of the Planning and Development Regulations 2001 (as amended), Fingal County Council (Environment, Climate Action & Active Travel Department) gave notice of the proposed public realm improvements for a pedestrianised New Street, Malahide. The proposed development extends to the full length of New Street from Main Street/ The Mall (also known as The Diamond) in the south to Strand Street to the north and including parts of Main Street/ The Mall, Ross Terrace and Strand Street all at Malahide, Co. Dublin. The site is located within Malahide Historic Core Architectural Conservation Area.

The notice was published in the Irish Independent on 19th April 2023, and a Site Notice was erected on the same date.

- ***Refer Appendix A1 for wording of the Public Notices***

Public Display Period:

Plans and Particulars of the proposed development were made available for inspection during public opening hours from 19th of April 2023 at the following locations:

- The Offices of Fingal County Council, County Hall, Main Street, Swords, Co. Dublin, K67 X8Y2 during normal opening hours (Monday to Thursday 9am to 5pm and Friday 9am to 4.30pm excluding Bank & Public Holidays)
- Malahide Public Library, Main Street, Malahide, Co. Dublin K36 EW63 (during library opening hours)

Plans and particulars of the proposed development were also made available on the Fingal County Council website: **http://consult.fingal.ie/en/browse**

Observation Period:

Submissions or observations with respect to the proposed development dealing with the proper planning and sustainable development of the area in which the development would be situated, may be made either online through our website https://consult.fingal.ie/en/browse or in writing to:- Senior Engineer, Environment, Climate Action & Active Travel Department, Fingal County Council, County Hall, Swords, Co Dublin K67 X8Y2.

Submissions or observations with respect to the proposed development must arrive no later than 5pm on **2nd of June 2023.**

The period during which submissions or observations in respect of the proposed development may be made to the Local Authority has expired.

Submission to An Bord Pleanála

Applications were made to An Bord Pleanála by members of the public in relation to the proposed public realm improvements for a pedestrianised New Street under:

i. Article 120(3)(b) of the Planning and Development Regulations 2001 (as amended), for a screening determination as to whether the proposed public realm improvements for a pedestrianised New Street would be likely to have significant effects on the environment; (i.e., EIA Screening Determination) and,

ii. Article 250(3) of the Planning and Development Regulations 2001 (as amended), for a determination as to whether the proposed public realm improvements for a pedestrianised New Street would be likely to have a significant effect on a European site (i.e., an AA Screening Determination)

See ***Appendix A4*** & ***Appendix A7*** of this report for the determinations of An Bord Pleanála in this regard.

In accordance with section 179(3)(a)(ii) of the Planning and Development Act a CE Report must be prepared within 8 weeks from the date of the Board's EIA Screening Determination.

In accordance with Section 251 of the 2000 Act, the above time limit being 'other time limit' referred to in the Act is adjusted by 9 days to account for the period from 24 December to 1 January (both inclusive).

This report therefore is being submitted to the Council (members of the Authority) in accordance with the requirements of Article 179(3)(b) of the Planning and Development Act 2000 which states that a report shall:

DESCRIBE PROPOSAL:

(i) "describe the nature and extent of the proposed development and the principal features thereof and shall include an appropriate plan of the development and appropriate map of the relevant area".

The Site:

The site comprises New Street, Malahide, a street of 150m in length with an area of 0.22ha. New Street extends from south to north from the junction of Main Street, The Mall and Church Road, also known as The Diamond, to Strand Street to the north.

- ***Refer Appendix B1 Site Location Plan Drawing Number: Fc.03-DR-2000.***

The Proposal:

The proposed public realm improvements for a pedestrianised New Street will comprise: -

1. Widening of footpaths and provision of new kerb edges with existing kerbstones retained, realigned and protected within the widened footpaths and public spaces.
2. Realignment and narrowing of the trafficable section of New Street (c.150m in length, 0.22ha) and insertion of control measures and all necessary signage to provide for a pedestrianised street with associated traffic flow routes and restrictions allowing for time limited one-way access from 7am to 11am each day for deliveries and emergency vehicles from Main Street/ The Mall to New Street and a two-way access from Strand Street to Ross's Terrace via New Street.
3. Upgrade of all street surfaces.
4. Provision of 2no. loading bays at the southern and northern ends of New Street and an accessible parking space in front of the HSE building.
5. Installation of cycle stands at 6no. locations on New Street with capacity for 23no. cycle parking spaces.
6. Removal and replacement of 11no. existing trees with 37no. trees of species appropriate to the location and environment and provision of soft landscaping and green infrastructure with planting zones for seeded, planted and hedging areas and associated bioretention and tree pit areas.
7. Provision of outdoor dining zones including tables and chairs and other ancillary moveable structures.

8. Provision of street furniture including seating, benches and litter and recycling bins and a water feature.
9. New public lighting.
10. Upgrade of the watermain and foul drainage networks and upgrade and relocation of the surface water drainage network including provision of sustainable urban drainage systems (SUDs) features as part of hard and soft landscaping.
11. Provision of ducting for existing and future utilities and piped infrastructure.
12. All associated site and development works.

Fingal County Council will be providing regulatory traffic signs (including regulatory signs which give effect to a pedestrianisation of New Street) in accordance with Section 95 of the Road Traffic Act 1961 (as amended). Fingal County Council have consulted with the Commissioner of An Garda Síochána in that regard, in accordance with the provisions of section 95(3)(b) of the Road Traffic Act 1961 (as amended).

Design of Proposed Development:

The proposal, as made available for inspection, is described in the following drawings:

Document	ID No.	Size	Produced by
Planning Report	-	A4	BMA Planning
Design Rationale	-	A4	DFLA
Site Location Plan	Fc.03-DR-2000	A1	DFLA
Public Realm Plan	Fc.03-DR-2001	A1	DFLA
Above and Below Ground Services Plan	Fc.03-DR-2002	A1	DFLA
Public Realm Detail Plan 01	Fc.03-DR-2100	A1	DFLA
Public Realm Detail Plan 02	Fc.03-DR-2101	A1	DFLA
Landscape Sections 1	Fc.03-DR-2401	A2	DFLA
Landscape Sections 2	Fc.03-DR-2402	A1+	DFLA
Typical Landscape Details	Fc.03-DR-2500	A1	DFLA
Artists Impression 01	Fc.03-DR-2700	A2	DFLA
Artists Impression 02	Fc.03-DR-2701	A2	DFLA
Artists Impression 03	Fc.03-DR-2702	A2	DFLA
Artists Impression 04	Fc.03-DR-2703	A2	DFLA
Proposed Drainage and Watermain Layout	222126-PUNCH-XX-XX-DR-C-0100	A1	PUNCH
Proposed SuDS Layout	222126-PUNCH-XX-XX-DR-C-0150	A1	PUNCH
Surface and Foul Water Long Sections	222126-PUNCH-XX-XX-DR-C-0200	A1	PUNCH
Existing Services Layout	222126-PUNCH-XX-XX-DR-C-0350	A1	PUNCH
Proposed Line Markings	222126-PUNCH-XX-XX-DR-C-0450	A1	PUNCH
Cross Sections	222126-PUNCH-XX-XX-DR-C-0480	A1	PUNCH

Drainage Details –Sheet 1	222126-PUNCH-XX-XX-DR-C-0500	A1	PUNCH
Drainage Details –Sheet 2	222126-PUNCH-XX-XX-DR-C-0501	A1	PUNCH
Drainage Details–Sheet 3	222126-PUNCH-XX-XX-DR-C-0502	A1	PUNCH
Hard Landscape Details	222126-PUNCH-XX-XX-DR-C-0503	A1	PUNCH
Road Details	222126-PUNCH-XX-XX-DR-C-0550	A1	PUNCH
Vehicle Swept Path –Sheet 1	222126-PUNCH-XX-XX-DR-C-0600	A1	PUNCH
Vehicle Swept Path –Sheet 2	222126-PUNCH-XX-XX-DR-C-0601	A1	PUNCH
Vehicle Swept Path –18m Low Ladder	222126-PUNCH-XX-XX-DR-C-0602	A1	PUNCH
Vehicle Swept Path –Max Legal Length Articulated Vehicle	222126-PUNCH-XX-XX-DR-C-0603	A1	PUNCH
Vehicle Swept Path – Fire Tender & Refuse Vehicle	222126-PUNCH-XX-XX-DR-C-0604	A1	PUNCH
Visibility Splay	222126-PUNCH-XX-XX-DR-C-0625	A1	PUNCH
Mechanical & Electrical Services	NSM-X-X-DR-AXE-EE-60101	A1	Axiseng
Existing Site Services	NSM-X-X-DR-AXE-EE-60102	A1	Axiseng
Proposed Site Services	NSM-X-X-DR-AXE-EE-60103	A1	Axiseng
Tree Constraints Plan	-	A1	The Tree File
Tree Impacts Plan	-	A1	The Tree File

Refer Appendix B for the full list of Plans and Particulars including drawings, reports and surveys, made available for inspection.

Design Intent Statement:

The design for the public realm improvements for a pedestrianised New Street was formulated in conjunction with FCC and the design team in order to integrate the existing site context, architecture, improved circulation and accessibility, traffic, civil engineering, lighting, archaeological and ecological considerations with the overarching public realm design and the key objectives of the brief.

These include:

• Provision of a high-quality urban environment which enhances the 'sense of place' on the street and respects the context as part of Malahide's Historic Core Architectural Conservation Area;
• Consider accessibility and safety for people of all ages and abilities;
• Find a balance between existing and possible future proposed uses along the street in a way which is attractive to visitors and locals alike;
• Innovate, taking into account principles of sustainability and resilient public spaces;
• Ensure access for local residents, deliveries, fire tender, emergencies and refuse collection;
• Provide opportunities for resting and socialising to increase dwell time, while at the same time taking into consideration overall functionality;
• Provide trees and planting as well as incorporating sustainable drainage solutions.

New Street is a key node within Malahide's town centre. The public realm improvements increase the area provided for civic amenity along the thoroughfare and improve pedestrian priority and accessibility for the public. It creates new opportunities for visitors and passers-by to engage and enjoy the space by increasing the width of the footpath on either side of the street. The eastern side remains sunny for the majority of the day; therefore, an asymmetric layout is proposed, taking full advantage of the orientation. Large trees are proposed to 'book-end' the street and signify threshold, tying the public realm into its surrounding context. Areas of planting are proposed as the main organisational device, incorporating sustainable urban drainage (SuDS) and increasing biodiversity on site. Opportunities for seating, art and informal play installations are proposed to be located in between the areas of soft landscape. Some areas of planting are also proposed to be introduced to act as buffer zones between public use and existing residential buildings. Clearly marked zones for outdoor dining are proposed to be organised in linear strips on both sides of the road.

EVALUATE DEVELOPMENT:

(ii) "evaluate whether or not the proposed development would be consistent with the proper planning and sustainable development of the area to which the development relates, having regard to the provisions of the development plan and giving the reasons and the considerations for the evaluation".

Internal Planning Consultation:

Internal Consultations were conducted with Fingal County Council, Planning and Strategic Infrastructure Department (P&SI).

The proposed scheme has been considered in the context of the following issues:

- Zoning of site and principle of development;
- Layout and design;
- Integration with and impact on the amenity of area;
- Access;
- Surface water considerations;
- Archaeology;
- Conservation,
- Appropriate Assessment Screening;
- Environmental Impact Assessment Screening

A Planning Report was compiled by the Planning and Strategic Infrastructure Department which notes that:

Water Services Department:	No objection; items to note
Transportation Planning:	No objection, items to note
Conservation Office:	No objection
Parks and Green Infrastructure Section:	No objection; items to note
Heritage Officer/Community Archaeologist:	No objection

The Planning Report concludes that:

the proposed development would be in accordance with the zoning objective 'TC' applicable to these lands in the Fingal County Development Plan 2023-2029, and the objectives, and the objectives of the Development Plan as they relate to place making, green infrastructure, built heritage and sustainable drainage and development management standards in respect of landscaping, public real, management of trees and the protection of the built environment and archaeology within this historic core of Malahide.

The proposed public realm improvements for a pedestrianised New Street will bring positive impacts in terms of enhancing the streetscape at New Street and promoting active travel modes with improved facilities for pedestrians and cyclists. Other significant improvements include minimising the use of steel poles and signage as well as the use of cowled and energy efficient light fittings to minimise light pollution and reduce carbon emissions, improvements and upgrades to the drainage network and provision of SUDs.

The proposed development is considered to accord with the proper planning and sustainable development of the area.

A number of recommendations were included in the Report as follows:

The Planning & Strategic Infrastructure Department has no objection to the principle of proposed development at this location subject to implementation of the following recommendations:

1. The following requirements of the planning authority shall be adhered to:
   (i) The proposed hard surfacing to be in keeping with the materials used on The Green, Malahide
   (ii) The final details of the planting and hardscape proposals and specifications including structural soil to be agreed with the Parks and Green Infrastructure Division prior to the commencement of works on site. Emphasis to be given to the inclusion of larger growing trees.
   (iii) A minimum of a three-year maintenance programme shall be put in place upon completion of this scheme. Full details of the maintenance programme shall be submitted and agreed with Parks and Green Infrastructure Division prior to the commencement of works on site.
   (iv) All services both above and below ground (including public lighting and irrigation proposals if required) shall be clearly shown on the landscape plan. Details of how services running through the constructed tree pits shall be dealt in terms of future access and maintenance shall be submitted and agreed with Parks and Green Infrastructure Division prior to the commencement of works on site.
2. (i) No surface water/rainwater is to discharge into the foul water system under any circumstances.
   (ii) The surface water drainage must be in compliance with the 'Greater Dublin Regional Code of Practice for Drainage Works, Version 6.0, FCC, April 2006.
3. Where the applicant proposed to connect directly or indirectly to a public water/wastewater network operated by Irish Water, the applicant must sign a connection agreement with Irish water prior to the commencement of the development and adhere to the standards and conditions set out in that agreement.

- ***Refer Appendix C for the full Planning & Strategic Infrastructure Department Report***

(iia) "include the screening determination on why an environmental impact assessment is not required and specify the features, if any, of the proposed development and the measures, if any, envisaged to avoid or prevent what might have otherwise been significant adverse effects on the environment of the development".

Environmental Impact Assessment Screening and Determination by An Bord Pleanála

In order to determine whether the proposed public realm improvements for a pedestrianised New Street may have the potential to give rise to significant environmental effects, the Active Travel department of Fingal County Council commissioned BMA Planning to prepare an EIA Screening Report entitled 'Environmental Impact Assessment Screening Report February 2023'. The Senior Planner for the local electoral area of Balbriggan and Swords, part of the Planning and Strategic Infrastructure Department of Fingal County Council, examined and evaluated the content of the report and agreed with the conclusions set out in the EIA screening report.

The EIA Screening Report concluded that the proposed public realm improvements for a pedestrianised New Street are not likely to have significant effects on the environment due to the nature, scale and size of the proposed development, the location of the proposed development relative to areas of environmental sensitivity and consideration of the type of potential impacts that are likely to arise. The proposed public realm improvements for a pedestrianised New Street will bring positive impacts in terms of enhancing the streetscape at New Street and promoting active travel modes with improved facilities for pedestrians and cyclists.

A copy of the EIA Screening Report is included in *Appendix A2*.

Having regard to the foregoing, Fingal County Council determined on 5 April 2023 that the proposed public realm improvements for a pedestrianised New Street by itself or in combination with other projects, is not likely to have a significant effect on the environment and accordingly that an Environmental Impact Assessment is not required.

A copy of the EIA Screening Determination of Fingal County Council dated 5 April 2023 is included in *Appendix A3*.

Subsequently, as set out in the Public Consultation Section above, an application was made to An Bord Pleanála by members of the public under Article 120(3)(b) of the Planning and Development Regulations 2001 (as amended), for a screening determination as to whether the proposed public realm improvements for a pedestrianised New Street would be likely to have significant effects on the environment; (i.e. EIA Screening Determination).

On 17.11.2023, An Bord Pleanála determined:

NOT TO DIRECT the local authority to prepare an Environmental Impact Assessment Report in respect of the said proposed development based on the reasons and considerations set out below.

Having regard to the following:

(a) the criteria set out in Schedule 7 and the information provided in Schedule 7A of the Planning and Development Regulations 2001, as amended,

(b) the limited nature and scale of the proposed development which is under the threshold in respect of Class 10b(iv) (Infrastructure – Urban Development) of the Planning and Development Regulations 2001, as amended,

(c) the location of the site on lands in a Town and District Centre location as described in the Fingal County Development Plan 2023-2029 and the results of the Strategic Environmental Assessment of this plan undertaken in accordance with the Strategic Environmental Assessment Directive (2001/42/EC),

(d) the location of the site in a built-up area served by public infrastructure and the existing pattern of development in the vicinity,

(e) the limited potential for significant impacts arising from the proposed development,

(f) the submission made by the local authority,

(g) the submissions made by the applicants requesting a determination, and

(h) the report and recommendation of the Inspector,

it is considered that the proposed development would not be likely to have significant effects on the environment and, accordingly, that the preparation and submission of an Environmental Impact Assessment Report is not, therefore, required.

Copy of An Board Pleanála EIA Screening determination is included in ***Appendix A4***.

Appropriate Assessment Screening and Determination by An Bord Pleanála

The Active Travel department of Fingal County Council commissioned Faith Wilson Ecological Consultant to prepare an AA Screening Report entitled 'Appropriate Assessment Screening Report February 2023. The Senior Planner for the local electoral area of Balbriggan and Swords, part of the Planning and Strategic Infrastructure Department of Fingal County Council, examined and evaluated the content of the report and agreed with the conclusions set out in the screening report and the reasons therein.

The AA Screening Report concluded that following an examination, analysis and evaluation of all relevant information, on the basis of objective information and in light of best scientific knowledge and applying the precautionary principle, the proposed public realm improvements at New Street, Malahide, either individually or in combination with other plans and projects, and in the absence of mitigation, is not likely to have a significant effect on any European Site(s), in view of the sites conservation objectives, and that there is no reasonable scientific doubt in relation to this conclusion.

A copy of the AA Screening Report is included in *Appendix A5*.

Having regard to the foregoing, on the basis of objective information and in view of best scientific knowledge and applying the precautionary principle, for the reasons set out in the AA screening report, Fingal County Council determined on 5 April 2023 that the proposed public realm improvements for a pedestrianised New Street, individually or in combination with other plans or projects, without relying on any mitigation measures, will not have a significant effect on any European sites, in view of the sites' conservation objectives, and that there is no reasonable scientific doubt in relation to this conclusion, and that the proposed public realm improvements for a pedestrianised New Street does not require a Stage 2 Appropriate Assessment.

A copy of the AA Screening Determination of Fingal County Council dated 5 April 2023 is included in *Appendix A6*.

Subsequently, as set out in the Public Consultation Section above, an application was made to An Bord Pleanála by members of the public under Article 250(3) of the Planning and Development Regulations 2001 (as amended), for a determination as to whether the proposed public realm improvements for a pedestrianised New Street would be likely to have a significant effect on a European site (i.e. an AA Screening Determination).

On 17.11.2023, An Bord Pleanála determined:

NOT TO DIRECT the local authority to prepare a Natura Impact Statement in respect of the proposed development, based on the reasons and considerations set out below.
Having regard to:

(a) the nature and scale of the proposed development,
(b) the location of the proposed development and the separation distance from the European Sites,
(c) the hydrological connection between the site and the European Sites via an adjacent watercourse,
(d) the ecological connection between the site and the European Sites via an adjacent watercourse and treelines and vegetation,
(e) the submission made by the local authority, including the Appropriate Assessment Screening Report,
(f) the submission made by the applicant requesting a determination, and
(g) the report and recommendation of the Inspector,

it is considered reasonable to conclude that on the basis of the information available, which is considered adequate to issue a screening determination, that the proposed development, either individually or in combination with other plans or projects, would not be likely to have a significant effect on the identified European Sites in view of the conservation objectives of these sites and that a Stage 2 appropriate assessment and the submission of a Natura Impact Statement for the proposed development is, therefore, not required.

Copy of An Board Pleanála AA Screening determination is included in ***Appendix A7***.

LIST PERSONS OR BODIES:

(iii) "List the persons or bodies who made submissions or observations with respect to the proposed development in accordance with the regulations under subsection (2):

There were 204 Submissions / Observations received are listed below and can be found in detail at **https://consult.fingal.ie/en/node/32916/submissions**

URN	Author	Type
FIN-C570-1	Les Williams	Individual
FIN-C570-2	Austin Maguire	Individual
FIN-C570-3	Adam Connaughton	Individual
FIN-C570-4	**VOID***	**VOID***
FIN-C570-5	Andrew Dunne	Individual
FIN-C570-6	Val Jones	Individual
FIN-C570-7	Sorcha Lundy	Individual
FIN-C570-8	Marina Coldrick	Individual
FIN-C570-9	Daragh Meehan	Individual
FIN-C570-10	Karl Smith	Individual
FIN-C570-11	David McDowell	Individual
FIN-C570-12	David Browne	Individual
FIN-C570-13	Denis McFerran	Individual
FIN-C570-14	Mary O'Donoghue	Individual
FIN-C570-15	Angela Leggett	Individual
FIN-C570-16	Noel Mahon	Individual
FIN-C570-17	Erika Browne	Individual
FIN-C570-18	Turlough O Brien	Individual
FIN-C570-19	Gillian Byrne	Individual
FIN-C570-20	John Walsh	Individual
FIN-C570-21	Karen Strodthoff	Individual
FIN-C570-22	Chris Batchelor-McAuley	Individual
FIN-C570-23	Jake Browne	Individual
FIN-C570-24	Gillian Cuddy	Individual
FIN-C570-25	Michelle Cahill	Individual
FIN-C570-26	Gerry Browne	Individual
FIN-C570-27	Karen Law	Individual
FIN-C570-28	Jackie Browne	Individual
FIN-C570-29	Heather Rochford	Individual
FIN-C570-30	Ken OBrien	Individual

URN	Author	Type
FIN-C570-31	Vincent Langton	Individual
FIN-C570-32	Andrew Smith	Individual
FIN-C570-33	David Grant	Individual
FIN-C570-34	Ray Price	Individual
FIN-C570-35	Raelene Pugh	Individual
FIN-C570-36	Celine Redmond	Individual
FIN-C570-37	Gerry McCaul	Individual
FIN-C570-38	Brian Colgan	Individual
FIN-C570-39	Martin McKenna	Individual
FIN-C570-40	Frank Kellett	Individual
FIN-C570-41	Suzanne Young	Individual
FIN-C570-42	Patrick Bohan	Individual
FIN-C570-43	Olan Howell	Individual
FIN-C570-44	Michael Lenehan	Individual
FIN-C570-45	Louise Ward	Individual
FIN-C570-46	Johannes Haavisto	Individual
FIN-C570-47	Sean Farrelly	Individual
FIN-C570-48	Joan Farren	Individual
FIN-C570-49	Laura Farrell	Individual
FIN-C570-50	Clodagh Ní Mhuirí	Individual
FIN-C570-51	Kieran T	Individual
FIN-C570-52	Damien Carbery	Individual
FIN-C570-53	Jennifer Dowling	Individual
FIN-C570-54	Ian Boyle	Individual
FIN-C570-55	Jonathan Law	Individual
FIN-C570-56	Avril McDermott	Individual
FIN-C570-57	Ian Talbot	Individual
FIN-C570-58	Stephen Moffatt	Individual
FIN-C570-59	Brendan Cassin	Individual
FIN-C570-60	Gerald O'Halloran	Individual

*FIN-F570-4 was a test submission made by Fingal County Council, and therefore, is marked as VOID.

URN	Author	Type
FIN-C570-61	Fingal Active Travel Group	Organisation
FIN-C570-62	Judi Sutherland	Individual
FIN-C570-63	David Healy	Staff member
FIN-C570-64	Seán Brophy	Individual
FIN-C570-65	Eoin O Neill	Individual
FIN-C570-66	Malahide Community Forum	Organisation
FIN-C570-67	Seamus O Canainn	Individual
FIN-C570-68	John Shirey	Individual
FIN-C570-69	CarolAnn Oragano	Individual
FIN-C570-70	Michael Killen	Individual
FIN-C570-71	Michael Maher	Individual
FIN-C570-72	Kevin Burns	Individual
FIN-C570-73	Robert Gaine	Individual
FIN-C570-74	Ailish McCartan	Individual
FIN-C570-75	Niall McArdle	Individual
FIN-C570-76	William Kehoe	Individual
FIN-C570-77	Malahide Community Forum	Organisation
FIN-C570-78	Patrick Mcgrane	Individual
FIN-C570-79	Stephaney Bissett	Individual
FIN-C570-80	Macarten McGuigan	Individual
FIN-C570-81	Desmond Cavanagh	Individual
FIN-C570-82	Siobhan Maloney	Individual
FIN-C570-83	Eddie Gilmartin	Individual
FIN-C570-84	Deirdre Rochford	Individual
FIN-C570-85	Siobhan Gibney	Individual
FIN-C570-86	Colm Magrath	Individual
FIN-C570-87	Daniel O'Connor	Individual
FIN-C570-88	Patrick English	Individual
FIN-C570-89	Viv Donnelly	Individual
FIN-C570-90	Marguerite English	Individual
FIN-C570-91	Ed Moynihan	Individual
FIN-C570-92	Michael Naughton	Individual
FIN-C570-93	Margaret Donnellan	Individual
FIN-C570-94	Shane McGivney	Individual
FIN-C570-95	Sarahann Potts	Individual
FIN-C570-96	Helen McGivern	Individual
FIN-C570-97	Grand Hotel	Organisation
FIN-C570-98	Karen McArdle	Individual
FIN-C570-99	Carole Kiernan	Individual

URN	Author	Type
FIN-C570-100	Susan Mc Elhinney	Individual
FIN-C570-101	Mary McEvaddy	Individual
FIN-C570-102	Aidan Brophy	Individual
FIN-C570-103	Tristan Murphy	Individual
FIN-C570-104	Annabelle Conway	Individual
FIN-C570-105	Declan O'Dwyer	Individual
FIN-C570-106	Irene Johnston	Organisation
FIN-C570-107	Paul C Dwyer	Individual
FIN-C570-108	Claire Jepson	Individual
FIN-C570-109	Olivia B	Individual
FIN-C570-110	Rosari O Brien	Individual
FIN-C570-111	Paul Comiskey	Individual
FIN-C570-112	Leona Tuck	Individual
FIN-C570-113	Cillian Guidera	Individual
FIN-C570-114	Barry Murphy	Individual
FIN-C570-115	Marna Law	Individual
FIN-C570-116	Fingal Chamber	Organisation
FIN-C570-117	Tom Sheedy	Individual
FIN-C570-118	Department of Housing, Local Government and Heritage	Organisation
FIN-C570-119	Sheila Quigley	Individual
FIN-C570-120	Pauline Duddy	Individual
FIN-C570-121	Derek Fowler	Individual
FIN-C570-122	Leslie Lawrence	Individual
FIN-C570-123	M O'Neill	Individual
FIN-C570-124	Mary Doyle	Individual
FIN-C570-125	Nick Emmett	Individual
FIN-C570-126	Helen Jennings	Individual
FIN-C570-127	Catherine Farrell	Individual
FIN-C570-128	Gearoid Deegan	Individual
FIN-C570-129	Carole Kiernan	Individual
FIN-C570-130	Sean Court	Individual
FIN-C570-131	Lois McDowell	Individual
FIN-C570-132	Piero Tintori	Individual
FIN-C570-133	Austin Lynch	Individual
FIN-C570-133	Austin Lynch	Individual
FIN-C570-134	Heidi Bedell	Individual
FIN-C570-135	Shane Dinnigan	Individual
FIN-C570-136	Michael Bushe	Individual
FIN-C570-137	Eddie McDonnell	Individual

URN	Author	Type
FIN-C570-138	Lorraine Mahon	Individual
FIN-C570-139	Mary O'Donoghue	Individual
FIN-C570-140	Emer McMahon	Individual
FIN-C570-141	Eddie McDonnell	Individual
FIN-C570-142	Bellfinch Trade Ltd	Organisation
FIN-C570-143	Sorcha King	Individual
FIN-C570-144	Trish Murtagh	Individual
FIN-C570-145	Brian McGrath	Individual
FIN-C570-146	Linda Duffy	Individual
FIN-C570-147	Barry Sheridan	Individual
FIN-C570-148	Hugh O'Brien	Individual
FIN-C570-149	Eleanor Donnellan	Individual
FIN-C570-150	Les Williams	Individual
FIN-C570-151	Sharon O'Sullivan	Individual
FIN-C570-152	David Duffy	Individual
FIN-C570-153	James T. Doyle	Individual
FIN-C570-154	Gillian Ward	Individual
FIN-C570-155	John Veale	Individual
FIN-C570-156	Ava Donnellan	Individual
FIN-C570-157	Michael Giblin	Individual
FIN-C570-158	Angela Condron	Individual
FIN-C570-159	Rosemary Warren	Individual
FIN-C570-160	Rosemary Minton	Individual
FIN-C570-161	Jimmy Guerin	Individual
FIN-C570-162	C Smith	Individual
FIN-C570-163	Cathy Smith	Individual
FIN-C570-164	Alan Quinn	Individual
FIN-C570-165	Mary Brennan	Individual
FIN-C570-166	Kevin Sheedy	Individual
FIN-C570-167	Conor Dooley	Individual
FIN-C570-168	Ian Lennon	Individual
FIN-C570-169	Áine McCabe	Individual
FIN-C570-170	Anthony Lavin	Individual
FIN-C570-171	Joe Kenny	Individual
FIN-C570-172	Melvin Browne	Individual
FIN-C570-173	Nicola Byrne	Individual
FIN-C570-174	Lorcan Mooney	Individual
FIN-C570-175	Ruth Donnellan	Individual
FIN-C570-176	Thomas Birch	Individual
FIN-C570-177	Ciarán Cuffe	Individual
FIN-C570-178	Sean Nugent	Individual
FIN-C570-179	Karen Paul	Individual
FIN-C570-180	Ellen O'Brien	Individual

URN	Author	Type
FIN-C570-181	Anne and Brendan Leonard	Individual
FIN-C570-182	Joseph Byrne	Individual
FIN-C570-183	Gwen Connor	Individual
FIN-C570-184	Majella Dunne	Individual
FIN-C570-185	Donal Mc Carthy	Individual
FIN-C570-186	Emma Donnellan	Individual
FIN-C570-187	Jenny Kilgannon	Individual
FIN-C570-188	Malahide Old Village Residents Association	Organisation
FIN-C570-189	Tony Mulvaney Mulvaney	Individual
FIN-C570-190	Paul Sherlin	Individual
FIN-C570-191	Brendan Mahon	Individual
FIN-C570-192	Deirdre Lonergan	Individual
FIN-C570-193	Niall O'Donnell	Individual
FIN-C570-194	Gilbert & Wright Malahide Limited	Organisation
FIN-C570-195	Bouchon Jewellers	Organisation
FIN-C570-196	A. Dunne	Individual
FIN-C570-197	Michael Keating	Individual
FIN-C570-198	Antonia Donnellan	Individual
FIN-C570-199	Jessica Potter	Individual
FIN-C570-200	Joe Kenny	Individual
FIN-C570-201	Dermot Spain	Individual
FIN-C570-202	VVI	Organisation
FIN-C570-203	Beverly Killen	Individual
FIN-C570-204	JJ Gibney Limited	Organisation
FIN-C570-205	Joan Reidy	Individual

SUMMARISE THE ISSUES:

(iv) "summarise the issues, with respect to the proper planning and sustainable development of the area in which the proposed development would be situated, raised in any such submissions or observations and give the response of the chief executive thereto"

At public consultation stage there were numerous points and issues raised.
Due to the number of the submissions/observations and the fact that many of the submissions/observations raised similar issues, for the purposes of the CE report, these have been grouped together under themed headings identified in bold in ***Appendix D***.

Issues raised are summarised in ***Appendix D*** **- Summary of the Issues Raised in Submissions or Observations made during the Statutory Consultation Period, and Chief Executive's Response.**

The submissions and observations have been published in full on Fingal County Council's consultation portal at https://consult.fingal.ie/en/node/32916/submissions.

RECOMMENDATION:

(v) **"Recommend whether or not the proposed development should be proceeded with as proposed, or as varied or modified as recommended in the report, or should not be proceeded with as the case may be"**

It is recommended that the Council proceeds with the development as proposed (as described above).

A presentation dealing with the proposal will be available at the full council meeting.

LIST OF APPENDICES:

Appendix A - Notice of Development

Appendix A1 - Notices of Proposed Development

Document	ID No.	Size	Produced by
Scanned Newspaper Notice	-	-	Fingal County Council
Site Notice	-	-	Fingal County Council
Inclusion in the Weekly Planning List	PARTXI/002/23 ; 19/04/2023	-	Fingal County Council



Conductor Short honoured by UCD

AT University College Dublin's Newman House, conductor Nigel Short was joined by the Choral Scholars of UCD and cellist Martin Johnson as he was conferred with an honorary degree.

Dr Short was honoured for his exceptional achievements in the fields of creativity, production and performance of choral music.

PHOTO: CHRIS BELLEW/FENNELLS

Comhairle Contae Fhine Gall
Fingal County Council

NOTICE OF PROPOSED DEVELOPMENT
PLANNING & DEVELOPMENT ACT 2000 (as amended)
PLANNING AND DEVELOPMENT REGULATIONS 2001 (as amended) – PART 8

Fingal County Council (Environment, Climate Action & Active Travel Department) are proposing public realm improvements for a pedestrianised New Street, Malahide. The proposed development extends to the full length of New Street from Main Street/ The Mall (also known as The Diamond) in the south to Strand Street to the north and including parts of Main Street/ The Mall, Ross Terrace and Strand Street all at Malahide, Co. Dublin. The site is located within Malahide Historic Core Architectural Conservation Area.

In accordance with Section 179 of the Planning and Development Act 2000 (as amended) and Part 8 of the Planning and Development Regulations 2001 (as amended), Fingal County Council hereby gives notice of the proposed development to be carried out at the above site.

The nature and extent of the proposed development is as follows:

(i) Widening of footpaths and provision of new kerb edges with existing kerbstones retained, realigned and protected within the widened footpaths and public spaces.

(ii) Realignment and narrowing of the trafficable section of New Street (c.150m in length, 0.22ha) and insertion of control measures and all necessary signage to provide for a pedestrianised street with associated traffic flow routes and restrictions but allowing for emergency vehicles and time limited one-way access from 7am to 11am each day for deliveries from Main Street/ The Mall to New Street and a two-way access from Strand Street to Ross's Terrace via New Street.

(iii) Upgrade of all street surfaces.

(iv) Provision of 2no. loading bays at the southern and northern ends of New Street and an accessible parking space in front of the HSE building.

(v) Installation of cycle stands at 6no. locations on New Street with capacity for 23no. cycle parking spaces.

(vi) Removal and replacement of 11no. existing trees with 37no. trees of species appropriate to the location and environment and provision of soft landscaping and green infrastructure with planting zones for seeded, planted and hedging areas and associated bioretention and tree pit areas.

(vii) Provision of outdoor dining zones including tables and chairs and other ancillary moveable structures.

(viii) Provision of street furniture including seating, benches and litter and recycling bins and a water feature.

(ix) New public lighting.

(x) Upgrade of the watermain and foul drainage networks and upgrade and relocation of the surface water drainage network including provision of sustainable urban drainage systems (SUDs) features as part of hard and soft landscaping.

(xi) Provision of ducting for existing and future utilities and piped infrastructure.

(xii) All associated site and development works.

Fingal County Council will be providing regulatory traffic signs (including regulatory signs which give effect to a pedestrianisation of New Street) in accordance with Section 95 of the Road Traffic Act 1961 (as amended).

Plans and particulars of the proposed development will be available for inspection at https://consult.fingal.ie/en/browse and inspection or purchase at a fee not exceeding the reasonable cost of making a copy from **19th of April 2023 up to and including 17th of May 2023** at the following:

- **The Offices of Fingal County Council, County Hall, Main Street, Swords, Co. Dublin, K67 X8Y2 during normal opening hours (Monday to Thursday 9am to 5pm and Friday 9am to 4.30pm excluding Bank & Public Holidays)**
- **Malahide Public Library, Main Street, Malahide, Co. Dublin K36 EW63 (during library opening hours)**

Submissions or observations with respect to the proposed development dealing with the proper planning and sustainable development of the area in which the development would be situated, may be made either online through our website https://consult.fingal.ie/en/browse or in writing to:- Senior Engineer, Environment, Climate Action & Active Travel Department, Fingal County Council, County Hall, Swords, Co Dublin K67 X8Y2.

Submissions or observations with respect to the proposed development must arrive no later than **5pm on 02nd of June 2023.**

The proposed development has undergone screening for Environmental Impact Assessment under the EIA Directive 2011/92/EU as amended by Directive 2014/52/EU (and the relevant provisions of the Planning and Development Act 2000 (as amended) and the Planning and Development Regulations 2001 (as amended) and Fingal County Council has determined that there is no real likelihood of significant effects on the environment arising from the proposed development and that an Environmental Impact Assessment is not required. Any person may, within 4 weeks from the date of this notice, apply in accordance with the provisions of article 120 of the Planning and Development Regulations 2001 (as amended) to An Bord Pleanála for a screening determination as to whether the development would be likely to have significant effects on the environment.

In addition, the proposed development has undergone screening for Appropriate Assessment and Fingal County Council has determined that following an examination, analysis and evaluation of all relevant information, on the basis of the objective information and in view of best scientific knowledge and applying the precautionary principle, the proposed development either individually or in combination with other plans and projects, and in the absence of mitigation, is not likely to have a significant effect on any European Site(s), in view of the sites conservation objectives, and that there is no reasonable doubt in relation to this conclusion.

Issues raised in submissions and observations to Fingal County Council in regard to this development, including the response of the Chief Executive thereto, will form part of the statutory report to be presented to the monthly meeting of Fingal County Council. The statutory report will also list the persons or bodies who made submissions or observations with respect to the proposed development in accordance with regulations made under Part XI of the Planning and Development Act as amended. The minutes of that meeting including the statutory report will appear on the Council's Website. Details including the names of those making submissions or observations may be shared with relevant Council Departments and agents working on their behalf.

David Storey, Director of Services,
Environment, Climate Action & Active Travel Department,
Fingal County Council.

19th April 2023.

Comhairle Contae
Fhine Gall
Fingal County
Council

NOTICE of PROPOSED DEVELOPMENT
PLANNING & DEVELOPMENT ACT 2000 (as amended)
PLANNING AND DEVELOPMENT REGULATIONS 2001 (as amended) - Part 8

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(iii) Upgrade of all street surfaces.
(iv) Provision of 2no. loading bays at the southern and northern ends of New Street and an accessible parking space in front of the HSE building.
(v) Installation of cycle stands at 6no. locations on New Street with capacity for 23no. cycle parking spaces.
(vi) Removal and replacement of 11no. existing trees with 37no. trees of species appropriate to the location and environment and provision of soft landscaping and green infrastructure with planting zones for seeded, planted and hedging areas and associated bioretention and tree pit areas.
(vii) Provision of outdoor dining zones including tables and chairs and other ancillary moveable structures.
(viii) Provision of street furniture including seating, benches and litter and recycling bins and a water feature.
(ix) New public lighting.
(x) Upgrade of the watermain and foul drainage networks and upgrade and relocation of the surface water drainage network including provision of sustainable urban drainage systems (SUDs) features as part of hard and soft landscaping.
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- The Offices of Fingal County Council, County Hall, Main Street, Swords, Co. Dublin, K67 X8Y2 during normal opening hours (Monday to Thursday 9am to 5pm and Friday 9am to 4.30pm excluding Bank & Public Holidays)
- Malahide Public Library, Main Street, Malahide, Co. Dublin K36 EW63 (during library opening hours)

Submissions or observations with respect to the proposed development dealing with the proper planning and sustainable development of the area in which the development would be situated, may be made either online through our website https://consult.fingal.ie/en/browse or in writing to:- Senior Engineer, Environment, Climate Action & Active Travel Department, Fingal County Council, County Hall, Swords, Co Dublin K67 X8Y2.

Submissions or observations with respect to the proposed development must arrive no later than 5pm on **02st** of **June 2023**.

The proposed development has undergone screening for Environmental Impact Assessment under the EIA Directive 2011/92/EU as amended by Directive 2014/52/EU (and the relevant provisions of the Planning and Development Act 2000 (as amended) and the Planning and Development Regulations 2001 (as amended) and Fingal County Council has determined that there is no real likelihood of significant effects on the environment arising from the proposed development and that an Environmental Impact Assessment is not required. Any person may, within 4 weeks from the date of this notice, apply in accordance with the provisions of article 120 of the Planning and Development Regulations 2001 (as amended) to An Bord Pleanála for a screening determination as to whether the development would be likely to have significant effects on the environment.

In addition, the proposed development has undergone screening for Appropriate Assessment and Fingal County Council has determined that following an examination, analysis and evaluation of all relevant information, on the basis of the objective information and in view of best scientific knowledge and applying the precautionary principle, the proposed development either individually or in combination with other plans and projects, and in the absence of mitigation, is not likely to have a significant effect on any European Site(s), in view of the sites conservation objectives, and that there is no reasonable doubt in relation to this conclusion.

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David Storey

David Storey
Director of Services, Environment, Climate Action & Active Travel Department,
Fingal County Council
19th April 2023

List of Applications Received

Article 32, Planning & Development Regulations 2001 to 2015

(a) In deciding a planning application, the Planning Authority, in accordance with)Section 34(3) of the Act, has had regard to submissions or observations received in accordance with these Regulations.

(b) The use of the personal details of planning applicants, including for marketing purposes, may be unlawful under the Data Protection Acts 1988 to 2003 and may result in action by the Data Protection Commissioner against the sender, including prosecution.

		Applicant Name	Location	Proposed Development
17/04/2023	Permission		**Blanchardstown Mulhuddart**	
FW23A/0029	Additional Information	Shane Khan	22 Mount Garrett Close, Tyrrelstown, Dublin 15	The development will consist of the increase in width of existing front porch and associated change to the roof profile, the relocation of 2.0 metre high boundary wall to front and side of property to increase the area of private open space , construction of part single storey & part 2 storey extension to side of existing dwelling together with internal modifications and associated site works. AI received 17/04/23
17/04/2023	Permission		**Swords**	
F23A/0170		Steven and Aideen Monaghan	38 The Nurseries, Forest Road, Swords, Co. Dublin, K67 W866	Planning permission for conversion of existing attic space comprising of modification of exisiting roof structure raising of existing gable c/w window, new access stairs, 2no. roof windows to the front and flat roof dormer to the rear at 38 The Nurseries, Forest Road, Swords, Co. Dublin, K67 W866.
17/04/2023	Permission		**Rush Lusk**	
F23A/0169		PWCPS (F. Price, F. Wilson, B. Carroll, T. Phelan, L. Schwer)	Lands at Palmer Road and Park Road, Rush, Co.Dublin	The proposed development will consist of the construction of 40 no. residential units comprising 30 no. terrace types units (26 no 3-bed 2 storey houses, 2 no. 3-bed 2.5 storey houses, and 2 no.4-bed 3storey houses), and 10 no. semi-detached type units (8 no.4-bed with study 2.5 storey houses and 2 no. 3-bed 2.5 storey houses), all provided with private gardens and associated car parking; proposed vehicular access via previously permitted residential development to the south accessed via Park Road (Hyde Court development substantially complete- Reg. Ref F15A/0294, F15A/0294/E1, F16A/0148/PL06F.246808; F19A/0102); provision of sections of new East- West Road; 1 no. pedestrian/cycle access on Palmer Road; landscaping including play equipment; footpaths; visitor car parking; boundary treatments; public lighting; and all associated site infrastructure and engineering works necessary to facilitate the development.

		Applicant Name	Location	Proposed Development
17/04/2023	Permission		**Rush Lusk**	
F22A/0454	Clarification of Additional Information	John Murray	Doles Road, Common Upper, Garristown, Co. Dublin	The development will consist of single storey detatched dwelling, domestic garage, entrance, & driveway. The development also includes the installation of a proprietary waste water treatment system and polishing filter together with all associated site works. AI received 5/12/22 SAI recived 20/12/22 CAI received 17/04/23
17/04/2023	Permission		**Rush Lusk**	
F22A/0470	Additional Information	Daragh Shanahan	Newtown, Garristown, Co Dublin	Single Storey dwelling house with access through existing neighbouring driveway and with EN certified septic tank and percolation area together with surface water soakaway per BRE 365 design. The Site is located within an area which is subject to a "Highly Sensitive Landscape" designation and the site zoning is "HA" High Amenity with the objective to 'Protect and enhance high amenity areas' and the landscape character of the area is indicated as ' High Lying Agriculture' AI received 17/04/23
17/04/2023	Retention		**Castleknock**	
FW23A/0105		Barney Lynch	14 Laraghcon, Lucan, County Dublin, K78RP82	Permission for retention sought for detached garage at side of dwelling
18/04/2023	Permission		**Balbriggan**	
F22A/0539	Additional Information	Alec Davis	Curkeen Lodge, Hacketstown, Skerries, Co. Dublin	Construction of a two-storey house with a two-storey detatched double garage with a home office and gym above, ancillary site works, and relocation and design of the existing vehicular entrance and eastern boundary wall at Curkeen Lodge, Hacketstown, Skerries. AI received 18/04/2023.
18/04/2023	Permission		**Swords**	
F23A/0171		Malcom Gavin & Caroline Elmes	130 Lioscian, Swords, Co. Dublin, K67 NY74	Planning permission is being sought to 1. remodel the main roof removing the hips and extending the new Dutch hip roof to a new gable wall to the side 2. an attic conversion to the main roof for storage purposes 3. provision of a zinc clad dormer window to rear slope of the main roof and 4. extend the existing chimney stack to the side at Lioscian, Swords, Co. Dublin, K67 NY74.

		Applicant Name	Location	Proposed Development
18/04/2023	Permission and Retention		**Blanchardstown Mulhuddart**	
FW23A/0106		Titan Containers Ireland Ltd	Site D & E Gateway, Rosemount Business Park, Blanchardstown, Dublin 11	Permission for retention of extension of 2.47ha to their self-storage container park at site D & E Gateway, Rosemount Business Park, Blanchardstown, Dublin 11. Access is via the existing premises and from a new proposed vehicular access from Rosemount Park Drive for which permission is also being sought. Works carried out include new 2.4m high palisade fencing along the southern and north east site boundaries and a 2.5m high screen wall to the western boundary. A ten year temporary permission is sought for both the existing and extended premises.
18/04/2023	Permission		**Rush Lusk**	
F23A/0172		Lyndsey McKeon	Land behind Saint Colettes and San Giovanni, Channel Road, Rush, Co. Dublin	Planning Permission for the dismantlement/demolition of existing greenhouses, and the construction of one new single storey dwelling, soakaway, new boundary walls, new utility connections, alterations to existing vehicular entrance, and all associated site works.
18/04/2023	Permission		**Blanchardstown Mulhuddart**	
FW23A/0107		Kieran and Joanne Cummins	59 Hollystown Park, Hollystown, Dublin 15, D15 R6P0	Planning Permission for a) single storey extension to front porch b) single storey extension to the side and rear c) modifications to fenestration d) external wall insulation to all external walls with external render finish e) 2no. rooflights to flat roof of new extension f) and all associated site works
18/04/2023	Permission		**Howth Malahide**	
F23A/0173		Susan & Paul Delaney	31 Lissadel Crescent, Malahide, Co. Dublin, K36 YY80	Planning permission for development of 1) an attic conversion for home office purposes with 2) provision of a zinc clad dormer window to the rear slope of the main roof, 3) roof light and ten solar panels at front slope of main roof and 4) internal modifications to the first floor.
19/04/2023	Retention		**Swords**	
F23A/0174		Marnie & Me Ltd	Two Birds Coffee, Dunnes Stores, Rathbeale Road, Swords, Co.Dublin, K67 HH36	Planning permission for retention for the Coffee Trailer at Two Birds Coffee, Dunnes Stores, Rathbeale Road, Swords, K67 HH36. The development will consist of The retention of a cafe/takeaway trailer with external tables/seating, storage box and roof top signage and the change of use of part of a car park to use as a cafe/ takeaway.
19/04/2023	Permission		**Swords**	
F23A/0175		Aisling O'Brien		Planning Permission for an attic conversion into non

		Applicant Name	Location	Proposed Development
				habitable storage with new roof windows to front with ancillary works
			26 The Elms, Ridgewood, Swords, Co. Dublin	
19/04/2023	Part XI (Dev by LAs)			
PARTXI/002/23		Architects Department	New Street, Malahide	Fingal County Council (Environment Climate Action and Active Travel) are proposing public realm improvements for pedestrianised New Street, Malahide. The proposed development extends to the full length of New Street from Main Street / the Mall (also knows as The Diamond) in the south to Strand Street to the north and including parts of main street / The Mall, Ross Terrace and Strand Street all at Malahide, Co. Dublin. The site is located within Malahide Historic Core Architectural Conservational area. In accordance with Section 179 of the Planning and Development Act 2000 (as amended) and Part 8 of the Planning and Development Regulations 2001 (as amended), Fingal County Council hereby gives notice of the proposed development to be carried out at the above site. The nature and extent of the proposed development is as follows: (i) Widening of footpaths and provision of new kerb edges with existing kerbstones retained, realigned, and protected within the widened footpaths and public spaces. (ii) Realignment and narrowing of the trafficable section of New Street (c.150m in length, 0.22ha) and insertion of control measures and all necessary signage to provide for a pedestrianised street with associated traffic flow routes and restrictions but allowing for emergency vehicles and time limited one-way access from 7am to 11am each day for deliveries from Main Street/ The Mall to New Street and two-way access from Strand Street to Ross?s Terrace via New Street. (iii) Upgrade of all street surfaces. (iv) Provision of 2no. loading bays; at the southern and northern ends of New Street and an accessible parking space in front of the HSE building. (v) Installation of cycle stands at 6no. locations on New Street with capacity for 23no. cycle parking spaces. (vi) Removal and replacement of 11no. existing trees, with 37no. trees of species appropriate to the location and environment, and provision of soft landscaping and green infrastructure with planting zones for seeded, planted and hedging areas and associated bioretention and tree pit areas. (vii) Provision of outdoor dining zones including tables and chairs and other ancillary moveable structures. (viii) Provision of street furniture including seating, benches and litter and recycling bins and a water

feature,
(ix) New public lighting.
(x) Upgrade of the watermain and foul drainage networks and upgrade and relocation of the surface water drainage network including provision of sustainable urban drainage systems (SUDs) features as part of hard and soft landscaping.
(xi) Provision of ducting for existing and future utilities and piped infrastructure.
(xii) All associated site and development works.
Fingal County Council will be providing regulatory traffic signs (including regulatory signs which give effect to a pedestrianisation of New Street) in accordance with Section 95 of the Road Traffic Act 1961 (as amended).

Plans and particulars of the proposed development will be available for inspection at https://consult.fingal.ie/en/browse and inspection or purchase at a fee not exceeding the reasonable cost of making a copy from 19th of April 2023 up to and including 17th of May 2023 at the following:
The Offices of Final County Council, County Hall, Main Street, Swords, Co. Dublin, K67 X82 during normal opening hours (Monday to Thursday 9am to 5pm and Friday 9am to 4.30pm excluding Bank & Public Holidays)
Malahide Public Library, Main Street, Malahide, Co. Dublin K36 EW63 (during library opening hours)
Submissions or observations with respect to the proposed development dealing with the proper planning and sustainable development of the area in which the development would be situated, may be made either online through our website https://consult. fingal.ie/en/browse or in writing to: Senior Engineer, Environment, Climate Action & Active Travel Department, Fingal County Council, County Hall, Swords, Co Dublin K67 X8Y2.
Submissions or observations with respect to the proposed development must arrive no later than 5pm on 02nd of June 2023.
The proposed development has undergone screening for Environmental Impact Assessment under the EIA Directive 2011/92/EU as amended by Directive 2014/52/EU (and the relevant provisions of the Planning and Development Act 2000 (as amended) and the Planning and Development Regulations 2001 (as amended and Final County Council has determined that there is no real likelihood of significant effects on the environment arising from the proposed development and that an Environmental Impact Assessment is not required.
Any person may, within 4 weeks from the date of this notice, apply in accordance with the provisions of article 120 of the Planning and Development Regulations 2001 (as amended to An Bord Pleanála for a screening determination as to whether the development would be likely to have significant effects on the environment.
In addition, the proposed development has undergone screening for Appropriate Assessment and Final County Council has determined that following an examination, analysis and evaluation of all relevant information, on the basis of the objective

		Applicant Name	Location	Proposed Development
				information and in view of best scientific knowledge and applying the precautionary principle, the proposed development either individually or in combination with other plans and projects, and in the absence of mitigation, is not likely to have a significant effect on any European Sites), in view of the sites conservation objectives, and that there is no reasonable doubt in relation to this conclusion. Issues raised in submissions and observations to Fingal County Council in regard to this development, including the response of the Chief Executive thereto, will form part of the statutory report to be presented to the monthly meeting of Fingal County Council. The statutory report will also list the persons or bodies who made submissions or observations with respect to the proposed development in accordance with regulations made under Part XI of the Planning and Development Act as amended. The minutes of that meeting including the statutory report will appear on the Council's Website. Details including the names of those making submissions or observations may be shared with relevant Council Departments and agents working on their behalf.
19/04/2023	Permission		**Swords**	
F23A/0177		Fernando De Faria Ribeiro & Renata Prieskienyte	3 Swords Manor Drive, Swords, Co Dublin, K67 C6K8	Planning Permission for conversion of attic space with a new dormer roof to the rear of the existing house roof and all ancillary works.
19/04/2023	Permission		**Howth Malahide**	
F23A/0176		Mr & Mrs Thomas Madeley	No. 4 Carrickhill Rise, Portmarnock, Co. Dublin, D13 CX94	To remove existing pitched roof over ground floor extension to east side of house and construct single storey extension attached to side of house first floor level bedroom and bathroom with pitched roof finish and extension to kitchen ground floor level attached to rear of house with flat roof finish.
19/04/2023	Permission		**Howth Malahide**	
F23A/0179		Sheila Brennan	79 Abbey Park, Baldoyle, Dublin 13, D13V9P8	The development will consist of the conversion of the existing domestic garage as well as the construction of a first-floor extension over garage, all to form a new family flat, also to extend the existing hipped roof over new extension, with all associated site works.
19/04/2023	Permission		**Balbriggan**	
F23A/0180		PKAMA Developments Limited	6 Strand Street, Skerries, Co Dublin, K34 ED76	Full planning permission for the construction of 2 number 4-bedroom dwelling houses and associated site works at No 6 Strand Street and Sandy Banks Lane to rear of No 6 Strand Street, Skerries, Co. Dublin, K34 ED76. Proposed dwelling No 1 is a semi-detached 2 storey dwelling attached to existing dwelling No 6 Strand Street and proposed dwelling

		Applicant Name	Location	Proposed Development
				No 2 is a detached 2 storey dwelling fronting onto Sandy Banks Lane to the rear of No 6 Strand Street. Four off street car parking spaces are located off Sandy Banks Lane with pedestrian access from the proposed dwellings and existing dwelling No 6 Strand Street.
19/04/2023	Permission		**Rush Lusk**	
F23A/0182		Anne McCrudden	South Shore Road, Rodgerstown, Rush, Co. Dublin	The development will consist of; The demolition of existing glasshouses, and the construction of 4 no. new detached two storey dwelling houses, provision for storm water percolation, within curtilage parking provision for 2 no. vehicles for each dwelling, new vehicular access and new internal access road, from South Shore road, to include goods vehicles turning provision , hard and soft landscaping, access road and pedestrian walkways, services (incl. SUDS) and all other ancillary and associated site development works.
19/04/2023	Permission		**Balbriggan**	
F23A/0181		Keith Hughes	Plot 6, Oberstown, Lusk, Co. Dublin	Planning permission is sought for construction of new detached storey and a half dwelling house, waste water treatment plant and percolation area, storm water percolation area, to include off street parking provision for 2no. vehicles, with access from new internal access road, on Plot No. 6, consequent to grants of outline planning permission ref. nos F21A/0278, and F19A/0532 (outline planning permission for 6 no. dwelling houses) at Plot 6 Oberstown, Lusk, Co. Dublin.
19/04/2023	Permission		**Castleknock**	
FW23A/0026	Additional Information	The Romanian Orthodox Church of Ireland	Former St. Mary of the Servants Catholic Church, Blakestown Way, Blakestown, Dublin 15	A) The amendment of car parking spaces on site from 60 to 97. B) The extension of the space behind the altar. C) The refurbishment of the entrance facade, to include religious iconography. AI received 19/04/23
19/04/2023	Permission		**Howth Malahide**	
F23A/0178		Society of St. Vincent de Paul	Units 14/15/16, Malahide Shopping Centre, Main Street, Malahide, Co. Dublin	The proposed development will consist of the proposed merger of the existing St. Vincent de Paul Retail Shop located at Unit 15 & 16 Malahide Shopping Centre with the adjacent Retail Shop unit at 14 Malahide Shopping Centre to form a single St. Vincent de Paul Retail Shop, including new advertisement signage to ground floor fascia at Front Elevation (East Facing), including all associated and ancillary works at this address in accordance with the drawings as submitted.

		Applicant Name	Location	Proposed Development
20/04/2023	Permission		**Rush Lusk**	
F23A/0184		Jamie Lawlor & Darina Dunne	Knockbrack, Ring Commons, Co. Dublin, K32 HF80	The development will consist of: A Two-storey extension to the rear of the existing two-storey house including associated alterations to the rear elevation of the existing house.
20/04/2023	Permission		**Swords**	
F23A/0185		Onyx Ireland 2022 Propco I Limited	Unit K, North Ring Business Park, Swords Road, Turnapin Little, Co.Dublin	Permission for the recladding and partial painting of existing external elevations.
20/04/2023	Permission and Retention		**Howth Malahide**	
F23A/0186		Mr & Mrs Cunningham	San Pedro, Grey's Lane, Balkill Road, The Summit, Howth, Co. Dublin	Retention Permission is sought by Mr. & Mrs. Cunningham for a concrete section of rear boundary wall that adjoins the "Old Tram Walk" plus the concrete buttress wall that supports this concrete wall and also for a triangular shaped portion of our side block boundary wall with our neighbour in "Woodview". Planning Permission is sought to change the existing single storey with pitched roof Home Office, Gym, & Boiler Room into a two storey flat roofed Home Office, Gym, Boiler Room & Garden Store and all ancillary site works. All finishes will match the existing structure all at San Pedro, Grey's Lane, Balkill Road, The Summit, Howth, Co. Dublin.
20/04/2023	Permission		**Rush Lusk**	
F23A/0183		Station Construction Ltd	Site at No.23 Rahenny Park, Raheny Lane, Lusk, Co. Dublin	The development will consist of the following: Construction of 1 two storey 4 Bedroom dual aspect family home (Type S1 - 133 sq.m) on a site area of 298 sq.m; and thereby seek to amend Condition 3 of Plan Ref F18A/0645, which sought this site to be reserved for the provision of a Childcare facility, subjects to a future application.
20/04/2023	Permission		**Blanchardstown Mulhuddart**	
FW23A/0108		Sharon Gerhardt	Rudy's Restaurant, 17 Main Street, Blanchardstown, Dublin 15, D15 YDC3	Permission is sought for a lightweight steel framed structure to act as a windbreaker/covered area for the outdoor seating area to the front of the existing restaurant, with retractable glazed walls and roof for protection of patrons dining outdoors.
21/04/2023	Permission		**Howth Malahide**	
F23A/0187		Alan Redmond & Emma Marcus	21 Birchdale Road, Kinsealy, Co.Dublin	Planning permission for (1) Conversion of existing attic to storage/ home office use

		Applicant Name	Location	Proposed Development
				(2) To replace existing side hip roof profile with gable roof profile (3) Dormer window to the rear roof plane (4) Fit two rooflights to the front roof plane and all associated site works.
21/04/2023	Permission		**Swords**	
F23A/0188		Carina Cunningham	The Side Garden of No. 3 The Old Stables, East Commons, Swords, Co. Dublin	Planning permission is sought to construct a new one and a half storey, four-bedroom detached dwelling with revised existing vehicular access and all associated landscaping and site development works in the side garden of No. 3 The Old Stables, East Commons, Swords, Co. Dublin.
21/04/2023	Permission		**Castleknock**	
FW23A/0109		Tony O'Donnell	9 Fairhaven Court, Castleknock, D15, D15F68X	The development will consist of 1. Attic conversion incorporating a rear facing flat roof dormer to consist of a new home office and wc. Including a new landing window to the south gable wall to match existing 2. General remodel and upgrade of the existingdwelling at first flor and roof levels to suit the proposed layouts. 3. All drainage, structural and associated site works to be implemented.
21/04/2023	Permission		**Howth Malahide**	
F23A/0189		Micheál Armstrong	Montrose, Asgard Road, Howth, Co. Dublin, D13 XH73	For permission to remove the existing conservatory and construct a new sunroom to the West side of the existing house including all associated site works.

Appendix A2 - Copy of EIA Screening Report

RE: PUBLIC REALM IMPROVEMENTS FOR A PEDESTRIANISED NEW STREET, MALAHIDE



ENVIRONMENTAL IMPACT ASSESSMENT SCREENING REPORT

February 2023

BMA PLANNING

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1.0 INTRODUCTION

1.1 PURPOSE OF THE REPORT

This report is the Environmental Impact Assessment (EIA) Screening Report for proposed public realm improvements for a pedestrianised New Street at Malahide, Co. Dublin (hereafter the **"proposed public realm improvements"**). This report has been prepared in accordance with the applicable provisions of Directive (2011/92/EU) of the European Parliament and of the Council of 13 December 2011 on the assessment of the effects of certain public and private projects on the environment as amended by Directive 2014/52/EU of the European Parliament and of the Council of 16 April 2014 (the **"EIA Directive"**) and the Planning and Development Regulations 2001 (as amended) (the **"2001 Regulations"**).

This EIA Screening Report has been prepared so as to enable the Competent Authority to consider whether the proposed public realm improvements are likely to have significant effects on the environment such that an EIA is required, in accordance with the provisions of the EIA Directive.

1.2 OVERVIEW OF THE PROPOSED PUBLIC REALM IMPROVEMENTS

The proposed public realm improvements are typical of works undertaken in urban areas throughout Ireland with the purpose of enhancing public streetscapes and in promoting sustainable transport modes and encouraging walking and cycling as priorities over the private car. The National Planning Framework (NPF), for example, sets out 10 National Strategic Outcomes and 75 National Policy Objectives to enable all parts of Ireland, urban and rural to accommodate growth and change. National Policy Objective 27 seeks to "*ensure the integration of safe and convenient alternatives to the car into the design of our communities, by prioritising walking and cycling accessibility to both existing and proposed developments, and integrating physical activity facilities for all ages*". The proposed public realm improvements for a pedestrianised New Street, Malahide represent a positive example of this national policy being given local effect by Fingal County Council throughout the County, but in particular in "Town and District Centres" such as Malahide.

Public realm improvement works of this kind generally fall well below relevant EIA thresholds due to the localised nature and limited scale of the works and because they are located within the existing built environment.

Prior to the outbreak of Covid-19 in March 2020, New Street, Malahide accommodated two-way traffic movement. Following a government mandate to review road networks in urban areas to identify areas that could prioritise pedestrian and cycle movements, New Street was pedestrianised from June 2020 to December 2020. This arrangement was modified to a one-way system for vehicular traffic from December 2020 to June 2021. In June 2021, Fingal County Council pedestrianised New Street. As a result, there is currently time limited one-way

access from 7am to 11am each day for deliveries and emergency vehicles from Main Street/ The Diamond to New Street and two-way access from Strand Street to Ross's Terrace via New Street.

The proposed public realm improvements are now being brought forward for a pedestrianised New Street to enhance the public realm in line with local, regional and national land use planning and transportation policies. The proposed public realm improvements for a pedestrianised New Street will bring positive impacts in terms of enhancing the streetscape at New Street and promoting active travel modes with improved facilities for pedestrians and cyclists. This EIA Screening Report considers whether the pedestrianisation and proposed public realm improvements to New Street are likely to have significant effects on the environment compared with the position in 2019 when there was two-way traffic on New Street. In addition, and for completeness, as is evident from table 4.2 below, this EIA Screening Report has also considered whether there are any likely significant effects arising when comparing the proposed public realm improvements for a pedestrianised New Street with the current position on New Street today.

The proposed public realm improvements involve the widening of footpaths and provision of new kerb edges to the widened footpaths and public spaces on New Street, Malahide (c.150m in length, 0.22ha). The trafficable section of New Street will be realigned and narrowed and control measures will be inserted to provide for revised traffic flow routes, restrictions, car parking and loading arrangements.

All street surfaces will be upgraded and existing street trees replaced with new trees and added soft landscaping. Outdoor dining zones will be identified and new street furniture installed. New public lighting will be provided and the water services and utilities networks within the street will be upgraded.

1.3 QUALIFICATIONS

This report has been compiled by BMA Planning under the direction of John Murphy. John Murphy is a qualified town planner with BMA Planning, Planning and Development Consultants since 2004. He has an undergraduate degree from the University of Galway and a Masters in Regional and Urban Planning (MRUP) from University College Dublin. He is a corporate member of the Irish Planning Institute and operates in accordance with their code of professional conduct.

As a planning consultant for over 18 years, he has extensive experience in major urban development and infrastructure projects throughout Ireland, including the preparation of multiple Environmental Impact Assessment Screening Reports and Environmental Impact Assessment Reports for residential, commercial and infrastructure projects.

1.4 TECHNICAL SUPPORTING DOCUMENTS

This EIA Screening Report has been prepared with the benefit of the information and technical reports from the project design team contained within the appendices to this report.

List of Appendices

A. Site Location and Site Layout Plans prepared by DFLA
B. Archaeological Assessment by Archaeology Plan
C. Architectural Heritage Assessment by Coady Architects
D. Report for Screening for Appropriate Assessment by Faith Wilson Ecological Consultant
E. Engineering Planning Report by Punch Consulting Engineers
F. Construction Management Plan by Punch Consulting Engineers
G. Construction & Demolition Waste Management Plan by Punch Consulting Engineers
H. Site Specific Flood Risk Assessment by Punch Consulting Engineers
I. Traffic & Transport Assessment by Punch Consulting Engineers
J. Arboricultural Report by the Tree File Consulting Arborists.
K. List of Planning Permissions (see Section 3.1.4 below).

2.0 LEGISLATION, GUIDELINES, AND REQUIREMENTS FOR EIA SCREENING

2.1 RELEVANT LEGISLATION & GUIDELINES

The EIA Directive requires that projects likely to have significant effects on the environment are made subject to an assessment with regard to their effects on the environment before development consent is given for such projects.

Projects listed in Annex I of the EIA Directive (as transposed in Part 1 of Schedule 5 to the Planning and Development Regulations 2001 (as amended)), and projects listed in Annex II of the EIA Directive (as transposed in Part 2 of Schedule 5 to the 2001 Regulations) that equal or exceed the thresholds set out in Part 2 of Schedule 5 to the 2001 Regulations, require a mandatory EIA.

Projects listed in Annex II, that do not equal or exceed the thresholds set out in Part 2 of Schedule 5 to the 2001 Regulations, require screening to determine whether an EIA is required.

Therefore in order to determine whether an EIA is required, it is necessary to:-

1) Review the proposed public realm improvements against the classes of projects set out in Annex I of the EIA Directive, as transposed into Irish law by Part 1 of Schedule 5 to the 2001 Regulations. Annex I projects require mandatory EIA and, as such, there is no screening determination required; and

2) Review the proposed public realm improvements against the classes of projects and thresholds set out in Annex II to the EIA Directive (as transposed in Part 2 of Schedule 5 to the 2001 Regulations) and Part 2 of Schedule 5 to the 2001 Regulations. Where a proposed development falls into a class of project set out in Annex II to the EIA Directive (as transposed in Part 2 of Schedule 5 to the 2001 Regulations) and the relevant thresholds set out in Part 2 of Schedule 5 to the 2001 Regulations are met or exceeded, EIA is mandatory and no screening determination is required.

3) However, for "sub-threshold" development (that is, development falling within a class of project identified in Annex II to the EIA Directive (as transposed in Part 2 of Schedule 5 to the 2001 Regulations) but below the relevant threshold set out in Part 2 of Schedule 5 to the 2001 Regulations), a screening determination is required to be undertaken in order to ascertain whether by virtue, inter alia, of its nature, size or location, that development would be likely to have significant effects on the environment such that an EIA is required.

This EIA Screening Report has been prepared having regard to the following documents:-

- *Interpretation of Definitions of Project Categories of Annex I and II of the EIA Directive (European Commission, 2015)*

- *Environmental Impact Assessment of Projects: Guidance on Screening (European Commission, 2017)*
- *Ministerial Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment* (Department of Housing, Planning, and Local Government, 2018).
- *OPR Practice Note PN02: Environmental Impact Assessment Screening (Office of the Planning Regulator, 2021).*
- *Guidelines on Information to be contained in Environmental Impact Assessment Reports (Environmental Protection Agency, 2022)*.

As set out in the "Ministerial Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment" (2018), screening is the initial stage in the EIA process and determines whether or not specified public or private developments are likely to have significant effects on the environment and, as such, require EIA to be carried out prior to a decision on a development consent application being made. A screening determination is a matter of professional judgement, based on objective information relating to the proposed project and its receiving environment. Environmental effects can, in principle, be either positive or negative.

The Environmental Protection Agency's *Guidelines on Information to be contained in Environmental Impact Assessment Reports* provide a flow diagram of the screening process, which is the process that has been followed in the preparation of this EIA Screening Report, as follows:-

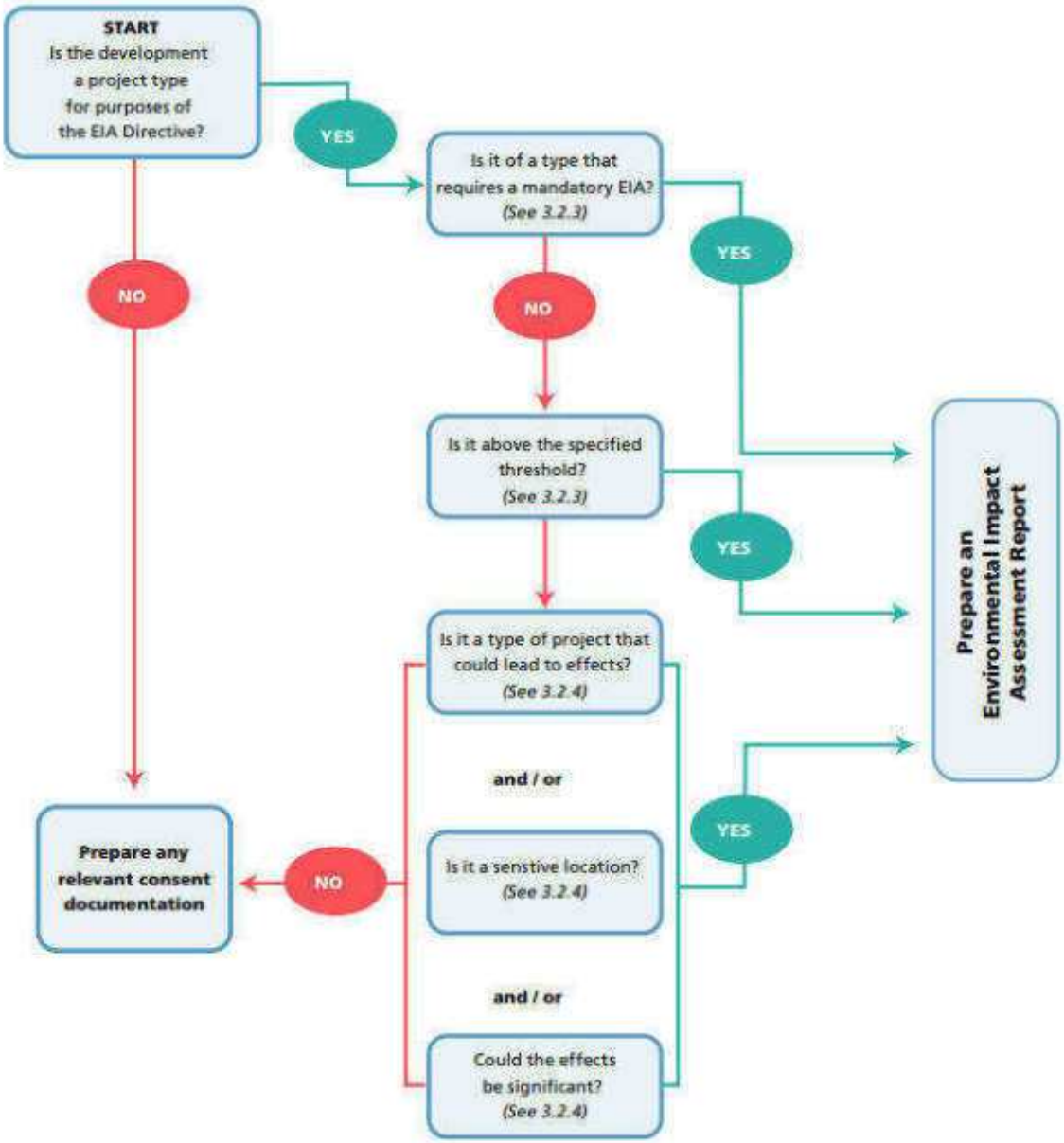


Figure 3.2 Screening

(Source: *Guidelines on Information to be contained in Environmental Impact Assessment Reports (Environmental Protection Agency, 2022)*).

2.2 REQUIREMENT FOR MANDATORY EIA

The proposed public realm improvements do not fall within any of the classes of projects identified in Annex I to the EIA Directive and listed in Part 1 of Schedule 5 to the 2001 Regulations, which require a mandatory EIA.

Furthermore, the proposed public realm improvements do not meet or exceed the thresholds set out in Part 2 of Schedule 5 to the 2001 Regulations for any of the classes of projects identified in Annex II to the EIA Directive (as transposed in Part 2 of Schedule 5 to the 2001 Regulations).

The class of project set out in Part 2 of Schedule 5 to the 2001 Regulations which is most relevant to the proposed public realm improvements is Class 10(b)(iv), which appears under the heading "Infrastructure Projects" and is:-

> *10. Infrastructure projects*
> *(a) …….*
>
> *(b) (i) Construction of more than 500 dwelling units.*
>
> *(ii) Construction of car-parks providing more than 400 spaces, other than a car-park provided as part of, and incidental to the primary purpose of, a development.*
>
> *(iii) Construction of shopping centres with a gross floor space exceeding 10,000 square metres*
>
> *(iv)* ***Urban development which would involve an area greater than 2 hectares in the case of a Business District,*** *10 hectares in the case of other parts of a built-up area, and 20 hectares elsewhere. (In this paragraph "business district" means a district within a city or town in which the predominant land use is retail or commercial use.)*
>
> **(emphasis added)**

The proposed public realm improvements are located in a business district and therefore the relevant threshold for the purposes of Class 10(b)(iv) is *"an area greater than 2 hectares."*

The proposed public realm improvements, being a street of 150m in length with a site area of 0.22ha, fall well below this threshold and therefore do not trigger a requirement for a mandatory EIA.

2.3 SUB-THRESHOLD EIA

As set out above, the proposed public realm improvements fall into Class 10(b)(iv) of Annex II to the EIA Directive, as transposed in Part 2 of Schedule 5 to the 2001 Regulations, and do not exceed the relevant threshold of 2 hectares. Therefore the proposed public realm improvements are considered "sub-threshold development" and an EIA Screening is required.

The information to be provided by the developer for the purpose of screening for sub-threshold development is set out in Annex IIA to the EIA Directive, as transposed in Schedule 7A of the 2001 Regulations as follows:

1. *A description of the proposed development, including in particular—*
   - *(a) a description of the physical characteristics of the whole proposed development and, where relevant, of demolition works, and*
   - *(b) a description of the location of the proposed development, with particular regard to the environmental sensitivity of geographical areas likely to be affected.*

2. *A description of the aspects of the environment likely to be significantly affected by the proposed development.*

3. *A description of any likely significant effects, to the extent of the information available on such effects, of the proposed development on the environment resulting from—*
   - *(a) the expected residues and emissions and the production of waste, where relevant, and*
   - *(b) the use of natural resources, in particular soil, land, water and biodiversity.*

4. *The compilation of the information at paragraphs 1 to 3 shall take into account, where relevant, the criteria set out in Schedule 7.*

Further, Annex III to the EIA Directive (as transposed in Schedule 7 to the EIA Directive) sets out the criteria to determine where a project (i.e. sub-threshold development) should be subject to EIA. The criteria for assessing sub-threshold development under the EIA Directive are grouped under three headings, namely (i) Characteristics of Proposed Development, (ii) Location of Proposed Development and (iii) Characteristics of Potential Impacts.

Competent authorities must have regard to these criteria in making a determination as to whether or not a sub-threshold development is likely to have significant effects on the environment by virtue inter alia of its nature, size or location and should be subject to EIA.

Schedule 7 to the 2001 Regulations (which transposes Annex III to the EIA Directive and includes an additional criterion over and above Annex III namely: *"the nature of any associated demolition works"*, which criterion has been considered as appropriate in this EIA Screening Report) states as follows: -

'CRITERIA FOR DETERMINING WHETHER DEVELOPMENT LISTED IN PART 2 OF SCHEDULE 5 SHOULD BE SUBJECT TO AN ENVIRONMENTAL IMPACT ASSESSMENT

1. Characteristics of proposed development

The characteristics of proposed development, in particular—

(a) the size and design of the whole of the proposed development,

(b) cumulation with other existing development and/or development the subject of a consent for proposed development for the purposes of section 172(1A)(b) of the Act and/or development the subject of any development consent for the purposes of the Environmental Impact Assessment Directive by or under any other enactment,

(c) the nature of any associated demolition works,

(d) the use of natural resources, in particular land, soil, water and biodiversity,

(e) the production of waste,

(f) pollution and nuisances,

(g) the risk of major accidents, and/or disasters which are relevant to the project concerned, including those caused by climate change, in accordance with scientific knowledge, and

(h) the risks to human health (for example, due to water contamination or air pollution).

2. Location of proposed development

The environmental sensitivity of geographical areas likely to be affected by the proposed development, with particular regard to—

(a) the existing and approved land use,

(b) the relative abundance, availability, quality and regenerative capacity of natural resources (including soil, land, water and biodiversity) in the area and its underground,

(c) the absorption capacity of the natural environment, paying particular attention to the following areas:

(i) wetlands, riparian areas, river mouths;

(ii) coastal zones and the marine environment;

(iii) mountain and forest areas;

(iv) nature reserves and parks;

(v) areas classified or protected under legislation, including Natura 2000 areas designated pursuant to the Habitats Directive and the Birds Directive and;

(vi) areas in which there has already been a failure to meet the environmental quality standards laid down in legislation of the European Union and relevant to the project, or in which it is considered that there is such a failure;

(vii) densely populated areas;

(viii) landscapes and sites of historical, cultural or archaeological significance.

3. *Types and characteristics of potential impacts*

The likely significant effects on the environment of proposed development in relation to criteria set out under paragraphs 1 and 2, with regard to the impact of the project on the factors specified in paragraph (b)(i)(I) to (V) of the definition of 'environmental impact assessment report' in section 171A of the Act, taking into account—

(a) the magnitude and spatial extent of the impact (for example, geographical area and size of the population likely to be affected),
(b) the nature of the impact,
(c) the transboundary nature of the impact,
(d) the intensity and complexity of the impact,
(e) the probability of the impact,
(f) the expected onset, duration, frequency and reversibility of the impact,
(g) the cumulation of the impact with the impact of other existing and/or development the subject of a consent for proposed development for the purposes of section 172(1A)(b) of the Act and/or development the subject of any development consent for the purposes of the Environmental Impact Assessment Directive by or under any other enactment, and
(h) the possibility of effectively reducing the impact.'

The following Sections 3.0 and 4.0 provide the information required by Schedule 7 and 7A to the 2001 Regulations as set out in the table below:-

Schedule 7A to the 2001 Regulations		Relevant Section
1.	*A description of the proposed development, including in particular—*	
	(a) a description of the physical characteristics of the whole proposed development and, where relevant, of demolition works, and	Section 3.1 and Table 4.1
	(b) a description of the location of the proposed development, with particular regard to the environmental sensitivity of geographical areas likely to be affected.	Section 3.2 and Table 4.1
2.	*A description of the aspects of the environment likely to be significantly affected by the proposed development.*	Section 3.2 and Table 4.2

Schedule 7A to the 2001 Regulations		Relevant Section
3.	*A description of any likely significant effects, to the extent of the information available on such effects, of the proposed development on the environment resulting from—*	
	(a) the expected residues and emissions and the production of waste, where relevant, and	Section 3.1 and Table 4.1
	(b) the use of natural resources, in particular soil, land, water and biodiversity.	Section 3.2 and Table 4.1
4.	*The compilation of the information at paragraphs 1 to 3 shall take into account, where relevant, the criteria set out in Schedule 7.*	Section 3 and Table 4.1

3.0 DESCRIPTION OF THE PROJECT

3.1 CHARACTERISTICS OF PROPOSED DEVELOPMENT

This section provides a description of the physical characteristics of the proposed public realm improvements for a pedestrianised New Street.

3.1.1 Development Description

The proposed public realm improvements will comprise: -

(i) Widening of footpaths and provision of new kerb edges with existing kerbstones retained, realigned and protected within the widened footpaths and public spaces.
(ii) Realignment and narrowing of the trafficable section of New Street (c.150m in length, 0.22ha) and insertion of control measures and all necessary signage to provide for a pedestrianised street with associated traffic flow routes and restrictions allowing for time limited one-way access from 7am to 11am each day for deliveries and emergency vehicles from Main Street/ The Mall to New Street and a two-way access from Strand Street to Ross's Terrace via New Street.
(iii) Upgrade of all street surfaces.
(iv) Provision of 2no. loading bays at the southern and northern ends of New Street and an accessible parking space in front of the HSE building.
(v) Installation of cycle stands at 6no. locations on New Street with capacity for 23no. cycle parking spaces.
(vi) Removal and replacement of 11no. existing trees with 37no. trees of species appropriate to the location and environment and provision of soft landscaping and green infrastructure with planting zones for seeded, planted and hedging areas and associated bioretention and tree pit areas.
(vii) Provision of outdoor dining zones including tables and chairs and other ancillary moveable structures.
(viii) Provision of street furniture including seating, benches and litter and recycling bins and a water feature.
(ix) New public lighting.
(x) Upgrade of the watermain and foul drainage networks and upgrade and relocation of the surface water drainage network including provision of sustainable urban drainage systems (SUDs) features as part of hard and soft landscaping.
(xi) Provision of ducting for existing and future utilities and piped infrastructure.
(xii) All associated site and development works.

Fingal County Council will be providing regulatory traffic signs (including regulatory signs which give effect to a pedestrianisation of New Street) in accordance with Section 95 of the Road Traffic Act 1961 (as amended).

3.1.2 Site Context and Location

New Street is generally characterised by two storey terraced buildings incorporating a mix of residential dwellings, shops, restaurants and public houses. The street slopes down from south to north and incorporates footpaths on the eastern and western sides, street trees and a roadway that previously accommodated two-way traffic movement. Pedestrian crossings are provided at the northern and southern ends of the street.

Prior to the outbreak of Covid-19 in March 2020, New Street, Malahide accommodated two-way traffic movement. Following a government mandate to review road networks in urban areas to identify areas that could prioritise pedestrian and cycle movements, New Street was pedestrianised from June 2020 to December 2020. This arrangement was modified to a one-way system for vehicular traffic from December 2020 to June 2021. In June 2021, Fingal County Council pedestrianised New Street. As a result, there is currently time limited one-way access from 7am to 11am each day for deliveries and emergency vehicles from Main Street/ The Diamond to New Street and two-way access from Strand Street to Ross's Terrace via New Street.

The proposed public realm improvements are now being brought forward for a pedestrianised New Street to enhance the public realm in line with local, regional and national land use planning and transportation policies. This EIA Screening Report considers whether the pedestrianisation and proposed public realm improvements to New Street are likely to have significant effects on the environment compared with the position in 2019 when there was two-way traffic on New Street. In addition, and for completeness, as is evident from table 4.2 below, this EIA Screening Report has also considered whether there are any likely significant effects arising when comparing the proposed public realm improvements for a pedestrianised New Street with the current position on New Street today.

The lands to the rear of the existing buildings on New Street comprise a mixture of rear gardens/ courtyards used for amenity and servicing purposes and are accessed either directly through the buildings or via laneways. There is an additional side street off New Street known as Ross Terrace, providing access to Ross Cottages to the rear (east) of New Street. New Street Mall is located on the western edge of New Street and comprises a pedestrian mall space with shop and office units at ground and first floor levels. A car park is also located to the rear of New Street Mall and the vehicular entrance to this car park is provided from Strand Street.

The surrounding land uses comprises a mix of retail, commercial and residential uses accommodated within a series of streets including Old Street and Railway Avenue to the west, Townyard Lane and James Terrace Upper to the east and Main Street, The Mall and Church Road to the south.

New Street connects to The Green which is located north through the junction with Strand Street and links to Malahide Marina Village. The western side of The Green comprises a development of 3 to 4 storeys with ground floor units accommodating Starbucks and Tesco. The eastern side of this street is the site of a large landscaped urban space completed in 2021,

incorporating passive green spaces, seating and pathways leading to Malahide Estuary wall to the east.

Figure 3.1 illustrates the location and extent of the site at New Street, Malahide.

3.1.3 Size and Design

The site comprises New Street, Malahide, a street of c.150m in length, c.14m wide with an area of 0.22ha.

The proposed public realm improvements include widening of footpaths and provision of new kerb edges. The existing granite kerbstones will be retained, realigned and protected within the widened footpaths and public spaces.

The trafficable section of New Street will be realigned and narrowed along New Street (c.150m in length). All street surfaces will be upgraded including new carriageway surfacing and natural stone paving to the widened footpaths.

Access and Parking

Control measures will be inserted to provide for traffic flow routes and restrictions allowing for time limited one-way access from 7am to 11am each day for deliveries and emergency vehicles from Main Street/ The Mall to New Street and an unrestricted two-way access from Strand Street to Ross's Terrace via New Street. Signage will be installed to give effect to a pedestrianised New Street.

The proposed public realm improvements include the provision of 2no. loading bays at the southern and northern ends of New Street and an accessible parking space in front of the HSE building.

Cycle parking is provided for standard cycles, cargo bikes and ebikes within cycle stands at 6no. locations on New Street. Provision is made for 23no. cycle parking spaces.

Landscaping

Hard and soft landscaping improvements are proposed along the full length of New Street. These include the removal and replacement of 11no. existing trees with species appropriate to the location and environment. Additional soft landscaping and green infrastructure comprises planting zones for seeded, planted and hedging areas and associated bioretention and tree pit areas. Outdoor dining zones including tables and chairs and other ancillary moveable structures are identified on the proposed New Street with street furniture provided including seating, benches, litter and recycling bins and a water feature.

Services Infrastructure

Available records and survey information confirms that the existing stormwater drainage network on New Street comprises a 225mm stormwater piped concrete sewer flowing south to north connecting to a 225mm stormwater piped concrete sewer flowing west to east on Strand Street. As part of the public realm improvements, interception measures will be provided to reduce and treat surface generated on site. Stormwater on site will be routed to road gullies and channels to inspection chambers with inlets to bioretention areas. These bioretention areas will then connect into the existing 225mm stormwater sewer which will be diverted clear of all bioretention areas.

Existing foul drainage comprises a 225mm foul sewer running west to east on the street connecting to Ross Cottages to the south of the site, a 300mm foul sewer running east to west along Strand Street and a 225mm foul sewer running west to east along Main Street. As part of the public realm improvements a new gravity design network is proposed within a relocated 300mm diameter foul sewer proposed along New Street and connecting to the existing 300mm foul sewer on Strand Steet.

Watermain infrastructure in the area comprises 3" and 200mm watermains on New Street and 3" watermains on both Strand Street and Main Street. As part of the public realm improvements, the existing 3" watermain on New Street will be replaced with a 150mm watermain.

Regarding mechanical and electrical Services, the proposed public realm improvement works will provide for new services, relocating of existing services and removal of redundant infrastructure. 110mm ducts will be provided to accommodate existing and future services. New public lighting fixtures will be provided.

3.1.4 Cumulation of Effects

EIA screening requires consideration of the potential cumulation of effects with other existing and/or approved projects.

To understand the potential cumulative effects of the proposed development with other existing and/or approved projects, firstly a review of the Fingal County Council online database for recent planning permissions (in the past 5 years) within the site and within the buildings adjoining the subject site has been undertaken.

There are no planning permissions for other developments within the application site red line at New Street.

As described above, New Street comprises a mix of residential dwellings, shops, restaurants and public houses. **Appendix K** contains a list of the planning permissions granted within the buildings on New Street. These permissions generally relate to development (e.g. extension,

reconfiguration, change of use, signage) that typically occurs within an established and developed urban village and comprise works that do not give rise to any likely significant cumulative effects with the proposed public realm improvements.

In addition, a review of recent permissions within the wider *'TC – Town and District Centre'* zoned area of Malahide Village was also completed. Landscape improvements to The Green, located directly to the north of the site, were granted in 2017 (Ref. Part XI/007/17) and completed in 2021 and included layout revisions, installation of paving, street furniture and recontouring of the open space, and do not give rise to any likely significant cumulative effects with the proposed public realm improvements. Also of note is the permitted Broadmeadow Greenway, granted permission by An Bord Pleanala (Bord Ref. YA06F.304624) in May 2020 and comprising a greenway between Malahide Demesne and Newbridge Demesne. The route of the permitted greenway is located c.150m to the west of the New Street/ Strand Street junction. The permitted Broadmeadow Greenway, like the existing Baldoyle Portmarnock Greenway, is part of a wider network of greenways proposed for Fingal and includes the planned Sutton to Malahide Greenway, all of which will promote and facilitate Active Travel within Malahide and the wider county and does not give rise to any likely significant cumulative effects with the proposed public realm improvements.

Outside of the village area, it is possible that other projects, including proposed Strategic Housing Developments (SHDs) in the Malahide Road and Back Road areas of Malahide, will be under construction at the same time as the current project. These projects will be at a remove from the site at New Street and are a significant distance away from it. The primary cumulative impact would likely relate to construction traffic, however construction traffic relating to these other projects would not need to enter or travel through Malahide Village and so is unlikely to give rise to any likely significant cumulative effects with the proposed New Street public realm improvements.

3.1.5 Associated Demolition Works

No buildings are proposed to be demolished. The development includes the removal and disposal of the existing surface treatments and trees which will to be undertaken in accordance with best practice and recycled and reused where possible. Refer to ***Construction and Demolition Waste Management Plan*** [Punch Consulting Engineers] where this is clearly set out.

3.1.6 Use of Natural Resources

The works are proposed to the existing hardstanding surfaces within New Street. Ground disturbance during the construction phase will be kept to a minimum with removal of existing surfaces and service diversions requiring excavation of some soils.

There are 11no. existing trees on New Street. All are proposed to be removed. The existing trees have been surveyed and are considered to be contextually incompatible and it is the project arborist's view that retention of the existing trees would lead to irreparable damage and trip hazards. A total of 37no. new trees are proposed and the proposed tree species are selected for suitability to local conditions and microclimate, biodiversity and where necessary suitable for close proximity to buildings. Refer to ***Arboricultural Report*** [The Tree File] where this is set out.

3.1.7 Production of Waste

The development will involve localised excavation with the main waste type generated being soil/ stones and existing surface treatments. Table 3.1 below is extracted from the ***Construction and Demolition Waste Management Plan*** [Punch Consulting Engineers] and provides estimates of the construction and demolition wastes/ material surpluses that are likely to arise.

Construction Waste Material	Quantity	Actions
Metal	2t	Not envisaged at this stage of the project*
Concrete	50t	50% of any waste concrete to be recycled and 50% to be properly disposed of
Paper & Cardboard	1t	100% of any waste packaging to be recycled
Plastic		100% of any waste packaging to be recycled
Wood	2t	100% of any waste timber to be recycled
Mixed Waste	15t	Waste materials will be recycled where possible or disposed of appropriately
Mineral (bricks, gypsum)	5t	100% of any waste masonry to be recycled
Soil/Stones	840t	100% of any soil or stones to be recycled and reuse on site subject to suitability of material
Residues	10t	Any other waste materials will be recycled where possible or disposed of appropriately
TOTAL Arisings	925t	

Table 3.1: Estimated C&D Waste Arisings on Site (Source: Construction and Demolition Waste Management Plan by Punch Consulting Engineers.)

Where waste materials are moved off site, it is the intention to engage specialist waste service contractors, who will possess the requisite authorisations, for the collection and movement of waste off-site, and to bring the material to a facility which currently holds a Waste Licence/ Waste Permit/ Certificate of Registration. Waste management will to be undertaken in accordance with best practice. Refer to ***Construction and Demolition Waste Management Plan*** [Punch Consulting Engineers] where this is set out. The ***Traffic and Transport Assessment*** (hereafter TTA) [Punch Consulting Engineers] has considered the volumes of traffic that will be generated during the construction phase and concludes that these will be small in comparison to existing traffic flows in the general area and therefore there are no likely significant effects arising.

3.1.8 Pollution and Nuisances

Due to the nature, scale and character of the proposed development, the potential for pollution and nuisances is limited and would be confined primarily to the construction phase.

During construction, there is some potential for short-term negative impacts related to dust to occur, however this will be limited to the works area. Potential short-term noise/ vibration impacts may arise during construction activities and will also be limited to the works area. Best practice construction site management will minimise dust and noise/ vibration emissions during the short construction phase and therefore any effects on the environment are not likely to be significant.

There is potential for silt run off or accidental spillage of fuels, construction materials etc. during the construction phase. Due to the limited nature and scale of works involved however, the potential effects are not considered to be likely or significant on this project.

The TTA concludes that the small volumes of construction stage traffic will be absorbed within the network and the effects of construction related traffic in terms of pollution and nuisances are not likely to be significant.

3.1.9 Risk of Major Accidents or Disasters

The northern end of the site is located within Flood Zone A for fluvial flooding. The proposed public realm improvements are classified as a Water Compatible Development under the '*The Planning System and Flood Risk Management Guidelines 2009'* and as such are appropriate for this location. Refer to ***Site Specific Flood Risk Assessment*** [Punch consulting Engineers] which says that the proposed development is considered appropriate for this location and will not increase the flood risk elsewhere.

3.1.10 Risks to Human Health

Storm Water interception measures are proposed to reduce and treat surface water generated on New Street during the operational phase of the development. The introduction of a dedicated foul sewer as part of the project will allow for foul connections directly from premises along New Street, thereby reducing the foul sewer effluent in the pre-existing stormwater system.

3.2 LOCATION OF THE PROPOSED DEVELOPMENT

This section provides a description of the location of the proposed development with particular regard to the environmental sensitivity of geographical areas likely to be affected.

3.2.1 Existing and Approved Land Use

The site is located within Malahide Village Centre which is zoned *'TC – Town and District Centre'* in the *Fingal Development Plan 2017 - 2023*. This zoning objective is proposed to be retained in the *Draft Fingal Development Plan 2023 – 2029*.

All lands adjoining the site carry the same zoning objective except for The Green, located to the north and comprising a large landscaped urban space completed in 2021, incorporating passive green spaces, seating and pathways leading to Malahide Estuary wall to the east. These lands are zoned 'OS – Open Space'.

Figure 3.2 illustrates the site in the context of the Fingal Development Plan Zoning Objectives Map 2017 – 2023.

The proposed public realm improvements are compatible with the existing established land use.

3.2.2 Natural Resources

Land & Soils

The site comprises an existing urban street with pavements and streets trees. The proposed public realm improvements have been designed in response to the existing site contours and there will be no significant land reprofiling or movement arising from the proposed development. Excavated soils and stone arising from works to services infrastructure will insofar as is possible, be recycled and reused on site in accordance with the ***Construction and Demolition Waste Management Plan*** [Punch Consulting Engineers] which provides for the overall management of construction and demolition waste across the project in accordance with best practice.

Water

The existing hydrological environment is characterised by the presence of water associated with the Broadmeadow River and the Broadmeadow/ Malahide Estuary. The Geological Survey of Ireland data shows that the site is located within an area of extreme ground water vulnerability.

The *Strategic Flood Risk Assessment* prepared to accompany the *Draft Fingal Development Plan 2023 – 2029* provides flood risk maps for the area. This mapping demonstrates that the majority of the site is not at risk of flooding however, a small section of New Street towards the northern edge of the site at the junction with Strand Street is within Flood Zone A. Refer to ***Site Specific Flood Risk Assessment*** [Punch Consulting Engineers] which says that the proposed development is considered appropriate for this location and will not increase the flood risk elsewhere.

3.2.3 Absorption Capacity of Natural Environment

This subsection relates to the absorption capacity of the natural environment, paying particular regard to: -

'(i) wetlands, riparian areas, river mouths;
(ii) coastal zones and the marine environment;
(iii) mountain and forest areas;
(iv) nature reserves and parks;
(v) areas classified or protected under national legislation; Natura 2000 areas designated by Member States pursuant to Directive 92/43/EEC and Directive 2009/147/EC;
(vi) areas in which there has already been a failure to meet the environmental quality standards, laid down in Union legislation and relevant to the project, or in which it is considered that there is such a failure;
(vii) densely populated areas;
(viii) landscapes and sites of historical, cultural or archaeological significance.'

Landscape Character

The site is characterised as an established urban street framed by two storey terraced buildings. The street slopes down from south to north and incorporates footpaths on the eastern and western sides, street trees, parking and a roadway.

The proposed public realm improvements have been informed by the existing site context, the policies and objectives of the *Fingal Development Plan 2017 -2023* and *Draft Fingal Development Plan 2023 – 2029* and the location of the site within Malahide Historic Core Architectural Conservation Area.

Appropriate Assessment

The lands at New Street, Malahide are not designated for any nature conservation purposes.

Malahide Estuary SAC (Site Code: 000205) and Malahide Estuary SPA (Site Code: 004025) are located within 200m of New Street. Surface waters from New Street currently provide a

hydrological link (using the source – pathway – receptor criteria) from New Street to these sites.

Figures 3.3 and 3.4 are extracts from the ***Report for Screening for Appropriate Assessment (2022)*** for the project prepared by Faith Wilson Ecological Consultant and illustrate New Street in the context of the above listed sites.

The AA Screening Report concludes, for reasons set out therein, on the basis of objective information and in view of best scientific knowledge and applying the precautionary principle, that the proposed development, either individually or in combination with other plans or projects, and without relying on any mitigation measures, is not likely to have a significant effect on any European Site(s), in view of the sites conservation objectives, and that there is no reasonable scientific doubt in relation to this conclusion.

Built Heritage

A review of the Development Plan Record of Protected Structures confirms that there are no Protected Structures within the New Street site.

New Street is located in the Malahide Historic Core Architectural Conservation Area (ACA). Objective CH32 of the Development Plan provides guidance in relation to works within ACA's: -

Objective CH32

Avoid the removal of structures and distinctive elements (such as boundary treatments, street furniture, paving and landscaping) that positively contribute to the character of an Architectural Conservation Area.

The National Inventory of Architectural Heritage (see **Figure 3.5**) includes two entries relating to New Street, Malahide: -

- Lamp Standard (Reg. No. 11344035): - *'Freestanding cast-iron gas lamp standard, c.1900, comprising chamfered square pedestal with foliated shaft, decorative double lamp fitting above'.*

- Shop/ Retail Outlet (Reg. No. 11344046): - *'Corner-sited end-of-terrace five-bay two-storey former house, c.1835, retaining original fenestration to first floor. Single-bay single-storey extension to east c.1890. Ground floor remodelled c.1975 with pair of aluminium shopfronts. Now in use as retail outlet. ROOF: Double-pitched; slate; concrete ridge tiles; nap rendered chimney stacks; yellow clay pots; cast-iron rainwater goods; half-pyramidal to end bay; slate; red clay ridge tiles; nap rendered chimney stack. WALLS: Roughcast; painted; raised nap rendered quoins; nap rendered to end bay and to gable end. OPENINGS: Square-headed window openings to first floor; stone sills; 2/2 timber sash windows; square-headed door openings to centre ground floor; replacement glazed aluminium door; timber shopfront,c.1890, to end*

bay; panelled pilasters, decorative consoles, fascia and moulded cornice; replacement timber fixed-pane windows; pair of shopfronts to ground floor; aluminium fixed-pane display window; plastic fascia.'

The lamp standard referred to within the National Inventory of Architectural Heritage has since been removed from the streetscape due to corrosion of fixtures and the potential for a danger to pedestrians from falling debris.

Cultural Heritage

There are no recorded archaeological sites and monuments within the New Street site.

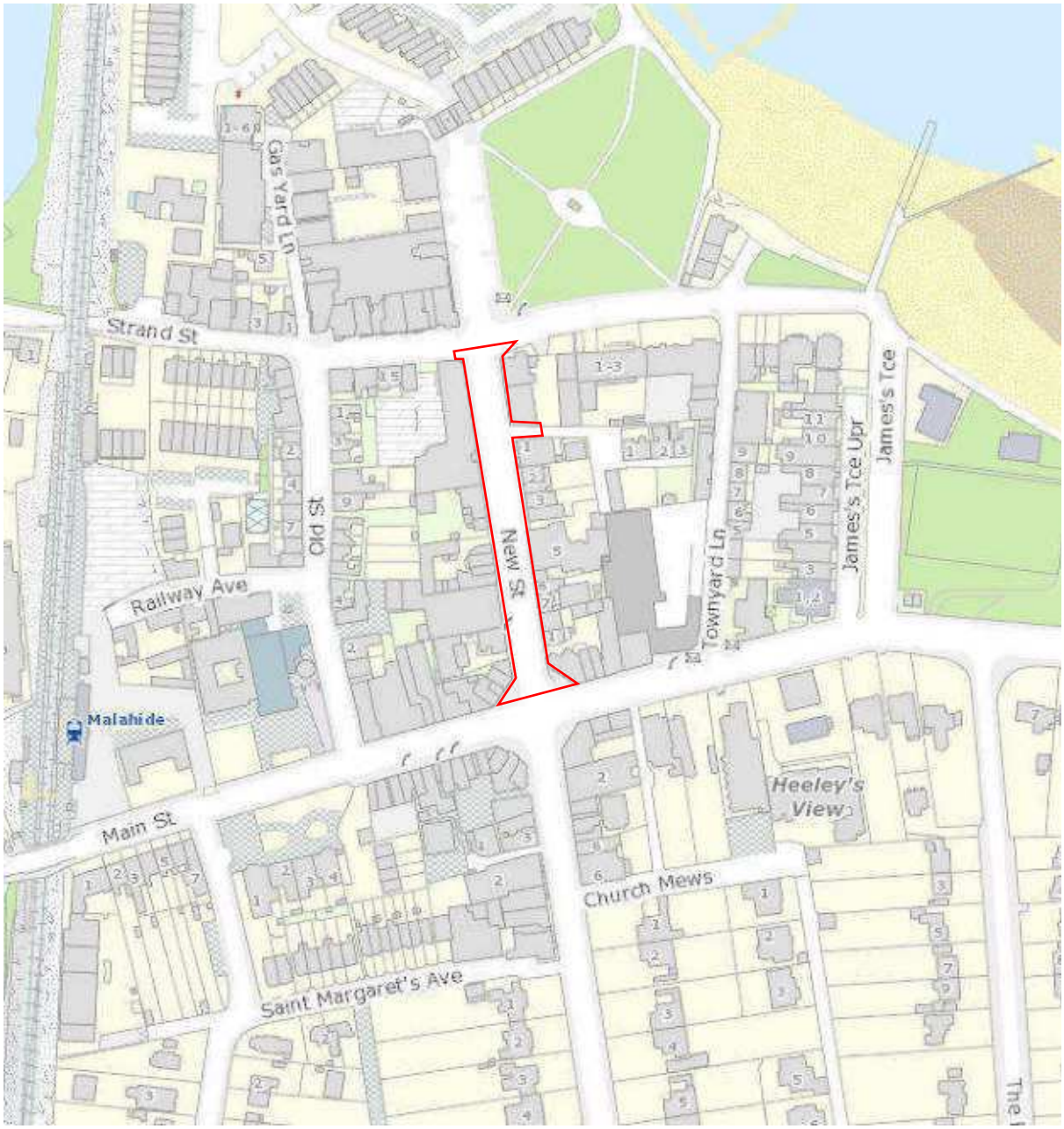
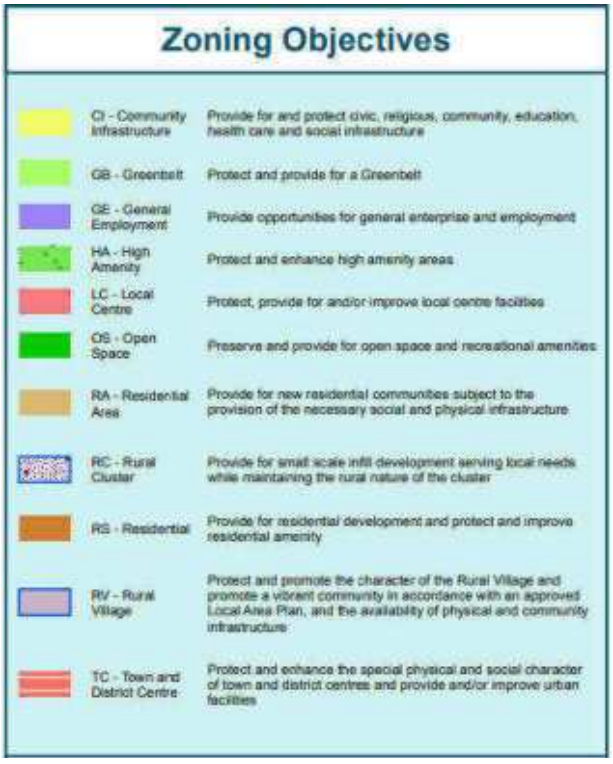


Figure 3.1: Location and Extent of the Site at New Street, Malahide



Figure 3.2: Development Plan Zoning Objectives Map - Malahide Village Insert
(Source: Fingal Development Plan 2017 – 2023)



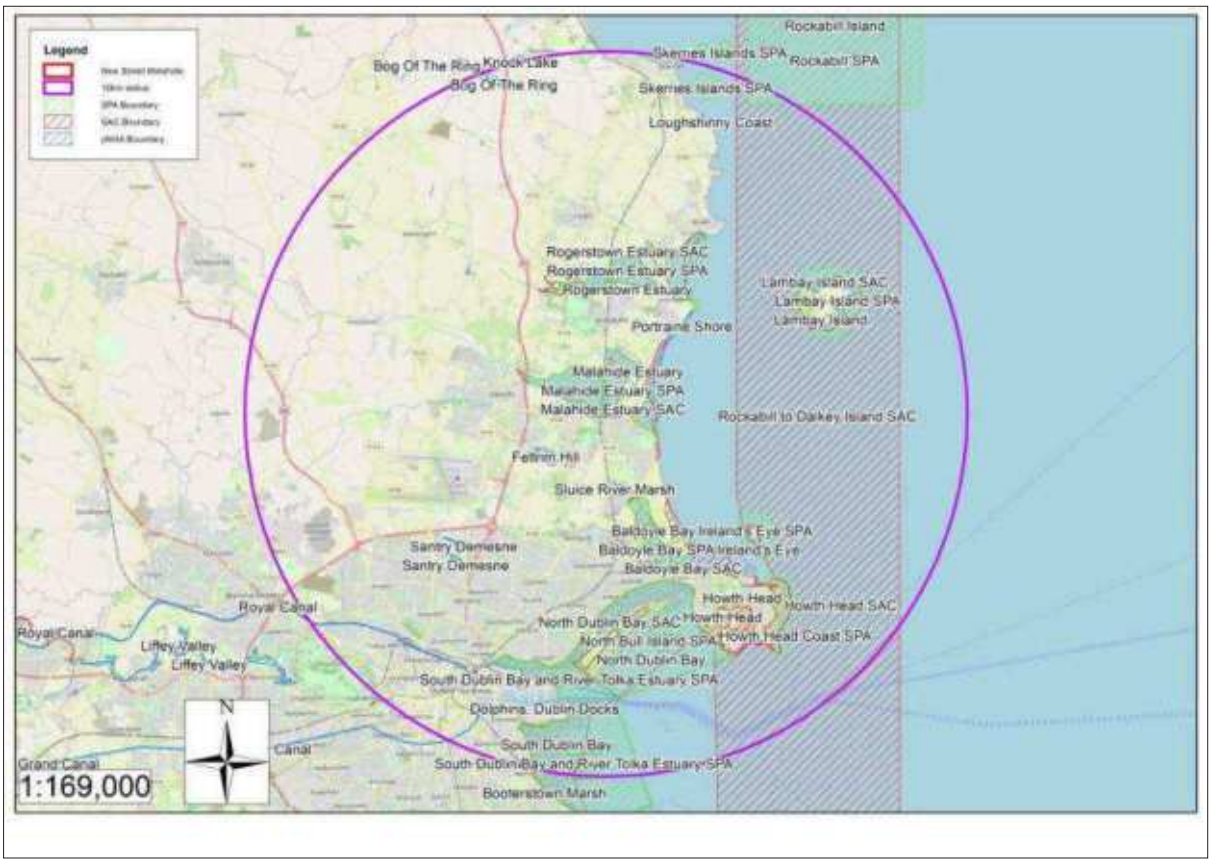
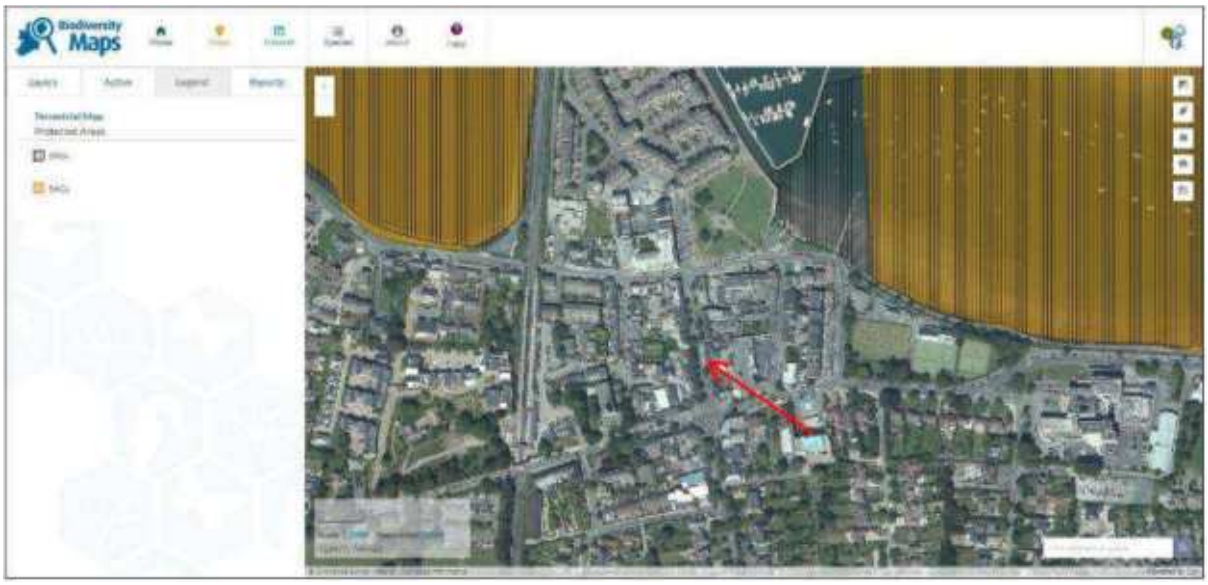


Figure 3.3 Natura 2000 sites and pNHAs within the zone of influence of the New Street Development

Source: *Report for Screening for Appropriate Assessment (2022)* for the project prepared by Faith Wilson Ecological Consultant



3.4 Malahide Estuary SAC (Site Code: 000205) (shown in orange hatching) and Malahide Estuary SPA (Site Code: 004025) (shown in black hatching) are in close proximity to and downslope of New Street (indicated by the red arrow).

Source: *Report for Screening for Appropriate Assessment (2022)* for the project prepared by Faith Wilson Ecological Consultant

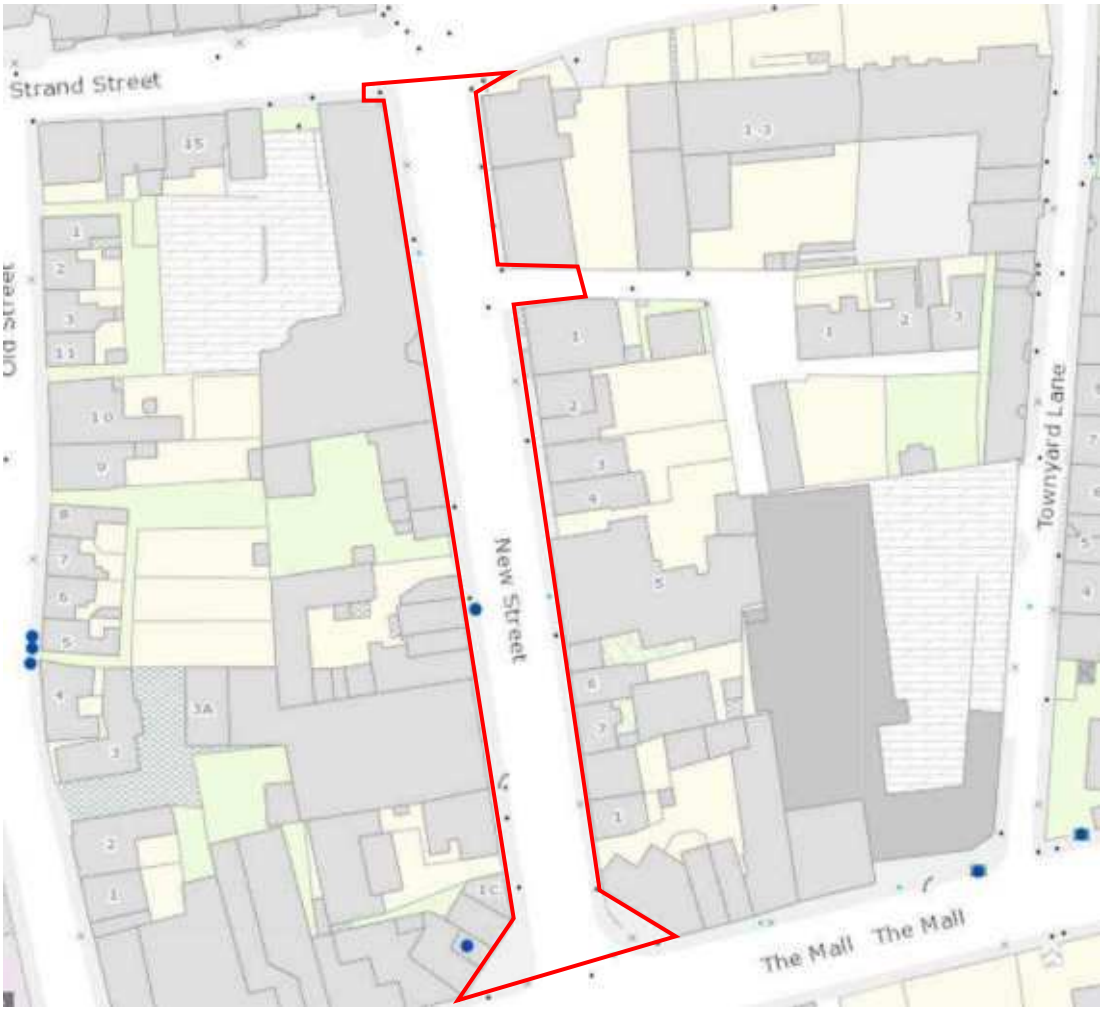


Figure 3.5: Historic Environment Viewer – NIAH Structures Shown with Blue Dot

Source: Government of Ireland Historic Environment Viewer

4.0 SCREENING ASSESSMENT

To determine whether the project described in Section 3.0 above should be subject to an EIA, an assessment is undertaken utilising a series of checklists as follows: -

1. Table 4.1: Checklist of Criteria for Evaluating the Significance of Environmental Impacts
2. Table 4.2: Checklist of Potential Impacts by EIA Topic
3. Table 4.3: Screening Checklist.

Table 4.1 considers a series of screening questions based on the criteria listed under each grouped heading in Schedule 7.

Table 4.2 considers whether there are any likely significant effects arising under a number of environmental disciplines including those set out in Article 3 of the EIA Directive.

Table 4.3 utilises the Screening Checklist contained in the *Environmental Impact Assessment of Projects: Guidance on Screening (European Commission, 2017).*

Table 4.1: Checklist of Criteria for Evaluating the Significance of Environmental Impacts

Questions	Comment
Characteristics of the Proposed Development	
Is the scale of the project considered to be significant?	No. The scale of the proposed public realm works on a site of 0.22ha and street length of 150m, is in keeping with the existing/ emerging pattern of development within Malahide Village in terms of size and design, and therefore there are no likely significant effects arising.
Is the size of the project considered significant when considered cumulatively with other adjacent developments?	No. Based on a review of other planning permissions granted on New Street and its vicinity there are no existing and/or approved developments which are likely to give rise to significant environmental effects or likely to give rise to significant cumulative environmental impacts with the New Street public realm improvements. The cumulative impacts of the completed development at The Green and permitted Broadmeadow Greenway project have been considered and cumulatively it is considered that these projects and the New Street improvements will have a positive impact on the environment in terms of promoting and facilitating Active Travel. It is therefore considered that there are no likely significant cumulative effects with other existing and/or approved projects.
Will the project utilise a significant quantity of natural resources, in particular land, soil, water or biodiversity?	No. The subject site is zoned 'TC – Town & District Centre' and is an established street within the centre of Malahide Village. The lands comprise an urban streetscape and there will be no meaningful

	diminution of natural resources in terms of land, soil, water or biodiversity and therefore there are no likely significant effects.
Will the project produce a significant quantity of waste?	No. During the construction phase, small quantities of construction waste, as estimated in Table 3.1 above, will be collected by a suitably licensed contractor and sent to appropriately permitted waste or materials recovery facilities. The waste management hierarchy will be implemented onsite, which prioritises prevention and minimisation of waste, followed by re-use and recycling and therefore there will be no likely significant effects arising. Refer to Construction & Demolition Waste Management Plan (Punch Consulting Engineers) which provides for the overall management of construction and demolition waste in accordance with best practice.
Will the project create a significant amount or type of pollution?	No. No significant water, air-borne or noise pollution is envisaged as a result of the proposed development. The proposed development is not a project type that will give rise to any likely significant emissions or pollution.
Will the project create a significant amount of nuisance?	No. The nature, scale and short-term duration of the works is not of a type that would give rise to significant nuisance. Implementation of best practice construction management measures will mitigate any nuisance such that there will be no likely significant effects. Refer to Construction Management Plan (Punch Consulting Engineers) which sets out the general construction approach and best practice management for the project.
Will there be a risk of major accidents?	No. The development site is not regulated or connected to or close to any site regulated under the Control of Major Accident Hazards Involving Dangerous Substances Regulations i.e. SEVESO and so there is no likely significant effects arise from this source. The proposed development involves public realm improvements within an urban street and is not at risk of major accidents, nor is the development as designed likely to increase the risk of a major accident in this location. The proposed construction works will employ best practice and be subject to the contractor's health and safety statements and other obligations under the relevant codes such that there will be no likely significant effects.
Will there be a risk of natural disasters, including those caused by climate change?	The potential natural disasters that may occur are likely limited to flooding. The potential for flooding arising from the New Street public realm improvement has been assessed within the Site Specific Flood Risk Assessment [Punch consulting Engineers]. It was determined that the northern end of New Street is located within Flood Zone A for fluvial flooding. The proposed public realm works are classified as a Water Compatible Development under the 'The Planning System and Flood Risk Management Guidelines 2009' and as such are appropriate for this location. The Site Specific Flood Risk Assessment concludes that the proposed development will not

	increase flood risk on site or elsewhere. Therefore there are no likely significant effects arising.
Will there be a risk to human health (for example due to water contamination or air pollution)?	No. There is the limited potential for negative effects on human health during the construction phase as a result of potential emissions to air of dust, or potential emissions to land and water of hydrocarbons. Best construction site practices will be implemented which will prevent (i) any risk of pollution running off the site and (ii) the potential for airborne nuisance such that there will be no likely significant effects.
Is the combination of the above factors likely to have significant effects on the environment?	No. There are no factors above which when combined would result in the proposed development, due to its characteristics, having a likely significant effect on the environment.
Location of the Proposed Development	
Has the proposed development the potential to impact directly or indirectly on any site designated for conservation interest (e.g. SAC, SPA, pNHA)?	A Report for Screening for Appropriate Assessment has been prepared by Faith Wilson, Ecologist, and concludes on the basis of objective information and in view of best scientific knowledge and applying the precautionary principle, that the proposed development, either individually or in combination with other plans or projects, and without relying on any mitigation measures, is not likely to have significant effect on any European Site(s), in view of the sites conservation objectives, and that there is no reasonable scientific doubt in relation to this conclusion.
Has the proposed development the potential to impact directly or indirectly on any habitats listed as Annex I in the EU Habitats Directive?	No. There will be no negative direct or indirect impacts to or reduction in habitats lists as Annex I.
Has the proposed development the potential to impact directly or indirectly on any habitats listed as Priority Annex I in the EU Habitats Directive?	No. There will be no negative direct or indirect impacts to or reduction in habitats lists as Priority Annex I.
Has the proposed development the potential to impact directly or indirectly on any species listed as Annex II in the EU Habitats Directive?	No. There will be no negative direct or indirect impacts to or reduction to any species listed as Annex II.
Has the proposed development the potential to impact directly or indirectly on any species listed as Annex IV in the EU Habitats Directive?	No. There will be no negative direct or indirect impacts on any species lists as Annex IV.
Has the proposed development the potential to impact directly or indirectly on any species listed as Annex I of the EU Birds Directive?	No. There will be no negative direct or indirect impacts on any species listed as Annex I of the EU Birds Directive.
Has the proposed development the potential to impact directly or indirectly on the breeding places of any species protected under the Wildlife Act?	No. There will be no negative direct or indirect impacts on any breeding places of any species protected under the Wildlife Act.

Has the proposed development the potential to impact directly or indirectly on the existing or approved land use?	No. Malahide Village is zoned 'TC – Town & District Centre' in the Development Plan. From a land use planning perspective, the development is consistent with Development Plan zoning and policy objectives and the established pattern of development in the area and can be assimilated into the receiving environment without any likely significant effects on the environment.
Has the proposed development the potential to significantly impact directly or indirectly the relative abundance, availability, quality or regenerative capacity of natural resources (including soil, land, water and biodiversity) in the area and its underground?	No. The proposed development can be accommodated on this site with no potential for significant negative effects on the abundance, availability, quality or regenerative capacity of the receiving natural environment and therefore no likely significant effects on the environment.
Has the proposed development the potential to impact directly or indirectly on any protected structures or Recorded Monuments and Places of Archaeological Interest?	No. There are no protected structures located within the proposed development site. There are no Recorded Monuments directly affected. New Street is located within an Architectural Conservation Area and the proposed public realm works are designed to enhance the streetscape and contribute positively to the character of the ACA. Refer to Architectural Heritage Assessment [Coady Architects] which says that the proposed public realm improvements are necessary and appropriate to enhance the setting of the historic buildings and consolidate and support the established character of the street. Therefore, there are no likely significant effects arising.
Has the proposed development the potential to impact directly or indirectly on listed or scenic views or protected landscapes as outlined in the County Development Plan?	No. The proposed development does not affect any listed or scenic views or protected landscapes and therefore there are no likely significant effects arising.
Type and Characteristics of Potential Impacts	
Would a large geographical area be impacted as a result of the proposed development?	No. The geographic extent of the proposed works is confined to the proposed development site at New Street which is a street of 150m in length, with an area of 0.22ha and therefore there are no likely significant effects arising.
Would a large population of people be affected as a result of the proposed development?	No. The proposed development site is within the existing urban area of Malahide and is consistent with the land use pattern in the general area and therefore there are no likely significant effects arising.
Are any transboundary impacts likely to arise as a result of the proposed development?	No. The proposed development is not likely to have significant effects on the environment in a transboundary State.
Would the magnitude of impacts associated with the proposed development be considered significant?	No. Having regard to the characteristics of the proposed development and the location of the site, there are no likely significant negative effects associated with the proposed project.

In considering the various aspects of the environment, would the impacts of the proposed development be considered complex?	No. The development is a typical urban development of a type common to urban centres and streetscapes in Fingal and the wider Dublin region and therefore there are no likely significant effects arising.
Is there a high probability that the effects will occur?	No. No likely significant negative effects are identified.
Will the effects continue for a long time?	No. No likely significant negative effects on the environment have been identified as a result of the proposed development. Long term potential positive effects have been identified in the areas of biodiversity, air & climate, material assets: transportation and material assets: utilities – see Table 4.2 below.
Will the effects be permanent rather than temporary?	No likely significant negative effects on the environment have been identified. The project will have a positive impact with regard to the provision of an enhanced public realm and streetscape within Malahide Village in accordance with the Development Plan zoning and policy objectives for Malahide. The public realm improvements will make Malahide Village more accessible for Active Travel modes with enhanced facilities for pedestrians and cyclists within the pedestrianised New Street.
Will the impacts be irreversible?	No likely significant negative effects on the environment arise as a result of the proposed development.
Will there be significant cumulative impacts with other existing and/or approved projects?	No. Cumulatively, it is considered that the permitted Broadmeadow Greenway project and the proposed public realm improvements at a pedestrianised New Street will have a positive impact on population and human health, material assets transportation and air quality and climate change by encouraging cycling and walking trips to and from Malahide and providing improved facilities and urban spaces and routes for these transport modes.
Will it be difficult to avoid, or reduce or repair or compensate for the effects?	No. The construction process will avoid any likely significant effects through the implementation of standard best practice construction methodologies.

Table 4.2: Potential Impacts by EIA Topic

EIA Topic	Comment on Potential Impacts
Population and Human Health	The proposed development involves public realm improvements for a pedestrianised New Street, Malahide consistent with the thrust of local and national land use and transportation planning policies and guidelines. The potential likely negative effects on population and human health during the construction phase will include impacts arising from construction traffic, noise, dust, vibration and spillage or leakages. These risks will be limited due to the small scale and localised nature of the works and the potential for any adverse environmental effects will be further minimised by the measures contained in the Construction Management Plan and Construction & Demolition Waste Management Plan [both Punch Consulting Engineers]. Construction phase environmental effects are likely to be negative, short-term and not significant. The TTA concludes that the small volumes of construction stage traffic will be absorbed within the network. On this basis, the effects of construction traffic on population and human health is not likely to be significant. During the operational phase, the public realm improvements will have positive effects as the enhanced public realm will strengthen the attraction of Malahide Village as a place to live, work and visit. The enhanced public realm and alteration of vehicular circulation patterns arising from the pedestrianisation will have an overall positive effect on the safety and movement of pedestrians and cyclists in and around Malahide. Having regard to the nature and scale of the development and the population likely to be effected, the operational effects are likely to be permanent, positive and not significant. The main impact of the operational phase of the New Street project will be the impact on the movement of people by private car, particularly when compared to the previous two-way traffic system. These include : (i) the residents of New Street and Ross Terrace ; (ii) the general public, including shoppers and customers of businesses on New Street (iii) those servicing businesses on New Street. Residents of New Street and Ross Terrace are provided with alternative access arrangements from the north of New Street which retains two way traffic movement for their benefit. The general public (including shoppers and customers of businesses on New Street) can no longer drive or park on New Street, however, alternative parking is available within walking distance. In terms of the servicing / deliveries to New Street businesses, alternative arrangements are provided on a time restricted basis as is commonplace in similar locations.

	The TTA has considered the implications of the project and the removal of the previous two-way traffic flow on the road network. Inevitably, there is an increase in traffic volumes on the streets in the immediate vicinity. In this regard, the TTA has assessed impacts on traffic flow and concludes that the network has the ability to absorb the redistribution of traffic arising from the New Street project. Overall, in terms of population and human health, it is considered that the effects on the environment are not likely to be significant. Where effects are identified they are counter-balanced by the benefits of the public realm enhancements for pedestrians and cyclists and the wider sustainable transportation benefits to the community.
Biodiversity / Species and Habitats	The potential likely negative effects from an Environmental Impact Assessment perspective on biodiversity / Species and Habitats during the construction phase will include noise, dust and spillage of construction related materials and fuels. Due to the limited nature and scale of works involved however, the potential effects are not considered to be likely or significant on this project. Construction phase environmental effects are therefore not likely to be significant. The pedestrianisation of New Street (current and as part of the public realm improvements) with associated removal of vehicles from the streetscape will also reduce the risk of contaminants and pollutants such as vehicle fuel, and other hydrocarbons from reaching Malahide Estuary which will have the positive effects. During the operational phase of the public realm improvements, the upgraded storm and foul water infrastructure and installed soft landscaping and more appropriate tree species will give rise to positive effects on biodiversity which will be long term and positive.
Land and Soils	During the construction phase potential likely negative effects arise from the excavations required for works to service infrastructure and runoff of silt. These effects will be localised to the works area and limited due to the small scale of the development and limited extent of subsurface interventions. The Construction & Demolition Waste Management Plan provides measures for the reuse and recycling of surplus excavated soils and stone which will further minimise these effects. Effects on land and soil during the construction phase are likely to be temporary in duration and negative in quality, but are not likely to be significant. Having regard to the limited subsurface interventions, small scale of areas affected and the absence of any additional traffic generation at the operational stage, the likely effects of the operational phase of the development on land or soil are neutral in quality, permanent in duration and not likely to be significant. Therefore, there are no likely significant effects.
Water	There is potential for silt run off or accidental spillage of fuels, construction materials etc. during the construction phase. Due to the limited nature and

	scale of works involved however, the potential effects are not considered to be likely or significant on this project. At the operational stage, surface water from the site will be attenuated and filtered through bioretention areas. The development includes an upgraded foul sewer system for New Street. The Site Specific Flood Risk Assessment [Punch Consulting Engineers] concludes that the public realm uses in the area of the site vulnerable to flooding are compatible with such areas. There is no likely significant increase in risk of flooding to the site or other areas as a result of the development. The pedestrianisation of New Street and removal of vehicles from the streetscape will reduce the risk of contaminants and pollutants such as vehicle fuel and other hydrocarbons from reaching Malahide Estuary which will be a long term positive effect. On that basis, the operational phase of the development will give rise to permanent effects on water, which will be positive in nature and are not likely to be significant.
Air & Climate, Noise & Vibration	During the construction phase, there is the potential for noise, vibration and dust impacts to arise from the construction works taking place on site. Noise and vibration impacts will be minimised by the measures contained in the Construction Management Plan [Punch Consulting Engineers] such that there are no likely significant effects. Dust emissions will localised to the works area and also controlled by measures set out in the Construction Management Plan such that there are no likely significant effects. In terms of climate impacts, construction traffic will generate emissions during the construction phase of the development. Vehicle engines and other equipment will cause emissions of CO2 and N2O. As confirmed within the TTA [Punch Consulting Engineers], the volumes of construction stage traffic will be small. Construction related emissions will be short term and therefore not likely to be significant in relation to climate. In relation to the operational phase of the development, the proposed development includes measures to encourage Active Travel through walking and cycling, thereby leading to a reduction in greenhouse gas emissions as required by the actions and targets contained within the Climate Action Plan 2023. The pedestrianisation of New Street and subsequent removal of vehicles from the streetscape will also reduce noise and vibration and the positives impacts experienced since pedestrianisation post-2019, will continue. These impacts will likely cause a positive and long term effect on air quality and climate quality and reduced noise and vibration on New Street during the operational phase of the development.

Material Assets: Utilities	Having regard to the nature, scale and location of the development within the existing built environment, the predicted construction effects upon foul sewer, surface water drainage, potable water and electrical utilities are considered to be neutral, imperceptible and short term in nature and are not likely to be significant. Arising from the proposed upgrades of water services and electrical utilities to be completed as part of the proposed

	development, the effects on the operational phase of the development on these utilities will be positive, long term and are not likely to be significant.
Material Assets: Transportation	The TTA [Punch Consulting Engineers] assesses the impact of the proposed New Street pedestrianisation on the existing local transport network in comparison with the pre-pedestrianised scenario. During the construction phase of the development, the TTA states that volumes of traffic generated will be small in comparison to existing traffic volumes in the area. On that basis, the construction stage traffic will be absorbed within the network and the effect on the existing road network is not likely to be significant. Implementation of the construction traffic management requirements provided within the Construction & Demolition Waste Management Plan [Punch Consulting Engineers] will minimise effects on the existing road network. The assessment of operational impacts was undertaken with regard to the pre-pedestrianised baseline position with two-way traffic on New Street (2019). The TTA undertook capacity analysis for 12no. junctions in 2019, 2020 and 2023 and confirms that there will be no traffic generated by the proposed development. As cars can no longer use New Street, vehicular traffic will be redistributed to other junctions in the area and this redistribution of traffic was considered on a junction-by-junction basis. The analysis of the modelling results contained within the TTA concludes that the pedestrianisation of New Street has had little impact on the operational capacity of the surrounding network of roads and junctions. When comparing the 2023 post-pedestrianisation with the 2019 pre-pedestrianisation scenarios, there are minimal effects on the capacity for surrounding road network and junctions. In assessing the current situation in 2023, the TTA also confirms that the existing traffic arrangements do not give rise to any likely significant effects. These traffic arrangements will be the same when the pedestrianisation with public realm improvements is implemented and therefore will not give rise to any likely significant effects. The likely significant effects of both the construction and operational phases of the public realm improvements are also assessed under the headings within this table (Table 4.2) and confirm that there are no likely significant effects arising from the public realm improvements for a pedestrianised New Street. On the contrary, the pedestrianisation and proposed public realm improvements insofar as they discourage use of the private car in Malahide village, will promote modal shift towards public transport, walking and cycling.

	Overall and as demonstrated in the TTA, there is sufficient resilience in the network to absorb this redistribution and the impact on those streets is not likely to be significant. This is borne out by the experience from June to December 2020 and since June 2021, when pedestrianised arrangements were put in place.
Waste Management	Having regard to the nature and scale of the proposed development, essentially enhancement of the public realm on New Street, and the use of licensed waste disposal facilities and contractors as set out within the Construction & Demolition Waste Management Plan, the construction phase of the development is not likely to have significant effects in terms of resources or waste generation. The environmental effects will be short term, neutral and are not likely to be significant. The operational phase of the development will generate modest volumes of waste to be collected in on-street litter bins and will be managed to reduce waste arising, optimise recycling and segregate into waste streams for collection by a licensed waste contractor. Accordingly, there will be no likely significant effects on the environment arising from waste management during the operational phase.
Cultural Heritage	Having regard to the nature, extent and short term duration of the construction works to the public realm, the construction phase will have a slight, short term negative effect on the setting of the ACA which is not likely to be significant. Having regard to the limited subsurface interventions and taking account of the monitoring proposed in the Archaeological Assessment [Archaeology Plan], including monitoring under license of areas of moderate or deep sub-surface impact, it is not likely that there will be significant effects in terms of archaeological heritage. Therefore, the construction phase of the development is not likely to have any significant effect on cultural heritage. The impact of the proposed public realm improvements has also been assessed within the Architectural Heritage Assessment [Coady Architects] and concludes that the proposed public realm upgrading of New Street represents a change from its current (and historic) configuration of a central carriageway with footpaths on both sides but that this change is necessary and appropriate to enhance the setting of the historic buildings. Therefore, there are no likely significant effects of the operational phase on cultural heritage.
Landscape	There will be a moderate short term, negative effects on the landscape arising from the construction operations on site. The effects are not likely to be significant as the duration of the change will have a short term effect. The landscape effects of the completed public realm improvements will comprise a positive and permanent change to the appearance and presentation of New Street which will include an improved public realm with compatible hard and soft landscaping including new trees. In summary, the effects of the operational phase on landscape will be positive, permanent and are not likely to be significant.

Interactions & Cumulative Impacts	There is potential for interaction between land, soil and water during development works and potential for emissions to give rise to interaction between human health and air & climate and noise & vibration. Due to the limited nature and scale of works involved however, the potential effects are not considered to be likely or significant on this project. Therefore there will be no likely significant effects during the construction phase as a result of interactions. In relation to cumulative impacts, existing and/or approved projects in the area, including the Broadmeadow Greenway, are subject to conditions attached to planning permissions, which incorporate appropriate measures to minimise environmental impacts and, as a result, to prevent any likely significant cumulative effects. The proposed development has been designed to minimise any impacts on the environment, including on adjoining and adjacent lands. No likely significant cumulative effects were identified in the Traffic & Transportation Assessment [Punch Consulting Engineers] at construction or operational stages of the public realm improvements. Similarly, no cumulative effects have arisen since implementation of the pedestrianisation in 2021 or are predicted to arise with the pedestrianisation and public realm improvements in place. Overall, it can be concluded that there will be no likely significant cumulative effects on the environment. Having regard to the nature, scale and location of the proposed development, there is no likelihood of significant transboundary effects on the environment.

Table 4.3. Screening Checklist

Questions to be Considered	**Yes / No / ? . Briefly describe**	**Is this likely to result in a significant effect? Yes/No/? – Why?**
Brief Project Description: Proposed Public Realm Improvements for a Pedestrianised New Street, Malahide		
1. Will construction, operation or decommissioning of the Project involve actions which will cause physical changes in the locality (topography, land use, changes in waterbodies, etc)?	Yes. The proposed development involves hard and soft landscaping and upgrading of the water services and utilities infrastructure.	No. The proposed construction and operation of the project involves works that are typical within an urban setting and will occur without significantly altering the existing topography or significantly changing the land use or any waterbodies.
2. Will construction or operation of the Project use natural resources such as land, water, materials or energy, especially any resources which are non-renewable or in short supply?	Yes. The project will use small quantities of soil, land, water, energy and natural materials.	No. Due to the small scale of the project and small quantities of resources required to complete the works, the project is not likely to have a significant effect on natural resources.

Questions to be Considered	Yes / No / ? . Briefly describe	Is this likely to result in a significant effect? Yes/No/? – Why?
3. Will the Project involve use, storage, transport, handling or production of substances or materials which could be harmful to human health or the environment or raise concerns about actual or perceived risks to human health?	Yes. The construction stage of the project will involve the use of small quantities of building materials and aggregates. Dust may be generated by on site construction activities.	No. The quantities of materials used will be small and the use and application of these materials will be managed in accordance with best practice construction management.
4. Will the Project produce solid wastes during construction or operation or decommissioning?	Yes. Small quantities of waste will be generated during construction phase as estimated within Table 3.1 above.	No. The waste management hierarchy will be implemented onsite, which prioritises prevention and minimisation of waste, followed by re-use and recycling. The small quantities of residual waste that arise will be collected and managed in accordance with best practice construction and demolition waste management.
5. Will the Project release pollutants or any hazardous, toxic or noxious substances to air?	No.	No. The proposed development is not a project type that will give rise to any likely significant emissions or pollution.
6. Will the Project cause noise and vibration or release of light, heat energy or electromagnetic radiation?	Yes. Localised noise and vibration will occur within the works area during the construction phase.	No. Due the small scale and localised nature of the works, the levels of noise and vibration will be low and short term in duration.
7. Will the Project lead to risks of contamination of land or water from releases of pollutants onto the ground or into surface waters, groundwater, coastal wasters or the sea?	No. The nature and scale of the proposed development is such that it will not give rise to any significant discharges or emissions.	No.
8. Will there be any risk of accidents during construction or operation of the Project which could affect human health or the environment?	No. The proposed development involves public realm improvements within an urban street and is not at risk of major accidents, nor is the development as designed likely to increase the risk of a major accident in this location.	No.

Questions to be Considered	Yes / No / ? . Briefly describe	Is this likely to result in a significant effect? Yes/No/? – Why?
9. Will the Project result in social changes, for example, in demography, traditional lifestyles, employment?	Yes. The proposed development will promote Active Travel and the increased use of New Street by pedestrians and cyclists.	No. The proposed development is likely to encourage a shift to more sustainable travel modes which is positive and in accordance with national transport and climate policy.
10. Are there any other factors which should be considered such as consequential development which could lead to environmental effects or the potential for cumulative impacts with other existing or planned activities in the locality?	Yes. The potential for cumulation of effects with other existing and or approved activities is set out within Section 3.1.4 of this Report and concludes that there is no likely significant effect in this regard.	No.
11. Are there any areas on or around the location which are protected under international or national or local legislation for their ecological, landscape, cultural or other value, which could be affected by the project?	Yes. Malahide Estuary is located to the north of the site.	No. The nature and scale of the proposed development is such that it will not give rise to any significant discharges or emissions which would likely have a significant effect on Malahide Estuary. See Appropriate Assessment Screening Report prepared by Faith Wilson Ecological Consultant.
12. Are there any other areas on or around the location which are important or sensitive for reasons of their ecology e.g. wetlands, watercourses or other waterbodies, the coastal zone, mountains, forests or woodlands, which could be affected by the project?	Yes. Malahide Estuary is located to the north of the site.	No. The nature and scale of the proposed development is such that it will not give rise to any significant discharges or emissions which would likely effect the coastal zone of Malahide Estuary. See Appropriate Assessment Screening Report prepared by Faith Wilson Ecological Consultant.

Questions to be Considered	Yes / No / ? . Briefly describe	Is this likely to result in a significant effect? Yes/No/? – Why?
13. Are there any areas on or around the location which are used by protected, important or sensitive species of fauna or flora e.g. for breeding, nesting, foraging, resting, overwintering, migration, which could be affected by the project?	Yes. Malahide Estuary is located to the north of the site.	No. The nature and scale of the proposed development is such that it will not give rise to any significant discharges or emissions which would likely effect protected, important or sensitive species of fauna or flora in Malahide Estuary. See Appropriate Assessment Screening Report prepared by Faith Wilson Ecological Consultant.
14. Are there any inland, coastal, marine or underground waters on or around the location which could be affected by the project?	Yes. Malahide Estuary is located to the north of the site.	No. The nature and scale of the proposed development is such that it will not give rise to any significant discharges or emissions which would likely effect coastal or marine waters at Malahide Estuary. See Appropriate Assessment Screening Report prepared by Faith Wilson Ecological Consultant.
15. Are there any areas or features of high landscape or scenic value on or around the location which could be affected by the project?	No. There are no features of high landscape or scenic value on New Street.	No.
16. Are there any routes or facilities on or around the location which are used by the public for access to recreation or other facilities, which could be affected by the project?	Yes. New Street is an urban route providing north south access through Malahide, access to Ross Terrace and access to various premises and residences on New Street.	No. Access for vehicles to New Street is maintained where necessary and enhanced for pedestrians and cyclists. Access to the wider area is not significantly effected by the proposed works.
17. Are there any transport routes on or around the location which are susceptible to congestion or which cause environmental problems, which could be affected by the project?	Yes. New Street is connected to a series of streets including The Mall, Strand Street and Ross Terrace as well as a wider network of streets within Malahide.	No. An assessment of traffic impacts including as assessment of 12no. junctions in the vicinity of the site confirms that there are minimal effects on the capacity of surrounding junctions.
18. Is the project in a location where it is likely to be highly visible to many people?	Yes. The site is located within Malahide urban core.	No. The proposed works will enhance the visual context and New Street streetscape.

Questions to be Considered	Yes / No / ? . Briefly describe	Is this likely to result in a significant effect? Yes/No/? – Why?
19. Are there any areas or features of historic or cultural importance on or around the location which could be affected by the project?	Yes. The site is located within Malahide Historic Core Architectural Conservation Area (ACA).	No. The proposed public realm improvements will enhance the setting and context of the existing buildings.
20. Is the project located in a previously undeveloped area where there will be loss of greenfield land?	No. The site is located within Malahide Village.	No.
21. Are there existing land uses on or around the location e.g. homes, gardens, other private property, industry, commerce, recreation, public open space, community facilities, agriculture, forestry, tourism, mining or quarrying which could be affected by the project?	Yes. The site is located within the urban core of Malahide which is a typical mixed use urban centre.	No. The proposed development will enhance the public realm within New Street which is considered positive and there are no likely significant effects arising.
22. Are there any plans for future land uses on or around the location which could be affected by the project?	Yes. There are existing and/ or approved projects within the vicinity as detailed in Section 3.1.4 of this report.	No. The proposed development has been designed to minimise any impacts on the environment, including on adjoining and adjacent lands.
23. Are there any areas on or around the location which are densely populated or built-up, which could be affected by the project?	Yes. Malahide is a densely populated urban area.	No. The proposed development is consistent with the established land use pattern.
24. Are there any areas on or around the location which are occupied by sensitive land uses e.g. hospitals, schools, places of worship, community facilities, which could be affected by the project?	Yes. The site is an urban street incorporating a mix of commercial and community facilities.	No. The project comprises enhancements to the public realm adjoining existing buildings and will serve to improve the setting and accessibility to these buildings.
25. Are there any areas on or around the location which contain important, high quality or scarce resources e.g. groundwater, surface waters, forestry, agriculture, fisheries, tourism, minerals, which could be affected by the project?	Yes. Malahide Estuary is located to the north of the site.	No. The nature and scale of the proposed development is such that it will not give rise to any significant discharges or emissions which would likely effect Malahide Estuary. See Appropriate Assessment Screening Report prepared by Faith Wilson Ecological Consultant.
26. Are there any areas on or around the location which are already subject to pollution or environmental damage e.g. where existing legal environmental standards are exceeded, which could be affected by the project?	No. The site is an urban street and no known legal environmental standards are exceeded.	No.

Questions to be Considered	Yes / No / ? . Briefly describe	Is this likely to result in a significant effect? Yes/No/? – Why?
27. Is the project location susceptible to earthquakes, subsidence, landslides, erosion, flooding or extreme or adverse climatic conditions e.g. temperature inversions, fogs, severe winds, which could cause the project to present environmental problems?	Yes. A small area within the northern boundary of the site is susceptible to flooding.	No. A Site Specific Flood Risk Assessment for the proposed development confirms that the development is appropriate for the location and will not increase the risk of flooding elsewhere.
Summary of features of project and of its location indicating the need for EIA: None.		

On the basis of the above description of the project and the screening exercise undertaken, including with the input of the various experts as described above, it can be concluded that having regard to the nature, scale and location of the proposed development, the proposed public realm improvements for New Street, by itself or in combination with other projects, is not likely to have significant effects on the environment, and that accordingly, an Environmental Impact Assessment is not required.

5.0 CONCLUSION

The proposed public realm works for a pedestrianised New Street do not trigger a requirement for a mandatory EIA under the EIA Directive and/ or under the 2001 Regulations, and have been considered and assessed using the appropriate criteria. This EIA Screening Report has concluded, as set out in detail above, that the proposed public realm improvements are not likely to have significant effects on the environment due to the nature, scale and size of the proposed development, the location of the proposed development relative to areas of environmental sensitivity and consideration of the type of potential impacts that are likely to arise. The proposed public realm improvements will bring positive impacts in terms of enhancing the streetscape at New Street and promoting active travel modes with improved facilities for pedestrians and cyclists.

Therefore, for the reasons set out in detail in this EIA Screening Report, it can be concluded, that the proposed public realm improvements for a pedestrianised New Street, by itself or in combination with other projects, are not likely to have significant effects on the environment, and that accordingly, an Environmental Impact Assessment is not required.

The information provided in this EIA Screening Report can be used by the competent authority, to assist with its determination of the need or otherwise for an Environmental Impact Assessment for the proposed development.

BMA PLANNING
February 2023

Appendix A3 - Copy of Fingal County Council EIA Screening Determination

Comhairle Contae Fhine Gall
Fingal County Council

Environmental Impact Assessment (EIA) Screening Determination for proposed Local Authority Development

Project Name:	**Public Realm Improvements for a Pedestrianised New Street, Malahide**
Ref No.	**LADP/001/23**

Description:

Fingal County Council intends to carry out Public Realm improvements for a pedestrianised New Street, Malahide comprising:-

- Widening of footpaths and provision of new kerb edges with existing kerbstones retained, realigned and protected within the widened footpaths and public spaces.
- Realignment and narrowing of the trafficable section of New Street (c.150m in length) and insertion of control measures and all necessary signage to provide for a pedestrianised street with associated traffic flow routes and restrictions allowing for time limited one-way access from 7am to 11am each day for deliveries and emergency vehicles from Main Street/ The Mall to New Street and a two-way access from Strand Street to Ross's Terrace via New Street.
- Upgrade of all street surfaces.
- Provision of 2no. loading bays at the southern and northern ends of New Street and an accessible parking space in front of the HSE building.
- Installation of cycle stands at 6no. locations on New Street with capacity for 23no. cycle parking spaces.
- Removal and replacement of 11no. existing trees with 37no. trees of species appropriate to the location and environment and provision of soft landscaping and green infrastructure with planting zones for seeded, planted and hedging areas and associated bioretention and tree pit areas.
- Provision of outdoor dining zones including tables and chairs and other ancillary moveable structures.
- Provision of street furniture including seating, benches and litter and recycling bins and a water feature.
- New public lighting comprising 12no. fixtures.
- Upgrade of the watermain and foul drainage networks and upgrade and relocation of the surface water drainage network including provision of sustainable urban drainage systems (SUDs) features as part of hard and soft landscaping.
- Provision of ducting for utilities and piped infrastructure.
- All associated site and development works.

Fingal County Council will be providing regulatory traffic signs (including regulatory signs which give effect to a pedestrianisation of New Street) in accordance with Section 95 of the Road Traffic Act 1961 (as amended).

Legislative Context:

This determination has considered the relevant legislative context as set out at Chapter 2 of the EIA Screening Report including, but not limited to:

- Directive (2011/92/EU) of the European Parliament and of the Council of 13 December 2011 on the assessment of the effects of certain public and private projects on the environment as amended by Directive 2014/52/EU of the European Parliament and of the Council of 16 April 2014 (the "EIA Directive")
- The Planning and Development Regulations 2001, as amended (the "2001 Regulations")
- Part 1 & 2 of Schedule 5 of the 2001 Regulations.
- Schedule 7 of the 2001 Regulations and
- Article 120 of the 2001 Regulations.

Screening Report:

The proposed public realm improvements for a pedestrianised New Street, Malahide, do not fall within any of the classes of projects identified in Annex I to the EIA Directive and listed in Part 1 of Schedule 5 to the 2001 Regulations, which require a mandatory EIA.

Furthermore, the proposed public realm improvements do not meet or exceed the thresholds set out in Part 2 of Schedule 5 to the 2001 Regulations for any of the classes of projects identified in Annex II to the EIA Directive (as transposed in Part 2 of Schedule 5 to the 2001 Regulations).

As such, an automatic EIA has not been triggered.

The proposed public realm improvements fall into Class 10(b)(iv) of Annex II to the EIA Directive, as transposed in Part 2 of Schedule 5 to the 2001 Regulations, and do not exceed the relevant threshold of 2 hectares. Therefore the proposed public realm improvements are considered "sub-threshold development" and in order to determine whether the development may have the potential to give rise to significant environmental effects, the Active Travel department of Fingal County Council has commissioned BMA Planning to prepare an EIA Screening Report entitled '*Environmental Impact Assessment Screening Report February 2023*'. The Senior Planner for the local electoral area of Balbriggan and Swords, part of the Planning and Strategic Infrastructure Department of Fingal County Council has examined and evaluated the content of the report and agrees with the conclusions set out in the EIA screening report.

The EIA Screening Report concluded that the proposed public realm improvements are not likely to have significant effects on the environment due to the nature, scale and size of the proposed development, the location of the proposed development relative to areas of environmental sensitivity and consideration of the type of potential impacts that are likely to arise. The proposed public realm improvements will bring positive impacts in terms of enhancing the streetscape at New Street and promoting active travel modes with improved facilities for pedestrians and cyclists.

Determination:

Having regard to the foregoing, the proposed public realm improvements for a pedestrianized New Street, Malahide do not trigger a mandatory EIA under the EIA Directive or the 2001 Regulations. Further, the proposed development is not likely to have significant effects on the environment due to nature, size, or location of the proposed development relevant to areas of environmental sensitivity, and the types and characteristics of potential impacts.

Therefore, it has been concluded, for the reasons set out above and in the EIA screening report, that the proposed development by itself or in combination with other projects, is not likely to have a significant effect on the environment and accordingly that an Environmental Impact Assessment is not required.

A. Determination:		
No real likelihood of significant effects on the environment.	☑	**EIAR is not required.**
Real likelihood of significant effects on the environment.	☐	**EIAR is required.**

This EIA Screening Determination in respect of New Street, Malahide has been made by Mr. Malachy Bradley, the Senior Planner for the local electoral area of Balbriggan and Swords, part of the Planning and Strategic Infrastructure Department of Fingal County Council, in circumstances where the proposed development is being promoted by the Active Travel department of Fingal County Council and is located in the local electoral area of Malahide, and Fingal County Council has implemented an appropriate functional separation in accordance with Article 9a of the EIA Directive.

Signed: Malachy Bradley

Department/Role: Senior Planner
Planning and Strategic Infrastructure

Delegation No: 8473

Date: 5/04/2023

Appendix A4 - Copy of An Bord Pleanála EIA Determination

An Bord Pleanála

Board Order
ABP-317130-22

Planning and Development Acts, 2000 to 2022

Planning Authority: Fingal County Council

Application by Malahide Old Village Residents Association, care of Majella Dunne, 4 New Street, Malahide, County Dublin and others, requesting An Bord Pleanála to consider and determine, in accordance with its powers under article 120(3)(cc) of the Planning and Development Regulations, 2001, as amended, whether Fingal County Council should be directed to prepare an Environmental Impact Assessment Report in respect of public realm improvements for a pedestrianised New Street, Malahide, County Dublin.

DECISION

NOT TO DIRECT the local authority to prepare an Environmental Impact Assessment Report in respect of the said proposed development based on the reasons and considerations set out below.

EJK

REASONS AND CONSIDERATIONS

Having regard to the following:

(a) the criteria set out in Schedule 7 and the information provided in Schedule 7A of the Planning and Development Regulations 2001, as amended,

(b) the limited nature and scale of the proposed development which is under the threshold in respect of Class 10b(iv) (Infrastructure – Urban Development) of the Planning and Development Regulations 2001, as amended,

(c) the location of the site on lands in a Town and District Centre location as described in the Fingal County Development Plan 2023-2029 and the results of the Strategic Environmental Assessment of this plan undertaken in accordance with the Strategic Environmental Assessment Directive (2001/42/EC),

(d) the location of the site in a built-up area served by public infrastructure and the existing pattern of development in the vicinity,

(e) the limited potential for significant impacts arising from the proposed development,

(f) the submission made by the local authority,

(g) the submissions made by the applicants requesting a determination, and

(h) the report and recommendation of the Inspector,

EJK

it is considered that the proposed development would not be likely to have significant effects on the environment and, accordingly, that the preparation and submission of an Environmental Impact Assessment Report is not, therefore, required.

Eamonn James Kelly

Eamonn James Kelly
Member of An Bord Pleanála
duly authorised to authenticate
the seal of the Board.

Dated this 17th **day of** November, **2023**

Appendix A5 - Copy of AA Screening Report

Public Realm Improvements for a Pedestrianised New Street

Appropriate Assessment Screening Report



27th February 2023

Faith Wilson
ECOLOGICAL CONSULTANT

Faith Wilson Ecological Consultant BSc (Hons) CEnv MCIEEM
Kestrel Ridge, Tigroney West, Vale of Avoca,, Co. Wicklow

Public Realm Improvements for a Pedestrianised New Street

Appropriate Assessment Screening Report

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Public Realm Improvements for a Pedestrianised New Street

Appropriate Assessment Screening Report

1. INTRODUCTION

1.1 Background

Fingal County Council (Environment, Climate Action & Active Travel Department) are proposing public realm improvements for a pedestrianised New Street in Malahide. The development extends to the full length of New Street (being approximately 150m, with an area of 0.22ha) from Main Street/ The Mall (also known as The Diamond) in the south to Strand Street to the north at Malahide, Co. Dublin.

Dermot Foley Landscape Architects (DFLA) were appointed by Fingal County Council (FCC) to lead an Integrated Design Team (IDT) for the design of public realm improvements for a pedestrianised New Street in Malahide. The IDT were engaged to develop the project from Stage 1 (Preliminary) through to Stage 2A (Developed Design & Planning).

Faith Wilson Ecological Consultant was commissioned by DFLA to prepare an Appropriate Assessment Screening Report for the proposed public realm improvements for a pedestrianised New Street in Malahide, Co. Dublin on behalf of Fingal County Council (FCC).

This report has been completed by Faith Wilson BSc CEnv MCIEEM. Faith is a highly experienced and qualified ecologist, with over twenty five years of experience in ecological and environmental surveys and consultancy, across a wide range of sectors. Faith is a Chartered Environmentalist (CEnv) and a full member of the Chartered Institute of Ecology and Environmental Management (CIEEM).

This report contains information to assist the competent authority to undertake the screening for Appropriate Assessment in respect of the proposed public realm improvements at New Street in Malahide, Co. Dublin. This report was carried out in accordance with the legal context outlined in **Section 1.2.**

1.2 Legislative Background

The aim of the European Habitats Directive (Council Directive 92/43/EEC on the conservation of wild habitats and of wild fauna and flora) is to create a network of protected wildlife sites across Europe, which are to be maintained at a favourable conservation status.

Each member state must designate their most important natural areas as Special Areas of Conservation (SAC). The Directive specifies the scientific criteria on the basis of which SAC sites must be selected and very strictly curtails the grounds that can be used as justification for impacting on a site. The network of sites is referred to as the NATURA 2000 network and

includes SACs (Special Areas of Conservation) for protected habitats and species and SPAs (Special Protection Areas) for birds, which are designated under the European Birds Directive (Council Directive 79/409/EEC as amended by Directive 2009/147/EC).

It is a requirement of the Habitats Directive ((92/43/EEC) that the competent authority must ensure that a proposal, which is likely to have a significant effect on an SAC or SPA, is authorised only where the competent authority is satisfied it will not adversely affect the integrity of the Natura 2000 site and that an appropriate assessment of the implications of the development for the conservation status of the site is undertaken.

The European Parliament, in a communication to the European Council in September 2000, states:

"*The implementation of the European Habitats Directive and Birds Directive, both with respect to species conservation and with respect to the establishment of the Natura 2000 network, is one of the most important tools for achieving the objectives of the Convention on Biological Diversity in the European Union and member states (European Parliament 2000)*".

Article 6 of the Habitats Directive provides a strict assessment procedure for any plan or project not directly connected with or necessary to the management of a European site but is likely to have a significant effect on the site in view of the site's conservation objectives. The proposed public realm improvements are not directly connected with or necessary for the management of any European Site.

Articles 6(3) and 6(4) of the Habitats Directive set out the decision-making tests for plans and projects likely to have a significant effect on Natura 2000 sites (Annex 1.1).

Article 6(3) establishes the requirement for Appropriate Assessment (AA):
"*Any plan or project not directly connected with or necessary to the management of the [Natura 2000] site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subjected to appropriate assessment of its implications for the site in view of the site's conservation objectives. In light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public.*"

Article 6(4) states:
"*If, in spite of a negative assessment of the implications for the [Natura 2000] site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature, Member States shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted. Where the site concerned hosts a priority natural habitat type and/or a priority species, the only*

considerations which may be raised are those relating to human health or public safety, to beneficial consequences of primary importance for the environment or, further to an opinion from the Commission, to other imperative reasons of overriding public interest."

In Ireland, the requirements of Article 6(3) and (4) of the Habitats Directive have been transposed into Irish law by Part XAB of the Planning and Development Act 2000 (as amended) (the **"2000 Act"**) and by the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No. 477 of 2011) (as amended) (the **"2011 Regulations"**).

In relation to AA Screening, Section 177U(1) of the 2000 Act provides that *"A screening for appropriate assessment of a draft Land use plan or application for consent for proposed development shall be carried out by the competent authority to assess, in view of best scientific knowledge, if that Land use plan or proposed development, individually or in combination with another plan or project is likely to have a significant effect on the European site."*

Section 177U(5) of the 2000 Act goes on to provide that *"The competent authority shall determine that an appropriate assessment of a draft Land use plan or a proposed development, as the case may be, is not required if it can be excluded, on the basis of objective information, that the draft Land use plan or proposed development, individually or in combination with other plans or projects, will have a significant effect on a European site."*

Similarly, Regulation 42 of the 2011 Regulations provides as follows:-

"42. (1) A screening for Appropriate Assessment of a plan or project for which an application for consent is received, or which a public authority wishes to undertake or adopt, and which is not directly connected with or necessary to the management of the site as a European Site, shall be carried out by the public authority to assess, in view of best scientific knowledge and in view of the conservation objectives of the site, if that plan or project, individually or in combination with other plans or projects is likely to have a significant effect on the European site.

(2) A public authority shall carry out a screening for Appropriate Assessment under paragraph (1) before consent for a plan or project is given, or a decision to undertake or adopt a plan or project is taken.

…

(7) The public authority shall determine that an Appropriate Assessment of a plan or project is not required where the plan or project is not directly connected with or necessary to the management of the site as a European Site and if it can be excluded on the basis of objective scientific information following screening under this Regulation, that the plan or project, individually or in combination with other plans or projects, will have a significant effect on a European site."

1.3 Methodology

This report is based on a desk study, a site visit conducted in August 2022, and a review of the other reports created by the members of the integrated design team which are presented in the Appendices. These include the:

- Site Location and Site Layout Plans prepared by DFLA.
- Archaeological Assessment by Archaeology Plan.
- Architectural Heritage Assessment by Coady Architects.
- Design Rationale - Landscape Architecture by DFLA.
- Environmental Impact Assessment Screening Report by BMA Planning.
- Engineering Planning Report by Punch Consulting Engineers.
- Construction Management Plan by Punch Consulting Engineers.
- Construction & Demolition Waste Management Plan by Punch Consulting Engineers.
- Site Specific Flood Risk Assessment by Punch Consulting Engineers.
- Traffic & Transport Assessment by Punch Consulting Engineers.
- Arboricultural Report by the Tree File Consulting Arborists.
- Mechanical and Electrical Services Installations Report by Axis Consulting Engineers.

The assessment was undertaken in July and August 2022 of the proposed development site at New Street and its environs. The assessment focussed on habitats and species that are listed as Qualifying Interests (QI) (in the case of SACs) and Special Conservation Interests (SCI) (in the case of SPAs) for European Sites. Assessments of habitat suitability for species with links to European Sites were undertaken, in order to appraise the potential for *ex-situ* effects on European Sites.

Information was collated from a variety of data sources, organisations and websites. These include:

- Fingal County Council (FCC)
- Environmental Protection Agency (EPA)
- Google Maps © 2022
- National Biodiversity Data Centre (NBDC)
- National Parks and Wildlife Service (NPWS)
- OpenStreetMap © 2022

This information was then used to determine the potential for likely significant effects arising from the proposed public realm improvements on the European Sites.

If the outcome of the screening exercise is that there are no likely significant effects, then any further stages in the Appropriate Assessment process are not required. If, based upon the currently available information, there are aspects of the proposed development that could have a significant effect on any European Sites, then further analysis in the form of a Natura Impact Statement (NIS) to inform the Appropriate Assessment is required.

The information presented in Section 2 of this report is therefore as follows:

- Description of the proposed development.

- Identification of relevant European Sites within the zone of influence of the proposed development.
- A description of the existing ecological environment/sensitive receptors at the site.
- An assessment of likely significant effects on any European Sites.
- Appropriate Assessment Screening conclusions.

1.4 Guidance and Data Sources

This report has been prepared with regard to the following guidance documents as appropriate:

- *OPR Practice Note PN01. Appropriate Assessment Screening for Development Management.* (Office of the Planning Regulator, 2021).

- *Assessment of plans and projects in relation to Natura 2000 sites – Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC 2021/C 437/01.* (Commission notice C/2021/6913. Dated 28.10.2021).

- *Assessment of Plans and Projects Significantly Affecting Natura 2000 Sites: Methodological Guidance on the Provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC* (European Commission Environment Directorate General, 2001)

- *Managing Natura 2000 Sites: The Provisions of Article 6 of the Habitats Directive 92/43/EEC* (Commission Notice C(2018) 7621 final, Brussels, 21.11.2018)

- *Managing Natura 2000 Sites: The Provisions of Article 6 of the Habitats Directive 92/43/EEC* (EC Environment Directorate General, 2000)

- *Appropriate Assessment under Article 6 of the Habitats Directive: Guidance for Planning Authorities Circular* NPW 1/10 & PSSP 2/10. (Department of Environment, Heritage and Local Government, 2010).

- *Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities.* (Department of Environment, Heritage and Local Government, 2010 revision)

- *Guidelines for Good Practice, Appropriate Assessment of Plans under Article 6(3) Habitats Directive* (International Workshop on Assessment of Plans under the Habitats Directive, 2011)

- *Guidance Document on Article 6(4) of the Habitats Directive 92/43/EEC.* Clarification of the Concepts of Alternative Solutions, Imperative Reasons of Over-riding Public Interest, Compensatory Measures, Overall Coherence. Opinion of the European Commission (European Commission, January 2007)

1.5 Stages of Appropriate Assessment

The competent authority is required to carry out a Screening for Appropriate Assessment and, if required, an Appropriate Assessment, as required by Article 6(3) and 6(4) of the Habitats Directive, as follows:

• **Stage 1: Screening for Appropriate Assessment**

The first step to establishing if an appropriate assessment is required is referred to as 'screening' and its purpose is to determine, on the basis of objective information and in view of best scientific knowledge and applying the precautionary principle, if the proposed development, either individually or in combination with other plans or projects, and in the absence of mitigation is likely to have a significant effect on a Natura 2000 site in view of the sites conservation objectives. The process identifies any likely impacts upon a Natura 2000 Site, either alone or in combination with other projects or plans, and considers whether these impacts are likely to be significant.

• **Stage 2: Appropriate Assessment**

This is required if it cannot be excluded, on the basis of objective information, and in view of best scientific knowledge and applying the precautionary principle, that the proposed development, individually or in combination with other plans or projects, and in the absence of mitigation, will have a significant effect on a Natura 2000 site.

The appropriate assessment must include a final determination by the competent authority as to whether or not a proposed development would adversely affect the integrity of a Natura 2000 site in view of the site's conservation objectives. In order to reach a final determination, the competent authority must undertake examination, analysis and evaluation, followed by findings, conclusions and a final determination. The appropriate assessment must contain complete, precise and definitive findings and conclusions, and may not have lacunae or gaps.

• **Stage 3: Assessment of Alternative Solutions**

This stage examines alternative means of achieving the objectives of the project or plan that aim to avoid adverse impacts on the integrity of the Natura 2000 site.

• **Stage 4: Assessment where no alternative solutions exist and where adverse impacts remain**

This stage is the main derogation process outlined in Article 6(4) which examines whether there are imperative reasons of overriding public interest (IROPI) for allowing a plan or project, which will have adverse effects on the integrity of a Natura 2000 site, to proceed.

2. SCREENING FOR APPROPRIATE ASSESSMENT

2.1 Project Description

New Street (the subject site) is situated in the centre of Malahide Village. New Street is rectangular in shape, approximately 14m wide and 150m in length, with an area of 0.22 ha), stretching from the Diamond junction to the south, to the Malahide Marina and Strand Street junction to the north and interfacing with the recently refurbished Malahide Green as shown on **Figure 2.1** below.

Prior to the outbreak of Covid-19 in March 2020, New Street, Malahide accommodated two-way traffic movement. Following a government mandate to review road networks in urban areas to identify areas that could prioritise pedestrian and cycle movements, New Street was pedestrianised from June 2020 to December 2020. This arrangement was modified to a one-way system for vehicular traffic from December 2020 to June 2021. In June 2021, Fingal County Council pedestrianised New Street. As a result, there is currently time limited one-way access from 7am to 11am each day for deliveries and emergency vehicles from Main Street/ The Diamond to New Street and two-way access from Strand Street to Ross's Terrace via New Street.

The proposed public realm improvements are now being brought forward for a pedestrianised New Street to enhance the public realm in line with local, regional and national land use planning and transportation policies.

The proposed public realm improvements for a pedestrianised New Street will bring positive impacts in terms of enhancing the streetscape at New Street and promoting active travel modes with improved facilities for pedestrians and cyclists. This AA Screening Report considers whether the pedestrianisation and proposed public realm improvements to New Street, either individually or in combination with other plans or projects, are likely to have a significant effect on any European Site(s), in view of the sites' conservation objectives, compared with the position in 2019 when there was two-way traffic on New Street. In addition, and for completeness, this AA Screening Report has also considered whether there are any such likely significant effects arising when comparing the proposed public realm improvements for a pedestrianised New Street with the current position on New Street today.

The proposed public realm improvements involve the widening of footpaths and provision of new kerb edges to the widened footpaths and public spaces on New Street, Malahide (c.150m in length, 0.22ha). The trafficable section of New Street will be realigned and narrowed and control measures will be inserted to provide for revised traffic flow routes, restrictions, car parking and loading arrangements.

All street surfaces will be upgraded and existing street trees replaced with new trees and additional soft landscaping. Outdoor dining zones will be identified and new street furniture installed. New public lighting will be provided and the water services and utilities networks within the street will be upgraded.

The proposed public realm improvement works will comprise: -

i. Widening of footpaths and provision of new kerb edges with existing kerbstones retained, realigned and protected within the widened footpaths and public spaces.
ii. Realignment and narrowing of the trafficable section of New Street (c.150m in length) and insertion of control measures and all necessary signage to provide for a pedestrianised street with associated traffic flow routes and restrictions allowing for time limited one-way access from 7am to 11am each day for deliveries and emergency vehicles from Main Street/ The Mall to New Street and a two-way access from Strand Street to Ross's Terrace via New Street.
iii. Upgrade of all street surfaces.
iv. Provision of 2no. loading bays at the southern and northern ends of New Street and an accessible parking space in front of the HSE building.
v. Installation of cycle stands at 6no. locations on New Street with capacity for 23no. cycle parking spaces.
vi. Removal and replacement of 11no. existing trees with 37no. trees of species appropriate to the location and environment and provision of soft landscaping and green infrastructure with planting zones for seeded, planted and hedging areas and associated bioretention and tree pit areas.
vii. Provision of outdoor dining zones including tables and chairs and other ancillary moveable structures.
viii. Provision of street furniture including seating, benches and litter and recycling bins and a water feature.
ix. New public lighting comprising 12no. fixtures.
x. Upgrade of the watermain and foul drainage networks and upgrade and relocation of the surface water drainage network including provision of sustainable urban drainage systems (SUDs) features as part of hard and soft landscaping.
xi. Provision of ducting for utilities and piped infrastructure.
xii. All associated site and development works.

Fingal County Council will be providing regulatory traffic signs (including regulatory signs which give effect to a pedestrianisation of New Street) in accordance with Section 95 of the Road Traffic Act 1961 (as amended).

The proposed works are further detailed and outlined in the following reports and assessments, which accompany this report and are presented in the Appendices:

- Site Location and Site Layout Plans prepared by DFLA.
- Archaeological Assessment by Archaeology Plan.
- Architectural Heritage Assessment by Coady Architects.

- Design Rationale - Landscape Architecture by DFLA
- Environmental Impact Assessment Screening Report by BMA Planning.
- Engineering Planning Report by Punch Consulting Engineers.
- Construction Management Plan by Punch Consulting Engineers.
- Construction & Demolition Waste Management Plan by Punch Consulting Engineers.
- Site Specific Flood Risk Assessment by Punch Consulting Engineers.
- Traffic & Transport Assessment by Punch Consulting Engineers.
- Arboricultural Report by the Tree File Consulting Arborists.
- Mechanical and Electrical Services Installations Report by Axis Consulting Engineers.

The proposed public realm improvements for a pedestrianised New Street are shown on **Figure 2.2** below and consist of a variety of both soft and hard landscaping elements.

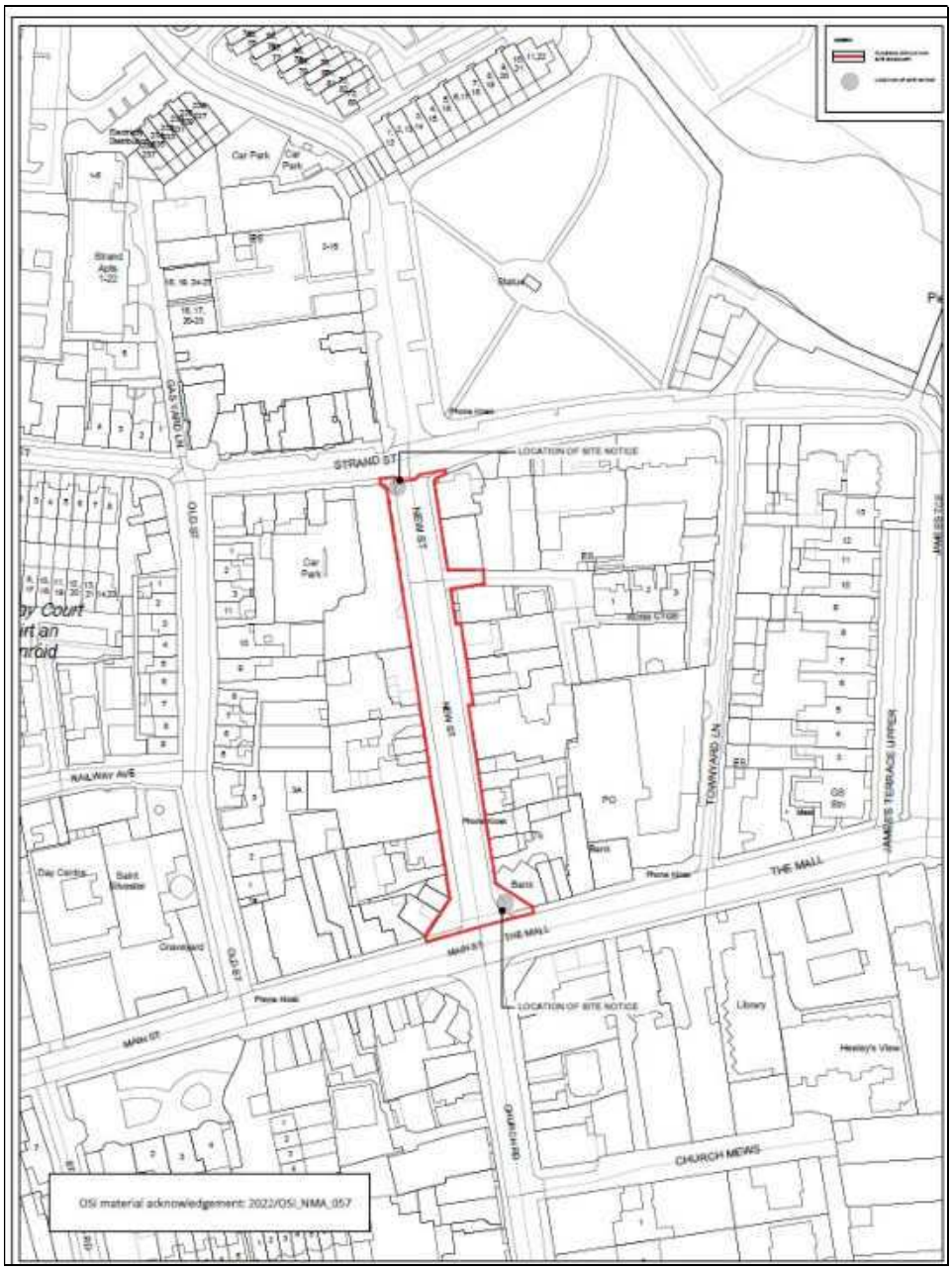


Figure 2.1 Site Location – outlined in red.

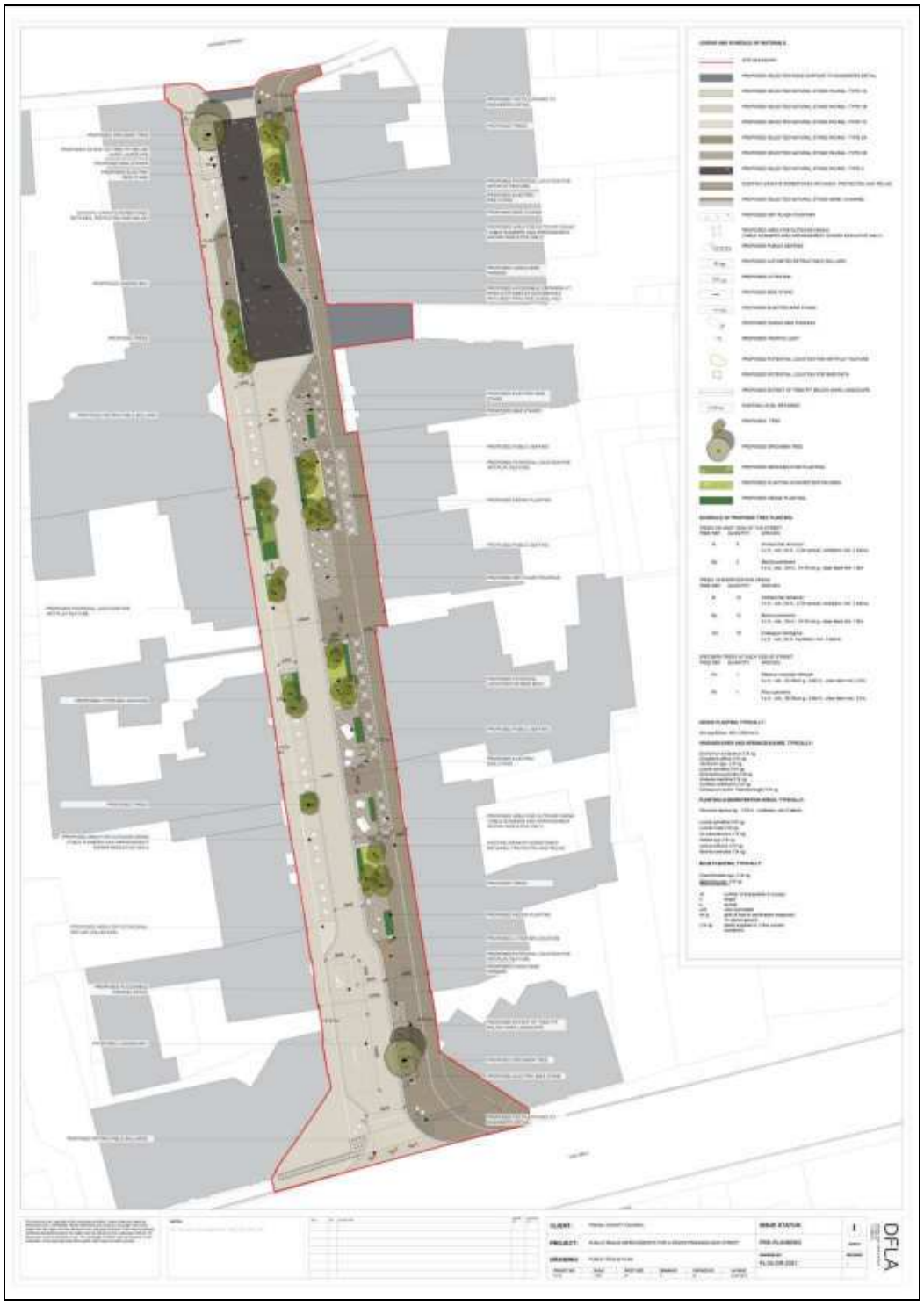


Figure 2.2 Proposed Public Realm Improvements at New Street, Malahide, Co. Dublin (Source: DFLA).

2.2 Desk Study

In addition to a site visit on 31 August 2022, a desk study was carried out to collate the available information on the ecological environment potentially impacted by the proposed public realm improvements at New Street and to determine the proximity of the proposed development to designated areas for conservation.

A review of existing information on European Sites, their Qualifying Interests and Conservation Objectives, and other available information on the terrestrial and marine ecology in the vicinity of the proposed development was conducted.

Data sources relevant to each European site include the Site Synopsis, Conservation Objectives, the Conservation Objectives backing documents, and the Natura 2000 Standard Data Form, all of which are publicly available online at www.npws.ie were also reviewed.

The National Parks and Wildlife Service (NPWS) of the Department of Housing, Local Government and Heritage database of designated conservation areas and NPWS records of rare and protected plant species as listed under the Irish Red List - Vascular Plants (Wyse Jackson, *et al.* 2016) or protected under the Flora (Protection) Order 2022 were checked with regard to the location of the lands at New Street.

Information on protected species of fauna and flora listed for protection under Annex II of the EU Habitats Directive (92/43/EEC), Annex I of the Birds Directive (79/409/EEC) and the Wildlife (Amendment) Act (2000) was also sought from NPWS, the National Biodiversity Data Centre and published sources.

Further ecological information was gathered in relation to the study area by examining GIS datasets, maps and aerial photographs, and by drawing on other existing information.

2.3 Description of the Receiving Environment

New Street was visited for the purposes of this AA Screening Report on 31st August 2022. The existing public realm at New Street is that of the built environment, which is urban, hard-standing and impervious in nature. From consultation with Fingal County Council and a review of Google Street view imagery the only significant changes to the streetscape since 2020 has been the removal of two-way traffic movement and time limited one-way access from 7am to 11am each day for deliveries and emergency vehicles from Main Street/ The Diamond to New Street and two-way access from Strand Street to Ross's Terrace via New Street. However, this AA Screening Report considers whether the pedestrianisation and proposed public realm improvements to New Street, either individually or in combination with other plans or projects, are likely to have a significant effect on any European Site(s), in view of the sites' conservation objectives, compared with the position in 2019 when there was two-way traffic on New Street. In addition, and for completeness, as is evident from the content of this AA Screening Report, it has also considered

whether there are any such likely significant effects arising when comparing the proposed public realm improvements for a pedestrianised New Street with the current position on New Street today.

There are no areas of natural habitat present except for a treeline of large Norway Maple (*Acer platanoides*), which are of planted origin. These street trees run along the western footpath of the street as shown on the tree survey drawings and arboricultural impact assessment prepared by The Tree File Ltd (2023). An additional smaller alignment is situated at the eastern side, close to the junction with Strand Street. There are 11 no. trees in total within New Street. 3 trees have been identified by the project arborist as '*Category B2'* which are of moderate quality and 7 trees are noted as '*Category C2'*, of generally poor-quality and of limited value. Tree no. 1782, to the north, has been classed as *'Category U'*. This tree has been identified as unsuitable for retention due to extensive damage and decay/fracture of underlying timber observed. A series of window boxes, planters, etc. containing ornamental planting are found throughout the streetscape.



Plate 1. Photo taken from the centre of New Street, looking south, towards the Diamond.



Plate 2. Photo taken from New Street, looking east, towards the laneway to the Ross Cottages.



Plate 3. Photo taken at the entrance to Malahide Green, looking towards the Marina.

2.4 Identification of European Sites

In line with the guidance documents listed above in **Section 1.4** a review of all European Sites that could be potentially affected by the proposed project was made using the NPWS online map viewer. These included any European Sites within or adjacent to the lands at New Street and any European Sites within the zone of impact of the proposed development

(using the source – pathway – receptor model) including any downstream. These are summarised in **Table 2.5.1** below.

The source-pathway-receptor model, dictates that, for an effect to occur, there must be a 'source' (such as a construction site); a 'receptor' (such as a designated site for nature conservation); and a 'pathway' between the two (such as a watercourse). If there is a possibility of ecological or environmental impacts occurring this is identified as a potential effect. The level and significance of that effect depends upon the nature and exposure to the potential effect and the characteristics of the receptor. Although there may be a risk of an effect, it may not necessarily occur, and if it does occur, it may not be significant.

There are no set recommended distances for projects to consider European Sites as being relevant for assessment. DoEHLG (2010, pp. 31 – 32) states that:

"The approach to screening is likely to differ somewhat for plans and projects, depending on scale and on the likely effects, but the following should be included:

1. *Any Natura 2000 sites within or adjacent to the plan or project area*
2. *Any Natura 2000 sites within the likely zone of impact of the plan or project. A distance of 15km is currently recommended in the case of plans, and derives from UK guidance (Scott Wilson et al., 2006). For projects, the distance could be much less than 15km, and in some cases less than 100m, but this must be evaluated on a case-by-case basis with reference to the nature, size and location of the project, and the sensitivities of the ecological receptors, and the potential for in combination effects*
3. *Natura 2000 sites that are more than 15km from the plan or project area depending on the likely impacts of the plan or project, and the sensitivities of the ecological receptors, bearing in mind the precautionary principle. In the cases of sites with water dependent habitats or species, and a plan or project that could affect water quality or quantity, for example, it may be necessary to consider the full extent of the upstream and/or downstream catchment."*

It is common practice to include all European Sites within 15 km when conducting a screening for appropriate assessment. In some situations a whole river catchment or a groundwater aquifer may need to be included if there are hydrological connections. In some situations such as where bird flight paths are involved and potential barriers such as wind turbines are proposed, there may be the potential for impacts on SPAs more than 15 km away. In this assessment both sites within a 15km radius of New Street and those identified using the source-pathway-receptor model have been considered.

2.5 Site Location and European Sites

The lands at New Street, Malahide are not currently designated for any nature conservation purposes. A number of European designated sites occur in the vicinity of Malahide as shown on **Figure 2.3** below. There are nineteen European Sites designated for nature conservation (nine Special Areas of Conservation (SACs) and ten Special Protection Areas (SPAs)) within the general environs of New Street and Malahide Village. These are known collectively as Natura 2000 sites and are as follows;

- Baldoyle Bay SAC (Site Code: 000199)
- Baldoyle Bay SPA (Site Code: 004016)
- Howth Head Coast SPA (Site Code: 004113)
- Howth Head SAC (Site Code: 000202)
- Ireland's Eye SAC (Site Code: 002193)
- Ireland's Eye SPA (Site Code: 004117)
- Lambay Island SAC (Site Code: 000204)
- Lambay Island SPA (Site Code: 004069)
- Malahide Estuary SAC (Site Code: 000205)
- Malahide Estuary SPA (Site Code: 004025)
- North Bull Island SPA (Site Code: 004006)
- North Dublin Bay SAC (Site Code: 000206)
- Rockabill SPA (Site Code: 004014)
- Rockabill to Dalkey Islands SAC (Site Code: 003000)
- Rogerstown Estuary SAC (Site Code: 000208)
- Rogerstown Estuary SPA (Site Code: 004015)
- Skerries Islands SPA (Site Code: 004122)
- South Dublin Bay SAC (Site Code: 000210)
- South Dublin Bay/Tolka Estuary SPA (Site Code: 004024)

The most relevant of these for the purposes of this AA Screening Report is the Malahide Estuary SAC (Site Code: 000205) and Malahide Estuary SPA (Site Code: 004025), the boundaries of which are shown on **Figure 2.4** and **2.5** below. They are located within 200m of New Street as shown on **Figure 2.6** and **2.7** below. Surface waters from New Street currently provide a hydrological link (using the source – pathway – receptor model) from New Street to these sites.

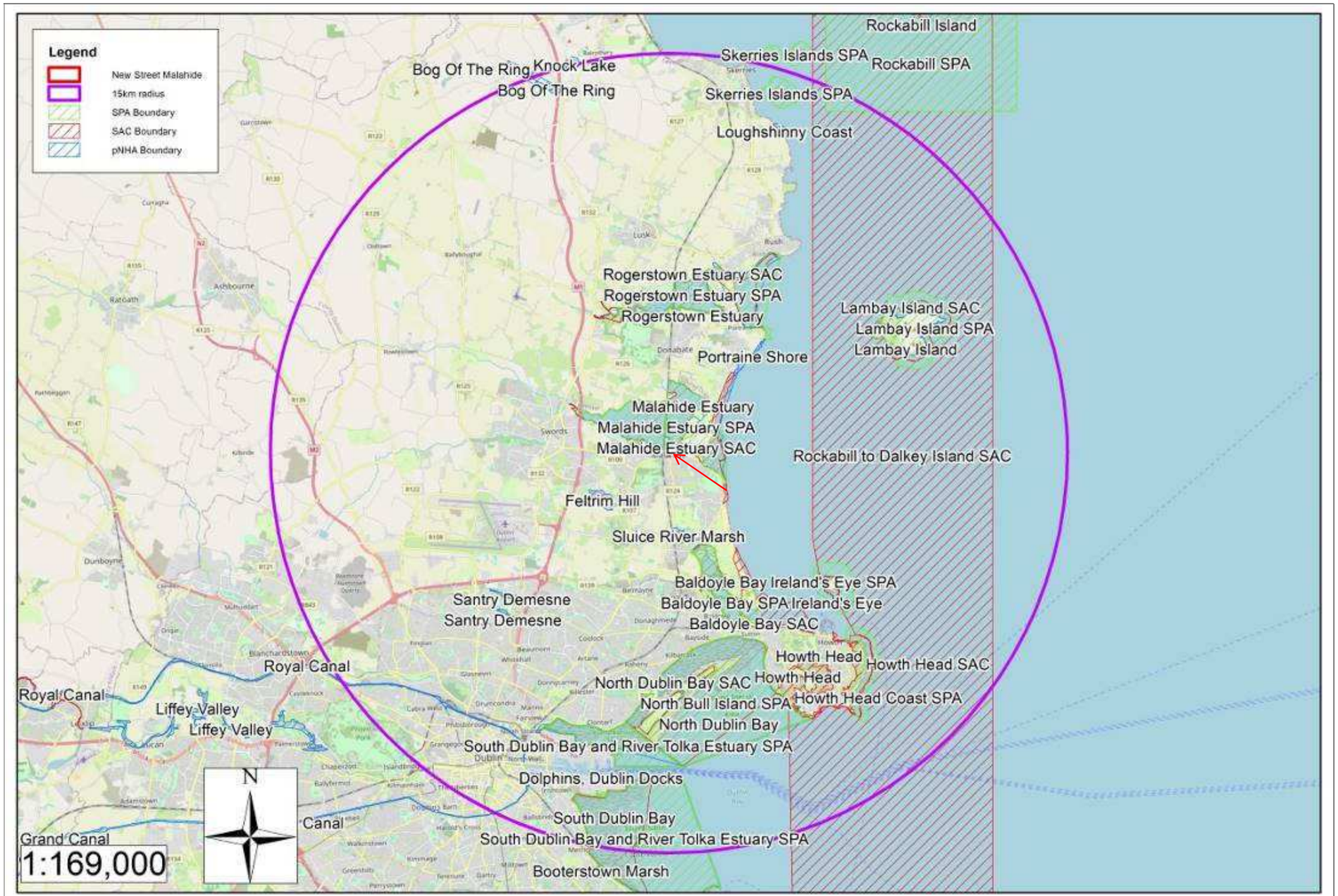


Figure 2.3. Natura 2000 sites and pNHAs within the zone of influence (sites within a 15km radius of New Street and those identified using the source-pathway-receptor model) of the New Street public realm improvements. The indicative location of New Street is indicated by the red arrow.

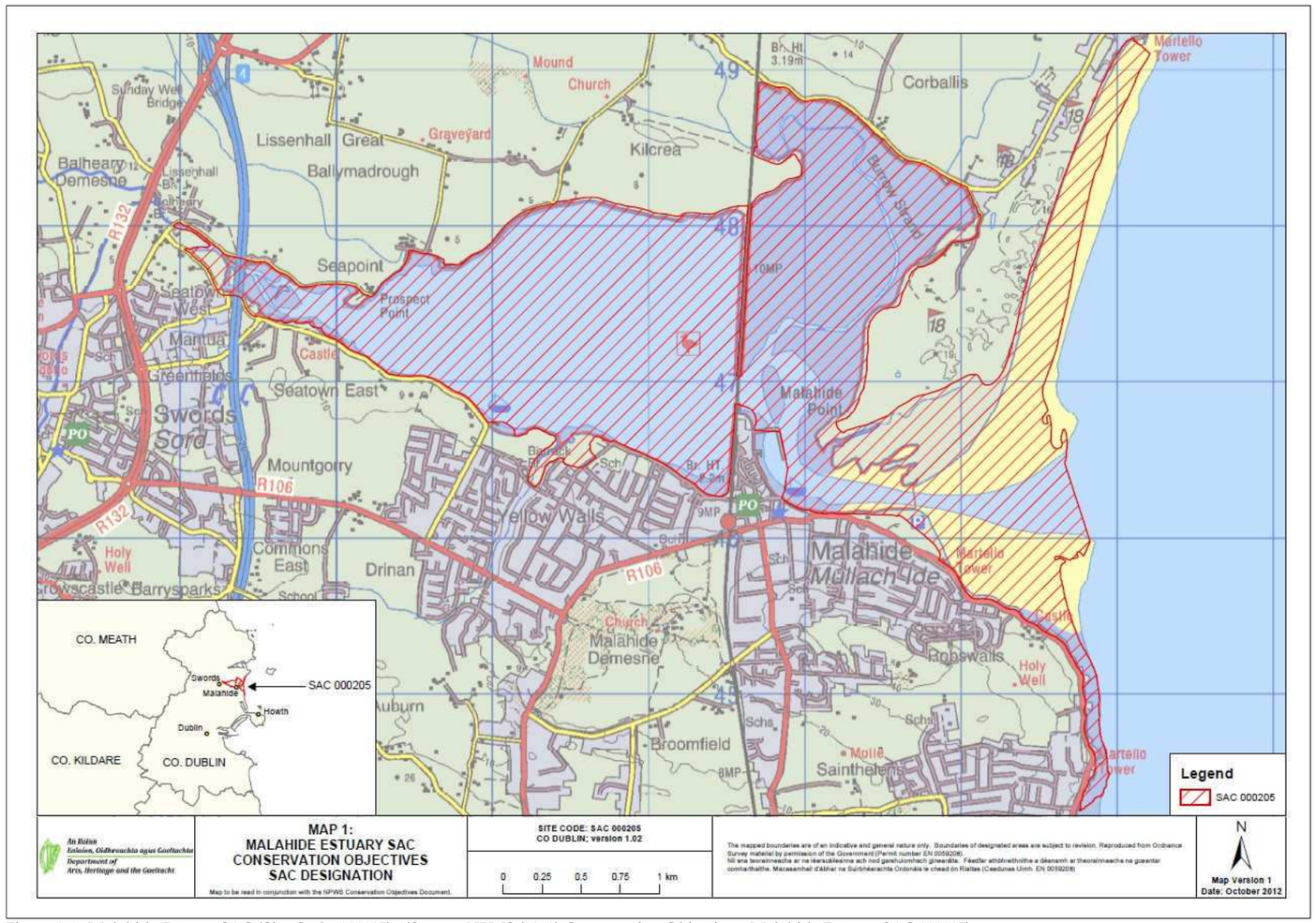


Figure 2.4. Malahide Estuary SAC (Site Code: 000205). (Source: NPWS (2013) Conservation Objectives: Malahide Estuary SAC 000205).

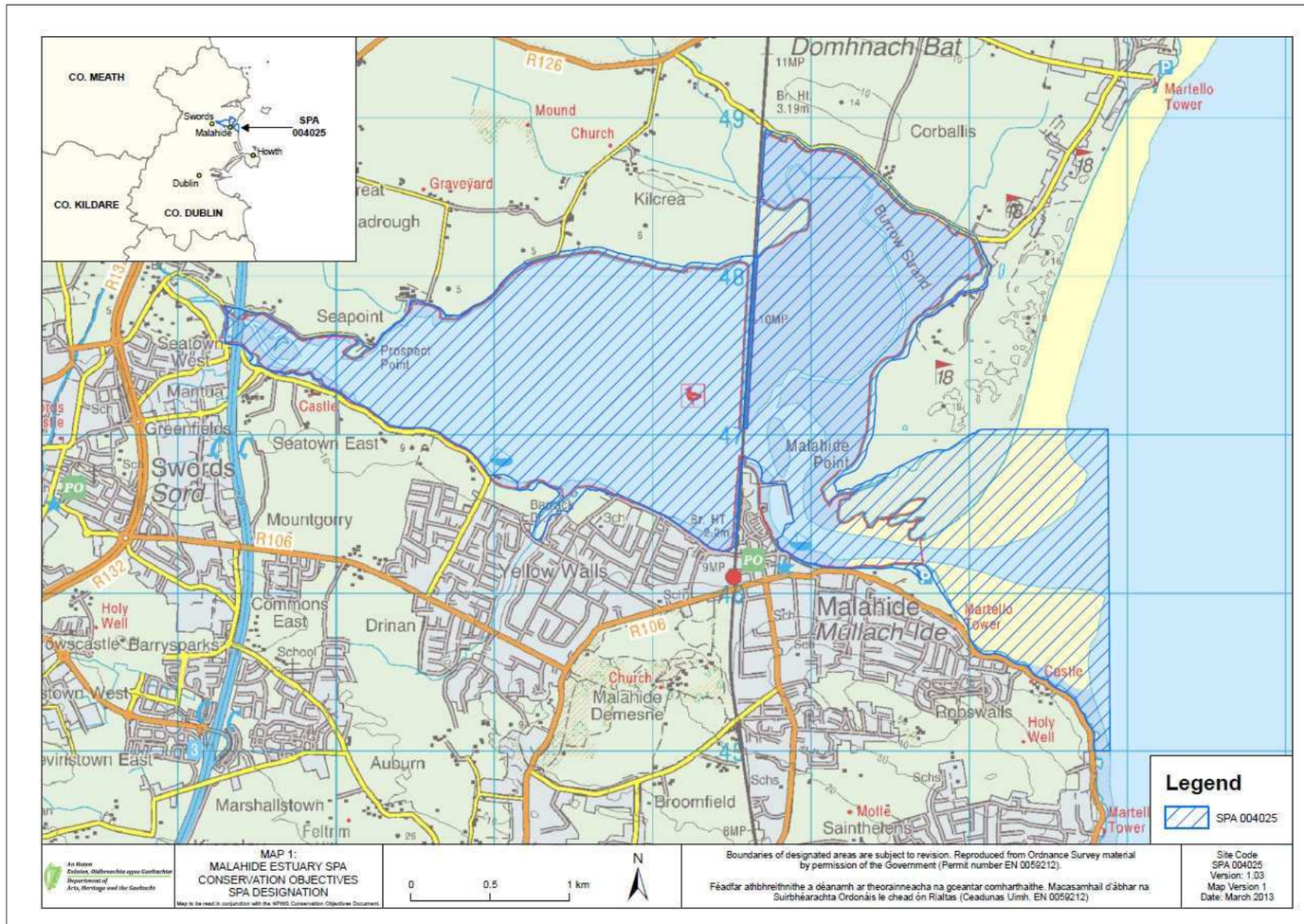


Figure 2.5. Malahide Estuary SPA (Site Code: 004025). (Source: NPWS (2013) Conservation Objectives: Malahide Estuary SPA 004025.)

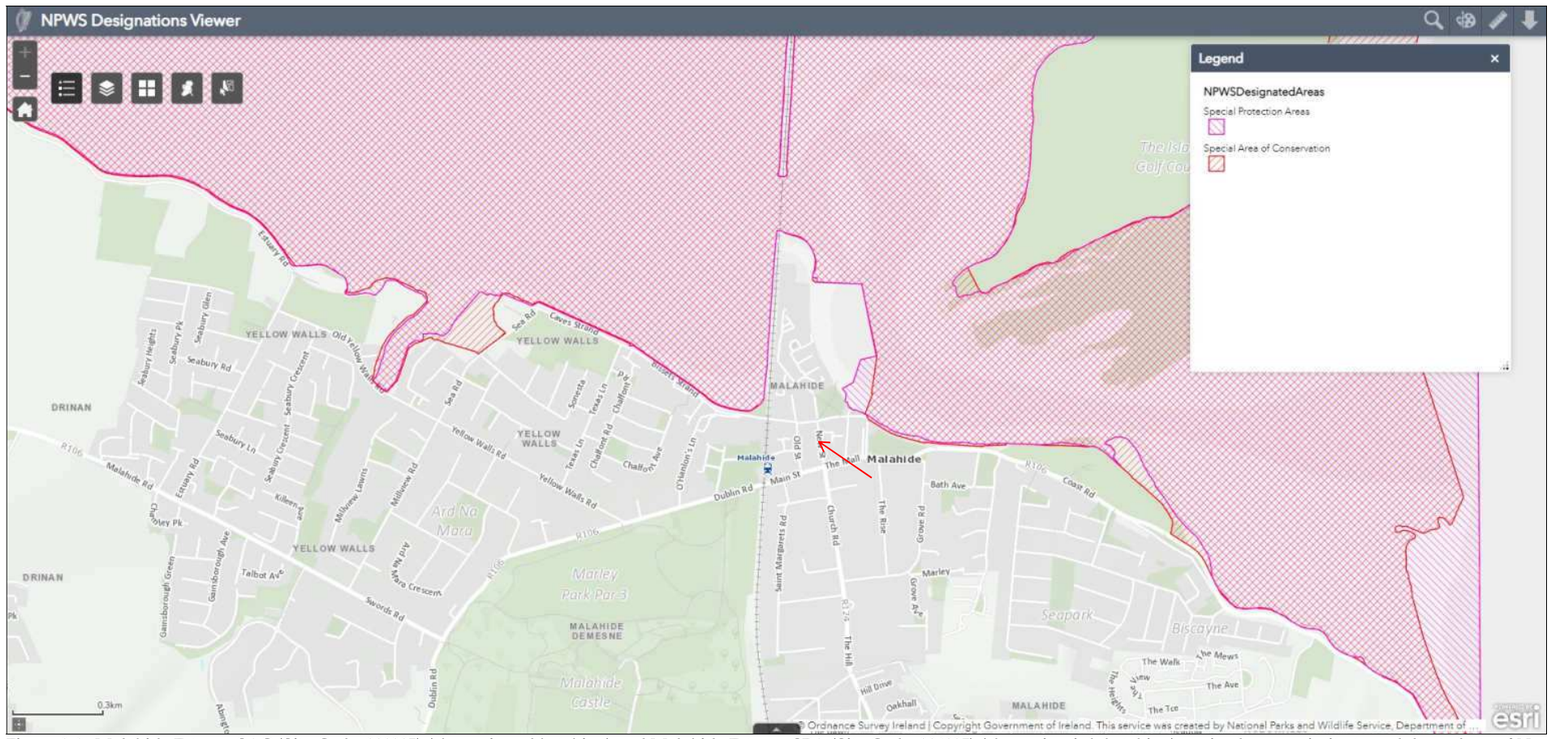


Figure 2.6. Malahide Estuary SAC (Site Code: 000205) (shown in red hatching) and Malahide Estuary SPA (Site Code: 004025) (shown in pink hatching) are in close proximity to and downslope of New Street (indicated by the red arrow). (Source: National Parks and Wildlife Service).

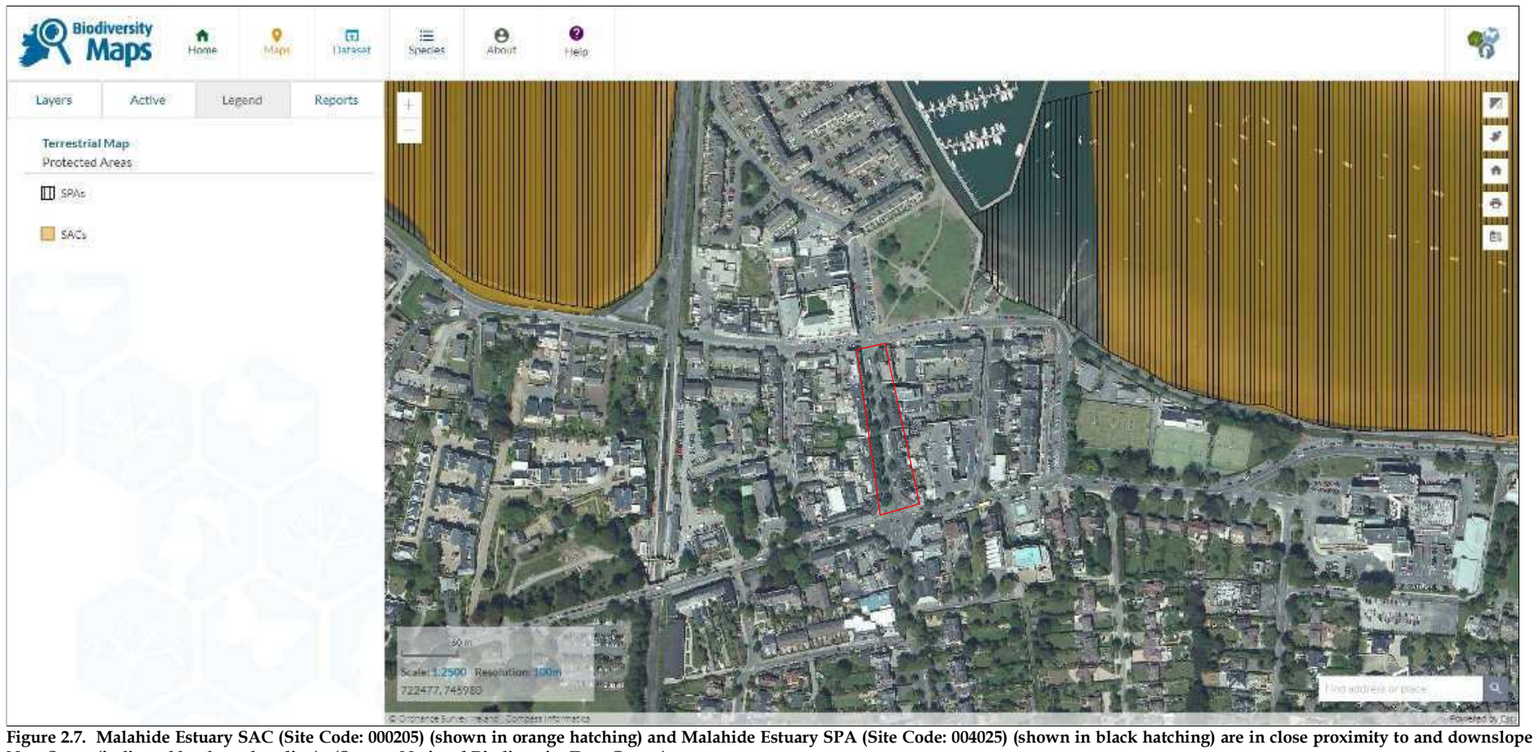


Figure 2.7. Malahide Estuary SAC (Site Code: 000205) (shown in orange hatching) and Malahide Estuary SPA (Site Code: 004025) (shown in black hatching) are in close proximity to and downslope of New Street (indicated by the red outline). (Source: National Biodiversity Data Centre).

Conservation Objectives:
Detailed site specific conservation objectives are available for the European Sites within the zone of influence of the proposed development. The conservation objectives for each of the European Sites outlined above were examined on the 18th October 2022 and rechecked on 13th February 2023 and are summarised below in **Table 2.5.1**.

Hydrological Links to European Sites:
The current surface water system from New Street outfalls into the estuary at the marina and near the Strand Street/James Terrace corner. There is therefore an existing hydrological link between New Street and the Malahide Estuary SAC (Site Code: 000205) and Malahide Estuary SPA (Site Code: 004025).

National Designations for Nature Conservation
Some of these Natura 2000 sites and a number of other sites in the area are also designated as proposed Natural Heritage Areas (pNHAs). There are eighteen in total, as shown on **Figure 2.3** below, include:

- Baldoyle Bay pNHA (Site Code: 000199),
- Bog of the Ring pNHA (Site Code: 001204),
- Dolphins, Dublin Docks pNHA (Site Code: 000201),
- Feltrim Hill pNHA (Site Code: 001218),
- Grand Canal pNHA (Site Code: 002104),
- Howth Head pNHA (Site Code: 000202),
- Ireland's Eye pNHA (Site Code: 000203),
- Knock Lake pNHA (Site Code: 001203),
- Lambay Island pNHA (Site Code: 000204),
- Loughshinny Coast pNHA (Site Code: 002000),
- Malahide Estuary pNHA (Site Code: 000205),
- North Dublin Bay pNHA (Site Code: 000206),
- Portraine Shore pNHA (Site Code: 001215),
- Rogerstown Estuary pNHA (Site Code: 000208),
- Royal Canal pNHA (Site Code: 002103),
- Santry Demesne pNHA (Site Code: 000178),
- Sluice River Marsh pNHA (Site Code: 001763),
- South Dublin Bay pNHA (Site Code: 000210).

Table 2.5.1. Designated European Sites of relevance to the proposed public realm proposals at New Street.

Site Code	Site Name and Designation	Approximate distance from New Street	Qualifying Interest and Conservation Objectives	Discussion of Source-Pathway-Receptor Link/Potential for Likely Significant Effects
000205	Malahide Estuary SAC	0.2km N	Source: NPWS (2013). Conservation Objectives: Malahide Estuary SAC 000205. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht. Accessed 18th October 2022 and checked on 13th February 2023. To maintain the favourable conservation condition of the Annex I habitats for which the SAC has been selected: • (1140) Mudflats and sandflats not covered by seawater at low tide • (1310) *Salicornia* and other annuals colonizing mud and sand • (1320) Spartina swards (*Spartinion maritimae*) • (1330) Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) • (1410) Mediterranean salt meadows (*Juncetalia maritimi*) • (2130) Fixed coastal dunes with herbaceous vegetation (grey dunes)* • (2120) Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes)	The surface waters (i.e. the run-off from the hard surfaces associated with New Street) from New Street currently discharge in an untreated manner to the waters of the Malahide Estuary SAC via the existing stormwater network thereby forming a Source-Pathway-Receptor Link between the proposed development and this Natura 2000 site. It is likely that private foul pipes are currently discharging to the stormwater network given the absence of a dedicated foul line on New Street. The surface water runoff from New Street is currently likely to contain foul waste as well as contaminants and pollutants such as vehicle fuel, oils and other hydro-carbons from vehicles, as well as other waste and litter. During the construction phase, any emission of surface waters from the streetscape to the existing surface water infrastructure will be minor given the nature of the works and are not likely to have a significant effect on any European Site. During the operational phase, the proposed public realm improvements will not lead to any increase in the

Site Code	Site Name and Designation	Approximate distance from New Street	Qualifying Interest and Conservation Objectives	Discussion of Source-Pathway-Receptor Link/Potential for Likely Significant Effects
				amount of surface water run-off from New Street or the amount of contaminants and pollutants it contains. Therefore, even without taking into account any SUDs measures, there is no possibility of any likely significant effects on the European Site arising from the proposed development (either during the construction or operational phase) and there is no reasonable scientific doubt in relation to this conclusion. In fact, the permanent pedestrianisation of New Street, with limited vehicular access for deliveries to the street, is to be welcomed as some of these pollutants will be reduced from the streetscape resulting in a positive effect. Furthermore, the project design includes the provision of a dedicated foul line serving New Street which will remove any foul effluent from the surface water network with positive effects on the qualifying interests of the Malahide Estuary SAC. The water quality of surface waters leaving the street will be further improved by the public realm design as the surface waters will pass through the proposed bio-retention areas prior to discharge and the water quality within the surface water run-off will be significantly improved as a result.

Site Code	Site Name and Designation	Approximate distance from New Street	Qualifying Interest and Conservation Objectives	Discussion of Source-Pathway-Receptor Link/Potential for Likely Significant Effects
004025	Malahide Estuary SPA	0.2km N	Source: NPWS (2013). Conservation Objectives: Malahide Estuary SPA 004025. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht. Accessed 18th October 2022 and checked on 13th February 2023. To maintain the favourable conservation condition of the bird species listed as Qualifying Interests for this SPA: • Great Crested Grebe (*Podiceps cristatus*) [A005] • Light-bellied Brent Goose (*Branta bernicla hrota*) [A046] • Shelduck (*Tadorna tadorna*) [A048] • Pintail (*Anas acuta*) [A054] • Goldeneye (*Bucephala clangula*) [A067] • Red-breasted Merganser (*Mergus serrator*) [A069] • Oystercatcher (*Haematopus ostralegus*) [A130] • Golden Plover (*Pluvialis apricaria*) [A140] • Grey Plover (*Pluvialis squatarola*) [A141] • Knot (*Calidris canutus*) [A143] • Dunlin (*Calidris alpina*) [A149] • Black-tailed Godwit (*Limosa limosa*) [A156] • Bar-tailed Godwit (*Limosa lapponica*) [A157] • Redshank (*Tringa totanus*) [A162] • Wetland and Waterbirds [A999] To maintain the favourable conservation condition of the wetland habitat in Malahide Estuary SPA as a resource for the regularly-occurring migratory waterbirds that utilise it.	The surface waters (i.e. the run-off from the hard surfaces associated with New Street) from New Street currently discharge in an untreated manner to the waters of the Malahide Estuary SPA via the existing stormwater network thereby forming a Source-Pathway-Receptor Link between the proposed development and this Natura 2000 site. It is likely that private foul pipes are currently discharging to the stormwater network given the absence of a dedicated foul line on New Street. The surface water runoff from New Street is currently likely to contain foul waste as well as contaminants and pollutants such as vehicle fuel, oils and other hydro-carbons from vehicles, as well as other waste and litter. During the construction phase, any emission of surface waters from the streetscape to the existing surface water infrastructure will be minor given the nature of the works and are not likely to have a significant effect on any European Site. During the operational phase, the proposed public realm improvements will not lead to any increase in the amount of surface water run-off from New Street or the amount of

Site Code	Site Name and Designation	Approximate distance from New Street	Qualifying Interest and Conservation Objectives	Discussion of Source-Pathway-Receptor Link/Potential for Likely Significant Effects
				contaminants and pollutants it contains. Therefore, even without taking into account any SUDs measures, there is no possibility of any likely significant effects on the European Site arising from the proposed development (either during the construction or operational phase) and there is no reasonable scientific doubt in relation to this conclusion. In fact, the permanent pedestrianisation of New Street, with limited vehicular access for deliveries to the street, is to be welcomed as some of these pollutants will be reduced from the streetscape resulting in a positive effect. Furthermore, the project design includes the provision of a dedicated foul line serving New Street which will remove any foul effluent from the surface water network with positive effects on the qualifying interests of the Malahide Estuary SPA. The water quality of surface waters leaving the street will be further improved by the public realm design as the surface waters will pass through the proposed bio-retention areas prior to discharge and the water quality within the surface water run-off will be significantly improved as a result.
000199	Baldoyle Bay SAC	3.7km SE	Source: NPWS (2012). Conservation Objectives: Baldoyle Bay SAC 000199. Version 1.0. National Parks and Wildlife Service,	There is no direct or in-direct Source-Pathway-Receptor link between this site

Site Code	Site Name and Designation	Approximate distance from New Street	Qualifying Interest and Conservation Objectives	Discussion of Source-Pathway-Receptor Link/Potential for Likely Significant Effects
			Department of Arts, Heritage and the Gaeltacht. Accessed 18th October 2022 and checked on 13th February 2023. To maintain the favourable conservation condition of the Annex I habitats for which the SAC has been selected: • (1140) Mudflats and sandflats not covered by seawater at low tide • (1310) *Salicornia* and other annuals colonizing mud and sand • (1330) Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) • (1410) Mediterranean salt meadows (*Juncetalia maritimi*)	and the proposed development. Surface waters from New Street drain in a northerly direction to Malahide Estuary not in a southerly direction to Baldoyle Bay. Any surface waters entering Malahide Estuary and hence the Irish Sea would be diluted before reaching Baldoyle Bay. Therefore there is no possibility of any likely significant effects and there is no reasonable scientific doubt in relation to this conclusion.
004016	Baldoyle Bay SPA	3.7km SE	Source: NPWS (2013). Conservation Objectives: Baldoyle Bay SPA 004016. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht. Accessed 18th October 2022 and checked on 13th February 2023. To maintain the favourable conservation condition of the bird species listed as Qualifying Interests for this SPA: • Light-bellied Brent Goose (*Branta bernicla hrota*) [A046] • Shelduck (*Tadorna tadorna*) [A048] • Ringed Plover (*Charadrius hiaticula*) [A137] • Golden Plover (*Pluvialis apricaria*) [A140] • Grey Plover (*Pluvialis squatarola*) [A141] • Bar-tailed Godwit (*Limosa lapponica*) [A157] • Wetland and Waterbirds [A999] To maintain the favourable conservation condition of the wetland habitat in Baldoyle Bay SPA.	There is no direct or in-direct Source-Pathway-Receptor link between this site and the proposed development. Surface waters from New Street drain in a northerly direction to Malahide Estuary not in a southerly direction to Baldoyle Bay. Surface waters from New Street drain in a northerly direction to Malahide Estuary not in a southerly direction to Baldoyle Bay. Any surface waters entering Malahide Estuary and hence the Irish Sea would be diluted before reaching Baldoyle Bay. Therefore there is no possibility of any likely significant effects and there is no reasonable scientific doubt in relation to this conclusion.
003000	Rockabill to Dalkey Islands SAC	5.4km E	Source: NPWS (2013). Conservation Objectives: Rockabill to Dalkey Island SAC 003000. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.	There is no direct or in-direct Source-Pathway-Receptor link between this site and the proposed development. Surface waters from New Street drain in a

Site Code	Site Name and Designation	Approximate distance from New Street	Qualifying Interest and Conservation Objectives	Discussion of Source-Pathway-Receptor Link/Potential for Likely Significant Effects
			Accessed 18th October 2022 and checked on 13th February 2023. To maintain the favourable conservation condition of the Annex I habitat and the Annex II species for which the SAC has been selected: • (1170) Reefs • (1351) Harbour Porpoise (*Phocoena phocoena*)	northerly direction to Malahide Estuary. Any surface waters entering Malahide Estuary and hence the Irish Sea would be diluted before reaching Rockabill to Dalkey Islands SAC. Therefore there is no possibility of any likely significant effects and there is no reasonable scientific doubt in relation to this conclusion.
000208	Rogerstown Estuary SAC	5.4km N	Source: NPWS (2013). Conservation Objectives: Rogerstown Estuary SAC 000208. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht. Accessed 18th October 2022 and checked on 13th February 2023. To maintain the favourable conservation condition of the Annex I habitats for which the SAC has been selected: • (1130) Estuaries • (1140) Mudflats and sandflats not covered by seawater at low tide • (1310) *Salicornia* and other annuals colonizing mud and sand • (1330) Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) • (1410) Mediterranean salt meadows (*Juncetalia maritimi*) • (2120) Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes) • (2130) Fixed coastal dunes with herbaceous vegetation (grey dunes)*	There is no direct or in-direct Source-Pathway-Receptor link between this site and the proposed development. Surface waters from New Street drain in a northerly direction to Malahide Estuary. Any surface waters entering Malahide Estuary and hence the Irish Sea would be diluted before reaching Rogerstown Estuary SAC. Therefore there is no possibility of any likely significant effects and there is no reasonable scientific doubt in relation to this conclusion.
004015	Rogerstown Estuary SPA	5.4km N	Source: NPWS (2013). Conservation Objectives: Rogerstown Estuary SPA 004015. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht. Accessed 18th October 2022 and checked on 13th February 2023.	There is no direct or in-direct Source-Pathway-Receptor link between this site and the proposed development. Surface waters from New Street drain in a northerly direction to Malahide Estuary. Any surface waters entering Malahide

Site Code	Site Name and Designation	Approximate distance from New Street	Qualifying Interest and Conservation Objectives	Discussion of Source-Pathway-Receptor Link/Potential for Likely Significant Effects
			To maintain the favourable conservation condition of the bird species listed as Qualifying Interests for this SPA: • Greylag Goose (*Anser anser*) [A043] • Light-bellied Brent Goose (*Branta bernicla hrota*) [A046] • Shelduck (*Tadorna tadorna*) [A048] • Shoveler (*Anas clypeata*) [A056] • Oystercatcher (*Haematopus ostralegus*) [A130] • Ringed Plover (*Charadrius hiaticula*) [A137] • Grey Plover (*Pluvialis squatarola*) [A141] • Knot (*Calidris canutus*) [A143] • Dunlin (*Calidris alpina*) [A149] • Black-tailed Godwit (*Limosa limosa*) [A156] • Redshank (*Tringa totanus*) [A162] • Wetland and Waterbirds [A999] To maintain the favourable conservation condition of wetland habitat in Rogerstown Estuary SPA as a resource for the regularly occurring migratory waterbirds that utilise it.	Estuary and hence the Irish Sea would be diluted before reaching Rogerstown Estuary SPA. Therefore there is no possibility of any likely significant effects and there is no reasonable scientific doubt in relation to this conclusion.
004117	Ireland's Eye SPA	6.8km SE	Source: NPWS (2022). Conservation objectives for Ireland's Eye SPA [004117]. First Order Site-specific Conservation Objectives Version 1.0. Department of Housing, Local Government and Heritage. Accessed 18th October 2022 and checked on 13th February 2023. To maintain or restore the favourable conservation condition of the bird species listed as Qualifying Interests for this SPA: • Cormorant (*Phalacrocorax carbo*) [A017] • Herring Gull (*Larus argentatus*) [A184] • Kittiwake (*Rissa tridactyla*) [A188] • Guillemot (*Uria aalge*) [A199] • Razorbill (*Alca torda*) [A200]	There is no direct or in-direct Source-Pathway-Receptor link between this site and the proposed development. Surface waters from New Street drain in a northerly direction to Malahide Estuary. Any surface waters entering Malahide Estuary and hence the Irish Sea would be diluted before reaching Ireland's Eye SPA. Therefore there is no possibility of any likely significant effects and there is no reasonable scientific doubt in relation to this conclusion.
000206	North Dublin Bay SAC	7.3km SE	Source: NPWS (2013). Conservation Objectives: North Dublin Bay SAC 000206. Version 1. National Parks and Wildlife Service,	There is no direct or in-direct Source-Pathway-Receptor link between this site

Site Code	Site Name and Designation	Approximate distance from New Street	Qualifying Interest and Conservation Objectives	Discussion of Source-Pathway-Receptor Link/Potential for Likely Significant Effects
			Department of Arts, Heritage and the Gaeltacht. Accessed 18th October 2022 and checked on 13th February 2023. To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected: • (1140) Mudflats and sandflats not covered by seawater at low tide • (1210) Annual vegetation of drift lines • (1310) *Salicornia* and other annuals colonizing mud and sand • (1320) *Spartina* swards (Spartinion maritimae) • (1330) Atlantic salt meadows (Glauco-Puccinellietalia maritimae) • (1395) Petalwort (*Petalophyllum ralfsii)* • (1410) Mediterranean salt meadows (Juncetalia maritimi) • (2110) Embryonic shifting dunes • (2120) Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes) • (2130) Fixed coastal dunes with herbaceous vegetation (grey dunes) • (2190) Humid dune slacks	and the proposed development. Surface waters from New Street drain in a northerly direction to Malahide Estuary. Any surface waters entering Malahide Estuary and hence the Irish Sea would be diluted before reaching North Dublin Bay SAC. Therefore there is no possibility of any likely significant effects and there is no reasonable scientific doubt in relation to this conclusion.
004006	North Bull Island SPA	7.3km SE	Source: NPWS (2015). Conservation Objectives: North Bull Island SPA 004006. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht. Accessed 18th October 2022 and checked on 13th February 2023. To maintain the favourable conservation condition of the bird species listed as Qualifying Interests for this SPA: • Light-bellied Brent Goose (*Branta bernicla hrota*) [A046] • Shelduck (*Tadorna tadorna*) [A048] • Teal (*Anas crecca*) [A052] • Pintail (*Anas acuta*) [A054] • Shoveler (*Anas clypeata*) [A056]	There is no direct or in-direct Source-Pathway-Receptor link between this site and the proposed development. Surface waters from New Street drain in a northerly direction to Malahide Estuary. Any surface waters entering Malahide Estuary and hence the Irish Sea would be diluted before reaching North Bull Island SPA. Therefore there is no possibility of any likely significant effects and there is no reasonable scientific doubt in relation to this conclusion.

Site Code	Site Name and Designation	Approximate distance from New Street	Qualifying Interest and Conservation Objectives	Discussion of Source-Pathway-Receptor Link/Potential for Likely Significant Effects
			• Oystercatcher (*Haematopus ostralegus*) [A130] • Golden Plover (*Pluvialis apricaria*) [A140] • Grey Plover (*Pluvialis squatarola*) [A141] • Knot (*Calidris canutus*) [A143] • Sanderling (*Calidris alba*) [A144] • Dunlin (*Calidris alpina*) [A149] • Black-tailed Godwit (*Limosa limosa*) [A156] • Bar-tailed Godwit (*Limosa lapponica*) [A157] • Curlew (*Numenius arquata*) [A160] • Redshank (*Tringa totanus*) [A162] • Turnstone (*Arenaria interpres*) [A169] • Black-headed Gull (*Chroicocephalus ridibundus*) [A179] • Wetland and Waterbirds [A999]	
002193	Ireland's Eye SAC	7.4km SE	Source: NPWS (2017). Conservation Objectives: Ireland's Eye SAC 002193. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs. Accessed 18th October 2022 and checked on 13th February 2023. To maintain the favourable conservation condition of the Annex I habitats for which the SAC has been selected: • Perennial vegetation of stony banks [1220] • Vegetated sea cliffs of the Atlantic and Baltic coasts [1230]	There is no direct or in-direct Source-Pathway-Receptor link between this site and the proposed development. Surface waters from New Street drain in a northerly direction to Malahide Estuary. Any surface waters entering Malahide Estuary and hence the Irish Sea would be diluted before reaching Ireland's Eye SAC. Therefore there is no possibility of any likely significant effects and there is no reasonable scientific doubt in relation to this conclusion.
000204	Lambay Island SAC	9.1km NE	Source: NPWS (2013). Conservation Objectives: Lambay Island SAC 000204. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht. Accessed 18th October 2022 and checked on 13th February 2023. To maintain the favourable conservation condition of the Annex I	There is no direct or in-direct Source-Pathway-Receptor link between this site and the proposed development. Surface waters from New Street drain in a northerly direction to Malahide Estuary. Any surface waters entering Malahide Estuary and hence the Irish Sea would be

Site Code	Site Name and Designation	Approximate distance from New Street	Qualifying Interest and Conservation Objectives	Discussion of Source-Pathway-Receptor Link/Potential for Likely Significant Effects
			habitat and the Annex II species for which the SAC has been selected: • (1230) Vegetated sea cliffs of the Atlantic and Baltic coasts • (1170) Reefs • (1364) *Halichoerus grypus* • (1265) *Phoca vitulina*	diluted before reaching Lambay Island SAC. Therefore there is no possibility of any likely significant effects and there is no reasonable scientific doubt in relation to this conclusion.
004069	Lambay Island SPA	9.1km NE	Source: NPWS (2022) Conservation objectives for Lambay Island SPA [004069]. First Order Site-specific Conservation Objectives Version 1.0. Department of Housing, Local Government and Heritage. Accessed 18th October 2022 and checked on 13th February 2023. To maintain the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA: • Fulmar (*Fulmarus glacialis*) [A009] • Cormorant (*Phalacrocorax carbo*) [A017] • Shag (*Phalacrocorax aristotelis*) [A018] • Greylag Goose (*Anser anser*) [A043] • Lesser Black-backed Gull (*Larus fuscus*) [A183] ^ • Herring Gull (*Larus argentatus*) [A184] ^ • Kittiwake (*Rissa tridactyla*) [A188] • Guillemot (*Uria aalge*) [A199] • Razorbill (*Alca torda*) [A200] • Puffin (*Fratercula arctica*) [A204]	There is no direct or in-direct Source-Pathway-Receptor link between this site and the proposed development. Surface waters from New Street drain in a northerly direction to Malahide Estuary. Any surface waters entering Malahide Estuary and hence the Irish Sea would be diluted before reaching Lambay Island SPA. Therefore there is no possibility of any likely significant effects and there is no reasonable scientific doubt in relation to this conclusion.
000202	Howth Head SAC	9.2km SE	Source: NPWS (2016). Conservation Objectives: Howth Head SAC 000202. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs. Accessed 18th October 2022 and checked on 13th February 2023. To maintain or restore the favourable conservation condition of the Annex I habitats for which the SAC has been selected: • Vegetated sea cliffs of the Atlantic and Baltic coasts [1230]	There is no direct or in-direct Source-Pathway-Receptor link between this site and the proposed development. Surface waters from New Street drain in a northerly direction to Malahide Estuary. Any surface waters entering Malahide Estuary and hence the Irish Sea would be diluted before reaching Howth Head SAC.

Site Code	Site Name and Designation	Approximate distance from New Street	Qualifying Interest and Conservation Objectives	Discussion of Source-Pathway-Receptor Link/Potential for Likely Significant Effects
			• European dry heaths [4030]	Therefore there is no possibility of any likely significant effects and there is no reasonable scientific doubt in relation to this conclusion.
004113	Howth Head Coast SPA	9.4km SE	Source: NPWS (2022). Conservation objectives for Howth Head Coast SPA [004113]. First Order Site-specific Conservation Objectives Version 1.0. Department of Housing, Local Government and Heritage. Accessed 18th October 2022 and checked on 13th February 2023. To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA: • Kittiwake (*Rissa tridactyla*) [A188]	There is no direct or in-direct Source-Pathway-Receptor link between this site and the proposed development. Surface waters from New Street drain in a northerly direction to Malahide Estuary. Any surface waters entering Malahide Estuary and hence the Irish Sea would be diluted before reaching Howth Head Coast SPA. Therefore there is no possibility of any likely significant effects and there is no reasonable scientific doubt in relation to this conclusion.
004024	South Dublin Bay and River Tolka Estuary SPA	10.3km S	Source: NPWS (2015). Conservation Objectives: South Dublin Bay and River Tolka Estuary SPA 004024. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht. Accessed 18th October 2022 and checked on 13th February 2023. To maintain the favourable conservation condition of the bird species listed as Qualifying Interests for this SPA: • Light-bellied Brent Goose (*Branta bernicla hrota*) [A046] • Oystercatcher (*Haematopus ostralegus*) [A130] • Ringed Plover (*Charadrius hiaticula*) [A137] • Grey Plover (*Pluvialis squatarola*) [A141] • Knot (*Calidris canutus*) [A143] • Sanderling (*Calidris alba*) [A144] • Dunlin (*Calidris alpina*) [A149] • Bar-tailed Godwit (*Limosa lapponica*) [A157]	There is no direct or in-direct Source-Pathway-Receptor link between this site and the proposed development. Surface waters from New Street drain in a northerly direction to Malahide Estuary. Any surface waters entering Malahide Estuary and hence the Irish Sea would be diluted before reaching South Dublin Bay and River Tolka Estuary SPA. Therefore there is no possibility of any likely significant effects and there is no reasonable scientific doubt in relation to this conclusion.

Site Code	Site Name and Designation	Approximate distance from New Street	Qualifying Interest and Conservation Objectives	Discussion of Source-Pathway-Receptor Link/Potential for Likely Significant Effects
			• Redshank (*Tringa totanus*) [A162] • Black-headed Gull (*Chroicocephalus ridibundus*) [A179] • Roseate Tern (*Sterna dougallii*) [A192] • Common Tern (*Sterna hirundo*) [A193] • Arctic Tern (*Sterna paradisaea*) [A194] • Wetland and Waterbirds [A999] To maintain the favourable conservation condition of wetland habitat in South Dublin and the River Tolka Estuary SPA as a resource for the regularly occurring migratory waterbirds that utilise it.	
000210	South Dublin Bay SAC	12.3km S	Source: NPWS (2013). Conservation Objectives: South Dublin Bay SAC 000210. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht. Accessed 18th October 2022 and checked on 13th February 2023. To maintain or restore the favourable conservation condition of the Annex I habitats for which the SAC has been selected: • Mudflats and sandflats not covered by seawater at low tide [1140] • Annual vegetation of drift lines [1210] • *Salicornia* and other annuals colonising mud and sand [1310] • Embryonic shifting dunes [2110]	There is no direct or in-direct Source-Pathway-Receptor link between this site and the proposed development. Surface waters from New Street drain in a northerly direction to Malahide Estuary. Any surface waters entering Malahide Estuary and hence the Irish Sea would be diluted before reaching South Dublin Bay SAC. Therefore there is no possibility of any likely significant effects and there is no reasonable scientific doubt in relation to this conclusion.
004122	Skerries Islands SPA	13.6km NE	Source: NPWS (2022) Conservation objectives for Skerries Islands SPA [004122]. First Order Site specific Conservation Objectives Version 1.0. Department of Housing, Local Government and Heritage. Accessed 18th October 2022 and checked on 13th February 2023. To maintain the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA: • Cormorant (*Phalacrocorax carbo*) [A017]	There is no direct or in-direct Source-Pathway-Receptor link between this site and the proposed development. Surface waters from New Street drain in a northerly direction to Malahide Estuary. Any surface waters entering Malahide Estuary and hence the Irish Sea would be diluted before reaching Skerries Islands SPA.

Site Code	Site Name and Designation	Approximate distance from New Street	Qualifying Interest and Conservation Objectives	Discussion of Source-Pathway-Receptor Link/Potential for Likely Significant Effects
			• Shag (*Phalacrocorax aristotelis*) [A018] • Light-bellied Brent Goose (*Branta bernicla hrota*) [A046] • Purple Sandpiper (*Calidris maritima*) [A148] • Turnstone (*Arenaria interpres*) [A169] • Herring Gull (*Larus argentatus*) [A184]	Therefore there is no possibility of any likely significant effects and there is no reasonable scientific doubt in relation to this conclusion.
004014	Rockabill SPA	14.1km NE	Source: NPWS (2013) Conservation Objectives: Rockabill SPA 004014. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht. Accessed 18th October 2022 and checked on 13th February 2023. To maintain the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA: • Purple Sandpiper (*Calidris maritima*) [A148] • Roseate Tern (*Sterna dougallii*) [A192] • Common Tern (*Sterna hirundo*) [A193] • Arctic Tern (*Sterna paradisaea*) [A194]	There is no direct or in-direct Source-Pathway-Receptor link between this site and the proposed development. Surface waters from New Street drain in a northerly direction to Malahide Estuary. Any surface waters entering Malahide Estuary and hence the Irish Sea would be diluted before reaching Rockabill SPA. Therefore there is no possibility of any likely significant effects and there is no reasonable scientific doubt in relation to this conclusion.

2.6 Identification of Potential Likely Significant Effects on European Sites

2.6.1 Overview of the Proposed Development

As set out in **Section 2.1** above, Fingal County Council intends to undertake public realm improvements for a pedestrianised New Street, Malahide.

The nature and extent of the proposed development is as follows:

i. Widening of footpaths and provision of new kerb edges with existing kerbstones retained, realigned and protected within the widened footpaths and public spaces.
ii. Realignment and narrowing of the trafficable section of New Street (c.150m in length) and insertion of control measures including all necessary signage to provide for a pedestrianised street with associated traffic flow routes and restrictions allowing for time limited one-way access from 7am to 11am each day for deliveries and emergency vehicles from Main Street/ The Mall to New Street and a two-way access from Strand Street to Ross's Terrace via New Street.
iii. Upgrade of all street surfaces.
iv. Provision of 2no. loading bays at the southern and northern ends of New Street and an accessible parking space in front of the HSE building.
v. Installation of cycle stands at 6no. locations on New Street with capacity for 23no. cycle parking spaces.
vi. Removal and replacement of 11no. existing trees with 37no. trees of species appropriate to the location and environment and provision of soft landscaping and green infrastructure with planting zones for seeded, planted and hedging areas and associated bioretention and tree pit areas.
vii. Provision of outdoor dining zones including tables and chairs and other ancillary moveable structures.
viii. Provision of street furniture including seating, benches and litter and recycling bins and a water feature.
ix. New public lighting comprising 12no. fixtures.
x. Upgrade of the watermain and foul drainage networks and upgrade and relocation of the surface water drainage network including provision of sustainable urban drainage systems (SUDs) features as part of hard and soft landscaping.
xi. Provision of ducting for utilities and piped infrastructure.
xii. All associated site and development works.

Fingal County Council will be providing regulatory traffic signs (including regulatory signs which give effect to a pedestrianisation of New Street) in accordance with Section 95 of the Road Traffic Act 1961 (as amended).

The construction of the proposed public realm improvements at New Street will involve typical construction activities associated with developments of this nature and scale. These include; site preparation, removal of the 11 no. trees on New Street, clearance of existing street surfaces, excavation of topsoil and

subsoil, ground works, construction of new street surfaces, landscaping and finishes. As this is an urban developed site, no demolition works will be required. An on-site construction compound will be provided for materials storage areas and facilities for site personnel, situated within the lands made available (LMA) to the contractor, which will be within the streetscape.

2.6.2 Potential Impacts from the Proposed Development on European Sites

The construction phase of the Public Realm improvements at New Street, will require the removal of existing surfaces and the excavation of soil to allow for the diversion of services. These works will result in typical environmental effects, including elevated levels of noise, emission of surface waters from the streetscape to the existing surface water infrastructure, emissions of dust, direct and indirect greenhouse gas emissions, localised impacts on public amenity, etc.

There will also be environmental risks associated with the presence of potential pollutants associated with the construction industry, plant and machinery (hydrocarbon, solvents, cementitious materials, etc.).

During the construction phase of the project standard best practice construction methods will be used to protect the general environment. The project has incorporated these methods as standard, irrespective of any effect on any European Sites. They are widely implemented on construction sites, have been shown to be effective and there is widespread practical experience of their use. There are no mitigation measures required to protect any of the identified European Sites during the construction phase of the project.

In relation to traffic, given (i) that construction related traffic will be minor relative to existing traffic, (ii) that there is no additional traffic generated by the proposed development (such that there is no increase in traffic-related emissions), (iii) that traffic will be redistributed to other junctions, and (iv) that that redistribution has not resulted in any significant impacts on the operational capacity of the surrounding network of roads and junctions (so there will be no increase in traffic congestion or associated emissions), there is essentially no alteration to the existing scenario vis a vis traffic related effects on any European site arising from the proposed development and therefore there will be no likely significant effects on any European Site arising from the proposed public realm improvements for a pedestrianised New Street.

During the operational phase, typical traffic related impacts on projects include emissions of CO2 and NO2, however the proposed development includes measures to encourage Active Travel through walking and cycling, which will likely cause a positive and long term impact on air and climate during the operational phase of the development.

During the operational phase the proposed development will not generate any increased traffic on the road network. On the contrary, the pedestrianisation and

proposed public realm improvements insofar as they discourage use of the private car in Malahide village, will promote modal shift towards public transport, walking and cycling.

During the operational phase, typical environmental effects associated with the presence and operation of the Public Realm improvements are also predicted, however these are limited to the emission of attenuated surface waters. There will be no additional surface waters discharging from the Public Realm improvements during the operational phase and therefore there is no possibility of any likely significant effects on any European Site arising from the proposed development and there is no reasonable scientific doubt in relation to this conclusion. In fact, water quality within the surface water run-off will be improved as a result of the provision of a new foul water line serving New Street, which will remove any existing private foul pipes that are currently discharging to the stormwater network. There will be no additional foul water loading arising from the Public Realm improvements. The provision of a new foul water line serving New Street will remove any existing private foul pipes that are currently discharging to the stormwater network given the absence of a dedicated foul line on New Street.

The predicted environmental effects will be typical of and commensurate of a development of this nature and small scale. No likely significant effects will occur at either stage.

The site of the proposed development (New Street) is an existing urban streetscape with no natural habitats of ecological value. It is not listed under any wildlife or conservation designation. No rare, threatened or legally protected plant species, as listed in the *Ireland Red List No. 10: Vascular Plants* (Wyse Jackson *et al*., 2016); the Flora (Protection) Order, 2022; or the Annexes of the Habitats Directive; are present within the site.

Within the outer estuary of the Malahide/Broadmeadow Estuary downslope of New Street (and connected to same via the source-pathway–receptor model) are areas of the Annex I habitat '1140 Mudflats and sandflats not covered by seawater at low tide', which support the marine communities of 'Fine sand with oligochaetes, amphipods, bivalves and polychaetes community complex'. Other Annex I habitats present (as listed in the qualifying interests of the Malahide Estuary SAC) are areas of 1310 *Salicornia* and other annuals colonising mud and sand, 1310 / 1330 *Salicornia* and other annuals colonising mud and sand / Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*), 1330 / 1410 Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) / Mediterranean salt meadows (*Juncetalia maritimi*), 1330 Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) and 1410 Mediterranean salt meadows (*Juncetalia maritimi*). These habitats support the following marine communities - Estuarine sandy mud with *Chironomidae* and *Hediste diversicolor* community complex, *Mytilus*-dominated community complex, Sand to muddy sand dominated by *Peringia ulvae*, *Tubificoides benedii* and *Cerastoderma edule* community complex and *Zostera*

dominated community. At the seaward side of the estuary on Malahide Island, are areas of sand dune and saltmarsh communities including the Annex I habitats 2120 Shifting dunes along the shoreline with *Ammophila arenaria* ('white dunes'), 2130 *Fixed coastal dunes with herbaceous vegetation ('grey dunes') and 2110 Embryonic shifting dunes. The location and extent of these habitats and marine communities within the boundaries of the Malahide Estuary SAC/SPA are shown on **Figures 2.8, 2.9, 2.10** and **2.11** below.

The potential impacts of the proposed public realm improvements for a pedestrianised New Street, Malahide on the European Sites identified in **Table 2.5.1** above, including any potential impacts arising from the pedestrianisation of New Street, were assessed using the following factors:

- size and scale
- land-take
- distance from the European site or key features of the site
- resource requirements (water abstraction etc.)
- emissions (disposal to land, water or air)
- excavation requirements
- transportation requirements
- duration of construction, operation, decommissioning, etc.
- reduction of habitat area
- disturbance to key species
- habitat or species fragmentation
- reduction in species density
- changes in key indicators of conservation value (water quality etc.)
- climate change
- key relationships that define the structure of the sites
- key relationships that define the function of the site

These potential impacts on those European Sites are summarised below in **Table 2.7.1.**

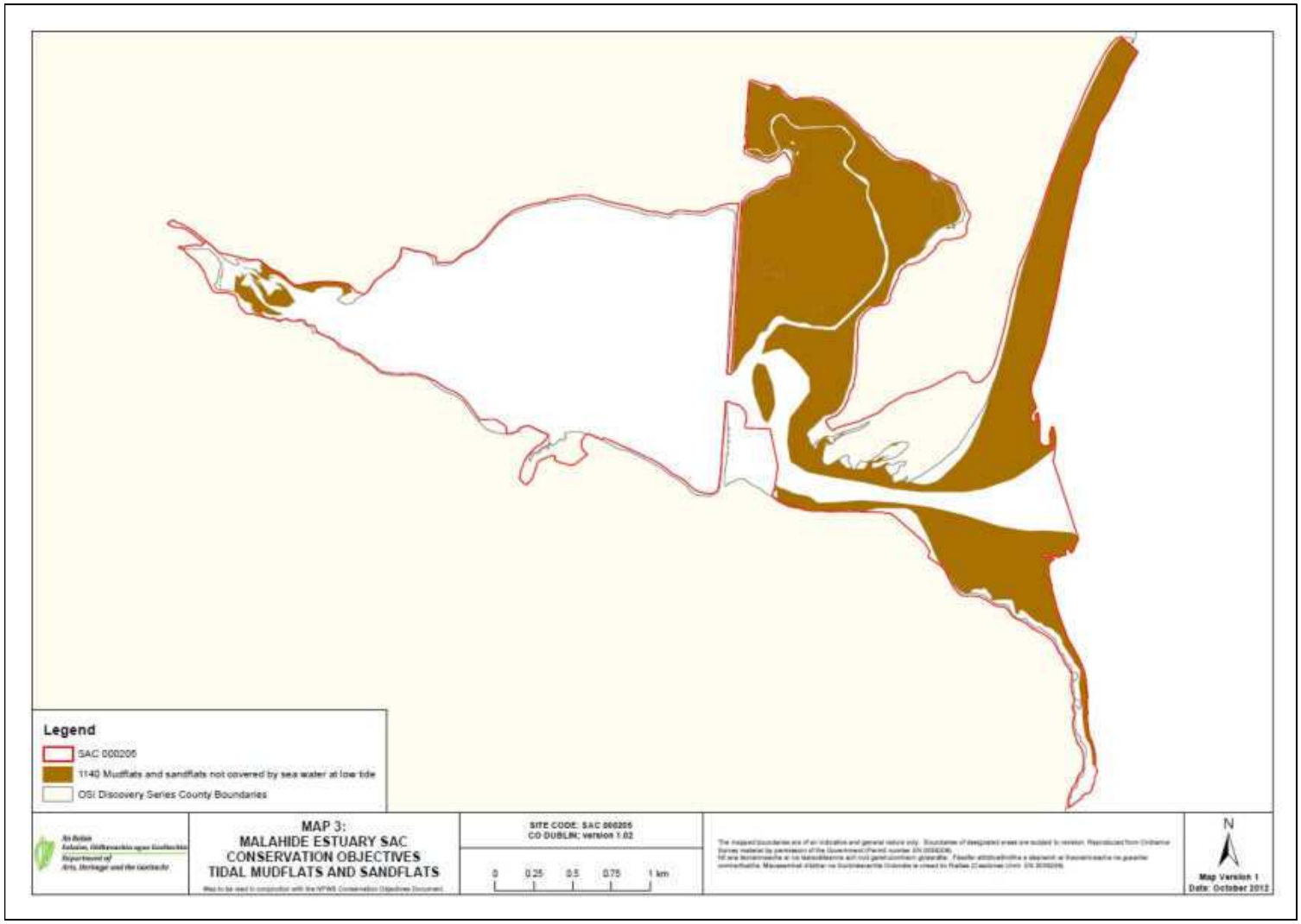


Figure 2.8. Areas of Tidal Mudflats and Sandflats within the Malahide Estuary SAC. (Source: NPWS (2013) Conservation Objectives: Malahide Estuary SAC 000205).

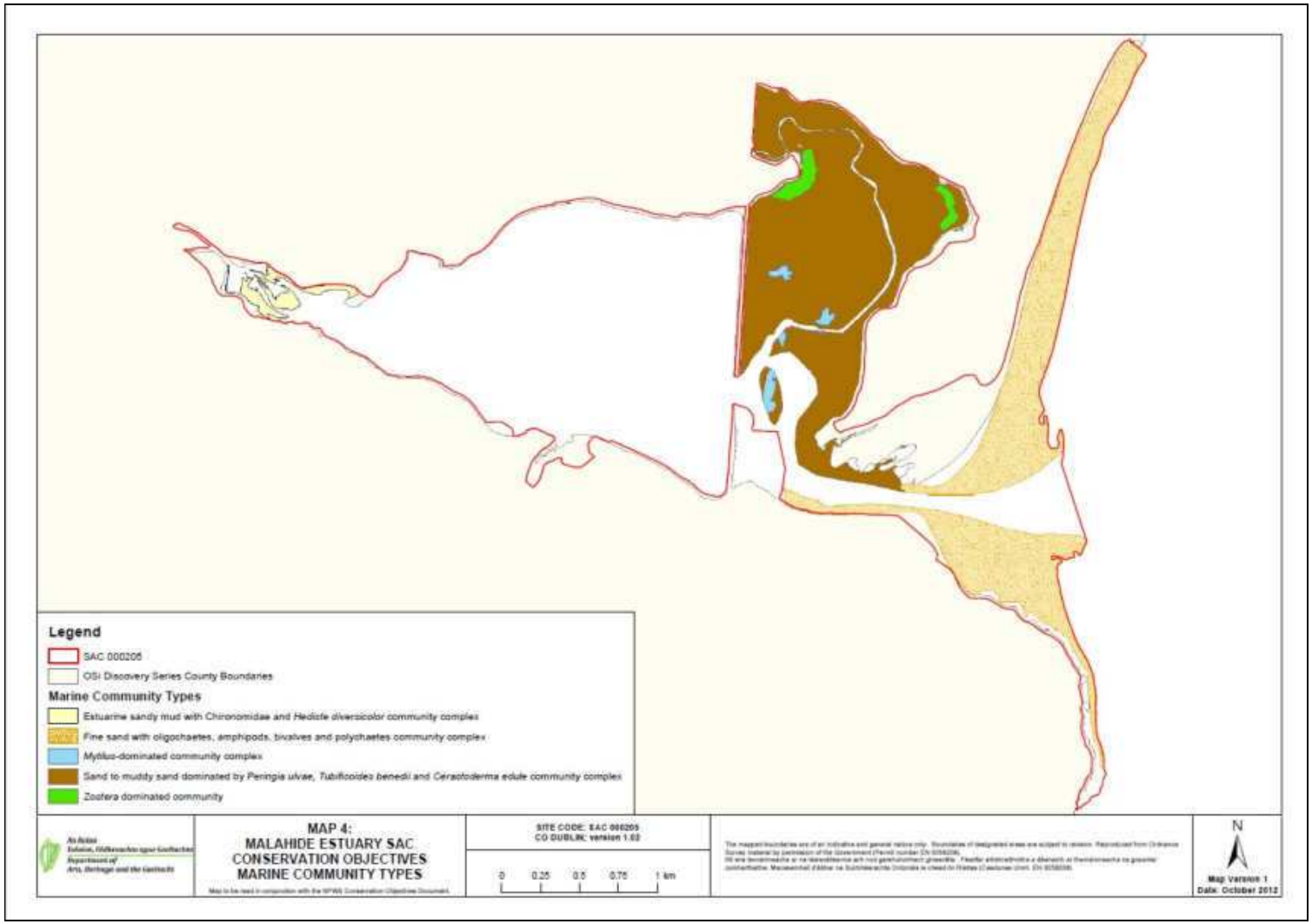


Figure 2.9. Areas of Marine Community Types within the Malahide Estuary SAC. (Source: NPWS (2013) Conservation Objectives: Malahide Estuary SAC 000205).

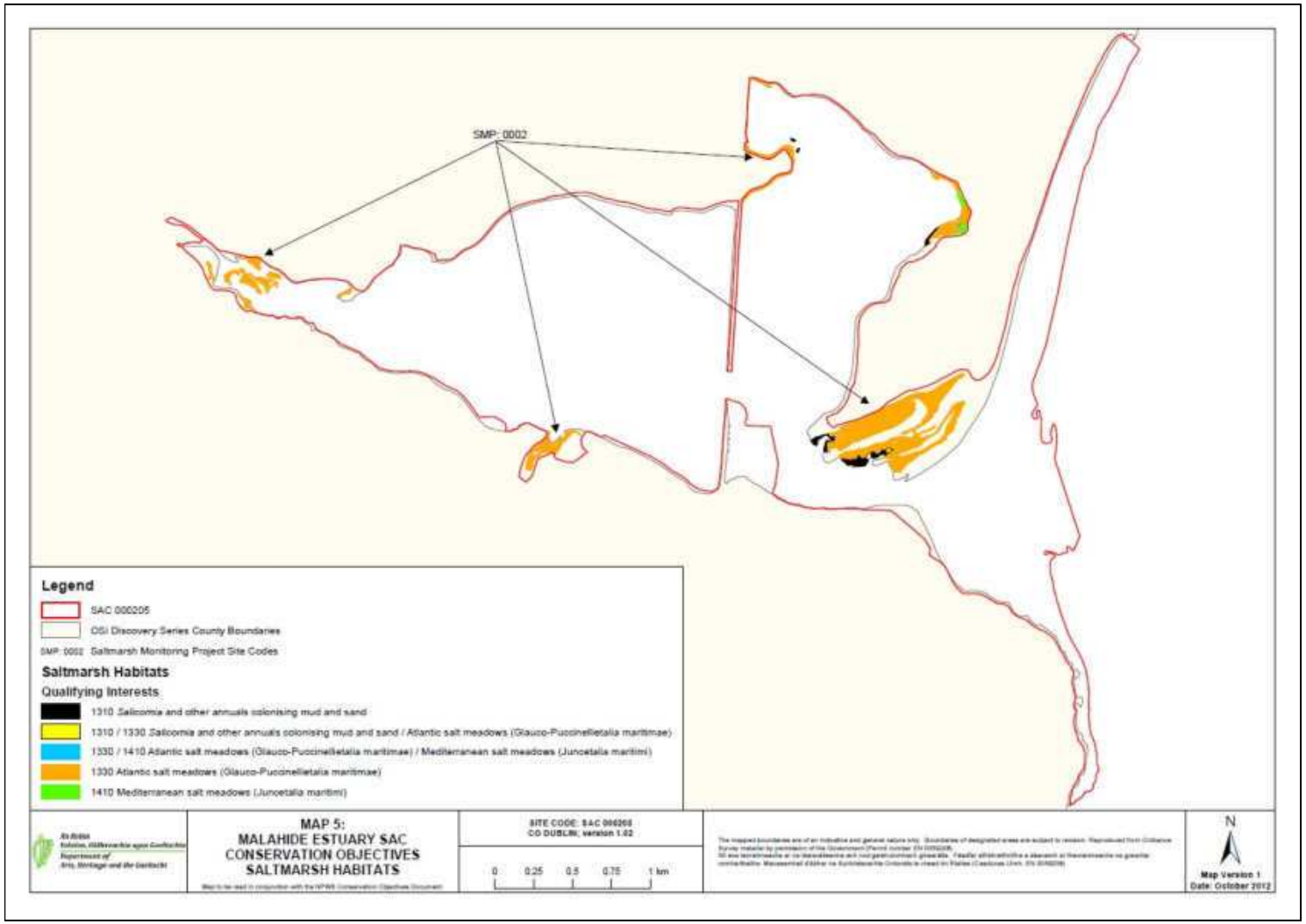


Figure 2.10. Areas of Saltmarsh Habitats within the Malahide Estuary SAC. (Source: NPWS (2013) Conservation Objectives: Malahide Estuary SAC 000205).

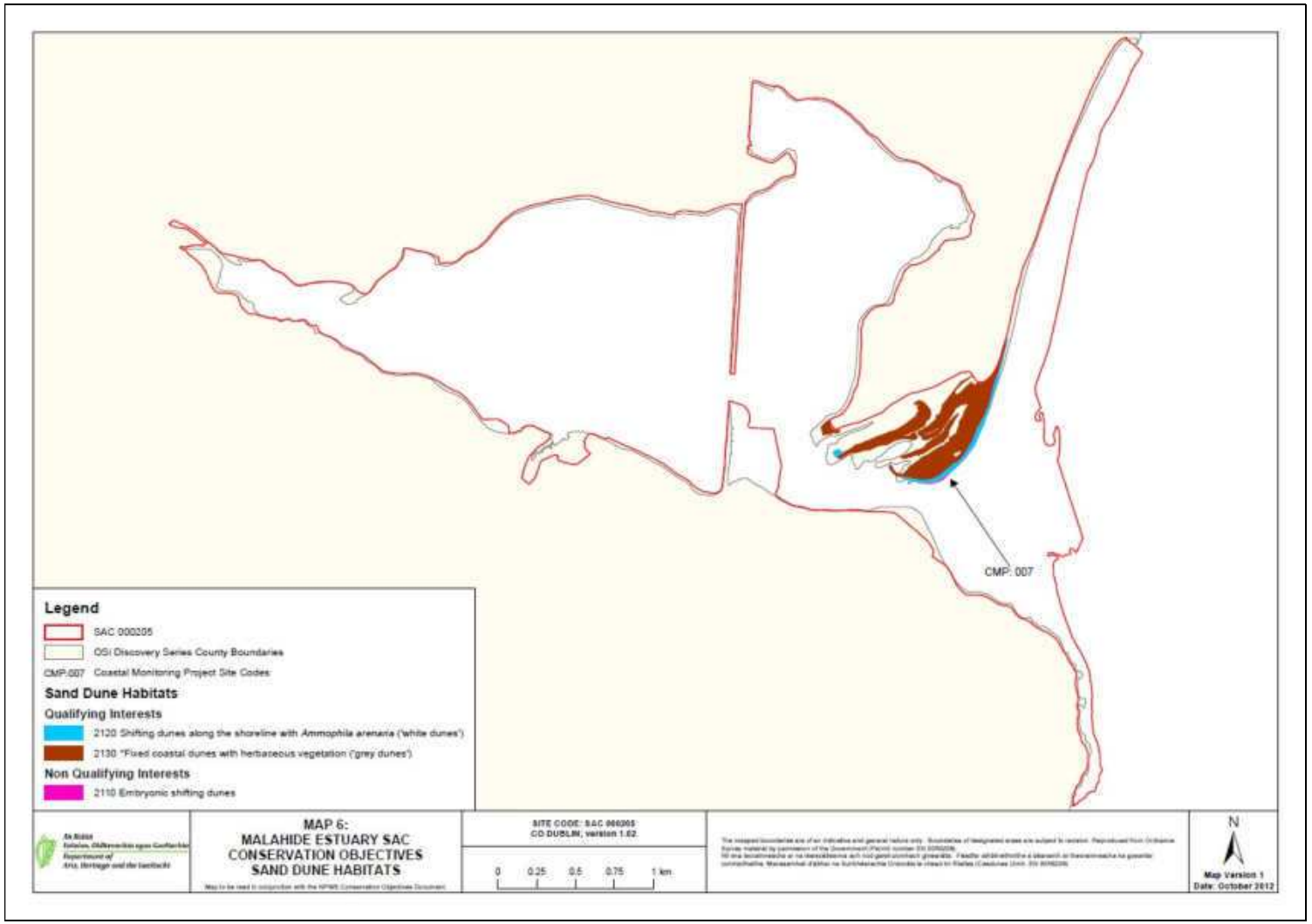


Figure 2.11. Areas of Sand Dune Habitats within the Malahide Estuary SAC. (Source: NPWS (2013) Conservation Objectives: Malahide Estuary SAC 000205).

Table 2.7.1. Likely direct, indirect or secondary impacts of the project (either alone or in combination with other plans or projects as detailed in Section 2.8) on nearby European Sites by virtue of:

Size and scale	None – none of the works are proposed within any Natura 2000 site and given the small size and scale of the public realm improvements (a street 150m long and an area of 0.22ha) no direct, indirect or secondary impacts are likely.
Land-take	There will be no land take within any Natura 2000 site. The proposed public realm improvement works are located within an existing public road, which is in the charge of Fingal County Council.
Distance from European Sites	There are nineteen European Sites within the zone of influence of the proposed public realm improvements for a pedestrianised New Street as presented in **Table 2.5.1** above. Only one European Site, which is designated as both an SAC and SPA (Malahide Estuary SAC/SPA) is located within 200m of New Street and has a direct Source-Pathway-Receptor Link via surface waters from New Street. The remainder of the European Sites identified in **Table 2.5.1** are located greater than 3km away with no direct Source-Pathway-Receptor Link between them and New Street and any indirect impacts on them arising from surface water runoff would be insignificant on account of the dilution impacts of the Irish Sea.
Resource requirements (water abstraction, etc.)	**Water Supply** This determination relies on the information provided in the report and associated drawings prepared by PUNCH Consulting Engineers Limited. PUNCH Consulting Engineers report (Public Realm Improvements and Associated Works for Pedestrianised New Street Engineering Services Report 222126-PUNCH-XX-XX-RP-C-000, dated February 2023) states that: 'an existing 3" cast iron watermain (installed in 1925) running along New Street will be replaced/renewed with a modern 150mm diameter ductile iron watermain. The renewal of this watermain asset is provided as contingency to cater for possible increases in watermain loading demands in the future and to avoid the need to replace/upgrade the watermain following the

	establishment of the new public realm. There will be no increases in watermain loading demands arising from the public realm improvements'. There will be no extraction from natural surface or ground water sources required to supply the public realm improvements and therefore there will be no impacts on the water levels or the hydrology of any European Site.
Emissions (disposal to land, water or air)	**Construction Phase:** There are no mitigation measures required to protect any European Sites during the construction phase of the project. During the construction phase of the project standard best practice construction methods will be used to protect the general environment. The project has incorporated these methods as standard, irrespective of any effect on any European Sites. They are widely implemented on construction sites, have been shown to be effective and there is widespread practical experience of their use. There are no likely significant effects on any European Site arising from emissions during the construction phase of the proposed public realm improvements. **Operational Phase** There are no mitigation measures required to protect any of the identified European Sites during the operational phase of the project as set out below. This determination relies on the information provided in the report and associated drawings prepared by PUNCH Consulting Engineers Limited which is summarised below. **Stormwater** The PUNCH Consulting Engineers report ((Public Realm Improvements and Associated Works for Pedestrianised New Street Engineering Services Report 222126-PUNCH-XX-XX-RP-C-000, dated February 2023) states that: "It is likely that private foul pipes are currently discharging to the stormwater network given the

	absence of a dedicated foul line on New Street. The project design seeks to rectify this through the provision of a dedicated foul line serving New Street". The surface water runoff from New Street is currently likely to contain foul waste (as well as contaminants and pollutants such as vehicle fuel, oils and other hydro-carbons from vehicles, as well as other waste and litter from the streetscape) and to carry these to the outer estuary. However, the proposed public realm improvements will not lead to any increase in the amount of surface water run-off from New Street or the amount of contaminants and pollutants it contains. Therefore, even without taking into account any SUDs measures, there is no possibility of any likely significant effects on the European Site arising from the proposed development and there is no reasonable scientific doubt in relation to this conclusion. In fact, the permanent pedestrianisation of New Street, with limited vehicular access for deliveries to the street, is to be welcomed as some of these pollutants will be reduced from the streetscape, resulting in a positive effect. The design includes the provision of a dedicated foul line serving New Street which will remove any foul effluent from the surface water network with positive effects on the qualifying interests of the Malahide Estuary SAC. Furthermore, the water quality of surface waters leaving the street will be improved by the public realm design as the surface waters will pass through the proposed bio-retention areas prior to discharge and the water quality within the surface water run-off will be significantly improved as a result. **Foulwater** The PUNCH Consulting Engineers report (Public Realm Improvements and Associated Works for Pedestrianised New Street Engineering Services Report 222126-PUNCH-XX-XX-RP-C-000, dated February 2023) states that a new dedicated 300mm diameter foul sewer is proposed along New Street in parallel with the proposed stormwater drainage line. The introduction of this dedicated foul sewer will allow for foul connections directly from premises along New Street, thereby

	reducing the foul sewer effluent which exists in the pre-existing stormwater system with subsequent improvements to water quality in any stormwater discharges. The foul sewer pipe is purposely provided with excess capacity to create contingency for further foul loading in the future and to avoid the need to replace/upgrade the sewer following the public realm improvements. No additional foul water loading requirements will arise from the public realm improvements. The public realm improvements will not have any likely significant effects on any European Site and there is no reasonable scientific doubt in relation to this conclusion.
Excavation requirements	There are no excavation requirements within any European site. There will be excavation within the boundaries of the development site, but this will be localised and will not have any likely significant effect on any European Site.
Transportation requirements	The Traffic & Transport Assessment by Punch Consulting Engineers assesses the impact of the proposed New Street pedestrianisation on the existing local transport network in comparison with the pre-pedestrianised scenario. During the construction phase of the development, the Traffic & Transport Assessment by Punch Consulting Engineers states that volumes of construction related traffic generated will be small in comparison to existing traffic volumes in the area. This will not have any likely significant effect on any European Site. An assessment of operational impacts was undertaken with regard to the pre-pedestrianised baseline position with two-way traffic on New Street (2019). The Traffic & Transport Assessment by Punch Consulting Engineers undertook capacity analysis for 12no. junctions in 2019, 2020 and 2023 and confirms that there will be no additional traffic generated by the proposed development. As cars can no longer use New Street, vehicular traffic will be redistributed to other junctions in the area and this redistribution of traffic was considered on a junction-by-junction basis. The analysis of the modelling results contained within the Traffic & Transport Assessment by Punch Consulting Engineers concludes that the pedestrianisation of New Street has had little

	impact on the operational capacity of the surrounding network of roads and junctions. When comparing the 2023 post-pedestrianisation with the 2019 pre-pedestrianisation scenarios, there are minimal effects on the capacity for surrounding road network and junctions. Given that 1. there is no additional traffic generated by the proposed development (such that there is no increase in traffic-related emissions), 2. that traffic will be redistributed to other junctions, and that 3. that redistribution has not resulted in any significant impacts on the operational capacity of the surrounding network of roads and junctions (so there will be no increase in traffic congestion or associated emissions), There is essentially no alteration to the existing scenario vis a vis traffic related effects on any European site arising from the proposed development and therefore there will be no likely significant effects on any European Site arising from the proposed public realm improvements for a pedestrianised New Street. Further, in assessing the current situation in 2023, the Traffic & Transport Assessment by Punch Consulting Engineers also confirms that the existing traffic arrangements do not give rise to any likely significant effects. These traffic arrangements will be the same when the pedestrianisation with public realm improvements is implemented and therefore will not give rise to any likely significant effects on any European Sites. The likely significant effects of both the construction and operational phases of the public realm improvements have also been assessed throughout this AA Screening Report which concludes that there are no likely significant effects on any European Site arising from the public realm improvements for a pedestrianised New Street.

Duration of construction, operation, decommissioning, etc.	Construction is likely to last for 15 months and will not have any likely significant effect on any European Site. There are no disturbance impacts envisaged from the construction or operation of the proposed public realm improvements and pedestrianisation on completion (see **Table 2.7.2** below).
Reduction of habitat area	There will be no reduction of habitat area within any European Site. All works are to take place within the development area of New Street and there will not be any likely significant effect on any European Site arising from same.

As set out in **Table 2.7.2** there will be no changes to any European Sites arising as a result of disturbance, fragmentation, etc.

Table 2.7.2. Description of likely changes to the site arising as a result of:

Disturbance to key species	**Disturbance to Birds:** The potential for activities associated with either the construction or operation of the proposed public realm improvements, is ruled out for the following reasons: • There is a sufficient separation distance from New Street to the adjoining estuary, to be satisfied that activities associated with both the construction and operation (use) of the proposed public realm improvements will not cause any visual disturbance to birds using the Malahide Estuary; • New Street was trafficable prior to 2020 and was an existing busy thoroughfare with people, traffic and human activity. These levels of activity will be permanently decreased as a result of the proposed public realm improvements and the pedestrianisation of New Street. There will be no new or increased levels of noise disturbance and human activity as a result of the proposed public realm improvements and there will not be any likely significant effects on birds using the Malahide Estuary; • No works which could generate significant noise above already occurring background levels will occur during the construction phase.
Habitat or species fragmentation	There will be no fragmentation of habitat or species arising from the proposed public realm improvements at New Street.

Reduction in species density	There will be no reduction in species density arising from the proposed public realm improvements for a pedestrianised New Street. As noted above, no additional foul water loading requirements will arise from the public realm improvements and in fact the proposed provision of a new foul water main will ensure that any foul sewer effluent, which exists in the pre-existing stormwater system in New Street, will be eliminated and diverted to the Malahide WWTP for treatment with subsequent beneficial effects for the habitats and species in the identified European Sites. During the construction phase, any emission of surface waters from the streetscape to the existing surface water infrastructure will be minor given the nature of the works and are not likely to have a significant effect on any European Site. During the operational phase, the proposed public realm improvements will not lead to any increase in the amount of surface water run-off from New Street or the amount of contaminants and pollutants it contains. Therefore, even without taking into account any SUDs measures, there is no possibility of any likely significant effects on the European Site arising from the proposed development (either during the construction or operational phase) and there is no reasonable scientific doubt in relation to this conclusion. Furthermore, the water quality of surface waters leaving the street will be improved by the public realm design as the surface waters will pass through the proposed bio-retention areas prior to discharge and the water quality within the surface water run-off will be significantly improved as a result. This will result in a net improvement/benefit to the habitats in the downstream receiving environments (i.e. a net positive impact) and there will be no reduction in species density.
Changes in key indicators of conservation value (water quality etc.)	There will be no negative changes in key indicators of conservation value (water quality etc.) arising from the proposed public realm improvements at New Street. As set out above, surface waters from New Street currently discharge in an untreated manner to Malahide Estuary via the existing stormwater network and this run-off is likely to contain foul waste as well as

	contaminants and pollutants such as vehicle fuel, oils and other hydro-carbons from vehicles, as well as other waste and litter. During the construction phase, any emission of surface waters from the streetscape to the existing surface water infrastructure will be minor given the nature of the works and are not likely to have a significant effect on any European Site. During the operational phase, the proposed public realm improvements will not lead to any increase in the amount of surface water run-off from New Street or the amount of contaminants and pollutants it contains. Therefore, even without taking into account any SUDs measures, there is no possibility of any likely significant effects on the European Site arising from the proposed development (either during the construction or operational phase) and there is no reasonable scientific doubt in relation to this conclusion. In fact, the proposed provision of a new foul water main will ensure that any foul sewer effluent which exists in the pre-existing stormwater system in New Street, will be eliminated and diverted to the Malahide WWTP for treatment with subsequent beneficial effects for the identified European Sites. Furthermore, the surface waters from the public realm will be discharged through a series of bioretention areas, which will result in a reduction in loading of the downstream Surface Water network during low intensity rainfall events and an improvement in water quality. This will result in a net improvement/benefit to the downstream receiving environments.

Climate change	The Traffic and Transport Assessment [Punch Consulting Engineers] has considered the volumes of traffic that will be generated during the construction phase and concludes that these will be small in comparison to existing traffic flows in the general area. In terms of climate impacts, construction traffic will generate emissions during the construction phase of the development. Vehicle engines and other equipment will cause emissions of CO2 and N2O. These emissions will be short term and therefore not likely to be significant in relation to climate. In relation to the operational phase of the development, the proposed development includes measures to encourage Active Travel through walking and cycling, thereby leading to a reduction in greenhouse gas emissions as required by the actions and targets contained within the Climate Action Plan 2023. These impacts will likely cause a positive and long term impact on air and climate during the operational phase of the development. During the operational phase the proposed development will not generate any increased traffic on the road network. On the contrary, the pedestrianisation and proposed public realm improvements insofar as they discourage use of the private car in Malahide village, will promote modal shift towards public transport, walking and cycling. This approach is very much in line with local, regional and national land use planning and transportation policies. There will be a redistribution of traffic movements on the network and, as a result, the streets immediately east and west of New Street (i.e. Old Street, Townyard Lane and St James' Terrace) will experience increased volumes than they would in the absence of the New Street proposals. Bus routes are also rerouted. The proposed pedestrianisation of New Street will not result in increased traffic volumes on the road network and the Traffic and Transportation Assessment [Punch consulting Engineers] indicates that there are minimal effects on the capacity of the surrounding junctions arising from the proposed pedestrianisation of New Street. No significant increases in greenhouse gas emissions are therefore expected arising from same.

Table 2.7.3 below describes any likely impacts on the key relationships that define the structure and functions of the identified European Sites**.**

Table 2.7.3. Description of any likely impacts on the European Site as a whole in terms of:

Key relationships that define the structure of the sites	There are no likely changes to any European Site(s) as a result of the proposed public realm improvements for a pedestrianised New Street with respect to the key relationships that define the structure of the European Site.
Key relationships that define the function of the site	There are no likely changes to any European Site(s) as a result of the proposed public realm improvements for a pedestrianised New Street with respect to the key relationships that define the function of the European Site.

2.7 Mitigation Specific to European Sites

This screening assessment is consistent with the judgement of the European Court in Case C-332/17, People Over Wind & Sweetman v Coillte (Judgement of the Court (Seventh Chamber) of 12 April 2018) and the recent case-law of the High Court, including Heather Hill Management CLG v An Bord Pleanála {2019] IEHC 450 and Sweetman v An Bord Pleanála {2020] IEHC 39.

It is also consistent with the judgement in the Eco Advocacy v An Bord Pleanála {2021] IEHC 265. In that case, Humphreys J identified a core legal principal, being that regard should not be had to mitigation measures at AA screening stage. Humphreys J decided in that case that clarification was required from the CJEU on the matter (as it related to the consideration of SuDS and whether these represented mitigation measures) and the decision of the CJEU is currently awaited.

As noted in Section 2.6.2, an operational surface water management for the proposed development has been designed to comply with the 'Greater Dublin Strategic Drainage Study (GSDS) Regional Drainage Policies Technical Document – Volume 2, New Developments, 2005' and it is proposed to use a sustainable urban drainage system (SuDS) approach to stormwater at this site. However, as noted in this AA Screening Report, even if no SuDS measures were to be incorporated into the design and surface water arising at the site were to continue to discharge through the existing surface water network there would be no likely significant effects on any European Sites arising from this project.

The recent Eco Advocacy CLG - Opinion of Advocate General Kokott delivered on 19 January 2023 reviewed the consideration of SuDs measures at the appropriate assessment screening stage vis a vis whether SuDS measures amount to 'mitigation' or not and states that the SuDS measures under consideration in the case:

> *'are not taken to limit the effects on the protected site. On the contrary, these are measures which are taken in all such projects independently of whether a protected site is affected. They are not therefore an indication of the probability of a significant effect on the protected site'.*

In relation to whether it was appropriate to take such measures into account at the screening stage vis a vis are they 'mitigation measures', it was the opinion of Advocate General Kokott that;

> *'at the stage of screening the need for an appropriate assessment under Article 6(3) of Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora, as amended by Council Directive 2013/17/EU of 13 May 2013, features of the plan or project involving the removal of contaminants that may have the effect of mitigating a harmful effect on the protected site may be taken into account, where it is clear, on the basis of objective considerations, that those features were incorporated in to the design as standard features*

irrespective of any effect on the protected site concerned, and all reasonable scientific doubt concerning their effectiveness can be ruled out'.

In that regard, both the SuDS measures included in the proposed public realm improvements, and the standard construction practices detailed in the Construction Management Plan and the Construction and Demolition Waste Management Plan, have been incorporated into the project as standard, irrespective of any effect on any European Sites.

Furthermore, the standard practices deployed on construction sites (as detailed in the Construction Management Plan and the Construction and Demolition Waste Management Plan) are widely implemented on construction sites, have been shown to be effective and there is widespread practical experience of their use.

As is clear from the foregoing, no mitigation measures are either necessary or proposed for the protection of European Sites or which was intended to avoid or reduce impacts on any European Sites.

2.8 In Combination Effects

This AA Screening Report has considered and assessed whether the proposed public realm improvements for a pedestrianised New Street are likely to have a significant effect on any European Site in combination with other plans and projects.

Plans

The following plans in preparing this assessment:

Fingal Development Plan 2017-2023 - There will be no likely significant in-combination effects on any European Site between the Fingal Development Plan 2017-2023 and the proposed public realm improvements for a pedestrianised New Street as a result of implementation of the proposed mitigation within the Fingal Development Plan 2017-2023, namely that all plans, projects and activities requiring consent have an EIA and AA conducted as appropriate.

Draft Fingal Development Plan 2023 – 2029 - There will be no likely significant in-combination effects on any European Site between the Draft Fingal Development Plan 2023 – 2029 and the proposed public realm improvements for a pedestrianised New Street as a result of implementation of the proposed mitigation within the Draft Fingal Development Plan 2023 – 2029 namely that all plans, projects and activities requiring consent have an EIA and AA conducted as appropriate.

FCC Heritage Plan 2018 – 2023 - There will be no likely significant in combination effects on any European Site between the FCCHP and the proposed public realm improvements for a pedestrianised New Street, as the

FCCHP contains a considerable number of protective policies and objectives in respect of heritage of Fingal including the strategic requirement that any project will be subject to AA Screening at the least.

FCC Climate Change Action Plan 2019-2024 - There will be no likely significant in combination effects on any European Site between the FCC CCAP and the proposed public realm improvements for a pedestrianised New Street. T19, which is an objective of the plan sets out to encourage active travel and behavioural change through the re-organisation of allocation of space to pedestrians in the public realm. All projects and or actions arising from the FCC CCAP will be subject to AA Screening thus ensuring that there is no potential for in-combination effects.

Fingal Biodiversity Plan 2015 – 2020 - This plan is currently being updated by the Draft Fingal Biodiversity Plan - 2022 – 2030. The draft updated plan contains 100 actions for biodiversity. All projects and or actions arising from the FCC BAP will be subject to AA Screening and therefore there will be no likely significant in combination effects on any European Site between the Draft Fingal Biodiversity Plan - 2022 – 2030 and the proposed public realm improvements for a pedestrianised New Street.

National Biodiversity Action Plan 2017-2021 - The purpose of this action plan, which was Ireland's third iteration of the Biodiversity Action Plan (BAP), are to achieve Ireland's Vision for Biodiversity through addressing issues ranging from improving the management of protected areas to increasing awareness and appreciation of biodiversity and ecosystem services. As the BAP is aimed at environmental protection, there will be no likely significant in combination effects on any European Site between this plan and the proposed public realm improvements for a pedestrianised New Street.

Project Ireland 2040 – National Planning Framework (NPF) - There will be no likely significant in combination effects on any European Site between the NPF and the proposed public realm improvements for a pedestrianised New Street as a result of implementation of Objective 75 from the NPF, which is to ensure that all plans, projects and activities requiring consent arising from the National Planning Framework are subject to the relevant environmental assessment requirements including SEA, EIA and AA as appropriate.

Projects

A review of recent planning permissions (in the past 5 years) within and in the vicinity of the subject site was also undertaken as part of the preparation of this AA Screening Report.

There are currently no planning permissions for other developments within the application site red line at New Street.

New Street comprises a mix of residential dwellings, shops, restaurants and public houses. Planning permission has been granted for several developments within the buildings on New Street. These permissions generally relate to small developments (e.g. extensions, reconfiguration, change of use, signage) that typically occurs within an established and developed urban village and comprise works that are unlikely to give rise to significant in-combination effects with the proposed public realm improvements for a pedestrianised New Street.

A review of recent permissions within the wider 'TC – Town and District Centre' zoned area of Malahide Village was also completed. Landscape improvements to The Green, located directly to the north of the site, were granted in 2017 (Ref. Part XI/007/17) and completed in 2021 and included layout revisions, installation of paving, street furniture and recontouring of the open space, and do not give rise to any likely significant in combination effects with the proposed public realm improvements for a pedestrianised New Street.

Also of note is the permitted Broadmeadow Greenway, granted permission by An Bord Pleanála (Bord Ref. YA06F.304624) in May 2020 and comprising a greenway between Malahide Demesne and Newbridge Demesne. The route of the permitted greenway is located c.150m to the west of the New Street/ Strand Street junction. The permitted Broadmeadow Greenway, like the existing Baldoyle Portmarnock Greenway, is part of a wider network of greenways proposed for Fingal and includes the planned Sutton to Malahide Greenway, all of which will promote and facilitate Active Travel within Malahide and the wider county.

The in-combination effects (reduced car use and increased active travel - walking and cycling) of the permitted Broadmeadow Greenway project have been considered and in-combination it is considered that the greenway proposals and the New Street improvements will have a positive impact on the environment in terms of promoting and facilitating Active Travel and do not give rise to any likely significant in-combination effects on any European Site.

Outside of the village area, it is possible that other projects, including proposed Strategic Housing Developments (SHDs) in the Malahide Road and Back Road areas of Malahide, will be under construction at the same time as the current project. These projects will be at a remove from the site at New Street and are a significant distance away from it. The primary in-combination effects would likely relate to construction traffic, however

construction traffic relating to these other projects would not need to enter or travel through Malahide Village and so is unlikely to give rise to any likely significant in-combination effects with the proposed New Street public realm improvements.

Considering the nature and scale of the proposed development at New Street, the localised and insignificant nature of the environmental effects predicted to occur as a result of the proposed development, the overarching plans and policies of Fingal County Council, and the nature of existing, permitted and proposed development in its environs, it is considered that the proposed public realm improvements for a pedestrianised New Street are not likely to have a significant effect on any European Site in-combination with other plans or projects.

2.9 Screening Assessment Conclusion

Following an examination, analysis and evaluation of all relevant information, on the basis of objective information and in light of best scientific knowledge and applying the precautionary principle, it can be concluded that the proposed public realm improvements at New Street, Malahide, either individually or in combination with other plans and projects, and in the absence of mitigation, is not likely to have a significant effect on any European Site(s), in view of the sites conservation objectives, and that there is no reasonable scientific doubt in relation to this conclusion.

The main reasons for this conclusion are as follows:

- The proposed public realm improvements at New Street, Malahide are small (150m long and 0.22 ha in size)
- None of the proposed public realm improvements will take place within any European Site.
- There will be no increased loading demands on the mains water supply and provision for same is being provided within the public realm improvements.
- There are no likely significant effects arising from the proposed public realm improvements for a pedestrianised New Street, regardless of the implementation of any SUDS measures.
- In fact, the water quality of surface waters leaving the street will be improved by the public realm design as the surface waters will pass through the proposed bio-retention areas prior to discharge and the water quality within the surface water run-off will be significantly improved as a result, with positive effects on the Natura 2000 sites identified.
- There will be no likely significant effects/changes to any European Site(s) arising from disturbance to key species, habitat or species fragmentation, a reduction in species density, or changes in key indicators of conservation value such as water quality.
- Considering the nature and scale of the proposed development at New Street, the localised and insignificant nature of the environmental effects predicted to occur as a result of the proposed development, the overarching plans and policies of Fingal County Council, and the nature of existing, permitted and proposed development in its environs, it is considered that the proposed public realm improvements for a pedestrianised New Street are not likely to have a significant effect on any European Site in-combination with other plans or projects.

The overall conclusion of this report is that on the basis of objective information and in view of best scientific knowledge and applying the precautionary principle, the proposed development, either individually or in combination with other plans or projects, and without relying on any mitigation measures, is not likely to have significant effect on any European Site(s), in view of the sites conservation objectives, and that there is no reasonable scientific doubt in relation to this conclusion. For the avoidance of doubt, SUDS measures have not been taken into account in reaching this conclusion.

In reaching this conclusion, the nature of the proposed public realm improvements and their relationship with all European Sites within the zone of influence, and their conservation objectives, have been fully considered.

Therefore it is the professional opinion of the author of this report that the proposed public realm improvements for a pedestrianised New Street, Malahide, Co. Dublin do not require a Stage 2 Appropriate Assessment.

This assessment was completed with reference to the additional reports and plans prepared for the development which are presented in the Appendices of this report.

3. REFERENCES

Anon. (1996). *Interpretation Manual of European Union Habitats.* Version EUR 15, European Commission, Brussels.

Archaeology Plan (2022). *Archaeological assessment at New Street, Malahide, Co. Dublin.* Unpublished report prepared for Fingal County Council.

Axis Consulting Engineers (2023). *Mechanical and Electrical Services Installations for the Public Realm at New Street, Malahide for Fingal County Council.* Unpublished report prepared for Fingal County Council.

BMA Planning (2023). *Public Realm Improvements for a Pedestrianised New Street. Environmental Impact Assessment Screening Report.* Unpublished report prepared for Fingal County Council.

Coady Architects (2022). New Street Public Realm Architectural Heritage Assessment. Unpublished report prepared for Fingal County Council.

Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) 1982.

Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention) 1979.

Council of the European Communities (1992). *Council Directive of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (92/43/EEC).* O.J. L 206/35, 22 July 1992.

Council of the European Communities (1979). *Council Directive of 02 April 1979 on the conservation of wild birds (79/409/EEC).* O.J.L. 103, 25 April 1979.

DFLA (2023). Design Rationale - Public Realm Improvements for a Pedestrianised New Street. Dermot Foley Landscape Architects. Unpublished report.

DOEHLG. (2010). Appropriate Assessment under Article 6 of the Habitats Directive: Guidance for Planning Authorities Circular NPW 1/10 & PSSP 2/10. 11 March 2010.

DOEHLG. (2010). *Appropriate Assessment of plans and projects in Ireland: Guidance for planning authorities.* National Parks and Wildlife Service, Dept Environment, Heritage and Local Government.

European Commission (2001). *Assessment of plans and projects significantly affecting Natura 200 sites- methodological guidance on the provisions of Article 6(3) and 6 (4) of the Habitats Directive 92/43/EEC.*

European Commission (2002). *Managing Natura 2000 sites - the provisions of Article 6 of the Habitats Directive 92/43/EEC.*

European Commission (2007). *Guidance Document on Article 6(4) of the Habitats Directive 92/43/EEC. Clarification of the Concepts of Alternative Solutions, Imperative Reasons of Over-riding Public Interest, Compensatory Measures, Overall Coherence.* Opinion of the European Commission (European Commission, January 2007).

European Commission (2018). *Managing Natura 2000 Sites: The Provisions of Article 6 of the Habitats Directive 92/43/EEC (Commission Notice C (2018) 7621 final, Brussels, 21.11.2018).*

European Commission (2021). *Assessment of plans and projects in relation to Natura 2000 sites – Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC 2021/C 437/01.* (Commission notice C/2021/6913. Dated 28.10.2021).

Flora (Protection) Order (2022). Government of Ireland.

Fossitt, J. (2000). *A Guide to Habitats in Ireland.* Heritage Council, Kilkenny.

Gilbert G, Stanbury, A. and L.J. Lewis 2021. *Birds of Conservation Concern in Ireland 2020 –2026.* Irish Birds 43, 1-22.

Hayden, T. & R. Harrington (2000). *Exploring Irish mammals*. Dúchas. Town House, Dublin.

Inland Fisheries Ireland (2020). *Planning For Watercourses in the Urban Environment. A Guide to the Protection of Watercourses through the use of Buffer Zones, Sustainable Drainage Systems, Instream Rehabilitation, Climate / Flood Risk and Recreational Planning *Including one-off developments.* A Guideline Developed by Inland Fisheries Ireland.

King, J.L., Marnell, F., Kingston, N., Rosell, R., Boylan, P., Caffrey, J.M., FitzPatrick, Ú., Gargan, P.G., Kelly, F.L., O'Grady, M.F., Poole, R., Roche, W.K. & Cassidy, D. (2011). *Ireland Red List No. 5: Amphibians, Reptiles & Freshwater Fish.* National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht, Dublin, Ireland.

Marnell, F., Looney, D. & Lawton, C. (2019). *Ireland Red List No. 12: Terrestrial Mammals*. National Parks and Wildlife Service, Department of the Culture, Heritage and the Gaeltacht, Dublin, Ireland.

National Parks and Wildlife Service Online Database. Available online at www.npws.ie

Natura 2000 Sites - Site Synopsis. Available online at www.npws.ie

Office of the Planning Regulator (2021). OPR Practice Note PN01. Appropriate Assessment Screening for Development Management.

Parnell, J. and T.G. Curtis. (2012). *Webb's An Irish Flora.* Cork University Press.

PUNCH Consulting Engineers (2023). *Public Realm Improvements for a Pedestrianised New Street. Engineering Services Report.* 222126-PUNCH-XX-XX-RP-C-0001. February 2023.

PUNCH Consulting Engineers (2023). *Public Realm Improvements for a Pedestrianised New Street. Construction Management Plan.* 222126-PUNCH-XX-XX-RP-C-0002. February 2023.

PUNCH Consulting Engineers (2023). *Public Realm Improvements for a Pedestrianised New Street. Construction & Demolition Waste Management Plan.* 222126-PUNCH-XX-XX-RP-C-0003. February 2023.

PUNCH Consulting Engineers (2023). *Public Realm Improvements for a Pedestrianised New Street. Site Specific Flood Risk Assessment.* 222126-PUNCH-XX-XX-RP-C-0004. February 2023.

PUNCH Consulting Engineers (2023). *Public Realm Improvements for a Pedestrianised New Street. Traffic and Transportation Assessment.* 222126-PUNCH-XX-XX-RP-C-0005. February 2023.

Ramao, C. (2003). *Interpretation Manual of the European Union Habitats Version Eur 25.* European Commission DG Environment Nature and Biodiversity. Brussels.

Regan, E.C., Nelson, B., Aldwell, B., Bertrand, C., Bond, K., Harding, J., Nash, D., Nixon, D., & Wilson, C.J. (2010). *Ireland Red List No. 4 Butterflies.* National Parks and Wildlife Service, Department of the Environment, Heritage and Local Government, Ireland.

Scannell, M.J.P. and Synnott, D.M. (1987). *Census Catalogue of the Flora of Ireland – Clár de Phlandaí na hÉireann.* The Stationary Office, Dublin.

S.I. No. 477 of 2011. *The European Communities (Birds and Natural Habitats) Regulations 2011.* Irish Government, Government Publications Office, Molesworth Street, Dublin 2.

S.I. No. 293 of 2021. *The European Communities (Birds and Natural Habitats) Regulations 2011-2021.* Irish Government, Government Publications Office, Molesworth Street, Dublin 2.

The Tree File Ltd. (2023). *Arboricultural Report. Proposed Public Realm Improvements for a Pedestrianised New Street Malahide Co Dublin.* February 2023.

Wildlife Act, 1976 including all other amendments 1976–2010 Number 39 of 1976 and Number 38 of 2000. Dublin: Office of the Attorney General. Wildlife (Amendment) Act (2000). Government of Ireland.

Wyse Jackson, M., FitzPatrick, Ú., Cole, E., Jebb, M., McFerran, D., Sheehy Skeffington, M. & Wright, M. (2016). *Ireland Red List No. 10: Vascular Plants.* National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs, Dublin, Ireland.

Appendix A6 - Copy of Fingal County Council AA Screening Determination

Comhairle Contae Fhine Gall
Fingal County Council

Appropriate Assessment (AA) Screening Determination for proposed Local Authority Development

Project Name:	**Public Realm Improvements for a Pedestrianised New Street, Malahide**
Ref No.	**LADP/001/23**

Description:

Fingal County Council intends to carry out Public Realm improvements for a pedestrianised New Street, Malahide comprising:-

- Widening of footpaths and provision of new kerb edges with existing kerbstones retained, realigned and protected within the widened footpaths and public spaces.
- Realignment and narrowing of the trafficable section of New Street (c.150m in length) and insertion of control measures and all necessary signage to provide for a pedestrianised street with associated traffic flow routes and restrictions allowing for time limited one-way access from 7am to 11am each day for deliveries and emergency vehicles from Main Street/ The Mall to New Street and a two-way access from Strand Street to Ross's Terrace via New Street.
- Upgrade of all street surfaces.
- Provision of 2no. loading bays at the southern and northern ends of New Street and an accessible parking space in front of the HSE building.
- Installation of cycle stands at 6no. locations on New Street with capacity for 23no. cycle parking spaces.
- Removal and replacement of 11no. existing trees with 37no. trees of species appropriate to the location and environment and provision of soft landscaping and green infrastructure with planting zones for seeded, planted and hedging areas and associated bioretention and tree pit areas.
- Provision of outdoor dining zones including tables and chairs and other ancillary moveable structures.
- Provision of street furniture including seating, benches and litter and recycling bins and a water feature.
- New public lighting comprising 12no. fixtures.
- Upgrade of the watermain and foul drainage networks and upgrade and relocation of the surface water drainage network including provision of sustainable urban drainage systems (SUDs) features as part of hard and soft landscaping.
- Provision of ducting for utilities and piped infrastructure.
- All associated site and development works.

Fingal County Council will be providing regulatory traffic signs (including regulatory signs which give effect to a pedestrianisation of New Street) in accordance with Section 95 of the Road Traffic Act 1961 (as amended).

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P.O. Box 174, County Hall, Swords, Fingal, Co. Dublin
t: (01) 890 5000 f: (01) 890 6779 e: info@fingalcoco.ie

Legislative Context:

This determination has considered the relevant legislative context as set out at Section 1.2 of the AA Screening Report including, but not limited to:

- The European Habitats Directive (Council Directive 92/43/EEC of 21 May 1992)
- The European Birds Directive (Council Directive 79/409/EEC as amended by Directive 2009/147/EC)
- The European Communities (Bird and Natural Habitats) Regulations 2011 (SI No 477 of 2011), as amended
- Part XAB of the Planning and Development Act 2000, as amended

Screening Report:

The Active Travel department of Fingal County Council (FCC) has commissioned Faith Wilson Ecological Consultant to prepare an AA Screening Report entitled 'Appropriate Assessment Screening Report February 2023. The Senior Planner for the local electoral area of Balbriggan and Swords, part of the Planning and Strategic Infrastructure Department of Fingal County Council, has examined and evaluated the content of the report and agrees with the conclusions set out in the screening report and the reasons therein.

The AA Screening Report concluded that following an examination, analysis and evaluation of all relevant information, on the basis of objective information and in light of best scientific knowledge and applying the precautionary principle, the proposed public realm improvements at New Street, Malahide, either individually or in combination with other plans and projects, and in the absence of mitigation, is not likely to have a significant effect on any European Site(s), in view of the sites conservation objectives, and that there is no reasonable scientific doubt in relation to this conclusion.

The main reasons for this conclusion are as follows:

- The proposed public realm improvements at New Street, Malahide are small (150m long and 0.22 ha in size)
- None of the proposed public realm improvements will take place within any European Site.
- There will be no increased loading demands on the mains water supply and provision for same is being provided within the public realm improvements.
- There are no likely significant effects arising from the construction or the operation of the proposed public realm improvements for a pedestrianised New Street, regardless of the implementation of any SUDS measures.
- In fact, the water quality of surface waters leaving the street will be improved by the public realm design as the surface waters will pass through the proposed bio-retention areas prior to discharge and the water quality within the surface water run-off will be significantly improved as a result, with positive effects on the Natura 2000 sites identified.
- There will be no likely significant effects/changes to any European Site(s) arising from disturbance to key species, habitat or species fragmentation, a reduction in species density, or changes in key indicators of conservation value such as water quality.
- Considering the nature and sale of the proposed development at New Street, the localised and insignificant nature of the environmental effects predicted to occur as a result of the proposed development, the overarching plans and policies of Fingal County Council, and the nature of existing, permitted and proposed development in its environs, it is considered that the proposed public realm improvements for a pedestrianised New Street are not likely to have a significant effect on any European Site in-combination with other plans or projects.

Determination:

Having regard to the foregoing, on the basis of objective information and in view of best scientific knowledge and applying the precautionary principle, for the reasons set out above and in the AA screening report, it has been concluded that the proposed public realm works for a pedestrianized New Street, individually or in combination with other plans or projects, without relying on any mitigation measures, will not have a significant effect on any European sites, in view of the sites' conservation objectives, and that there is no reasonable scientific doubt in relation to this conclusion. For the avoidance of doubt, SUDS measures have not been taken into account in reaching this conclusion.

It can therefore be concluded that the proposed development does not require a Stage 2 Appropriate Assessment.

This AA Screening determination in respect of New Street, Malahide has been made by Mr Malachy Bradley, the Senior Planner for the local electoral area of Balbriggan and Swords, part of the Planning and Strategic Infrastructure Department of Fingal County Council, in circumstances where the proposed development is being promoted by the Active Travel department of Fingal County Council and is located in the local electoral area of Malahide, and Fingal County Council has implemented an appropriate functional separation in the carrying out of Screening for Appropriate Assessment.

Signed: Malachy Bradley

Senior Planner

Department/ Role: Planning and Strategic Infrastructure

Delegation No: 8473

Date: 5/04/2023

Appendix A7 - Copy of An Bord Pleanála AA Determination

An Bord Pleanála

Board Order
ABP-317131-23

Planning and Development Acts, 2000 to 2022

Planning Authority: Fingal County Council

Application by Malahide Old Village Residents Association, care of Majella Dunne, 4 New Street, Malahide, County Dublin requesting An Bord Pleanála to exercise its powers under article 250(3)(a) of the Planning and Development Regulations, 2001, as amended, whether Fingal County Council should be directed to prepare a Natura Impact Statement in respect of public realm improvements for a pedestrianised New Street, Malahide, County Dublin.

Decision

NOT TO DIRECT the local authority to prepare a Natura Impact Statement in respect of the proposed development, based on the reasons and considerations set out below.

EJK

Reasons and Considerations

Having regard to:

(a) the nature and scale of the proposed development,

(b) the location of the proposed development and the separation distance from the European Sites,

(c) the hydrological connection between the site and the European Sites via an adjacent watercourse,

(d) the ecological connection between the site and the European Sites via an adjacent watercourse and treelines and vegetation,

(e) the submission made by the local authority, including the Appropriate Assessment Screening Report,

(f) the submission made by the applicant requesting a determination, and

(g) the report and recommendation of the Inspector,

EJK

it is considered reasonable to conclude that on the basis of the information available, which is considered adequate to issue a screening determination, that the proposed development, either individually or in combination with other plans or projects, would not be likely to have a significant effect on the identified European Sites in view of the conservation objectives of these sites and that a Stage 2 appropriate assessment and the submission of a Natura Impact Statement for the proposed development is, therefore, not required.



Eamonn James Kelly

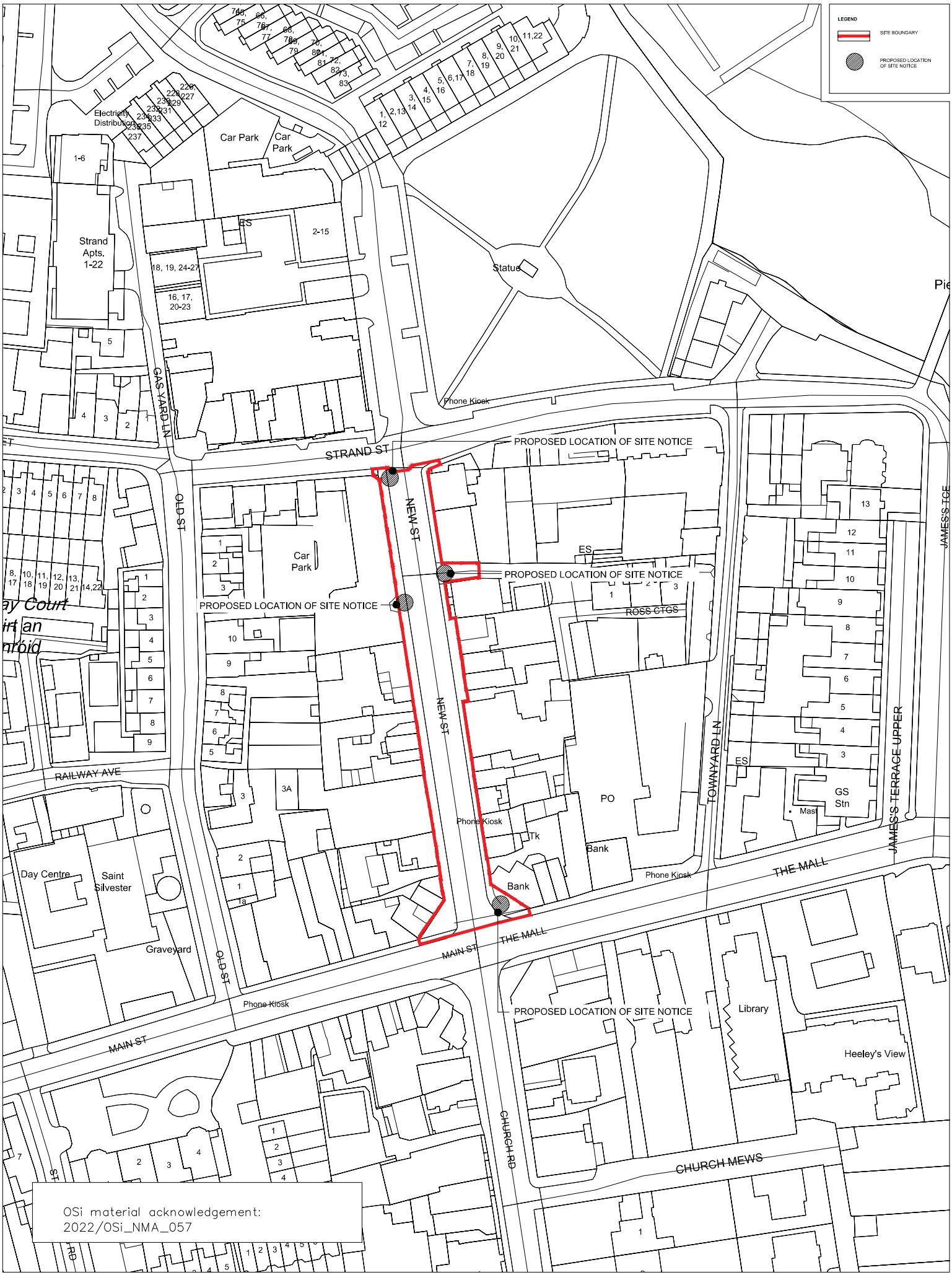
Eamonn James Kelly
Member of An Bord Pleanála
duly authorised to authenticate
the seal of the Board.

Dated this 17th **day of** November, **2023**

Appendix B – Plans and Particulars

Appendix B1 - Landscape Architects Drawings & Reports

Document	ID No.	Size	Produced by
Site Location Plan	Fc.03-DR-2000	A1	DFLA
Public Realm Plan	Fc.03-DR-2001	A1	DFLA
Above and Below Ground Services Plan	Fc.03-DR-2002	A1	DFLA
Public Realm Detail Plan 01	Fc.03-DR-2100	A1	DFLA
Public Realm Detail Plan 02	Fc.03-DR-2101	A1	DFLA
Landscape Sections 1	Fc.03-DR-2401	A2	DFLA
Landscape Sections 2	Fc.03-DR-2402	A1+	DFLA
Typical Landscape Details	Fc.03-DR-2500	A1	DFLA
Artists Impression 01	Fc.03-DR-2700	A2	DFLA
Artists Impression 02	Fc.03-DR-2701	A2	DFLA
Artists Impression 03	Fc.03-DR-2702	A2	DFLA
Artists Impression 04	Fc.03-DR-2703	A2	DFLA
Design Rationale	-	A4	DFLA
Quality Audit	-	A4	DFLA



This drawing is the copyright of the Landscape Architect. Unless otherwise stated all dimensions are in millimetres. Where dimensions are not given, drawings must not be scaled and the matter must be referred to the Landscape Architect. If the drawing includes conflicting data/dimensions the matter must be referred to the Landscape Architect. All dimensions must be checked on site. The Landscape Architect must be informed, by the Contractor, of any discrepancies before public realm improvements process.

NOTES:

DATE	REV.	DESCRIPTION	DRAWN BY	CHECKED BY
-	-	-		

CLIENT:	FINGAL COUNTY COUNCIL	ISSUE STATUS:	
PROJECT:	PUBLIC REALM IMPROVEMENTS FOR A PEDESTRIANISED NEW STREET	PLANNING	NORTH
DRAWING:	SITE LOCATION PLAN	DRAWING NO.	REVISION
		Fc.03-DR-2000	-

PROJECT NO	SCALE	SHEET SIZE	DRAWN BY	CHECKED BY	1st ISSUE
Fc.03	1:500	A1	lk	sc	13.04.2023

DFLA



LEGEND AND SCHEDULE OF MATERIALS

- PLANNING APPLICATION SITE BOUNDARY
- PROPOSED SELECTED ROAD SURFACE TO ENGINEER'S DETAIL
- PROPOSED SELECTED NATURAL STONE PAVING - TYPE 1A
- PROPOSED SELECTED NATURAL STONE PAVING - TYPE 1B
- PROPOSED SELECTED NATURAL STONE PAVING - TYPE 1C
- PROPOSED SELECTED NATURAL STONE PAVING - TYPE 2A
- PROPOSED SELECTED NATURAL STONE PAVING - TYPE 2B
- PROPOSED SELECTED NATURAL STONE PAVING - TYPE 3
- EXISTING GRANITE KERBSTONES RETAINED, PROTECTED AND RELAID
- PROPOSED SELECTED NATURAL STONE KERB / CHANNEL
- PROPOSED DRY PLAZA FOUNTAIN
- PROPOSED AREA FOR OUTDOOR DINING (TABLE NUMBERS AND ARRANGEMENT SHOWN INDICATIVE ONLY)
- PROPOSED PUBLIC SEATING
- PROPOSED RETRACTABLE BOLLARD (RB)
- PROPOSED LITTER BIN (LB)
- PROPOSED BIKE STAND
- PROPOSED ELECTRIC BIKE STAND (ES)
- PROPOSED CARGO BIKE PARKING
- PROPOSED TRAFFIC LIGHT AND SIGNAGE AS PER ENGINEER'S DRAWING (TL)
- PROPOSED POTENTIAL LOCATION FOR ART/PLAY FEATURE
- PROPOSED POTENTIAL LOCATION FOR BIRD BATH
- INDICATIVE EXTENT OF PROPOSED BELOW GROUND TREE PIT
- EXISTING LEVEL RETAINED (+3.00 ex.)
- PROPOSED TREE
- PROPOSED SPECIMEN TREE
- PROPOSED GROUNDCOVER PLANTING
- PROPOSED PLANTING IN BIO-RETENTION AREA
- PROPOSED HEDGE PLANTING

SCHEDULE OF PROPOSED TREE PLANTING:

TREES ON WEST SIDE OF THE STREET:

TREE REF.	*QUANTITY*	*SPECIES:*
Al	11	*Amelanchier lamarckii* 3 x tr., wrb., 2m h., 2.5m spread, multistem, min. 5 stems
Bp	2	*Betula pubescens* 3 x tr., wrb., 3m h., 14-16 cm g., clear stem min. 1.8*m*

TREES IN BIORETENTION AREAS:

TREE REF.	*QUANTITY*	*SPECIES:*
Al	10	*Amelanchier lamarckii* 3 x tr., wrb. 2m h., 2.5m spread, multistem, min. 5 stems
Bp	12	*Betula pubescens* 3 x tr., wrb., 3m h., 14-16 cm g., clear stem min. 1.8m

SPECIMEN TREES AT EACH END OF STREET:

TREE REF.	QUANTITY	SPECIES:
Po	1	*Platanus orientalis* 'Minaret' 5 x tr., wrb., 25-30cm g., 5-6m h., clear stem min. 2.5m
Ps	1	*Pinus sylvestris* 5 x tr., wrb., 30-35cm g., 5-6m h., clear stem min. 2.5m

HEDGE PLANTING, TYPICALLY:

Ilex aquifolium, 900-1200mm h.

GROUNDCOVER AND HERBACEOUS MIX, TYPICALLY:

Euonymus europaeus 2 ltr cg.
Dryopteris affinis 2 ltr cg.
Geranium spp. 2 ltr cg.
Luzula sylvatica 2 ltr cg.
Echinacea purpurea 2 ltr cg.
Armeria maritima 2 ltr cg.
Achillea millefolium 2 ltr cg.
Verbascum bomb. 'Gainsborough' 2 ltr cg.

PLANTING IN BIORETENTION AREAS, TYPICALLY:

Viburnum opulus cg., 1.2m h., multistem, min 3 stems

Luzula sylvatica 2 ltr cg.
Luzula nivea 2 ltr cg.
Iris pseudacorus 2 ltr cg.
Astilbe spp 2 ltr cg.
Juncus effusus 2 ltr cg.
Molinia caerulea 2 ltr cg.

BULB PLANTING, TYPICALLY:

Hyacinthoides spp. 2 ltr cg.
Narcissus spp. 2 ltr cg.

Abbreviations:

xtr.	number of transplants in nursery
h.	height
s.	spread
wrb	wire root-balled
cm g	girth of tree in centimeters measured 1m above ground
2 ltr cg	plants supplied in 2 litre volume containers

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NOTES:

OSI material acknowledgement: 2022/OSI_NMA_057

DATE	REV.	DESCRIPTION	DRAWN BY	CHECKED BY
-	-	-	-	-

CLIENT:	FINGAL COUNTY COUNCIL
PROJECT:	PUBLIC REALM IMPROVEMENTS FOR A PEDESTRIANISED NEW STREET
DRAWING:	PUBLIC REALM PLAN

PROJECT NO	SCALE	SHEET SIZE.	DRAWN BY	CHECKED BY	1st ISSUE
Fc.03	1:200	A1	tk	df	13.04.2023

ISSUE STATUS: PLANNING

NORTH

DRAWING NO. Fc.03-DR-2001

REVISION -

DFLA
Ulverstone, Dublin, Ireland. D07 DCD6
e info@dfla.ie

LEGEND AND SCHEDULE OF SERVICES

- PLANNING APPLICATION SITE BOUNDARY
- EXISTING SERVICES
- PROPOSED SERVICES
- INDICATIVE EXTENT OF PROPOSED BELOW GROUND TREE PIT
- PROPOSED MINI PILLAR AS PER ENGINEER'S DRAWING
- L — PROPOSED LUMINAIRE AS PER ENGINEER'S DRAWING
- TL — PROPOSED TRAFFIC LIGHT AND SIGNAGE AS PER ENGINEER'S DRAWING
- EXISTING COLUMN MOUNTED LUMINAIRE RETAINED AS PER ENGINEER'S DRAWING

PROPOSED TRAFFIC LIGHT AND SIGNAGE AS PER ENGINEER'S DRAWING

INDICATIVE EXTENT OF PROPOSED BELOW GROUND TREE PIT; SERVICES TO CROSS LOCALLY IF REQUIRED

PROPOSED TRAFFIC LIGHT AND SIGNAGE AS PER ENGINEER'S DRAWING

INDICATIVE EXTENT OF PROPOSED BELOW GROUND TREE PIT; SERVICES TO CROSS LOCALLY IF REQUIRED

INDICATIVE EXTENT OF PROPOSED BELOW GROUND TREE PIT; SERVICES TO CROSS LOCALLY IF REQUIRED

INDICATIVE EXTENT OF PROPOSED BELOW GROUND TREE PIT; SERVICES TO CROSS LOCALLY IF REQUIRED

INDICATIVE EXTENT OF PROPOSED BELOW GROUND TREE PIT; SERVICES TO CROSS LOCALLY IF REQUIRED

PROPOSED MINI PILLAR AS PER ENGINEER'S DRAWING

PROPOSED MINI PILLAR AS PER ENGINEER'S DRAWING

INDICATIVE EXTENT OF PROPOSED BELOW GROUND TREE PIT; SERVICES TO CROSS LOCALLY IF REQUIRED

INDICATIVE EXTENT OF PROPOSED BELOW GROUND TREE PIT; SERVICES TO CROSS LOCALLY IF REQUIRED

PROPOSED TRAFFIC LIGHT AND SIGNAGE AS PER ENGINEER'S DRAWING

PROPOSED TRAFFIC LIGHT AND SIGNAGE AS PER ENGINEER'S DRAWING

EXISTING COLUMN MOUNTED LUMINAIRE RETAINED AS PER ENGINEER'S DRAWING

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NOTES:

OSI material acknowledgement: 2022/OSI_NMA_057

DATE	REV.	DESCRIPTION	DRAWN BY	CHECKED BY
-	-	-	-	-

CLIENT:	FINGAL COUNTY COUNCIL	ISSUE STATUS:	
PROJECT:	PUBLIC REALM IMPROVEMENTS FOR A PEDESTRIANISED NEW STREET	PLANNING	NORTH
DRAWING:	ABOVE AND BELOW GROUND SERVICES PLAN	DRAWING NO.	REVISION
		Fc.03-DR-2002	-

PROJECT NO	SCALE	SHEET SIZE.	DRAWN BY	CHECKED BY	1st ISSUE
Fc.03	1:200	A1	al	lb	13.04.2023

DFLA



LEGEND AND SCHEDULE OF MATERIALS

- PLANNING APPLICATION SITE BOUNDARY
- PROPOSED SELECTED ROAD SURFACE TO ENGINEER'S DETAIL
- PROPOSED SELECTED NATURAL STONE PAVING - TYPE 1A
- PROPOSED SELECTED NATURAL STONE PAVING - TYPE 1B
- PROPOSED SELECTED NATURAL STONE PAVING - TYPE 1C
- PROPOSED SELECTED NATURAL STONE PAVING - TYPE 2A
- PROPOSED SELECTED NATURAL STONE PAVING - TYPE 2B
- PROPOSED SELECTED NATURAL STONE PAVING - TYPE 3
- EXISTING GRANITE KERBSTONES RETAINED, PROTECTED AND RELAID
- PROPOSED SELECTED NATURAL STONE KERB / CHANNEL
- PROPOSED DRY PLAZA FOUNTAIN
- PROPOSED AREA FOR OUTDOOR DINING (TABLE NUMBERS AND ARRANGEMENT SHOWN INDICATIVE ONLY)
- PROPOSED PUBLIC SEATING
- PROPOSED RETRACTABLE BOLLARD
- PROPOSED LITTER BIN
- PROPOSED BIKE STAND
- PROPOSED ELECTRIC BIKE STAND
- PROPOSED CARGO BIKE PARKING
- PROPOSED TRAFFIC LIGHT AND SIGNAGE AS PER ENGINEER'S DRAWING
- PROPOSED POTENTIAL LOCATION FOR ART/PLAY FEATURE
- PROPOSED POTENTIAL LOCATION FOR BIRD BATH
- INDICATIVE EXTENT OF PROPOSED BELOW GROUND TREE PIT
- EXISTING LEVEL RETAINED (+3.00 ex.)
- PROPOSED TREE
- PROPOSED GROUNDCOVER PLANTING
- PROPOSED PLANTING IN BIO-RETENTION AREA
- PROPOSED HEDGE PLANTING

SCHEDULE OF PROPOSED TREE PLANTING:

TREES ON WEST SIDE OF THE STREET:

TREE REF.	*QUANTITY*	*SPECIES:*
Al	11	*Amelanchier lamarckii* 3 x tr., wrb., 2m h., 2.5m spread, multistem, min. 5 stems
Bp	2	*Betula pubescens* 3 x tr., wrb., 3m h., 14-16 cm g., clear stem min. 1.8m

TREES IN BIORETENTION AREAS:

TREE REF.	*QUANTITY*	*SPECIES:*
Al	10	*Amelanchier lamarckii* 3 x tr., wrb., 2m h., 2.5m spread, multistem, min. 5 stems
Bp	12	*Betula pubescens* 3 x tr., wrb., 3m h., 14-16 cm g., clear stem min. 1.8m

SPECIMEN TREES AT EACH END OF STREET:

TREE REF.	QUANTITY	SPECIES:
Po	1	*Platanus orientalis* 'Minaret' 5 x tr., wrb., 25-30cm g., 5-6m h., clear stem min. 2.5m
Ps	1	*Pinus sylvestris* 5 x tr., wrb., 30-35cm g., 5-6m h., clear stem min. 2.5m

HEDGE PLANTING, TYPICALLY:

Ilex aquifolium, 900-1200mm h.

GROUNDCOVER AND HERBACEOUS MIX, TYPICALLY:

Euonymus europaeus 2 ltr cg.
Dryopteris affinis 2 ltr cg.
Geranium spp. 2 ltr cg.
Luzula sylvatica 2 ltr cg.
Echinacea purpurea 2 ltr cg.
Armeria maritima 2 ltr cg.
Achillea millefolium 2 ltr cg.
Verbascum bomb. 'Gainsborough' 2 ltr cg.

PLANTING IN BIORETENTION AREAS, TYPICALLY:

Viburnum opulus cg., 1.2m h., multistem, min 3 stems

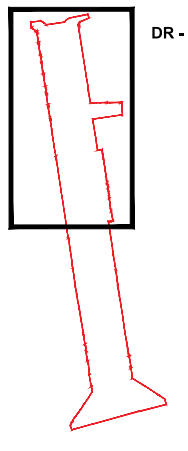
Luzula sylvatica 2 ltr cg.
Luzula nivea 2 ltr cg.
Iris pseudacorus 2 ltr cg.
Astilbe spp 2 ltr cg.
Juncus effusus 2 ltr cg.
Molinia caerulea 2 ltr cg.

BULB PLANTING, TYPICALLY:

Hyacinthoides spp. 2 ltr cg.
Narcissus spp. 2 ltr cg.

Abbreviations:

xtr.	number of transplants in nursery
h.	height
s.	spread
wrb	wire root-balled
cm g	girth of tree in centimeters measured 1m above ground
2 ltr cg	plants supplied in 2 litre volume containers



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NOTES:

OSI material acknowledgement: 2022/OSI_NMA_057

DATE	REV.	DESCRIPTION	DRAWN BY	CHECKED BY
-	-	-	-	-

CLIENT:	FINGAL COUNTY COUNCIL
PROJECT:	PUBLIC REALM IMPROVEMENTS FOR A PEDESTRIANISED NEW STREET
DRAWING:	PUBLIC REALM DETAIL PLAN - 01

PROJECT NO	SCALE	SHEET SIZE.	DRAWN BY	CHECKED BY	1st ISSUE
Fc.03	1:100	A1	al	lb	13.04.2023

ISSUE STATUS: PLANNING

NORTH

DRAWING NO. Fc.03-DR-2100

REVISION -

DFLA
Dún Laoghaire, Dublin, Ireland. D02 DC96
t: 01 662 5125
e: info@dfla.ie



LEGEND AND SCHEDULE OF MATERIALS

- PLANNING APPLICATION SITE BOUNDARY
- PROPOSED SELECTED ROAD SURFACE TO ENGINEER'S DETAIL
- PROPOSED SELECTED NATURAL STONE PAVING - TYPE 1A
- PROPOSED SELECTED NATURAL STONE PAVING - TYPE 1B
- PROPOSED SELECTED NATURAL STONE PAVING - TYPE 1C
- PROPOSED SELECTED NATURAL STONE PAVING - TYPE 2A
- PROPOSED SELECTED NATURAL STONE PAVING - TYPE 2B
- PROPOSED SELECTED NATURAL STONE PAVING - TYPE 3
- EXISTING GRANITE KERBSTONES RETAINED, PROTECTED AND RELAID
- PROPOSED SELECTED NATURAL STONE KERB / CHANNEL
- PROPOSED DRY PLAZA FOUNTAIN
- PROPOSED AREA FOR OUTDOOR DINING (TABLE NUMBERS AND ARRANGEMENT SHOWN INDICATIVE ONLY)
- PROPOSED PUBLIC SEATING
- PROPOSED RETRACTABLE BOLLARD
- PROPOSED LITTER BIN
- PROPOSED BIKE STAND
- PROPOSED ELECTRIC BIKE STAND
- PROPOSED CARGO BIKE PARKING
- PROPOSED TRAFFIC LIGHT AND SIGNAGE AS PER ENGINEER'S DRAWING
- PROPOSED POTENTIAL LOCATION FOR ART/PLAY FEATURE
- PROPOSED POTENTIAL LOCATION FOR BIRD BATH
- INDICATIVE EXTENT OF PROPOSED BELOW GROUND TREE PIT
- EXISTING LEVEL RETAINED (+3.00 ex.)
- PROPOSED TREE
- PROPOSED GROUNDCOVER PLANTING
- PROPOSED PLANTING IN BIO-RETENTION AREA
- PROPOSED HEDGE PLANTING

SCHEDULE OF PROPOSED TREE PLANTING:

TREES ON WEST SIDE OF THE STREET:

TREE REF.	*QUANTITY*	*SPECIES:*
Al	11	*Amelanchier lamarckii* 3 x tr., wrb, 2m h., 2.5m spread, multistem, min. 5 stems
Bp	2	*Betula pubescens* 3 x tr., wrb., 3m h., 14-16 cm g., clear stem min. 1.8m

TREES IN BIORETENTION AREAS:

TREE REF.	*QUANTITY*	*SPECIES:*
Al	10	*Amelanchier lamarckii* 3 x tr., wrb, 2m h., 2.5m spread, multistem, min. 5 stems
Bp	12	*Betula pubescens* 3 x tr., wrb., 3m h., 14-16 cm g., clear stem min. 1.8m

SPECIMEN TREES AT EACH END OF STREET:

TREE REF.	QUANTITY	SPECIES:
Po	1	*Platanus orientalis* 'Minaret' 5 x tr., wrb., 25-30cm g., 5-6m h., clear stem min. 2.5m
Ps	1	*Pinus sylvestris* 5 x tr., wrb., 30-35cm g., 5-6m h., clear stem min. 2.5m

HEDGE PLANTING, TYPICALLY:

Ilex aquifolium, 900-1200mm h.

GROUNDCOVER AND HERBACEOUS MIX, TYPICALLY:

Euonymus europaeus 2 ltr cg.
Dryopteris affinis 2 ltr cg.
Geranium spp. 2 ltr cg.
Luzula sylvatica 2 ltr cg.
Echinacea purpurea 2 ltr cg.
Armeria maritima 2 ltr cg.
Achillea millefolium 2 ltr cg.
Verbascum bomb. 'Gainsborough' 2 ltr cg.

PLANTING IN BIORETENTION AREAS, TYPICALLY:

Viburnum opulus cg., 1.2m h., multistem, min 3 stems

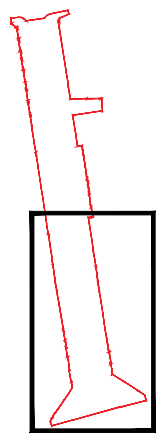
Luzula sylvatica 2 ltr cg.
Luzula nivea 2 ltr cg.
Iris pseudacorus 2 ltr cg.
Astilbe spp 2 ltr cg.
Juncus effusus 2 ltr cg.
Molinia caerulea 2 ltr cg.

BULB PLANTING, TYPICALLY:

Hyacinthoides spp. 2 ltr cg.
Narcissus spp. 2 ltr cg.

Abbreviations:

xtr.	number of transplants in nursery
h.	height
s.	spread
wrb	wire root-balled
cm g	girth of tree in centimeters measured 1m above ground
2 ltr cg	plants supplied in 2 litre volume containers



DR - 2101

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NOTES:

OSI material acknowledgement: 2022/OSI_NMA_057

DATE	REV.	DESCRIPTION	DRAWN BY	CHECKED BY
-	-	-	-	-

CLIENT:	FINGAL COUNTY COUNCIL
PROJECT:	PUBLIC REALM IMPROVEMENTS FOR A PEDESTRIANISED NEW STREET
DRAWING:	PUBLIC REALM DETAIL PLAN - 02

PROJECT NO	SCALE	SHEET SIZE	DRAWN BY	CHECKED BY	1st ISSUE
Fc.03	1:100	A1	al	lb	13.04.2023

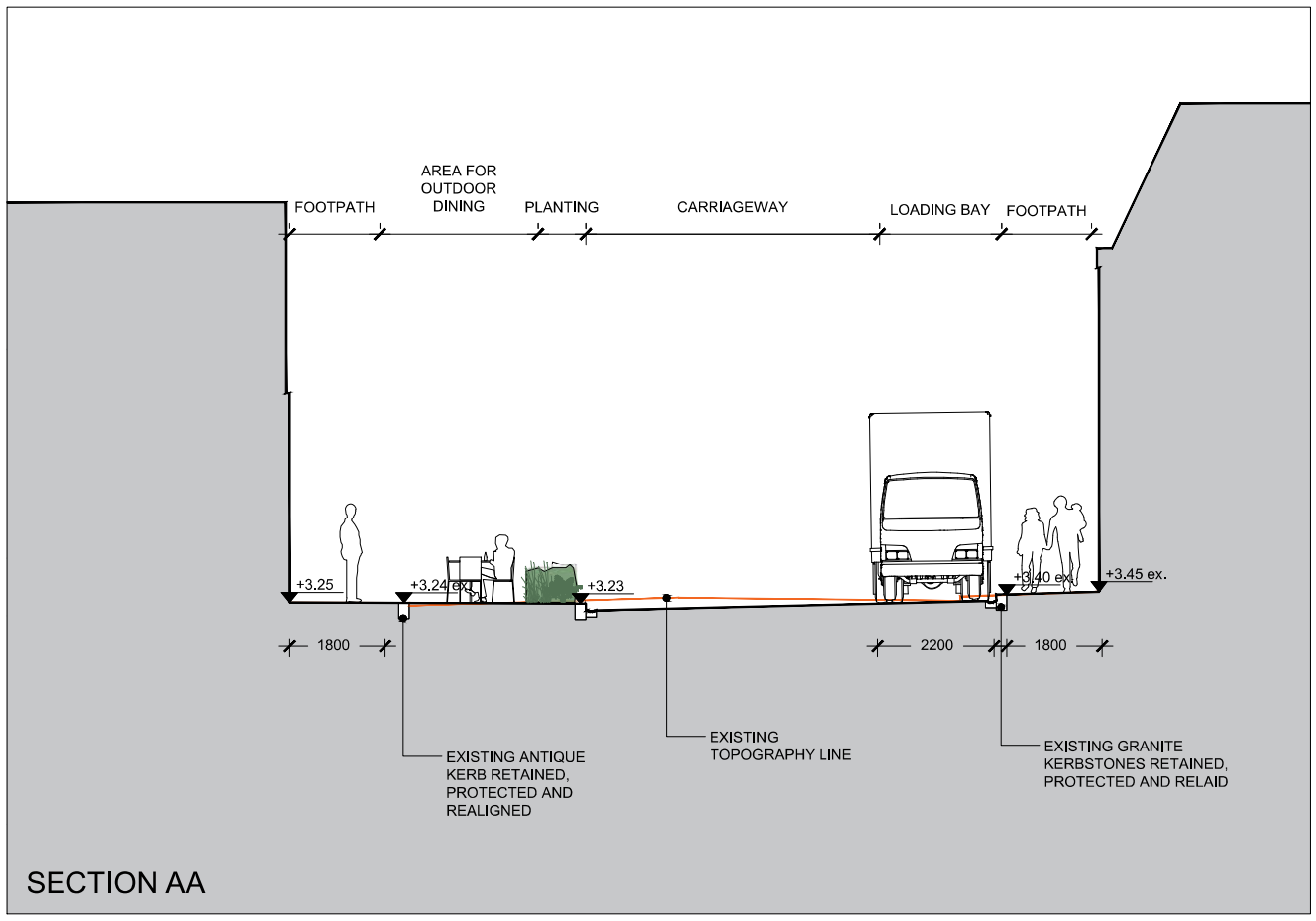
ISSUE STATUS: PLANNING

NORTH

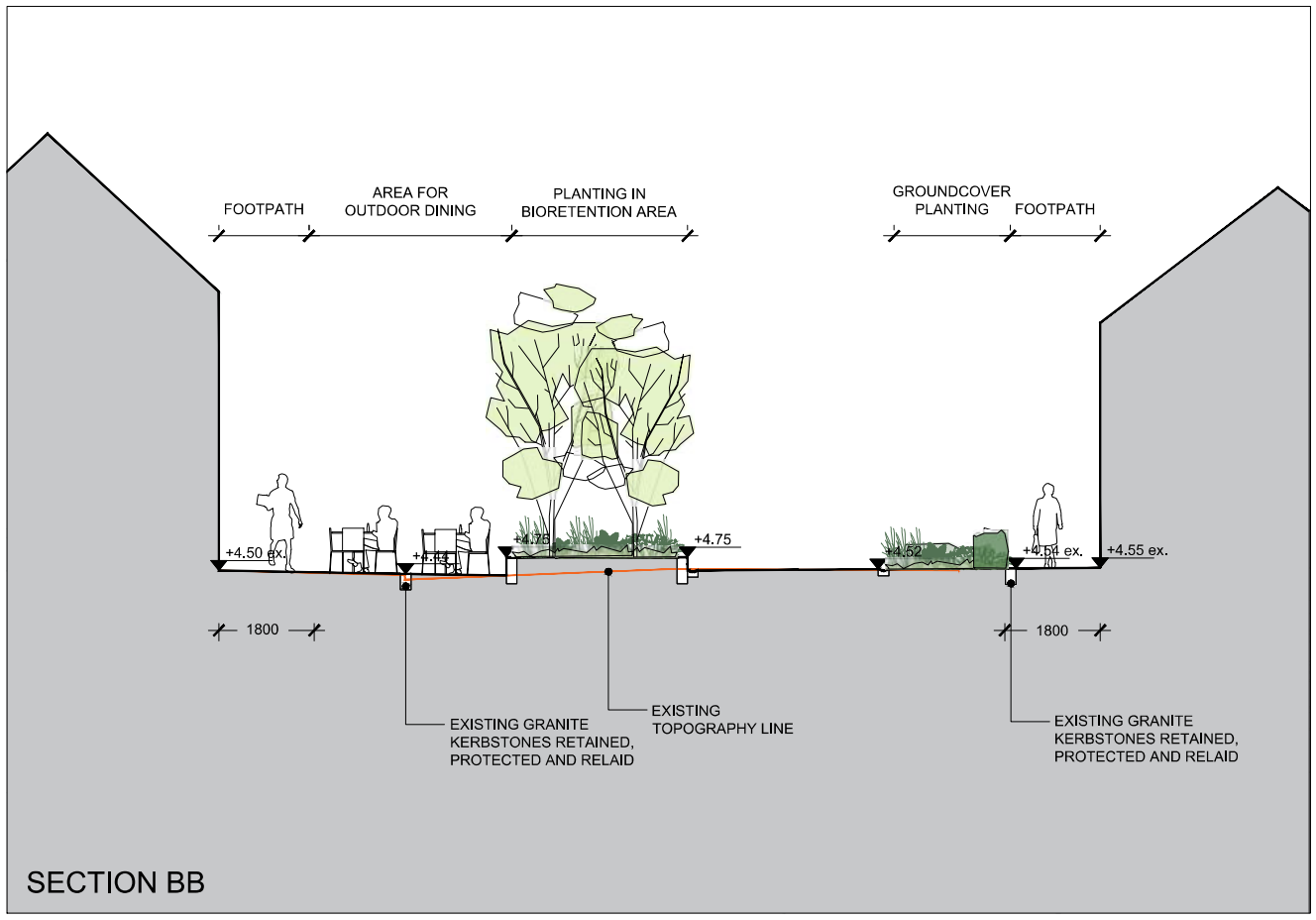
DRAWING NO. Fc.03-DR-2101

REVISION -

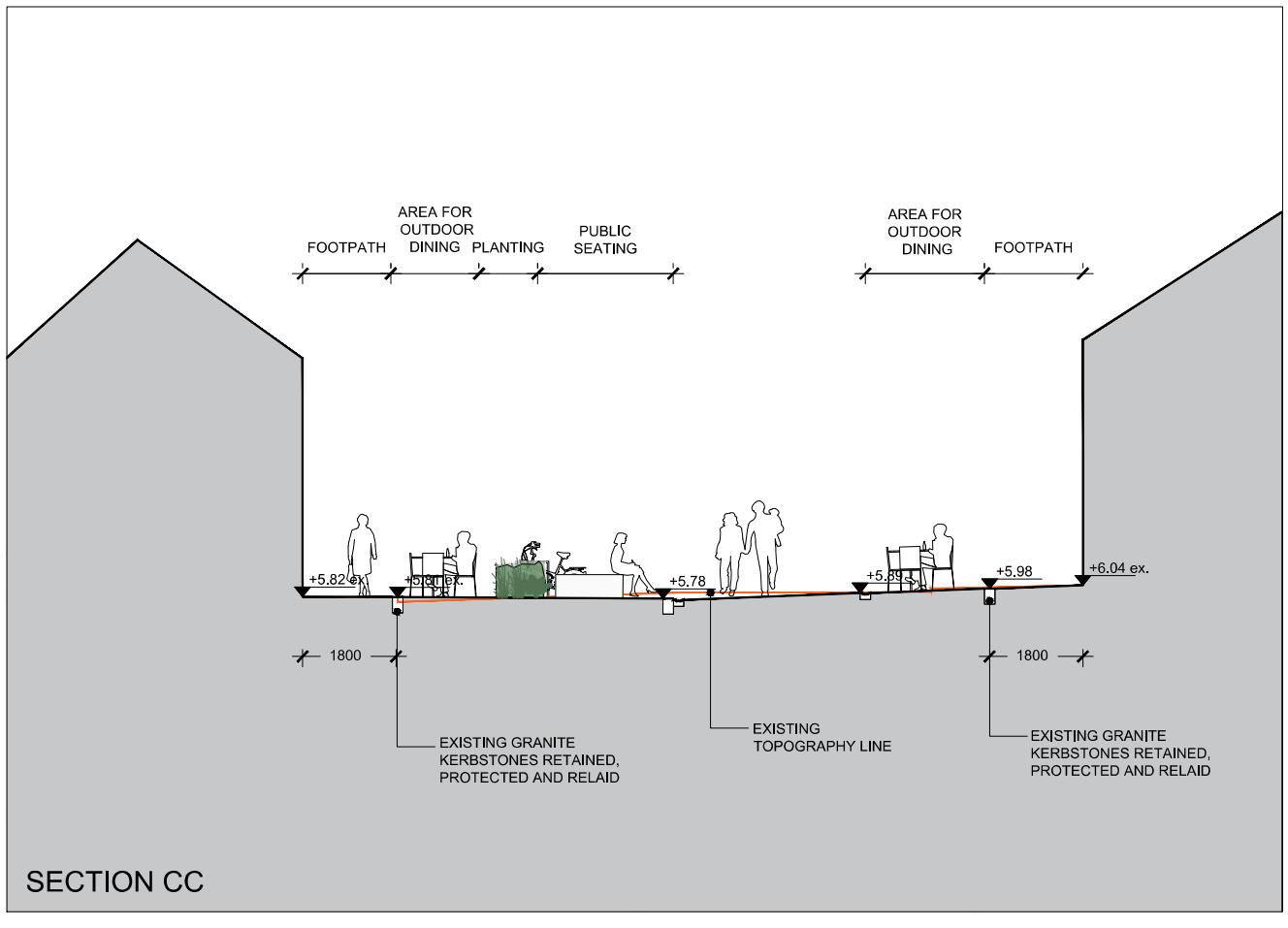
DFLA
Mountpelier, Dublin, Ireland. D07 DD58
t: (+353) 1 8734 240
e: info@dfla.ie



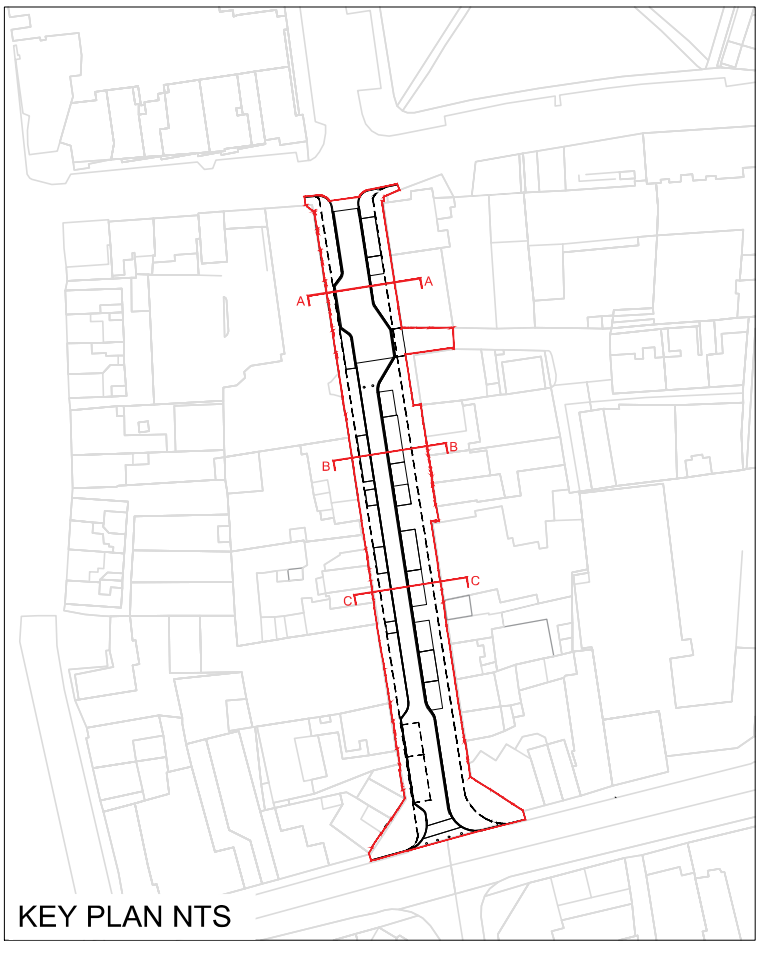
SECTION AA



SECTION BB



SECTION CC



KEY PLAN NTS

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NOTES:

DATE	REV.	DESCRIPTION	DRAWN BY:	CHECKED BY:
-	-	-	-	-

CLIENT:	FINGAL COUNTY COUNCIL			**ISSUE STATUS:**	
PROJECT:	PUBLIC REALM IMPROVEMENTS FOR A PEDESTRIANISED NEW STREET			PLANNING	NORTH
DRAWING:	LANDSCAPE SECTIONS 1			**DRAWING NO.**	**REVISION**
				Fc.03-DR-2401	-
PROJECT NO	**SCALE**	**SHEET SIZE**	**DRAWN BY**	**CHECKED BY**	**1st ISSUE**
Fc.03	1:100	A2	lz	sz	13.04.2023

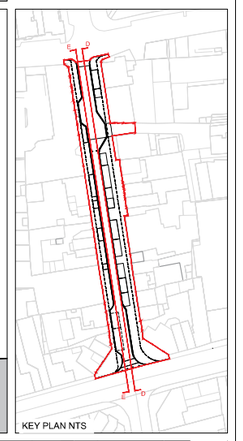
DFLA
blackpitts, dublin, ireland. D08 D056
t: 01 4545148
e: info@dfla.ie



SECTION DD



SECTION EE



KEY PLAN NTS

This drawing is the copyright of the Landscape Architects. Do not scale this drawing. All dimensions are to be checked on site by the contractor. Any discrepancies are to be reported to the Landscape Architects. All drawings should be read in conjunction with the relevant Architects and Engineers drawings and any discrepancies before any work is carried out are to be reported.

NOTES

NO.	DATE	CHK	AMENDMENT	BY
1				
2				
3				
4				
5				
6				

CLIENT:	FINGAL COUNTY COUNCIL
PROJECT:	PUBLIC REALM IMPROVEMENTS FOR A PEDESTRIANISED MAIN STREET
DRAWING:	LANDSCAPE SECTIONS 2

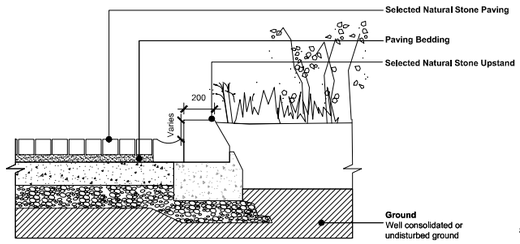
ISSUE STATUS: PLANNING

DRAWING NO.: FCL03-DR-2402

REVISION: -

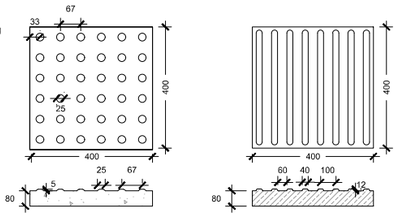
PROJECT NO.	SCALE	PAPER SIZE	DRAWN BY	CHECKED BY	ISSUE DATE
1920	1:100	ARCH D	EL	EC	14/10/2020

DFLA



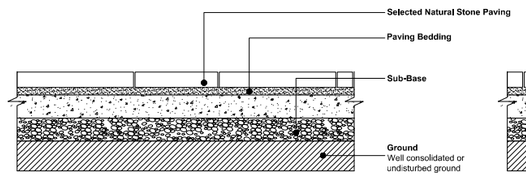
NATURAL STONE PAVING
AND SOFT LANDSCAPE INTERFACE

1
2500



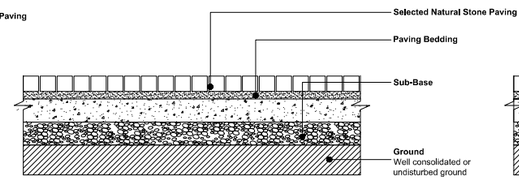
NATURAL STONE TACTILE PAVING
scale 1:10

2
2500



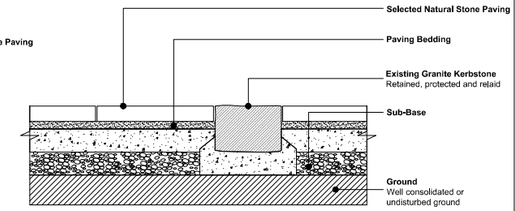
NATURAL STONE PAVING
SELECTED LARGE FORMAT

3
2500



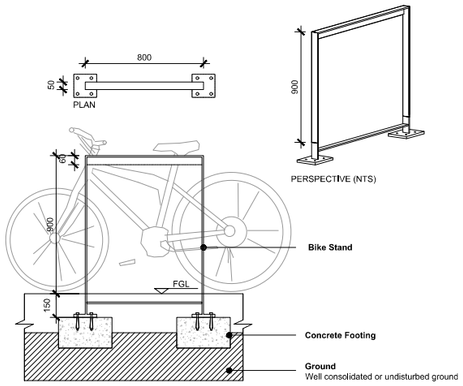
NATURAL STONE PAVING
SELECTED SMALL FORMAT

4
2500



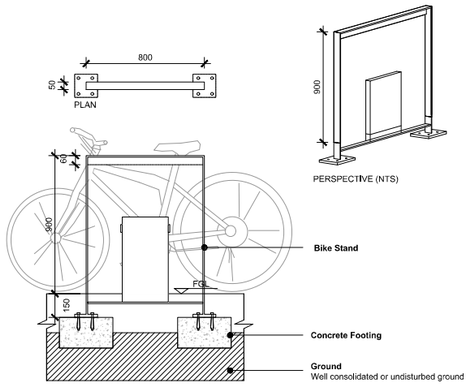
NATURAL STONE PAVING
AND EXISTING GRANITE KERB INTERFACE

5
2500



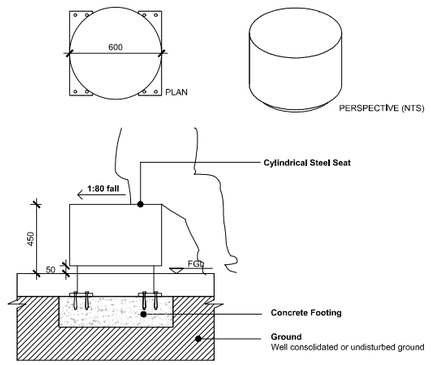
BIKE STAND

6
2500



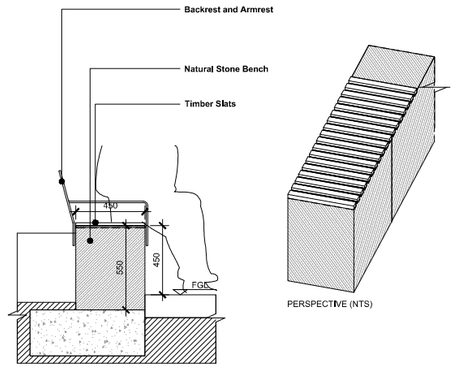
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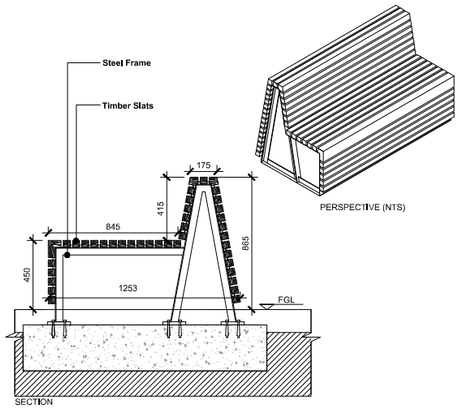
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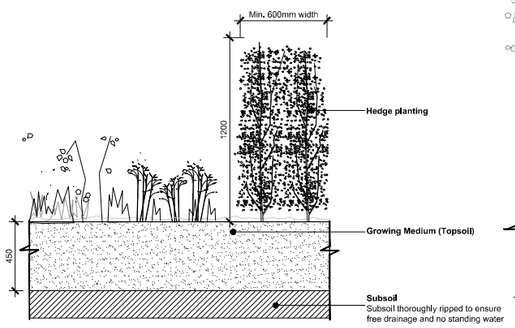
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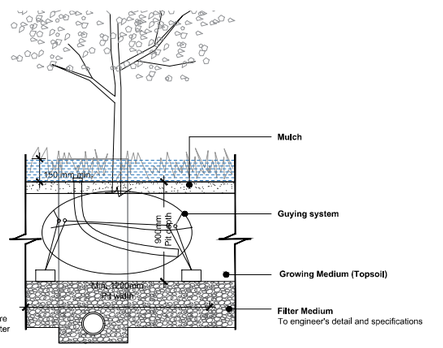
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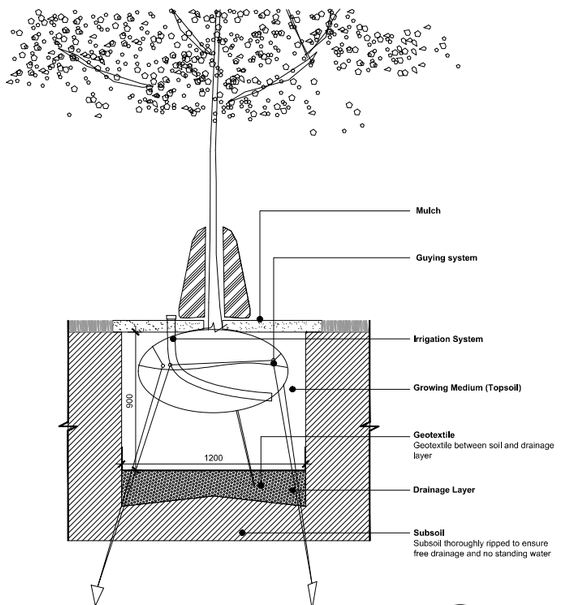
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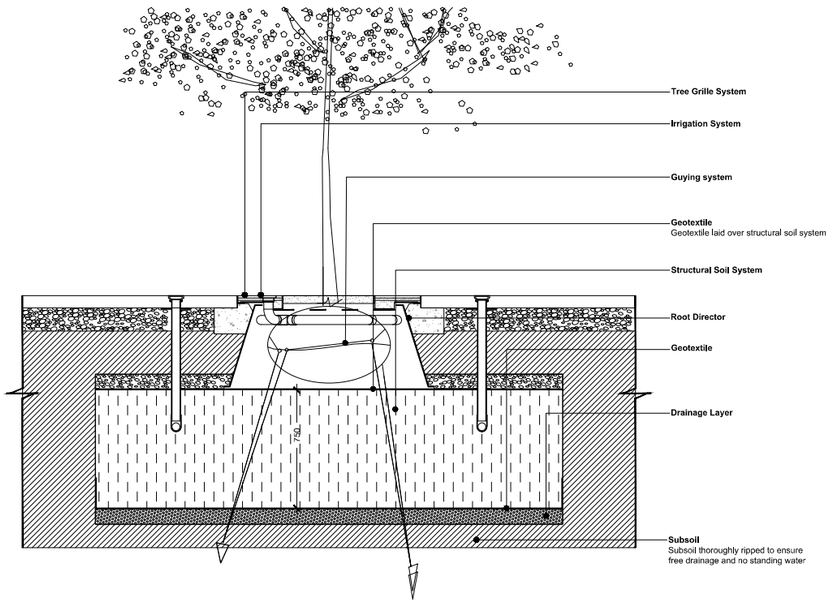
BIORETENTION AREA

12
2500



TREE PLANTING IN SOFT LANDSCAPE

13
2500



TREE PLANTING IN HARD LANDSCAPE

14
2500

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-	-	-	-	-

CLIENT:	FINGAL COUNTY COUNCIL	ISSUE STATUS:	N/A
PROJECT:	PUBLIC REALM IMPROVEMENTS FOR A PEDESTRIANISED NEW STREET	PLANNING	
DRAWING:	TYPICAL LANDSCAPE DETAILS	DRAWING NO.	REVISION
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CLIENT:	FINGAL COUNTY COUNCIL	**ISSUE STATUS:**	
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DRAWING:	ARTISTS IMPRESSION 01	**DRAWING NO.**	**REVISION**
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CLIENT:	FINGAL COUNTY COUNCIL	**ISSUE STATUS:**	
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DESIGN RATIONALE

Project: **PUBLIC REALM IMPROVEMENTS FOR A PEDESTRIANISED NEW STREET**

Project no.: **Fc.03**

Prepared on behalf of: **FINGAL COUNTY COUNCIL**

Prepared by: **DFLA**

Date of First Issue: **13.04.2023**

Revisions: **-**

ISSUED FOR: INFORMATION/**PLANNING**/PLANNING/TENDER/CONSTRUCTION

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Introduction

1.1 General

In 2022, *Fingal County Council (FCC) Architects Department*, in association with *FCC Environment Climate Action and Active Travel*, commissioned DFLA as part of a landscape architecture led multi-disciplinary team for public realm improvements for a pedestrianised New Street. The objective of this document, together with the overall planning package, in line with the requirements of the Planning and Development Regulations, is to describe the nature and extent of the proposed development and the principal features thereof.

DFLA and the wider design team visited the site on several occasions from May 2022 to October 2022 in order to observe conditions on site, such as existing vegetation, layout, usage, materials and other items which would have a bearing on the design process. *The Tree File* arborists were commissioned before the design process began to carry out a Tree Survey and Tree Constraints Plan in compliance with BS 5837:2012. These documents are included separately as part of this planning package.

During the design process, DFLA worked closely with *Connect the Dots (CtD)* and FCC to engage with a wide range of stakeholders and consultees, to arrive at a proposal which maximises the opportunities for high quality, usable and enjoyable public realm that, where possible, responds to the feedback obtained throughout the consultation process. The non-statutory consultation process is summarised in Section 3.1.

1.2 Planning Context

A number of policy documents are relevant to the formulation of the public realm proposals for New Street. These include the *Fingal County Development Plan, Fingal Climate Action Plan*, as well as documents of a more specific or localised nature such as the *Malahide Public Realm Strategy, Malahide Historic Core Architectural Conservation Area (ACA), The Forest of Fingal* and other policy documents of significance.

Please refer to the *Planning Report* produced by *BMA Planning* and included in the overall planning package.

1.3 Documentation

This document should be read in conjunction with other documentation included in this planning package, by DFLA, as well as the inter-disciplinary design team which comprises *Punch Consulting Engineers, Axiseng Consulting Engineers, Coady Architects, BMA Planning, Faith Wilson Ecologist, Archaeology Plan, The Tree File* arborists, supported by *Connect the Dots (CtD)* stakeholder and community

engagement consultants. An EIA Screening Report has been prepared by BMA Planning and an AA Screening Report has been prepared by Faith Wilson Ecologist. The following documents produced by DFLA, additional to this document, are included as part of the overall planning package:

No.	***Scale***	***Size***	***Title***
2000	*1:500*	*A1*	*Site Location Map*
2001	*1:200*	*A1*	*Public Realm Plan*
2401	*1:100*	*A2*	*Landscape Sections 1*
2402	*1:100*	*A1+*	*Landscape Sections 2*
2500	*1:20*	*A1*	*Typical Landscape Details*

2.1 The Site

The subject site is situated in the centre of Malahide Village. It is broadly rectangular in shape, approximately 14m wide and 150m in length, extending from the Diamond junction at the south end towards the Strand Street junction to the north. There is a broadly continuous slope with a level change of approximately 6m between the higher point at the southern end of the site and the northern end which then leads towards Malahide Green and the Marina.



New Street, looking south, towards the Diamond.

The existing public realm is predominantly hard-standing and impervious in nature. There is a line of medium to large size trees along the kerb edge of the footpath on the west side of the street. There are two trees on the eastern side, close to the junction with Strand Street.

Prior to the outbreak of Covid-19 in March 2020, New Street, Malahide accommodated two-way traffic movement. Following a government mandate to review road networks in urban areas to identify areas that could prioritise pedestrian and cycle movements, New Street was pedestrianised from June 2020 to December 2020. This arrangement was modified to a one-way system for vehicular traffic from December 2020 to June 2021. In June 2021, Fingal County Council pedestrianised New Street. As a result, there is currently time limited one-way access from 7am to 11am each day for deliveries and emergency vehicles from Main Street/ The Diamond to New Street and two-way access from Strand Street to Ross's Terrace via New Street.

New Street comprises a variety of uses including retail, café, restaurant, bar, health and financial or other business outlets. Outdoor dining is available on the street, with furniture provided by individual premises. A range of street furniture has been installed such as bollards, cycle parking, signage and planters which vary in terms of material and design.



View from New Street, looking east, along the laneway to Ross Cottages.



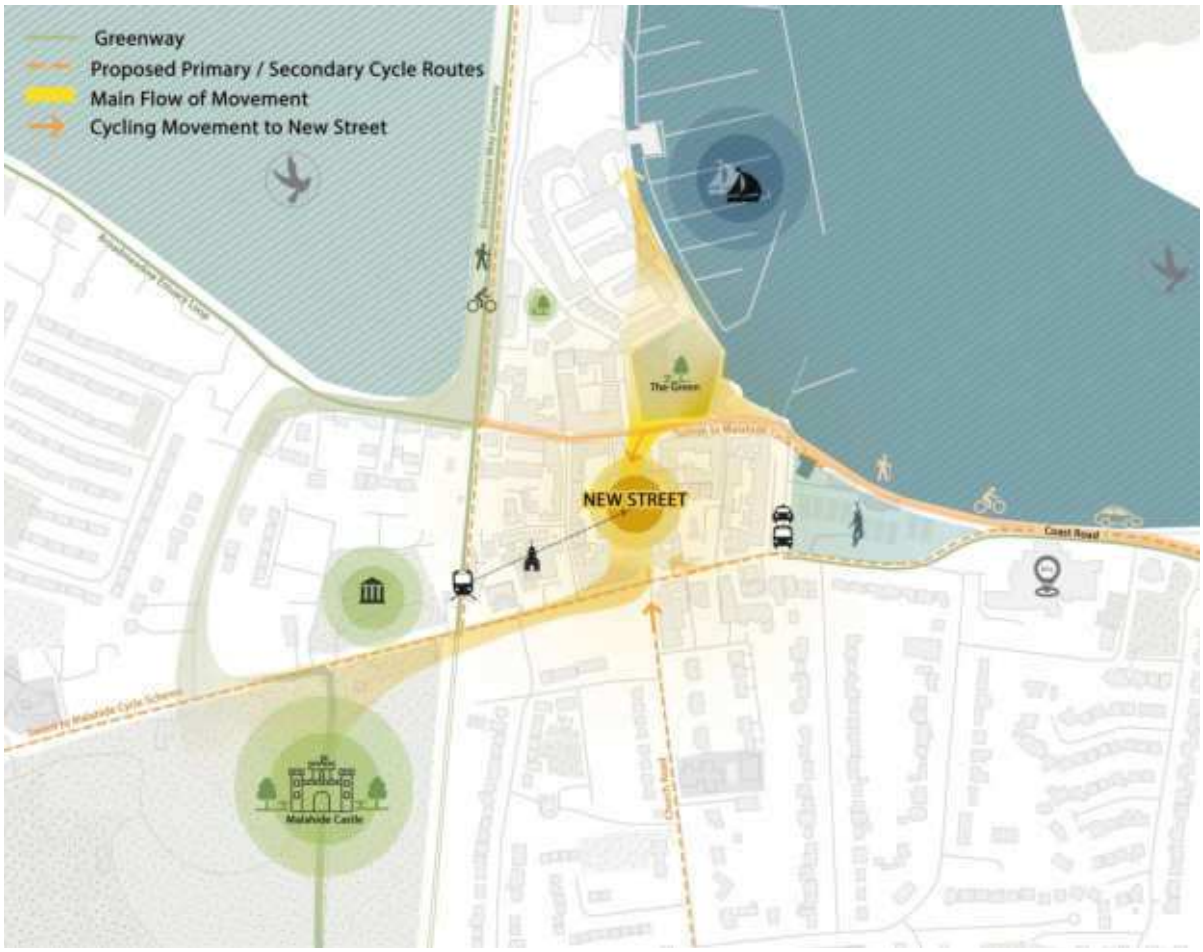
A typical existing arrangement for outdoor dining on New Street.



An example of the range of street furniture currently on site.

2.2 Wider Physical Context

In its wider context, New Street is located in close proximity to Broadmeadow Estuary, recognised internationally as an environmentally important asset due to it being designated as a Special Area of Conservation, Special Protection Area and proposed Natural Heritage Area. The street is also located within the Architectural Conservation Area of Malahide (ACA), with protected structures and monuments located in the vicinity. New Street is served by good public transport links. It is close to many recreational and tourist amenities and commercial opportunities in Malahide. A number of planned cycle routes and strategic infrastructure interface with the site, including the Fingal Coastal Way and Sutton to Malahide Pedestrian and Cycle Scheme.



Plan diagram illustrating New Street in the wider context of Malahide. Not to Scale.



Photo taken at the south-western corner of Malahide Green, looking north, towards the Marina.

2.3 Existing Trees

Existing trees have been surveyed by *The Tree File* arborists in accordance with BS 5837:2012. BS 5837:2012 calls for a realistic assessment of the viability of retaining trees in the context of proposed construction. The British Standard has been used here to rigorously assess the stock of existing trees and to make recommendations which are realistic and represent a fair assessment of the quality and long-term viability of the trees on site.

The Tree Survey describes the physical condition of the trees and the way in which the trees are interacting with the surrounding urban environment. It highlights the conditions in which the trees have been planted and the consequent continuing damage to the adjacent paved surfaces. The survey identifies the particular issue of species selection and the expected future and ongoing maintenance requirements with regard to lifted and cracked paving surfaces.

A total of 11 Norway Maple (*Acer platanus*) trees exist on the site at New Street. Of the 11 trees, three have been identified as '*Category B2'* and seven trees are noted as '*Category C2'*. Tree no. 1782, to the north, has been classed as *'Category U'*. This tree has been identified as unsuitable for retention, as a result of its poor condition, regardless of whether or not development is proposed. Excluding Tree no. 1782, a total of ten trees are considered for replacement.

The Tree Survey, the Tree Constraints Plan and the Arboricultural Impact Assessment, produced by *The Tree File* are included in the overall planning package.

Refer to Section 3.7 of this document for tree replacement proposals.



Existing trees at New Street. Black rubber surfacing has been installed locally to replace lifted and cracked paving.



Existing trees at New Street. Granite kerbs are pushed out of alignment at the base of the tree.

3 Consultation and Design Process

3.1 Summary of Non-Statutory Consultation Process

DFLA worked closely with *Connect the Dots (CtD)* and FCC in non-statutory stakeholder and public consultation as well early engagement with relevant statutory bodies. Meetings were held regularly, and feedback was received on the emerging design in relation to planning, traffic, civils, environment, public realm, heritage and conservation, operations, archaeology and waste. In addition to the regular meetings and workshops, the following lists include the main meetings that took place with internal FCC stakeholders and external stakeholders, as part of the consultation process:

Date	**Attendees/Purpose**
22.06.2022	*FCC Departmental Stakeholders*
29.06.2022	*FCC Councillors*
01.07.2022	*An Garda Siochana*
01.09.2022	*FCC Departmental Stakeholders*
22.09.2022	*FCC Councillors*
18.10.2022	*Workshop with Disability Representatives*
21.10.2022	*FCC Departmental Stakeholders*
27.10.2022	*Early Engagement with Statutory Bodies*

Two non-statutory public consultation events were held in Malahide Library, facilitated by CtD with support from DFLA. The events occurred on the following dates:

Date	**Attendees/Purpose**
09.07.2022	*Public Consultation Event 1*
24.09.2022	*Public Consultation Event 2*

These in-person non-statutory public consultation events were complemented by online submissions. During the design process a number of options were developed by the design team with FCC, in response to feedback from stakeholders. The proposals were considered in detail and revised to reflect comments during consultation where possible. For example, the locations of trees and other proposed planting was revised to allow for more direct lines of site, quantity and locations of public seating was revised and updated, kerb alignments and drainage strategy clarified and developed in detail.

The results from the non-statutory public consultation (in-person and online) were analysed and summarised in two reports, prepared by CtD and published online by FCC. Where possible, and in line with the overall brief and objectives for the proposed public realm

improvements, the feedback received at the events and from the online submissions was incorporated into the proposals.

3.2 Design Principles

DFLA have developed a number of design principles which have helped to formulate the public realm proposals. The design principles have emerged following the period of consultation and after having gained an understanding of the context and setting of the project, through site visits and meetings with stakeholders. The design principles (DPs) are summarised below:

- **DP1. An understanding of the wider context**: recognising New Street as a key node within the overall urban and historic fabric of Malahide, as well as a hub for an emerging active travel network;

- **DP2. New Street as a destination**: realise the potential of the street as a destination and build on its existing positive qualities to create a distinct identity which would be attractive to locals and visitors alike;

- **DP3. Facilitate flexibility of use**: recognise and allow for future change while at the same time ensuring a recognisable, enjoyable and welcoming experience, in sympathy with the Architectural Conservation Area;

- **DP4. Promote material and aesthetic quality**: avoid clutter and develop a suite of site-specific interventions which help to create a coherent and legible space, with a sense of material unity.

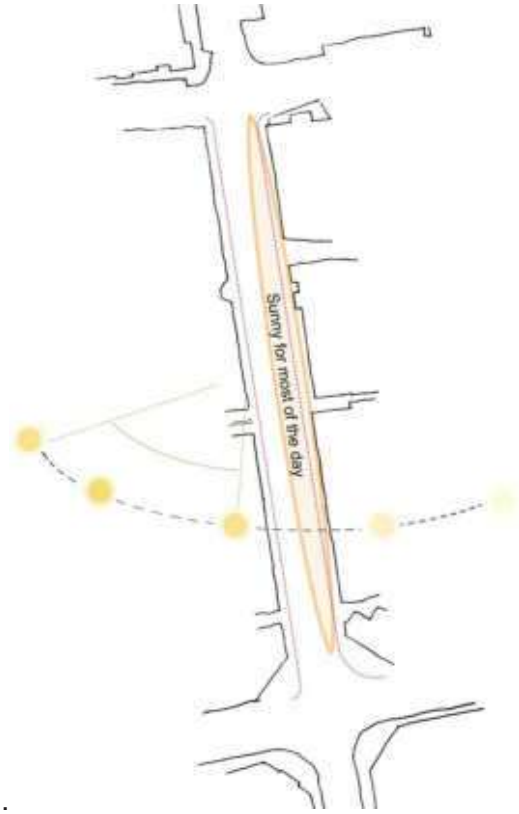
- **DP5. Deploy innovative solutions**: use low tech (SuDS) as well as high tech (Smart) innovation to expand the functionality and added-value of public realm.

3.3 Public Realm Design Strategy

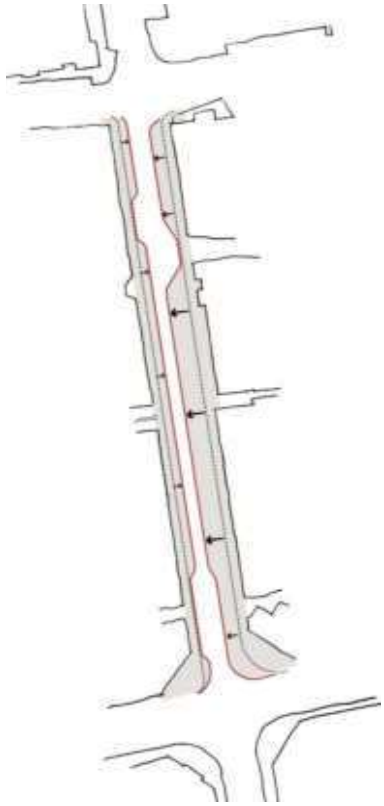
The design principles help to generate a strategy for the public realm improvements for a pedestrianised New Street, which was formulated in conjunction with FCC and the design team in order to integrate the existing site context, architecture, improved circulation and accessibility, traffic, civil engineering, lighting, archaeological and ecological considerations with the overarching public realm design and the key objectives of the brief. These include:

- Provision of a high-quality urban environment which enhances the 'sense of place' on the street and respects the context as part of Malahide's Historic Core Architectural Conservation Area;
- Consider accessibility and safety for people of all ages and abilities;
- Find a balance between existing and possible future proposed uses along the street in a way which is attractive to visitors and locals alike;
- Innovate, taking into account principles of sustainability and resilient public spaces;
- Ensure access for local residents, deliveries, fire tender, emergencies and refuse collection;
- Provide opportunities for resting and socialising to increase dwell time, while at the same time taking into consideration overall functionality;
- Provide trees and planting as well as incorporating sustainable drainage solutions.

New Street is a key node within Malahide's town centre. The public realm improvements increase the area provided for civic amenity along the thoroughfare and improve pedestrian priority and accessibility for the public. It creates new opportunities for visitors and passers-by to engage and enjoy the space by increasing the width of the footpath on either side of the street. The eastern side remains sunny for the majority of the day; therefore, an asymmetric layout is proposed, taking full advantage of the orientation. Large trees are proposed to 'book-end' the street and signify threshold, tying the public realm into its surrounding context. Areas of planting are proposed as the main organisational device, incorporating sustainable urban drainage (SuDS) and increasing biodiversity on site. Opportunities for seating, art and informal play installations are proposed to be located in between the areas of soft landscape. Some areas of planting are also proposed to be introduced to act as buffer zones between public use and existing residential buildings. Clearly marked zones for outdoor dining are proposed to be organised in linear strips on both sides of the narrowed central carriageway.



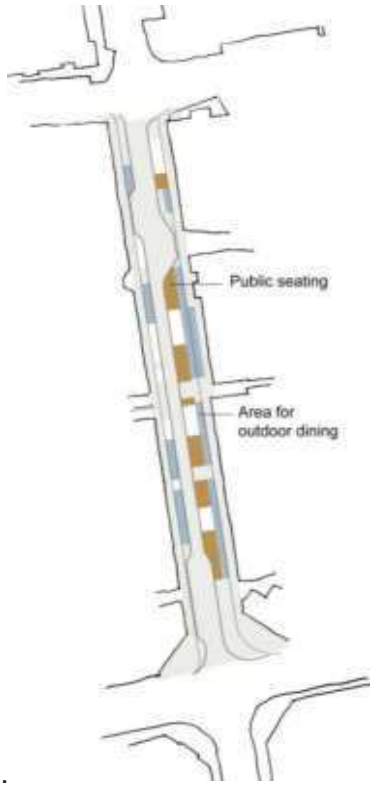
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4.

A range of plan diagrams was developed to inform the design and organisation of the proposed public realm. These include organisation as response to orientation (1), kerb alignment and drainage (2), soft landscape as an organisational and drainage device (3), delineation between civic space and outdoor dining (4).

3.4 Conservation and Heritage

New Street is located in the *Malahide Historic Core Architectural Conservation Area (ACA)* and the proposals for public realm have been developed as a direct response to the ACA and in conjunction with FCC Architects and FCC Architectural Conservation Officers. During the design process FCC Architectural Conservation Officers played a central role in determining the nature of the proposals.

The proposed public realm elements have been considered to be in sympathy with the historic context. The space is proposed to be substantially open to allow a fuller appreciation of the existing buildings. The existing granite kerbs are proposed to be re-laid in their existing alignment. New high-quality materials, including Irish stone paving, channels and other details are also proposed as part of the public realm design to complement the existing character of the street. These are outlined in further detail in Section 4. It is proposed that historic interpretation will form part of the materials palette and detailing for the street. Examples of material detailing for interpretation include the engraving of paving flags to tell the story of the street and disseminate the heritage of the place as part of the visitor experience.

The proposals are cognisant of, and seek to address, the Malahide Historic Core Architectural Conservation Area Statement of Character, in the area of declutter and views and specifically with regard to the following policies:

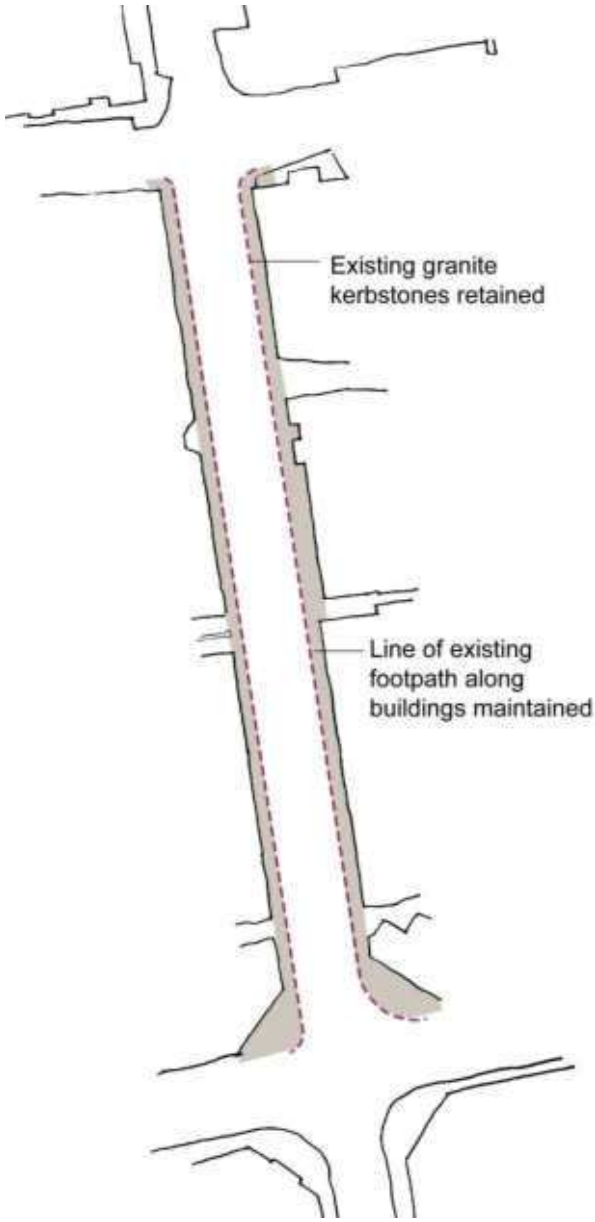
> *Cluttered traffic signage and poles prevent proper appreciation of buildings and architectural spaces in the ACA. Fingal County Council will therefore seek to minimise clutter through the use of innovative integrated designs. Designs for lighting, signage and fittings such as parking meters, litter bins and bollards should be of a scale sympathetic to the character of the ACA. Where historic evidence of street furniture does not survive, new elements should be chosen to be high quality and low-key, and conspicuous arrays of lamp standards or bollards should be avoided. (p.54)*

> *Trees have been planted along the Dublin Road, Old Street, New Street Church Road, The Mall and Diamond and while the trees provide welcome greenery, they have been planted in very limited space and consequently reduce the pavement widths and obscure proper views of the buildings. (p.55)*

Please also refer to the *Architectural Heritage Assessment* produced by *Coady Architects* and included in the overall planning package.



Examples of historic interpretation forming part of the surface materials palette.



Plan diagram to highlight the extent of the existing footpaths (grey brown)and the alignment of existing granite kerbs (dashed red line). The kerbs are proposed to be lifted, protected and re-laid in their current alignment. Not to Scale.

3.5 Accessibility, Circulation and Access

New Street has a generally uniform slope from the Diamond north down to Strand Road, with approximately six metres change in level. In that context the proposals have been designed to make the public realm as accessible as possible. Design tools of note that have been developed, either as part of the general design process, or specifically arising from consultation with relevant and interested parties include:

- A rational approach to the organisation of elements on the street
- The retention of the existing building fronts, or 'shoreline', clear of furniture
- Retractable bollards to limit traffic on the street
- Signage for cyclists to dismount
- The use of differential surfacing
- The use of dropped kerbs where appropriate at crossings
- Wall mounted public lighting to minimise the number of poles
- Pull-in areas for occasional loading
- Seating for resting and pausing
- Smart digital functionality throughout the street

The retention of the existing building frontage, provides two north-south zones for pedestrian circulation which follow the building line at its existing gradient. These zones are effectively the same as the existing footpaths, with the kerbs in the same alignment but re-laid flush where the footpath is extended into the area that is currently tarmac carriageway. They are proposed to be free from obstacles or clutter. Public seating is proposed at key locations along the street to provide opportunities for rest. 'Outside' the original kerb alignment differential surfacing is used to demarcate areas for planting, public seating, cycle stands and other street furniture. The 'carriageway' is reduced in width to allow for one-way use during certain times of the day (except at the north end of street where two-way is required locally for access to Ross Cottages at all times) and access for residents, emergency vehicles and deliveries.

The proposed public realm improvements include a time limited one-way access from 7am to 11am each day for deliveries and emergency vehicles from Main Street/ The Mall to New Street and an unrestricted two-way access from Strand Street to Ross's Terrace via New Street. 2no. loading bays are proposed at the southern and northern ends of New Street and an accessible parking space in front of the HSE building.

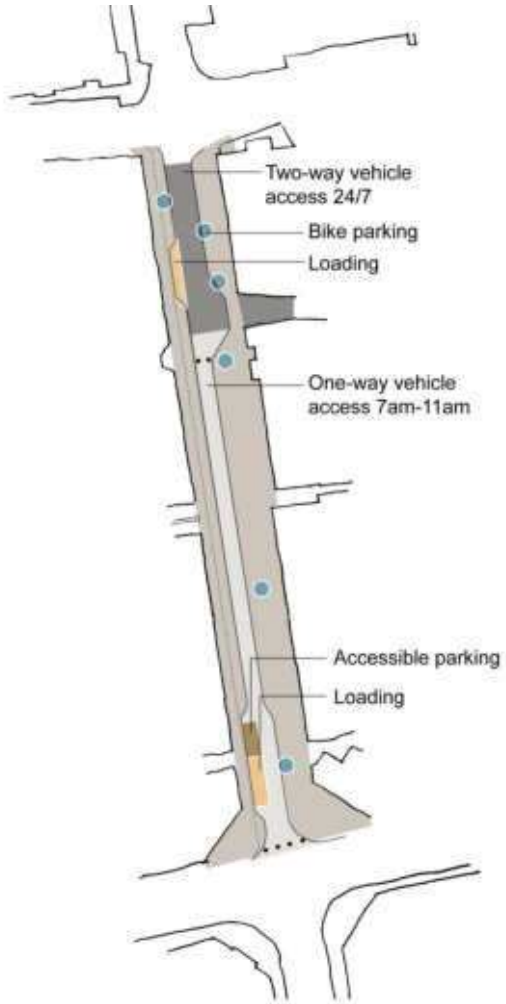
Cyclists will be required to dismount on entering the street. Cycle parking stands are proposed throughout, particularly at the northern and southern thresholds. Parking for

unusual or emerging bicycle formats and sizes such as cargo bikes and e-bikes is also catered for.

The proposed improvements shall be in accordance with the relevant accessibility regulations and best practice.



Images illustrating examples of e-bike charging station and cargo bike parking.



Plan diagram – access and circulation. Not to Scale.

3.6 Sustainability

The public realm proposals include the use of locally sourced materials such as Irish stone, sustainably sourced timber for seating, indigenous plant species where possible, and Sustainable Urban Drainage Systems. Please refer to Section 4 for more detail on proposed materials.

The proposed public realm improvements for a pedestrianised New Street will bring positive impacts in terms of enhancing the streetscape at New Street and promoting active travel modes with improved facilities for pedestrians and cyclists. Other significant considerations include minimising the use of steel poles and signage as well as the use of cowled and energy efficient light fittings to minimise light pollution and reduce carbon emissions.

A separate *Mechanical and Electrical Services Installations* report is produced by *Axiseng Consulting Engineers* and included in the overall planning package.

3.7 Tree Replacement

Historically, the spatial impact of trees on New Street has varied. For extensive periods of time there were no trees on the street. Today, the spatial character of the street is generally asymmetrical with trees remaining on the western side of the street, and most of the trees that were on the eastern side now removed. Please refer to Section 2.3 for a brief description of the existing trees and reference to the technical documents that form part of the overall planning package.

As part of the public realm improvements at New Street it is proposed that the existing trees are replaced with new trees which will increase the number of trees on the street, broaden the diversity of tree species, and therefore the resilience of the street, increase the potential for biodiversity, facilitate sustainable urban drainage (SuDS), planted in more extensive green areas with larger soil volumes. The new trees will be less deleterious to existing building fabric, requiring less maintenance in the form of pruning, cleaning gutters and repairs to pavements, and will improve pedestrian safety. The proposal for tree planting has taken the ACA into consideration, in that it opens up the street spatially, allowing a better appreciation of the historic buildings and shop fronts. It is also considered in an integrated fashion with the proposed provision of improved below ground services and drainage infrastructure.

As described in Section 2.3 the existing trees have been surveyed by *The Tree File* arborists in accordance with BS 5837:2012. The British Standard has been used to rigorously assess the stock of existing trees and to make recommendations which are realistic and represent a fair assessment of the quality and long-term viability of the trees on site. In addition to the

aboricultural assessment, the existing trees were also visually assessed by DFLA and by representatives of Fingal County Council (FCC), including The *FCC Tree Officer* and landscape architects from *FCC Parks & Landscape*. As part of the assessment of trees, an on-site meeting and site walk was carried out in September 2022 with *FCC Tree Officer, FCC Parks and Landscape, FCC Architects, FCC Environment Climate Action and Active Travel,* and DFLA, during which the trees were inspected and the wider area, micro-climate and ground conditions were noted and discussed, with a view to understanding which species could be used to replace the existing trees.

Collectively, the existing trees are recognised by *The Tree File* as being relatively young trees, of fair health, which have achieved less than 20% of their ultimate species mass. Due to the fact that they have yet to grow significantly, thereby exacerbating the issue of lifting, cracked paving and associated safety, operations and maintenance requirements, as well as the context within which they are planted with unsuitable ground conditions, *The Tree File* has recommended that they should be replaced with new trees of more contextually compatible species with sustainable, purposely designed underground conditions.

Proposals for the planting of new trees planting and their integration with the overall proposed works, using constructed tree pits where required with the requisite volume of soil, as well as how trees are used as part of the Sustainable Urban Drainage System (SuDS), are described in Section 4. The proposals for tree planting are integrated with the overall proposals in the sense that the narrowing of the carriageway provides space for new trees to be planted in a more central location, somewhat removed from the buildings.

In addition to the proposed new trees on New Street, *FCC Parks & Landscape* shall organise the planting of new trees at Malahide Green, which is outside the subject site, but which complements the proposals for New Street, by increasing the canopy cover overall and specifically at Malahide Green, while at the same time allowing for a spatial proposal which is sympathetic to the ACA and the architectural heritage of New Street. Furthermore, it is proposed to upcycle and reuse the trunks of the tree to be removed, as timber beams as part of a unique climbable sculpture at Malahide Green.

Generally, the proposal for tree replacement is driven by, or assists FCC in achieving, the objectives of policies 3, 4, 5, 6, 8, 9 of *The Forest of Fingal*.

Please refer to the Tree Survey, Tree Constraints Plan and Arboricultural Impact Assessment produced by *The Tree File* and included in the overall planning package.



early 1900s



early 1900s



1930s



1940s



1987

Various photographs of New Street illustrating the lack of trees historically.

3.8 Unique Elements and Loose Furniture

A number of unique elements are proposed, such as art/play features and a dry plaza fountain. While the detail of these elements is subject to a more detailed design process, their proposed locations are illustrated in the diagram below. They are generally located within the proposed north-south strip that accommodates sustainable urban drainage (SuDS), public seating and other street furniture.

The management of loose, or movable, outdoor furniture for dining which may be used by premises has been considered in terms of the layout of the street, with loose furniture proposed to be located in secondary strips of space running north-south parallel to the main north-south strip as described above.



Plan diagram illustrating the locations of unique features. Not to scale.

4. Proposed Materials

Drawing 2001 Public Realm Plan, includes a legend and schedule of proposed materials including soft landscape and hard landscape finishes. It illustrates the location and extent of surface materials and furniture, groundcover and herbaceous planting, hedge and tree planting.

4.1 Tree planting

The design proposals include significant new tree planting throughout the site area. Trees are proposed to replace the existing trees, but also generally improve the species mix on site. The proposed tree species are selected for suitability to local conditions and microclimate, biodiversity and where required suitability for close proximity to buildings.

The proposed tree planting, of varying species and size, has been carefully considered in three distinct arrangements: trees on the west side of the street, trees and shrubs in bioretention areas on the east side of the street and specimen trees at each end of the street.

Large specimen trees are proposed to 'book-end' the street to the north and south. These are the native Scot's pine (*Pinus)* at the Malahide Green end and London plane (*Platanus orientalis* 'Minaret') at the Diamond end. On the west side of the street, an informal alignment of multi-stem snowy mespilus (*Amelanchier lamarkii*) is proposed. Tree planting to the east consists of a variety of species planted in bio-retention areas such as the native downy birch (*Betula pubescens*) and snowy mespilus for continuity across the carriageway to the snowy mespilus on the west. A total of 37 new individual trees is proposed.

In addition the native guelder rose (*Viburnum opulus)* is proposed for texture and leaf colour.

All proposed trees shall be planted in large below ground planting pits with substantial volumes of growing medium.



Images illustrating examples of the typical proposed tree species. Left; Scot's pine, Right; right snowy mespilus.

4.2 Hedge, Herbaceous, Groundcover

The proposed planting is conceived as subtle layering of greens within the open spaces, giving way to flower and foliage colour seasonally. The planting is proposed to be layered as follows; lowest - bulb planting, mid-height groundcover planting, highest - clipped hedge planting.

The landscape design proposals proactively address the issue of biodiversity on the site both in terms of the primary design intent and in terms of management of the planting over time. Education and information are also an important factor with regard to for example sustainable drainage, given the diversity of use and user type at New Street, with the possibility of small information panels integrated into the edges of the bio-retention areas. Typical low groundcover and hedge planting is illustrated below.




Images illustrating examples of the typical spatial effect of the low planting proposed.

4.3 Sustainable Urban Drainage Systems (SuDS)

Punch Consulting Engineers and DFLA have collaborated to integrate proposed SuDS elements within the overall public realm proposals. The proposed system comprises a series of bio-retention areas which are located centrally in a north-south arrangement along the street. The bio-retention areas are proposed to help clean and slow down the rate of storm water run-off. They also provide an important opportunity to introduce planting onto the street.

For more detail on the storm water drainage proposals please refer to documentation produced by *Punch Consulting Engineers* which is included in the overall planning package.




Proposed moisture tolerant groundcover and herbaceous planting (from left to right): Astilbe, Juncus (sedge).

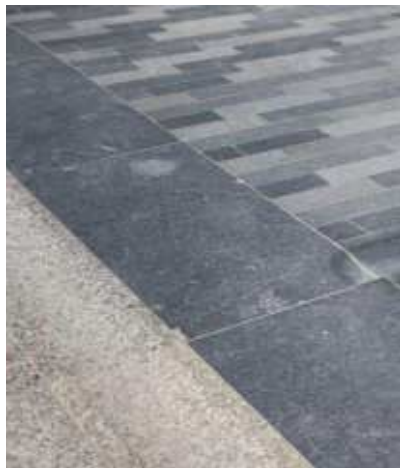
4.4 Hard Landscape Materials and Street Furniture

The proposed public realm facilitates ease of day-to-day use and encourages informal interaction along the street. It incorporates a full range of public realm functions. These include resting, play, circulation, accessible parking, bicycle parking, access for delivery and emergency vehicles. The selection of hard landscape materials is determined by function but also to provide a cohesive palette of materials across the site. The materials palette has been developed to build on the existing character of Malahide. In keeping with the principles established in FCC's Malahide Historic Core Architectural Conservation Area Statement of Character, the public realm has been designed in way that is sympathetic to the character of the street, minimising clutter and establishing a palette of high-quality materials with a low-key, consistent design, colour and style. In addition, durability, robustness and the specific nature of how the materials are proposed to be detailed is of critical importance to the success of the proposals. The selection of both surfacing and furniture is also proposed to provide cohesion and contrast throughout the public realm. Irish limestone and Leinster granite, in a variety of formats and finishes as differential surfacing are proposed for the pedestrian and vehicular areas. These are also proposed for finishes to the low retaining walls forming the edges to the bio-retention areas along the eastern side of the street.

4.5 Public Lighting

In order to minimise clutter and reduce the number of poles on the street, light fittings are proposed to be wall-mounted where possible. The proposals for public lighting allow for an uninterrupted space in the centre of the street which will benefit from the character of the planted bio-retention areas as well as the civic spaces with public seating, modest incidental play or art pieces and parking facilities for cyclists.

For more detail on the lighting proposals please refer to documentation produced by *Axiseng Consulting Engineers* which is included in the overall planning package.





Images illustrating the expected effects of the palette of hard landscape materials proposed, including Irish limestone and Leinster granite in variety of formats and finishes, heritage and conservation interpretation and a variety of seating elements that take into consideration day-to-day maintenance and management (from top to bottom): Waterford Viking Triangle by GMKD Architects, Peace Park Dublin by DFLA and Wolfe Tone Square Dublin by DFLA.

END.

DFLA

QUALITY AUDIT REPORT

Project:	**PUBLIC REALM IMPROVEMENTS FOR A PEDESTRIANISED NEW STREET**
Project no.:	**Fc.03**
Prepared on behalf of:	**FINGAL COUNTY COUNCIL**
Prepared by:	**DFLA**
Date of First Issue:	**13.04.2023**

ISSUED FOR: INFORMATION/**PLANNING**/PLANNING/TENDER/CONSTRUCTION

Contents:

1.0 Introduction

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- 3.2 Gender Proofing Audit
- 3.3 Crime Prevention Audit
- 3.4 Visual Audit
- 3.5 Community Street / Placecheck Audit

4.0 Quality Audit Statement

Appendix A - List of Material Supplied for this Quality Audit

Appendix B - Feedback Form

Appendix C – Problem Location Plan

1.0 Introduction

This Quality Audit was prepared for the proposed public realm improvements and associated works for a pedestrianised New Street in Malahide. The Quality Audit has been carried out in accordance with guidance in the following:

- *Design Manual for Urban Roads and Streets (DMURS)*, produced by Department of Transport Tourism and Sport in March 2013 and as updated in June 2019
- *Fingal Age Friendly Strategy 2018-2023*, (Fingal County Council,2023)
- *Being Age Friendly in the Public Realm – Guidelines and Good Practice*, Age Friendly Ireland
- *Building for Everyone – A Universal Design Approach* (Book 1 – External Environment & Approach), National Disability Authority
- *Guidelines for Access Auditing of the Built Environment*, (National Disability Authority)
- *Travelling in a Woman's Shoes – Understanding Women's Travel Needs in Ireland to Inform the Future of Sustainable Transport Policy and Design* (Transport Infrastructure Ireland), July 2020
- *Secured by Design, Design Guide for Commercial Developments* (Official Police Security Initiative, United Kingdom, 2015, Version 2)
- *Crime Prevention Through Environmental Design CPTED*, (An Garda Siochana,2009)
- *How to Conduct an Environmental Visual Audit*, Our Watch UK (http://www.ourwatch.org.uk)
- *Using Street Audit Approaches to Determine Neighbourhood Priorities*, Briefing Paper 47, June 2015, Glasgow Centre for Population Health, www.gpch.co.uk
- *Making Cities and Urban Spaces Safe for Women and Girls – Safety Audit Participatory Toolkit,* (Social Development Direct, SDD, on behalf of ActionAid International 2013)

As stated in the DMURS Version 1.1, a Quality Audit is a defined process, independent of, but involving, the design team, that through the planning, design, construction and management stages of a project, provides a check that high quality places are delivered and maintained by all relevant parties, for the benefit of all end users. Quality Audit is a process, applied to highway, traffic management or development schemes, which systematically reviews projects using a series of discrete but linked

evaluations and ensures that the broad objectives of place, functionality, maintenance and safety are achieved.
The starting point is to establish the vision and/or objectives for the scheme, which could be expected to address the following:

- Seeking an appropriate balance between Place and Movement
- Enabling accessibility for all user groups
- Recognising the context and presence of wider strategic modal routes and the impact the scheme may have
- Making sure that the quality of existing public realm is maintained or improved and that new places are of high quality
- Meeting community needs
- Road safety and personal security
- Specifying appropriate materials and layout in terms of appearance, durability and maintenance requirements

A Quality Audit should be undertaken to demonstrate that appropriate consideration has been given to all of the relevant aspects of the design. The UK Department for Transport notes the key benefits of a Quality Audit as:

- A transparent process that demonstrates that the needs of all user groups and the design objectives.
- Enables the projects objectives to be delivered by putting in place a check procedure.
- Contributes to cost efficiency in design and implementation.
- Encourages engagement with stakeholders.

Quality Audits generally consist of a number of individual and overlapping audits that may include:

- an audit of visual quality;
- a review of how the street is/may be used by the community;
- a road safety audit, including a risk assessment;
- an access audit;
- a walking audit;
- a cycle audit;
- a non-motorised user audit;
- a place check audit.

As described by the UK Department for Transport Traffic Advisory Leaflet 5/11- Quality Audits (2011) *"the extent to which these processes are undertaken will vary according to the scale and scope of any given project. The intention of a Quality Audit is not to 'pass' or 'fail' a design. Rather it is intended as an assessment tool that highlights the strengths and weaknesses of a design and a documented process of how decisions were made"*.

This Quality Audit is a design stage audit and includes a Stage 1 Age Friendly Audit, a Gender Proofing Audit, a Crime Prevention Audit, a Visual Audit, and a Community Street / Place Check Audit.

The Audit has been prepared by Julie Sammiller, MILI and checked by Jim Bloxam, MILI. This portion of the Quality Audit involved the examination of drawings and other material and a site visit on the 30th of January 2023. The problems raised in this Quality Audit may belong to more than one of the categories of Audit named above.

A feedback form has been provided for the designer to complete, indicating whether or not they will accept those recommendations or provide alternative recommendations for implementation.

Information material supplied to the Audit Team is listed in Appendix A.

The feedback form is contained in Appendix B.

A plan drawing showing the problem locations is contained in Appendix C.

2.0 Background

The proposed development comprises of public realm improvements and associated works for a pedestrianised New Street in Malahide, Fingal.

The street runs in a north-south alignment and is perpendicular to Strand Street in the north and Main Street to the south. Currently the street functions predominantly as a pedestrian zone, with vehicle access restricted to 7am – 11am daily and two-way vehicular access available to Ross Cottages on the east side at all times. A footpath of varying widths runs the full length of the street between the kerb and buildings lines, with mature trees growing at intervals in the footpath. The street is composed of a mix of predominantly commercial and some residential properties, most of which front directly onto the public footpath. The roof line is fairly consistent for the length of the

street and the height of all the buildings remains at two storeys, with some minor deviation in the eaves height from ground level. The street runs in an even gradient from the southern end (9.13OD) to the northern end (2.88OD) with a level difference of approx. 6m between the two ends.

The character of the street is one of a busy neighbourhood commercial zone with mixed product and service offerings.

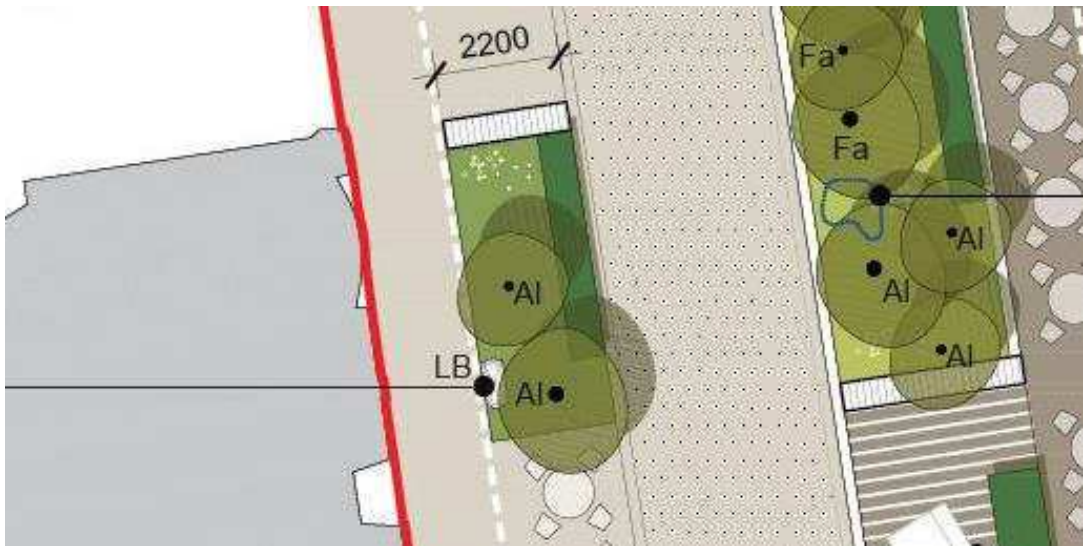
3.0 Audits

3.1 Age Friendly Audit

3.1.1 Problem – Seating and Litter Bin

LOCATION
Drawing Fc.03-DR-2001, seating and litter bin. Refer to Appendix C for Location).

ISSUE
The bin is located within 3 metres of seating and may create discomfort to the user with odours and insects.



Location of litter bin

RECOMMENDATION
Move the bin so that it is 3m away from all seating areas.

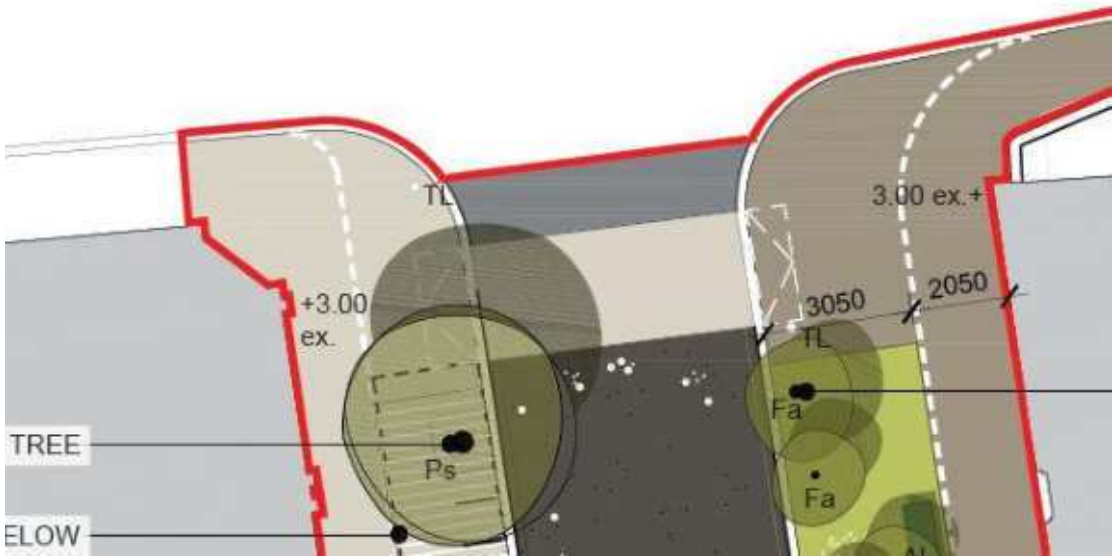
3.1.2 Problem – Resting at Crossing Points

LOCATION

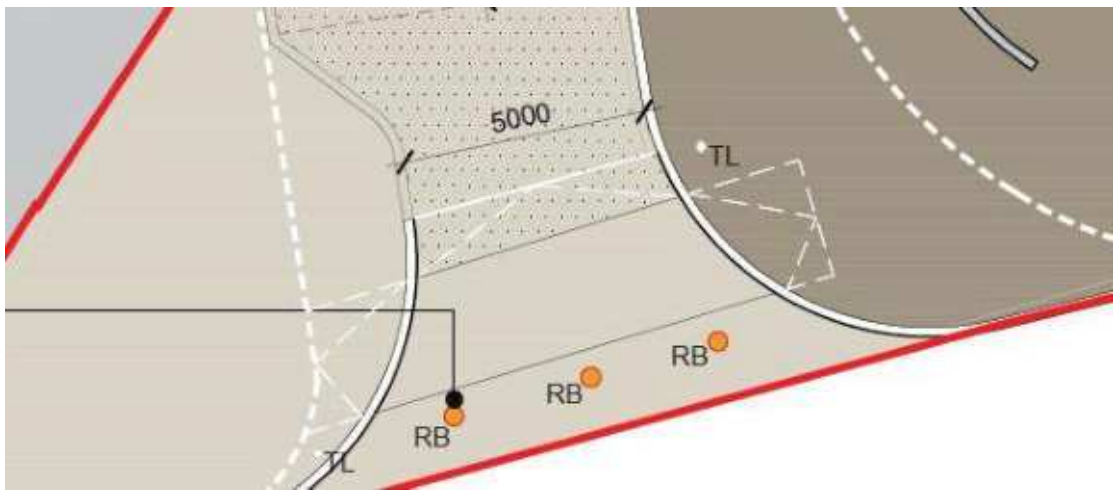
Drawing Fc.03-DR-2001, resting or seating at crossing points. Refer to Appendix C for Location.

ISSUE

It is proposed to provide 2no. pedestrian crossings at either end of the street. No resting post or seating is located near to the crossings. This is recommended for older people when waiting for an opportunity to cross.



Pedestrian crossing at northern end of street



Pedestrian crossing at southern end of the street

RECOMMENDATION

It is recommended that a seat or leaning post is provided on both sides of the street at both crossings.

3.1.3 Problem - Signage

LOCATION

Drawing Fc.03-DR-2001, base map and signage. Refer to Appendix C for Location.

ISSUE
There is no base map located at a strategic location or clear signage which should also include the time required to reach destinations.

RECOMMENDATION
It is recommended that a base map be provided in the proposed development along with clear wayfinding signage which includes walking times to nearby destinations.

3.2 GENDER PROOFING AUDIT

A walk-through of the existing condition on site was carried out on 30th January 2023 between 9.00am and 10.30am. The following material was used to guide observations using a 'gender lens':

- printed copy of design proposals (Fc.03-DR-2001 Public Realm Plan)
- printed copy of location map (Fc.03_2000 Site Location Map)
- printed copy of Tool 10: Safety Walk Checklist (*Making Cities and Urban Spaces Safe for Women and Girls – Safety Audit Participatory Toolkit,* (Social Development Direct, SDD, on behalf of ActionAid International 2013)
- printed copy of Tool 11: Safety Walk Report Card (*Making Cities and Urban Spaces Safe for Women and Girls – Safety Audit Participatory Toolkit,* (Social Development Direct, SDD, on behalf of ActionAid International 2013)

In addition to the above, *Travelling in a Woman's Shoes – Understanding Women's Travel Needs in Ireland to Inform the Future of Sustainable Transport Policy and Design* (Transport Infrastructure Ireland), July 2020, was consulted as part of a desktop review.

Results from the walk through were given a rating between 1 and 5 (where 1 is rated as 'very unsafe' and 5 means 'very safe') and based on the following categories:

- Overall sense of safety in the area
- Lighting
- Maintenance
- Busy areas / isolated spaces
- Signage
- Intimidating groups of people

- Informal / formal surveillance

Where applicable, most of the walk through responses landed in the ‘Quite Safe’ and ‘Very Safe’ response column. Problems were identified as set out below,

3.2.1 Problem - Corners

LOCATION

Drawing Fc.03-DR-2001, corners. Refer to Appendix C for Location.

ISSUE

7 no. corners along the building lines provide potential spaces where people could hide.

RECOMMENDATION

It is recommended that a review be carried out to help mitigate the risk of feeling unsafe while moving past these spaces.

3.2.2 Problem - Lighting

LOCATION

Drawing NSM-X-X-DR-AE-EE-60101, lighting. Refer to Appendix C for Location.

ISSUE

Lux levels vary along the length of the proposed development. There is a risk that the lux levels are not adequate for safe movement through the development.

RECOMMENDATION

Lighting design to be reviewed to ensure appropriate lux levels are achieved along the length of the proposed development for the safety of users.

3.3 CRIME PREVENTION AUDIT

3.3.1 Problem - Entrapment

LOCATION

Drawing Fc.03-DR-2001, entrapment. Refer to Appendix C for Location.

ISSUE

The area to the rear of Ross Cottages presents an entrapment spot.

RECOMMENDATION

It is recommended that a review be carried out to minimise entrapment risk with regard to the area highlighted.

3.3.2 Problem - Signage

LOCATION

Drawing Fc.03-DR-2001, signage. (Refer to Appendix C for Location).

ISSUE

There is no signage to provide for easy identification of nearby amenities, parking guidelines or the intended uses of the space.

RECOMMENDATION

It is recommended that a review be carried out of the proposed design and appropriate signage proposed.

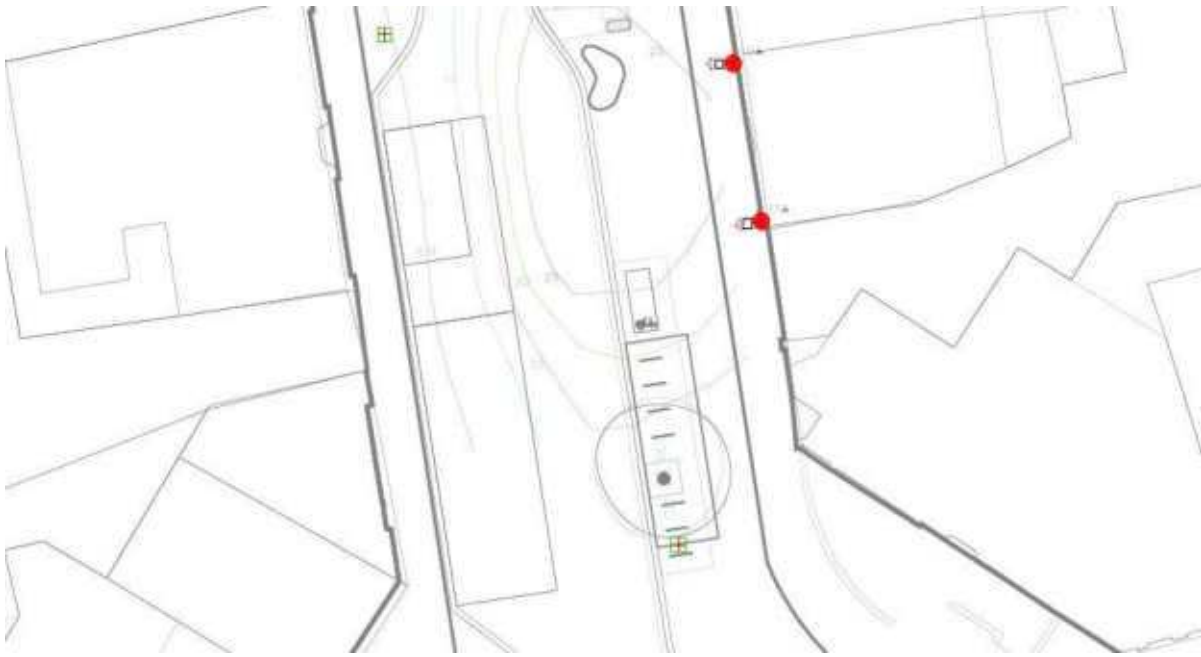
3.3.3 Problem - Lighting

LOCATION

Drawing NSM-X-X-DR-AE-EE-60101, lighting in car park space. (Refer to Appendix C for Location).

ISSUE

Lux levels of between 5 and 10 are shown in the disabled car parking space, illuminated from the other side of the street. There is a risk that the lux levels are too low for safe entry and exit of parked cars in this space.



Location of disabled car parking space

RECOMMENDATION

Lighting design to be reviewed to ensure appropriate lux levels are achieved within the car park space for the safety of users.

3.3.4 Problem - Lighting

LOCATION

Drawing NSM-X-X-DR-AE-EE-60101, lighting not uniform throughout street. Refer to Appendix C for Location.

ISSUE

Lighting does not provide uniform spread and creates areas where lux levels are reduced, increasing the safety risk to users.

RECOMMENDATION

Lighting design to be reviewed to ensure lighting levels to all areas are within acceptable limits.

3.3.5 Problem - Lighting

LOCATION

Drawing NSM-X-X-DR-AE-EE-60101, lighting fixtures protected against vandalism. Refer to Appendix C for Location.

ISSUE

The proposed lighting fixtures are secured to building facades and appear to be accessible to the public.

RECOMMENDATION

Lighting design to be reviewed and height of fixtures to be considered to deter vandalism.

3.3.6 Problem - Signage

LOCATION

Drawing Fc.03-DR-2001, way-finding and signage. Refer to Appendix C for Location.

ISSUE

There is no inclusion of signage or way-finding in the proposed development

RECOMMENDATION

Signage design and way-finding to be considered for inclusion in proposals. If signage is to be introduced it should be clearly visible, easy to read and simple to understand.

3.4 VISUAL AUDIT

Having reviewed the proposal for the development, there are minimal visual audit problems foreseen within the design.

The proposals seek to make improvements on the current condition of the street in relation to possible observed 'problems' such as social disorder, including litter associated with anti-social behaviour; graffiti; public use and sale of drugs; and vandalism of public and private buildings. Additionally, issues which may be related to traffic problems such as speeding; abandoned or burnt out cars; and obstructive parking, have been mitigated by restricting vehicle access. Other local problems which may be picked up by a visual audit such as overgrown shrubbery; broken street lighting; broken/missing street furniture are not seen as being potential issues in the proposals made.

3.4.1 Problem - Litter

LOCATION

Drawing Fc.03-DR-2001, litter. Refer to Appendix C for Location.

ISSUE

There is the potential issue of fast food litter/food and beverage litter being left outside some of the commercial properties. While litter bins have been provided at intervals along the street within the design proposals, there is the potential for rubbish to be dropped in areas where no bin is located.

RECOMMENDATION

Additional litter bins to be considered in the proposed design.

3.5 A Community Street / Placecheck Audit

A street audit generally involves a group of local residents, business owners and other stakeholders assessing the connectivity, identity and quality of a defined area/neighbourhood with either a physical walk through or a desk top review. The New Street Community Street Audit was undertaken using the desk-top approach to identify and prioritise improvements for the proposed design.

Results taken from the non-statutory public consultation events have also informed this audit. From online and in person results 8 no. categories were commented on with regard to the design proposals:

- Accessibility Considerations
- Pedestrian Safety Considerations
- Conservation of Malahide's Heritage
- Consideration for How the Street will be Maintained
- Mitigation of Anti-Social Behaviour
- Seating
- Greening/Planting/Biodiversity
- High Quality Aesthetic

Overall, participants in the survey were pleased with the design proposals for all of the above with specific concerns outlined below.

3.5.1 Problem - Accessibility

LOCATION

Drawing Fc.03-DR-2001, Accessibility Considerations, non-statutory public consultation. Refer to Appendix C for Location.

ISSUE

The footpath was noted as being too narrow in places (1.8m) which was noted as being not wheelchair/pram accessible in busy times.

RECOMMENDATION

Design to be reviewed to consider the issue and widen the footpath.

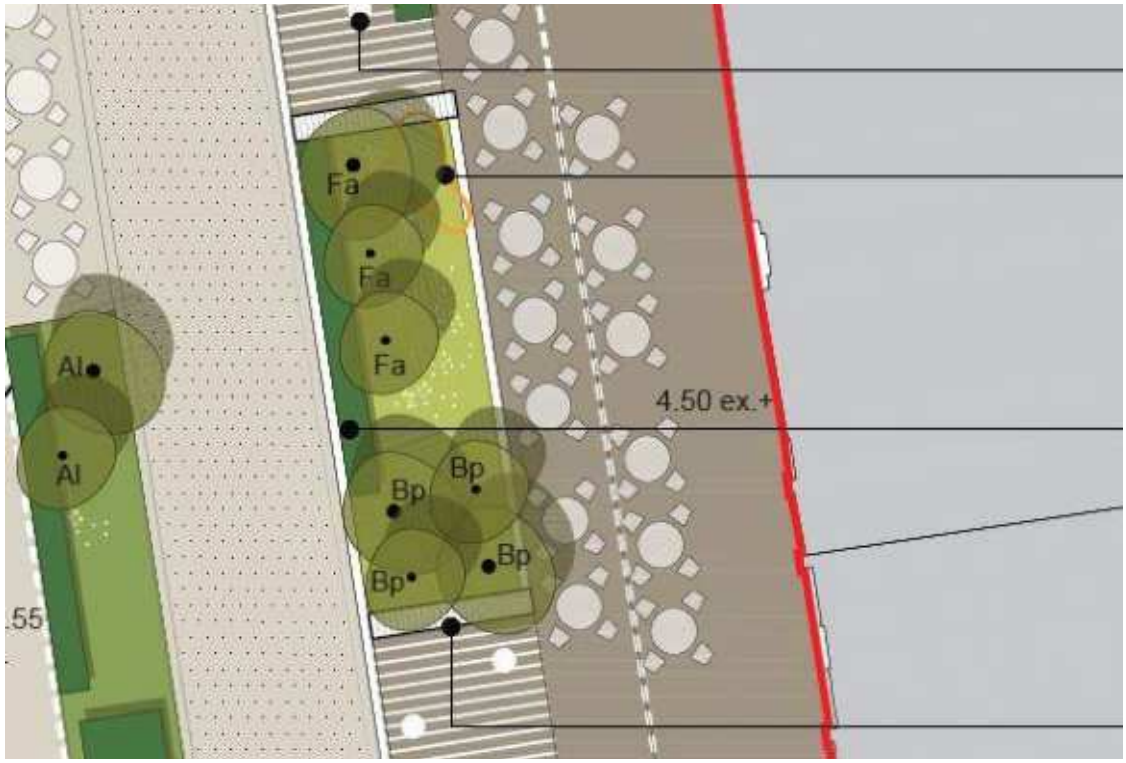
3.5.2 Problem - Accessibility

LOCATION

Drawing Fc.03-DR-2001, Accessibility Considerations, non-statutory public consultation. Refer to Appendix C for Location.

ISSUE

It was noted that people who are visually impaired should be able to easily navigate around seating areas, and that their location in the current plan, on the outside of the path, might compromise this.



Location of seating

RECOMMENDATION

Seating in this area could be removed to facilitate safer movement for visually impaired users or clear delineation could be provided in the design proposal.

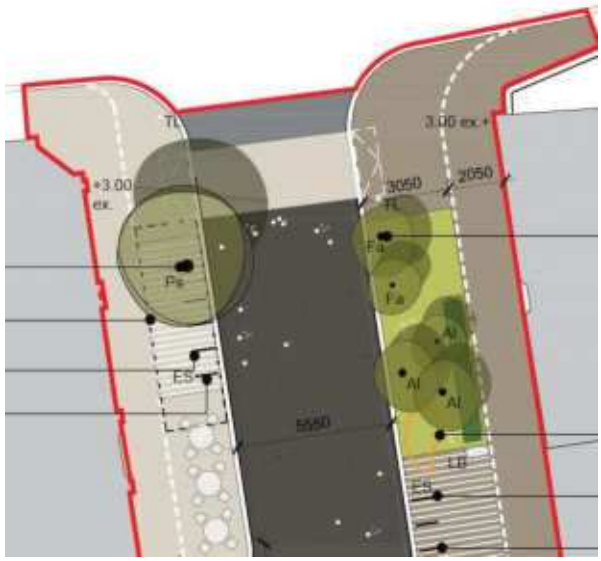
3.5.3 Problem – Pedestrian Safety

LOCATION

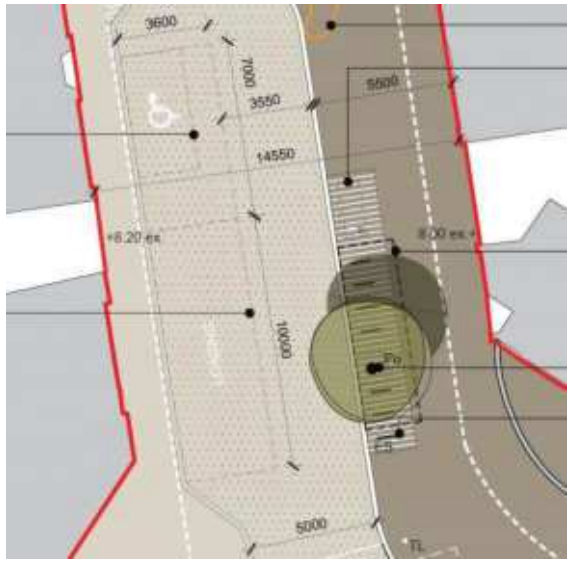
Drawing Fc.03-DR-2001 RevD, Pedestrian Safety Considerations, non-statutory public consultation. Refer to Appendix C for Location.

ISSUE

More bike parking at either end of the street and signage for cyclists to dismount was frequently requested.



North New Street



South New Street

RECOMMENDATION

It is recommended that more cycle parking be proposed and signage be provided.

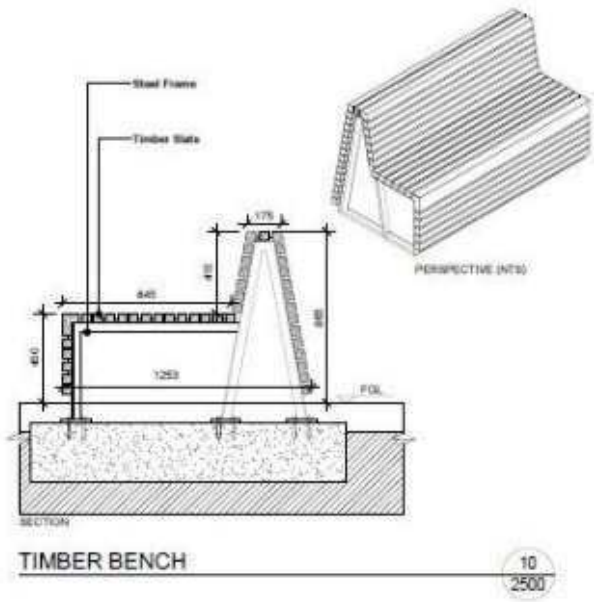
3.5.4 Problem - Maintenance

LOCATION

Drawing Fc.03-DR-2500 / Drawing Fc.03-DR-2001, consideration for how the street will be maintained, non-statutory public consultation. Refer to Appendix C for Location.

ISSUE

It was frequently noted that seating and planting must be maintainable: no slats in the seating was requested.



RECOMMENDATION

It is recommended that an alternative seating design be proposed with no timber slats.

3.5.5 Problem - Maintenance

LOCATION

Drawing Fc.03-DR-2001, consideration for how the street will be maintained, non-statutory public consultation. Refer to Appendix C for Location.

ISSUE

More bins or an integrated waste disposal system in the design was frequently requested.

RECOMMENDATION

It is recommended that a review of the bins and waste disposal system be carried out to confirm if the quantity and style are appropriate for the proposed development.

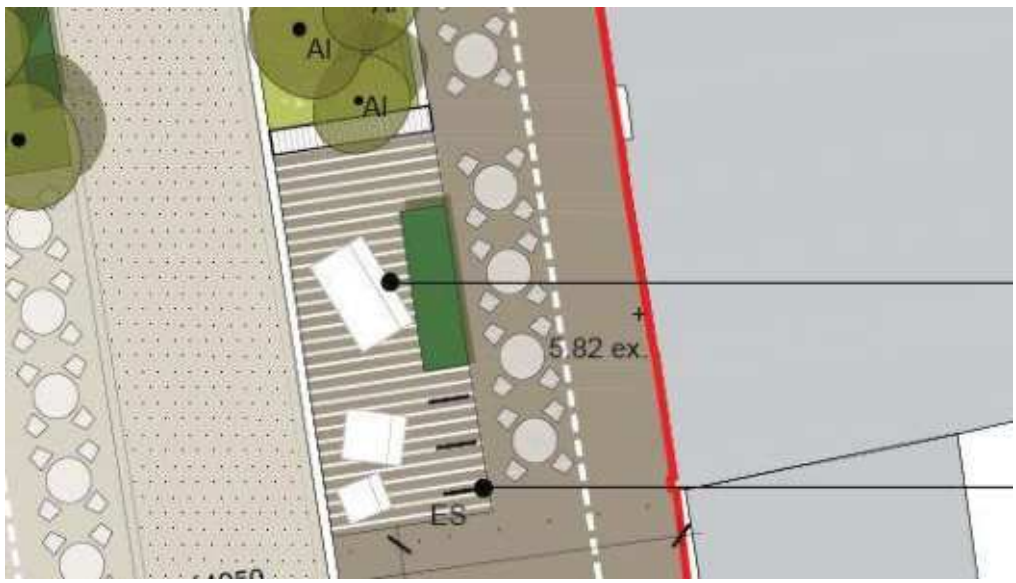
3.5.6 Problem - Seating

LOCATION

Drawing Fc.03-DR-2001, seating, non-statutory public consultation. Refer to Appendix C for Location.

ISSUE

More public seating and small tables/ledges at public seating areas was frequently requested



RECOMMENDATION

Small table and/or ledges are recommended to be integrated into the current public seating.

3.5.7 Problem - Heritage

LOCATION

Drawing Fc.03-DR-2001, Conservation of Malahide's Heritage, non-statutory public consultation. Refer to Appendix C for Location.

ISSUE

Signage or paving stone to mark the history and heritage of New Street was requested

RECOMMENDATION

It is recommended that historical information displayed in paving material be considered as part of the proposal, as suggested in Design Rationale.



Images extracted from Design Rationale

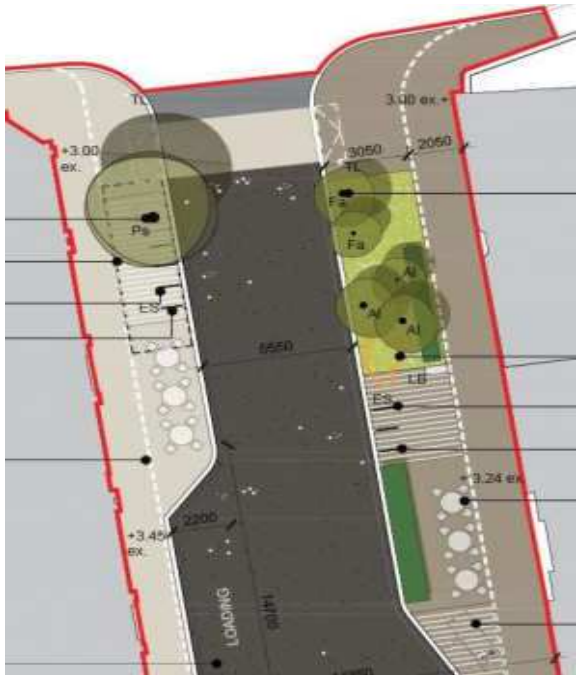
3.5.8 Problem - Greening

LOCATION

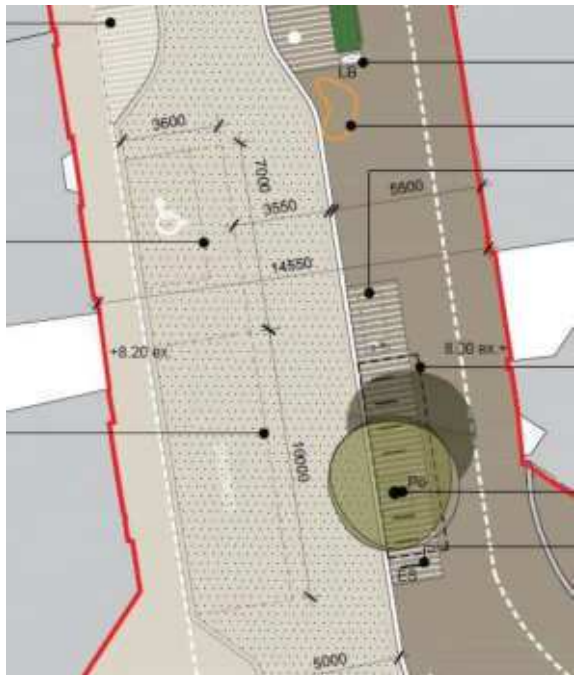
Drawing Fc.03-DR-2001, Greening/Planting/Biodiversity, non-statutory public consultation. Refer to Appendix C for Location.

ISSUE

More greenery was frequently requested, specifically to bookend the street.



North



South

RECOMMENDATION

It is recommended that more soft landscape areas be considered in the design proposals, particularly at either end of the street.

3.5.9 Problem – Comments at Non-Statutory Public Consultation

LOCATION

Drawing Fc.03-DR-2001, other comments/suggestions, non-statutory public consultation. Refer to Appendix C for Location.

ISSUE

The lack of family or kids space/area came up both in terms of use and attractability of the street and was also flagged as a key element of Malahide's culture and heritage.

Many participants reported that eating/drinking feels prioritised – there were requests for more civic and performance spaces, more art and sculpture and a kids and family space.

There were multiple concerns about the winter value of the proposed space and multiple requests for shelter to be included in the design

Many felt the design still feels too much like a road still i.e. it is too linear.

RECOMMENDATION

It is recommended that a review of the design proposals be undertaken in consideration of the comments above and where appropriate, and achievable, amendments made to the public realm design to address concerns within these comments.

4.0 Quality Audit Statement

This Quality Audit has been carried out in accordance with the guidance given in referenced material as stated in Section 1. and takes into consideration the principles, approaches and standards outlined within.

The Quality Audit has been carried out by the persons named below who have not been involved in any design work on this scheme as a member of the Design Team.

Audit carried out by:	**Julie Sammiller, MILI**
	01.02.2023
Audit checked by:	**Jim Bloxam, MILI**
Dated:	**02.02.2023**

APPENDIX A – LIST OF MATERIAL SUPPLIED FOR THIS QUALITY AUDIT

Drawing Fc.03_2000 Site Location Map
Drawing Fc.03_2001 Public Realm Plan
Drawing Fc.03_2401 Landscape Sections 1
Drawing Fc.03_2402 Landscape Sections 2
Drawing Fc.03_2500 Typical Landscape Details
Fc.03 Design Rationale
Drawing NSM-X-X-DR-AXE-EE-60101

APPENDIX B – FEEDBACK FORM

Section number in report	Problem accepted Y or N	Recommendation accepted Y or N	Alternative measure (describe)	Alternative measures accepted by auditors Y or N
3.1.1	Y	Y	N/A	N/A
3.1.2	Y	Y	N/A	N/A
3.1.3	Y	N	To be developed and co-ordinated at detail design stage with FCC	Y
3.2.1	Y	Y	A review has been carried out. The corners present are an existing condition. Confirmation has been provided from Axiseng that the street lighting will be at an appropriate level. The street is very open and will have good visibility in all directions generally.	Y
3.2.2	Y	N	The overall street reaches the required levels (min & max) and uniformity for a P1 Class level of public lighting. Some of the areas with lower levels show i.e., below 5lux is due to residences being at these locations and to avoid spill in to street level rooms and avoid attracting disturbances to the area. Minimum 2lux for “post-curfew” lighting levels to paths.	Y
3.3.1	Y	N	To be developed and co-ordinated at detail design stage with FCC	Y
3.3.2	Y	Y	A review has been carried out. This is an existing condition. Mitigation for the risk is proposed as clear signage to note that the area is a ‘cul-de-sac’.	Y
3.3.3	Y	Y	Noted, disabled space symbol	Y

			unintentionally removed from drawing reference, a fitting will be required to be added to the HSE building side. To be reviewed and coordinated with architect for location.	
3.3.4	Y	N	The overall street reaches the required levels (min & max) and uniformity for a P1 Class level of public lighting. Some of the areas with lower levels show i.e., below 5lux is due to residences being at these locations and to avoid spill in to street level rooms and avoid attracting disturbances to the area. Minimum 2lux for “post-curfew” lighting levels to paths. If required, further fittings can be added to calculations if there are further concerns with lighting levels.	Y
3.3.5	Y	N	Wall mounted fittings heights range from 5m to 7.5m. Fittings shall have appropriate IK rating, min IK08.	Y
3.3.6	Y	N	To be developed and co-ordinated at detail design stage with FCC	Y
3.4.1	Y	N	This has been reviewed. The quantity of litter bins is considered appropriate for the size of the street, and with regard to locations of proposed seating. The quantity of bins can be further considered and co-ordinated at detail design stage.	Y
3.5.1	Y	Y	This has been reviewed. This is an existing street. The proposed	Y

			footpath width is compliant with Technical Guidance document Part M of the building regulations. The design incorporates many passings along the length of the street. For the area of the street south of Ross Cottages, the carriageway is walkable by pedestrians except from 7am to 11am daily, when it is open to vehicles.	
3.5.2	Y	Y	Delineation will be shown to this area in drawing Fc.03-DR-2001	Y
3.5.3	Y	Y/N	The quantity of cycle parking is considered appropriate for the size of the street. Signage will be provided at detail design stage for cyclists to dismount.	Y
3.5.4	Y	N	This will be considered in the design of the seating at detail design stage.	Y
3.5.5	Y	N	This has been reviewed. The quantity of litter bins is considered appropriate for the size of the street, and with regard to locations of seating. The quantity of bins can be further considered and co-ordinated at detail design stage.	Y
3.5.6	Y	Y	Small tables will be provided to public seating at detail design stage.	Y
3.5.7	Y	Y	As noted in the Design Rationale by DFLA, this will be provided in the design. This will be considered at detail design stage.	Y
3.5.8	Y	N	There are many green areas proposed throughout the street. Large specimen trees are proposed at either end of the street to bookend the street.	Y

3.5.9	Y	N	1. Family and kids spaces are proposed within the design, particularly at the water feature area. The proposals are considered appropriate given the context of a street. Furthermore, the street is in close proximity to Malahide Green, which provides an opportunity for family and kids space. 2. Art and sculpture has been added to the design proposals based on the feedback received at the public consultation. Furthermore, the street is located in close proximity to Malahide Green, which includes opportunities for civic and performance spaces and kids and family spaces. 3. The architectural heritage of the street is an important consideration in the design and shelter structures are not considered appropriate in this regard. 4. The design is linear in nature as the carriageway still needs to facilitate vehicle access during certain hours.	Y Y Y Y

APPENDIX C – PROBLEM LOCATION PLAN



Appendix B2 - Planning Report

Document	ID No.	Size	Produced by
Planning Report	-	A4	BMA Planning

RE: PUBLIC REALM IMPROVEMENTS FOR A PEDESTRIANISED NEW STREET, MALAHIDE



PLANNING REPORT

REPORT TO SUPPORT FINGAL COUNTY COUNCIL
PART 8 PROCESS

April 2023

BMA PLANNING

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1.0 INTRODUCTION

1.1 PURPOSE OF REPORT

This *Planning Report* is prepared on behalf of Fingal County Council in relation to the proposed public realm improvements for a pedestrianised street at New Street, Malahide, Co. Dublin.

The purpose of this *Planning Report* is to provide background information on the site, a description of the proposal and supporting information to aid consideration of the proposed development.

The proposed public realm improvements have been subject to Screening for Environmental Impact Assessment and Screening for Appropriate Assessment, and Fingal County Council has implemented an appropriate functional separation in relation to EIA Screening and AA Screening in accordance with Article 9a of the EIA Directive. Mr Malachy Bradley of Fingal County Council (the Senior Planner for the local electoral area of Balbriggan and Swords) has determined that neither Environmental Impact Assessment nor Appropriate Assessment of the proposed public realm improvements is required. In those circumstances the provisions of section 179 of the Planning and Development Act 200 (as amended) and Part 8 of the Planning and Development Regulations 2001 (as amended) apply.

The proposed public realm improvements at New Street, Malahide are a class of development identified in Part 8 of the Planning & Development Regulations 2001 (as amended) and as such are prescribed to be subject to the process outlined in Section 179 (Local Authority Development) of the Planning and Development Act 2000 (as amended) and Part 8 of the Planning and Development Regulations 2001 (as amended) (the "Part 8 Process").

Fingal County Council will also be providing regulatory traffic signs (including regulatory signs which give effect to a pedestrianisation of New Street) in accordance with Section 95 of the Road Traffic Act 1961 (as amended) (and will be consulting with the Commissioner of An Garda Siochana in relation to the provision of such regulatory signs, as required under Section 95 of the Road Traffic Act 1961 (as amended)).

Further, for completeness, and apart from the Part 8 Process and the provision of regulatory traffic signs under Section 95 of the Road Traffic Act 1961 (as amended), Fingal County Council in carrying out the proposed public realm improvements is relying upon the statutory powers contained in Section 38 of the Road Traffic Act 1994 (as amended) and Section 13 of the Roads Act 1993 (as amended).

1.2 SUPPORTING REPORTS

This Planning Report should be read in conjunction with the particulars, plans and reports provided as part of the application. A full list of the supporting documents is provided as part of that process.

2.0 THE SITE

The site the subject of the application comprises New Street, Malahide, a street of 150m in length with an area of 0.22ha. New Street extends from south to north from the junction of Main Street, The Mall and Church Road, also known as The Diamond, to Strand Street to the north.

New Street is generally characterised by two storey terraced buildings incorporating a mix of residential dwellings, shops, restaurants and public houses. The street slopes down from south to north and incorporates footpaths on the eastern and western sides, street trees, parallel parking and a roadway that accommodated two-way traffic movement. Pedestrian crossings are provided at the northern and southern ends of the street.

The lands to the rear of the existing buildings on New Street comprise a mixture of rear gardens/ courtyards used for amenity and servicing purposes and accessed either directly through the buildings or via laneways. There is an additional side street off New Street known as Ross Terrace, providing access to Ross Cottages to the rear (east) of New Street. New Street Mall is located on the western edge of New Street and comprises a pedestrian mall space with retail and office units at ground and first floor levels. A car park is also located to the rear of New Street Mall and the vehicular entrance to this car park is provided from Strand Street.

The surrounding land uses comprises a mix of retail, commercial and residential uses accommodated within a series of streets including Old Street and Railway Avenue to the west, Townyard Lane and James Terrace Upper to the east and Main Street, The Mall and Church Road to the south.

New Street connects to The Green which is located north through the junction with Strand Street and links to Malahide Marina Village. The western side of The Green comprises a development of 3 to 4 storeys with ground floor units accommodating Starbucks and Tesco. The eastern side of this street is the site of a large landscaped urban space completed in 2021, incorporating passive green spaces, seating and pathways leading to Malahide Estuary wall to the east.

Figure 2.1 illustrates the location and extent of the site at New Street, Malahide.

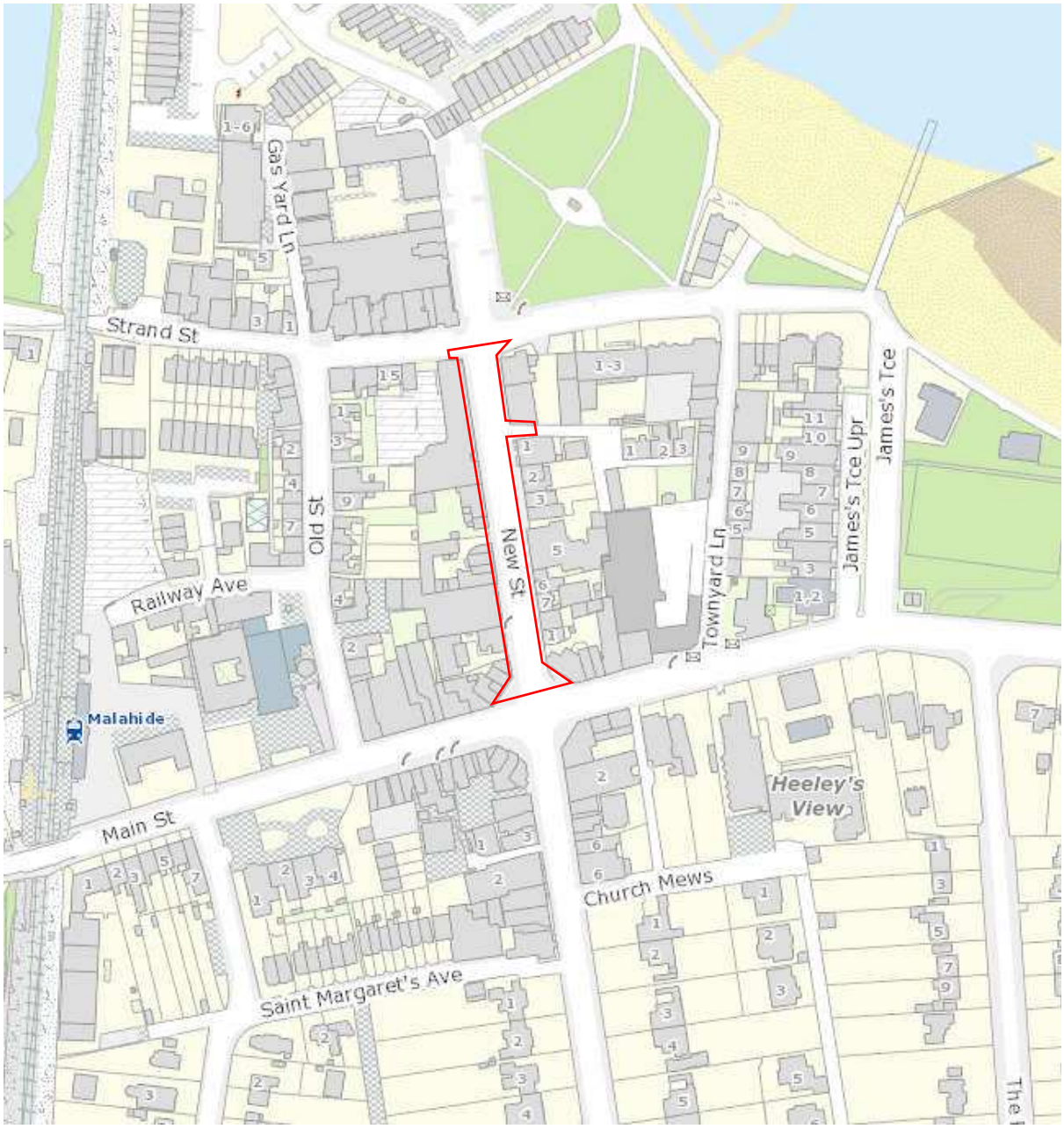


Figure 2.1: Location and Extent of New Street, Malahide

3.0 THE PROPOSED DEVELOPMENT

Fingal County Council as the Local Authority intends to undertake public realm improvements at New Street, Malahide under the provisions of Section 179 of the Planning and Development Act 2000 (as amended) and Part 8 of the Planning and Development Regulations 2001 (as amended).

The proposed public realm improvements for a pedestrianised New Street will comprise: -

(i) Widening of footpaths and provision of new kerb edges with existing kerbstones retained, realigned and protected within the widened footpaths and public spaces.
(ii) Realignment and narrowing of the trafficable section of New Street (c.150m in length, 0.22ha) and insertion of control measures and all necessary signage to provide for a pedestrianised street with associated traffic flow routes and restrictions allowing for time limited one-way access from 7am to 11am each day for deliveries and emergency vehicles from Main Street/ The Mall to New Street and a two-way access from Strand Street to Ross's Terrace via New Street.
(iii) Upgrade of all street surfaces.
(iv) Provision of 2no. loading bays at the southern and northern ends of New Street and an accessible parking space in front of the HSE building.
(v) Installation of cycle stands at 6no. locations on New Street with capacity for 23no. cycle parking spaces.
(vi) Removal and replacement of 11no. existing trees with 37no. trees of species appropriate to the location and environment and provision of soft landscaping and green infrastructure with planting zones for seeded, planted and hedging areas and associated bioretention and tree pit areas.
(vii) Provision of outdoor dining zones including tables and chairs and other ancillary moveable structures.
(viii) Provision of street furniture including seating, benches and litter and recycling bins and a water feature.
(ix) New public lighting.
(x) Upgrade of the watermain and foul drainage networks and upgrade and relocation of the surface water drainage network including provision of sustainable urban drainage systems (SUDs) features as part of hard and soft landscaping.
(xi) Provision of ducting for existing and future utilities and piped infrastructure.
(xii) All associated site and development works.

Fingal County Council will be providing regulatory traffic signs (including regulatory signs which give effect to a pedestrianisation of New Street) in accordance with Section 95 of the Road Traffic Act 1961 (as amended).

Appendix A contains a copy of the Site Location and Site Layout Plans prepared by DFLA.

4.0 PLANNING POLICY CONTEXT

4.1 PROJECT IRELAND 2040 – NATIONAL PLANNING FRAMEWORK

The National Planning Framework (NPF) is the Government's high-level strategic plan for shaping the future growth and development of the Country out to the year 2040.

The NPF sets out 10 National Strategic Outcomes and 75 National Policy Objectives to enable all parts of Ireland, urban and rural to accommodate growth and change.

The proposed public realm improvements for a pedestrianised New Street, Malahide meet the NPF National Strategic Outcome of enhancing the amenities of Malahide Village with the aim of creating a well designed public realm and making this urban area more attractive for residents and visitors.

The proposed development is also in accordance with the following specific National Policy Objectives contained within the NPF.

> ***'National Policy Objective 6***
> *Regenerate and rejuvenate cities, towns and villages of all types and scale as environmental assets, that can accommodate changing roles and functions, increased residential population and employment activity and enhanced levels of amenity and design quality, in order to sustainably influence and support their surrounding area.'*
>
> ***'National Policy Objective 27***
> *Ensure the integration of safe and convenient alternatives to the car into the design of our communities, by prioritising walking and cycling accessibility to both existing and proposed developments, and integrating physical activity facilities for all ages.'*

4.2 CLIMATE ACTION PLAN 2023

The Climate Action Plan 2023 is the second annual update to Ireland's Climate Action Plan 2019 and is the Government roadmap for taking decisive action to halve emissions by 2030 and reach net zero not later than 2050.

The Action Plan sets out the current state of play and identifies measures to deliver targets and actions across all sectors of the economy and society to achieve the emissions targets by 2030 and 2050.

The proposed development is in accordance with the following Transport related actions contained within the Action Plan: -

'Action No. TR/23/14
Promote widespread, consistent and accelerated implementation of the Design Manual for Urban Road and Streets to ensure improved placemaking and accessibility, including delivery of 10-Minute Towns and 15-Minute Cities.'

'Action No. TR/23/25
LAs to identify roads and streets suitable for road space reallocation.'

'Action No. TC/23/29
Advance roll-out of 1,000 km walking/cycling infrastructure'.

The proposed public realm improvements for a pedestrianised New Street will create a more people centred street and urban space at New Street making the village centre more attractive and safe for residents and visitors and particularly pedestrians and cyclists. The public realm improvements will make Malahide Village more accessible for Active Travel modes with enhanced facilities for pedestrians and cyclists within the pedestrianised New Street.

4.3 REGIONAL SPATIAL AND ECONOMIC STRATEGY FOR THE EASTERN AND MIDLAND REGIONAL AREA

The *Regional Spatial & Economic Strategy* (RSES) is a strategic plan which provides a multifaceted approach to regional development. The Strategy supports implementation of Project Ireland 2040, which links planning and investment through the National Planning Framework (NPF) and National Development Plan (NDP) and supports the economic and climate policies of the Government.

The proposed public realm improvements for a pedestrianised New Street, Malahide will be undertaken in accordance with the following RSES Regional policy Objectives: -

> *'Healthy Place Making*
>
> *RPO 9.10: In planning for the creation of healthy and attractive places, there is a need to provide alternatives to the car and to prioritise and promote cycling and walking in the design of streets and public spaces. Local authorities shall have regard to the Guiding Principles for 'Healthy Placemaking' and 'Integration of Land Use and Transport' as set out in the RSES and to national policy as set out in 'Sustainable Residential Development in Urban Areas' and the 'Design Manual for Urban Roads and Streets (DMURS)'.*

The proposed public realm improvements for a pedestrianised New Street will create a space that is easy to use and access by people of all ages and abilities and welcoming longer stay by shoppers and visitors. The public realm improvements will make New Street more accessible for Active Travel modes with enhanced facilities for pedestrians and cyclists within the pedestrianised New Street.

4.4 FINGAL DEVELOPMENT PLAN 2023 – 2029

The ***Fingal County Development Plan 2023-2029*** (hereafter "the Fingal Plan") is the primary planning policy document for the Fingal administrative area and is informed by national and regional policy objectives.

The key provisions of the Development Plan relevant to the proposed public realm improvements for a pedestrianised New Street, Malahide are summarised in the following sections of this report.

4.4.1 Chapter 2 – Planning for Growth Core Strategy Settlement Strategy

Malahide is identified as a 'Self Sustaining Town' in the Core Strategy and Settlement Strategy for Fingal.

Self Sustaining Towns such as Malahide are identified as towns that require contained growth, focusing on driving investment in services, employment growth and infrastructure whilst balancing housing delivery. The Development Plan envisages Malahide developing as a self-sustaining centre through the provision of a range of facilities that will support existing and new populations. The following policies and objectives apply to Malahide: -

Policy CSP35 – Malahide

Promote the planned and sustainable consolidation of the existing urban form and protect the unique identity of Malahide. The need to upgrade and support the development of the town centre will be balanced with the need to conserve its appearance as an attractive, historic village settlement and to retain the existing amenities of the area, being cognisant of its proximity to the ecologically sensitive coastline including European Sites.

Policy CSP36 – Focus Growth Within and Contiguous to Core in Self-Sustaining Towns

Support the sustainable long-term growth of Self-Sustaining Towns by focusing growth within and contiguous to the core to create a critical mass of population and employment based on local demand and the ability of local services to cater for sustainable growth levels.

Policy CSP38 – Malahide, Balbriggan, Lusk, Portmarnock, Rush and Skerries

Consolidate development and protect the unique identities of the settlements of Malahide, Portmarnock, Balbriggan, Lusk, Rush and Skerries.

Policy CSP39 – Coastal Cycleway

Support the provision of a coastal cycleway between Malahide and Swords along the Broadmeadow Estuary.

Objective CSO51 – Support Growth of Self-Sustaining Towns

Proactively support and promote high quality services, social infrastructure, facilities, tourism offer, appropriate retail mix, and economic activity within Self-Sustaining Towns to meet the needs of existing and future growth in line with the scale and function of these towns within the Fingal Settlement Hierarchy.

Objective CSO52 – Safe and Convenient Road, Pedestrian and Cycle Systems

Ensure all Self-Sustaining towns benefit from safe and convenient road, pedestrian and cycle systems which promote permeability, accessibility, and connectivity between existing and new developments.

Objective CSO62 – Maintenance of Distinct Physical Separation – Lusk, Rush and Malahide

Ensure that existing and future development within the settlements of Lusk, Rush and Malahide is consolidated within well-defined town boundaries to maintain their distinct physical separation.

Objective CSO63 – Pedestrianised Core – Malahide

Continue to promote and facilitate the recently implemented pedestrianised core of New Street, Malahide.

4.4.2 Chapter 3 – Sustainable Placemaking and Quality Homes

Chapter 3 set out a strategy to guide successful placemaking within Fingal. The Development Plan recognises that the public realm has a key role to play in creating successful places. The following policies and objectives are included within Chapter 3 and are relevant to Malahide.

Policy SPQHP7 – Clean Air and Noise Reduction
Promote a clean air and noise reduction approach to public realm in town and village centres through pedestrianisation of streets and/or restriction of through traffic where possible and appropriate.
Objective SPQHO7 – Vibrant Town and Village Centres
Support measures required to create vibrant town and village centres with high quality public realms.

4.4.3 Chapter 6 – Connectivity and Movement

Chapter 6 identifies the policy framework to facilitate travel demands and cater for travel needs across Fingal in a sustainable manner. It is a key strategic objective of the plan to strengthen the integration of land-use and transport planning with a priority focus on increased provision of walking, cycling and public transport infrastructure.

A sustainable and integrated transport network with a focus on walking and cycling (Active Travel) is supported by the following policies and objectives: -

Policy CMP7 – Pedestrian and Cycling Network
Secure the development of a high-quality, connected and inclusive pedestrian and cycling network and provision of supporting facilities / infrastructure across the County, including the upgrade of the existing network and support the integration of walking, cycling and physical activity with placemaking including public realm improvements, in collaboration with the NTA, other relevant stakeholders, local communities and adjoining Local Authorities in the context of the impact of development schemes with cross boundary impacts and opportunities where appropriate. Routes within the network shall have regard to NTA and TII national standards and policies.
Policy CMP9 – Prioritisation of Pedestrians and Cyclists
Support the prioritisation of pedestrians and cyclists and the provision of improved public realm to make walking and cycling safer, healthier, quicker, more direct and more attractive.
Policy CMP10 – Bicycle Infrastructure
Improve bicycle priority measures and cycle parking infrastructure throughout the County in accordance with best accessibility practice.
Objective CMO6 – Improvements to the Pedestrian and Cyclist Environment
Maintain and improve the pedestrian and cyclist environment and promote the development of a network of pedestrian/cycle routes which link residential areas with schools, employment, recreational destinations and public transport stops to create a pedestrian/cyclist environment that is safe, accessible to all in accordance with best accessibility practice.
Objective CMO10 – Bicycle Parking
Provide publicly accessible high-quality cycle parking spaces, both standard bicycle spaces and non-standard for adapted and cargo bikes, in town and village centres and key destinations and near the entrance to all publicly accessible buildings as required.
Objective CMO11 – Walking and Cycling Infrastructure
Support the provision of walking and cycling infrastructure, including bike parking, bike repair and support services, to increase footfall and economic activity in town and village centres while reducing emissions and improving quality of life.

Connectivity and movement within the public realm is supported by the following policies and objectives: -

Policy CMP12 – Public Realm

Support and facilitate the provision of high-quality and attractive public realm that is accessible for all with a focus on improving connectivity and permeability in accordance with best practice public realm and guidance documents.

Objective CMO16 – Public Realm and Development

Encourage and facilitate the delivery of high-quality public realm in tandem with new developments throughout the County through the Development Management process and the retrospective provision in existing developments, including the provision of a pedestrianised core in town centres where appropriate.

Objective CMO17 – Existing Street Space and Active Travel

Review the potential for reassignment of existing street space for active travel modes within village and town centres across the County where appropriate during the lifetime of this Plan.

4.4.4 Chapter 7 – Employment and Economy

Section 7.5.4 of the Development Plan sets out the policy and objectives for the retail sector within Fingal.

Malahide is identified as a 'Level 3: Town Centre' within the Fingal Retail Hierarchy and Objective EE093 of the Development Plan states: -

Objective EEO93 – Level 3 Centres

Ensure the development of Balbriggan, Malahide, Skerries and Charlestown, as sustainable, vibrant and prosperous Town Centres performing at a high retail level within the Fingal Retail Hierarchy to meet the retailing needs of and offer sufficient retail choice to their local populations and catchment populations.

New Street is located within the Core Retail Area of Malahide. The proposed development will provide for a significant improvement to the quality and amenity of the Core Retail Area within Malahide.

4.4.5 Chapter 9 – Green Infrastructure and Natural Heritage

New Street is not located within any Special Areas of Conservation (SACs) or Special Protection Areas (SPAs). Malahide Estuary, located to the north east of the site, is a designated SAC and SPA.

An Appropriate Assessment Screening Report has been prepared by Faith Wilson Ecologist to assist the Competent Authority to undertake a Screening for Appropriate Assessment in respect of the public realm improvements for a pedestrianised New Street and is included in the documents provided for the pre-statutory consenting process assessment.

That Appropriate Assessment Screening report has concluded, for the reasons set out therein, on the basis of objective information and in view of best scientific knowledge and applying the precautionary principle, that the proposed development either individually or in combination with other plans or projects, and the without relying on any mitigation measures, is not likely to have a significant effect on any European Sits(s), in view of the sites'

conservation objectives, and that no reasonable scientific doubt remains in relation to this conclusion.

The Appropriate Assessment Screening Report will be considered by the Competent Authority and an Appropriate Assessment Screening Determination will be made to determine whether or not an Appropriate Assessment of the proposed public realm improvements for a pedestrianised New Street is required.

4.4.6 Chapter 10 – Heritage, Culture and Arts

Chapter 10 of the Development Plan sets out the policies and objectives for the County's cultural heritage comprising the archaeological and architectural heritage.

There are no Protected Structures within the New Street site/ red line area.

The National Inventory of Architectural Heritage includes two entries relating to New Street, Malahide: -

- Lamp Standard (Reg. No. 11344035): - *'Freestanding cast-iron gas lamp standard, c.1900, comprising chamfered square pedestal with foliated shaft, decorative double lamp fitting above'.*

- Shop/ Retail Outlet (Reg. No. 11344046): - *'Corner-sited end-of-terrace five-bay two-storey former house, c.1835, retaining original fenestration to first floor. Single-bay single-storey extension to east c.1890. Ground floor remodelled c.1975 with pair of aluminium shopfronts. Now in use as retail outlet. ROOF: Double-pitched; slate; concrete ridge tiles; nap rendered chimney stacks; yellow clay pots; cast-iron rainwater goods; half-pyramidal to end bay; slate; red clay ridge tiles; nap rendered chimney stack. WALLS: Roughcast; painted; raised nap rendered quoins; nap rendered to end bay and to gable end. OPENINGS: Square-headed window openings to first floor; stone sills; 2/2 timber sash windows; square-headed door openings to centre ground floor; replacement glazed aluminium door; timber shopfront,c.1890, to end bay; panelled pilasters, decorative consoles, fascia and moulded cornice; replacement timber fixed-pane windows; pair of shopfronts to ground floor; aluminium fixed-pane display window; plastic fascia.'*

The lamp standard referred to within the National Inventory of Architectural Heritage has since been removed from the streetscape due to corrosion of fixtures and the potential for a danger to pedestrians from falling debris.

'Malahide Historic Core' including New Street, is identified as an Architectural Conservation Area (ACA) in the Development Plan. Objective HCAO24 of the Development Plan provides guidance in relation to works within ACA's: -

Objective HCAO24 – Alteration and Development of Protected Structures and ACAs

Require proposals for any development, modification, alteration, extension or energy retrofitting affecting a Protected Structure and/or its setting or a building that contributes to the character of an ACA are sensitively sited and designed, are compatible with the special character, and are appropriate in terms of the proposed scale, mass, height, density, architectural treatment, layout, materials, impact on architectural or historic features.

An assessment of the potential impact of the proposed development on the built heritage on New Street is contained within the submitted **Architectural Heritage Assessment** [Coady Architects] which concludes that the proposed public realm improvements for a pedestrianised New Street are necessary and appropriate to enhance the setting of the historic buildings on New Street.

4.4.7 Chapter 13 - Land Use Zoning

Malahide Village is zoned '*TC – Town and District Centre*' with the objective to '*protect and enhance the special physical and social character of town and district centres and provide and/ or improve urban facilities*'.

Figure 4.1 is an extract from the Fingal County Development Plan 2023 – 2029 Zoning Objectives Map – Interim Publication (April 2023).

The proposed development will facilitate the achievement of key aspects of the Development Plan Vision for 'TC' zoned lands and Malahide Village including maintaining and enhancing the accessibility, vitality and viability of the Village Centre and prioritising pedestrians and cyclists while minimising the impact of private car based traffic.

4.4.8 Chapter 14 - Development Management Standards

Table 14.24 of the Development Plan provides direction for proposed development within Architectural Conservation Areas: -

Public Realm Works
• Elements of existing street furniture such as original kerbing, paving, setts, post-boxes, railings, bollards etc. should be identified and retained. • Any new street furniture (such as bins, lighting, signage-poles etc.) shall be of a high quality and consistent design with consideration given to their siting and location. Street furniture should be kept to a minimum and any redundant modern street furniture removed. • In instances where the Council does not have direct control over street furniture, it will engage with the relevant agency/agencies, where possible, to encourage them to comply with the Architectural Conservation Area policies. • Works to improve the public realm such as new surfaces, dished pavements, traffic control measures including signage and ramps shall respect and enhance the essential character of the ACA.

The proposed public realm improvements for a pedestrianised New Street have been carefully considered in the context of the site's location within Malahide Historic Core ACA. The drawings [DFLA] provide full details of the nature and extent of the proposed works within the ACA.

The impact of the proposed public realm improvements for a pedestrianised New Street has also been assessed within the Architectural Heritage Assessment [Coady Architects] and concludes that the proposed public realm improvements for a pedestrianised New Street represents a change from its current (and historic) configuration of a central carriageway with footpaths on both sides but that this change is necessary and appropriate to enhance the setting of the historic buildings and consolidate and support the established retail character of this important street.

4.5 CONCLUSION

The foregoing planning policy context demonstrates that there is wide ranging support for the creation of vibrant and attractive urban spaces, with alternatives to the car and prioritisation of cycling and walking in the design of streets and public spaces. The proposed realm improvements for a pedestrianised New Street, Malahide are in accordance with this policy context and the specific policies and objectives of the ***Fingal Development Plan 2023 – 2029.***

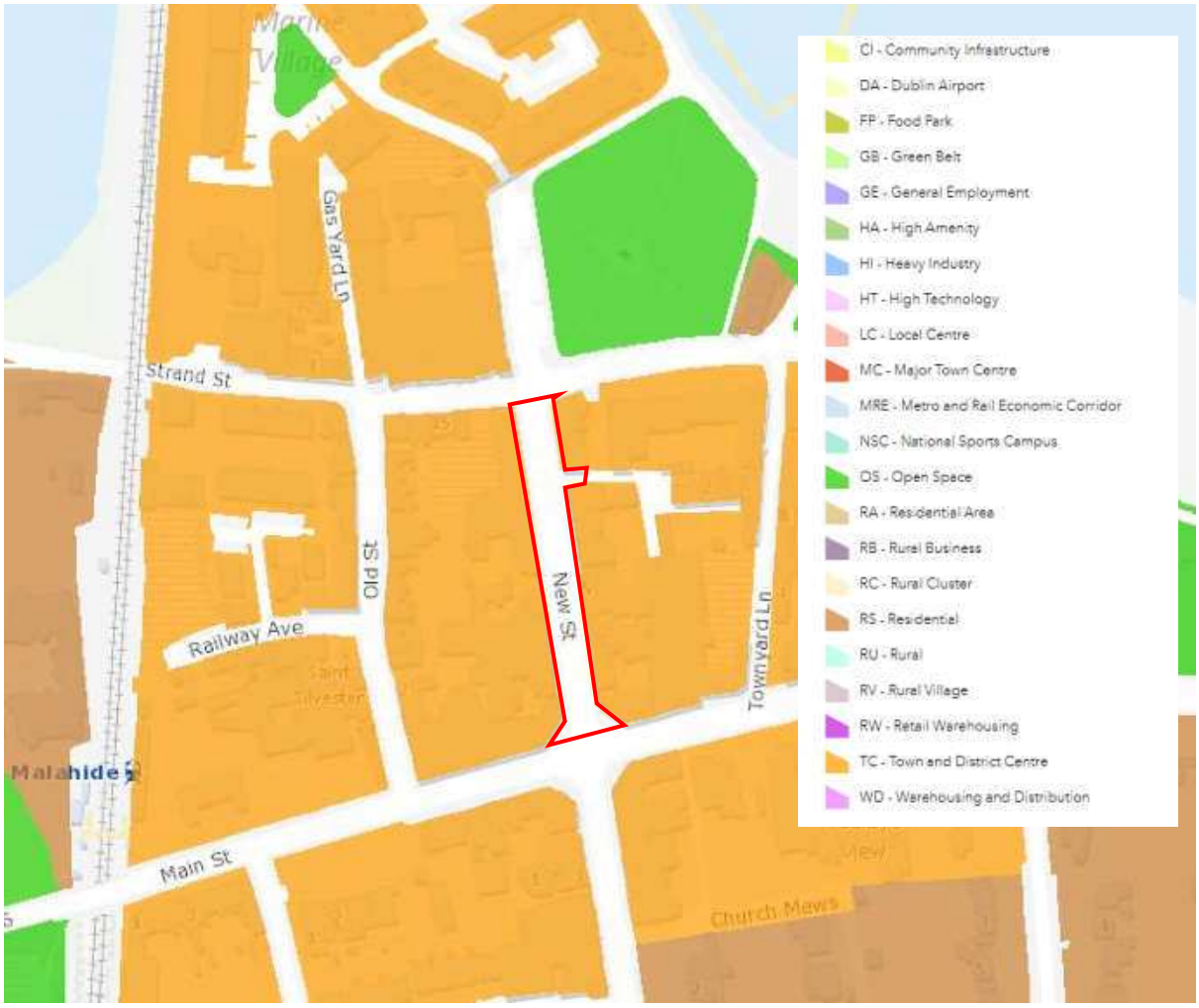


Figure 4.1: Development Plan Zoning Objectives Map
(Source: Fingal County Development Plan 2023 - 2029 – Interim Publication (April 2023))

5.0 ENVIRONMENTAL CONSIDERATIONS

5.1 STRATEGIC ENVIRONMENTAL ASSESSMENT

Strategic Environmental Assessment of the *Fingal Development Plan 2023 – 2029*, including the land use zoning and policy objectives relating to Malahide, has been undertaken as part of the environmental assessment of the implementation of those plans.

5.2 ENVRIOMENTAL IMPACT ASSESSMENT SCREENING

The proposed public realm improvements for a pedestrianised New Street are not a development for which an automatic EIA is required. In terms of scale, the proposed public realm improvements, being a street of 150m in length, with an area of 0.22ha, fall well below the relevant threshold set out in Class 10(b)(iv) in Part 2 of Schedule 5 of the Planning and Development Regulations 2001 (as amended) – namely urban development of 2ha.

An ***Environmental Impact Assessment Screening Report*** [BMA Planning] has been prepared so as to enable the Competent Authority to consider whether the proposed public realm improvements are likely to have significant effects on the environment such that an EIA is required, in accordance with the provisions of the EIA Directive and is included in the documents provided for the pre-planning assessment.

That EIA Screening Report has concluded, for the reasons set out therein, that having regard to the nature, scale and location of the proposed development, the proposed public realm improvements for a pedestrianised New Street, by itself or in combination with other projects, is not likely to have significant effects on the environment, and that accordingly, an Environmental Impact Assessment is not required.

Fingal County Council has considered the EIA Screening Report and has made a determination that an Environmental Impact Assessment of the proposed public realm improvements is not required.

5.2 AA SCREENING

An ***Appropriate Assessment Screening Report*** has been prepared by Faith Wilson, Ecological Consultant to assist the Competent Authority to undertake a Screening for Appropriate Assessment in respect of the public realm improvements for a pedestrianised New Street, and is included in the documents provided for the pre-planning assessment.

That Appropriate Assessment Screening Report has concluded, for reasons set out therein, on the basis of objective information and in view of best scientific knowledge and applying the precautionary principle, that the proposed development, either individually or in combination with other plans or projects, and without relying on any mitigation measures, is not likely to have a significant effect on any European Site(s), in view of the sites' conservation objectives, and that there is no reasonable scientific doubt in relation to this conclusion.

Fingal County Council has considered the AA Screening Report and determined that an Appropriate Assessment of the proposed public realm improvements is not required.

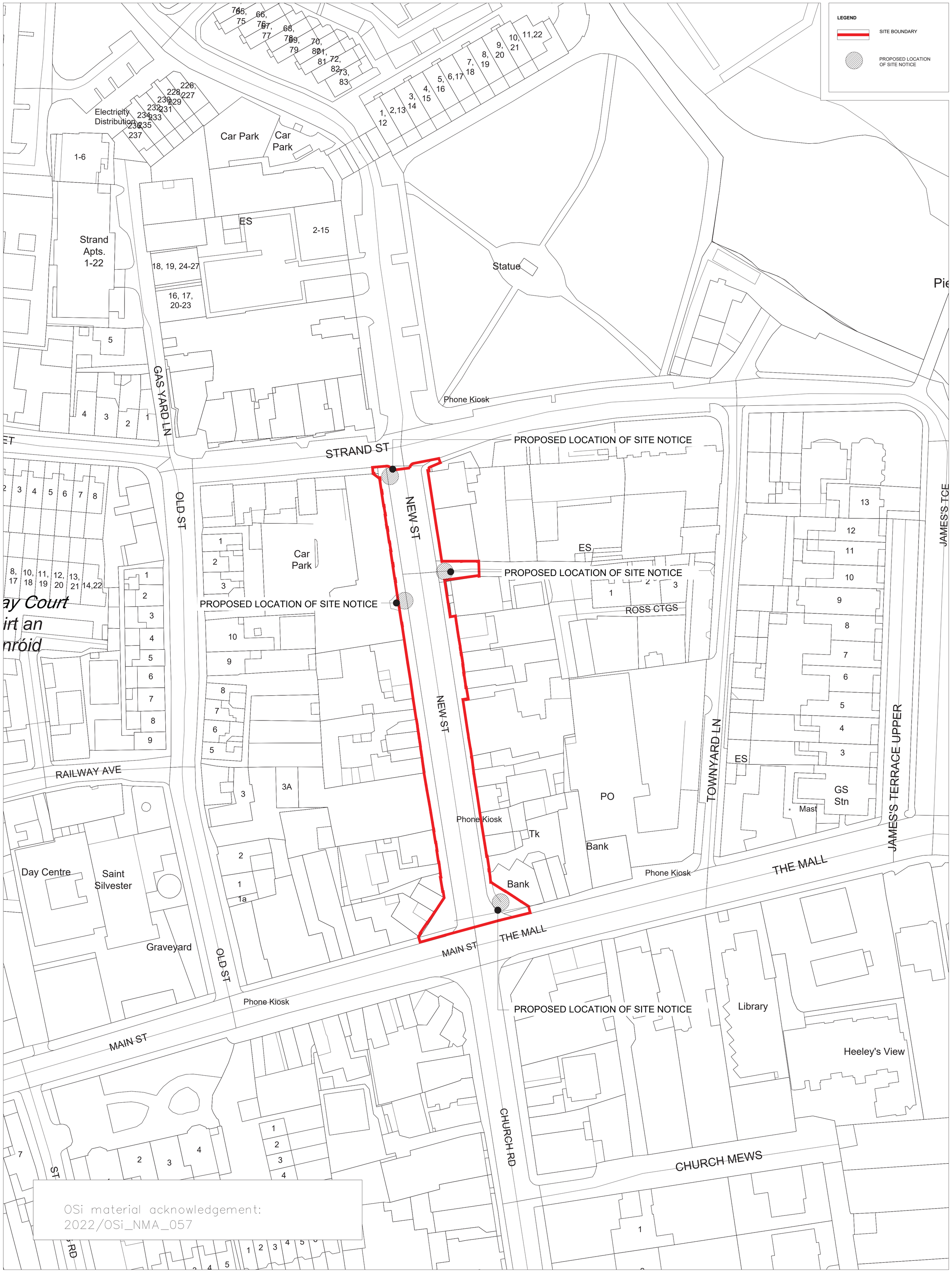
6.0 CONCLUSION

The proposed public realm improvements for a pedestrianised New Street, Malahide will enhance the village's public realm for visitors and residents, creating a more inviting urban centre that can be accessed in a safe and efficient manner.

The proposed development fully complies with the objectives of the *Fingal Development Plan 2023 – 2029*, which seeks to promote the consolidation of Malahide's urban core and protection of the unique identity of the village.

APPENDIX A

SITE LOCATION AND SITE LAYOUT PLANS BY DFLA



This drawing is the copyright of the Landscape Architect. Unless otherwise stated all dimensions are in millimetres. Where dimensions are not given, drawings must not be scaled and the matter must be referred to the Landscape Architect. If the drawing includes conflicting details/dimensions the matter must be referred to the Landscape Architect. All dimensions must be checked on site. The Landscape Architect must be informed, by the Contractor, of any discrepencies before public realm improvements proceed.

NOTES:

DATE	REV.	DESCRIPTION	DRAWN BY:	CHECKED BY:
-	-	-	-	-

CLIENT:	FINGAL COUNTY COUNCIL			**ISSUE STATUS:**	NORTH
PROJECT:	PUBLIC REALM IMPROVEMENTS FOR A PEDESTRIANISED NEW STREET			PLANNING	
DRAWING:	SITE LOCATION PLAN			**DRAWING NO.**	**REVISION**
				Fc.03-DR-2000	-
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STRAND STREET

PROPOSED TRAFFIC LIGHT AND SIGNAGE AS PER ENGINEER'S DRAWING

PROPOSED SPECIMEN TREE

INDICATIVE EXTENT OF PROPOSED BELOW GROUND TREE PIT

PROPOSED BIKE STANDS

PROPOSED ELECTRIC BIKE STAND

EXISTING GRANITE KERBSTONES RETAINED, PROTECTED AND RELAID

PROPOSED LOADING BAY

PROPOSED TREES

PROPOSED RETRACTABLE BOLLARD

PROPOSED POTENTIAL LOCATION FOR ART/PLAY FEATURE

PROPOSED LITTER BIN LOCATION

INDICATIVE EXTENT OF PROPOSED BELOW GROUND TREE PIT

PROPOSED TREES

PROPOSED AREA FOR OUTDOOR DINING (TABLE NUMBERS AND ARRANGEMENT SHOWN INDICATIVE ONLY)

PROPOSED AREA FOR OCCASIONAL REFUSE COLLECTION

PROPOSED ACCESSIBLE PARKING SPACE

PROPOSED LOADING BAY

PROPOSED TRAFFIC LIGHT AND SIGNAGE AS PER ENGINEER'S DRAWING

PROPOSED RETRACTABLE BOLLARDS

PROPOSED TACTILE PAVING AS PER ENGINEER'S DRAWING

PROPOSED TRAFFIC LIGHT AND SIGNAGE AS PER ENGINEER'S DRAWING

PROPOSED TREES

INDICATIVE EXTENT OF PROPOSED BELOW GROUND TREE PIT

PROPOSED POTENTIAL LOCATION FOR ART/PLAY FEATURE

PROPOSED ELECTRIC BIKE STAND

PROPOSED BIKE STANDS

PROPOSED AREA FOR OUTDOOR DINING (TABLE NUMBERS AND ARRANGEMENT SHOWN INDICATIVE ONLY)

PROPOSED CARGO BIKE PARKING

PROPOSED ACCESSIBLE CROSSING AT ROSS COTTAGES IN ACCORDANCE WITH BEST PRACTICE GUIDELINES

PROPOSED ELECTRIC BIKE STAND

PROPOSED BIKE STANDS

PROPOSED PUBLIC SEATING

PROPOSED POTENTIAL LOCATION FOR ART/PLAY FEATURE

PROPOSED HEDGE PLANTING

PROPOSED PUBLIC SEATING

INDICATIVE EXTENT OF PROPOSED BELOW GROUND TREE PIT

PROPOSED DRY PLAZA FOUNTAIN

INDICATIVE EXTENT OF PROPOSED BELOW GROUND TREE PIT

PROPOSED POTENTIAL LOCATION FOR BIRD BATH

PROPOSED PUBLIC SEATING

PROPOSED ELECTRIC BIKE STAND

PROPOSED AREA FOR OUTDOOR DINING (TABLE NUMBERS AND ARRANGEMENT SHOWN INDICATIVE ONLY)

EXISTING GRANITE KERBSTONES RETAINED, PROTECTED AND RELAID

INDICATIVE EXTENT OF PROPOSED BELOW GROUND TREE PIT

PROPOSED TREES

PROPOSED HEDGE PLANTING

PROPOSED LITTER BIN LOCATION

PROPOSED POTENTIAL LOCATION FOR ART/PLAY FEATURE

PROPOSED CARGO BIKE PARKING

INDICATIVE EXTENT OF PROPOSED BELOW GROUND TREE PIT

PROPOSED SPECIMEN TREE

PROPOSED ELECTRIC BIKE STAND

PROPOSED TACTILE PAVING AS PER ENGINEER'S DRAWING

PROPOSED TRAFFIC LIGHT AND SIGNAGE AS PER ENGINEER'S DRAWING

THE MALL

LEGEND AND SCHEDULE OF MATERIALS

- PLANNING APPLICATION SITE BOUNDARY
- PROPOSED SELECTED ROAD SURFACE TO ENGINEER'S DETAIL
- PROPOSED SELECTED NATURAL STONE PAVING - TYPE 1A
- PROPOSED SELECTED NATURAL STONE PAVING - TYPE 1B
- PROPOSED SELECTED NATURAL STONE PAVING - TYPE 1C
- PROPOSED SELECTED NATURAL STONE PAVING - TYPE 2A
- PROPOSED SELECTED NATURAL STONE PAVING - TYPE 2B
- PROPOSED SELECTED NATURAL STONE PAVING - TYPE 3
- EXISTING GRANITE KERBSTONES RETAINED, PROTECTED AND RELAID
- PROPOSED SELECTED NATURAL STONE KERB / CHANNEL
- PROPOSED DRY PLAZA FOUNTAIN
- PROPOSED AREA FOR OUTDOOR DINING (TABLE NUMBERS AND ARRANGEMENT SHOWN INDICATIVE ONLY)
- PROPOSED PUBLIC SEATING
- RB PROPOSED RETRACTABLE BOLLARD
- LB PROPOSED LITTER BIN
- PROPOSED BIKE STAND
- ES PROPOSED ELECTRIC BIKE STAND
- PROPOSED CARGO BIKE PARKING
- TL PROPOSED TRAFFIC LIGHT AND SIGNAGE AS PER ENGINEER'S DRAWING
- PROPOSED POTENTIAL LOCATION FOR ART/PLAY FEATURE
- PROPOSED POTENTIAL LOCATION FOR BIRD BATH
- INDICATIVE EXTENT OF PROPOSED BELOW GROUND TREE PIT
- +3.00 ex. EXISTING LEVEL RETAINED
- PROPOSED TREE
- PROPOSED SPECIMEN TREE
- PROPOSED GROUNDCOVER PLANTING
- PROPOSED PLANTING IN BIO-RETENTION AREA
- PROPOSED HEDGE PLANTING

SCHEDULE OF PROPOSED TREE PLANTING:

TREES ON WEST SIDE OF THE STREET:

TREE REF.	*QUANTITY*	*SPECIES:*
Al	11	*Amelanchier lamarckii* 3 x tr., wrb. 2m h., 2.5m spread, multistem, min. 5 stems
Bp	2	*Betula pubescens* 3 x tr., wrb., 3m h., 14-16 cm g., clear stem min. 1.8*m*

TREES IN BIORETENTION AREAS:

TREE REF.	*QUANTITY*	*SPECIES:*
Al	10	*Amelanchier lamarckii* 3 x tr., wrb. 2m h., 2.5m spread, multistem, min. 5 stems
Bp	12	*Betula pubescens* 3 x tr., wrb., 3m h., 14-16 cm g., clear stem min. 1.8m

SPECIMEN TREES AT EACH END OF STREET:

TREE REF.	QUANTITY	SPECIES:
Po	1	*Platanus orientalis* 'Minaret' 5 x tr., wrb., 25-30cm g., 5-6m h., clear stem min. 2.5m
Ps	1	*Pinus sylvestris* 5 x tr., wrb., 30-35cm g., 5-6m h., clear stem min. 2.5m

HEDGE PLANTING, TYPICALLY:

Ilex aquifolium, 900-1200mm h.

GROUNDCOVER AND HERBACEOUS MIX, TYPICALLY:

Euonymus europaeus 2 ltr cg.
Dryopteris affinis 2 ltr cg.
Geranium spp. 2 ltr cg.
Luzula sylvatica 2 ltr cg.
Echinacea purpurea 2 ltr cg.
Armeria maritima 2 ltr cg.
Achillea millefolium 2 ltr cg.
Verbascum bomb. 'Gainsborough' 2 ltr cg.

PLANTING IN BIORETENTION AREAS, TYPICALLY:

Viburnum opulus cg., 1.2m h., multistem, min 3 stems

Luzula sylvatica 2 ltr cg.
Luzula nivea 2 ltr cg.
Iris pseudacorus 2 ltr cg.
Astilbe spp 2 ltr cg.
Juncus effusus 2 ltr cg.
Molinia caerulea 2 ltr cg.

BULB PLANTING, TYPICALLY:

Hyacinthoides spp. 2 ltr cg.
Narcissus spp. 2 ltr cg.

Abbreviations:

xtr.	number of transplants in nursery
h.	height
s.	spread
wrb	wire root-balled
cm g	girth of tree in centimeters measured 1m above ground
2 ltr cg	plants supplied in 2 litre volume containers

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NOTES:

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DRAWING:	PUBLIC REALM PLAN

ISSUE STATUS: PLANNING

NORTH

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PROJECT NO	SCALE	SHEET SIZE	DRAWN BY	CHECKED BY	1st ISSUE
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DFLA
landscape design, realm, D08 D256
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Appendix B3 - Heritage Report

Document	ID No.	Size	Produced by
Architectural Heritage Assessment	-	-	Coady Architects



PUBLIC REALM IMPROVEMENTS FOR A PEDESTRIANISED NEW STREET.

ARCHITECTURAL HERITAGE ASSESSMENT

Date: October 2022

Job ref: 2747

1 | Conservation Report
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Appendices

A Photographic Study - New Street Elevations
B Point Cloud Survey Drawings - New Street & The Diamond

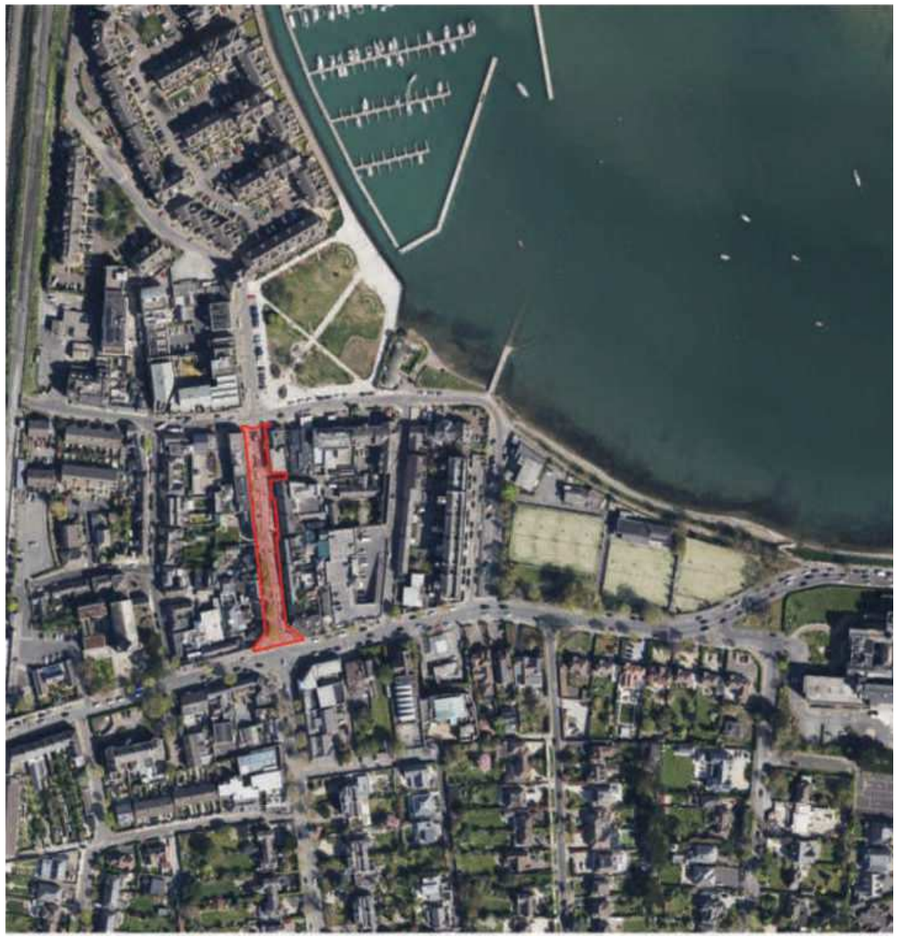


Fig. 1: Aerial View - Malahide

1 Introduction

1 | Conservation Report

Introduction

Coady Architects are appointed as sub-consultant to DFLA to provide conservation input on the New Street Public Realm Project in Malahide, County Dublin, working in collaboration with Michael O'Boyle, Grade 1 Conservation Architect.

The scope area is located at the centre of Malahide Village. It begins at 'the Diamond' a crossroads where four of the town's most prominent routes, Church St. The Mall, Main St. and New Street meet. The red line boundary begins at the northern perimeter of The Diamond, travelling north along New Street and terminates at Strand St.

Fingal County Council's objectives for the project include the provision of a high quality public space with increased pedestrian flow and enhanced vibrancy which will add to the 'sense of place' and 'local distinctiveness' while responding to local challenges; and a design that highlights and emphasises existing heritage structures while providing a seamless transition with the newly upgraded Green, noting specifically:

'an expertly designed public area that complements the Village Green and enhances the heart of Malahide for the benefit of residents, businesses and visitors alike.

The project is an opportunity to prioritise, upgrade and expand the public realm on New Street and to deliver an improved experience for all users while supporting and balancing the needs of the different users.'

A conservation-led approach was adopted in the development of the proposed design, based on research and analysis of the individual buildings and the streetscape as a whole. We note the following:

1. A record all of the buildings on the street – a photographic survey has been completed alongside a point cloud survey. An inventory of all historical structures on the street will be provided, each record will include a description, photographic record, façade drawing and external inventory and its signficance.
2. While there are no protected structures on New Street, the street is included within the Malahide Historic Core Architectural Conservation Area (ACA). The Statement of Character Report for the ACA references a number of architecturally significant buildings on the street, most notably the four-bay corner house at the intersection with The Strand, larger 19th century houses closer to The Diamond, some with shops at ground floor, with similarities of external appearance; and the red brick former Dispensary near The Diamond, which is noted as a building of distinction. Smyth's Pub is another prominent historical building. Other features of note include the intact granite kerbing along New Street. The contribution of these buildings and features is recognised and the proposed design seeks to support and enhance their contribution to the character of New Street and the ACA.
3. The terraced streetscape of New Street collectively has historical, architectural and social heritage value, contributing to the character of the street. Some buildings might also have individual significance.
4. An Architectural Heritage Impact Assessment has been prepared in liaison with DFLA to evaluate the impact of the proposed new public realm design in the context of historical buildings, and the interfaces between the new design and the buildings. An understanding of how the design responds to the context, the character of the new elements inserted into the existing historical fabric, the

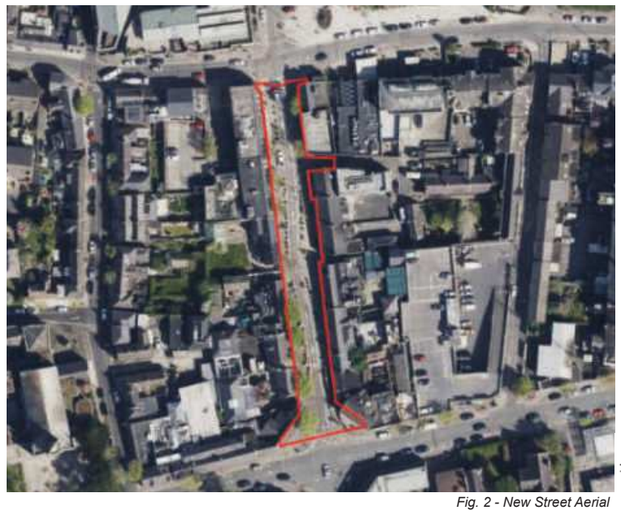


Fig. 2 - New Street Aerial



Fig. 3 - Malahide ACA - Fingal Development Plan 2017 - 2023

retention of granite kerbing, the use of materials and spaces and the extent to which proposed designed structures are reversable have been assessed as part of design collaboration to ensure the integrity of the street is maintained and enhanced.

In preparing this report, we have referred to historical records, the National Inventory of Architectural Heritage, Irish Architectural Archive, Fingal's Local Studies Office and Malahide's Historic Core Architectural Conservation Area - Statement of Character Report. A number of site visits took place during the period June 2022 - August 2022 to assess and record the existing structures. A Photographic Report of New Street accompanies this report. (Appendix A)

Fig. 4: Fingal Development Plan 2017 - 23

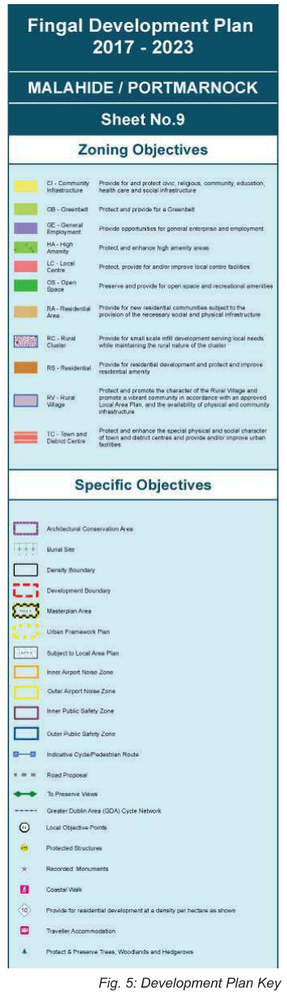


Fig. 5: Development Plan Key

2

History of Malahide

2 | Conservation Report

History of Malahide

The town of Malahide is a coastal settlement located 14 kilometers north west of Dublin City. It's village centre has grown rapidly during the 19th and 20th centuries, as new industries and infrastructure have created a vibrant town with a population of over 17,000 in 2022. The modern name Malahide (Mullagh h-Ide) is thought to have derived from the Norman Invasion during the twelfth century. The town's name translates to 'the sandmills of the Hydes, a Norman family from the Donabate area.

From the 12th century onwards, the town of Malahide developed around Talbot Castle. Among the invading Normans, was Sir Tichard de Talbot, a young knight who served King Henry II, in the invasion and was rewarded with a grant of lands around Malahide in 1185. The Talbots occupied the castle for the majority of eight hundred years, and had an extensive influence over the town's development during this period.

The royal land throughout Malahide was intensively tilled to supply cereals, vegetables and hay to the nearby Dublin markets. The ancient local townland name of Yellow Walls suggests that flax may also have been produced to supply a cottage linen spinning and weaving industry. The Talbot family sought to establish a large-scale weaving industry within Malahide, in order to lessen poverty levels in the area.

Although this cotton and linen enterprise had collapsed before the 19th century, this had led to an increase in the town's population and other trades within the locality. The Talbot's positive influence on Malahide continued into the first half of the 19th century. Becoming a trustee of the Malahide turnpike, established in 1786, Richard W. Talbot played an influential part in improving the road from Dublin to Malahide. At this time, the layout of the main approach road to Malahide was altered.. The original route turned eastwards where Kinsaley Church now stands, traveling northwards along Kinsaley Lane up to and around Malahide Castle, then to Bridge Field and onto Old Street. The turnpike road follows the current route, northwards through Steamstown/ Mabestown past Old Street and commencing at a new village centre at The Diamond. (Fig.6)

The Diamond was laid out as the focal point of the town with a fountain at its centre, and three main roads, New Street, Church Road and the Dublin Road radiated from this central core. In 1792, Richard W. Talbot granted a lease for the first four houses that formed the present day Diamond. This newly formed town centre (including New Street) acted as a catalyst for subsequent development within the Village of Malahide.

With the arrival of the Dublin to Drogheda railway line in 1844, the village became a fashionable destination for day-trippers from the city. The town's reputation of a seaside resort increased with visitors from Ireland and Britain. Industries such as salt harvesting, a steam bakery, silk factory, saw milling and a gasworks were established during the 19th century. By the early-1900's many of these industries had begun to decline, with the exception of the gas works, which continued to expand throughout much of the 20th century.

The outward expansion of Dublin's suburbs from the 1960's onwards, triggered by improved car, bus and rail transport, led to a significant expansion of Malahide as a dormitory town. Although the town has experienced vast growth during the last 60 years, New Street and the Diamond remain as a strong focal point within the commercial and social centre of the town.

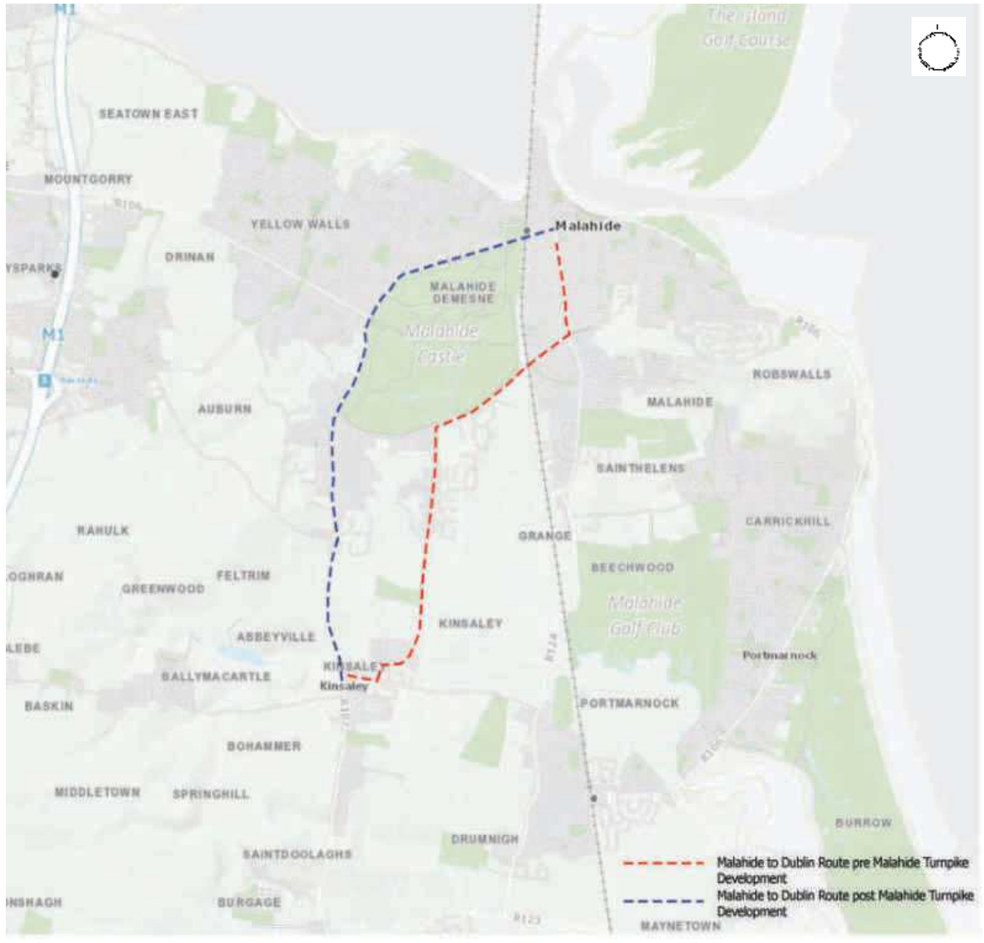


Fig. 6: Malahide to Dublin Road Layouts

3

New Street

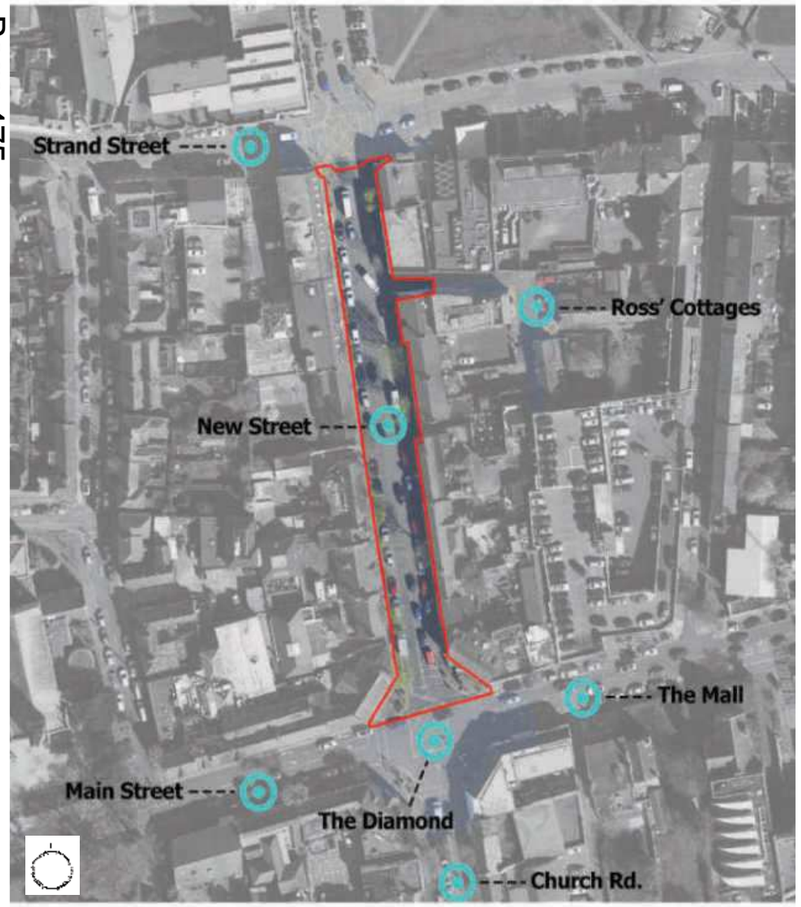


Fig. 7: New St & Diamond - Aerial View

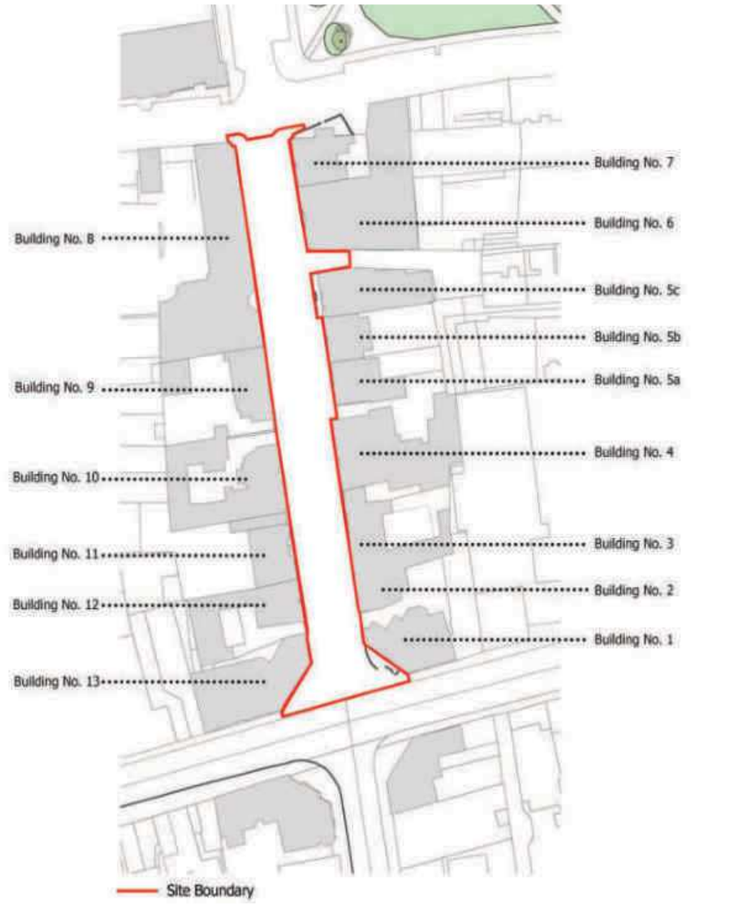


Fig. 8: New St & The Diamond - Building Numbering System





For consistency and ease of identification in this report and across all of the documents, a numbering system, has been implemented on New Street. Each individual building received a number regardless of its occupancy/use for commercial or residential purposes.

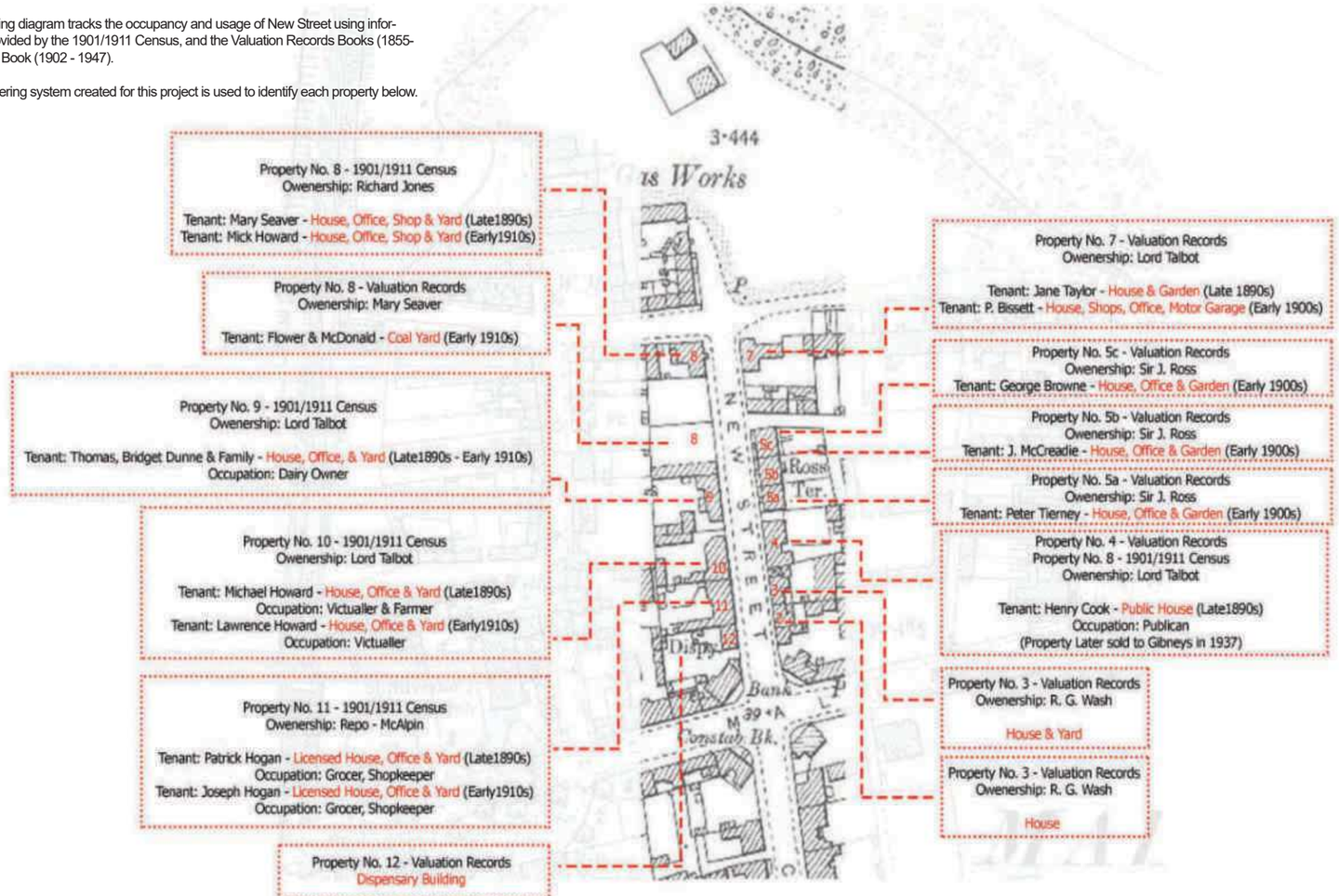
Building No. 1 - Ulster Bank/Sale e Pepe Restaurant
Building No. 2 - O'Farrell Deere
Building No. 3 - Residential & Off Licence
Building No. 4 - Gibney's Bar
Building No. 5a - Ladbrokes, Roseland Takeaway
Building No. 5b - Doyle's Seafood, Aileens Hair & Beauty
Building No. 5c - Il Sorriso Restaurant, Gilbert & Wright
Building No. 6 - Donnybrook Fair
Building No. 7 - Residential Dwelling
Building No. 8 - New Street Mall
Building No. 9 - Residential Dwelling
Building No. 10 - Drums, Orchid Restauran, Al Fresco Restaurant
Building No. 11 - Fowler's Pub
Building No. 12 - Dispensary Building
Building No. 13 - Dial-a-Cab, Bouchon Jewellers

3 | Conservation Report

New Street

The following diagram tracks the occupancy and usage of New Street using information provided by the 1901/1911 Census, and the Valuation Records Books (1855-1902) and Book (1902 - 1947).

The numbering system created for this project is used to identify each property below.



4

Chronology of the Site & The Development of New Streets Building Footprint

4 | Conservation Report

Chronology of the Site & Development of Building Footprint

The following mapping documents dating from 1760 to 2022 have been sourced from The Ordinance Survey Ireland online database, Fingal Local Studies Office, The Glucksman Map Library Trinity College Dublin, The Irish Architectural Archive and Fingal County Council. These archives can be used to track the growth and development of New Street and its context, through the 18th, 19th and 20th centuries. The occupancy and use of some of the historic structures on the street can also be studied, alongside the changes in building footprint seen in the area during this time.





Fig. 9: John Taylor Map of Malahide - 1816

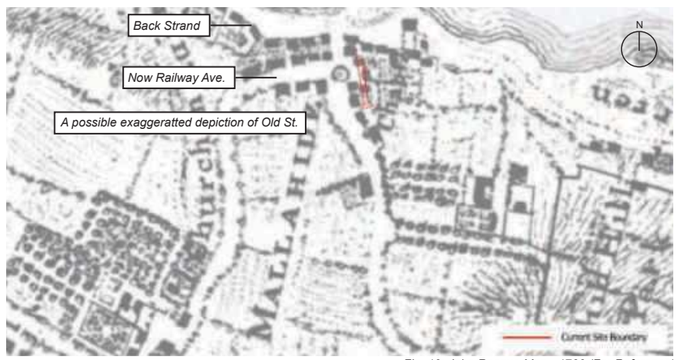


Fig. 10: John Rocque Map - 1760 (For Reference)

1. 1760 John Rocque, Dublin County North East

This document (Fig.10) provides the earliest detailed record of the planning of Malahide Village. Throughout the 17th & 18th Century Malahide remained a small settlement centered on Old Street, Strand Street and the Back Strand. The majority of the town's social and commercial activity occurred on the junction of Old Street and Railway Avenue, the present location of St. Sylvester's Church, well and surrounding cottages. The Civil Survey of 1654 - 56 states:

'In ye town of Malahide about 20 thatch houses, one sea water mill. Also a stone thatch house with two small thatch houses in possession of Thomas Jones. Also an orchard and garden with a fishing harbour and a conny warren.' (Green 2012)

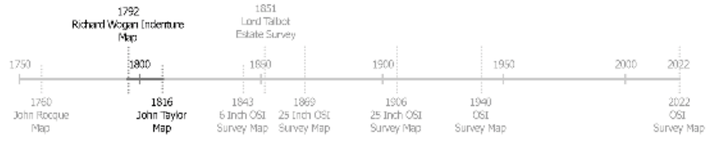
New Street, outlined in red on (Fig. 10) with the aid of geo-referencing, cannot be identified on this map. However, Rocque gives us a valuable insight into Malahide before the creation of New Street and The Diamond.

2. 1816 John Taylors Map of Dublin & Environs

John Taylor's 1816 (Fig.9) map provides a first glimpse into the layout and plan of New Street, Malahide, following the formation of the Diamond, and is used as a starting point, to map the development of the street and its immediate context through the 19th and 20th centuries. The map identifies New Street, some buildings either side of the street, the Diamond and the coal yard to the north.

4 | Conservation Report

Chronology of the Site & Development of Building Footprint



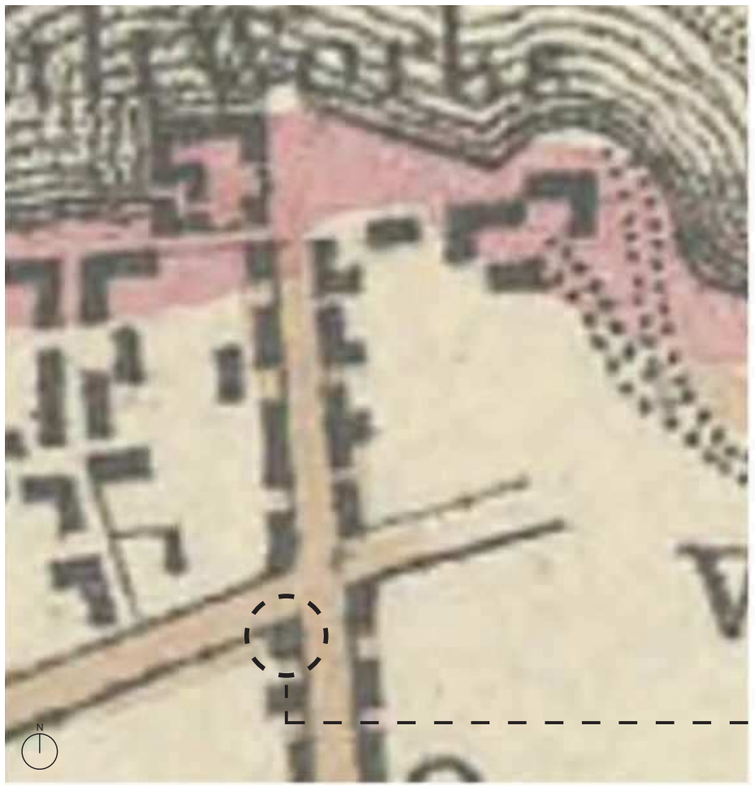


Fig. 11: John Taylor Map of Malahide - 1816

Indenture, 1792 - Map of The Diamond, Malahide.

Although John Taylor's 1816 map provides an initial view of New Street and its context, an indenture dated 24 years earlier in 1792 (fig. 12) provides an early insight of The Diamond development, planned by the Talbot family. The legal document provided by Richard Wogan Talbot grants James Crawford twenty-four perches with 'a House and Garden in the new street in the Town of Malahide' for a term of seventy-one years at a yearly "Rent of Five pounds thirteen shillings and nine pence".

The map which accompanies the indenture, shows an elevation of a two-story, five-bay slated house with a door at the centre and chimneys located on either gable. The property is located on the newfound intersection of 'New Street to the Sea' and 'New Street to the Green'. (Greene 2012)

Diamond development is discussed in further detail, in Chapter 5 of this report.

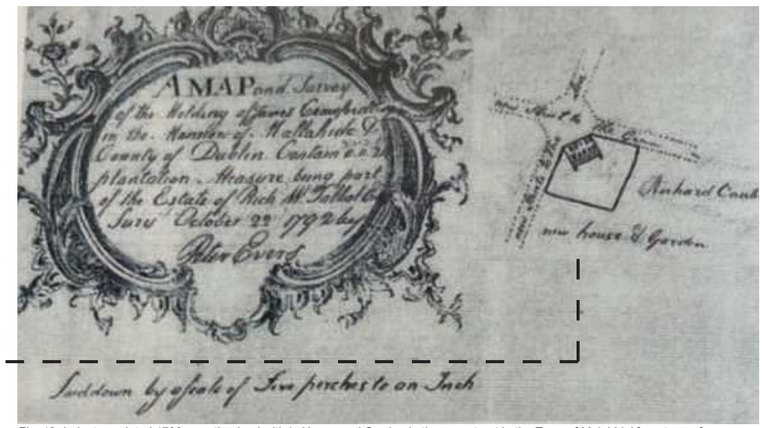


Fig. 12: Indenture, dated 1792, granting land with 'a House and Garden in the new street in the Town of Malahide' for a term of seventy-one years



Fig. 14: 6 inch OSI Survey Map - 1829 - 43 (Newly formed laneway indicated in blue)



Fig. 13: John Taylor Map of Malahide - 1816 (For Reference)

2. 6 Inch Ordinance Survey Map 1829 - 43 Map

Between 1829 and 1842 Ordinance Survey Ireland completed the first ever large-scale survey of the entire country. Due to the fact The Grand Hotel and the Mall road from the Diamond does not appear on this document (Fig.14), this would indicate that the map predates 1835, the year the hotel opened.

When this map is compared to John Taylor's 1816 drawing, it is clear there has been substantial development throughout New Street and its surrounding context. The reason for this expansion has often been accredited to the introduction of the Dublin to Drogheda railway line. (First planned in mid 1830s with works commencing 1840).

The form of the Diamond with a central water fountain can be seen alongside increased development along 'The Mall' /'Main Street'. Towards The Green, there is further development that defines New Street at this period in time. Construction to the rear of properties along the street is more apparent. The map also depicts possible demolition work to the area marked with a dotted red line on page 16 (Fig.15). Note, a 'police station' was also located within the Diamond on the 6 Inch Ordinance Survey Map 1829 - 43 Map.

The lane way to Ross' Cottages (marked in blue) is also beginning to form, creating potential for increased expansion to the east of New Street.

The early-nineteenth century evolution of the buildings and sites along New Street can be tracked by a comparison between the (1816) Taylor Map and the first edition Ordnance Survey map (see Fig. 15 & 16) on page 16.

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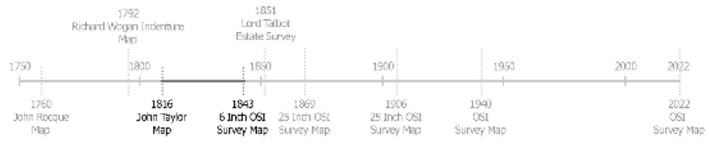




Fig. 15: John Taylor Map of Malahide - 1816

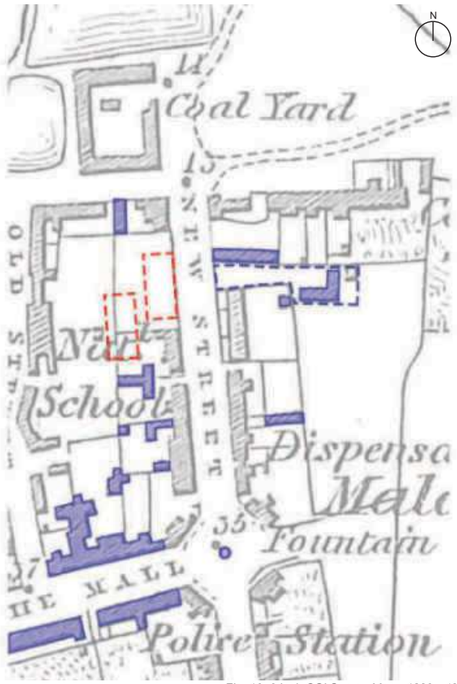


Fig. 16: 6 inch OSI Survey Map - 1829 - 43

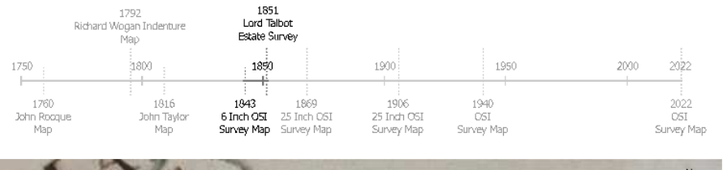
Alterations to Building Footprint:

- Potential demolition to structures to north - west of New Street. (Outlined in red dashed line).
- The early formation of Ross' Cottages (Dispensary Lane) can be seen.
- Development begins along Main Street towards Dublin - extending from The Diamond.
- The water fountain at the centre of The Diamond can now be seen.
- Out-housing and other structures to the rear of New Street properties can be seen forming, populating the lands to the rear of the properties.
- This map illustrates the consolidation and development of the plots to the rear of New Street and the Diamond in the period between the Taylor Map (1816) and the first edition Ordnance Survey map. In some cases, the buildings fronting onto New Street on the O.S. map may not necessarily be the same buildings that were shown on the earlier Taylor map.

Further Development

Apparent New Route Formed

Potential Demolition of Building Footprint



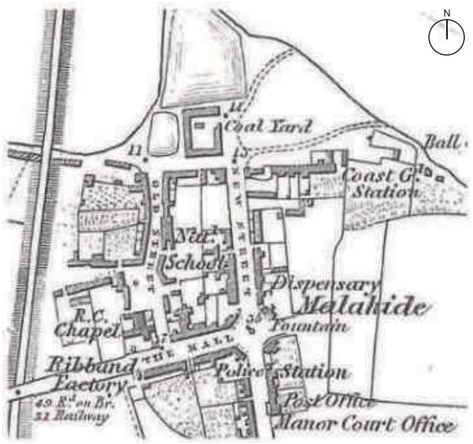


Fig. 17: OSI Survey Map - 1829- 43 (for reference)

3. 1851 Survey of Town & Lands of Malahide Co. Dublin. The Estate of the Right Honorable Lord Talbot of Malahide. (Fig. 18).

Halfway through the 19th century the development of the Malahide's new train station is visible on the 1851 map (See Fig. 18) 'The Mall' has now been extended eastwards from the Diamond, to allow for access to the Grand Hotel (constructed 1935). Due to the increase of horse and carriage transport along The Mall, the central fountain within the Diamond has been removed. (Green 2012).

Further development throughout the town continues, with the appearance of Townyard Lane and St. James Terrace, indicated in orange.

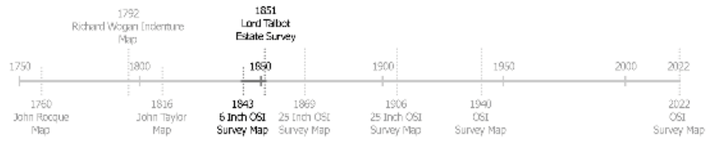
The dwellings of New Street remain similar to previous maps, however further accommodation to Ross' Cottages lane way can be seen. (Outlined in blue). Increased construction activity within the backlands between New Street and neighbouring Townyard Lane is evident.



Fig. 18: Survey of Town & lands of Malahide Co. Dublin. The Estate of the Right Honourable Lord Talbot of Malahide, 1851

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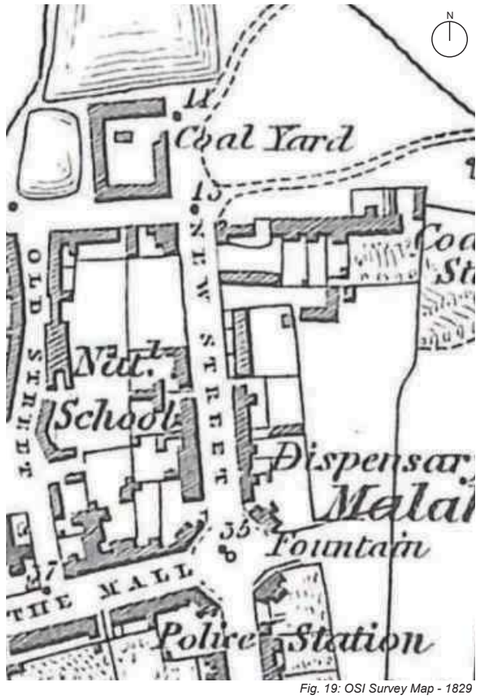


Fig. 19: OSI Survey Map - 1829

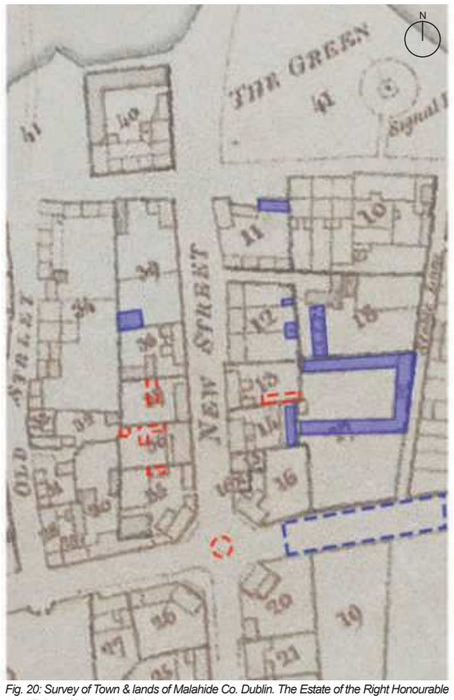


Fig. 20: Survey of Town & lands of Malahide Co. Dublin. The Estate of the Right Honourable Lord Talbot of Malahide, 1851

Alterations to Building Footprint:

- Increased development at Dispensary Lane
- Large 'U-shaped' development south of Dispensary Lane. Use unknown.
- The extension of the Mall eastwards due to the opening of the Grand Hotel
- The removal of the fountain at the centre of The Diamond.
- Potential demolition of structures to rear of New Street properties.
- This map illustrates the consolidation and development of the plots to the rear of New Street and the Diamond in the period between the first edition Ordnance Survey map and the 1851 Talbot Estate Map. In some cases, the buildings fronting onto New Street on this later map may not necessarily be the same buildings that were shown on the earlier O.S. map.

Further Development

Apparent New Route Formed

Potential Demolition of Building Footprint

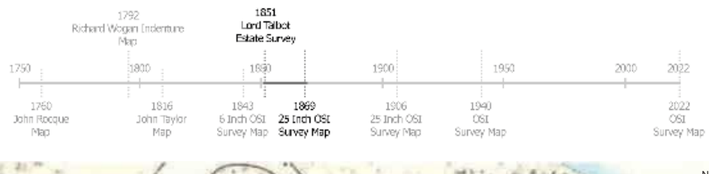




Fig. 21: 1851 Survey of Town & lands of Malahide Co. Dublin. The Estate of the Right Honourable Lord Talbot of Malahide.

4. 25 Inch Ordinance Survey Map 1869 (Fig. 22).

Further development is apparent within Malahide towards the end of the 19th century. South of the Diamond, Church St. is further framed by the inclusion of Carlisle and Windsor Terrace. The Post Office, previously indicated to be on Church St., now is referenced to be located on Main St. (The Mall).

Kerb lines are now indicated on the 1869 map along New Street's buildings. Although the structures along New Street remain similar to previous maps, some further building has taken place to the rear of these buildings.

An extension to the coal yard and gas works to the north of New Street is now evident.

The rapid development of Ross' Cottages seen through the previous maps has now subsided. The Dispensary building has been annotated within Ross Cottage's Lane way. Previously this has been indicated to the south of New Street, close to the Diamond. See 6 Inch Ordinance Survey Map 1829 - 43 Map. (Fig.14).

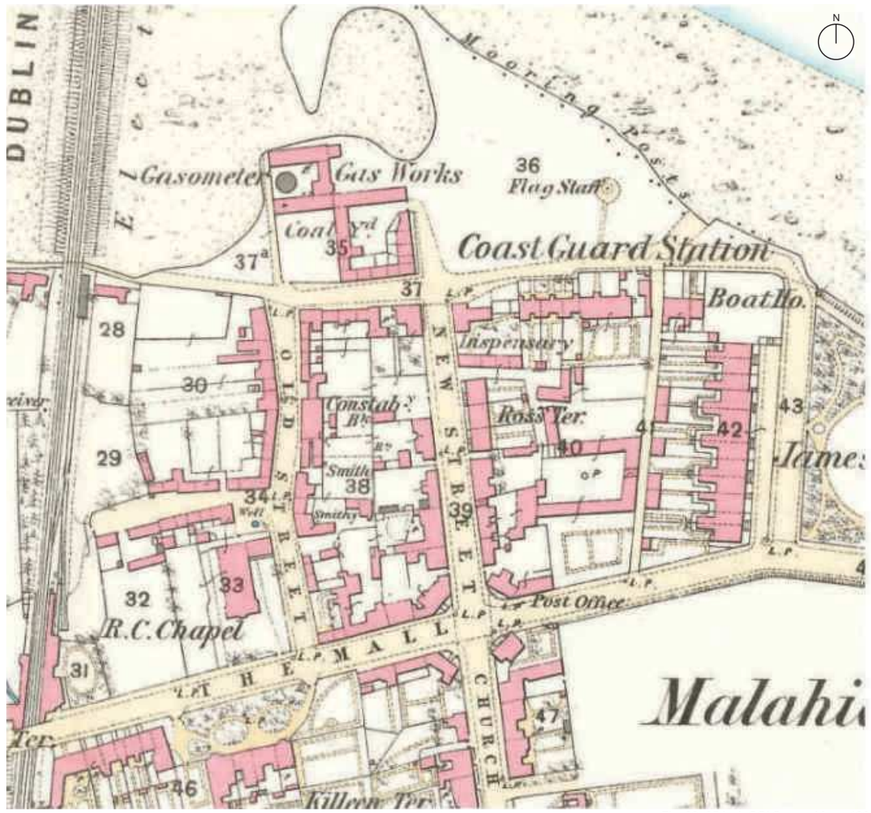
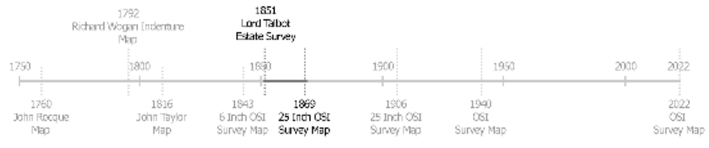


Fig. 22: 25 inch OSI Survey Map - 1869



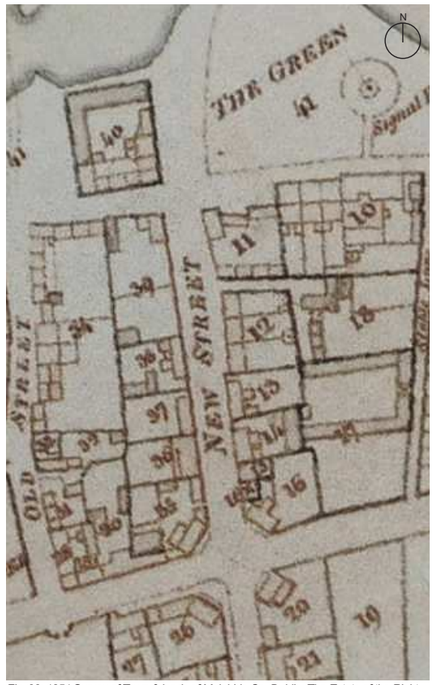


Fig. 23: 1851 Survey of Town & lands of Malahide Co. Dublin. The Estate of the Right Honourable Lord Talbot of Malahide.

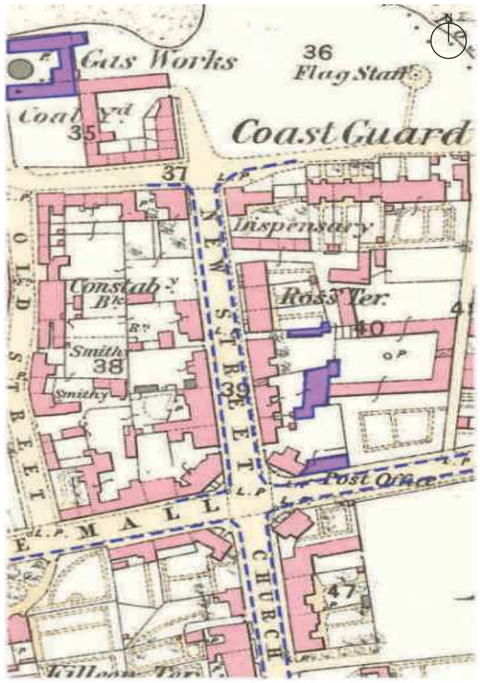


Fig. 24: 25 inch OSI Survey Map - 1869

Alterations to Building Footprint:

- Extension to coal and gas works to the north of New Street.
- First indication of pedestrian footpaths to street.
- First apparent building can be seen on the extension of the Mall road, towards The Grand Hotel. This has been indicated as a Post office.
- Development to rear of properties at New Street.

Further Development

Apparent New Route Formed

Potential Demolition of Building Footprint

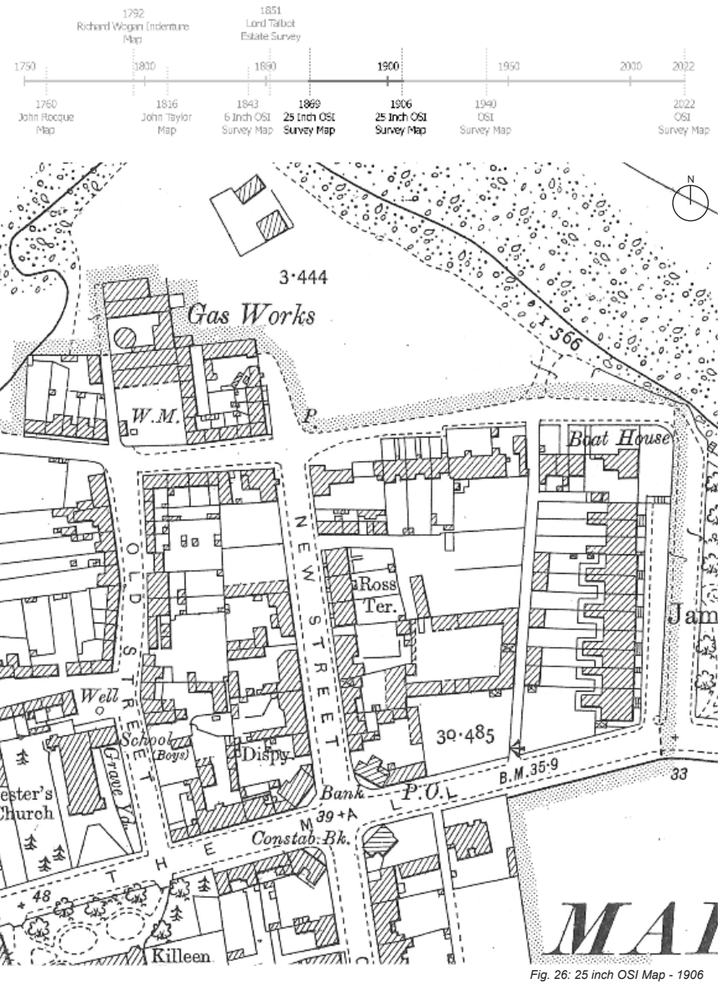


Fig. 26: 25 inch OSI Map - 1906

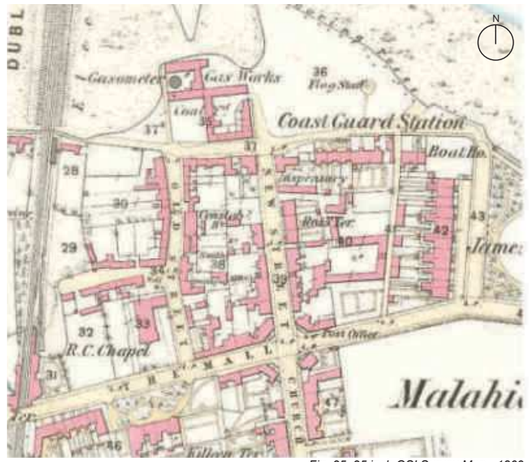


Fig. 25: 25 inch OSI Survey Map - 1869

5. 1906 25 Inch OSI Map (Pub. 1908) (Fig.26)

At the beginning of the 20th century, the industrial activities of gas and coal to the north of New Street continue to grow.

The lane way to Ross' Cottages seems to have undergone some demolition works, decreasing the building footprint between New Street and Townyard Lane.

The Dispensary Building is now located to the south-west of New Street. moving from Ross Cottages as seen in previous maps. A building within the Diamond is now referenced as a bank.

Also worth noticing, the Constabulary Block is located between New St. and Old St. on the previous map dated 1869. (Fig. 25). However, this institution is now referenced within the Diamond. A police station was previously indicated in this location on the 6 Inch map (1829 - 43) (Fig.14).

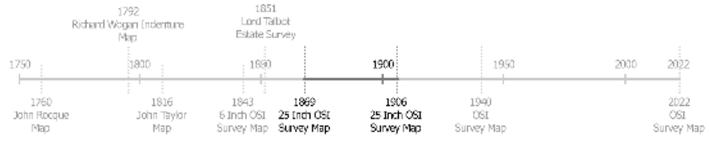




Fig. 27: 25 inch OSI Survey Map - 1869

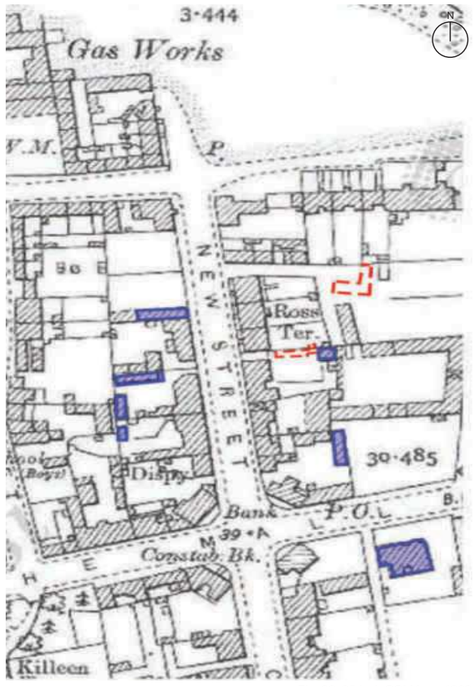


Fig. 28: 25 inch OSI Map - 1906

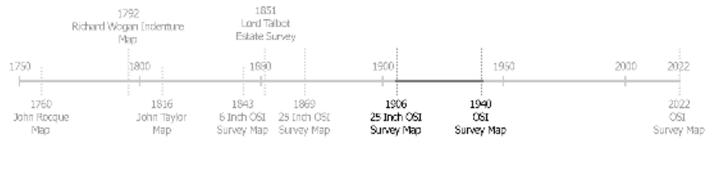
Alterations to Building Footprint:

- Development now evident on the extension of the Mall Road, towards The Grand Hotel.
- 1 minor instance of potential demolition to the rear of properties on New Street.
- Development to Ross' Cottages (Dispensary Lane) demolished.
- Further development can be seen throughout New Street to rear of properties.

Further Development

Apparent New Route Formed

Potential Demolition of Building Footprint



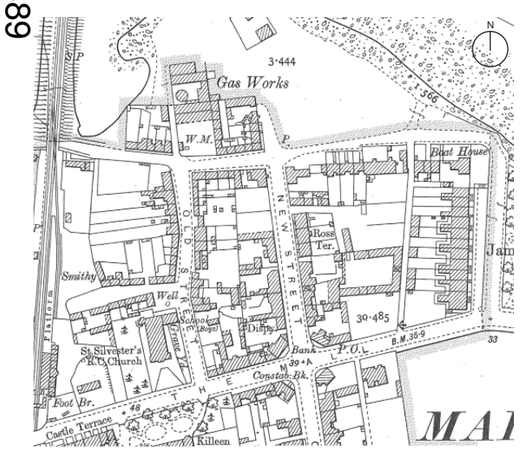


Fig. 29: 25 inch OSI Map - 1906

4. 1940 Ordinance Survey Ireland, Malahide Map (Fig. 30)

Further development has appeared within the Ross' Cottages lane way, which suggests to have replaced previous building stock from the 19th Century.

Some waterworks infrastructure now appears to be mapped throughout New Street and its environs. This framework includes a well, situated east of New Street. Two pumps, are located to the north and south of Ross' Terrace. A pump also existing to the south-west of The Diamond, behind the former RIC Barracks.

New properties and urban buildings such as the Carnegie Library (constructed 1909) are now depicted south of The Mall.

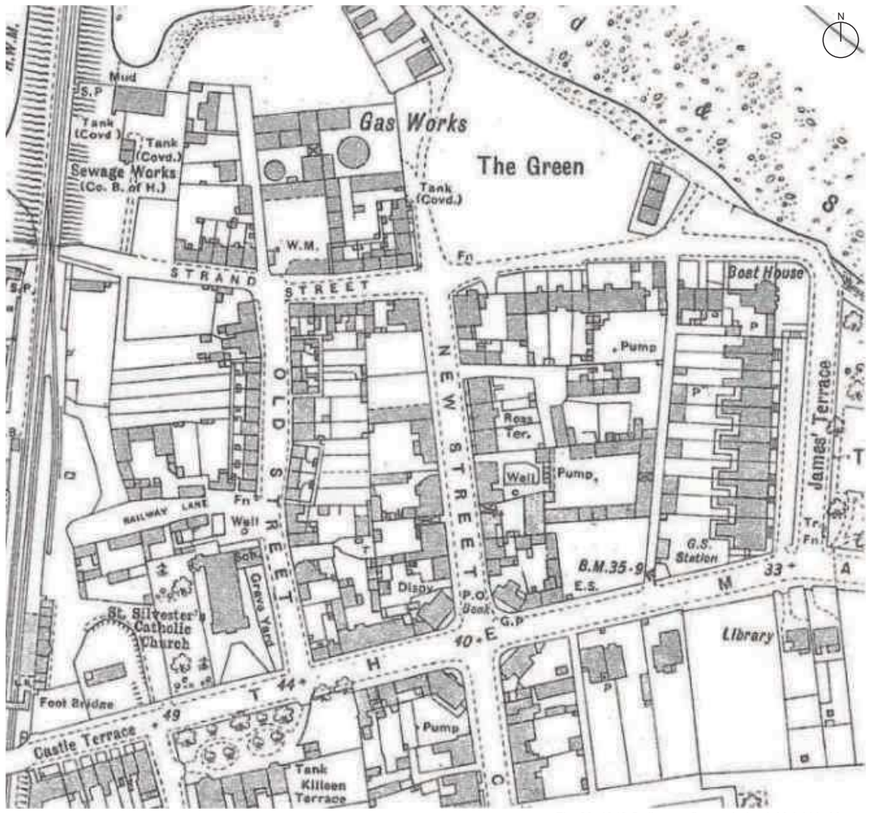
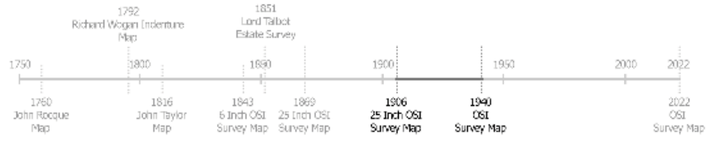


Fig. 30: 1940 Ordinance Survey Ireland, Malahide Map.

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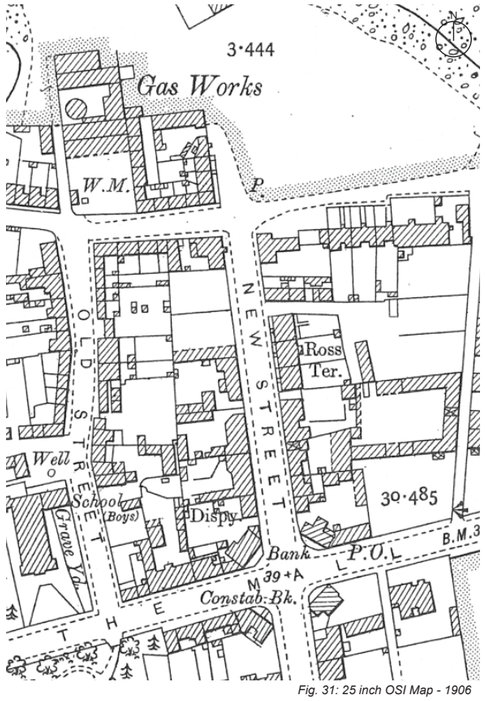


Fig. 31: 25 inch OSI Map - 1906

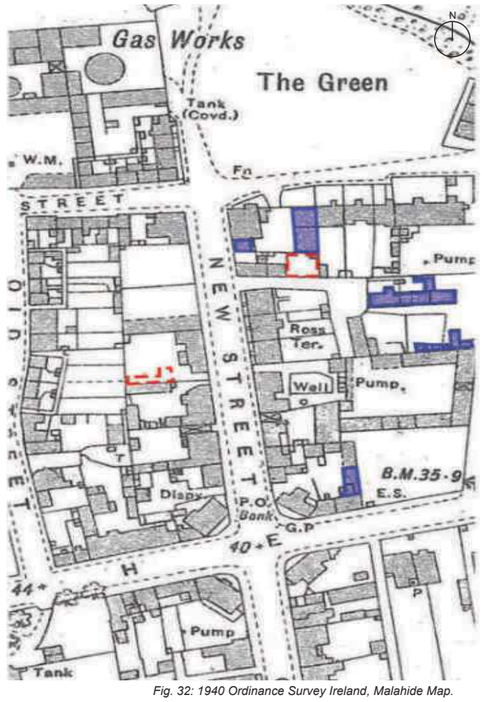


Fig. 32: 1940 Ordinance Survey Ireland, Malahide Map.

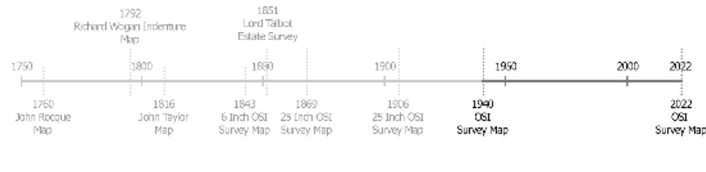
Alterations to Building Footprint:

- New development to Ross' Cottages to replace previous demolition.
- Potential demolition to properties on Dispensary Lane and to rear of properties on New Street.
- Further development to properties at north and south of New Street.
- Waterworks infrastructure now visible. (Eg. Wells, Pumps)

Further Development

Apparent New Route Formed

Potential Demolition of Building Footprint



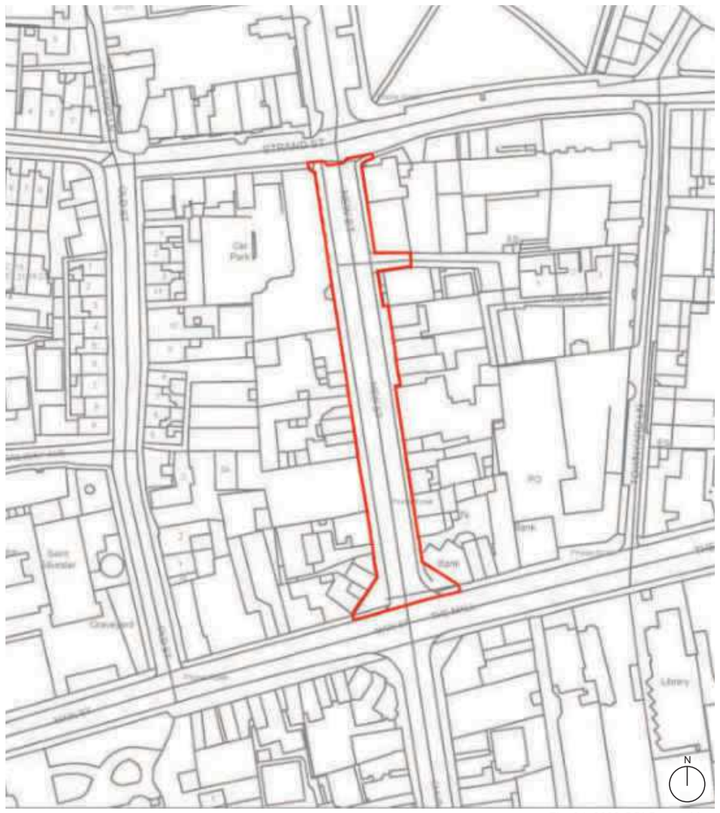


Fig. 34: 2022 OSI Survey Map

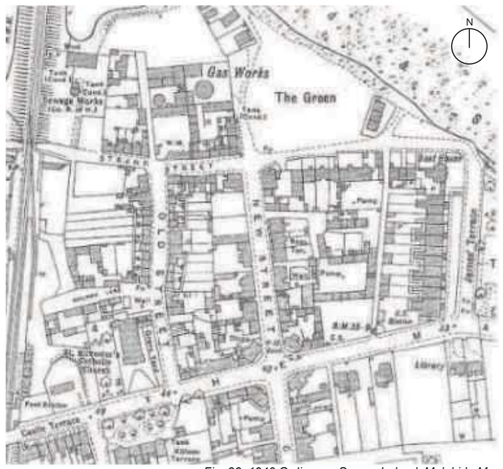


Fig. 33: 1940 Ordinance Survey Ireland, Malahide Map.

4. 2022 Fingal Co. Co. Map - Malahide (Fig. 34)

The final map of Malahide which has been reviewed in this study is the 2022 OSI survey map retrieved from OSI.ie as part of the planning package.

The suburban expansion of Malahide began during the 1960s, feeding a sustained pace of housing construction within the town and its environs. As a result of this influx of people settling and visiting the town, the services within Malahide grew as well. These developments include, New Street Mall (Constructed 1980s), Malahide Shopping Centre, large-scale extensions to hospitality premises and the introduction of a new convenience store in 2015 replacing the previous Malahide Hardware Store.

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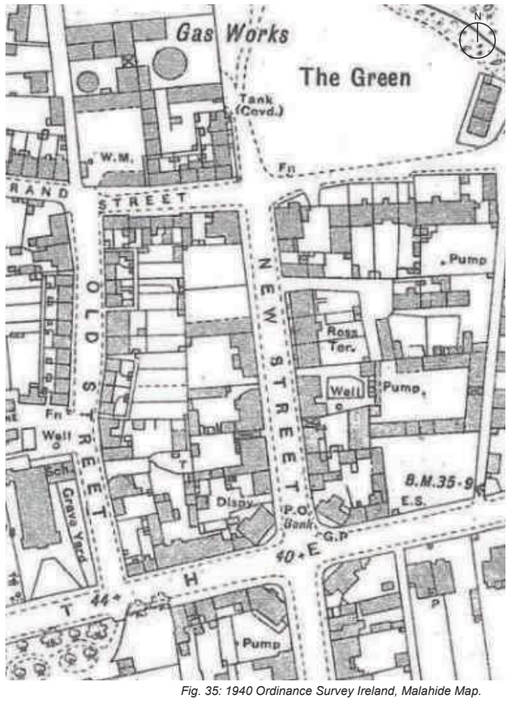


Fig. 35: 1940 Ordinance Survey Ireland, Malahide Map.

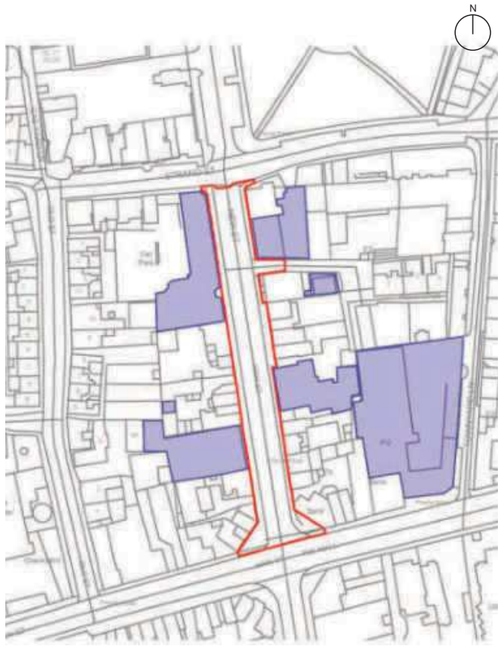


Fig. 36: 2022 OSI Survey Map

Alterations to Building Footprint:

- Larger scale development has occurred throughout the street. The former coal yard to the north west, of the street, has been infilled with New Street Mall during the late 1980s.
- Considerable extension to Fowlers bar, beside the current Dispensary building has occurred.
- Considerable extension to Gibneys Bar & Restaurant.
- Development of Malahide Shopping Centre
- Re-development of Malahide Hardware Store to a convenience store in 2015.

Further Development

Site Boundary

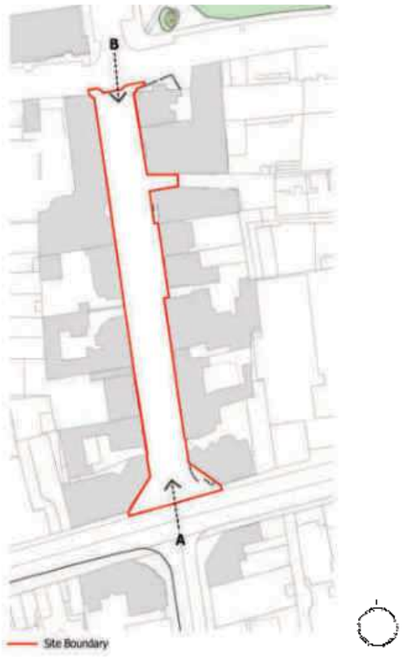




*Fig. 37: **(View A)** New Street - Early 1900s - Image taken from The Diamond*



*Fig. 38: **(View A)** New Street - 2022 - Image taken from The Diamond*



*Fig. 39: **(View B)** New Street - Image taken from Strand Street.*



*Fig. 40: **(View B)** New Street - 2022 - Image taken from Strand Street*

Above are two still images of New Street dating from early 1900 (Fig. 37 & 39). (Source: Fingal Local Studies Collection). These historic images show the appearance of the street from more than 100 years ago. It also allows the viewer to make comparisons between the past streetscape and the current design of New Street.

A. Fig. 37 is an image from The Diamond, facing north towards New Street, with a clear view of the Marina beyond. Firstly we notice the defined pedestrian paths to either side of the street. In the foreground, hard landscaping detailing is visible, consisting of a kerb (likely granite) with a footpath and road surface. Fig. 37 shows two horses tied up outside Cooke's Abercorn Tavern (now Gibney's Pub). Another cart can be seen at the North end of the street. The development of the Marina during the turn of the 20th century, means the view of the estuary from The Diamond is now lost.

The buildings on the north-east and north-west sides of The Diamond survive from the earlier (c.1900) photograph, with some modifications. These have been modified throughout the 20th century with the implementation of shop fronts. The red-brick Dispensary which is located close to The Diamond still remains on the west side of New Street.

These surviving buildings make a significant contribution to the character and architectural quality of The Diamond and New Street.

B. View B (fig.39) is positioned on Strand Street facing south towards New Street. The historic image has also clearly defined pedestrian pathways which frame the street. The gabled building on the south-east corner (left side in foreground) survives from the earlier photograph and continues to make a significant contribution to the streetscape. The single-storey 4-bay cottage to its rear has been replaced with a modern two-storey commercial building.

The now-demolished No. 9 New Street is visible on the west side of the street in the earlier photograph (fig. 40, right hand side). Using the Valuation Records, No. 8 was used as a 'shop, off license, house and garden". Behind No. 8, we can see a large undeveloped plot .This can also been seen on each of the historic maps, sourced for this report. Using the Valuation Records, this area was in use as a coal yard during the 19th & early 20th centuries. This plot possibly had close affiliations with the coal and gas works industrial site beside The Green.

In the modern photo (fig.40), this plot has been infilled. The surrounding context has been redeveloped with the construction of the New Street Mall, a two-storey terraced building with a prominent pitched roof, incorporating attic accommodation.

5

The Diamond

The Diamond

The Diamond became the central hub of Malahide in the early 19th century when the Talbot family restructured the Dublin Rd. and created New Street. The square became the central crossroads where the major routes of Church Rd., Dublin Rd. New Street, and later The Mall, meet.

In an indenture dated 1792, Richard Wogan Talbot, heir to Richard Talbot, granted James Crawford of Seafield twenty-four perches with "a House and Garden in the new street in the Town of Malahide" for a term of 71 years. The indenture also stipulated that:

"The said James Crawford, his Heirs and Assigns, shall not build or cause to be built any House, Stable or Hut on the front of the new street without the same to be at least as high as the House which is now built thereon."

Th associated map with the indenture (Fig.43) shows the proposed form the building must take. A five-bay, two storey house, with a centre door, and chimneys at either gable. This would appear to be the first of four buildings that framed The Diamond. The instructions Richard Talbot gave to James Crawford provides clues to an interest in town planning, before future development took place along New Street and The Diamond.

As a result, the four original houses which completed the Diamond were identical. A sprinkler water fountain occupied the centre of The Diamond, however this was possibly moved due to construction of The Grand Hotel in 1835. This was to allow large stage-coaches to maneuver The Diamond on their route towards the hotel to the east. (Greene 2012). When constructed, each of these buildings had front railings,



Fig. 41: The Diamond former RIC Barracks on south-east side - Image 1980s

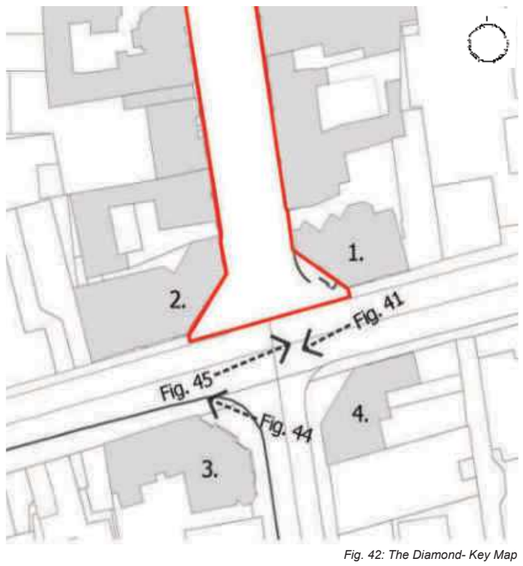


Fig. 42: The Diamond- Key Map

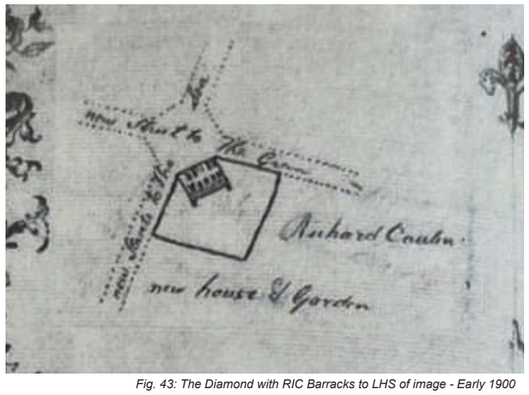


Fig. 43: The Diamond with RIC Barracks to LHS of image - Early 1900



Fig. 44: View of The Diamond from West with RIC Barracks on the left - Early 1900



Fig. 45: View B - From The Diamond facing east towards The Grand Hotel

enclosing a piece of land. Building No. 1 (currently Ulster Bank) has the last example of these railings. These railings can be seen in fig.46 & later in fig.48.

Corner Blocks 1 & 2 are the existing structures which were constructed to form the original Diamond square.

Building No. 3 housed the RIC barracks, which can be located on the 1908 25 Inch OSI Map on page 21. The station seems to have relocated to the centre of town as it can be found on Old Street on the 25 Inch Ordinance Survey Map 1869 on page 22 of this report. The RIC Barracks on The Diamond was burned down in 1922, by the I.R.A as a retaliation to a Black and Tan attack on Balbriggan in 1920. (fig. 47).

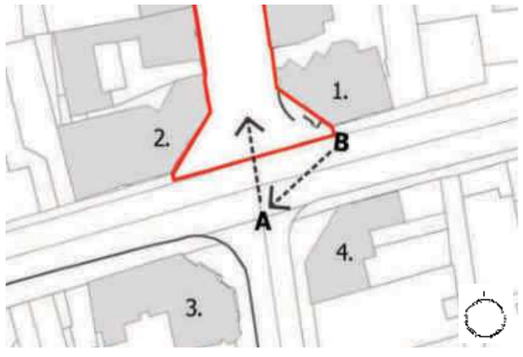




Fig. 47: View B: The Diamond with RIC Barracks sacked - Early 1922



Fig. 46: View A from the Diamond facing north towards New Street - 1940s



Fig. 48: View A from the Diamond facing north towards New Street - 2021

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Block 3 & 4 have been rebuilt to imitate the previous facade features seen in the early 19th century structures. Block 4 can be seen in its previous form in fig. 49, and later in its current imitative design in fig. 50.

Once again, the black railings which can be seen in front of Block 3 & 4 in fig.49, have been removed as these structures were rebuilt. These former enclosed garden areas have been given back to the public realm as the use of these buildings has changed from residential to commercial. The restaurant occupying Block 4 currently uses this area for outdoor furniture. Similar to New Street, the historic granite kerbing is still in situ, marking the threshold between pedestrian and vehicular activity at The Diamond and southwards onto Church Road.

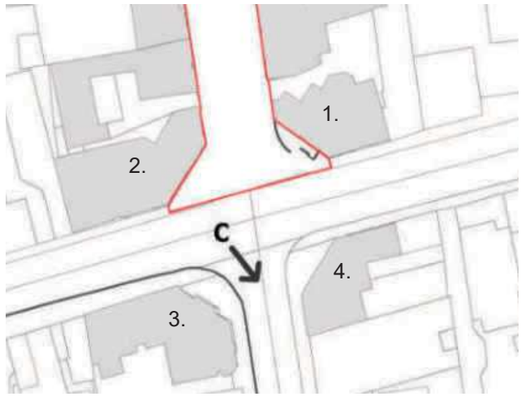




Fig. 49: View C from the Diamond facing south towards Church Street - 1920s



Fig. 50: View C from the Diamond facing south towards Church Street - 2021

6

Buildings Inventories

Building Numbering System

For consistency and ease of identification in this report and across all of the documents, a numbering system, has been implemented on New Street. Each individual building received a number regardless of its occupancy/use for commercial or residential purposes. (figure). A photographic study and point cloud survey have been completed and can be viewed in Appendix A & B of this report.



Fig. 51: Building 1

No. 1 The Diamond - Ulster Bank, Sale e Pepe Restaurant

The building forms part of the original Diamond development at the centre of Malahide in the early 19th century. By an indenture dated 1792, the Talbot family granted James Crawford of Seafield, twenty - four perches with a “House and Garden in the new street in the Town of Malahide” for a term of seventy-one years at a “Rent of Five pounds thirteen shillings and nine pence”. This would appear to be the first of four houses that stood facing each other to form The Diamond. (Greene 2012).

The building has rendered walls and natural slate roofs, a chimney was positioned over the apex of both gables of the north-western building however this has been removed from the building. Raised quoins on the corners lend architectural formality to the buildings. A section of railing survives outside the building which is now occupied by a bank. This marks the boundary of the earlier curved front garden, which existed historically on all four sides of The Diamond.

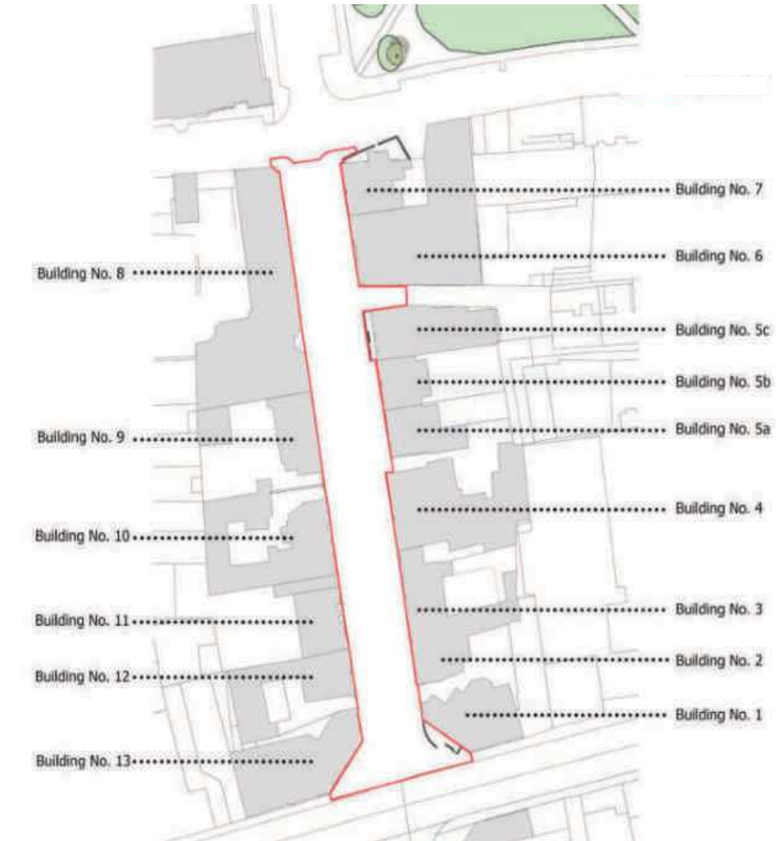


Fig. 52: Key Map





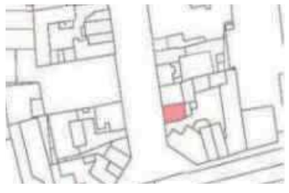
Fig. 53 Building 2



Fig. 54: Building 3

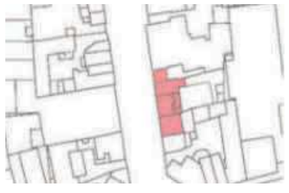


Fig. 55: Building 4



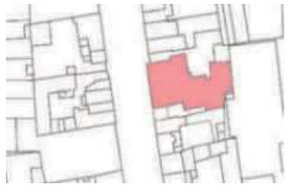
No. 2 O'Farrell Deere

Single-storey commercial building, possibly retaining some fabric from early-nineteenth century building shown on first edition O.S. map. Fibre cement tiled roof.



Building 3: 2 no. Residential & Off License

Terrace comprising three-bay two-storey double-fronted house (to south, right hand side) and six-bay two-storey building with wide carriage arch and (modern) shopfront. These buildings date from the early-nineteenth century and were almost certainly constructed as a pair. The central doors, elliptical fanlights, natural slate roofs, and Georgian window proportions make a significant contribution to the character of New Street.



No. 4 - Gibneys Pub

Six-bay two-storey nineteenth century building, with early-twentieth century shopfront. This public house has a long-standing presence on New Street. The front door with elliptical fanlight, slate roof and timber sash windows, together with the later stucco additions (quoins, mouldings to the front door) and shop front all make a significant contribution to the streetscape and character of the ACA. Blue natural slate tiles to roof.

The Gibney family purchased the property in 1937. When the family arrived they were greeted with a very basic, 'spit and sawdust' pub with an apple garden and piggery to the rear. (Gibney Website). The property has a history of hospitality. In 1937, and for many years beforehand, the Malahide pub had been known as the Abercorn Tavern - the name which had been adopted by Henry Barton Cooke on the 6th of June 1890 when he acquired the pub from James O'Hara and the ground landlord, Richard Hogan Baron Talbot De Malahide. Henry Cooke was the nominal owner, however the premises appears to have been administered by his daughter Alice until the sale to the Gibneys.

It was through Colonel Richard Talbot, that the pub first came to prominence in the 1740's as the famous golden Lion Inn'. At this time, Colonel Talbot granted permission for an inn to be constructed on his lands near the Village Green, which was known locally to accommodate the visiting Circuses and strolling players who spread their tents there.





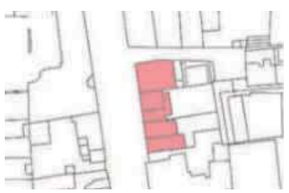
Fig. 56 No. 5 - New Street



Fig. 57: No. 6 - New Street

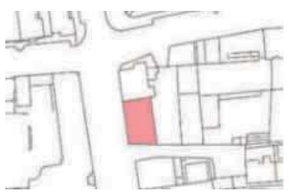


Fig. 58: No. 7 - New Street



No. 5a - Ladbrokes, Roseland.
No. 5b - Doyle's Seafood, Aileens Hair & Beauty.
No. 5c - Il Sorisso, Gilbert & Wright

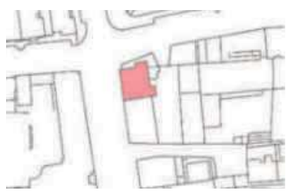
This terrace of three two-storey 3-bay double-fronted houses was constructed in the early-nineteenth century. The front facades are set back from the primary building line and the removal of their historic front gardens (visible on the earlier historic maps, (fig.22)) has created a widening of the footpath. The former houses are now primarily in commercial use, with shopfronts added during the twentieth century. The removal of render to expose the underlying stone rubble on Building 5c is visually incongruous. The natural slate roofs, surviving chimney stacks, central front doors with elliptical fanlights, and Georgian window proportions, are important contributors to the character of New Street.



No. 6 - Donnybrook Fair

Five-bay two-storey late-twentieth century building of limited architectural significance. The current use as a busy food store adds to the vibrancy and foot fall on the east side of New Street.

From 1976 - 1986, The property also included No. 1 - 4 Dispensary Lane, then owned The Bissett Family. A hardware store occupied the plot from the mid 1960s owned by the Bissett Family. This closed in 2015, with the plot to the rear of the dwelling re-developed into a convenience store/cafe.



No. 7 - Residential Dwelling

The large four bay corner house (fig. 58) at the intersection with The Strand has an elliptical - headed door opening and timber sashes, simply ornamented with eaves brackets and corner quoins. From researching The Valuation Records available we can track the usage and occupancy of this building can be traced from 1855 onwards. The roof covering is fibre cement tiling.

Lord Talbot was the immediate lessor of the building, with a Miss Jane Taylor occupying the 'house and garden' until early 1900s, where Margaret Seaver converted part of the property to a 'shop & yard'.

The occupancy continued to change on a regular basis as did the recorded building use. From 1902 - 1947, the property now held a 'shop, off license, motor garage, yard and the inclusion of 16 The Strand, to the rear of the property.

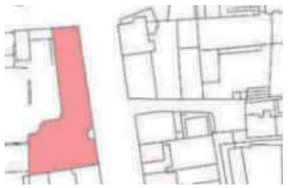




Fig. 59: No. 8 - New Street

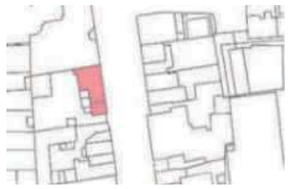


Fig. 60: No. 9 - New Street



No. 8 - New Street Mall

Two-storey multi-bay late-twentieth century commercial terrace with ground floor shop units and mixed use first floor and attic level. This modern building encloses the west side of New Street, with the shop units consolidating the established retail character of New Street.



No. 9 - Residential Dwelling

Two-storey five-bay mid-terrace house, dating from the first half of the nineteenth century. The dashed render to the front facade dates from the early-twentieth century. Still in residential use, the central front door with fanlight, Georgian-proportioned window openings, wrought iron railings, pitched slate roof and chimney stacks contribute to the character of New Street. The roof covering is fibre cement tiling.

The attached two-bay 2-storey structure to the south, with twentieth century shopfront and white-painted render, appears to be contemporaneous.





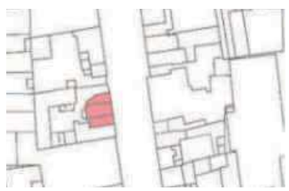
Fig. 61 : No. 10 - New



Fig. 62: No. 11 - New Street

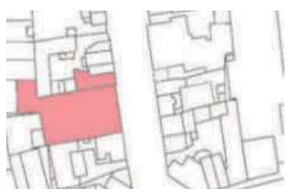


Fig. 63: No. 12 - New Street



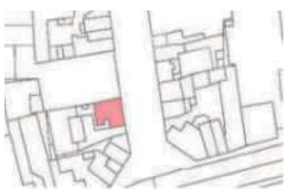
No. 10 - Drums, Orchid Restaurant & Al Fresco Restaurant

This six-bay two-storey terrace of three buildings was constructed in the early-nineteenth century, with shopfronts introduced during the twentieth century. Two of these shop-fronts - Drums (to the north) and Orchid Restaurant (centre) - incorporate early-twentieth century turned joinery details of high quality. The window openings at first floor level and pitched slate roof contribute to the character of the streetscape. A laneway to the north of the terrace leads to a small yard with a two-storey gabled carriage house, incorporating unusual (possibly relocated) historic features, visible from the street.



No. 11 - Public House

Two-storey commercial building, with former residential accommodation on upper floor. The interior may incorporate fabric from an earlier (nineteenth century) building on the site. The central tripartite sash window with gabled roof is an interesting feature. The shopfronts are modern but well-proportioned.



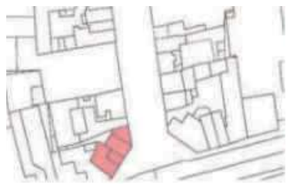
No. 12 - Dispensary Building

This red brick building has considerable presence and is an important landmark at the south end of New Street. Its use of red brick with profiled red brick details adds to the richness and diversity of the streetscape. The building has flat-arched window openings, with surviving timber sash windows, a fibre cement tiled roof, red brick chimneys and cast iron rainwater goods.





Fig. 64: No. 13 - The Diamond



No. 13 - Dial-a-Cab, Bouchon Jewellers

The building forms part of the original Diamond development at the centre of Malahide in the early 19th century. This structure is included on the National Inventory of Architectural Heritage. Reg no. 11344046. (fig. 46)

It has retained its original sash fenestration to first floor level. The ground floor has been remodeled extensively during the 1970s with a pair of aluminum shop fronts fitted. The roof is typical of buildings within Malahide's ACA from this era. It is a double pitched, natural slate covered unit with concrete ridge tiles. The walls are roughcast, painted with raised nap rendered corner quoins. (NIAH 2022).

The original openings to first floor level are square headed with stone cills with 2/2 sash timber windows fitted.

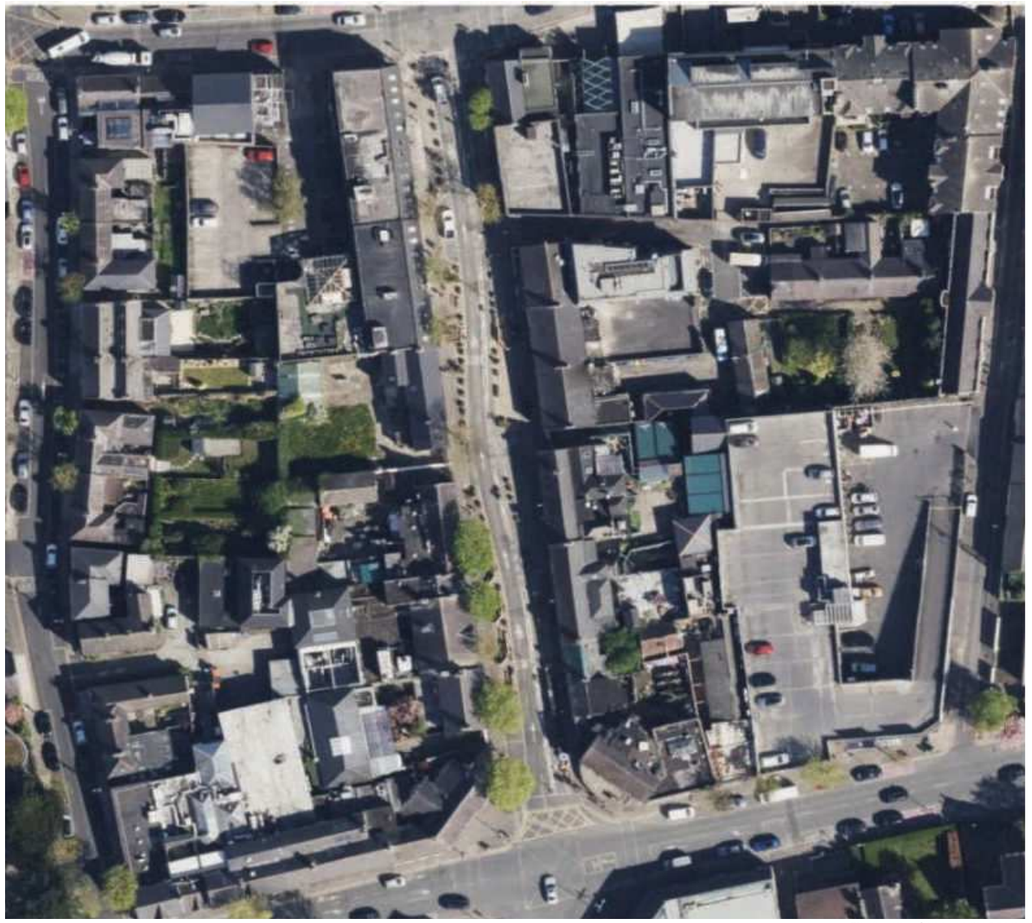


Fig. 65 New Street Aerial Photo

7

National Inventory of Architectural Heritage Records

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National Inventory of Architectural Heritage Records

1. On New Street, one structure/monument is listed on the National Inventory of Architectural Heritage. Freestanding cast-iron gas lamp standard, c.1900, comprising chamfered square pedestal with foliated shaft, decorative double lamp fitting above The light fixture has since been removed and replaced with a modern LED unit. Based on information provided by Fingal Co. Co. This lamp standard is not original to its location nor does it carry any historic significance.



Fig. 66: Image NIAH record on file for the lamp standard.

2. Corner-sited end-of-terrace five-bay two-storey former house, c.1835, retaining original fenestration to first floor. Single-bay single-storey extension to east c.1890. Ground floor remodelled c.1975 with pair of aluminum shopfronts. Unit is current vacant. Date (1820 - 1850). (Fig. 67).



Fig. 67: Image NIAH record on file for the property.

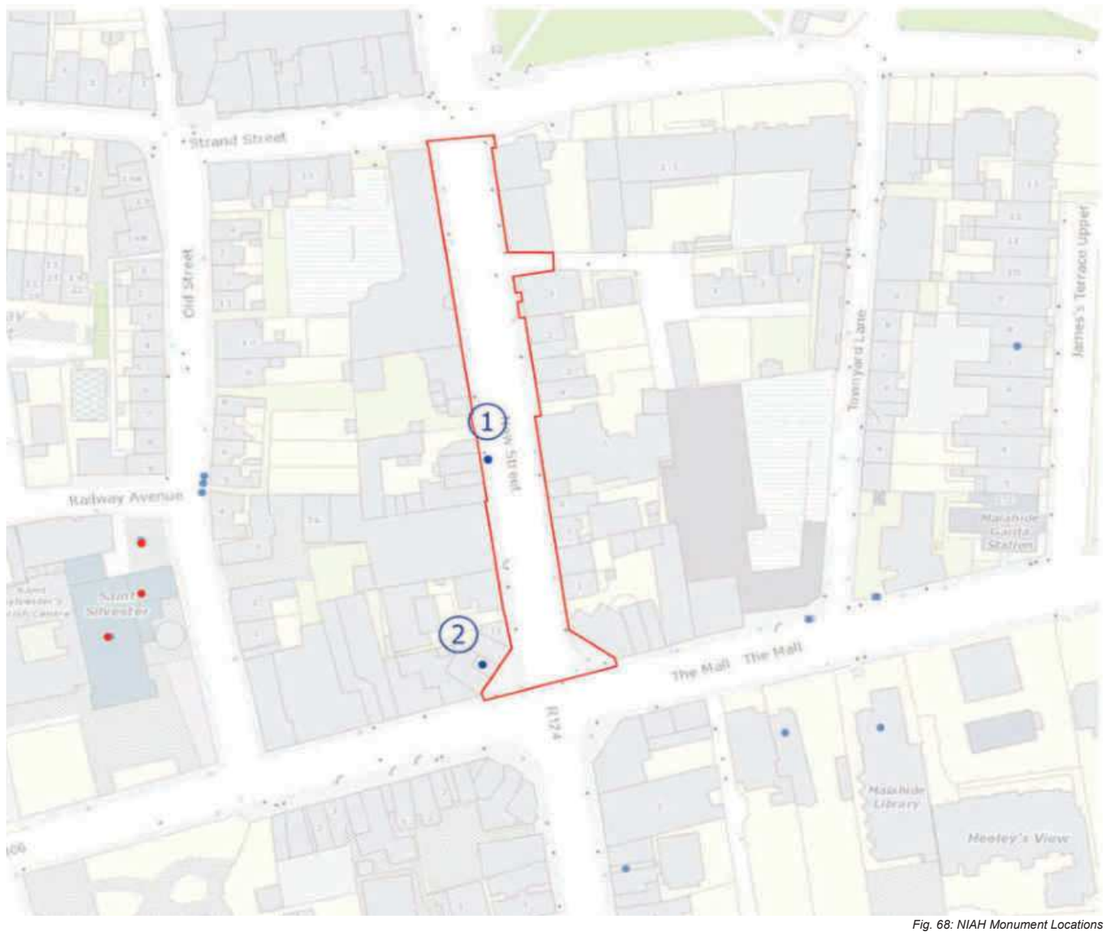


Fig. 68: NIAH Monument Locations



Fig. 69: New Street - 1987 - Photo ref: Evening



Fig. 70: New Street - 2017 - Note Lamp Standard



Fig. 71: Lamp Standard

NIAH Reg. No 11344035

NIAH records for monuments present on New Street includes, reg no. 11344035, a street lamp which can be viewed in Fig. 71. This was described as a *'Freestanding cast-iron gas lamp standard, c.1900, comprising chamfered square pedestal with foliated shaft, decorative double lamp fitting above.'* Dated 1890 - 1910.

As evident from historical photos and from information provided by Fingal Co. Co. these decorative units were installed in the mid 1990s, by the Chamber of Commerce at different locations in Malahide Village. These units were possibly relocated from elsewhere. Due to high levels of corrosion and high winds from Storm Ophelia in 2017, the top of the lamp standard fell and struck a pedestrian. This led to a health and safety risk to the public and the top portion of these units were removed and fitted with a L.E.D fixture to improve lux levels onto the street (Fig. 72).

An image from The Evening Herald from 1987 also re-affirms this, as no lamp standard is present on New Street at this time. See Fig. 69.

This lamp standard was replaced in 2019 with the unit seen in Fig. 73 & 74.



Fig. 72: New Street - 2019 - Note Lamp Standard in Place with LED fixture.



Fig. 73: New Street - 2022 - Note New Lamp Standard in Place



Fig. 74: New Street - 2022 - Note New Lamp Standard in Place

8

Description of Proposed Works

8 Conservation Report
Description of Proposed Works

A Design Rationale Report has been prepared by DFLA. This document explains in detail the aspects of design proposed for New Street's public realm improvements at a pedestrianised New Street.

The design principles help to generate a strategy for the public realm at New Street, which was formulated in conjunction with FCC and the design team in order to integrate the existing site context, architecture, improved circulation and accessibility, traffic, civil engineering, lighting, archaeological and ecological considerations with the overarching public realm design and the key objectives of the brief. These include:

- Provision of a high-quality urban environment which enhances the 'sense of place' on the street and respects the context as part of Malahide's Historic Core Architectural Conservation Area;
- Consider accessibility and safety for people of all ages and abilities;
- Find a balance between existing and possible future proposed uses along the street in a way which is attractive to visitors and locals alike;
- Innovate, taking into account principles of sustainability and resilient public spaces;
- Ensure access for local residents, deliveries, fire tender, emergencies and refuse collection;
- Provide opportunities for resting and socialising to increase dwell time, while at the same time taking into consideration overall functionality;
- Provide a biodiverse environment where possible, with trees and planting as well as incorporating sustainable drainage solutions.

New Street is a key node within Malahide's town centre. The public realm improvements increase the area provided for civic amenity along the thoroughfare and improve pedestrian priority and accessibility for the public. It creates new opportunities for visitors and passers-by to engage and enjoy the space by increasing the width of the footpath on either side of the street. The eastern side remains sunny for the majority of the day, therefore an asymmetric layout is proposed, taking full advantage of the orientation. Large trees are proposed to 'book-end' the street and signify threshold, tying the public realm into its surrounding context. Areas of planting are proposed as the main organisational device, incorporating sustainable urban drainage (SuDS) and increasing biodiversity on site. Opportunities for seating, art and informal play installations are proposed to be located in between the areas of soft landscape. Some areas of planting are also proposed to be introduced to act as buffer zones between public use and existing residential buildings, creating defensible space in front of the dwellings. Clearly marked zones for outdoor dining are proposed to be organised in linear strips on both sides of the narrowed central carriageway.



Fig. 75: Artist impression of New Street public realm, facing north towards Strand Street



Fig. 76: Artist impression of New Street public realm, facing south towards The Diamond



Fig. 77: Proposed Site Plan

9

Statement of Significance

The layout and morphology of New Street and The Diamond, to its immediate south, were an integral part of the realignment of the centre of Malahide undertaken by the Talbot Family at the start of the nineteenth century and are of considerable architectural, historical, and social interest. This early-nineteenth century planned town centre provides tangible evidence of the important role of the Talbot Family in the evolution and growth of the town. Many of the two-storey terraced buildings that face onto The Diamond and New Street date from the early-nineteenth century and are contemporaneous with the construction of the planned town centre. The survival of these buildings, with their Georgian-proportioned window opening (some with surviving sash windows), front doors with well-crafted fanlights, slate roofs and chimney stacks helps to define the character and sense of place of the Malahide Historic Core Architectural Conservation Area.

The transition of New Street from a predominantly residential street to a vibrant retail street took place gradually over the course of the twentieth century. The terraced streetscape incorporates high quality early-twentieth century shopfronts with well-crafted joinery, which are of significance in their own right and add to the character and sense of place within the ACA. The embellishment of a number of the nineteenth century facades with high-quality early-twentieth dashed render and stucco details, is typical of many Irish towns and adds to the visual interest of the street. The late-twentieth century buildings at the northern end of the street, while not of the same architectural quality as the earlier historic buildings, replicate the terraced streetscape and consolidate the established retail activity along the street.

The growth of retail activity along New Street during the twentieth century led to the incremental loss of historic features that contributed to the streetscape. Earlier railed front gardens along New Street and on the chamfered corners of The Diamond have now been lost. There are no historic lamp standards on the street. The ground floor window railings on some of the buildings provide a visual reminder of the quality and character of the earlier boundary railings. The surviving granite kerb stones along New Street make a strong visual contribution to the quality of the public realm.

New Street embodies a social and cultural significance as a place where generations of Malahide residents go to shop and socialise. The present-day New Street acts as an important pedestrian and visual connection between The Diamond, the historic centre of the town during the nineteenth century, and the Marina and waterfront, which has become a focal point for commercial and recreational activity.



Fig. 78: New Street - circa 1930s

10

Heritage Impact Assessment

The overarching objectives of the proposed development are very positive for the town centre and will enhance the established character of the ACA. The public realm improvements will facilitate the permanent pedestranisation of New Street and improve the public realm that supports and consolidate the established retail, restaurant and hospitality uses along the street. This early-nineteenth century street was laid out at a time when motorised transport did not exist. The removal of traffic away from the street has made New Street a safer and more attractive place for visitors and locals to visit and linger.

The historic cut stones (fig. 79) are an important surviving feature of the existing landscaping of New Street. It is proposed that these will be retained in their existing (historic) alignment, with the individual stones re-laid to suit the new pavement levels. The retention of these kerbstones and their incorporation into the new landscaping is a key conservation component of the proposed design.

The selection of new paving materials will be a key decision in the development and finalisation of the new landscaping design. Where new paving stones are proposed, these shall comprise local (Irish) stone – Leinster granite, blue-grey limestone, or a combination of the two. The paving design, as shown on the proposed drawings, adopts unfussy orthogonal coursing using a limited palette of materials. The avoidance of unnecessary pattern or embellishment will be essential to ensure that the new hard landscaping is appropriate to the scale and width of the street, and the sensitive receiving environment of the predominantly early-nineteenth century buildings that front onto New Street. The final paving design shall include curved paving stones to mark the line of the early-nineteenth century curved front gardens on the north-east and north-west corners of The Diamond. It will also be important to ensure that the selected paving materials are durable, easy to clean and resistant to staining from oil and grease. Prior to the finalisation of the selection of materials, evidence shall be provided to Fingal County Council (FCC) of the successful use of those materials in comparable urban locations. Samples of the proposed materials will be presented for review and agreement by the project Grade 1 Conservation Architect at a meeting with the Architectural Conservation Officer (ACO) of FCC.

The introduction of level plateau areas of planting, is a welcome addition with the potential to significantly enhance the sense of place and human scale of New Street. Detailed drawings will be prepared to demonstrate that the work will not adversely impact on nineteenth century stone entrance steps and architecturally significant door surrounds. Where possible, planting beds are proposed in front of buildings that remain in residential use. These locations will not be used for formal outdoor seating. These details are to be agreed with the project Grade 1 Conservation Architect in the first instance and will then be presented to the ACO for review and agreement.

The drawings include examples of proposed benches, planters, and other items of street furniture. The proposed street furniture will adopt a limited palette of materials, with metal surfaces adopting a single uniform colour where possible. The final locations of street furniture will be selected to minimise visual clutter along the street and to avoid physical barriers along the more heavily used footpaths. Pavement access covers will include integral paving. These details are to be agreed with the project Grade 1 Conservation Architect in the first instance and will then be presented to the ACO for review and agreement.

The proposed development includes for designated areas of outdoor seating and dining, which shall be made available to the restaurant, bar and café businesses along the street. Final details of such seating will be subject to review and agreement with the ACO of Fingal County Council. Such seating, tables, and associated furniture (umbrellas, signage) shall be fully demountable and capable of being removed and stored indoors each area. The proposed development does not include for fixed outdoor furniture in these locations. The lighting strategy requires careful consideration and is to be detailed sympathetically in respect to the surrounding historical buildings. Final details of lighting fixtures and placement are subject to review and agreement with the project Grade 1 Conservation Architect.

In summary, the proposed public realm upgrading of New Street represents a change from its current (and historic) configuration of a central carriageway with footpaths on both sides. This change is necessary and appropriate to enhance the setting of the historic buildings and consolidate and support the established retail character of this important street. The recommendations noted above are intended to mitigate and manage the impact of the proposed alterations on the character, fabric and features of the Architectural Conservation Area.



Fig. 79: New Street Existing Kerbing

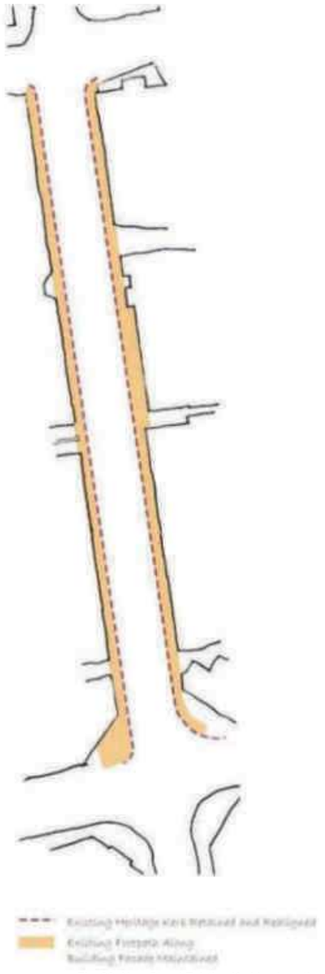


Fig. 80: New Street Existing Kerbing Location

Bibliography & Sources

Literature

1. Kingston, G. (2018). Malahide Snapshot 1901. Gerry Kingston & Fingal Co. Co.

2.Greene, R. (2012). Old Malahide. Publisher

3. McLoughlin R. - Lotts Architecture (2008). Malahide Historic Core - ACA - Statement of Character. Fingal Co. Co.

4. http://www.barrygibney.com/history.html Gibneys History

5. Flanagan, N. (1984) Malahide Past and Present. Publisher

Mapping Data

1. 1760 John Rocque, Dublin County North East. - Dublin Historic Maps, Boundaries and OSM Miscellany Online.

2. 1816 John Taylor Environs of Dublin Map - Dublin Historic Maps, Boundaries and OSM Miscellany Online.

3. OSI 6 Inch Ordinace Survey Map 1829-43 - The Glucksman Library Trinity College Dublin.

4. 1851 Survey of Town & Lands of Malahide, Co. Dublin. The Estate of the Right Hon. Lord Talbot of Malahide. - Irish Architectural Archive.

5. 1869 OSI Ordinace Survey Map - The Glucksman Library Trinity College Dublin.

6. 1897 - 1913 25 inch OSI Map - GeoHive Map Viewer Online

7.1940 Ordinace Survey Map - The Glucksman Library Trinity College Dublin.

Imagery

1. National Architectural Archive Ireland

2. Fingal Co. Co. Local Studies Office

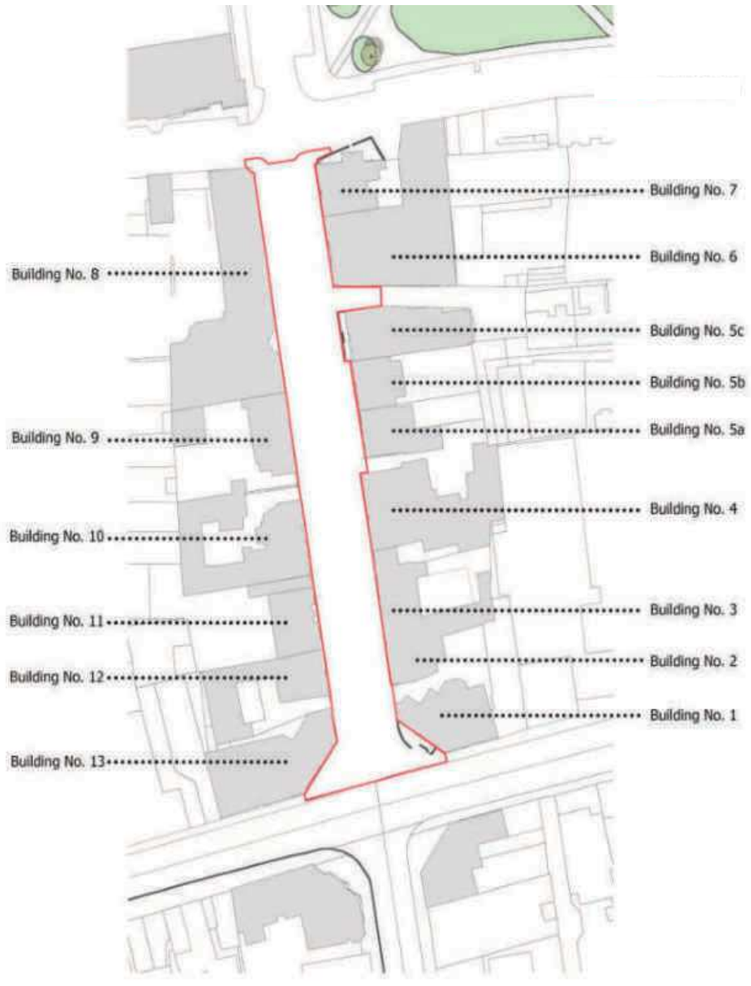
3. Malahide Library

4. National Library of Ireland



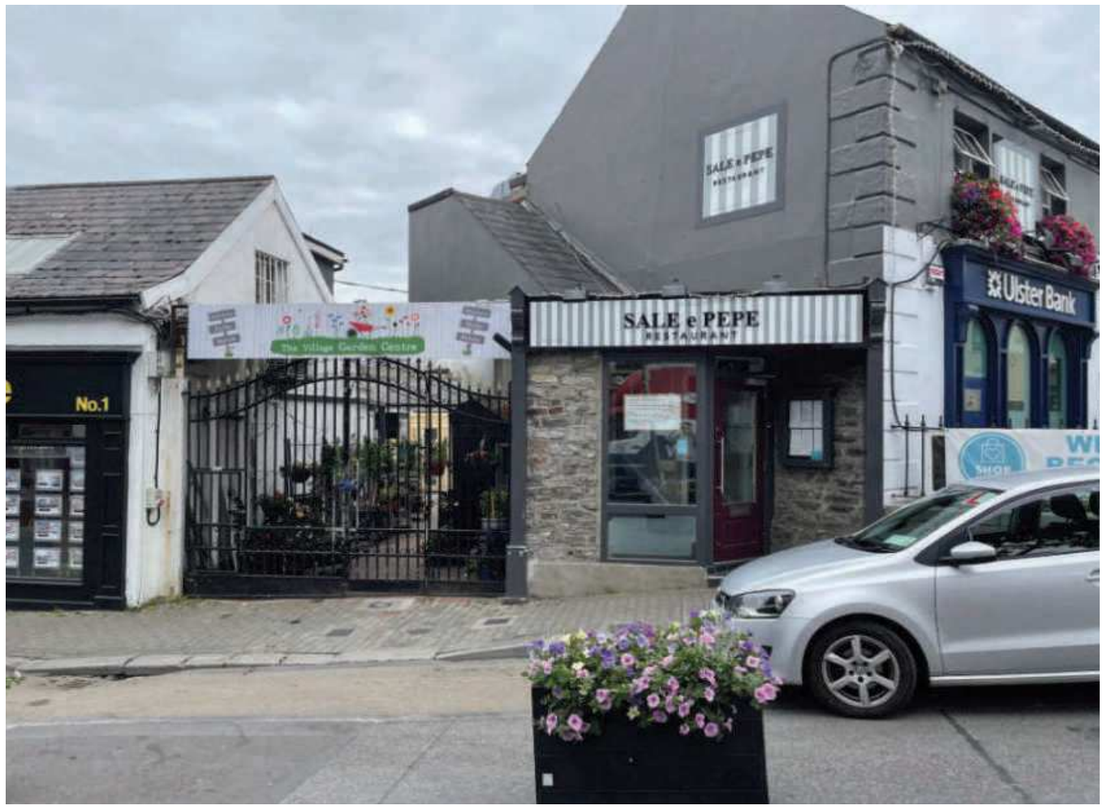
Appendix A

Photographic Study - New Street Elevations


Building No. 7
Building No. 6
Building No. 8
Building No. 5c
Building No. 5b
Building No. 9
Building No. 5a
Building No. 4
Building No. 10
Building No. 3
Building No. 11
Building No. 2
Building No. 12
Building No. 1
Building No. 13



Building 1


SALE e PEPE
RESTAURANT
Ulster Bank
No.1
The Village Garden Centre

Building 1



Building 2



Building 3

Page 521



Building 3



Building 3



Building 4


Doyles Fishmongers est.
SPECIALISING IN
FISH & SHELLFISH
ROSELAND
Ladbrokes.com

Building 5

Page 525



Building 5



Ross Cottages (Laneway), Malahide



Building 6



Building 7



Building 8



Building 8



Building 8



Building 8



Building 9



Building 9



Building 10



Building 10



Building 11



Building 11



Building 12



Building 13


Ceantar Coisithe
PEDESTRIAN ZONE
Ach Amhain Earrai Isteach
06:00 - 11:00
EXCEPT FOR DELIVERIES
TASK
SURGERY
WATCH REPAIRS
Bouchon
Diamonds and Time Pieces
OPENING HOURS

Building 13



Building 13



Ross Cottages



Ross Cottages



Ross Cottages



Ross Cottages

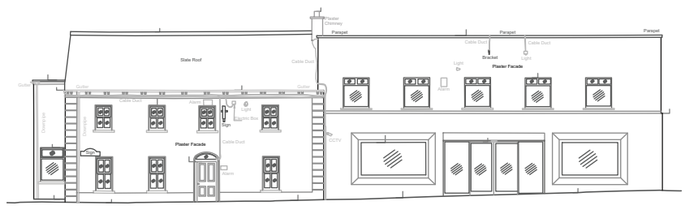


Appendix B

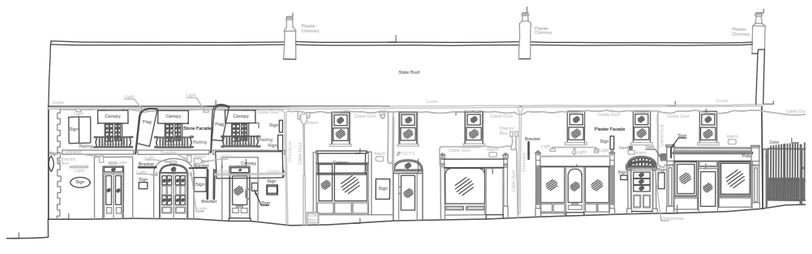
Point Cloud Survey Drawings - New Street & The Diamond



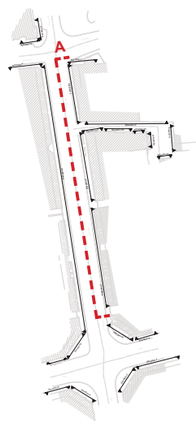
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Elevation A (Cont) - 1:200



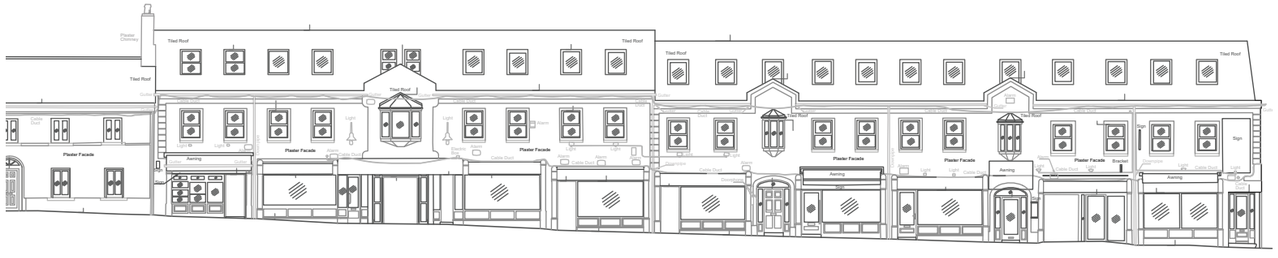
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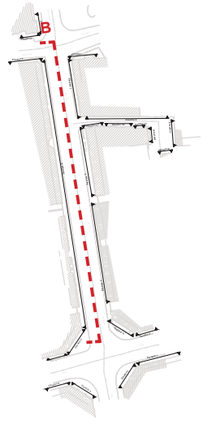
Key Map



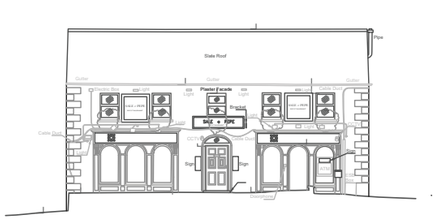
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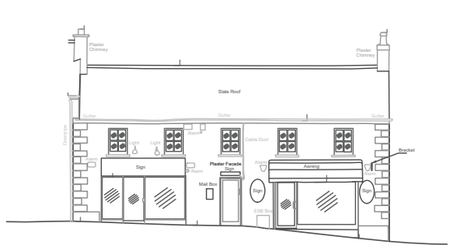
Elevation B - 1:200



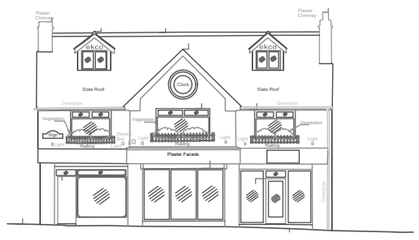
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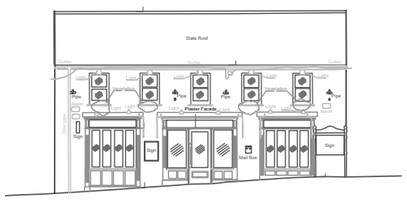
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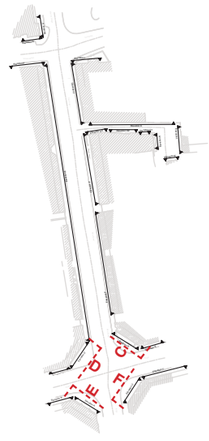
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Elevation E - 1:200



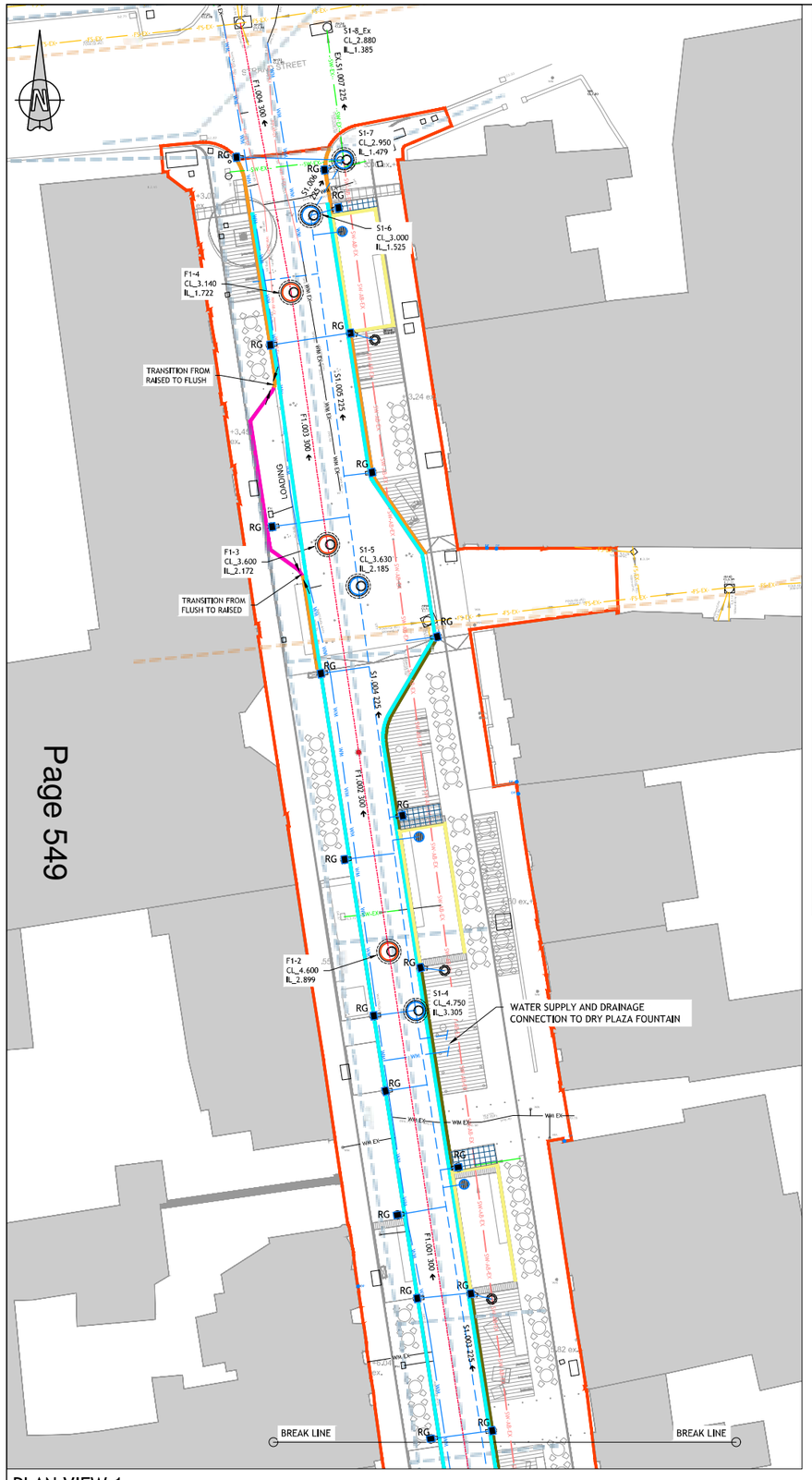
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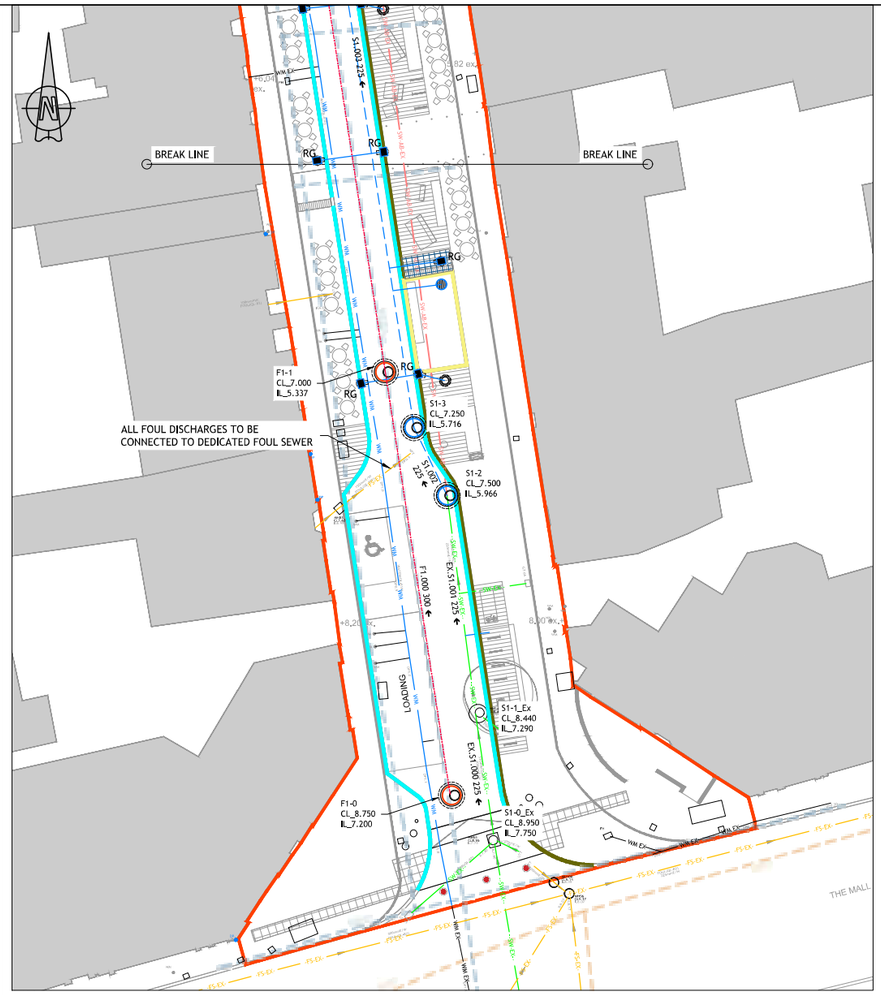
Appendix B4 - Engineers Drawings & Reports

Document	ID No.	Size	Produced by
Proposed Drainage and Watermain Layout	222126-PUNCH-XX-XX-DR-C-0100	A1	PUNCH
Proposed SuDS Layout	222126-PUNCH-XX-XX-DR-C-0150	A1	PUNCH
Surface and Foul Water Long Sections	222126-PUNCH-XX-XX-DR-C-0200	A1	PUNCH
Existing Services Layout	222126-PUNCH-XX-XX-DR-C-0350	A1	PUNCH
Proposed Line Markings	222126-PUNCH-XX-XX-DR-C-0450	A1	PUNCH
Cross Sections	222126-PUNCH-XX-XX-DR-C-0480	A1	PUNCH
Drainage Details –Sheet 1	222126-PUNCH-XX-XX-DR-C-0500	A1	PUNCH
Drainage Details –Sheet 2	222126-PUNCH-XX-XX-DR-C-0501	A1	PUNCH
Drainage Details–Sheet 3	222126-PUNCH-XX-XX-DR-C-0502	A1	PUNCH
Hard Landscape Details	222126-PUNCH-XX-XX-DR-C-0503	A1	PUNCH
Road Details	222126-PUNCH-XX-XX-DR-C-0550	A1	PUNCH
Vehicle Swept Path –Sheet 1	222126-PUNCH-XX-XX-DR-C-0600	A1	PUNCH
Vehicle Swept Path –Sheet 2	222126-PUNCH-XX-XX-DR-C-0601	A1	PUNCH
Vehicle Swept Path –18m Low Ladder	222126-PUNCH-XX-XX-DR-C-0602	A1	PUNCH
Vehicle Swept Path –Max Legal Length Articulated Vehicle	222126-PUNCH-XX-XX-DR-C-0603	A1	PUNCH
Vehicle Swept Path – Fire Tender & Refuse Vehicle	222126-PUNCH-XX-XX-DR-C-0604	A1	PUNCH
Visibility Splay	222126-PUNCH-XX-XX-DR-C-0625	A1	PUNCH
Engineering Services Report	222126-PUNCH-XX-XX-RP-C-0001	A4	PUNCH
Construction Management Plan	222126-PUNCH-XX-XX-RP-C-0002	A4	PUNCH
Construction & Demolition Waste Management Plan	222126-PUNCH-XX-XX-RP-C-0003	A4	PUNCH
Site Specific Flood Risk Assessment	222126-PUNCH-XX-XX-RP-C-0004	A4	PUNCH
Traffic & Transportation Assessment	222126-PUNCH-XX-XX-RP-C-0005	A4	PUNCH
Quality Audit	1652R01	A4	Bruton Consulting Engineers for PUNCH
Mechanical & Electrical Services	NSM-X-X-DR-AXE-EE-60101	A1	Axiseng
Existing Site Services	NSM-X-X-DR-AXE-EE-60102	A1	Axiseng
Proposed Site Services	NSM-X-X-DR-AXE-EE-60103	A1	Axiseng
Mechanical and Electrical Services Installations	-	A4	Axiseng

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PLAN VIEW 1
SCALE 1:200



PLAN VIEW 2
SCALE 1:200

STORM MANHOLES

Name	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
S1-8_Ex	8.85	1200	722636.804	746115.595	1.65
S1-1_Ex	8.44	1200	722634.767	746128.823	1.755
S1-2	7.5	1200	722632.897	746138.073	1.534
S1-3	7.25	1200	722630.517	746142.473	1.534
S1-4	4.75	1200	722623.062	746150.108	1.445
S1-5	3.63	1200	722619.299	746220.117	1.445
S1-6	3	1200	722615.823	746248.281	1.475
S1-7	2.95	1200	722618.267	746250.209	1.471
S1-8_Ex	2.88	1200	722617.1	746258.574	1.495

PROPOSED STORM PIPES

Name	US Node	DS Node	Length (m)	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)	US Depth (m)	DS Depth (m)
EX.S1.000	S1-0_Ex	S1-1_Ex	8.506	7.750	7.290	0.460	18.1	225	0.975	0.925
EX.S1.001	S1-1_Ex	S1-2	14.372	7.290	6.571	0.719	20.0	225	0.925	0.704
S1.002	S1-2	S1-3	5.002	5.966	5.716	0.250	20.0	225	1.309	1.309
S1.003	S1-3	S1-4	46.215	5.716	3.305	2.411	20.0	225	1.309	1.220
S1.004	S1-4	S1-5	30.345	3.305	2.166	1.139	27.0	225	1.220	1.220
S1.005	S1-5	S1-6	26.390	2.166	1.525	0.660	40.0	225	1.220	1.250
S1.006	S1-6	S1-7	4.566	1.525	1.479	0.046	100.0	225	1.250	1.246
EX.S1.007	S1-7	S1-8_Ex	9.440	1.479	1.365	0.064	100.0	225	1.246	1.270

FOUL MANHOLES

Name	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
F1-0	8.750	1200	722633.184	746118.522	1.550
F1-1	7.000	1200	722628.845	746146.130	1.663
F1-2	4.600	1200	722621.455	746194.322	1.701
F1-3	3.600	1200	722617.118	746223.053	1.428
F1-4	3.140	1200	722614.558	746240.858	1.418
F1-5_Ex	2.840	1200	722610.958	746259.857	1.462

PROPOSED FOUL PIPES

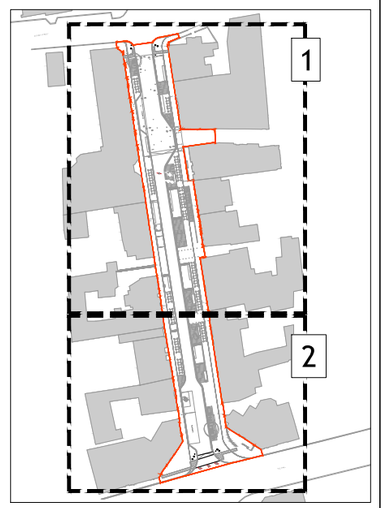
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F1.001	F1-1	F1-2	46.795	5.337	2.899	2.438	20.0	300	1.513	1.551
F1.002	F1-2	F1-3	29.057	2.899	2.172	0.727	40.0	300	1.551	1.278
F1.003	F1-3	F1-4	17.982	2.172	1.722	0.450	40.0	300	1.278	1.288
F1.004	F1-4	F1-5_Ex	19.332	1.722	1.236	0.484	39.9	300	1.288	1.452

LEGEND

- EXISTING SURFACE WATER
- EXISTING SURFACE WATER TO BE ABANDONED
- EXISTING FOUL WATER SEWER
- EXISTING WATERMAIN
- EXISTING WATERMAIN TO BE ABANDONED/REMOVED
- PROPOSED WATERMAIN
- PROPOSED FOUL SEWER
- PROPOSED FOUL SEWER MANHOLE
- PROPOSED SURFACE WATER
- PROPOSED SURFACE WATER MANHOLE
- PROPOSED SURFACE WATER INSPECTION CHAMBER
- PROPOSED GULLY
- PROPOSED SuDS OVERFLOW GULLY
- PROPOSED LINEAR DRAINAGE FEATURE
- PROPOSED CHANNEL DRAINAGE KERB
- PROPOSED BIORETENTION SURROUND
- PROPOSED LOW KERB
- PROPOSED STANDARD RAISED KERB
- PROPOSED FLUSH KERB
- BOUNDARY LINE

FROM RECORDS

- EXISTING WATERMAIN
- EXISTING FOUL WATER SEWER



KEY PLAN
NOT TO SCALE

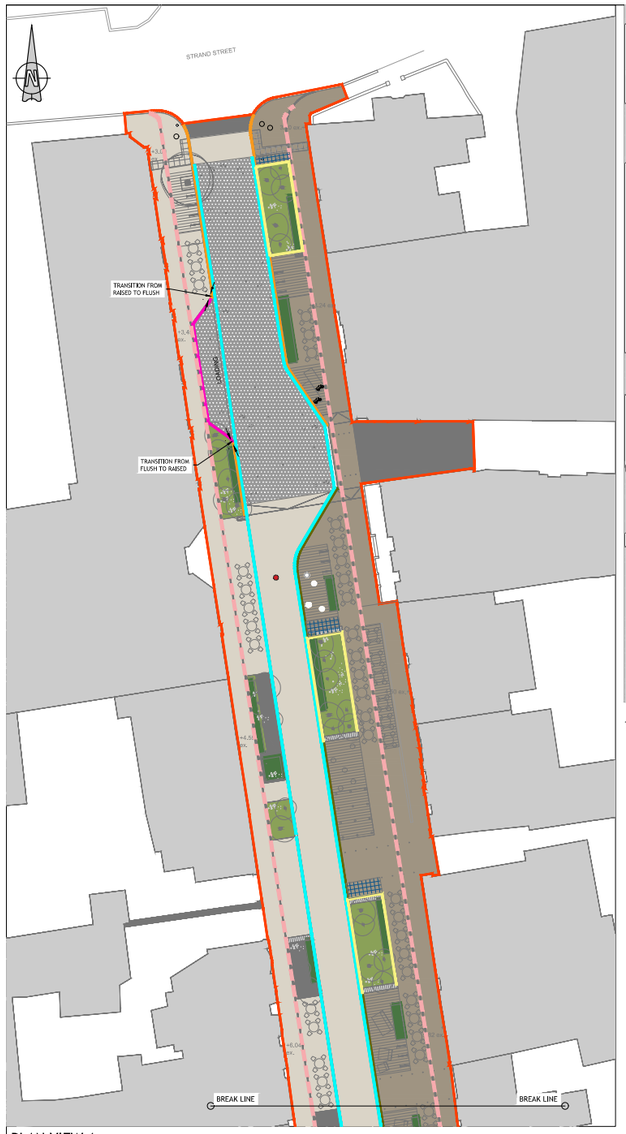
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COLOUR DRAWING

Rev	Amendment	By	Date	Rev	Amendment	By	Date
C01	PLANNING ISSUE	PF	2023-04-06				

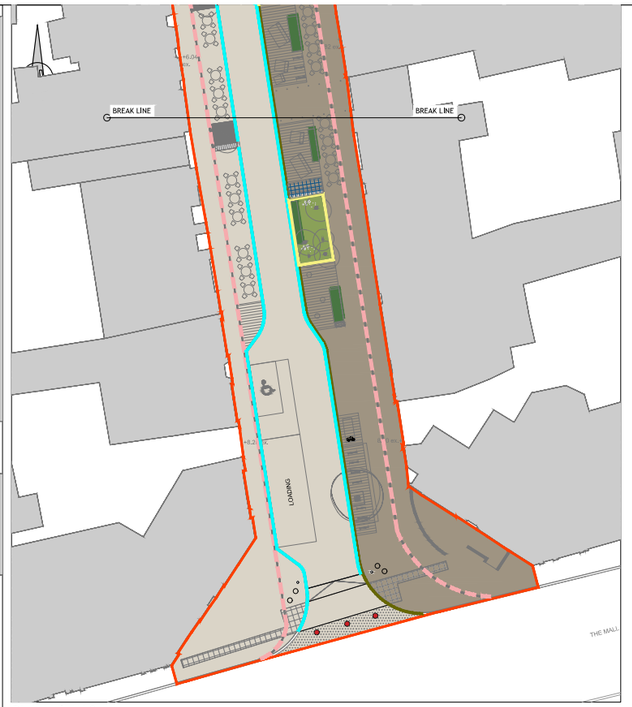
Client: Fingal County Council

PUNCH consulting engineers
Dublin | Limerick | Cork | Galway | Glasgow
Carnegie House Library Road,
Dun Laoghaire, Co. Dublin, A96 C7W7
t +353 1 271 2200 | w punchconsulting.com

Project:	PUBLIC REALM IMPROVEMENTS FOR A PEDESTRIANISED NEW STREET
Title:	PROPOSED DRAINAGE & WATERMAIN LAYOUT
Drawn: DAP	Date drawn: APRIL 2023
Technician Check: DAP	Engineer Check: MCD
Approved: MCD	
Project No: 222126	Model Ref: 222126-PUNCH-XX-XX-M2-C-0100
Drawing Status: A01	
Scale @ A1: 1:200	Document No: 222126-PUNCH-XX-XX-DR-C-0100
Revision No: C01	



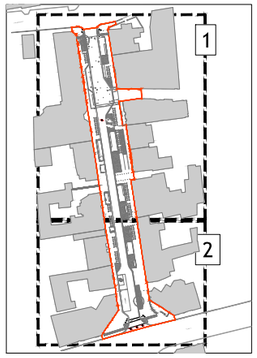
PLAN VIEW 1
SCALE 1:200



PLAN VIEW 2
SCALE 1:200

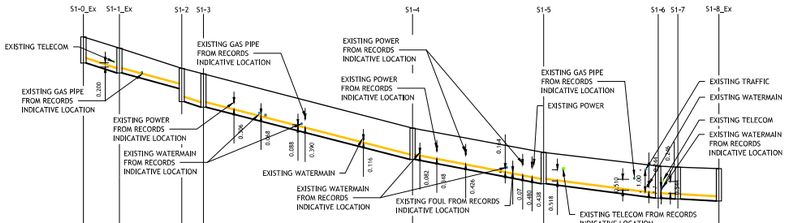
LEGEND

- PROPOSED NATURAL STONE
- PROPOSED PAVED AREA
- EXISTING FLUSH KERB TO BE REUSED AND REINSTATED
- TELESCOPIC VEHICLE BOLLARDS
- PROPOSED LINEAR DRAINAGE FEATURE
- PROPOSED CHANNEL DRAINAGE KERB
- PROPOSED BIORETENTION SURROUND
- PROPOSED LOW KERB
- PROPOSED STANDARD RAISED KERB
- PROPOSED FLUSH KERB
- RED LINE BOUNDARY



KEY PLAN
NOT TO SCALE

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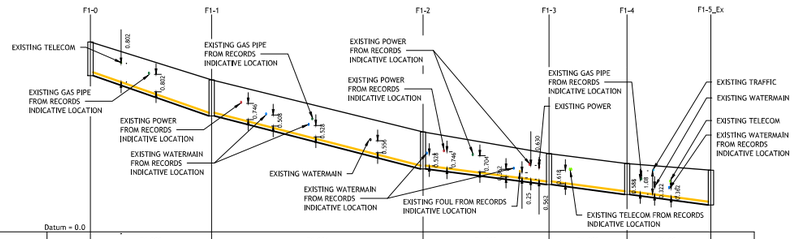


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Slope (1:X)		1:18.1	1:20.0	1:20.0	1:20.0	1:27.0	1:40.0	1:100.0	1:100.0	
Cover Level (m)		8.950	8.440	7.500	7.250	4.750	3.630	3.000	2.950	2.880
Invert Level (m)		7.750	7.290 7.290	6.571 5.966	5.716 5.716	3.305 3.305	2.185 2.185	1.525 1.525	1.479 1.479	1.385
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PROPOSED SURFACE WATER LONG SECTION

SCALE 1:500

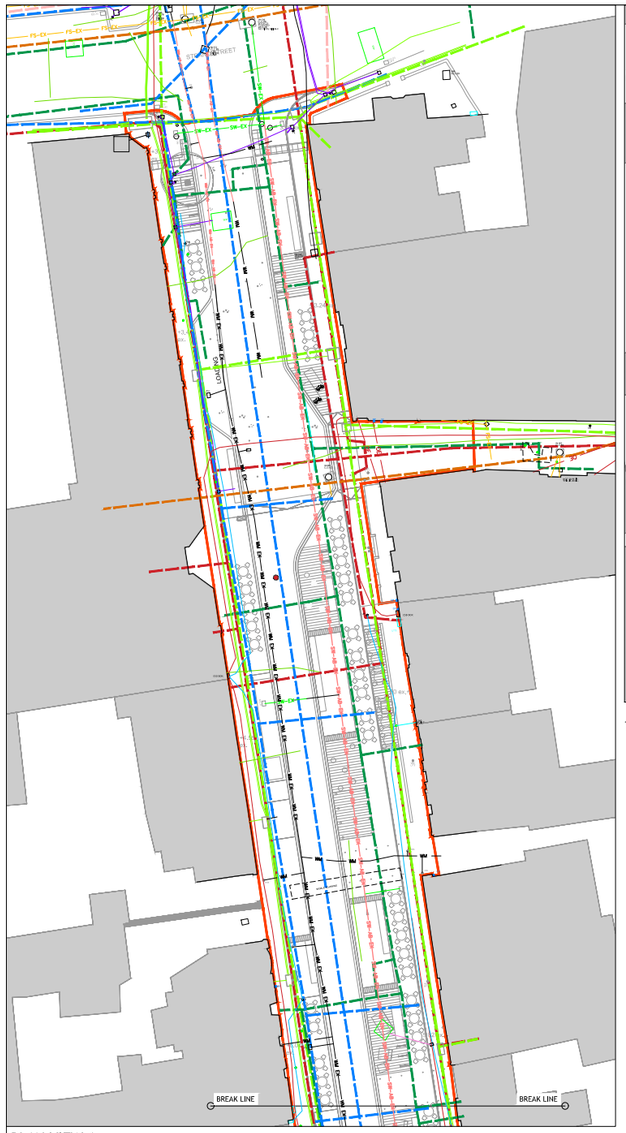


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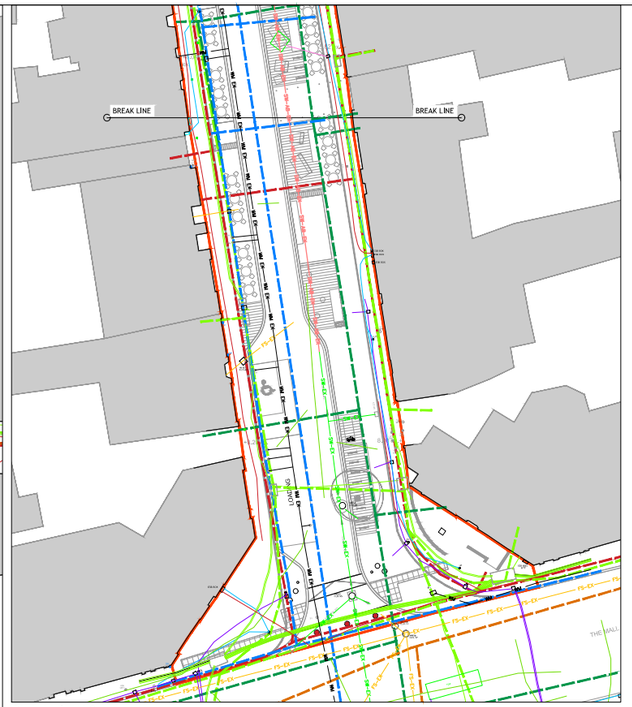
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Invert Level (m)		7.200	5.317 5.317	2.899 2.899	2.172 2.172	1.722 1.722	1.238
Length (m)		27.947	48.755	29.057	17.992	19.332	

PROPOSED FOUL WATER SEWER LONG SECTION

SCALE 1:500



PLAN VIEW 1
SCALE 1:200



PLAN VIEW 2
SCALE 1:200

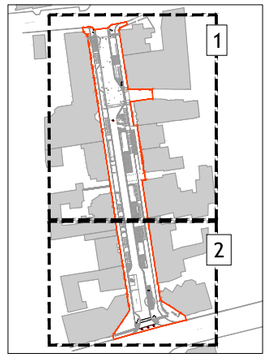
LEGEND

- EXISTING WATERMAIN
- EXISTING WATERMAIN TO BE ABANDONED/REMOVED
- EXISTING SURFACE WATER
- EXISTING SURFACE WATER TO BE ABANDONED
- EXISTING UNDERGROUND TELECOM
- UNDERGROUND ELECTRIC
- UNDERGROUND ELECTRIC LIGHTING
- EXISTING FOUL LINE
- UNDERGROUND TRAFFIC CABLES
- EXISTING OVERHEAD ELECTRIC
- EXISTING GAS
- EXISTING UNDERGROUND CABLE TV
- UNDERGROUND GPR ANOMALY
- EXISTING UNIDENTIFIED CABLE

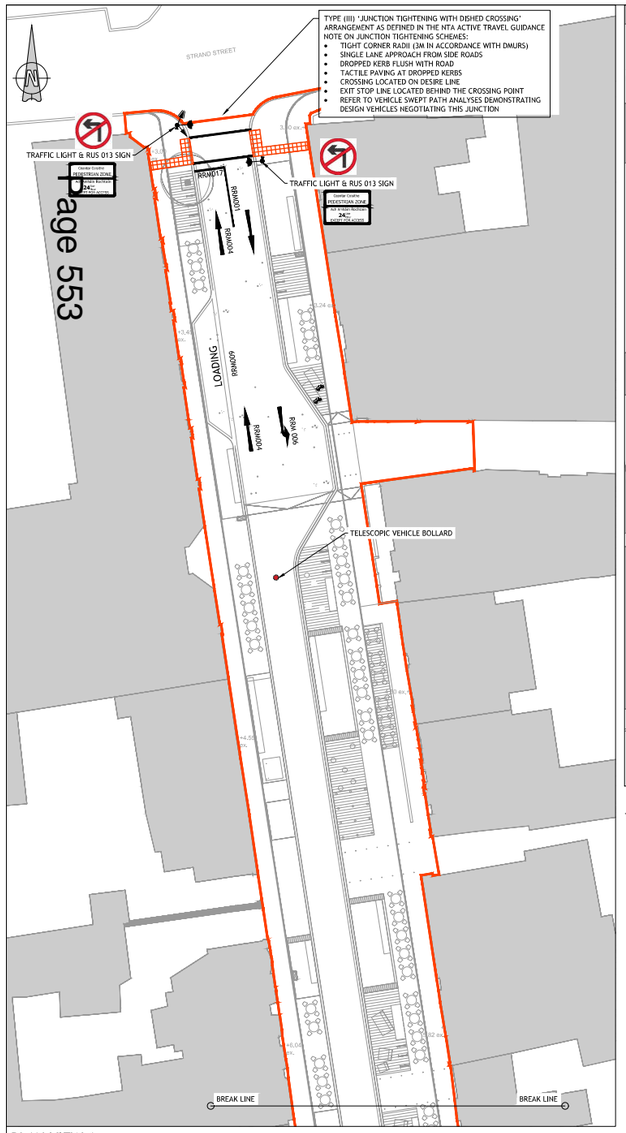
EXISTING SERVICES FROM RECORDS

- EXISTING RECORDS TELECOM
- EXISTING RECORDS WATER
- EXISTING RECORDS POWER
- EXISTING GAS
- EXISTING FOUL
- EXISTING VIRGIN MEDIA

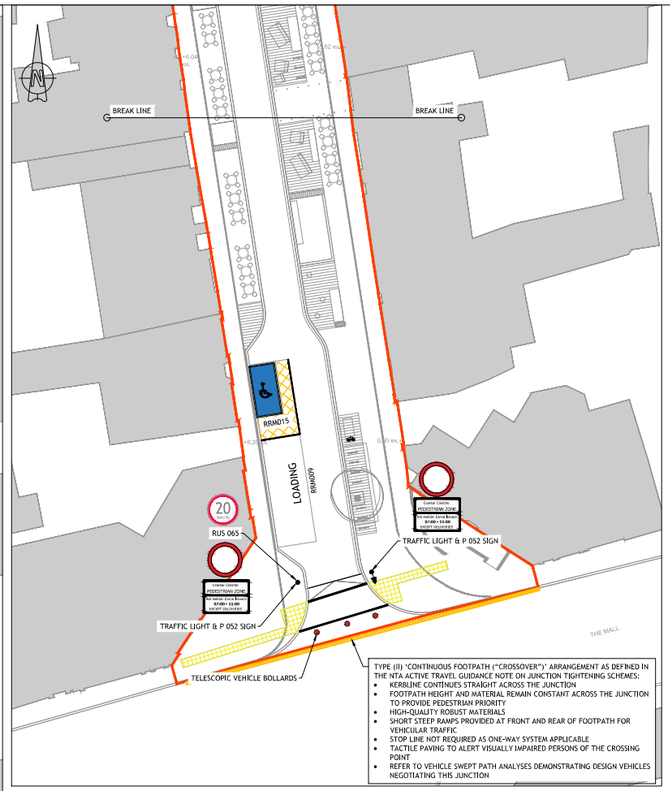
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KEY PLAN
NOT TO SCALE



PLAN VIEW 1
SCALE 1:200



PLAN VIEW 2
SCALE 1:200

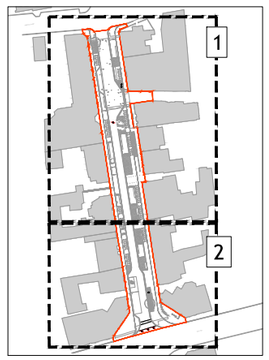
ROAD MARKING AND SIGNAGE LEGEND

DESCRIPTION	*DTTSM REF
100mm WIDE CONTINUOUS WHITE LINE	RRM001
200mm WIDE STOP LINE	RRM017
LANE INDICATION ARROW	RRM004
DIRECTIONAL ARROW RIGHT	RRM006
DISABLED PERSONS PARKING BAY SYMBOL	RRM015
LOADING BAY	RRM009
20kph SIGN SHOWN THUS	RUS 065
NO TURN LEFT REGULATORY SIGN	RUS 013
PEDESTRIAN STREET REGULATORY SIGN	RUS 021
PROPOSED SIGNAL CONTROLLED CROSSING	
PROPOSED UNCONTROLLED CROSSING	

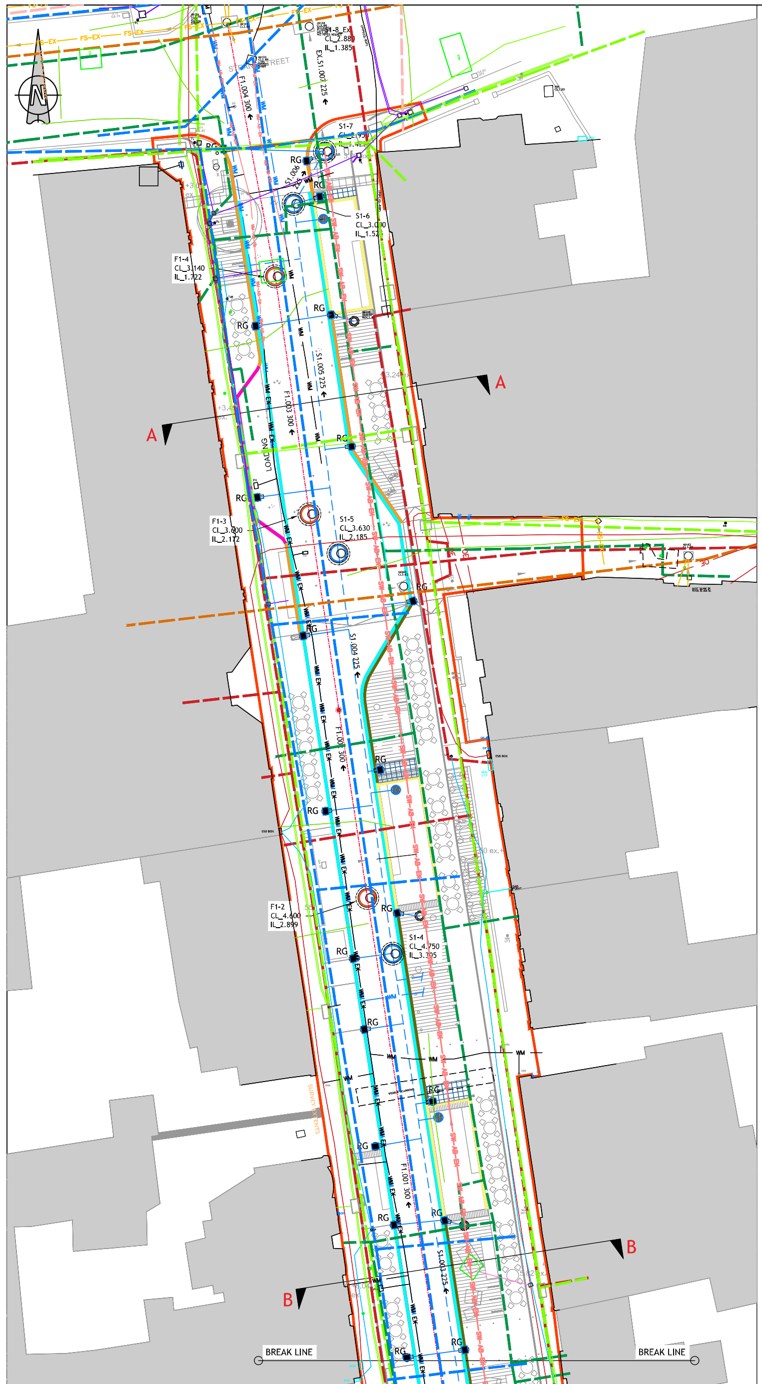
NOTES:

1. ALL ROAD SIGNAGE AND LINEMARKING TO COMPLY WITH THE DEPARTMENT OF TRANSPORT TRAFFIC SIGNS MANUAL
2. SIGN POLES MAX. DIAMETER 89mm. WHERE PEDESTRIANS ARE LIKELY TO WALK UNDER THE SIGN, THE DESIRABLE MOUNTING HEIGHT IS 2300mm. WHERE CYCLISTS ARE LIKELY TO PASS UNDER THE SIGN, THE DESIRABLE MOUNTING HEIGHT IS 2500mm
3. RETENTION SOCKETS TO BE USED ON ALL SIGN POLES
4. ALL ROAD SIGNAGE TO BE AGREED WITH THE LOCAL AUTHORITY
5. LOCATION OF SIGNAGE TO BE AGREED, ON SITE, WITH THE LOCAL AUTHORITY BEFORE ERECTING.
6. LINEMARKING SPECIFICATION TO BE IN ACCORDANCE WITH TII SERIES 1200
7. ALL DIMENSIONS ARE IN METRES UNLESS NOTED OTHERWISE

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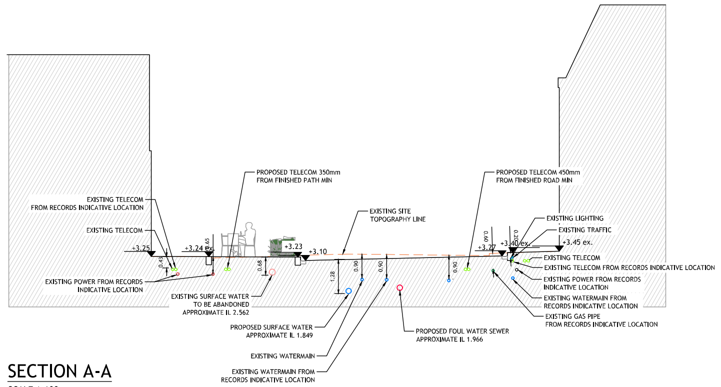


KEY PLAN
NOT TO SCALE



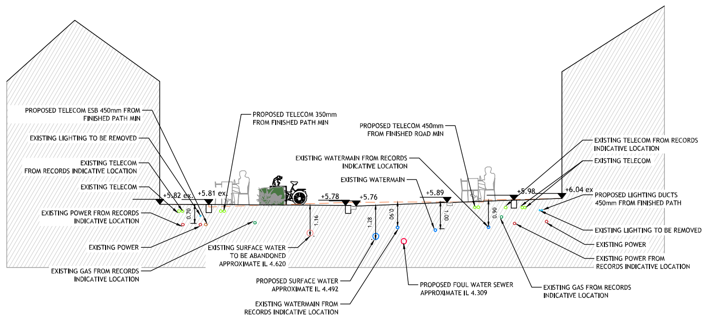
PLAN VIEW 1

SCALE 1:200



SECTION A-A

SCALE 1:100



SECTION B-B

SCALE 1:100

EXISTING SERVICES

- EXISTING UNDERGROUND TELECOM
- UNDERGROUND ELECTRIC
- UNDERGROUND ELECTRIC LIGHTING
- UNDERGROUND TRAFFIC CABLES
- EXISTING OVERHEAD ELECTRIC (OE)
- EXISTING GAS
- EXISTING UNDERGROUND CABLE TV
- UNDERGROUND GPR ANOMALY
- EXISTING UNIDENTIFIED CABLE

EXISTING SERVICES FROM RECORDS

- EXISTING RECORDS TELECOM
- EXISTING RECORDS WATER
- EXISTING RECORDS POWER
- EXISTING GAS

LEGEND

- EXISTING SURFACE WATER (SW-EX)
- EXISTING SURFACE WATER TO BE ABANDONED (SW-AB-EX)
- EXISTING FOUL WATER SEWER (FS-EX)
- EXISTING WATERMAIN (WM)
- EXISTING WATERMAIN TO BE ABANDONED/REMOVED (WM-AB-EX)
- PROPOSED WATERMAIN (WM)
- PROPOSED FOUL SEWER
- PROPOSED FOUL SEWER MANHOLE
- PROPOSED SURFACE WATER
- PROPOSED SURFACE WATER MANHOLE
- PROPOSED SURFACE WATER INSPECTION CHAMBER
- PROPOSED GULLY
- PROPOSED SuDS OVERFLOW GULLY
- PROPOSED LINEAR DRAINAGE FEATURE
- PROPOSED CHANNEL DRAINAGE KERB
- PROPOSED BIORETENTION SURROUND
- PROPOSED LOW KERB
- PROPOSED STANDARD RAISED KERB
- PROPOSED FLUSH KERB
- BOUNDARY LINE

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KEY PLAN

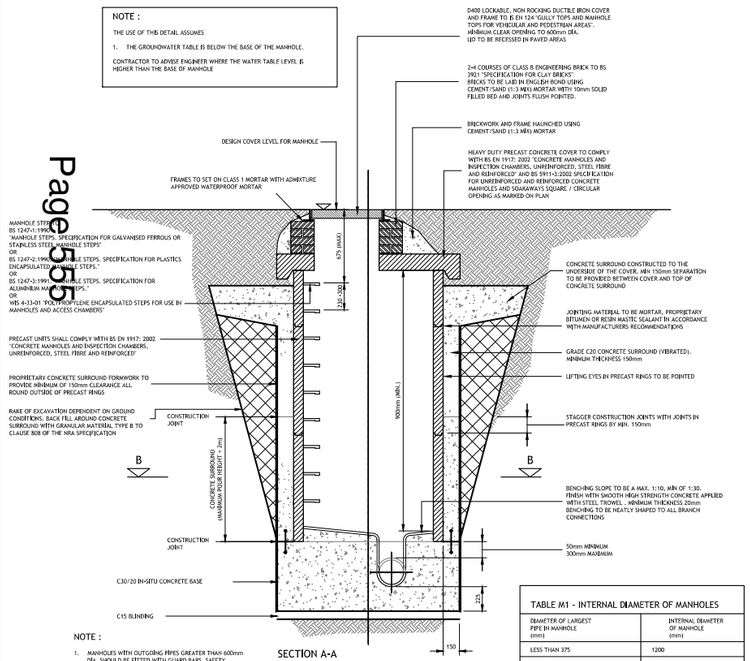
NOT TO SCALE

NOTE :

THE USE OF THIS DETAIL ASSUMES

1. THE GROUNDWATER TABLE IS BELOW THE BASE OF THE MANHOLE.

CONTRACTOR TO ADVISE ENGINEER WHERE THE WATER TABLE LEVEL IS HIGHER THAN THE BASE OF MANHOLE



NOTE :

1. MANHOLES WITH OUTGOING PIPES GREATER THAN 600mm DIA. SHOULD BE FITTED WITH GUARD BARS, SAFETY CHAINS OR OTHER SAFETY DEVICES.
2. FOR DEPTHS TO INVERT =2.700m AN ACCESS SHAFT OF MIN. 900mm DIAMETER AND REDUCING SLAB MAY BE USED.
3. WHERE THE DEPTH TO INVERT IS 1.00m OR LESS A 450mm x 450mm (OR 450mm DIA.) INSPECTION CHAMBER WITH MINIMUM COVER SIZES OF 450mm DIA. MAY BE USED SUBJECT TO ACCOMMODATION OF CONNECTIONS AND APPROVAL OF THE LOCAL AUTHORITY.
4. ON COMPLETION OF CONSTRUCTION INTERNAL SURFACES OF MANHOLE & SEWERS TO THOROUGHLY CLEANSED TO REMOVE ALL DELETERIOUS MATERIAL, WITHOUT SUCH MATTER BEING PASSED FORWARD INTO PUBLIC SEWERS OR WATERCOURSES
5. FIRST MANHOLE UPSTREAM FROM CONNECTION TO THE (EXISTING) PUBLIC SEWER TO BE FITTED WITH A SCREEN IN ORDER TO PREVENT DEBRIS ENTERING THE PUBLIC SEWER. THE SCREEN NOT TO BE REMOVED UNTIL IMMEDIATELY PRIOR TO OCCUPATION OF PREMISES TO BE SERVED BY SEWER.

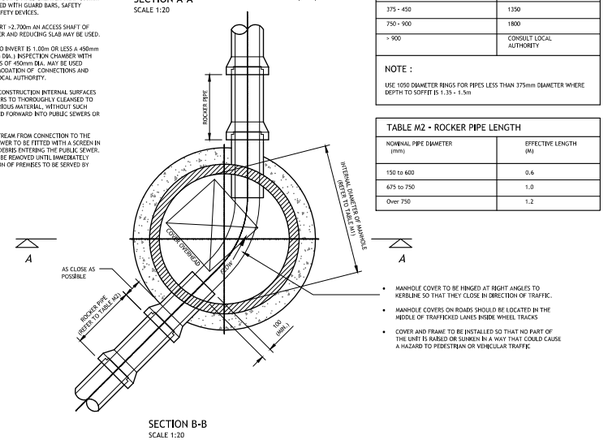
SECTION A-A
SCALE 1:20

TABLE M1 - INTERNAL DIAMETER OF MANHOLES	
DIAMETER OF LARGEST PIPE IN MANHOLE (mm)	INTERNAL DIAMETER OF MANHOLE (mm)
LESS THAN 375	1200
375 - 450	1350
750 - 900	1800
> 900	CONSULT LOCAL AUTHORITY

NOTE :

USE 1050 DIAMETER RINGS FOR PIPES LESS THAN 375mm DIAMETER WHERE DEPTH TO SOFFIT IS 1.35 + 1.5m

TABLE M2 - ROCKER PIPE LENGTH	
NOMINAL PIPE DIAMETER (mm)	EFFECTIVE LENGTH (M)
150 to 600	0.6
675 to 750	1.0
Over 750	1.2

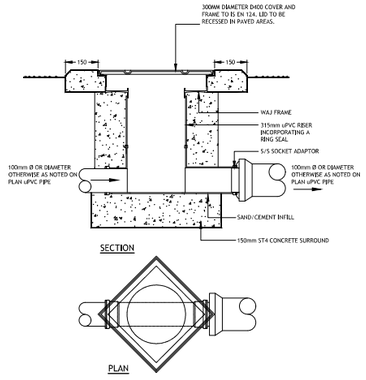


SECTION B-B
SCALE 1:20

- MANHOLE COVER TO BE HINGED AT RIGHT ANGLES TO KERBLINE SO THAT THEY CLOSE IN DIRECTION OF TRAFFIC.
- MANHOLE COVERS ON ROADS SHOULD BE LOCATED IN THE MIDDLE OF TRAFFICKED LANES INSIDE WHEEL TRACKS
- COVER AND FRAME TO BE INSTALLED SO THAT NO PART OF THE LIMIT IS RAISED OR SUNKEN IN A WAY THAT COULD CAUSE A HAZARD TO PEDESTRIAN OR VEHICULAR TRAFFIC

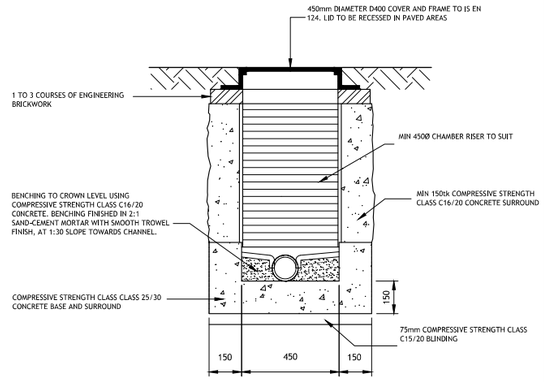
1.TYPICAL PRECAST CONCRETE MANHOLE

SCALE 1:20

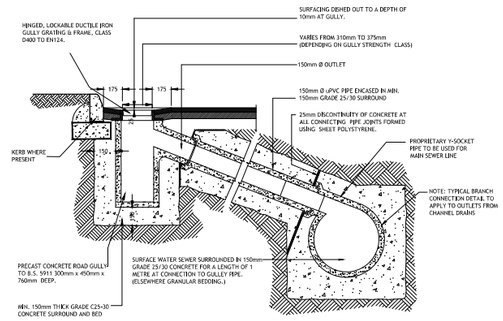


2. ACCESS JUNCTION DETAIL

SCALE: 1:10



SECTION A-A



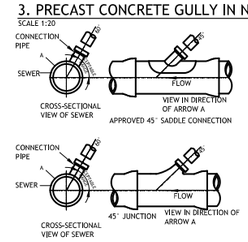
FOR STRENGTH CLASS OF GULLY REFER TO EN 124 : 2015, CLAUSE 5

NOTE 1 : PLACE OF INSTALLATION & FIGURES 9A AND 9B PROPRIETARY FITTINGS TO BE USED ON ALL FIREWORK CONNECTIONS

NOTE 2 :
GROUP 1 - MIN. CLASS A15 GROUP 4 - MIN. CLASS D400
GROUP 2 - MIN. CLASS B125 GROUP 5 - MIN. CLASS E600
GROUP 3 - MIN. CLASS C250 GROUP 6 - MIN. CLASS F900

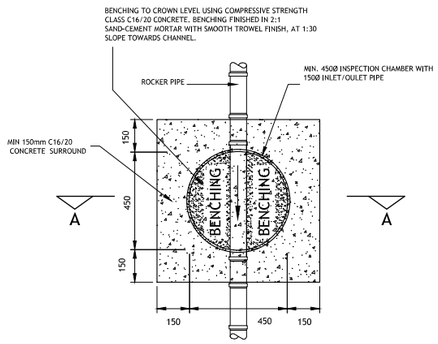
3. PRECAST CONCRETE GULLY IN NATURAL STONE AREA

SCALE 1:20



4. TYPICAL SEWER / SERVICE PIPE CONNECTION

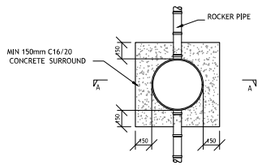
SCALE 1:10



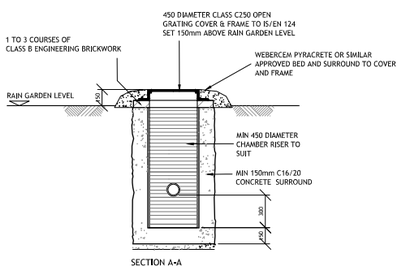
INSPECTION CHAMBER BASE

5. INSPECTION CHAMBER UP TO 1.0m DEEP

SCALE 1:10



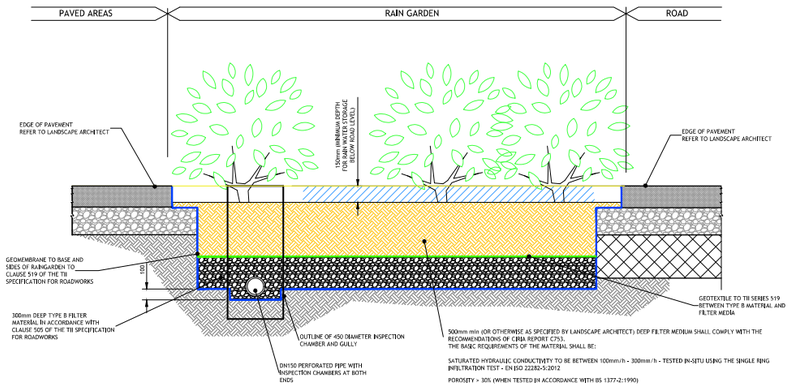
INSPECTION CHAMBER BASE



SECTION A-A

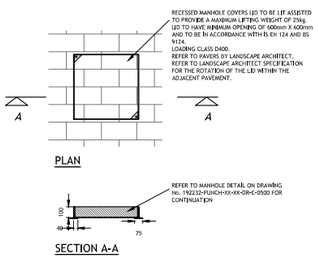
1. INSPECTION CHAMBER CATCHPIT (CP)

SCALE 1:20



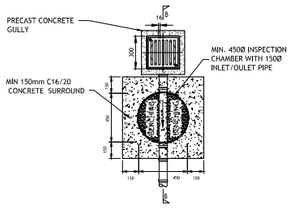
2. RAIN GARDEN - TYPICAL SECTION

SCALE 1:20



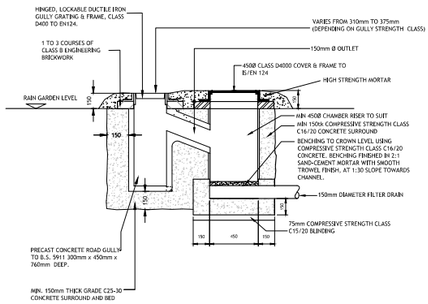
3. RECESSED MANHOLE COVER AND FRAME

NOT TO SCALE



5. GULLY AND INSPECTION CHAMBER CONNECTION IN PLAN

SCALE 1:20



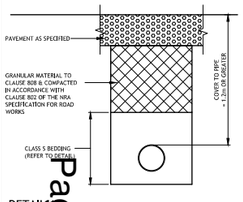
FOR STRENGTH CLASS OF GULLY REFER TO EN 124 : 2015, CLAUSE 5

NOTE 1 : PLACE OF INSTALLATION & FIGURES 9A AND 9B PROPRIETARY FITTINGS TO BE USED ON ALL PIPEWORK CONNECTIONS

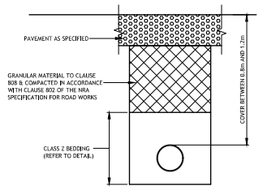
NOTE 2 :
GROUP 1 - MIN. CLASS A15 GROUP 4 - MIN. CLASS D400
GROUP 2 - MIN. CLASS B125 GROUP 5 - MIN. CLASS E600
GROUP 3 - MIN. CLASS C250 GROUP 6 - MIN. CLASS F900

6. SECTION B-B - GULLY AND INSPECTION CHAMBER CONNECTION DETAIL

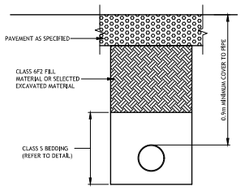
SCALE 1:20



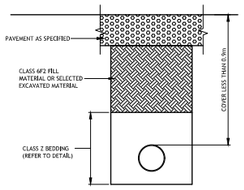
DETAIL 1
PERMANENT REINSTATEMENT OF LONGITUDINAL TRENCH IN ROADWAYS AND PATHS WITH MINIMUM 1.2m COVER



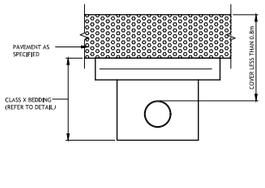
DETAIL 2
PERMANENT REINSTATEMENT OF LONGITUDINAL TRENCH IN ROADWAYS AND PATHS WITH COVER BETWEEN 0.8m and 1.2m



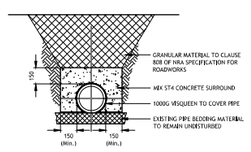
DETAIL 3
PERMANENT REINSTATEMENT OF TRENCH IN SOFT LANDSCAPE AREAS WITH MINIMUM 0.9m COVER



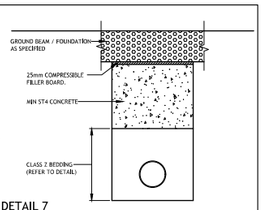
DETAIL 4
PERMANENT REINSTATEMENT OF TRENCH IN SOFT LANDSCAPE AREAS WITH LESS THAN 0.9m COVER



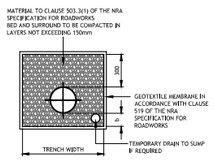
DETAIL 5
PERMANENT REINSTATEMENT OF LONGITUDINAL TRENCH IN ROADWAYS AND PATHS WITH LESS THAN 0.8m COVER



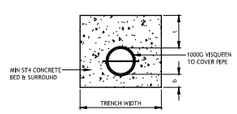
DETAIL 6
CONCRETE SURROUND PROTECTION TO EXISTING SEWER



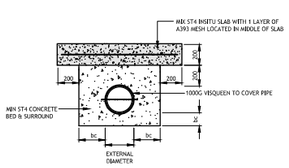
DETAIL 7
IMMEDIATE PERMANENT REINSTATEMENT OF TRENCH CROSSING UNDER BUILDING OR WITHIN 1m OF BUILDING OR OTHER FOUNDATION



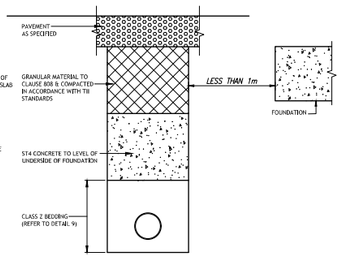
DETAIL 8
CLASS S BEDDING
(GRANULAR BED AND SURROUND)
SCALE 1:20



DETAIL 9
CLASS Z BEDDING
(CONCRETE BED AND SURROUND)
SCALE 1:20



DETAILS 10
CLASS X BEDDING
(CONCRETE BED AND SURROUND)
WITH MESH REINFORCING
SCALE 1:20



DETAIL 12
PIPE IN CLOSE PROXIMITY TO FOUNDATION
SCALE 1:20

TRENCH WIDTHS AND DIMENSIONS FOR FOUL AND SURFACE WATER DRAINS

PIPE DIAMETER (mm)	'Do' (mm)	'b' (mm)	'c' (mm)	TRENCH WIDTH (mm)
100	150	150	150	600
150	210	150	150	700
225	300	150	150	750
300	400	150	150	850
375	480	150	150	950
450	560	150	150	1000
525	650	150	150	1100
600	735	150	150	1200
675	850	200	200	1350
750	910	200	200	1450
900	1080	200	200	1650

TABLE 1

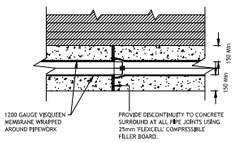
DIMENSION-bc

NOMINAL PIPE DIAMETER (mm)	100–450 Incl.	525–600 Incl.	750	900	1050	1200
bc (mm)	100	150	200	225	250	300

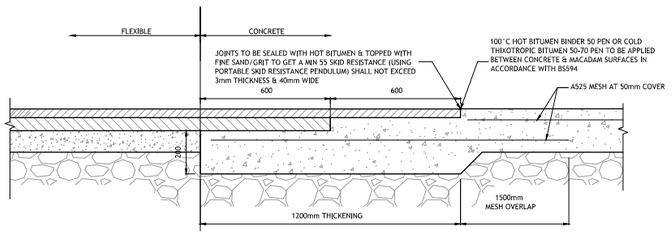
TABLE 2

NOTES (PIPE BEDDING)

1. CLAY PUDDLE SHALL BE INCORPORATED IN THE PIPE BED & SURROUND AND TRENCH BACKFILL MATERIAL IN ACCORDANCE WITH THE SPECIFICATION AT 50m INTERVALS
2. IN ROCK OR MIXED SOILS CONTAINING BOULDERS OR HARD SPOTS INCREASE PIPE BEDDING DEPTH BY 100mm
3. THE EMPLOYER'S REPRESENTATIVE MAY INSTRUCT THAT SPECIFIC PROVISION FOR DRAINAGE ALONG THE PIPE TRENCH BE MADE BY MEANS OF CONCRETE OR OTHER LAND DRAINAGE PIPES WHERE THE WATER TABLE LEVEL SO REQUIRES.
4. FOR DIMENSIONS 'b' , 'Do/2' AND TRENCH WIDTH REFER TO TABLE 1
5. FOR DIMENSIONS 'bc' REFER TO TABLE 2
6. Do = PIPE OUTER DIAMETER

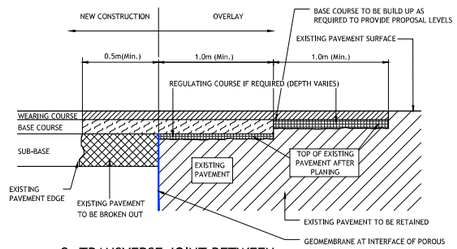


DETAIL 11
CONCRETE SURROUND TO PIPELINES
SCALE 1:20 @ A1



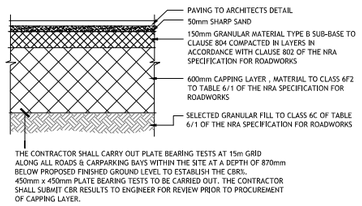
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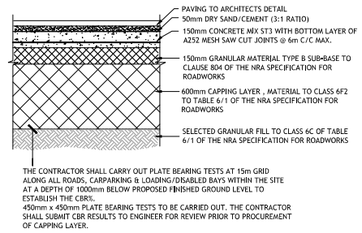
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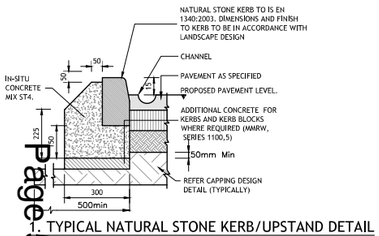
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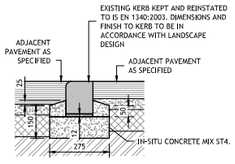
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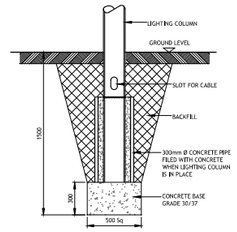
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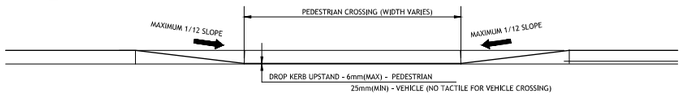
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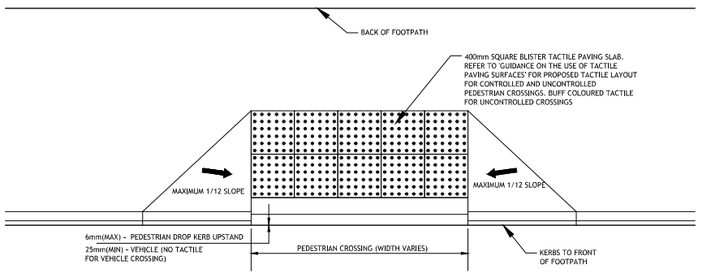
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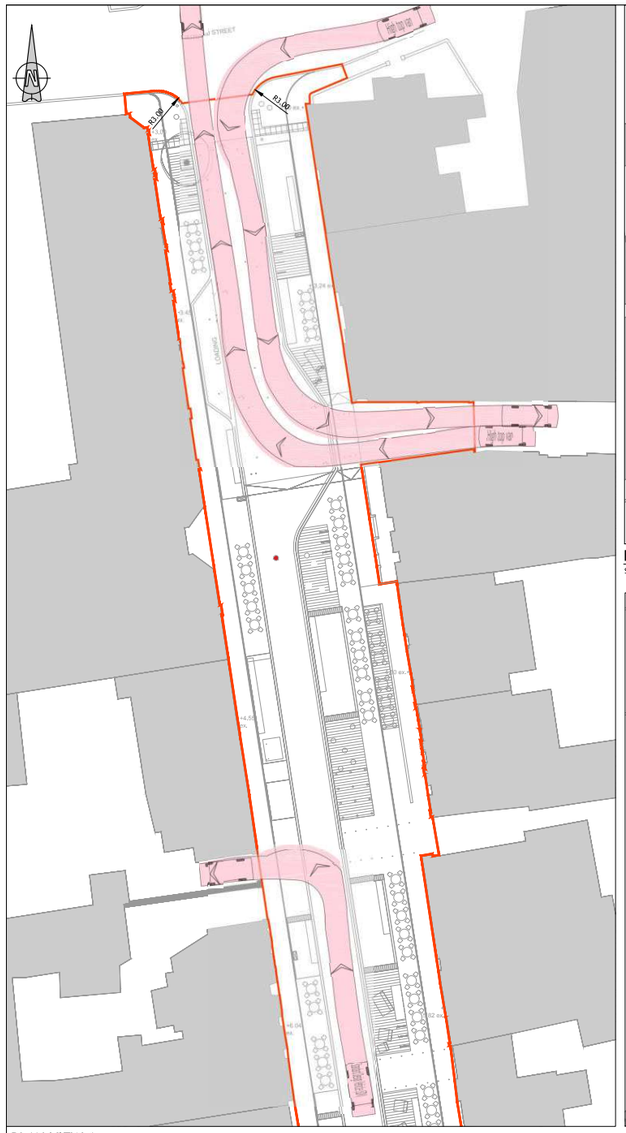
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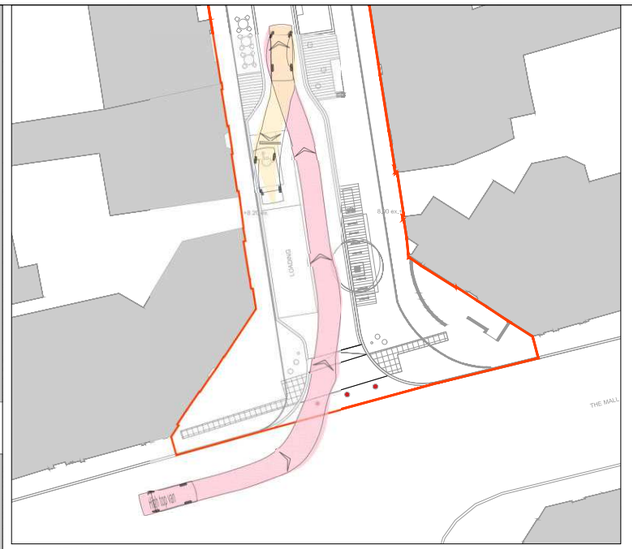


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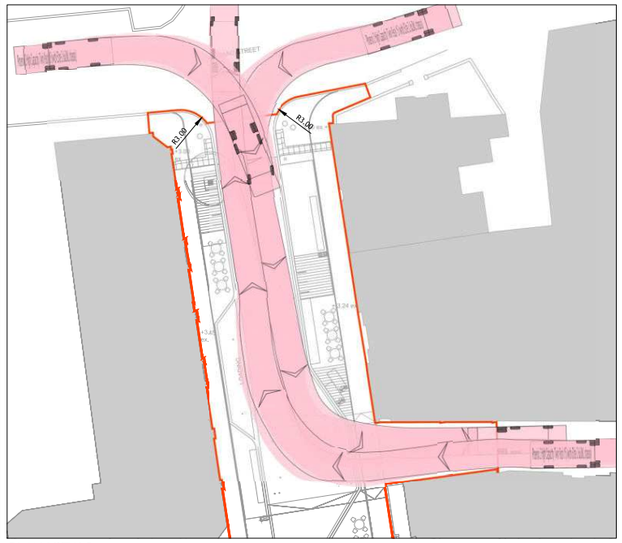
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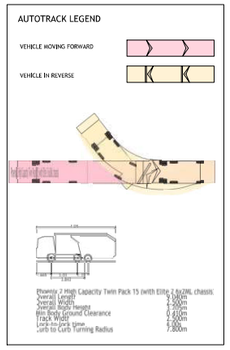
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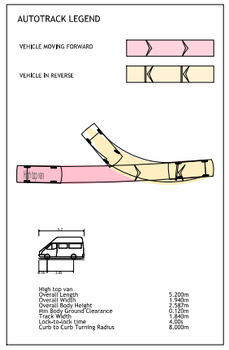


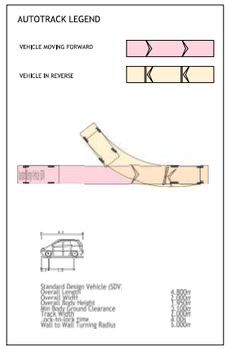
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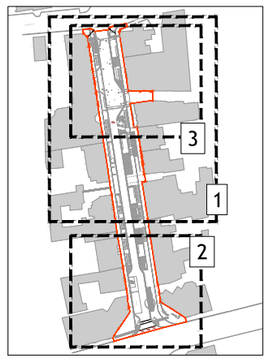


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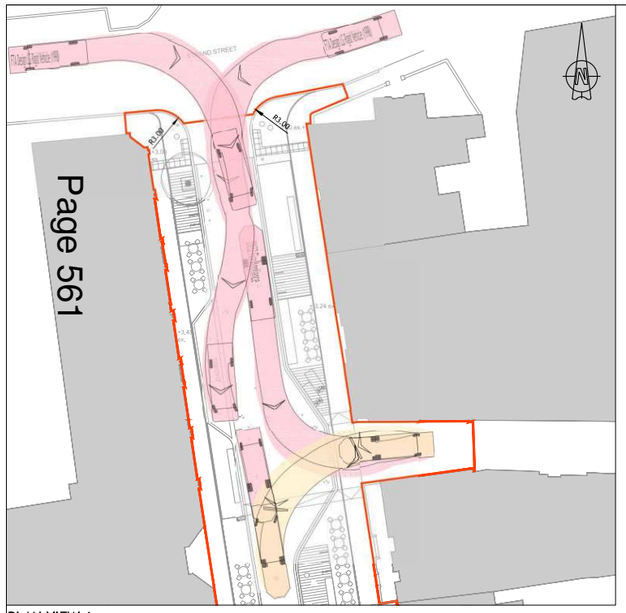




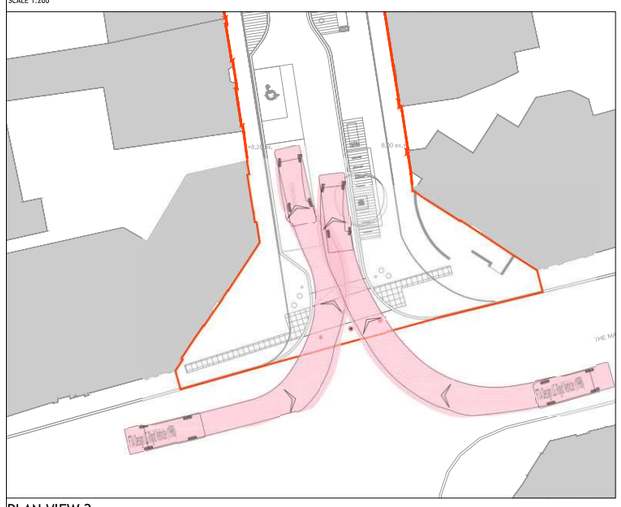


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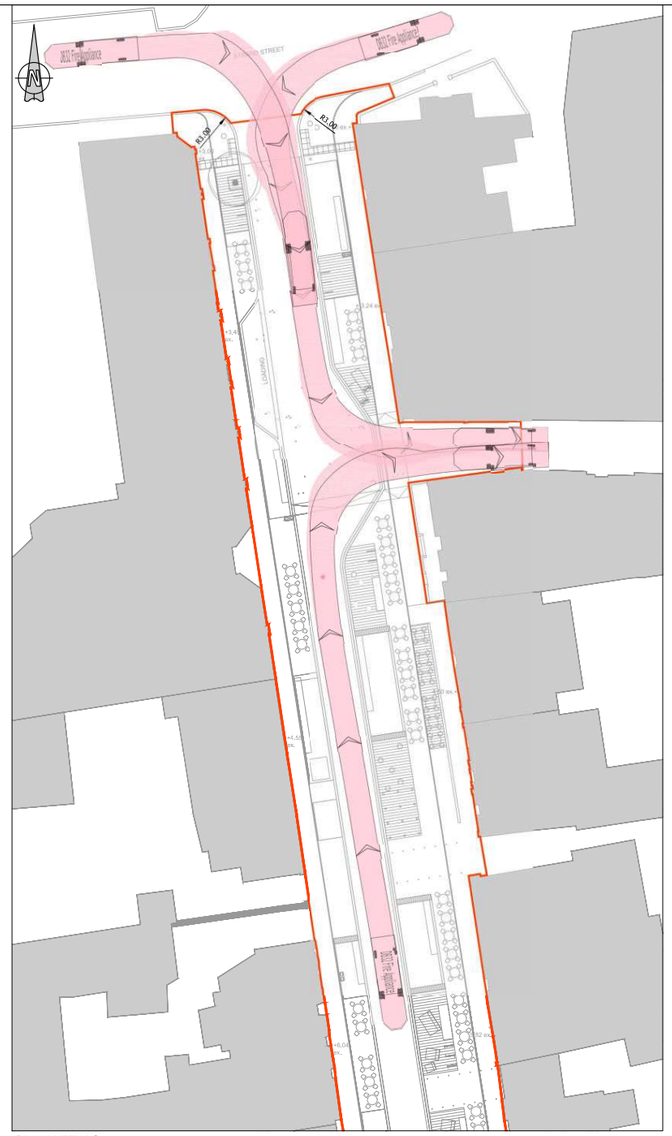
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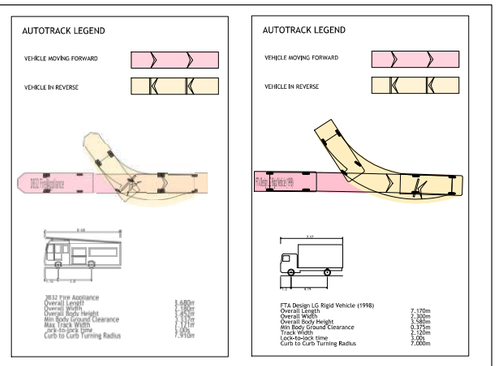
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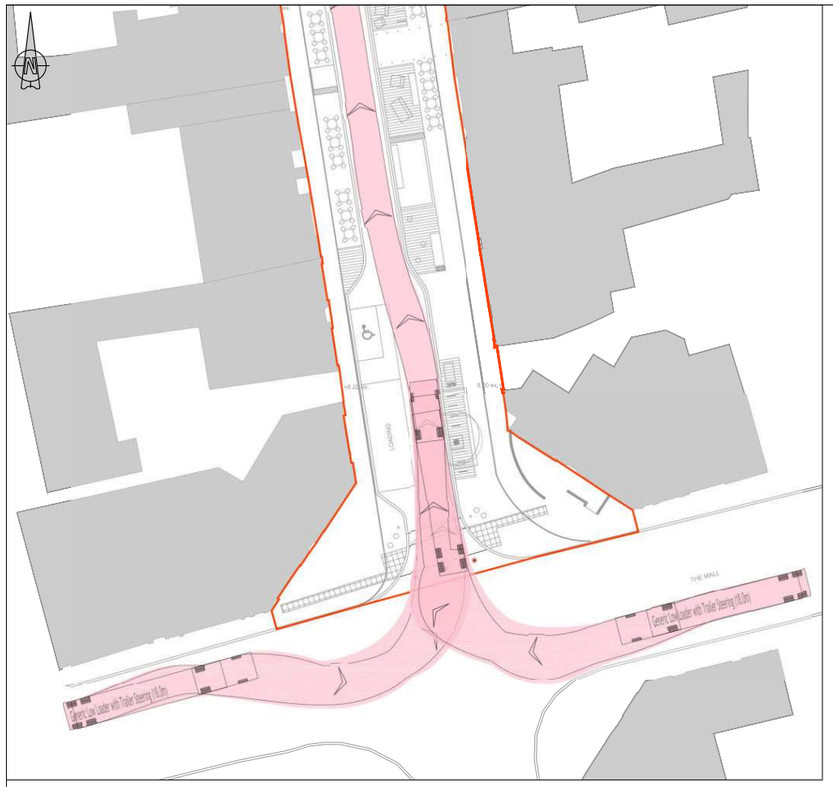
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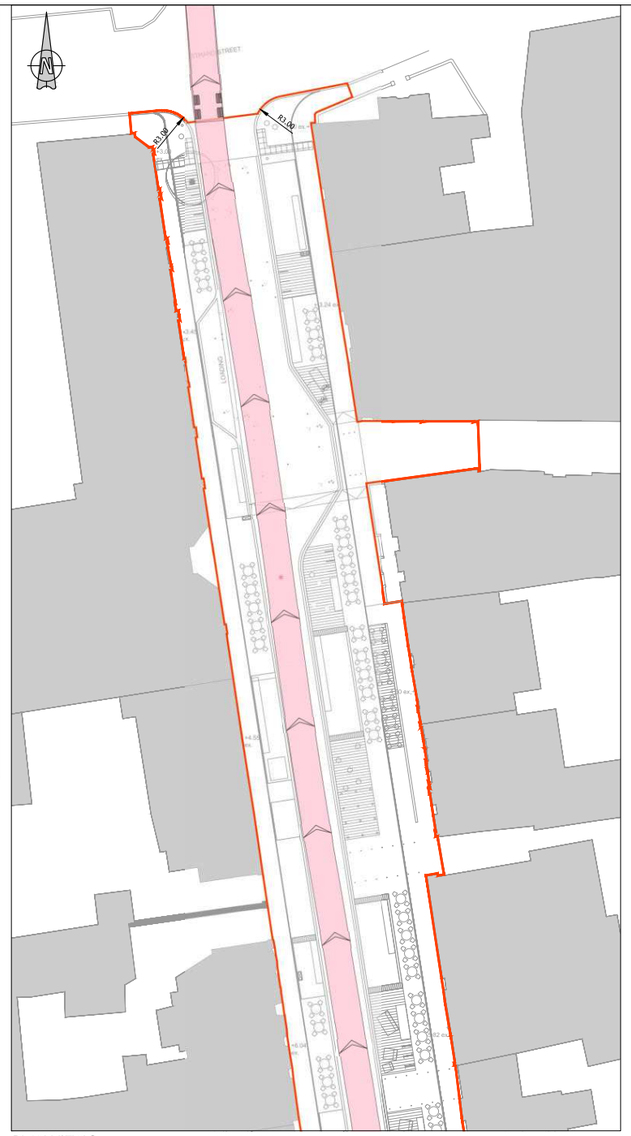
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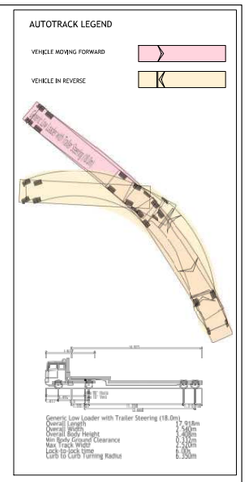
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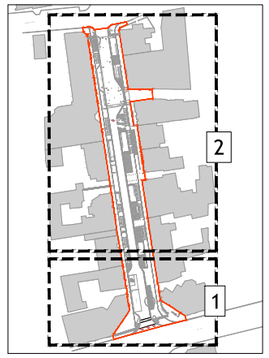
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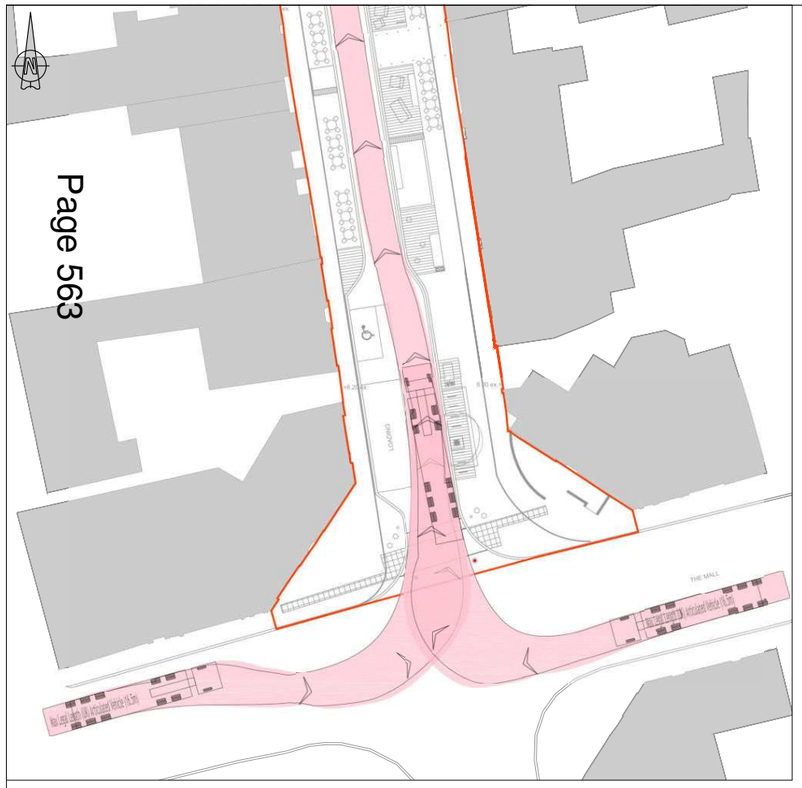
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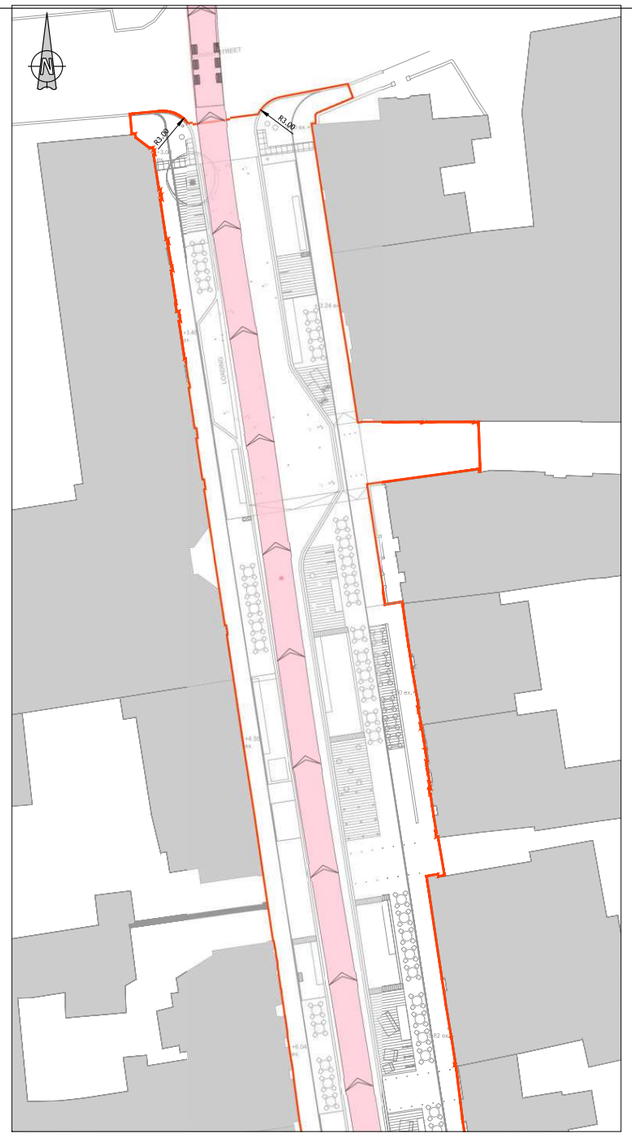
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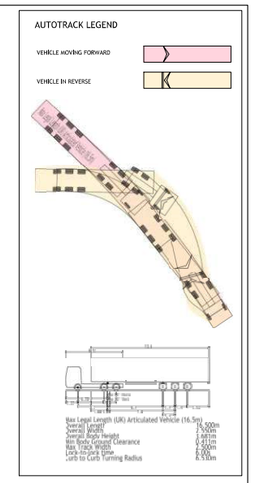
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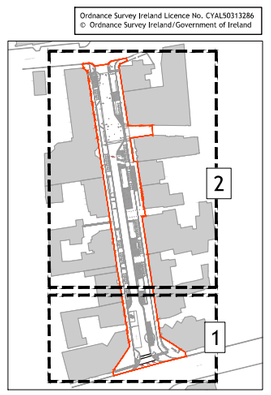


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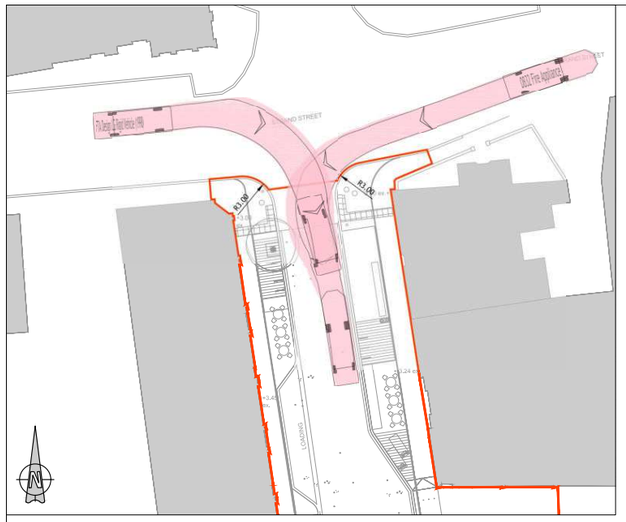


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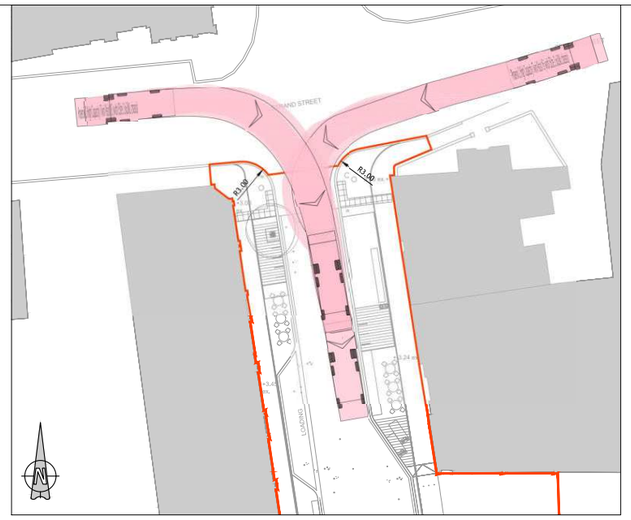


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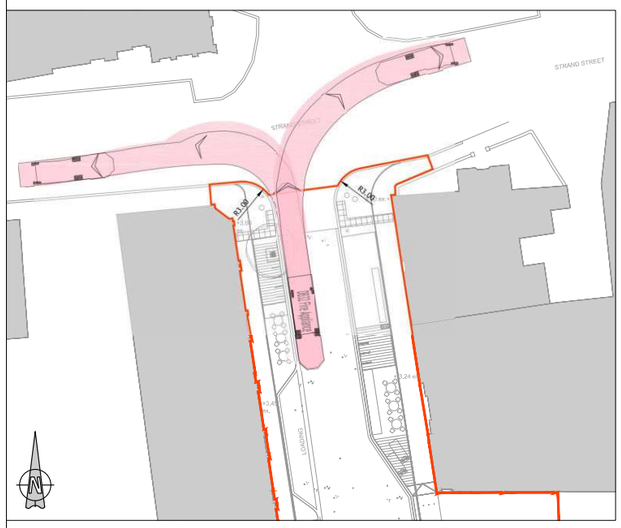
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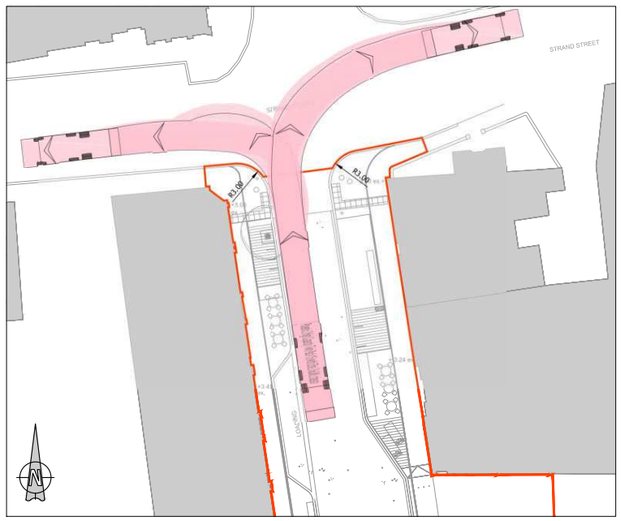
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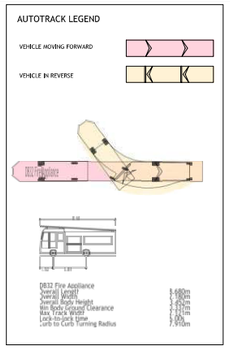
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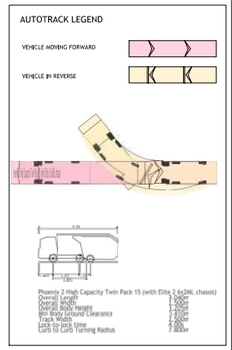
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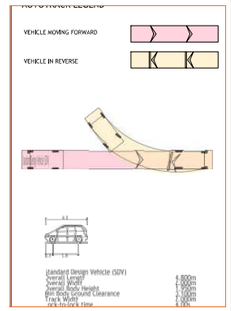


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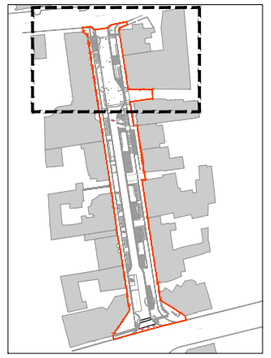
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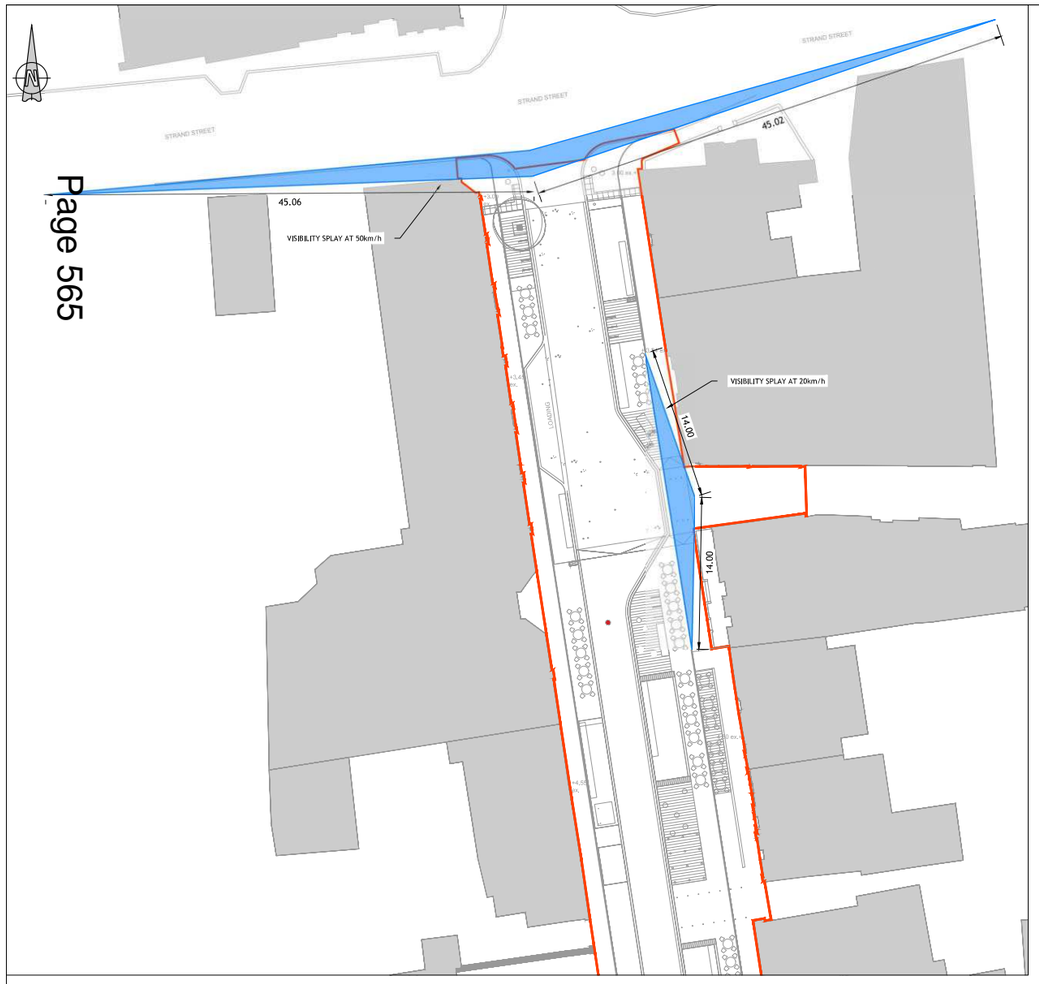


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NOTE:
ALL SIGHTLINE DISTANCES ASSESSED FOR 30km/hr & 50km/hr UNLESS NOTED OTHERWISE IN ACCORDANCE WITH DMURS



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PUNCH consulting engineers

Public Realm Improvements for a Pedestrianised New Street

Engineering Services Report

222126-PUNCH-XX-XX-RP-C-0001

April 2023

Document Control

Document Number: **222126-PUNCH-XX-XX-RP-C-0001**

Status	Rev	Description	Date	Prepared	Checked	Approved
A0	P01	Planning Issue	06/04/2023	D Moreton	MC Daly	P Casey

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Appendix A Existing Record Drawings ..... A-I

1 Introduction

1.1 Background

This report is prepared to accompany a planning submission for the proposed public realm improvements to a pedestrianised New Street, located in Malahide, Co. Dublin. This report deals specifically with the Surface Water, Foul Water, and Watermain design associated with the site.

1.2 Existing Site

The site is approximately 0.22 hectares in area located on New Street in Malahide. The existing site consists of an established town street with retail, commercial and residential development throughout. The topography of the street falls from its highest point at the southern extents of the site (The Mall) towards the lowest point at the northern extents of the site (Strand Street).

The site is bounded by retail, commercial and residential developments to the west and east, a junction on Strand Street to the north, and a junction on The Mall (R106) to the south. The junctions on either end of New Street are both signalised. New Street is approximately 100m southwest of the marina. The street is pedestrianised with restricted vehicular access to enable deliveries allowed between 7am and 11 am only, refuse collection and emergency vehicles. The northern end of New Street allows two-way traffic for access to Ross Cottages at all times. The site is accessed via The Mall (R106) to the south and via Strand Street to the north.

Please refer to Figure 1-1 below illustrating the site boundary.



Figure 1-1: Site Location Plan.

1.3 Proposed Development

The proposed public realm improvements will comprise: -

i. Widening of footpaths and provision of new kerb edges with existing kerbstones retained, realigned and protected within the widened footpaths and public spaces.
ii. Realignment and narrowing of the trafficable section of New Street (c.150m in length, 0.22ha) and insertion of control measures and all necessary signage to provide for a pedestrianised street with associated traffic flow routes and restrictions allowing for time limited one-way access from 7am to 11am each day for deliveries and emergency vehicles from Main Street/ The Mall to New Street and a two-way access from Strand Street to Ross's Terrace via New Street.
iii. Upgrade of all street surfaces.
iv. Provision of 2no. loading bays at the southern and northern ends of New Street and an accessible parking space in front of the HSE building.
v. Installation of cycle stands at 6no. locations on New Street with capacity for 23no. cycle parking spaces.
vi. Removal and replacement of 11no. existing trees with 37no. trees of species appropriate to the location and environment and provision of soft landscaping and green infrastructure with planting zones for seeded, planted and hedging areas and associated bioretention and tree pit areas.
vii. Provision of outdoor dining zones including tables and chairs and other ancillary moveable structures.
viii. Provision of street furniture including seating, benches and litter and recycling bins and a water feature.
ix. New public lighting.
x. Upgrade of the watermain and foul drainage networks and upgrade and relocation of the surface water drainage network including provision of sustainable urban drainage systems (SUDs) features as part of hard and soft landscaping.
xi. Provision of ducting for existing and future utilities and piped infrastructure.
xii. All associated site and development works.

Fingal County Council will be providing regulatory traffic signs in accordance with Section 95 of the Road Traffic Act 1961 (as amended).

The proposed public realm improvements are outlined in a series of architectural drawings prepared by DFLA, and engineering drawings prepared by PUNCH Consulting Engineers supplied as part of the planning submission pack.

The proposed architectural site layout is shown in Figure 1-2 below. Please refer to Architectural Documents for full proposed site layout.

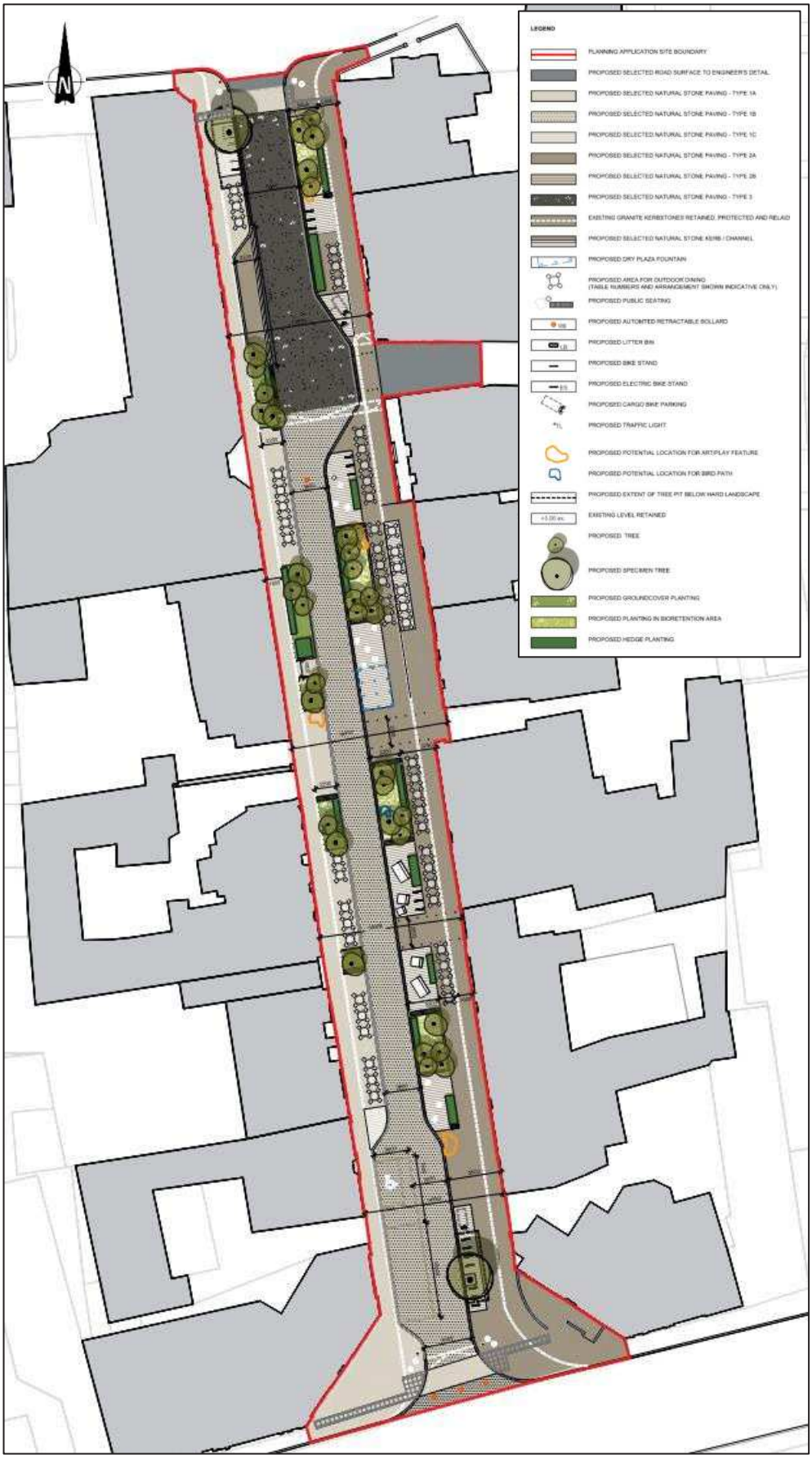


Figure 1-2: Proposed Site Layout (refer architectural documentation by Dermot Foley Landscape Architects).

2 Stormwater Drainage Design

2.1 Existing Stormwater Drainage

On the basis of available records provided by Irish Water / Fingal County Council, the following stormwater drainage networks are present within the development site:

1. 225mm stormwater piped concrete sewer flowing south-north on New Street.

The following stormwater drainage exists adjacent to the development site:

1. 225mm stormwater piped concrete sewer flowing west-east on Strand Street

As built records and Ground Penetrating Radar Survey information is available for the site, which has confirmed the existing drainage arrangements in detail.

Please refer to Appendix A for Existing Record Drawings illustrating the existing stormwater drainage arrangement. An extract is shown in Figure 2-1 below.

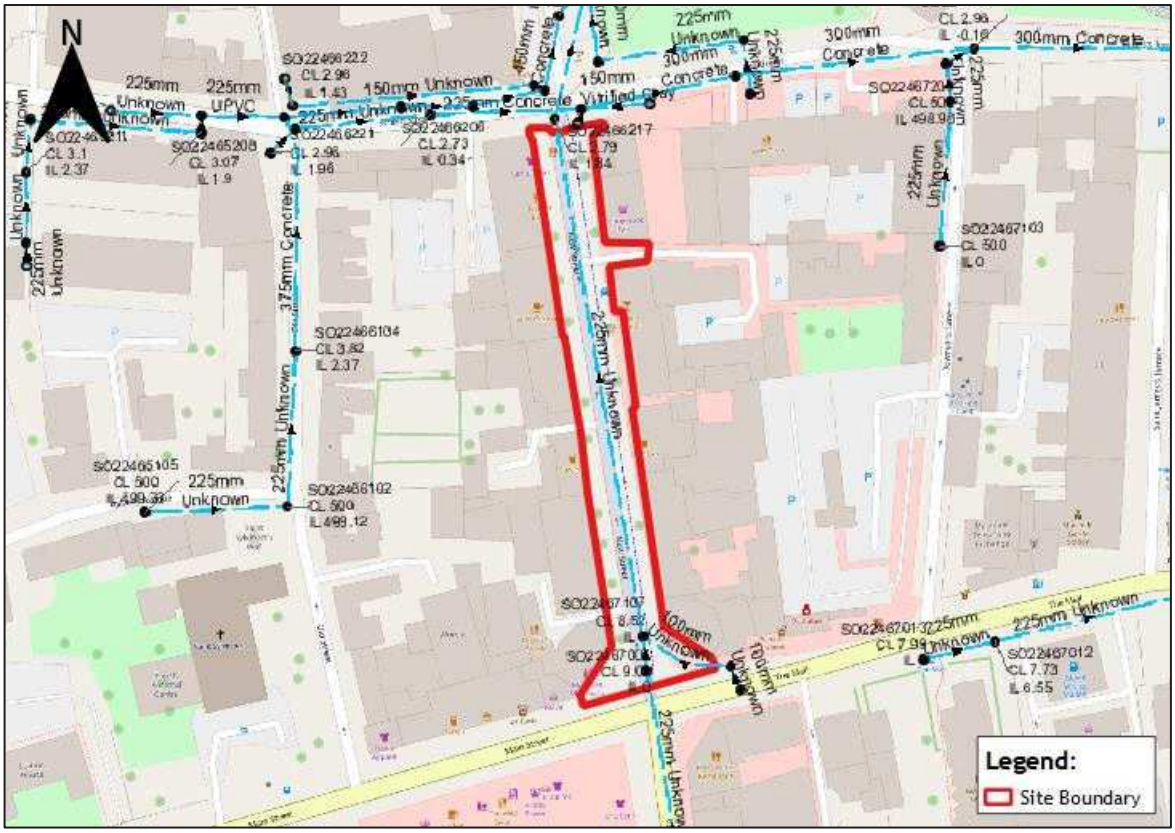


Figure 2-1: Existing stormwater drainage surrounding the site.

2.2 Proposed Stormwater Drainage

2.2.1 General

In order to facilitate the ease of maintenance of surface water infrastructure without the compromising of SuDS features, the existing surface water pipe running along New Street will be diverted clear of all bioretention areas. It is proposed to connect all new proposed road gullies and SuDS overflow gullies into the diverted surface water pipe on New Street.

All surface water generated from the development street areas is designed to be collected by a by gravity diverted surface water pipe network. The diverted surface water pipe will be designed with reference to the following documents:

- "Recommendations for Site Development Work for Housing Areas" – Department of the Environment and Local Government
- "Greater Dublin Strategic Drainage Study" (GDSDS)
- CIRIA Publications C644 – "Building Greener"
- Fingal Development Plan 2023 – 2029

2.2.2 Site Stormwater Drainage Overview

Interception measures will be provided to reduce and treat surface water generated on site. Stormwater on site will be routed towards road gullies via channel drainage kerbs. Gullies will be connected to inspection chambers which provide an inlet into bioretention areas. The bioretention areas will store stormwater until it overflows into SuDS overflow gullies which then connect back into the diverted existing 225mm localised stormwater piped concrete sewer running south to north on New Street. Please refer to Section 2.2.4 and Section 2.3.1 for details relating to the proposed bioretention areas.

The stormwater drainage proposals are illustrated in PUNCH Drawings 222126-PUNCH-XX-XX-DR-C-0100 and 222126-PUNCH-XX-XX-DR-C-0200.

Please note that the proposed new 225mm diameter stormwater line is to be installed in parallel with the existing stormwater line running south to north along New Street. This arrangement will facilitate continued operation of the stormwater network while facilitating connection and activation of the diverted section of new stormwater pipe. This arrangement will also facilitate effective stormwater management by the appointed Contractor during the proposed public realm improvements as per the standard requirements of proper construction management.

2.2.3 Stormwater Drainage Model

The proposed diverted existing surface water pipe has been modelled using Causeway Flow software. The Software was used to ensure sufficient cover depths, and self-cleansing velocities were achieved.

2.2.4 Bioretention Areas

Stormwater collected from the site via the drainage network is proposed to cascade between a number of bioretention areas prior to being discharged. Guidance is taken from the UK SuDS manual with regard to the design of the bioretention areas.

Bioretention areas are proposed along the eastern side of New Street. Surface water from the street will be directed towards the bioretention areas, where it then ponds on the surface and then filters through the vegetation and underlying soils. The filtered runoff is then collected in an underdrain system before being directed back to the main surface water sewer. In the event where the volume of the bioretention system has been exceeded, a SuDS Overflow Gully will be used to direct flow downstream to the main surface water sewer.

Please refer to Figure 2-2 for an illustration of a bioretention system.

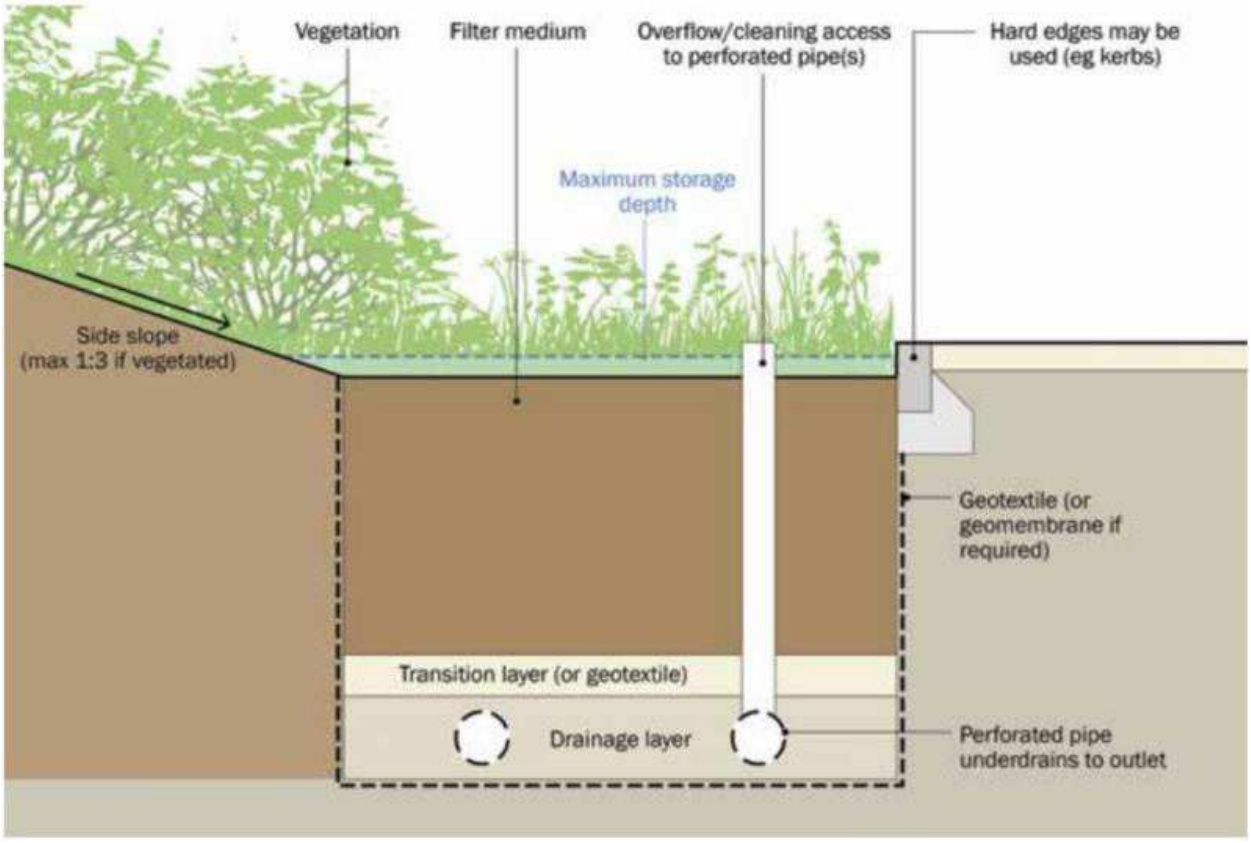


Figure 2-2: Bioretention System Diagram (Source:SuDS Manual Figure 18.1)

Please see PUNCH drawing 222126-PUNCH-XX-XX-DR-C-0100 for the proposed surface water drainage layout.

2.3 SUDs Proposals

The proposed development has been assessed in relation to Sustainable Urban Drainage Systems (SuDS). All SuDS measures are to be implemented with reference to the UK Suds Manual and Fingal County Council (FCC) drainage requirements.

It is noted that the proposed SuDS measures represent a baseline requirement and do not represent a mitigation measure in relation to avoiding or reducing harmful effects on a Natura 2000 site. The SuDS measures are integral to the proposed public realm improvements and simply follow a standard best-practise approach to stormwater management.

Relatively small volumes of rainwater collected on the respective SuDS devices will enter the public sewer network during typical low intensity storms. This is because the proposed SuDS measures will retain rainwater until it is either used via evapotranspiration in the green areas or reused within the development via the rainwater harvesting system.

The SuDS processes decrease the impact of the hard landscaping of the streetscape by providing amenity and biodiversity in many cases. Regular maintenance of the SuDS proposals is required to ensure they are operating to their optimal level throughout their design life.

2.3.1 Bio Retention Areas/Modified Planters

The bio-retention areas/modified planters will incorporate drainage stone/subsoil and will provide a level of additional attenuation within the bio-retention areas/modified planters. Bioretention systems allow the stormwater to filter downwards through a filter medium removing finer contaminants along the way. Depending on the particle size of the filter media different qualities can be achieved from the bioretention system. The base and sides of the system will be lined and a high-level overflow to the drainage network within the build-up will accommodate removal of water.

CIRIA C753 (The SuDS Manual) Table 24.6 notes that regarding interception design of bio retention areas/modified planters, pavements drained by bio retention areas/modified planters can be considered to provide Interception, i.e. it can be assumed that there will be zero runoff from the first 5 mm rainfall for 80% of events during the summer and 50% in winter.

Please refer to Figure 2-3 for a typical bioretention area detail.

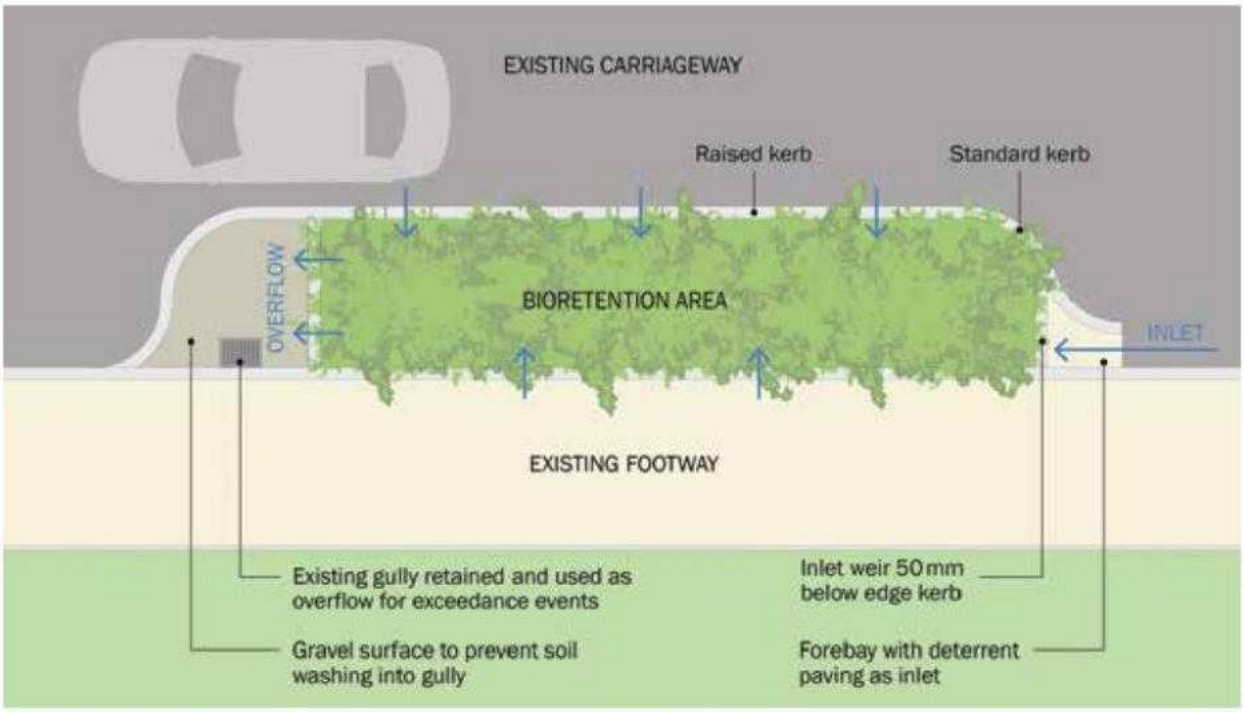


Figure 2-3: Typical Bioretention Area Detail (Source SuDS manual Figure 10.11)

3 Foul Water Drainage Design

3.1 Existing Foul Water Drainage

On the basis of available records provided by Irish Water / Fingal County Council there is foul sewer drainage present within the development site, including the following:

1. 225mm dedicated foul sewer running west-east on the street connecting to Ross Cottages to the south of the site.

The following stormwater drainage exists adjacent to the development site:

1. 300mm concrete dedicated foul sewer running east-west along Strand Street to the north.
2. 225 vitrified clay dedicated foul sewer flowing west-east along The Mall (R106) to the south of the site.

As built records and Ground Penetrating Radar Survey information is available for the site, which has confirmed the existing drainage arrangements in detail.

Please refer to Appendix A for Existing Record Drawings illustrating the existing foul water drainage arrangement. An extract is shown in Figure 3-1 below.

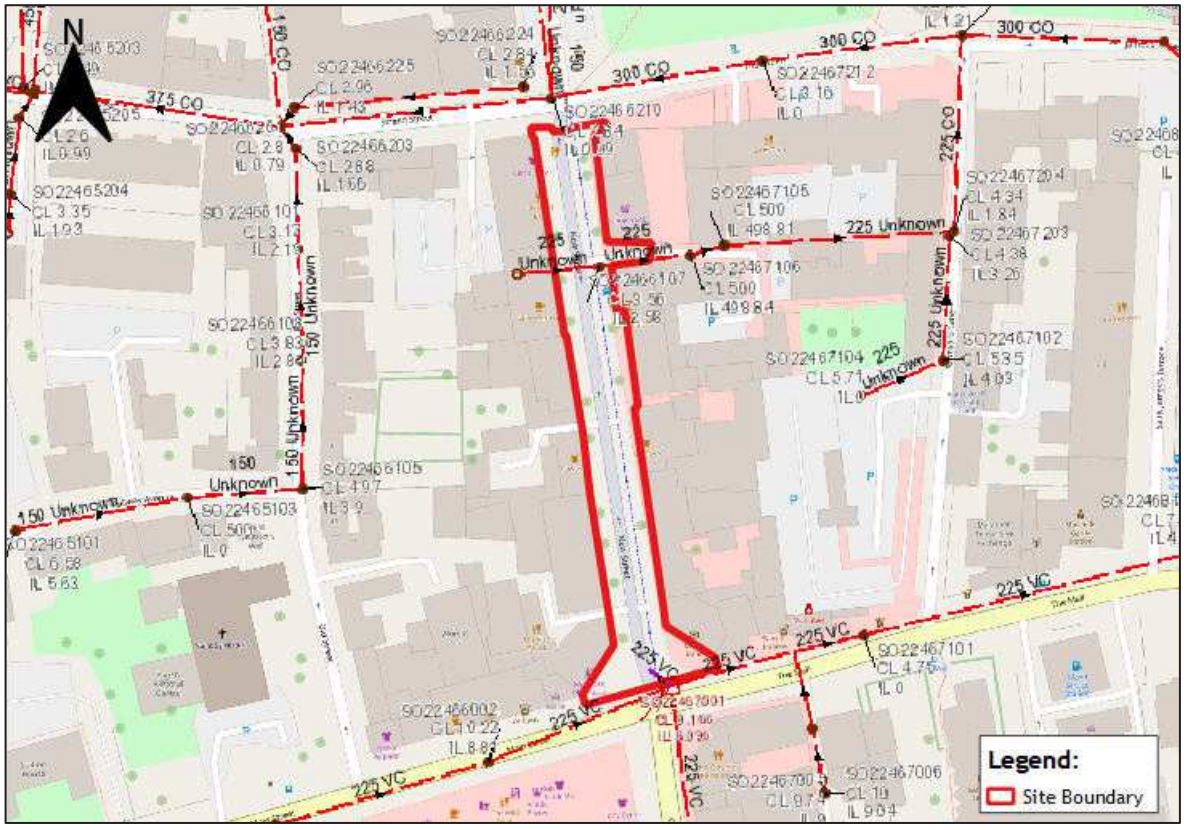


Figure 3-1: Existing foul water drainage surrounding the site.

3.2 Proposed Foul Water Drainage

The development is to be serviced by a gravity design network. A dedicated 300mm diameter foul sewer is proposed along New Street in parallel with the proposed stormwater drainage line. This section of foul sewer will connect via an existing manhole to the 300mm concrete dedicated foul sewer running east-west along Strand Street. The introduction of this dedicated foul sewer will allow for foul connections directly from premises along New Street, thereby reducing the foul sewer effluent in the pre-existing stormwater system.

Foul sewer drainage capacity is provided in accordance with Section 3.6 of Code of Practice for Wastewater Infrastructure. The proportional velocity is designed to provide the minimum self-cleansing velocity.

The 300mm diameter foul sewer pipe is designed to carry in excess of wastewater volume of between 4.5 and 6 times the dry weather flow relative to the number of dwellings serviced along New Street. The foul sewer pipe is purposely provided with excess capacity to cater for further foul loading in the future to avoid the need to replace/upgrade the sewer following the establishment of the new public realm.

Please see PUNCH drawing 222126-PUNCH-XX-XX-DR-C-0100 for the proposed foul water drainage layout.

4 Watermain Design

4.1 Existing Watermain

Irish Water record drawings indicates the following watermain infrastructure to exist within the site boundary:

1) 3" cast iron watermain located on New Street.
2) 200mm ductile iron watermain located on New Street.

The following watermain infrastructure exists adjacent to the development site:

1) 3" cast iron watermain located on Strand Street.
2) 3" cast iron watermain located on The Mall (R106).

As built records and Ground Penetrating Radar Survey information is available for the site, which has confirmed the existing watermain arrangements in detail.

Please refer to Appendix A for Existing Record Drawings illustrating the existing watermain infrastructure arrangement. An extract is shown in Figure 4-1 below.

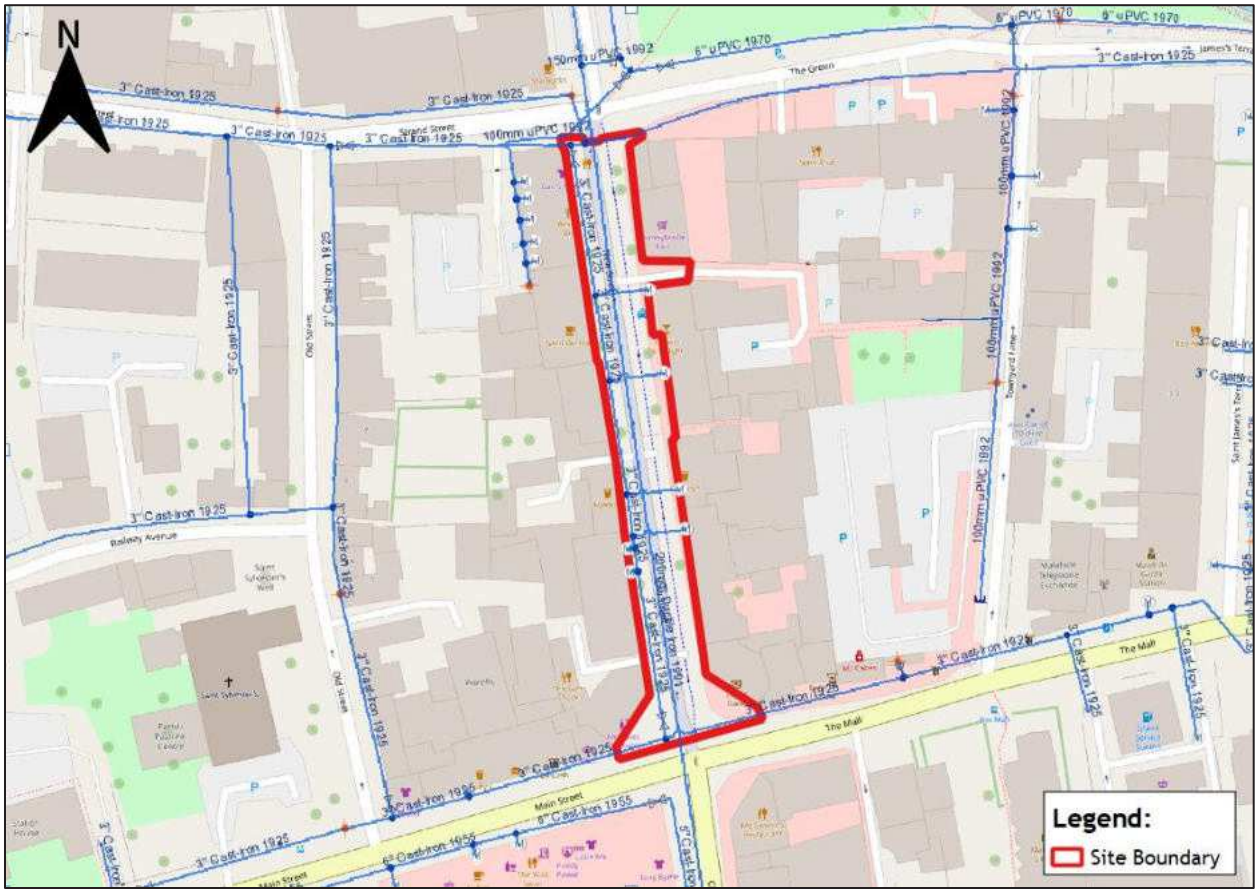


Figure 4-1: Existing watermain infrastructure.

4.2 Proposed Watermain

The existing 3" cast iron watermain (installed in 1925) running along New Street will be replaced/renewed with a modern 150mm diameter ductile iron watermain.

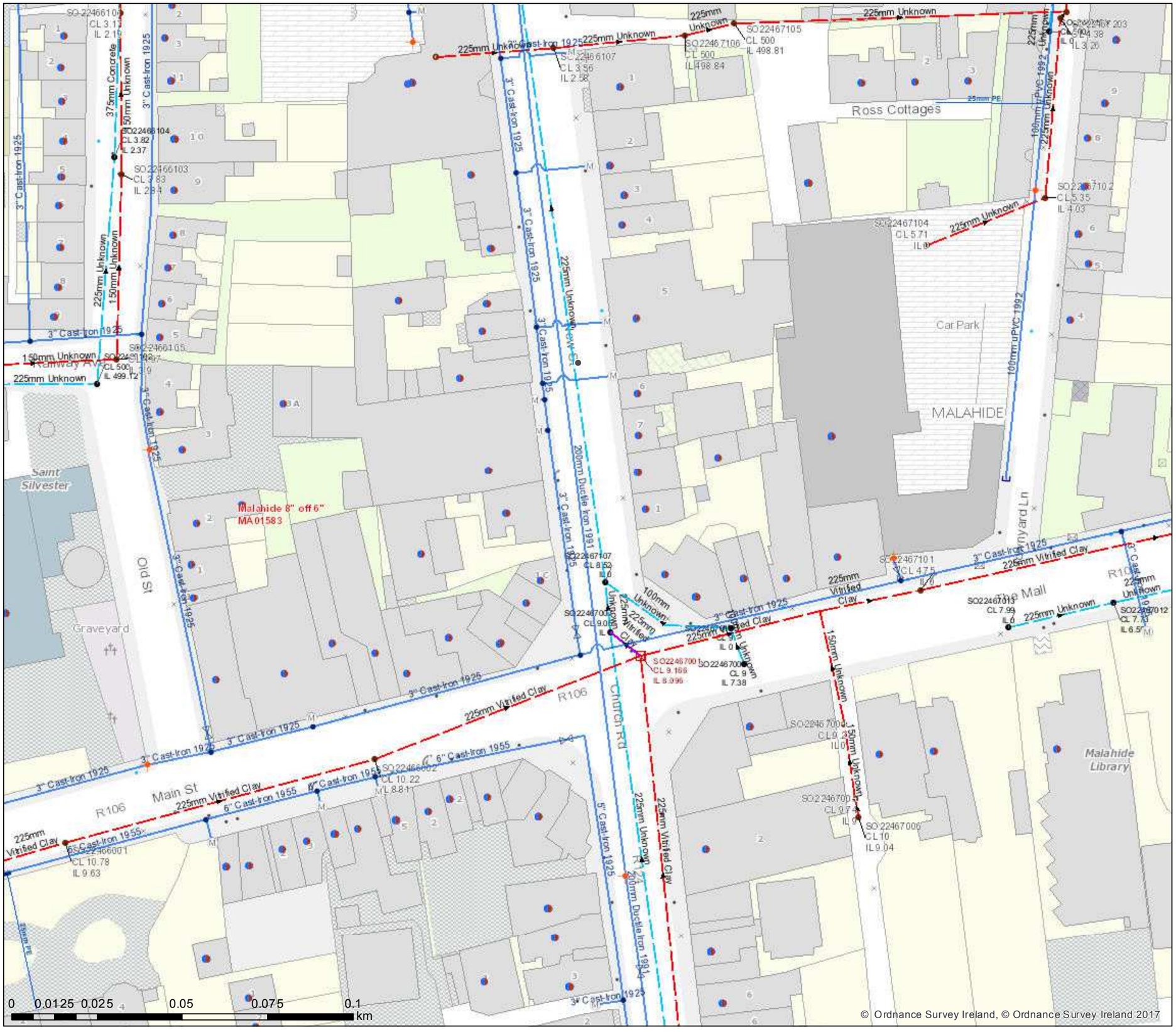
The renewal of this watermain asset is provided to cater for possible increases in watermain loading demands in the future and to avoid the need to replace/upgrade the sewer following the establishment of the new public realm.

The watermain layout has been designed in accordance with "Irish Water Code of Practice for Water Infrastructure". All watermains are to be constructed in accordance with Irish Water Code of Practice and the Local Authority's requirements.

Please see PUNCH drawing 222126-PUNCH-XX-XX-DR-C-0100 for the proposed watermain layout.

Appendix A Existing Record Drawings

SR165-2022 New Street Malahide Map 1



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Service connection pipes are not generally shown but their presence should be anticipated.

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'Code of Practice For Avoiding Danger From Underground Services' which is available from the Health and Safety Authority (1890 28 93 89) or can be downloaded free of charge at www.hsa.ie."

Water Distribution Network
- Water Treatment Plant
- Water Pump Station
- Storage Cell/Tower
- Dosing Point
- Meter Station
- Abstraction Point
- Telemetry Kiosk

Reservoir
- Potable
- Raw Water

Water Distribution Mains
- Irish Water
- Private

Trunk Water Mains
- Irish Water
- Private

Water Lateral Lines
- Irish Water
- Non IW
- Water Casings
- Water Abandoned Lines
- Boundary Meter
- Bulk/Check Meter
- Group Scheme
- Source Meter
- Waste Meter
- Unknown Meter ; Other Meter
- Non-Return
- PRV
- PSV
- Sluice Line Valve Open/Closed
- Butterfly Line Valve Open/Closed
- Sluice Boundary Valve Open/Closed
- Butterfly Boundary Valve Open/Closed
- Scour Valves
- Single Air Control Valve
- Double Air Control Valve
- Water Stop Valves
- Water Service Connections
- Water Distribution Chambers
- Water Network Junctions
- Pressure Monitoring Point
- Fire Hydrant
- Fire Hydrant/Washout

Water Fittings
- Cap
- Reducer
- Tap
- Other Fittings

Sewer Foul Combined Network
- Waste Water Treatment Plant
- Waste Water Pump station

Sewer Mains Irish Water
- Gravity - Combined
- Gravity - Foul
- Gravity - Unknown
- Pumping - Combined
- Pumping - Foul
- Pumping - Unknown
- Syphon - Combined
- Syphon - Foul
- Overflow

Sewer Mains Private
- Gravity - Combined
- Gravity - Foul
- Gravity - Unknown
- Pumping - Combined
- Pumping - Foul
- Pumping - Unknown
- Syphon - Combined
- Syphon - Foul
- Overflow
- Sewer Lateral Lines
- Sewer Casings

Sewer Manholes
- Standard
- Backdrop
- Cascade
- Catchpit
- Bifurcation
- Hatchbox
- Lamphole
- Hydrobrake
- Other; Unknown

Discharge Type
- Outfall
- Overflow
- Soakaway
- Standard Outlet
- Other; Unknown

Cleanout Type
- Rodding Eye
- Flushing Structure
- Other; Unknown

Sewer Inlets
- Catchpit
- Gully
- Standard
- Other; Unknown

Sewer Fittings
- Vent/Col
- Other; Unknown

Storm Water Network

Surface Water Mains
- Surface Gravity Mains
- Surface Gravity Mains Private
- Surface Water Pressurised Mains
- Surface Water Pressurised Mains Private

Inlet Type
- Gully
- Standard
- Other; Unknown

Storm Manholes
- Standard
- Backdrop
- Cascade
- Catchpit
- Bifurcation
- Hatchbox
- Lamphole
- Hydrobrake
- Other; Unknown
- Storm Culverts
- Storm Clean Outs
- Stormwater Chambers

Discharge Type
- Outfall
- Overflow
- Soakaway
- Other; Unknown

Gas Networks Ireland
- Transmission High Pressure Gasline
- Distribution Medium Pressure Gasline
- Distribution Low Pressure Gasline

ESB Networks

ESB HV Lines
- HV Underground
- HV Overhead
- HV Abandoned

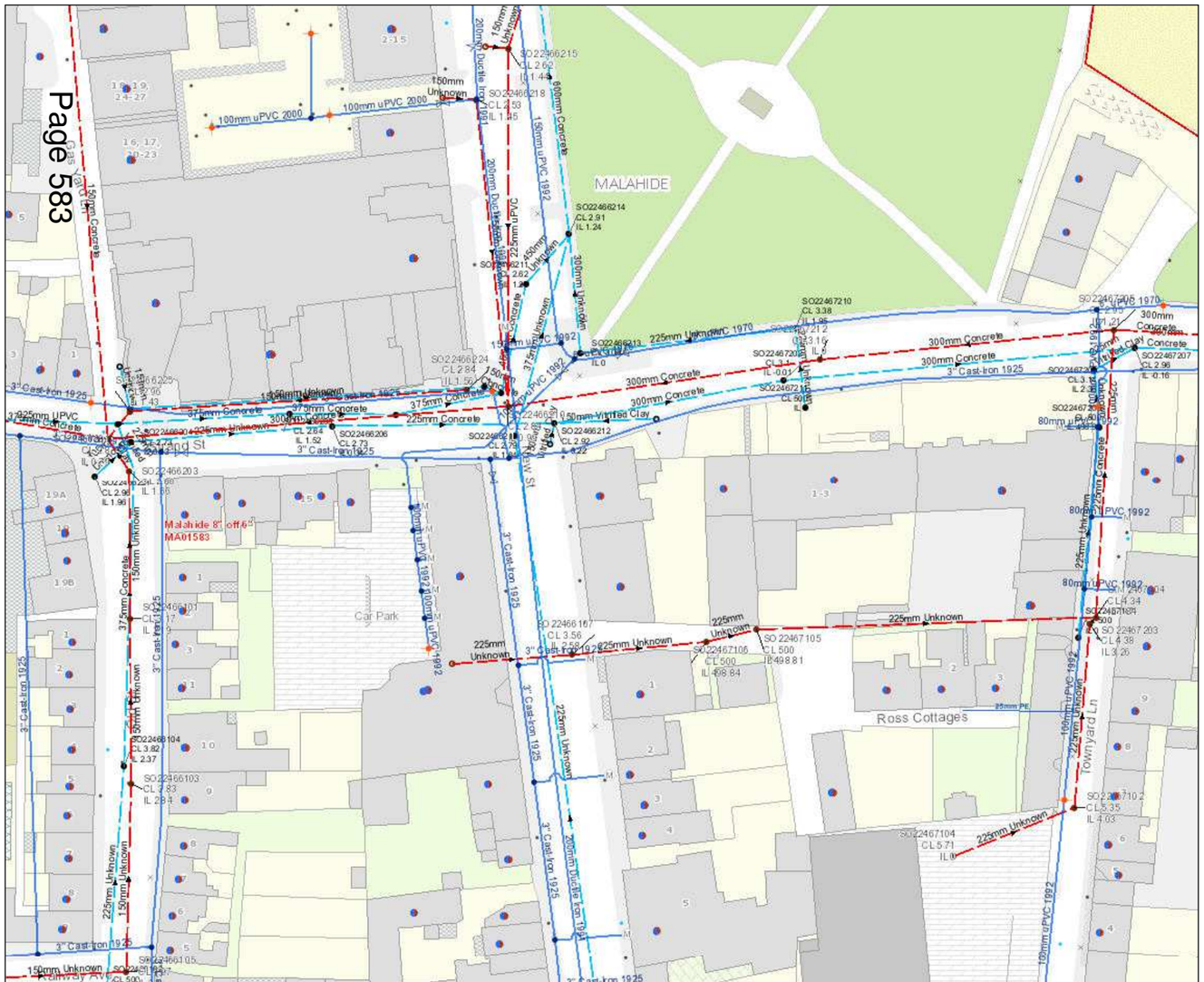
ESB MVLV Lines
- MV Overhead Three Phase
- MV Overhead Single Phase
- LV Overhead Three Phase
- LV Overhead Single Phase
- MVLV Underground
- Abandoned

Non Service Categories
- Proposed
- Under Construction
- Out of Service
- Decommissioned

Water Non Service Assets
- Water Point Feature
- Water Pipe
- Water Structure

Waste Non Service Assets
- Waste Point Feature
- Sewer
- Waste Structure

SR166-2022 New Street Malahide Map 2



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Water Distribution Network
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- Water Pump Station
- Storage Cell/Tower
- Dosing Point
- Meter Station
- Abstraction Point
- Telemetry Kiosk

Reservoir
- Potable
- Raw Water

Water Distribution Mains
- Irish Water
- Private

Trunk Water Mains
- Irish Water
- Private

Water Lateral Lines
- Irish Water
- Non IW
- Water Casings
- Water Abandoned Lines
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- Group Scheme
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- Pumping - Unknown
- Syphon - Combined
- Syphon - Foul
- Overflow

Sewer Mains Private
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- Gravity - Foul
- Gravity - Unknown
- Pumping - Combined
- Pumping - Foul
- Pumping - Unknown
- Syphon - Combined
- Syphon - Foul
- Overflow
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- Sewer Casings

Sewer Manholes
- Standard
- Backdrop
- Cascade
- Catchpit
- Bifurcation
- Hatchbox
- Lamphole
- Hydrobrake
- Other; Unknown

Discharge Type
- Outfall
- Overflow
- Soakaway
- Standard Outlet
- Other; Unknown

Cleanout Type
- Rodding Eye
- Flushing Structure
- Other; Unknown

Sewer Inlets
- Catchpit
- Gully
- Standard
- Other; Unknown

Storm Water Network

Surface Water Mains
- Surface Gravity Mains
- Surface Gravity Mains Private
- Surface Water Pressurised Mains
- Surface Water Pressurised Mains Private

Inlet Type
- Gully
- Standard
- Other; Unknown

Storm Manholes
- Standard
- Backdrop
- Cascade
- Catchpit
- Bifurcation
- Hatchbox
- Lamphole
- Hydrobrake
- Other; Unknown
- Storm Culverts
- Storm Clean Outs
- Stormwater Chambers

Discharge Type
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- Soakaway
- Other; Unknown

Gas Networks Ireland
- Transmission High Pressure Gasline
- Distribution Medium Pressure Gasline
- Distribution Low Pressure Gasline

ESB Networks

ESB HV Lines
- HV Underground
- HV Overhead
- HV Abandoned

ESB MVLV Lines
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- MV Overhead Single Phase
- LV Overhead Three Phase
- LV Overhead Single Phase
- MVLV Underground
- Abandoned

Non Service Categories
- Proposed
- Under Construction
- Out of Service
- Decommissioned

Water Non Service Assets
- Water Point Feature

PUNCH consulting engineers

Public Realm Improvements for a Pedestrianised New Street

Construction Management Plan

222126-PUNCH-XX-XX-RP-C-0002

April 2023

Document Control

Document Number: **222126-PUNCH-XX-XX-RP-C-0002**

Status	Rev	Description	Date	Prepared	Checked	Approved
A0	P01	Planning Issue	06/04/2023	D Moreton	MC Daly	P Casey

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1 Introduction

The purpose of this document is to briefly outline the general activities required for the construction of the proposed public realm improvements for a pedestrianised New Street, located in Malahide, Co. Dublin.

A Main Contractor has not yet been appointed to carry out the proposed public realm improvements for a pedestrianised New Street. Once appointed, it will be the responsibility of the Main Contractor to prepare and submit a detailed construction management plan to submit to the local authority for approval. The construction management plan will be a live document that will be updated throughout the project lifecycle by the Main Contractor as required.

Regardless of the form of contract, the Contractor will be contractually bound by any conditions arising from the site constraints identified and specified, all Statutory Regulations governing the works, and any additional measures or modifications that may be imposed on the proposed development by the Local Authority or other statutory authorities.

1.1 Site Location

The site location is shown in Figure 1-1 below. The site is approximately 0.22 hectares in area located in Malahide Village on New Street. The site currently consists of an established town street with retail, commercial and residential development throughout. the topography of the street consists of the site falling from its highest point at the southern extents of the site (The Mall) and falling towards the lowest point at the northern extents of the site (Strand Street).

The site is bounded by retail, commercial and residential developments to the west and east, a junction on Strand Street to the north, and the Diamond junction on The Mall (R106) to the south. The junctions on either end of New Street are both signalised. New Street is approximately 100m southwest of the marina. The street is currently pedestrianised with restricted vehicular access to enable deliveries allowed between 7am and 11 am only, refuse collection and emergency vehicles. The site is accessed via the Mall to the south and via Strand Street to the north.



Figure 1-1:Site Location Plan.

2 Description of the Public Realm Improvements

The proposed public realm improvements will comprise: -

i. Widening of footpaths and provision of new kerb edges with existing kerbstones retained, realigned and protected within the widened footpaths and public spaces.
ii. Realignment and narrowing of the trafficable section of New Street (c.150m in length, 0.22ha) and insertion of control measures and all necessary signage to provide for a pedestrianised street with associated traffic flow routes and restrictions allowing for time limited one-way access from 7am to 11am each day for deliveries and emergency vehicles from Main Street/ The Mall to New Street and a two-way access from Strand Street to Ross's Terrace via New Street.
iii. Upgrade of all street surfaces.
iv. Provision of 2no. loading bays at the southern and northern ends of New Street and an accessible parking space in front of the HSE building.
v. Installation of cycle stands at 6no. locations on New Street with capacity for 23no. cycle parking spaces.
vi. Removal and replacement of 11no. existing trees with 37no. trees of species appropriate to the location and environment and provision of soft landscaping and green infrastructure with planting zones for seeded, planted and hedging areas and associated bioretention and tree pit areas.
vii. Provision of outdoor dining zones including tables and chairs and other ancillary moveable structures.
viii. Provision of street furniture including seating, benches and litter and recycling bins and a water feature.
ix. New public lighting.
x. Upgrade of the watermain and foul drainage networks and upgrade and relocation of the surface water drainage network including provision of sustainable urban drainage systems (SUDs) features as part of hard and soft landscaping.
xi. Provision of ducting for existing and future utilities and piped infrastructure.
xii. All associated site and development works.

Fingal County Council will be providing regulatory traffic signs (including regulatory signs which give effect to a pedestrianisation of New Street) in accordance with Section 95 of the Road Traffic Act 1961 (as amended).

The proposed public realm improvements for a pedestrianised New Street are outlined in a series of architectural drawings prepared by DFLA, and engineering drawings prepared by PUNCH Consulting Engineers supplied as part of the planning submission.

3 Indicative Construction Programme

It is estimated that the construction programme for the works associated with the proposed public realm improvements for a pedestrianised New Street will last 15 months. However, the duration may extend to 24 months to account for seasonal closures during Summer/Christmas periods or to satisfy other potential conditions arising from the planning process. This estimation is based on the typical construction programmes for other similar developments that are currently underway. It is envisaged that redevelopment of New Street will be carried out over a single phase. The Main Contractor will be required to prepare a detailed construction programme as part of their tender proposal.

4 Site Set Up and Security

The Main Contractor will be required to submit a site layout plan that will detail the proposed location of the site compound. The Contractor will ensure that the site compound will be serviced as required and will be secured with appropriate fencing/hoarding. The site compound will be used as the primary location for the storage of materials, plant and equipment, site offices and worker welfare facilities. As Project Supervisor Construction Stage (PSCS), the Contractor will be responsible for site security, and they are to ensure that the site and site compound are adequately secured at all times.

As with the other construction activities that are being carried out within Fingal County Council (FCC) administration, activities associated with the construction compounds will be subject to restrictions to the nature and timing of operations so that they do not cause undue disturbance to neighbouring areas and communities.

The site layout plan will also include the site perimeter and the proposed detail with regards the hoarding and gate system.

5 Site Access

It is proposed to access the proposed development via the existing Diamond junction on The Mall/Dublin Road (R106). The proposed public realm improvements will integrate the site into the surrounding footpath networks providing construction and operational vehicle access and convenient pedestrians/cyclist routes linking the site with the surrounding area.

Construction related traffic will enter the site via the junction on Dublin Road (R106). Construction traffic associated with the development can proceed along the Dublin Road, to Swords Road, to Malahide Road, to the Swords Bypass, to Lisenhall Road, to the M1 or other routes depending on destination. Refer to Section 7 and Figure 7-1 below for illustration.

Furthermore, to reduce the requirement for site parking for employees, public transport such as Dublin Bus should be utilised.

6 Material Storage and Delivery

The Contractor will ensure that the delivery of materials is coordinated to minimise impacts to adjacent properties. The Contractor will ensure that all materials are adequately stored and secured in their site compound.

For more details, please refer to the ‘Construction & Demolition Waste Management Plan’ prepared and included in the planning submission.

The Contractor will ensure the roads adjacent to the site are kept clean and free of debris.

7 Traffic Management Plan

The Contractor will be required to prepare and submit a detailed traffic management plan as part of their tender submission. Once appointed, the preferred Contractor will further develop the traffic management plan as required to submit to the local authority for approval in advance of works commencing onsite. The Contractor will ensure that advanced warning signs are erected on approaches to the site as required by the PSCS. The Contractor will use a competent sign provider and all signage that meets the requirements of the Safety, Health & Welfare at Work (General Applications) Regulations 2007 and Chapter 8 Traffic Signs Manual. Any proposed temporary road markings must also confirm to the requirements of Chapter 8 of the Traffic Signs Manual.



Figure 7-1: Proposed Primary Route To/ From Site.

The Main Contractor will be responsible for all site access and works activity and must ensure the continued operation of the surrounding local road network as a result of its construction traffic.

The management of construction traffic on the public and private road networks in and around the proposed public realm improvements is a critical part of the overall project and must be actively managed by the Contractor.

The Contractor must submit a Construction Traffic Management Plan to the Local Authority for approval. Haulage vehicle movements should be fully coordinated to comply with the requirements of the agreed plan:

- Construction vehicles must not stop or park along the routes at any time;
- Haulage vehicles must not travel in convoys greater than two vehicles at any time;

- Site entrance to remain free of parked or stationary vehicles at all times;
- All loading of demolition material will occur within the site boundary;
- All off-loading of deliveries will take place within the site, remote from the public road and will access via the agreed construction access point.

The site is located in an established urban area where the road and junction space is shared with public road users and construction traffic associated with other nearby developments. Therefore, the flow of construction traffic will need to be marshalled and controlled to ensure that potential conflicts are avoided as much as possible.

There are no proposals to introduce temporary road closures to facilitate construction of the proposed public realm improvement for a pedestrianised New Street however, temporary traffic light signals will be required on New Street at junction locations and at the access to Ross Cottages.

For more details, please refer to the 'Construction & Demolition Waste Management Plan' prepared and included in the planning submission.

8 Works Adjacent to Railway Line

The proposed public realm improvements is in close proximity to Malahide Train Station. The proposed public realm improvements will have no interference with any of the railway infrastructure. The proposed development's location in relation to the railway infrastructure is shown in Figure 8-1 below.

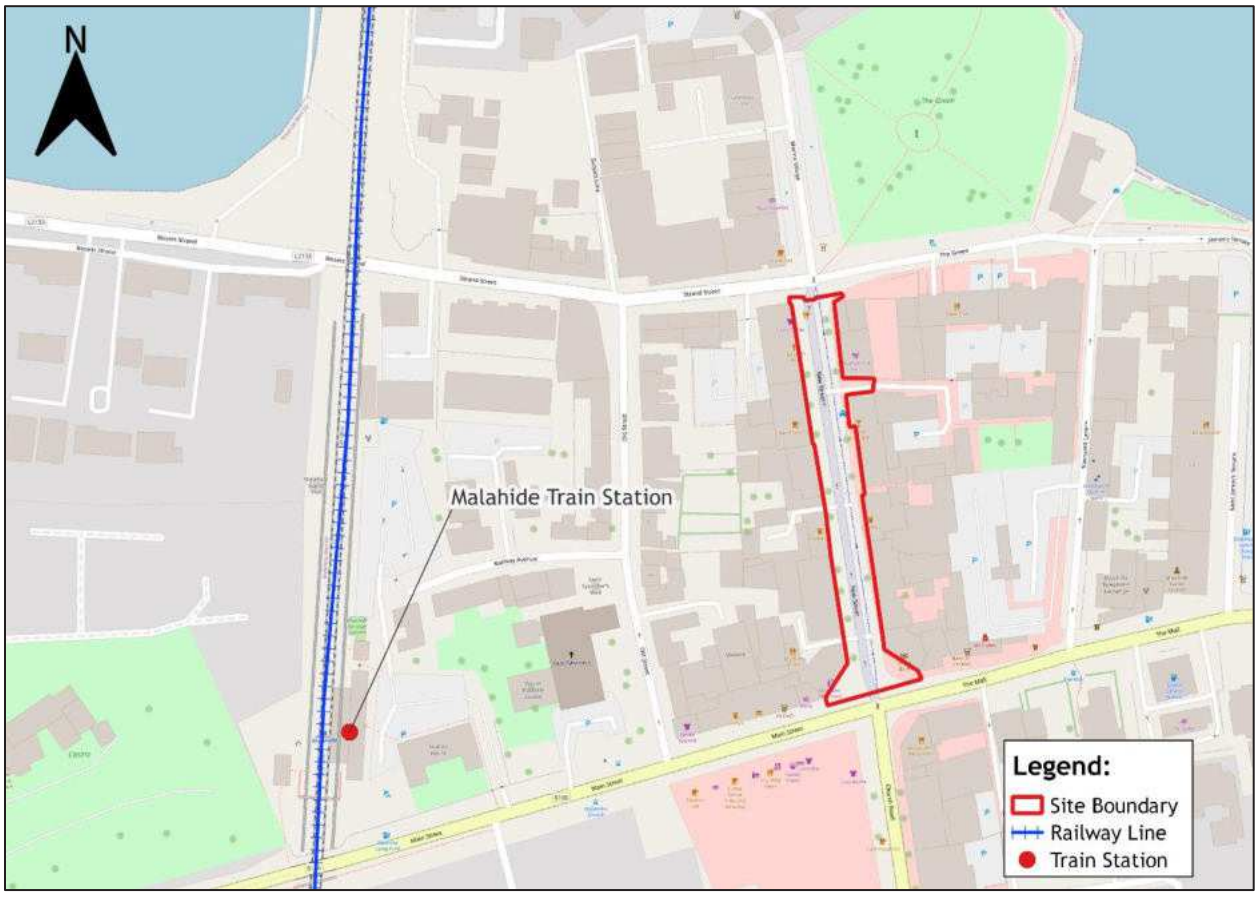


Figure 8-1: Railway Line adjacent to the Proposed Public Realm Improvements.

9 Potential Interface with Other Projects

The proposed public realm improvements will likely have an interface with other projects within the greater region. The appointed Contractor may need to coordinate with other Contractors in the locality to ensure a smooth interface between projects.

There may be a number of PSCS's operating in the urban locality at any one time on individual sites. It will be responsibility of the appointed Contractor as PSCS to ensure that delivery and haul routes, site access and egress points and potential crossing points associated with the site are fully coordinated and agreed with other Contractors in advance of the works commencing.

10 General Construction Approach

10.1 Construction Working Space

Construction working space will be set out in the detailed construction management plan at detail design stage.

Construction access routes, haul routes and delivery routes to the site are to be agreed with the Engineer/Employer's Representative in advance of works commencing onsite.

Any road closures required will be submitted and approved in advance with the local authority. It is the responsibility of the Main Contractor to prepare and submit the road closure application to the local authority in advance of works commencing onsite.

10.2 Outline Phasing Strategy

It is currently envisaged that the proposed public realm improvements will be completed in a single phase as outlined below. For further details relating to the works, please refer to the more detailed planning drawings (drainage, road, landscape, etc.). The strategy is outlined as follows:

1. Establish site access routes to the New Street site.
2. Installation of secure perimeter fencing and hoarding along the active site boundaries as required and establish site compound. The location and extent of these systems will change as dictated by the staging of the Works.
3. Construct trench for installation of new drainage system. This includes a large area for the series of bioretention areas being proposed.
4. Installation of drainage/SuDS elements throughout the site.
5. Connections to external stormwater networks.
6. Regrading of topsoil throughout site.
7. Delivery of landscaping and recreation elements throughout the above, as per the architectural requirements.

10.3 Outline Works Description

The construction works will involve an indicative sequence of works, as described in short below. The Contractor will outline works which impact public spaces within the Construction Management Plan that shall be subject to submission and agreement with FCC.

10.3.1 Hoarding, Site Set up and Formation of Site Access/ Egress

The active site area will be enclosed with hoarding details of which are to be agreed with Fingal County Council (FCC). Hoarding panels will be maintained and kept clean for the duration of the works. This will involve erecting hoarding around the proposed site perimeter in line with the proposed staging of the Works.

The available site footprint will enable the Contractor to set up the site compound within the site boundary.

The Contractor will be responsible for the security of the site. The Contractor will be required to:

- Operate a Site Induction Process for all site staff;
- Ensure all site staff shall have current 'Safe Pass' cards and appropriate PPE;
- Install adequate site hoarding to the site boundary;
- Maintain site security at all times;
- Install access security in the form of turn-styles and gates for staff;
- Separate public pedestrian access from construction vehicular traffic;

10.3.2 Site Clearance and Demolition

The site is comprised of an existing pedestrian street/ road. No demolition works are required. Site clearance will involve the removal of the hard standing footpath/ road that exists within the site boundary. These areas are in close proximity to retail, commercial, and residential, and will require consideration to occupants during the clearance and construction works.

10.3.3 Construction Sequence of Development

The construction sequence involves a number of steps including:

- Site clearance and Excavation
- Rationalisation of in-ground services
- Installation of Proposed Storm Drainage
- Installation of pavement sub-base through to top layer
- Hard landscaping
- Soft landscaping including bioretention areas

The construction methodology and programme of these activities will be dictated by the Contractor.

The Contractor must prepare a Construction and Demolition Waste Management Plan in accordance with the "Best Practice Guidelines on the Preparation of Waste Management Plans for Construction and Demolition Projects" (Department of Environment, Heritage and Local Government, 2006) and ensure that surplus material is disposed of at an appropriately licensed land fill site. The Contractor must also outline detailed proposals within the Construction Management Plan to accommodate construction traffic.

The above represents a high-level indicative construction sequence only. The actual sequence will be dictated by the Contractor. The Contractor will issue a detailed construction programme outlining the various stages prior to commencement of works.

11 Waste Management Plan

The Main Contractor will be required to prepare a detailed waste management plan for the proposed public realm improvements. This will be included in the overall construction management plan that will be submitted to the local authority.

For more details, please refer to the 'Construction & Demolition Waste Management Plan' prepared and included in the planning submission.

12 Communications and Local Stakeholder Management

The Contractor will, as required, liaise with owners of the local properties in advance of works commencing onsite. The Contractor will use a competent sign provider and all signage used will meet the requirements of the Safety, Health & Welfare at Work (General Applications) Regulations 2007 and Chapter 8 Traffic Signs Manual.

13 Construction Noise, Dust and Vibration

The Main Contractor will be required to monitor noise, dust and vibration as will be outlined in the construction contract. The Contractor will establish baselines for noise, dust and vibration in advance of works commencing onsite.

As part of their detailed construction management plan, the Contractor will be required to clearly indicate how they plan on monitoring noise, dust and vibration throughout the course of the proposed public realm improvements. The Contractor will also be required to clearly outline the mitigation measures they plan on putting in place to ensure that permissible construction noise, dust and vibration levels for a development of this scale are not exceeded.

For more details, please refer to the 'Construction & Demolition Waste Management Plan' by PUNCH Consulting Engineers prepared and included in the planning submission.

14 Working Hours

The proposed hours of work on site will be 07:00 hrs to 18:00 hrs Monday to Friday and 08:00 hrs to 16:00 hrs Saturday unless otherwise specified. Any working hours outside the normal construction working hours will be agreed with FCC. The planning of such works will take consideration of sensitive receptors, in particular any nearby businesses.

For more details, please refer to the 'Construction & Demolition Waste Management Plan' prepared and included in the planning submission.

15 Lighting

Appropriate lighting will be provided as necessary at construction compounds. All lighting will be installed to minimise light spillage from the site.

16 Construction Employment

Construction employment numbers will vary depending on the construction stage of the proposed public realm improvements and the actual approach adopted by the Contractor. However, it is anticipated that at the peak of construction there may be a workforce of approximately 25 people employed.

PUNCH consulting engineers

Public Realm Improvements for a Pedestrianised New Street

Construction & Demolition Waste Management Plan

222126-PUNCH-XX-XX-RP-C-0003

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1 Introduction

A Main Contractor has not yet been appointed to carry out the proposed Public Realm Improvements to a Pedestrianised New Street. Once appointed, it will be the responsibility of the Main Contractor to prepare and submit a detailed construction management plan for submission to the local authority for approval. The Construction & Demolition Waste Management Plan will be a live document that will be updated throughout the public realm improvements by the Main Contractor as required.

The proposed public realm improvements will comprise: -

i. Widening of footpaths and provision of new kerb edges with existing kerbstones retained, realigned and protected within the widened footpaths and public spaces.
ii. Realignment and narrowing of the trafficable section of New Street (c.150m in length, 0.22ha) and insertion of control measures and all necessary signage to provide for a pedestrianised street with associated traffic flow routes and restrictions allowing for time limited one-way access from 7am to 11am each day for deliveries and emergency vehicles from Main Street/ The Mall to New Street and a two-way access from Strand Street to Ross's Terrace via New Street.
iii. Upgrade of all street surfaces.
iv. Provision of 2no. loading bays at the southern and northern ends of New Street and an accessible parking space in front of the HSE building.
v. Installation of cycle stands at 6no. locations on New Street with capacity for 23no. cycle parking spaces.
vi. Removal and replacement of 11no. existing trees with 37no. trees of species appropriate to the location and environment and provision of soft landscaping and green infrastructure with planting zones for seeded, planted and hedging areas and associated bioretention and tree pit areas.
vii. Provision of outdoor dining zones including tables and chairs and other ancillary moveable structures.
viii. Provision of street furniture including seating, benches and litter and recycling bins and a water feature.
ix. New public lighting.
x. Upgrade of the watermain and foul drainage networks and upgrade and relocation of the surface water drainage network including provision of sustainable urban drainage systems (SUDs) features as part of hard and soft landscaping.
xi. Provision of ducting for existing and future utilities and piped infrastructure.
xii. All associated site and development works.

Fingal County Council will be providing regulatory traffic signs in accordance with Section 95 of the Road Traffic Act 1961 (as amended).

The proposed Public Realm Improvements to a Pedestrianised New Street are outlined in a series of architectural drawings prepared by DFLA, and engineering drawings prepared by PUNCH Consulting Engineers supplied as part of the planning submission. The proposed public realm improvements to a pedestrianised New Street location is show in Figure 1-1.

This report was prepared for Fingal County Council (FCC) in relation to the planning submission for the proposed public realm improvements to a pedestrianised New Street and deals specifically with the "Construction & Demolition Waste Management Plan".

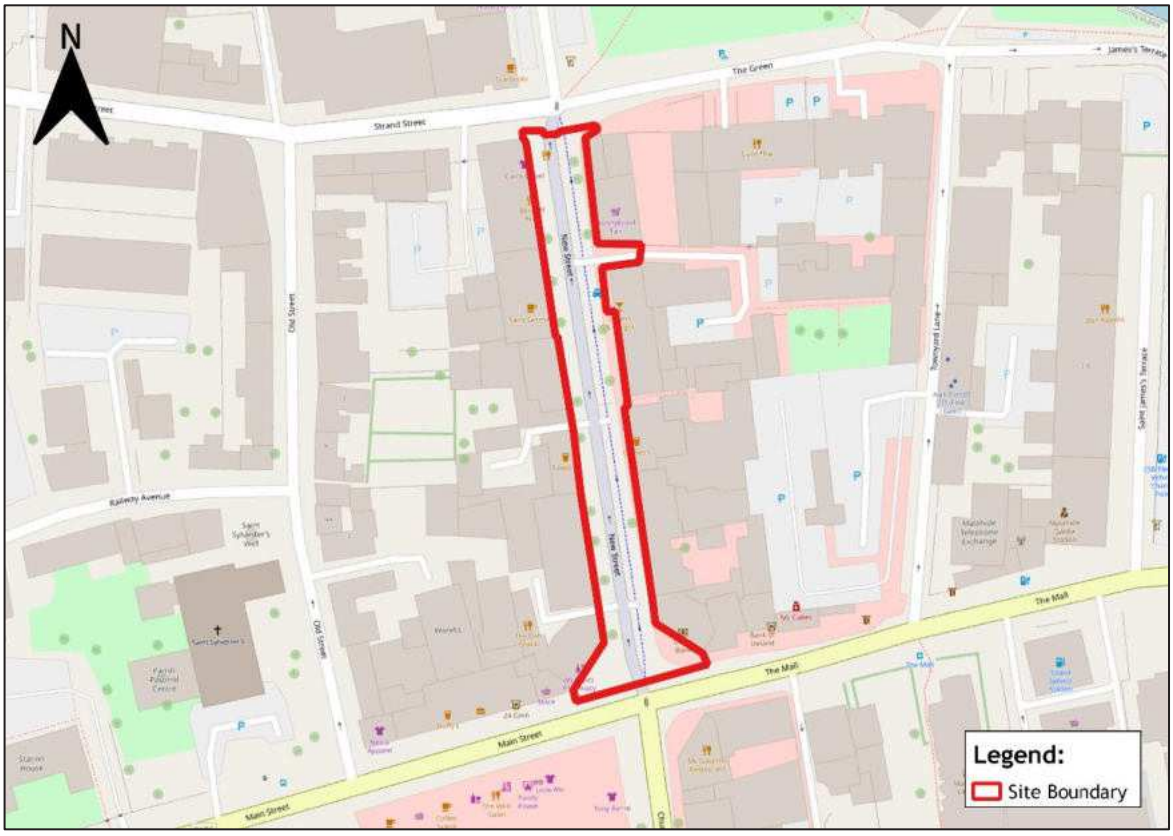


Figure 1-1: Site Location

2 Construction & Demolition Waste Management

2.1 Background

The purpose of the Construction and Demolition Waste Management Plan (C&D WMP) is to provide the information necessary to ensure that the management of C&D waste at the site is undertaken in accordance with current legal and industry standards including the *Waste Management Act 1996* and associated Regulations, *Litter Act 1997* and the *Eastern-Midlands Region (EMR) Waste Management Plan 2015-2021*.

This section was prepared in accordance with the 'Best Practice Guidelines on the Preparation of Waste Management Plans for Construction & Demolition Projects' for the planning submission of the proposed public realm improvements and represents an 'Construction & Demolition Waste Management Plan' for the proposed construction works at the site.

2.2 Best Practice

The management of construction and demolition waste should reflect the waste management hierarchy, with waste prevention and minimisation being the first priority succeeded by reuse and recycling.

During site clearance and proposed public realm improvements, there are numerous opportunities for the beneficial reuse and recycling of the demolition materials. The subsequent use of recycled materials in proposed public realm improvements also reduces the quantities of waste which ultimately needs to be consigned to landfill sites.

2.3 Prevention of Waste

The primary effort therefore should be to engage in waste prevention and reduce the amount of waste generated in the first place i.e. minimise the resources needed to do the job.

Prevention is financially advantageous as it reduces the purchase of construction materials and avoids the need to remove wastes from site. It is important to emphasise the potential for certain purchasing procedures to contribute to a reduction in excessive material wastage on site.

Examples include:

- ensuring materials are ordered on an "as needed" basis to prevent over supply to site;
- purchasing construction materials in shape, dimensions and form that minimises the creation of excessive scrap waste on site;
- ensuring correct storage and handling of construction materials to minimise generation of damaged materials/waste, e.g. keeping deliveries packaged until they are ready to be used;
- ensuring correct sequencing of operations; and
- assigning individual responsibility (through appropriate contractual arrangements) to sub-contractors for the purchase of raw materials and for the management of wastes arising from their activities, thereby ensuring that available resources are not expended in an extravagant manner at the expense of the main contractor.

2.4 Reuse of Waste

Waste material that is generated should be reused on site or salvaged for subsequent reuse to the greatest extent possible and disposal should only be considered as a last resort. Initiatives should be put in place to maximise the efficient use/reuse of materials.

2.5 Recycling of Waste

There are a number of established markets available for the beneficial use of C&D waste:

- waste timber can be:
  - recycled as shuttering or hoarding, or
  - sent for reprocessing as medium density fibreboard;
- waste concrete can be utilised as fill material for roads or in the manufacture of new concrete when arising at source; and
- in addition, the technology for the segregation and recovery of stone, for example, is well established, readily accessible and there is a large reuse market for aggregates as fill for future use.

2.6 Overall Management of Construction & Demolition Waste

Waste minimisation, reuse and recycling can best be managed operationally by nominating a "Construction and Demolition Waste Manager" to take responsibility for all aspects of waste management at the different stages of the proposed public realm improvements.

This C&D Waste Manager may well be a number of different individuals over the life-cycle of the proposed public realm improvements, but in general is intended to be a reliable person chosen from within the Contracting Team, who is technically competent and appropriately trained, who takes the responsibility to ensure that the objectives and measures within the Project Waste Management Plan are delivered and who is assigned the requisite authority to secure achievement of this purpose.

Specifically, the function of the C&D Waste Manager will be to communicate effectively with colleagues in relation to the aims and objectives for waste management on the proposed public realm improvements. The primary responsibility for delivery of the objectives of the Waste Management Plan will fall upon the C&D Waste Manager designated at the demolition/ construction stage. A key objective for the C&D Waste Manager should be to maintain accurate records on the quantities of waste/ surpluses arising and the real cost (including purchase) associated with waste generation and management.

The preparation, application and documentation of a Project Waste Management Plan should enable all parties - including contractors, designers and competent authorities - to learn from the systematic implementation and assessment of best practice, particularly through the recording of summary information on performance outcomes.

2.7 Construction Management Plan

2.7.1 Disposal of Water, Wastewater and Sewage

All site facilities during construction will be located entirely within the site. The facilities will include canteen, toilet block and drying room for all staff/workers. These facilities will be connected to the Local Authority sewage system with local authority approval.

2.7.2 Water Disposal

Construction operations will adopt best working practices and the early establishment of the temporary construction drainage facilities during construction. A Construction Drainage Control System will be put in place so that all silt laden water will be diverted to temporary settlement storage tanks prior to discharge. This discharge, and the associated pollution control measures, will be subject to the approval of the Local Authority. The appointed contractor will also be required to further develop this Outline Construction Stage Surface Water Management Plan.

2.7.3 Working Hours

The proposed hours of work on site will be 08:00 hrs to 18:00 hrs Monday to Friday and 08:00 hrs to 14:00 hrs Saturday unless otherwise specified by Fingal County Council. Certain tasks may need to be undertaken outside of these hours. All outside of hours work will first be agreed in writing with the Local Authority.

2.7.4 Waste Management Control Policy

In general:

Regular shaped skips will be used for the duration of the demolition/ proposed public realm improvements. All skips will be situated in the waste segregation area on site.

Labelled skips will be available for each of the following waste types: wood, metal, brick/ rubble, canteen waste, plasterboard, paper and cardboard, other general waste and special bins for any hazardous wastes as required.

Throughout the demolition/ construction zone, covered labelled wheelie bins will be placed at designated waste depots. These bins will be taken and used by the operatives/ sub-contractors and returned to the depots after use.

The waste segregation area banksman will co-ordinate the movement of skips to and from the demolition/ construction zone. The banksman will also co-ordinate the scheduling of the approved waste collector to transport waste to the relevant permitted/ licensed waste facility.

2.7.5 Control of Fuels and Lubricants

In order to provide fuel to the relevant items of plant on site, a certified double skinned metal fuel tank with integrated pump, delivery hose, meter, filter and locking mechanism will be situated in a secure area on the construction site. It will be situated within a bund. This tank will be certified for lifting when full.

Sand piles and emergency clean up spill kits will be readily available in the event of a fuel spill. A hazardous bin will also be available to contain any spent sand or soak pads.

New metal gerry cans with proper pouring nozzles will be used to move fuel around the site for the purposes of refuelling items of small plant on site.

Drip trays will be used under items of small plant at all times. Any waste oils etc. contained in the drip trays or the bunded area will be emptied into a waste oil drum, which will be stored within the bund.

Metal gerry cans and any other items of fuel containers will be stored in certified metal bunded cabinets. Any gas bottles will be stored in a caged area at a secure location on the site. All will be properly secured at point of work.

2.7.6 Site Compound Layout

Given the nature of the proposed public realm improvements, various locations for the site compound will be established as the proposed public realm improvements progress. The exact locations of the site compound will be subject to the phasing of the proposed public realm improvements, which in turn will be subject to further community engagement and the outcome of any planning process. At this stage it is considered premature to identify specific site compound locations. However, the site compound locations and extents will consider the following requirements:

1) Phasing of the proposed public realm improvements
2) Maintaining vehicular access along New Street (e.g. resident access, deliveries, refuse collection and emergency vehicles)
3) Maintaining access for delivery of plant and materials
4) Maintaining pedestrian access along New Street and access to premises

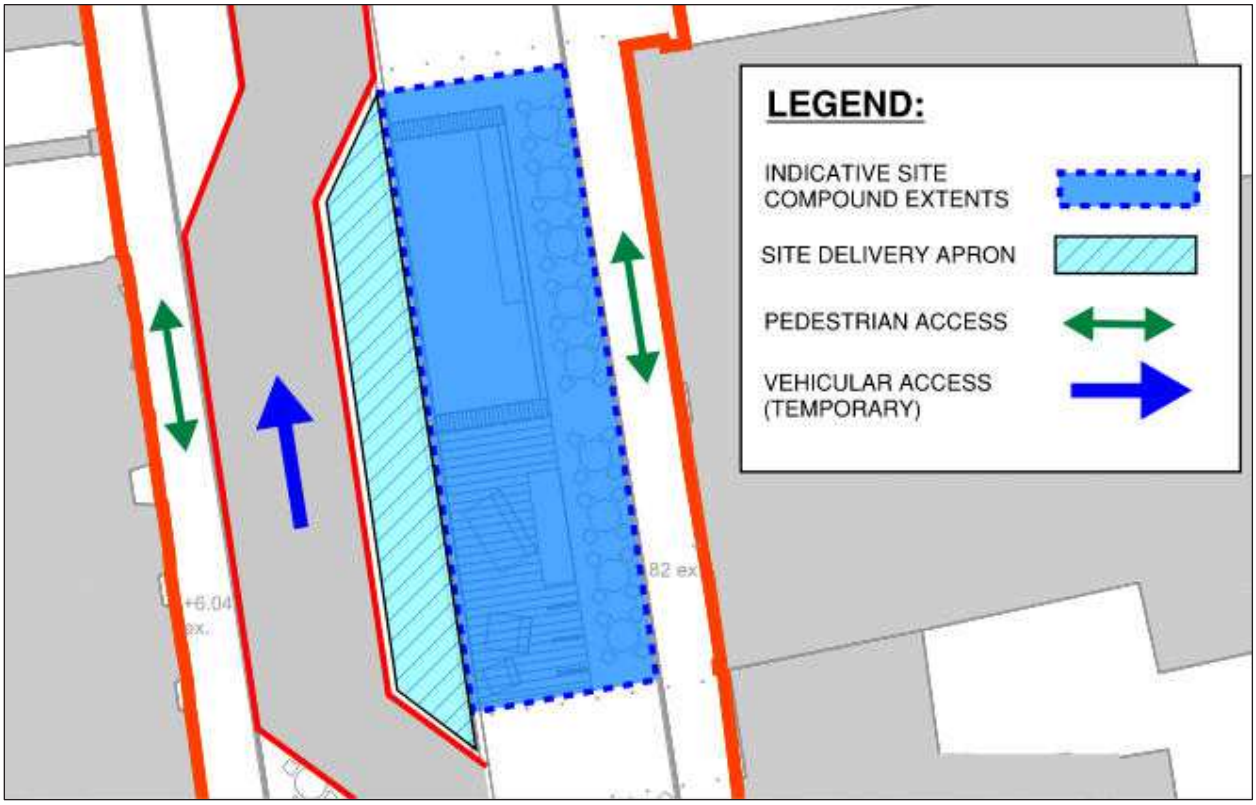


Figure 2-1: Indicative Site Compound Layout

The sites will be enclosed by hoarding or secure herras fencing. A waterproof membrane will be fixed to the base of the hoarding and the ground. The compound area will be of existing hardstanding material.

2.7.7 Car Parking Arrangements

Due to the limited availability of space on the site, parking of construction workers vehicles will be limited within the site extents. Parking will be permitted at other legal locations. To minimise congestion, a parking and traffic management plan will need to be developed by the Contractor for submission to FCC to ensure that construction workers access the site using alternative means of transport (i.e. public transport) to negate/minimise any impacts on the local network.

2.7.8 Traffic Management Procedures / Generation

All deliveries will be booked into site at least one day before delivery. All drivers will contact the site gate man 15 minutes before arrival on site.

Construction traffic will arrive along Dublin Road (R106), prior to entering the proposed development site. Refer to defined construction/demolition traffic route in Section 4.1.1 of this report. All deliveries will be off-loaded without delay by the most appropriate method and escorted off site.

The site gate man will be responsible for ensuring that there is no conflict between pedestrians and vehicles entering/ exiting the site. In addition, temporary markings will be painted on the footpath either side of the site entrance to alert pedestrians.

It is predicted that there will be as many as 25 personnel on site during peak construction activity. It is envisaged that working hours on site will be 08:00 hrs to 18:00 hrs Monday to Friday and 08:00 hrs to 14:00 hrs Saturday, therefore the peak movements in and out of the site should occur outside of the AM/PM rush hour traffic.

The volume of HGV movements per day will vary according to the different stages of demolition but is likely to be low and infrequent. Peak HGV movements will be mainly associated with removal off-site of stone and clay and any demolished hardstanding materials, if they cannot be re-used elsewhere on-site. There will also be deliveries to the site of materials for construction.

For a rigid HGV hauling material to the site, it will typically take 15 mins from when the rigid arrives at the site entrance, travels to the unloading area, empties its load and leaves the site.

The worst-case scenario is demolition with an estimated average of 2 HGV's per hour predicted during peak site grading activity. It is envisaged that HGV movements will be undertaken outside of AM/ PM rush hour traffic.

2.7.9 Air Quality

There is the potential for a number of emissions to the atmosphere during the bulk construction stage of the project. In particular, activities may generate quantities of dust. Construction vehicles, generators etc., will also give rise to some exhaust emissions.

Vehicular movements to and from the site will make use of existing roads. It is estimated that peak construction HGV movements will be 2 HGV's per hour. Considering the existing traffic levels in the area, the likely air quality impact associated with construction traffic is not significant.

A dust minimisation plan will be formulated for the bulk demolition and construction phase of the proposed public realm improvement, as construction activities are likely to generate dust emissions. The potential for dust to be emitted depends on the type of activity being carried out in conjunction with environmental factors including levels of rainfall, wind speeds and wind direction. The potential for impact from dust depends on the distance to potentially sensitive locations and whether the wind can carry the dust to these locations. The majority of any dust produced will be deposited close to the potential source and any impacts from dust deposition will typically be within several hundred metres of the construction area.

In order to ensure that no dust nuisance occurs, a series of measures will be implemented.

Roads shall be regularly cleaned and maintained as appropriate. Hard surface roads shall be swept to remove mud and aggregate materials from their surface. Furthermore, any road that has the potential to give rise to fugitive dust must be regularly watered, as appropriate, during dry and/or windy conditions.

Vehicles delivering material with dust potential both on and off the site shall be enclosed or covered with tarpaulin at all times to ensure no potential for dust emissions.

Material handling systems and site stockpiling of materials shall be designed and laid out to minimise exposure to wind. Water misting or sprays shall be used as required if particularly dusty activities are necessary during dry or windy periods.

At all times, the procedures put in place will be strictly monitored and assessed. In the event of dust nuisance occurring outside the site boundary, satisfactory procedures will be implemented to rectify the problem.

The dust minimisation plan shall be reviewed at regular intervals during the construction phase to ensure the effectiveness of the procedures in place and to maintain the goal of minimisation of dust through the use of best practise and procedures.

2.8 Noise and Vibration

2.8.1 Noise

There is no published Irish guidance relating to the maximum permissible noise level that may be generated during the construction phase of a project. Local authorities normally control construction activities by imposing limits on the hours of operation and consider at their discretion noise limits.

In the absence of specific noise limits, appropriate criteria relating to permissible construction noise levels for a development of this scale will be agreed with Fingal County Council (FCC) and will indicate the maximum permissible noise levels at adjacent properties during construction and any related time constraints with regard hours of operation. The majority of the construction activity is expected to occur during normal working hours.

2.8.2 Vibration

There are two varieties of criteria for vibration: those dealing with human comfort and those dealing with cosmetic or structural damage to buildings. In both instances, it is appropriate to consider the magnitude of vibration in terms of Peak Particle Velocity (PPV).

It is acknowledged that humans are particularly sensitive to vibration stimuli and that any perception of vibration may lead to concern. In the case of road traffic, vibration is perceptible at around 0.5 mm/s and may become disturbing or annoying at higher magnitudes. However, higher levels of vibration are typically tolerated for single events or events of short duration. For example, piling is typically tolerated at vibration levels up to 5mm/s. This guidance is applicable to the daytime only; it is unreasonable to expect people to be tolerant of such activities during the night.

Guidance relevant to acceptable vibration within buildings is contained in the following documents:

- British Standard BS 7385 -2:1993: Evaluation and measurement for vibration in buildings. Guide to damage levels from ground borne vibration, and;
- British Standard BS 5228-2:2009: Code of practice for noise and vibration control on construction and open sites

2.8.3 Noise and Vibration Measures

Due to the nature of the activities undertaken on a construction site, there is naturally potential for generation of significant levels of noise. A variety of items of plant may be in use, such as pneumatic breakers, excavators, lifting equipment, dumper trucks, compressors and generators. The flow of vehicular traffic to and from a construction site is also a potential source of relatively high noise levels.

The potential for vibration at neighbouring sensitive locations during construction is typically limited to demolition, excavation and lorry movements on uneven road surfaces.

With regard to construction activities, reference will be made to BS 5228-1:2009: Noise control on construction and open sites, which offers detailed guidance on the control of noise and vibration from demolition and construction activities. In particular, it is proposed that various practices be adopted during construction, including:

- limiting the hours during which site activities likely to create high levels of noise or vibration are permitted;
- establishing channels of communication between the contractor/developer, Local Authority and residents;

- appointing a site representative responsible for matters relating to noise and vibration;
- monitoring typical levels of noise and vibration during critical periods and at sensitive locations;
- all site access roads will be kept even, to mitigate the potential for vibration from lorries;
- Construction of 2.4m high hoarding.

Furthermore, it is envisaged that a variety of practicable noise control measures will be employed. These may include:

- selection of plant with low inherent potential for generation of noise and/ or vibration;
- erection of barriers as necessary around noisy processes and items such as generators heavy mechanical plant or high duty compressors;
- placing of noisy / vibratory plant as far away from sensitive properties as permitted by site constraints and the use of vibration isolated support structures where necessary.

We would recommend that vibration from construction activities be limited to the values set out in Section 2.8.2. It should be noted that these limits are not absolute but provide guidance as to magnitudes of vibration that are very unlikely to cause cosmetic damage. Magnitudes of vibration slightly greater than those are normally unlikely to cause cosmetic damage, but construction creating such magnitudes should proceed with caution. Where there is existing damage, these limits may need to be reduced by up to 50%.

During the construction phase of the proposed public realm improvements there will be some small impact on nearby properties due to noise emissions from site traffic and other activities. However, given that the construction phase of the proposed public realm improvements is temporary in nature, it is expected that the various noise sources will not be excessively intrusive. Furthermore, the application of binding noise limits and hours of operation, along with implementation of appropriate noise and vibration control measures, will ensure that noise and vibration impact is kept to a minimum.

It is highly recommended that appropriate dilapidation records for the site and surrounding area are documented prior to the commencement of construction/demolition activities.

2.9 Indicative On-Site Waste Construction & Demolition Waste Management Plan

In the course of the proposed public realm improvements, it is estimated that the following quantities of construction and demolition wastes/material surpluses will arise:

Construction Waste Material	Quantity	Actions
Metal	2t	Not envisaged at this stage of the public realm improvements*
Concrete	50t	50% of any waste concrete to be recycled and 50% to be properly disposed of
Paper & Cardboard	1t	100% of any waste packaging to be recycled
Plastic		100% of any waste packaging to be recycled
Wood	2t	100% of any waste timber to be recycled
Mixed Waste	15t	Waste materials will be recycled where possible or disposed of appropriately

Mineral (bricks, gypsum)	5t	100% of any waste masonry to be recycled
Soil/Stones	840t	100% of any soil or stones to be recycled and reuse on site subject to suitability of material
Residues	10t	Any other waste materials will be recycled where possible or disposed of appropriately
TOTAL Arisings	925t	

Table SF1 Estimated C&D Waste Arisings on Site from Appendix 3 of Best Practice Guidelines of Waste Management Plans for C&D Projects (figures to be confirmed as design progresses)

These quantities are provisional only and subject to further determination during the proposed public realm improvements.

2.9.1 Proposals for Minimisation, Reuse and Recycling of C&D Waste

Construction and demolition waste will arise on the proposed public realm improvements mainly from the site clearance, service trenches and foundation preparation.

The following are proposals for minimisation, reuse and recycling of C&D waste:

- The Purchasing Manager shall ensure that materials are ordered so that the quantity delivered, the timing of the delivery and the storage is not conducive to the creation of unnecessary waste.
- Concrete waste will be source segregated.
- Masonry and wood will be source segregated.
- Packaging will be source segregated for recycling or return to suppliers.
- Hazardous wastes will be identified, removed and kept separate from other C&D waste materials in order to avoid further contamination.
- Other C&D waste materials will be collected in receptacles with mixed C&D waste materials, for subsequent separation and disposal at a remote facility.

It is anticipated that waste materials will have to be moved off site. It is the intention to engage specialist waste service Contractors, who will possess the requisite authorisations, for the collection and movement of waste off-site, and to bring the material to a facility which currently holds a Waste Licence/ Waste Permit/ Certificate of Registration. Accordingly, it will be necessary to arrange the following waste authorisations specifically for the proposed public realm improvements:

Authorisation Type	Specific Need for the proposed public realm improvements (Yes/No?)
Waste Licence	Yes ■ No ☐
Waste Permit	Yes ■ No ☐
Waste Collection Permit	Yes ■ No ☐
Trans frontier Shipment Notification	Yes ☐ No ■
Movement of Hazardous Waste Form	Yes ☐ No ■

Table SF2 Waste Authorisations Necessary for the Scheme from Appendix 3 of Best Practice Guidelines of Waste Management Plans for C&D Projects

A list of waste collection permit holders to be employed on this proposed public realm improvements will be submitted to the local authority by the contractor in their Formal Construction and Demolition Waste Management Plan for the Construction Stage.

A list of waste collection permit sites that the waste may be recovered or disposed to on this proposed public realm improvements will be submitted to the local authority by the contractor in their Formal Construction and Demolition Waste Management Plan for the Construction Stage.

2.9.2 Assignment of Responsibilities

A foreman shall be designated as the Responsible Person and have overall responsibility for the implementation of the on-site Waste Management Plan.

The Responsible Person will be assigned the authority to instruct all site personnel to comply with the specific provisions of the Plan.

At the operational level, a Ganger from the main contractor and appropriate personnel from each sub-contractor on the site shall be assigned the direct responsibility to ensure that the discrete operations stated in the Waste Management Plan are performed on an on-going basis.

2.9.3 Training

Copies of the Waste Management Plan will be made available to all personnel on site. All site personnel and sub-contractors will be instructed about the objectives of the Waste Management Plan and informed of the responsibilities which fall upon them as a consequence of its provisions.

Where source segregation, selective demolition and material reuse techniques apply, each member of staff will be given instructions on how to comply with the Waste Management Plan.

Posters will be designed to reinforce the key messages within the Waste Management Plan and will be displayed prominently for the benefit of site staff.

2.9.4 Waste Auditing

The C&D Waste Manager shall arrange for full details of all arisings, movements and treatment of construction and demolition waste discards to be recorded during the construction stage of the proposed public realm improvements.

Each consignment of C&D waste taken from the site will be subject to documentation, which will conform to Table SF3 and ensure full traceability of the material to its final destination.

Detail	Particulars
Name of Project of Origin	e.g. New Harbour Motorway
Material being Transported	e.g. Soil, Demolition Concrete, Crushed Asphalt etc.
Quantity of Material	e.g. 20.50 tonnes
Date of Material Movement	e.g. 01/07/2020
Name of Carrier	e.g. Authorised Carriers Ltd.
Destination of Material	e.g. New Street Development
Proposed Use	e.g. Use as Hardcore in Dwelling Floors

Table SF3 Details to be Included within Transportation Dockets from Appendix 3 of Best Practice Guidelines of Waste Management Plans for C&D Projects

Details of the inputs of materials to the Construction site and the outputs of wastage arising from the proposed public realm improvements will be investigated and recorded in a Waste Audit, which will identify the amount, nature and composition of the waste generated on the site. The Waste Audit will examine the manner in which the waste is produced and will provide a commentary highlighting how management policies and practices may inherently contribute to the production of construction and demolition waste. The measured waste quantities will be used to quantify the costs of management and disposal in a Waste Audit Report, which will also record lessons learned from these experiences which can be applied in the future.

The total cost of C&D Waste management will be measured and will take account of the purchase cost of materials (including imported soil), handling costs, storage costs, transportation costs, revenue from sales, disposal costs etc. Costs will be calculated for the management of a range of C&D Waste materials, using the format shown in Table SF4.

The Table SF4 below will be completed and submitted to the Council in full following the appointment of a contractor for the proposed public realm improvements.

Material	**Estimated Quantities & Costs (tonnes & Euro)**
SOIL	XXX tonnes for €_____
Quantity of Waste Soil(tonnes)	
Purchase Cost i.e. Import Costs (€)	
Materials Handling Costs (€)	
Material Storage Costs (€)	
Material Transportation Costs (€)	
Revenue from Material Sales (€)	
Material Disposal Costs (€)	
Material Treatment Costs (€)	
Total Waste Soil Management Costs (€)	
Unit Waste Soil Management Costs (€)	

Table SF4 Standard Record Form for Costs of C & D Waste Management from Appendix 3 of Best Practice Guidelines of Waste Management Plans for C&D Projects

Details of the quantities and types of C&D Waste arising from the proposed public realm improvements will be forwarded to Environmental Protection Agency, local competent authority, NCDWC etc.

3 Waste Management Legislation and Obligations

3.1 Relevant Waste Management Legislation

This section provides details of waste related legislation relevant to the proposed public realm improvements. In accordance with cradle to grave responsibilities, the Contractor will be responsible for all waste arisings from the time the waste is generated until it reaches its final destination point. This includes its method of treatment/disposal. The Waste Management Acts 1996-201, give effect to the polluter pays principle effectively stating that the waste producer may be liable for any pollution incidents arising from the management of their waste. There is therefore an onus on the Contractor to ensure that all contractors managing waste on their behalf are legally compliant and technically competent and the waste itself is contained, handled, treated and disposed of in accordance with all relevant regulatory requirements.

A brief description of the main waste related regulatory controls relevant to the proposed public realm improvements is provided hereunder; however, the list is not exhaustive and should be reviewed and amended at regular intervals in accordance with changing legislation:

3.1.1 Waste Management (Landfill Levy) Regulations 2015, S.I. No. 189/2015

The existing levy of €75 per tonne of waste disposed is unchanged under these new Regulations.

3.1.2 Waste Management (Facility Permit and Registration) (Amendment) Regulations 2015, S.I. No. 198/2015

These regulations describe the process for obtaining a Waster Permit or Certificate of Registration, by a private operator from a local authority, or a Certificate of Registration from the Environmental Protection Agency (EPA) in respect of a local authority run waste activity which requires registration.

3.1.3 Waste Management (Licensing) (Amendment) Regulations 2010, S.I. No. 350/2010

These regulations relate to the process for obtaining a waste licence from the EPA for the operation of certain waste recovery or disposal facilities under Part V of the Waste Management Act.

3.1.4 Waste Management (Collection Permit) (Amendment) Regulations 2016, S.I. No. 24/2016

These regulations relate to the requirement to obtain a waste collection permit from the relevant local authority for the collection of waste on a commercial basis.

3.1.5 Waste Management (Movement of Hazardous Waste) Regulations 1998, S.I. No. 14/1998

These regulations control the movement of hazardous waste within Ireland requiring authorisation in the form of C1 consignment forms. The C1 form is completed by the Consignor, the Carrier and the Consignee. A three part document provides a tracking mechanism for the hazardous waste from its point of origin to its final destination.

3.1.6 Waste Management (Shipments of Waste) Regulations 2007, S.I. No. 419/2007

These regulations control the movement of waste across member states. Shipments are controlled under a TFS (Transfrontier Shipment) form, which designates the waste under the categories of Green, Amber and Red List. Fingal County Council is the designated competent authority under the regulations.

3.1.7 Waste Classification, List of Waste and Determining if Waste is Hazardous or Non-Hazardous, 2015

This document allows the generators of waste to classify the waste as hazardous or non-hazardous and in the process assigning the correct List of Waste entry. The waste classification system applies across the EU and is the basis for all national and international waste reporting obligations. Correct classification is the foundation for ensuring that collection, transportation, storage, treatment of waste is carried out in a manner that provides protection for the environment and human health and in compliance with legal requirements.

3.1.8 Carriage of Dangerous Goods by Road Regulations 2015, S.I. No. 288/2015

These regulations require drivers transporting dangerous goods to be ADR trained. In addition, a Dangerous Goods Safety Advisor (DGSA) must be appointed where activities include the carriage, or related packing, loading, filling or unloading of dangerous goods by road.

4 Construction Traffic Management

This section, relating to the Construction Traffic Management Plan (CTMP), sets out the traffic management requirements that will apply to Contractors who are engaged in the demolition and construction activities associated with the proposed public realm improvements at New Street, Malahide, Co. Dublin. The Contractor must adopt the requirements of this preliminary Construction Traffic Management Plan into his own Construction Traffic Management Plan and must agree same with Fingal County Council prior to commencement on site.

4.1 Construction Traffic Access to the Site

4.1.1 Location and access to the site

The site will be accessed via an existing junction on The Mall (R106). Road is also labelled as Dublin Road (R106). See Figure 4-1, Figure 4-2, and Figure 4-3 below.

Construction related traffic will enter the site via the junction on Dublin Road (R106). Construction traffic associated with the development can proceed along the Dublin Road, to Swords Road, to Malahide Road, to the Swords Bypass, to Lisenhall Road, to the M1 or other routes depending on destination. Refer to Figure 4-4 below for illustration.

The management of construction traffic on the public road network around the development will be a critical part of the overall proposed public realm improvements and must be actively managed by the Contractor.



Figure 4-1: Dublin Road (R106) Heading eastward towards junction with New Street. © Google Maps



Figure 4-2: Dublin Road (R106) junction with New Street. © Google Maps



Figure 4-3: Proposed site access looking northwards on New Street. © Google Maps

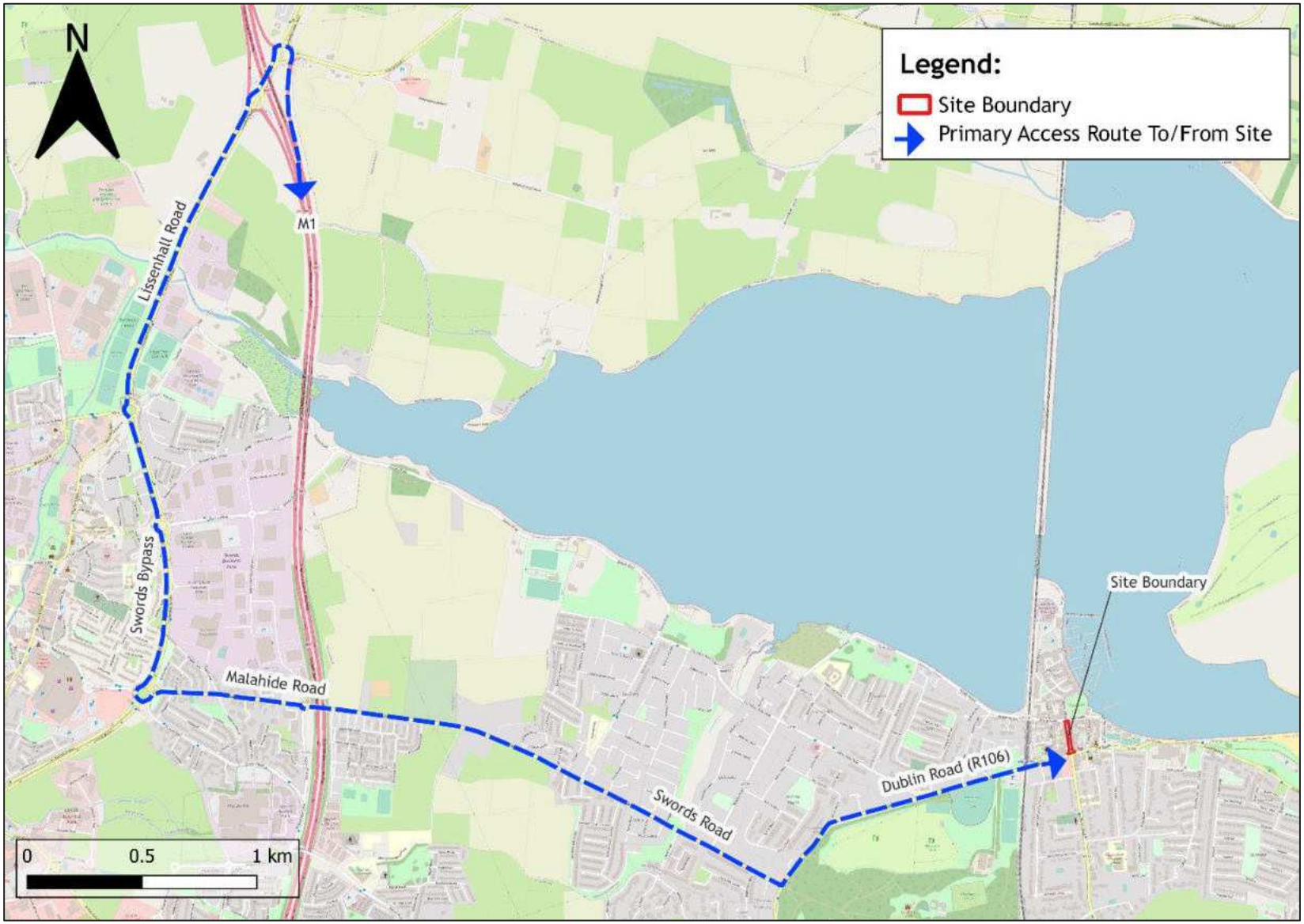


Figure 4-4: Proposed Primary Route To/From Site.

4.1.2 Definition of Construction Traffic

Construction traffic means the following vehicles:

- HGVs & haul trucks – i.e. vehicle with 6 tyres or more as set out in the RSA publication 'Guidelines on Maximum Weights and Dimensions of Mechanically Propelled Vehicles and Trailers, Including Manoeuvrability Criteria'
- Site machinery such as excavators, tippers, bulldozers, etc.
- Concrete trucks.

Smaller vehicles used by construction workers to access the site, such as cars and vans, are not deemed to be construction traffic.

4.2 Management of Construction Traffic around Dublin Road (R106)

The Contractor is required to control the construction traffic in and around the proposed development location, with access to the site via Dublin Road (R106). The Contractor must adhere to the following:

- Communicate clearly to all construction staff and subcontractors that they are bound by these restrictions.
- Schedule site traffic in advance to ensure that these restrictions are adhered to.
- Monitor construction traffic at key points remote from the site to check compliance.
- Details of the Contractor's management plan must be submitted to Fingal County Council (FCC) in advance of construction and included as part of the Construction Management Plan.
- Vehicle movements associated with ancillary, maintenance and other non-essential activities will be minimised during the peak traffic hours on the public road in the vicinity of the site. These are the hours of 8:00-9:00 in the morning and 17:00-18:00 in the evening.
- A special permit for moving oversized and hazardous loads will be obtained from FCC/ An Garda Síochána prior to any such movements.
- Daily construction programmes will be planned to minimise the number of disruptions to surrounding roads by staggering HGV movements to avoid site queues.
- It is envisaged that there will be provision for on-site parking, sufficient only to serve those directly involved with the proposed public realm improvements.
- Construction vehicles will follow the road hierarchy as much as practicable - i.e. construction vehicles will be directed away from local or minor streets and roads and will be required to use designated primary national and regional routes for accessing the site.
- The Contractor will appoint a Traffic Management Coordinator who will be responsible for the coordination of all traffic safety and traffic management matters. The Traffic Management Coordinator will ensure that all traffic management requirements set-out in the CTMP are met.
- In the event that multiple contractors will be working on site, overall traffic management coordination will be required. This will include a review of the individual CTMPs prepared by different Contractors and provision of guidance to ensure consistency between them. An overall CTMP for the entire site should be prepared and agreed with FCC in advance of commencement of proposed public realm improvements.

4.3 Proof of Compliance with Traffic Restrictions

The Contractor will track the transit of construction traffic in the area for the duration of the proposed public realm improvements.

The Contractor will control traffic movements using the following procedure;

- Develop a restrictions and rule adherence form that all lorry drivers and site operatives will sign.
- All traffic movements to and from site to be managed by the Contractor's transport manager in accordance with these restrictions
- Appointed person located at the site entrance to issue dockets and record all traffic entering and leaving site.
- Records to be reviewed periodically by the site manager.
- Prior to any new contractors starting, all persons must sign up to restrictions and prequalification forms.
- A certified Flagman must be present to coordinate the traffic entering and leaving the site.

4.4 Construction Traffic Access to site via Dublin Road (R106)

4.4.1 Traffic Management Procedures / Generation

All deliveries will be booked into site at least one day before delivery. All drivers will contact the site gate man 15 minutes before arrival on site.

All construction traffic will arrive along the main access roads with entry to the site via its northern site boundary. All deliveries will be off-loaded without delay by the most appropriate method and escorted off site.

The site gate man will be responsible for ensuring that there is no conflict between pedestrians and vehicles / entering / exiting the site.

It is predicted that there will be an average of 25 personnel on site during peak construction activity. It is envisaged that working hours on site will be 08:00 hrs to 19:00 hrs Monday to Friday and 08:00 hrs to 16:30 hrs Saturday, therefore the peak movements in and out of the site should occur outside of the AM/PM rush hour traffic.

There is one stage that the proposed public realm improvements will generate HGV movements; bulk excavation.

For a rigid HGV hauling material to the site, it will typically take 15 mins from when the rigid arrives at the site entrance, travels to the unloading area, empties its load and leaves the site.

The worst-case scenario is demolition with an estimated average of 2 HGV's per hour predicted during peak site grading activity. It is envisaged that HGV movements will be undertaken outside of AM/ PM rush hour traffic.

4.4.2 Traffic management - Internal Site Extents

Contractor / subcontractor / supplier parking is not permitted on any local access routes. Vehicles must be parked within approved designated areas within the site extents. To minimise congestion, a traffic management plan will need to be developed by the Contractor to ensure that construction workers access

the site using alternative means of transport (i.e. public transport) to negate impacts on the local network.

No unloading or blockages of access routes, including emergency vehicle access routes. Such vehicles will be immediately requested to move to avoid impeding the proposed public realm improvements.

In accordance with the CTMP, the Contractor must appoint a Traffic Management Coordinator responsible for the management of traffic management related activities on site.

The Contractor must carry out an auto-track analysis to ensure that adequate turning space is available. The auto-track must demonstrate how construction vehicles will go in and out of the site. Contractors must eliminate where possible the necessity for reversing of any construction or supply chain vehicle onsite.

Contractor is to note requirement for traffic management.

4.4.3 Traffic management coordination meetings

Monthly logistics coordination will be undertaken where the traffic management strategy, traffic management coordination (and implementation of any required temporary traffic management schemes) will be discussed and agreed.

4.4.4 Construction Access Road required behaviours

The Contractor must adhere to established traffic management measures specified in the Construction Traffic Management Plan including:

- Queuing procedures outside the site for vehicles seeking to enter the site to prevent back-up onto the local road network;
- Sign-in requirements;
- Visual PPE checks;
- Arrangements for infrequent visitors, e.g. integrated design team, client visitors;
- Compliance to sign-in requirements, use of turnstiles and/or swipe cards; and
- Collaborate with any required security searches of vehicles entering or exiting.

All Contractors will be deemed to have inspected and examined the site and its surroundings at tender stage and to have satisfied itself as to the nature and means of access to the site.

In the event of a Contractor not being satisfied with the permitted access routes to and from the site, the Contractor is obliged to provide for all expenses and charges for temporary wayleaves and temporary truck/vehicle holding areas in connection with different access arrangements to the site. Any amendments must be to the satisfaction of FCC.

4.4.5 Loading/Unloading locations

Vehicles must be loaded and unloaded within the site area (i.e. access routes, site compound set-up and loading areas to be developed and agreed with the Contractor). Contractors are not permitted to carry out loading or unloading on the public roadway. This approach reduces the risk to the public, reduces congestion, and minimises disruption and risk to any passing vehicles on the highway. All deliveries and collections should be overseen and managed for the Contractor by a nominated competent person.

Contractors must consider and explain how to manage the impacts on cyclists, pedestrians, other road users, and any affected roadway infrastructure.

4.4.6 Emergency Access

Access for emergency vehicles via the primary haul roads must be maintained at all times.

4.4.7 Asset Protection

The Contractor must take care to avoid damage to roads, footpaths, grass margins, and other surfaces and all walls including protected walls, structures including protected structures and the associated curtilage, trees, lighting fixtures and all other street furniture within or outside of the overall site. They shall be liable for the cost of repairing / replacing all such damage caused by its operations to the satisfaction of FCC.

Contractors must take precautions to ensure against spillage of diesel fuel, contaminated water or solvents. Any damage so caused shall be made good by the offending Contractor at its own expense.

Contractors must prohibit the use of tracked plant on road surfaces outside of the site unless suitably approved protective measures are taken to safeguard the integrity of surfaces.

The Contractors Construction Management Plan must include specifications regarding the quality of temporary reinstatements and the timelines for permanent reinstatements of roads and pavements affected by the proposed public realm improvements.

PUNCH consulting engineers

Public Realm Improvements for a Pedestrianised New Street

Site Specific Flood Risk Assessment

222126-PUNCH-XX-XX-RP-C-0004

April 2023

Document Control

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1 Introduction

1.1 Background

PUNCH Consulting Engineers were appointed by Fingal County Council to carry out a Site-Specific Flood Risk Assessment for the proposed public realm improvements at a pedestrianised New Street, located in Malahide, Co. Dublin.

The assessment has been prepared as part of a planning submission package and is carried out in full compliance with the requirements of "The Planning System & Flood Risk Management Guidelines" published by the Department of the Environment, Heritage and Local Government in November 2009.

The proposed site layout is detailed in a series of drawings provided by DFLA in the planning submission documentation.

1.2 Existing Site

The site is approximately 0.22 hectares in area located in Malahide Village on New Street. The site currently consists of an established town street with retail, commercial and residential development throughout. The topography of the street consists of the site falling from its highest point at the southern extents of the site (The Mall) and falling towards the lowest point at the northern extents of the site (Strand Street).

The site is bounded by retail, commercial and residential developments to the west and east, a junction on Strand Street to the north, and a junction on The Mall (R106) to the south. The junctions on either end of New Street are both signalised. New Street is approximately 100m southwest of the marina. The street is pedestrianised with restricted vehicular access to enable deliveries allowed between 7am and 11 am only, refuse collection and emergency vehicles. The site is accessed via The Mall (R106) to the south and via Strand Street to the north. Please refer to Figure 1-1 below illustrating the site boundary.



Figure 1-1: Site Location Plan.

1.3 Nature of the Proposed Development

The proposed public realm improvements will comprise: -

i. Widening of footpaths and provision of new kerb edges with existing kerbstones retained, realigned and protected within the widened footpaths and public spaces.
ii. Realignment and narrowing of the trafficable section of New Street (c.150m in length, 0.22ha) and insertion of control measures and all necessary signage to provide for a pedestrianised street with associated traffic flow routes and restrictions allowing for time limited one-way access from 7am to 11am each day for deliveries and emergency vehicles from Main Street/ The Mall to New Street and a two-way access from Strand Street to Ross's Terrace via New Street.
iii. Upgrade of all street surfaces.
iv. Provision of 2no. loading bays at the southern and northern ends of New Street and an accessible parking space in front of the HSE building.
v. Installation of cycle stands at 6no. locations on New Street with capacity for 23no. cycle parking spaces.
vi. Removal and replacement of 11no. existing trees with 37no. trees of species appropriate to the location and environment and provision of soft landscaping and green infrastructure with planting zones for seeded, planted and hedging areas and associated bioretention and tree pit areas.
vii. Provision of outdoor dining zones including tables and chairs and other ancillary moveable structures.
viii. Provision of street furniture including seating, benches and litter and recycling bins and a water feature.
ix. New public lighting.
x. Upgrade of the watermain and foul drainage networks and upgrade and relocation of the surface water drainage network including provision of sustainable urban drainage systems (SUDs) features as part of hard and soft landscaping.
xi. Provision of ducting for existing and future utilities and piped infrastructure.
xii. All associated site and development works.

Fingal County Council will be providing regulatory traffic signs in accordance with Section 95 of the Road Traffic Act 1961 (as amended).

The proposed public realm improvements are outlined in a series of architectural drawings prepared by DFLA, and engineering drawings prepared by PUNCH Consulting Engineers supplied as part of the planning submission.

Please refer to Architectural Documents for full proposed site layout.

2 Relevant Guidance

2.1 "The Planning System and Flood Risk Management" Guidelines

In September 2008, "The Planning System and Flood Risk Management" Guidelines were published by the Department of the Environment, Heritage and Local Government in Draft Format. In November 2009, the adopted version of the document was published. This assessment has been prepared as part of a planning submission package.

The Flood Risk Management Guidelines give guidance on flood risk and development. The guidelines recommend a precautionary approach when considering flood risk management. The core principle of the guidelines is to adopt a flood risk sequential approach to managing flood risk and to avoid development in areas that are at risk. The sequential approach is based on the identification of flood zones for river and coastal flooding. The guidelines include definitions of Flood Zones A, B and C, as noted in Table 2-1 below. It should be noted that these do not take into account the presence of flood defences, as there remain risks of overtopping and breach of the defences.

Table 2-1: Flood Zone Designation

Flood Zone	Type of Flooding	Annual Exceedance Probability (AEP)
Flood Zone A	Coastal	Less than a 1:200 (0.5% AEP) year event
	Fluvial	Less than a 1:100 (1% AEP) year event
Flood Zone B	Coastal	Greater than a 1:200 (0.5% AEP) and less than a 1:1000 (0.1% AEP) year event
	Fluvial	Greater than a 1:100 (1% AEP) and less than a 1:1000 (0.1% AEP) year event
Flood Zone C	Coastal	Greater than a 1:1000 (0.1% AEP) year event
	Fluvial	Greater than a 1:1000 (0.1% AEP) year event

Once a flood zone has been identified, the guidelines set out the different types of development appropriate to each zone. Exceptions to the restriction of development due to potential flood risks are provided for through the use of the **Justification Test**, where the planning need and the sustainable management of flood risk to an acceptable level must be demonstrated. This recognises that there will be a need for future development in existing towns and urban centres that lie within flood risk zones, and that the avoidance of all future development in these areas would be unsustainable.

A three staged approach to undertaking an FRA is recommended:

Stage 1: Flood Risk Identification – Identification of any issues relating to the site that will require further investigation through a Flood Risk Assessment;

Stage 2: Initial Flood Risk Assessment – Involves establishment of the sources of flooding, the extent of the flood risk, potential impacts of the development and possible mitigation measures;

Stage 3: Detailed Flood Risk Assessment – Assess flood risk issues in sufficient detail to provide quantitative appraisal of potential flood risk of the development, impacts of the flooding elsewhere and the effectiveness of any proposed mitigation measures.

This report addresses the requirements for Stage 2.

2.2 Previous Fingal Development Plan 2017-2023

Chapter 7 of the previous Fingal Development Plan 2017-2023 includes policies on surface water and flooding. The policy relevant to this document is as follows:

SW07 *Implement the Planning System and Flood Risk Management-Guidelines for Planning Authorities (DoEHLG/OPW 2009) or any updated version of these guidelines. A site-specific Flood Risk Assessment to an appropriate level of detail, addressing all potential sources of flood risk, is required for lands identified in the SFRA, located in the following areas: Courtlough; Ballymadun; Rowlestown; Ballyboghil; Coolatrath; Milverton, Skerries; Channell Road, Rush; Blakescross; Lanestown/Turvey; Lissenhall, Swords; Balheary, Swords; Village/Marina Area, Malahide; Streamstown, Malahide; Balgriffin; Damastown, Macetown and Clonee, Blanchardstown; Mulhuddart, Blanchardstown; Portrane; Sutton; and Howth, demonstrating compliance with the aforementioned Guidelines or any updated version of these guidelines, paying particular attention to residual flood risks and any proposed site specific flood management measures*

A Strategic Flood Risk Assessment (SFRA) was completed for Fingal County Council (FCC) in February of 2016 to supplement the Fingal Development Plan 2017-2023. FCC's Policy SW07 above is replicated as part of this planning submission.

2.3 Fingal Development Plan 2023-2029

The Strategic Flood Risk Assessment included in the Fingal Development Plan 2023 – 2029 provides a list of Council Objectives with regards to flood risk. The objectives relevant to this report are as follows:

It is an objective of the Council to:

IUP12 *Ensure the continued incorporation of Flood Risk Management into the spatial planning of the County of Fingal, to meet the requirements of the EU Floods Directive and the EU Water Framework Directive and to promote a climate resilient County.*

IUP14 *Continue to support and assist the OPW in implementing and delivering the relevant CatchmentBased Flood Risk Assessment and Management Programmes for rivers, coastlines and estuaries within Fingal.*

IUP16 *Have regard to the OPW Flood Risk Management Guidelines (2009), as revised by Circular PL 2/2014, when assessing planning applications and in the preparation of statutory and non-statutory plans and to require site specific flood risk assessments are to be considered for all new developments within the County. All development must prepare a Stage 1 Flood Risk Analysis and if the flooding risk is not screened out, they must prepare a Site Specific Flood Risk Assessment (SFRA) for the development, where appropriate.*

A Strategic Flood Risk Assessment (SFRA) was completed by Fingal County Council to supplement the Fingal Development Plan 2023 – 2029.

2.4 Land Zoning

The land on which the development is proposed is currently a street and therefore not defined by a land zoning. It is noted that the lands adjacent to either side of New Street are zoned as "TC: Town and District Centre" in the Fingal Development Plan 2023 – 2029 Interim Publication. An extract is shown in Figure 2-1.

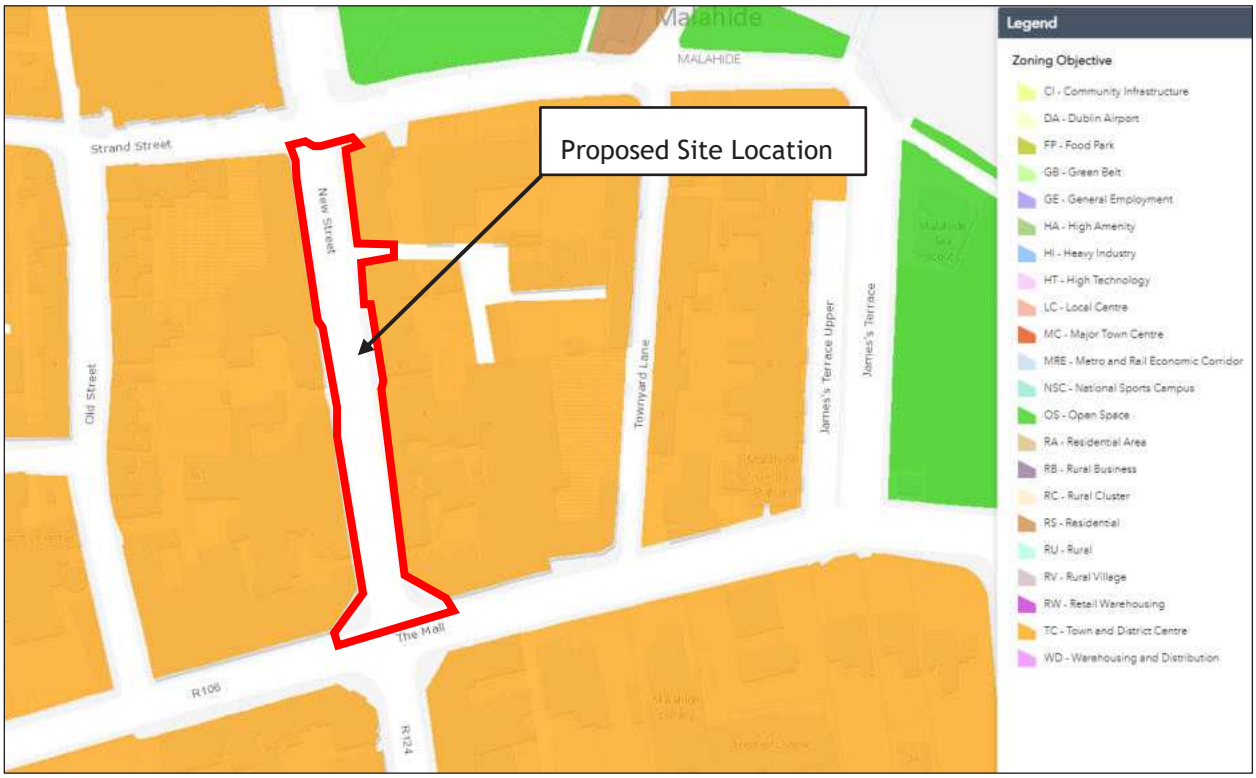


Figure 2-1: Land Use Zoning (Extract from Fingal Development Plan 2023 – 2029 Interim Publication).

3 Flood Risk Identification

3.1 Existing Hydrogeological Environment

The existing hydrological environment is characterised primarily by the presence of the water associated with the Broadmeadow River, and Malahide Bay. The dominant hydrological features in the vicinity contributing to the Broadmeadow Water/ Malahide Bay are the Ballymadrough River, Broadmeadow River, and the Gaybrook Stream. The watercourse locations are shown in Figure 3-1.



Figure 3-1: Hydrological Environment around the site.

3.2 Topographical Survey

A topographical survey of the site and its environments was completed by Apex Surveys in July 2022. The topography of the site falls steeply in a south-north direction, with levels ranging from 9.24m at the southern end of the site, and 2.84m at the northern end of the site.

3.3 Site Walkover

PUNCH Consulting Engineers visited the site on 2nd of February 2022 to assess conditions and key features of the site, to establish any potential sources of flooding and to identify the likely routes of flood waters. Appendix A contains a selection of key images taken during the site visits.

The following was established from the site visit:

a) The site was accessed via Strand Street.
b) Ground was dry at the time of the visit. The entirety of the sites consists of hardstanding areas (existing street and footpaths).
c) The site is bounded by retail, commercial and residential developments to the west and east.
d) Levels in the site were steep with a noticeable fall from the southern part of the site towards the norther end.

3.4 Site Geology

The geology of the site was reviewed using data from the Geological Survey of Ireland (available at www.gsi.ie). The soil type at the location of the proposed development is identified as 'Gravels derived from Limestones' towards the northern end of the site and "Till derived from Limestones" towards the southern end of the site. The surrounding areas comprise mainly of 'Bedrock outcrop or sub crop' and "Till derived from Limestones".

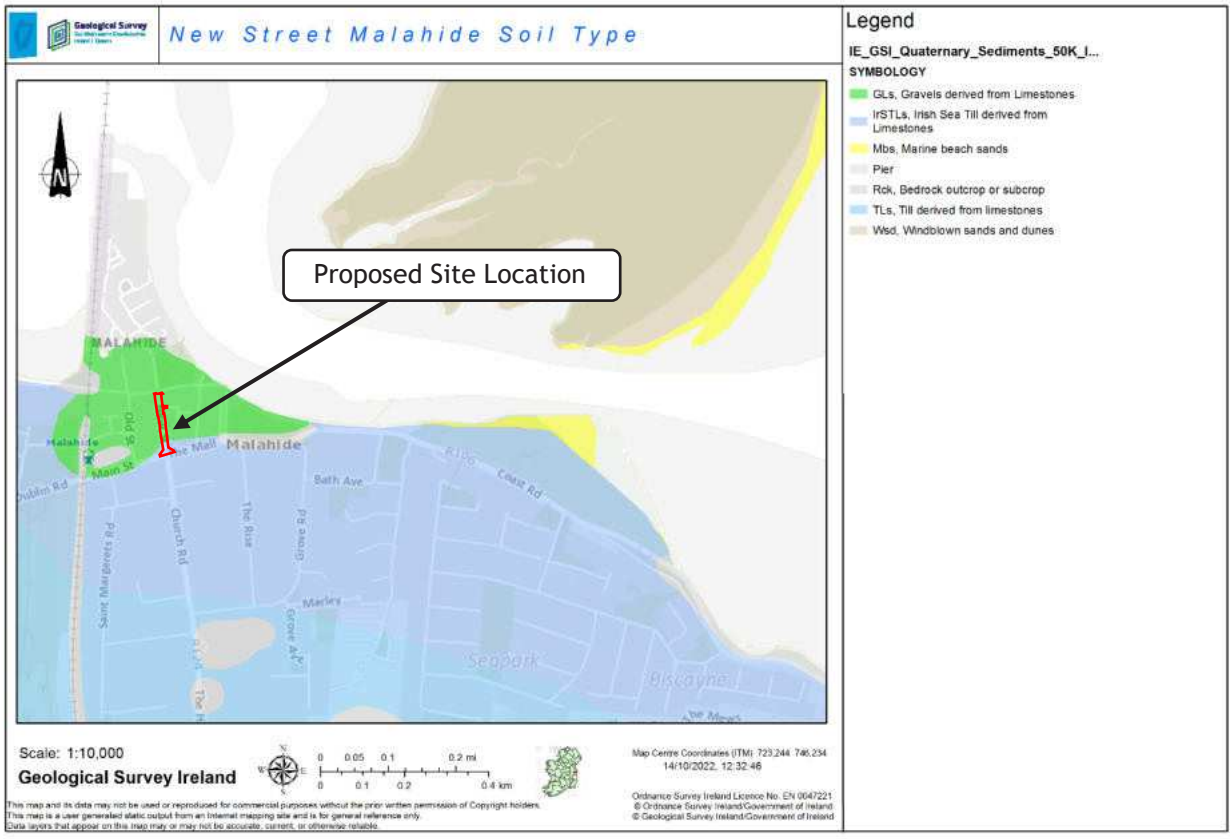


Figure 3-2: Geology of the surrounding area (source: Geological Survey of Ireland (http://www.gsi.ie))

3.5 Groundwater Flooding

GSI data show that the site is primarily within an area of extreme groundwater vulnerability as shown in the figure below.

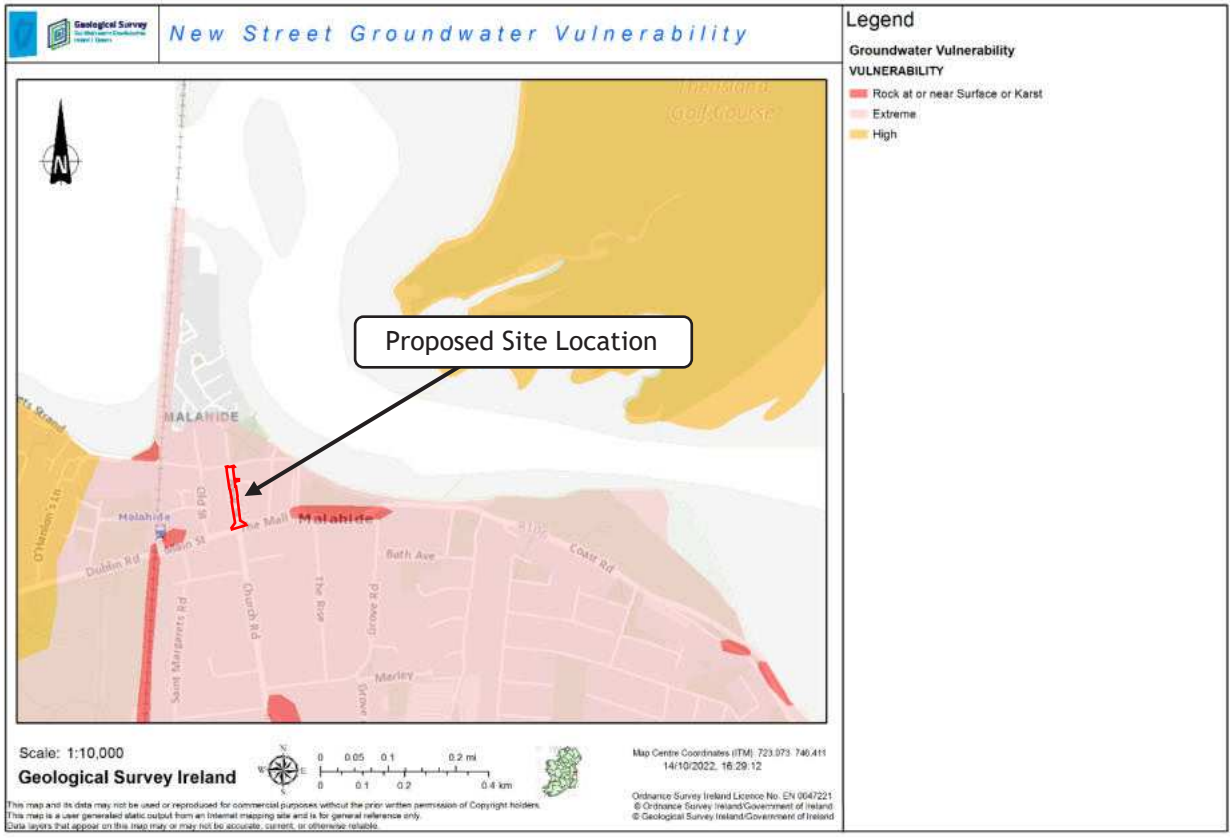


Figure 3-3: Groundwater Vulnerability (source: Geological Survey of Ireland (http://www.gsi.ie)).

3.6 Pluvial Flooding

Pluvial Flooding is the result of rainfall generated overland flows which arise before run-off can enter any watercourse or sewer. It is usually associated with high-intensity rainfall. The proposed site will include a surface water drainage system to ensure pluvial flooding does not occur. The development will also include SuDS measures such as bioretention areas which will reduce the overall pluvial flood risk.

3.7 Review of Existing Surface Water Infrastructure

Fingal County Council was contacted with regards existing surface water infrastructure in the vicinity of the site. the following stormwater drainage networks are present within the development site:

1. 225mm stormwater piped concrete sewer flowing south-north on New Street.

The following stormwater drainage exists adjacent to the development site:

1. 225mm stormwater piped concrete sewer flowing west-east on Strand Street

Please refer to Figure 3-4 illustrating the existing stormwater drainage arrangement.

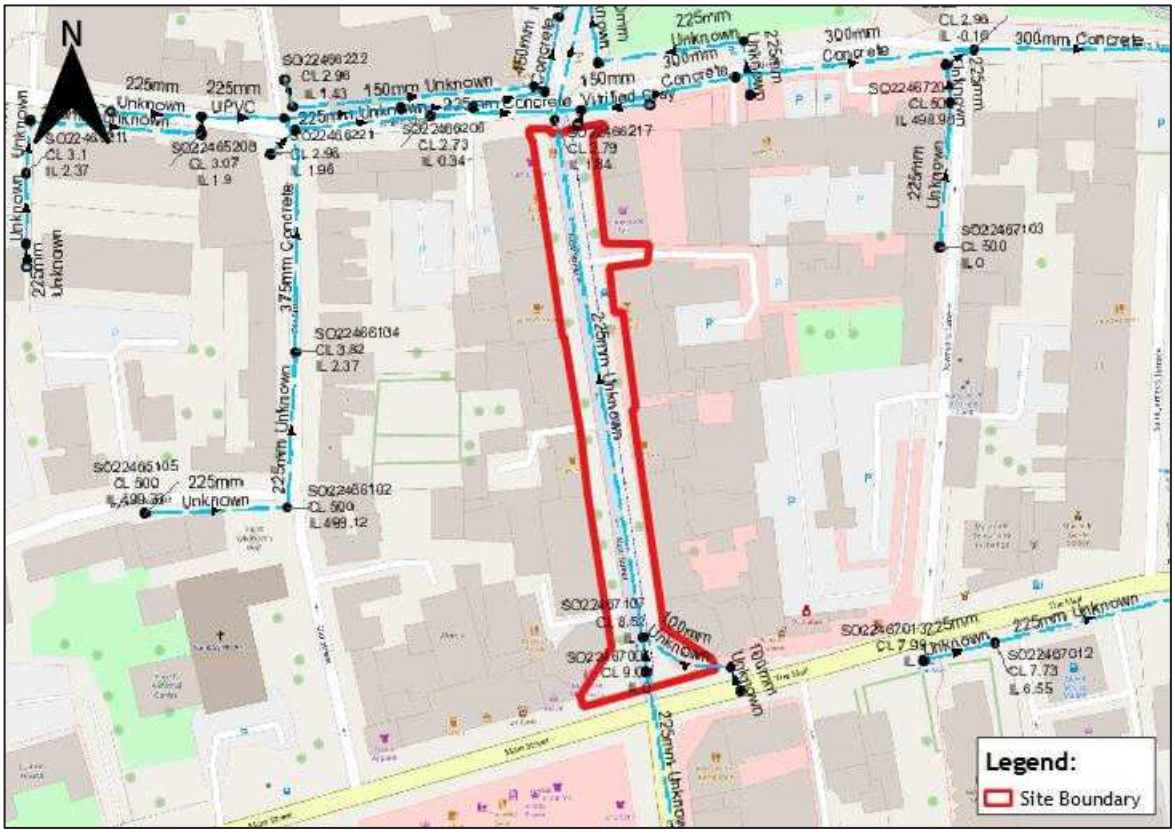


Figure 3-4: Existing stormwater drainage surrounding the site.

3.8 Review of Historic Mapping

A review of the OSI Historical maps[1] was carried out. Figure 3-5 shows an extract from the 25-inch historic map for the site. The site is not indicated as "liable to flood" in the available historic OSI maps.

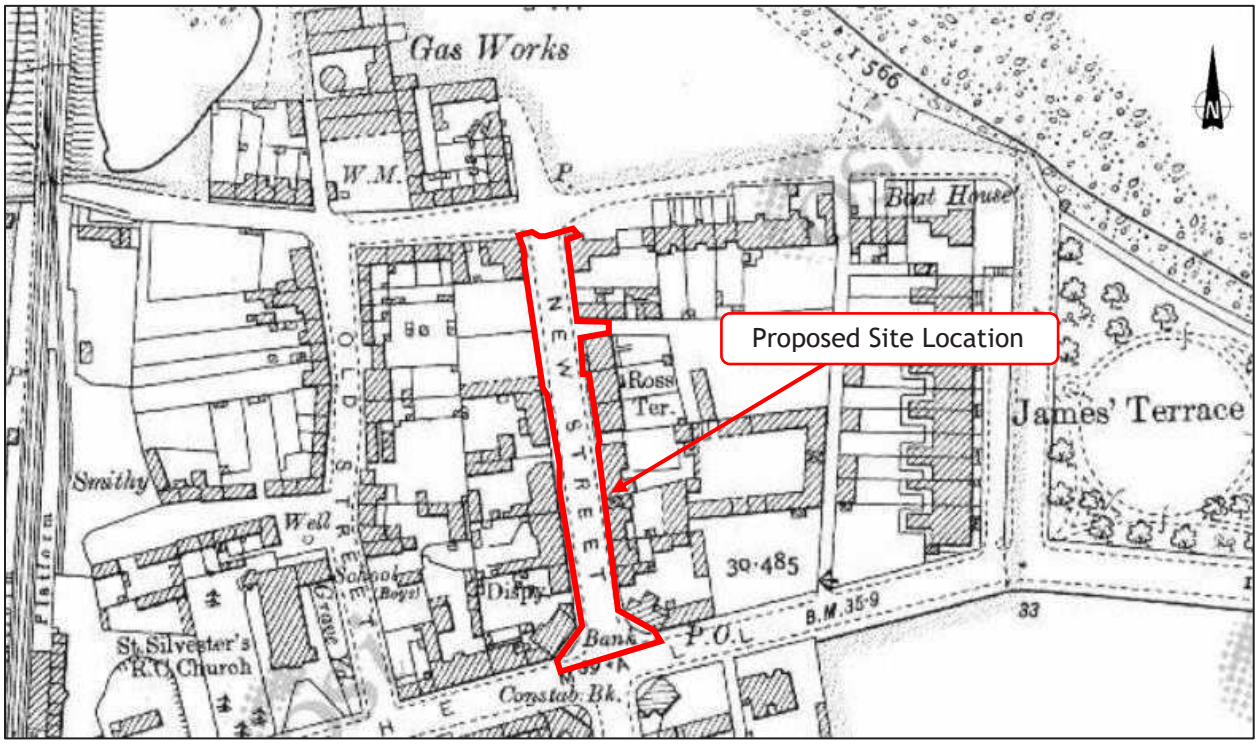


Figure 3-5: Extract from OSI historical 25-inch map.

[1] Maps available: http://map.geohive.ie/mapviewer.html

3.9 History of Flooding

The Office of Public Works (OPW) Flood Hazard Mapping website holds a record of historic flood events. A review of the database indicated that have been no instances of flooding on the proposed site as shown in Figure 3-6, see Appendix B for full report.

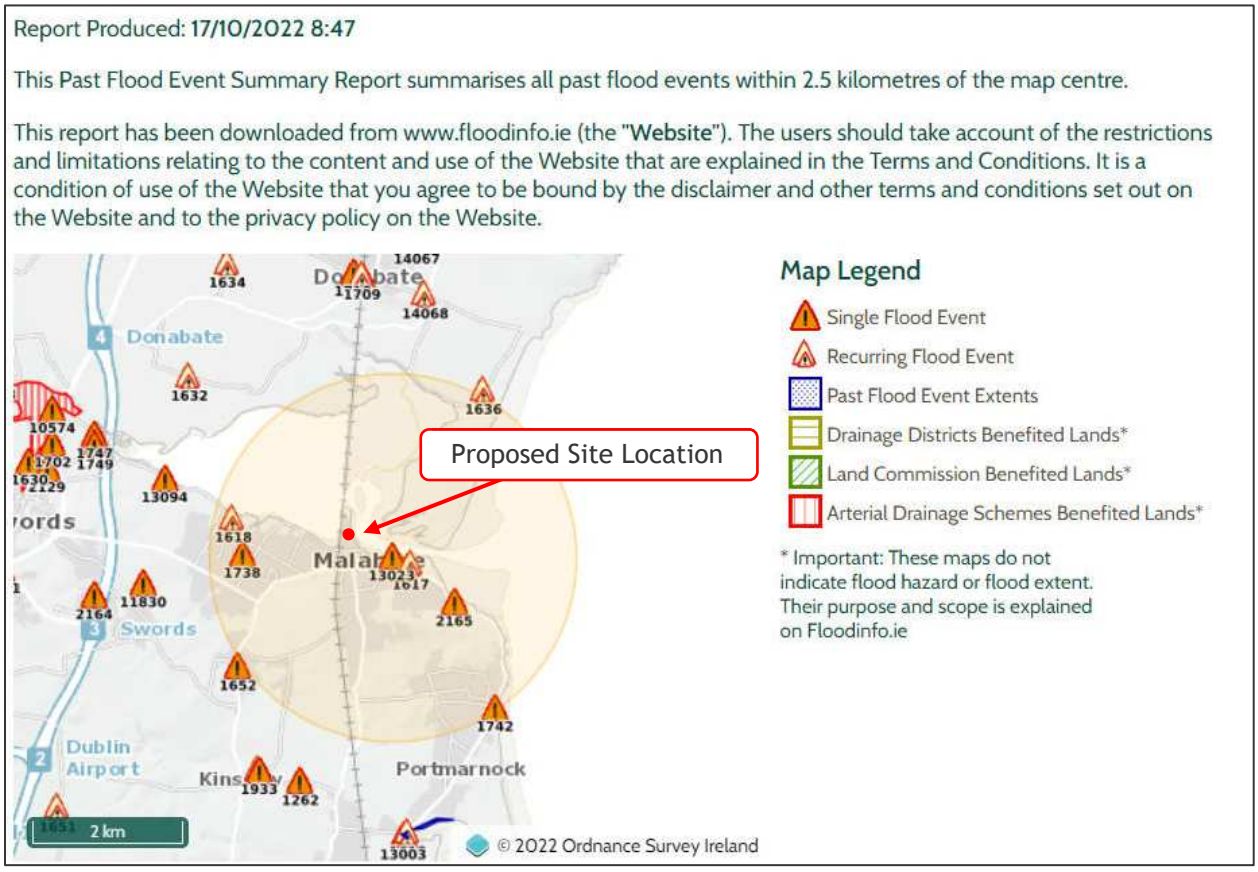


Figure 3-6: Extract from OPW Flood maps Database Report (see Appendix B for full report)

Please note that this is not a guaranteed record of all flood events.

3.10 Catchment Flood Risk Assessment and Management Study (CFRAMS) Mapping

The CFRAMS is an OPW led national programme which seeks to identify and map potential existing and future flood hazard in areas at significant risk from flooding. It also aims to identify flood relief measures and prepare Flood Risk Management Plans for these areas.

As part of the CFRAMS programme, mapping is available online for public viewing, and the local area has been assessed as part of the Eastern CFRAMS. The OPW has published detailed flood hazard mapping for the area based on results from the CFRAMS. This includes flood extent and flood depth mapping for a number of return periods for fluvial and coastal flood events. The CFRAMS mapping for the Malahide area is currently "Under Review" on the OPW website and is therefore unavailable for use in this study.

3.11 Fingal Development Plan 2023 – 2029 - SFRA

The Strategic Flood Risk Assessment (SFRA) prepared to accompany the Fingal Development Plan 2023-2029 provides flood risk maps for the area

Figure 3-7 below is an extract from the relevant SFRA Fluvial Flood Map. Full SFRA Mapping for the area are included in Appendix C of this report.

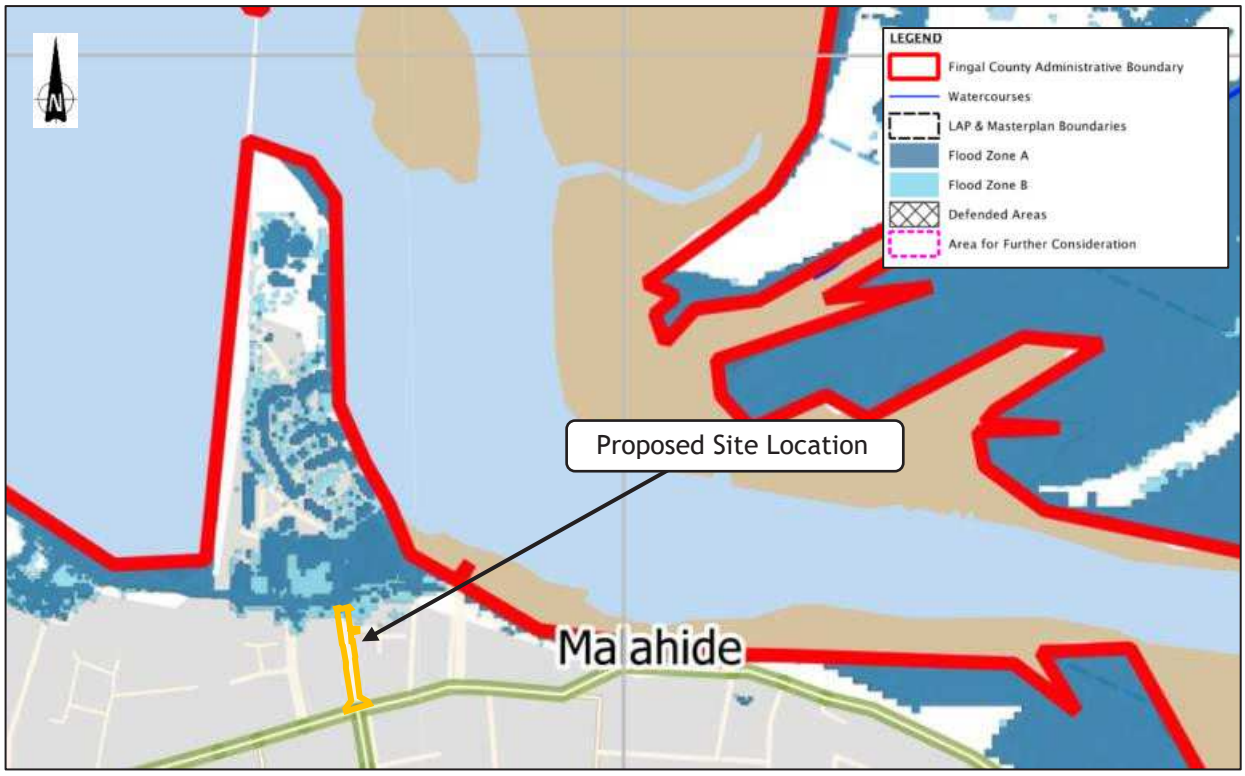


Figure 3-7: Extract from the SFRA Flood Map for the area (site indicated in orange), sourced from the Strategic Flood Risk Assessment (SFRA) for the Fingal Development Plan 2023-2029

The flood map above demonstrates that the majority of the site is not at risk of flooding. However, a small section of New Street towards the northern border of the site at the junction with Strand Street is within Flood Zone A.

3.12 Estimate of Flood Zone

PUNCH Consulting Engineers have reviewed the available information as outlined in the above sections. We have concluded that the northern extent of the site is located in Flood Zone A and is therefore at risk of flooding.

3.13 Vulnerability Classification

As part of this planning submission, table 3.1 of "The Planning System and Flood Risk Management" Guidelines was consulted. This table provides a broad classification of land use and vulnerability class. The proposed street can be classified "Amenity Open Space" and as such is considered a Water Compatible Development.

As part of this planning submission, Table 3.2 of "The Planning System and Flood Risk Management" Guidelines was consulted. This table provides a matrix of vulnerability versus flood zone and is reproduced here as Table 3-1. With reference to this table, it is concluded that the proposed street is considered appropriate within Flood Zone A.

Table 3-1: Matrix of Vulnerability versus Flood Zone to indicate Justification Requirement.

	Flood Zone A	Flood Zone B	Flood Zone C
Highly vulnerable development	Justification Test	Justification Test	Appropriate
Less vulnerable development	Justification Test	Appropriate	Appropriate
Water-compatible development	Appropriate	Appropriate	Appropriate

3.14 Flood Impact Assessment of the Proposed Public Realm Improvements

There are a number of potential aspects to consider when assessing if the proposed development will increase the flood risk elsewhere.

i. Loss of flood storage – Not applicable
ii. Diversion of flood waters – Not Applicable
iii. Increased runoff from the proposed development – Not applicable

Flood storage and flow paths in the area will be unaffected due to the proposed New Street Ground levels will be maintained at the existing ground levels as much as possible. Flow paths in extreme flood events will have the same flow pattern as existing.

The majority of the current site has impermeable surfaces, and SUDs measures will be introduced as part of the proposed development. The result of this is that the runoff rate from the development will be reduced in the proposed scenario when compared to the existing scenario.

4 Flood Risk Assessment Conclusions

This report was prepared to accompany a planning submission to Fingal County Council (FCC) for the proposed public realm improvements at New Street, located in Malahide, Co. Dublin.

As part of this planning submission, the proposed redevelopment of New Street has been assessed in accordance with "The Planning System and Flood Risk Management" Guidelines and FCC's Development Plan 2023-2029. It was determined that the proposed public realm improvement to a pedestrianised New Street is currently located within Flood Zone A for fluvial flooding. The proposed public realm improvement to a pedestrianised New Street is classified as a Water Compatible Development under "The Planning Scheme and Flood Risk Management" Guidelines and as such is considered appropriate in this location. The proposed public realm improvement to a pedestrianised New Street will not increase the flood risk elsewhere.

Appendix A Site Visit Images



Image 1: Existing site access from junction between Strand Street and New Street.



Image 2: View of New Street (looking southwards along the street).



Image 3: Existing site access from junction between The Mall (R106) and New Street.



Image 4: View of New Street (looking northwards along the street).



Image 5: Existing gullies present along New Street.

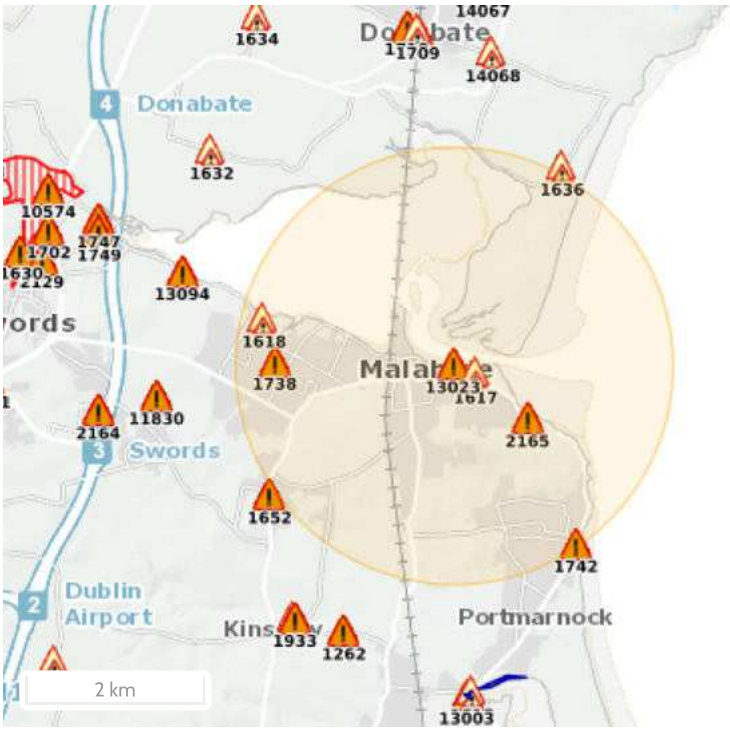
Appendix B OPW Historic Flood Events Record

Past Flood Event Local Area Summary Report

Report Produced: **17/10/2022 8:47**

This Past Flood Event Summary Report summarises all past flood events within 2.5 kilometres of the map centre.

This report has been downloaded from www.floodinfo.ie (the "**Website**"). The users should take account of the restrictions and limitations relating to the content and use of the Website that are explained in the Terms and Conditions. It is a condition of use of the Website that you agree to be bound by the disclaimer and other terms and conditions set out on the Website and to the privacy policy on the Website.



Map Legend

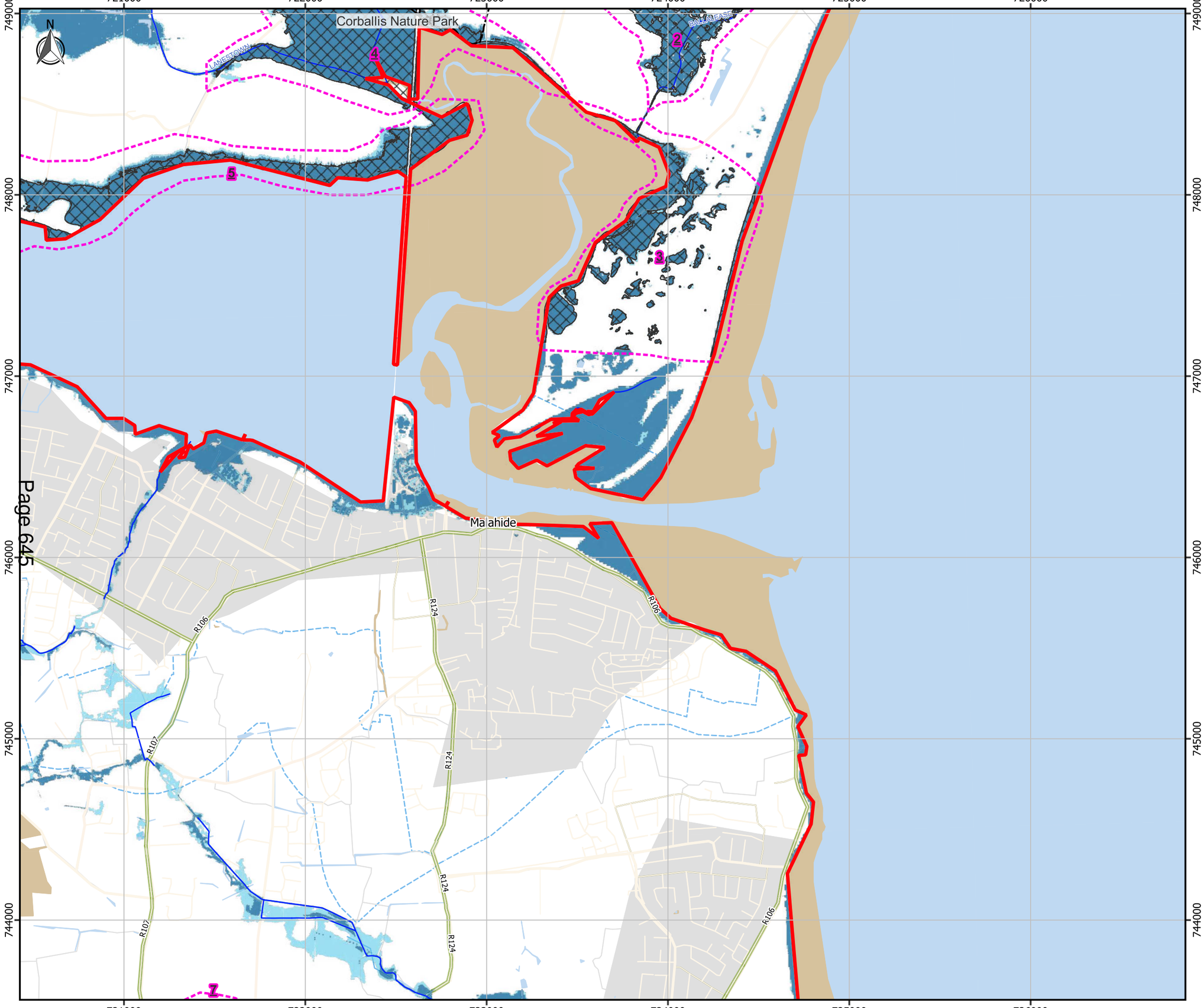
- Single Flood Event
- Recurring Flood Event
- Past Flood Event Extents
- Drainage Districts Benefited Lands*
- Land Commission Benefited Lands*
- Arterial Drainage Schemes Benefited Lands*

* Important: These maps do not indicate flood hazard or flood extent. Their purpose and scope is explained on Floodinfo.ie

6 Results

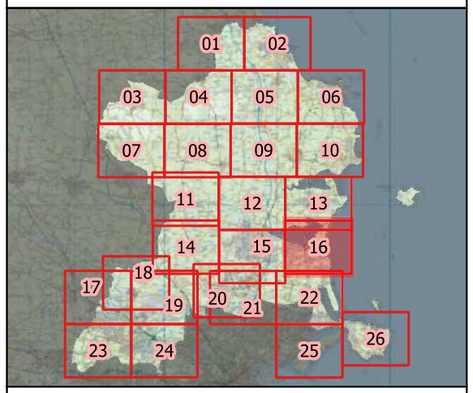
	Name (Flood_ID)	Start Date	Event Location
1.	Mill View Lawn Malahide Feb 2002 (ID-1738)	01/02/2002	Exact Point
	Additional Information: Reports (1) Press Archive (0)		
2.	Strand Road Malahide Feb 2002 (ID-1742)	01/02/2002	Approximate Point
	Additional Information: Reports (1) Press Archive (0)		
3.	Biscayne Coast Road Malahide Oct 2002 (ID-2165)	19/10/2002	Exact Point
	Additional Information: Reports (1) Press Archive (0)		
4.	Flooding at Malahide on 03/01/2014 (ID-13023)	03/01/2014	Approximate Point
	Additional Information: Reports (0) Press Archive (0)		
5.	Seabank (Estate) Court Malahide Recurring (ID-1617)	n/a	Exact Point
	Additional Information: Reports (5) Press Archive (0)		
6.	Bisset Strand and Estuary Road Malahide Recurring (ID-1618)	n/a	Exact Point
	Additional Information: Reports (4) Press Archive (0)		

Appendix C SFRA Mapping



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KEY PLAN



LEGEND

- Fingal County Administrative Boundary
- Watercourses
- LAP & Masterplan Boundaries
- Flood Zone A
- Flood Zone B
- Defended Areas
- Area for Further Consideration

REV:	NOTE:	DATE:
03	DRAFT ISSUE	22/02/2022

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MAP:		FLOOD ZONE MAP
FLOOD PROBABILITY:		FLUVIAL: 1% / 0.1% COASTAL: 0.5% / 0.1%
SOURCE CRS:		ITM EPSG:2157
DRAWN BY:	DL	DATE: 22/02/2022
CHECKED BY:	PS	DATE: 22/02/2022
APPROVED BY:	DKS	DATE: 22/02/2022
DRAWING NUMBER:		M02127-06_FIG_FL116
MAP SERIES:		PAGE 16 OF 26
DRAWING SCALE:		1:20000 @ A3

PUNCH
consulting engineers

Public Realm Improvements for a Pedestrianised New Street

Traffic and Transportation Assessment

222126-PUNCH-XX-XX-RP-C-0005

April 2023

Document Control

Document Number: **222126-PUNCH-XX-XX-RP-C-0005**

Status	Revision	Description	Date	Prepared	Checked	Approved
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1 Non-Technical Summary

1. The development consists of public realm improvements for a pedestrianised New Street in Malahide, Co. Dublin.

2. A number of traffic surveys were compared in order to assess any change in traffic flows due to the proposed public realm improvements for a pedestrianised New Street.

3. It is proposed to access the development as follows:

    a. A one-way restricted vehicular traffic system (northbound).
    b. Deliveries permitted from 7am-11am each day, with vehicle bollards at the Diamond as control measure.
    c. Unrestricted vehicular access to Ross Cottages (from the north).

4. Capacity analysis was carried out on 11 no. junctions:
    1. Junction of New Street, Strand Street, The Green, Marina Village (signalised junction)
    2. Junction of Old Street and Strand Street
    3. Junction of Townyard Lane and Strand Street
    4. The Diamond - Junction of New Street and R106 (signalised junction)
    5. Junction of Townyard Lane and The Mall (R106)
    6. Junction of Old Street and Dublin Road (R106)
    7. Junction of James' Terrace and The Mall (R106)
    8. Junction of the Rise and The Mall (R106)
    9. Junction of Grove Road and The Mall (R106)
    10. Junction of Grove Road and the Rise
    11. Junction of Grove Road and Church Road

    The analysis shows that, when comparing the 2023 post-pedestrianisation with the 2019 pre-pedestrianisation scenarios, there are minimal effects on the capacity for the surrounding junctions.

5. Parking spaces for the proposed development are restricted to a single accessible parking facility at the HSE building location.

6. Secure cycle parking facilities have been provided within the proposed public realm improvements to meet the requirements set out in the Fingal Development Plan 2023-2029.

2 Introduction

PUNCH Consulting Engineers as part of a multidisciplinary design team led by DFLA were commissioned by Fingal County Council (FCC) to carry out a Traffic and Transportation Assessment (TTA) for proposed public realm improvements for a pedestrianised New Street in Malahide, Co. Dublin.

The assessment has been carried out in accordance with TII's Traffic and Transport Assessment Guidelines PE-PDV-02045 (May 2014) and makes reference to the Design Manual for Urban Roads & Streets (DMURS). Sections from the Fingal Development Plan (2023-2029) have been used to help describe the development location and its local context.

The purpose of the TTA report is to assess the impact of the proposed public realm improvements on a pedestrianised New Street on the existing local transport network in comparison with the pre-pedestrianised scenario. An assessment of the accessibility of the site for cyclists, pedestrians and public transport users has also been made.

3 Existing Conditions

3.1 Site Location

The site is approximately 0.22 hectares in area located at New Street, Malahide Village. The site currently consists of an established town street with retail, commercial and residential development throughout. The topography of the street falls from south at The Diamond, The Mall, Main Street, and Church Road junction to the north at the Strand Street junction. The site is located within the Fingal Development Plan 2023-2029.

Refer to Figure 3-1 below.

The access points to the proposed development are as follows:

i. From the south at the junction with Mall Street (one-way time restricted vehicular traffic system).
ii. From the north at the junction with Strand Street (unrestricted vehicular access to Ross Cottages).

The site is located a short distance from Malahide Beach and Marina, Malahide Castle Public Park, and Malahide DART station. It is located approximately 20 km from Dublin City Centre (Connolly Station).



Figure 3-1: Site Location Plan (Ref Google Maps)

3.2 Existing Road Network

The site location in relation to the wider road network is detailed in Figure 3-2, Figure 3-3 and Figure 3-4.

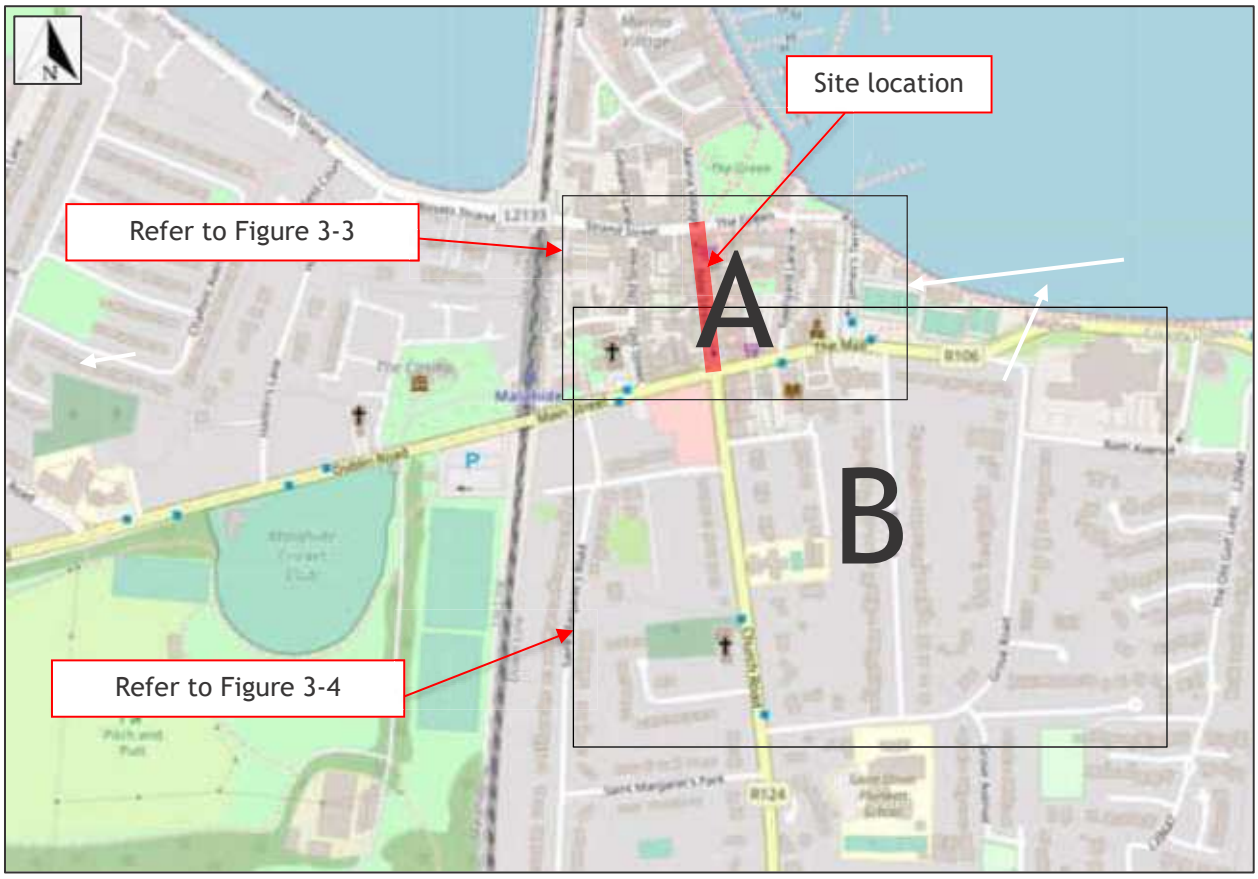


Figure 3-2: Overview - Site location and surrounding road network (Ref openstreetmap.org)

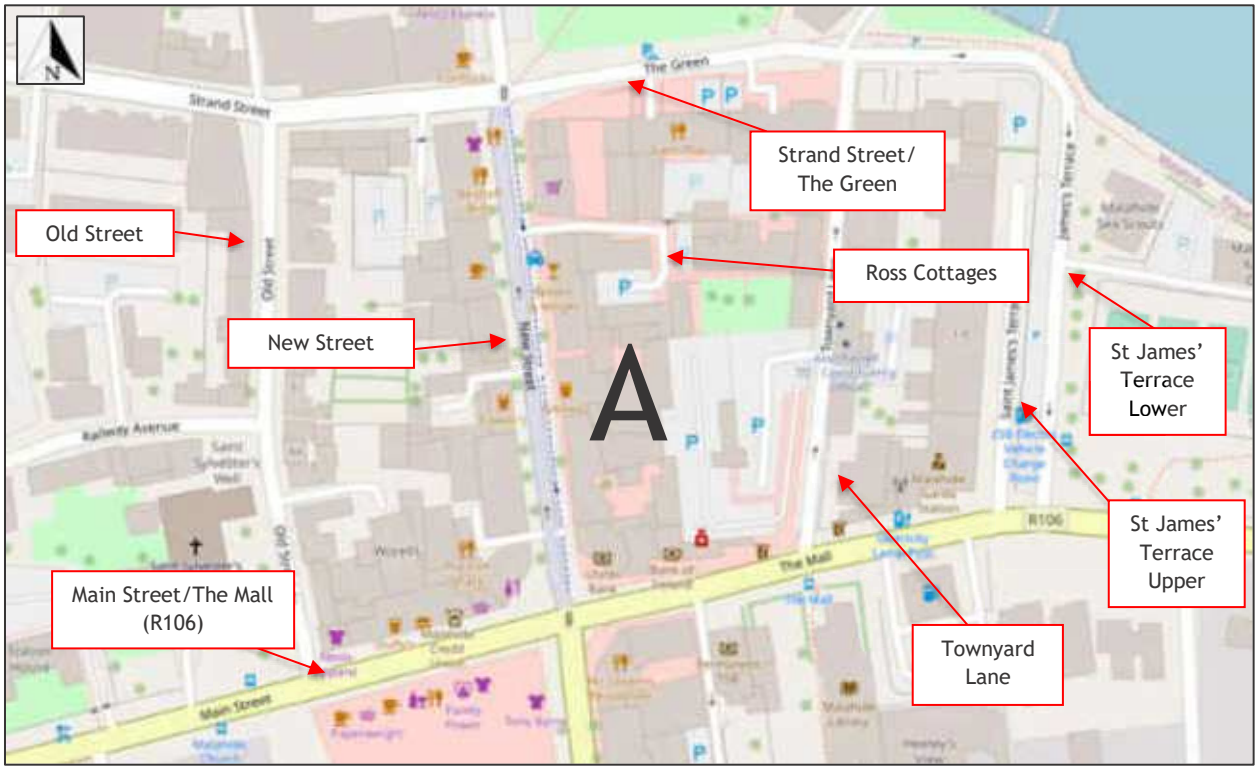


Figure 3-3: Detail A - Site location and surrounding road network (Ref openstreetmap.org)

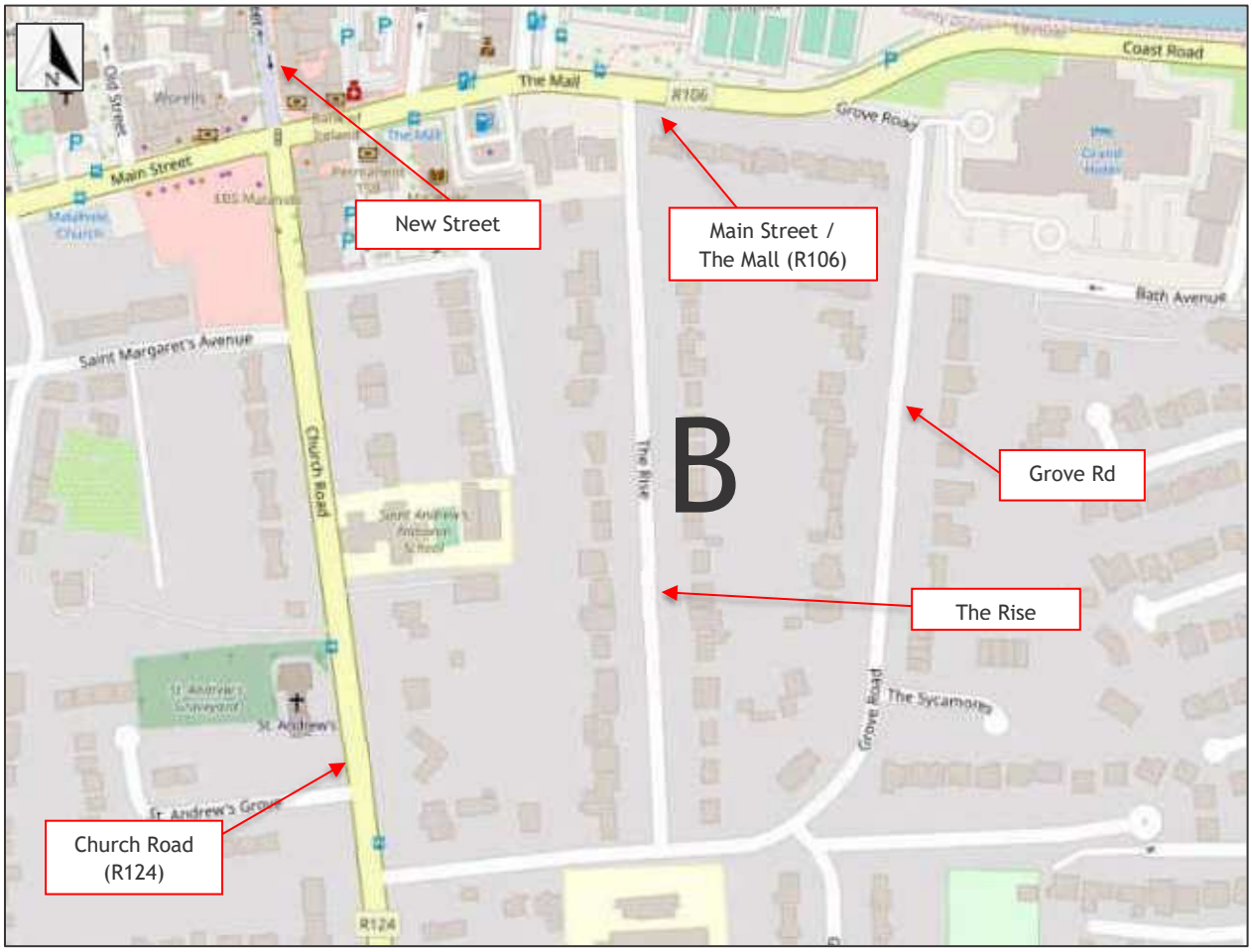


Figure 3-4: Detail B - Site location and surrounding road network (Ref openstreetmap.org)

A brief description of the local road network and the major road junctions is provided below:

3.2.1 New Street

New Street links Main Street/The Mall with Strand Street/The Green. Refer to Figure 3-5 and Figure 3-6. New Street is approximately 150m in length, with signal-controlled junctions at either end:

- T155 Malahide, the "Diamond" junction (South end)
- T372 Malahide Marina / Strand Street junction (North end)

The street has an average width of approximately 14m, with 1.7m wide separated footpaths to the west, and 1.2m separated footpaths to the east. The street is orientated north/south, with 37 No. premises facing onto it, with a combination of residential, commercial, boutique shops, retail, cafe, restaurants, pubs, health services, garden centre, banking outlets and a Mall, with a variety of uses.

New Street consists of a one-way restricted vehicular traffic system (northbound). Deliveries are permitted from 7am-11am each day, with bollards at the Diamond installed at 11am and removed at 7am each day. Additionally, the street currently provides unrestricted vehicular access to Ross Cottages (from the north) which has 3 residential cottages, a residential apartment; and parking for each of these residents as well as for 3 no. Residents on New Street.

New Street was first pedestrianised by Fingal County Council (FCC) in September 2019. The pedestrianisation was successfully carried out as part of FCC's Car Free Day. The pedestrianisation was introduced in June 2020 and continued until December 2020, following the mandate issued by Government for the prioritisation of urban spaces to pedestrians and cyclists during the Covid-19 pandemic.

This arrangement was modified again from December 2020 until June 2021 to a one-way system (northbound from the Diamond to Strand St.) for vehicular traffic with a contra flow cycle lane.

Prior to June 2020), New Street was a single way two-way carriageway with footpaths on either side of the carriageway and no designated cycle lanes. Refer to Figure 3-7 for a view of the original layout prior to pedestrianisation.



Figure 3-5: New Street (Looking North from the Diamond). Image taken 2022. © PUNCH



Figure 3-6: New Street (Looking South from The Green). © PUNCH, 2022



Figure 3-7: New Street: Pre-pedestrianisation (Looking South). Image from 2019. © Google Maps

3.2.2 Main Street/The Mall (R106)

The Mall (R106) is a regional road in the North Dublin area. It runs from Sutton towards Swords, passing through Malahide. The Mall (R106) connects with the southern tip of New Street at The Diamond, a signal-controlled crossroads. Refer to Figure 3-8 and Figure 3-9.

The Mall (R106) is a single lane two-way carriageway with wide footpaths on either side of the carriageway and no designated cycle lanes. There is a bridge crossing over the railway line approximately 200m west of the site, refer to Figure 3-10.



Figure 3-8: The Mall - R106 (Looking West) at The Diamond [Junction 4]. © Google Maps



Figure 3-9: The Mall - R106 (Looking East) at the junction with Townyard Lane [Junction 5]. © Google Maps

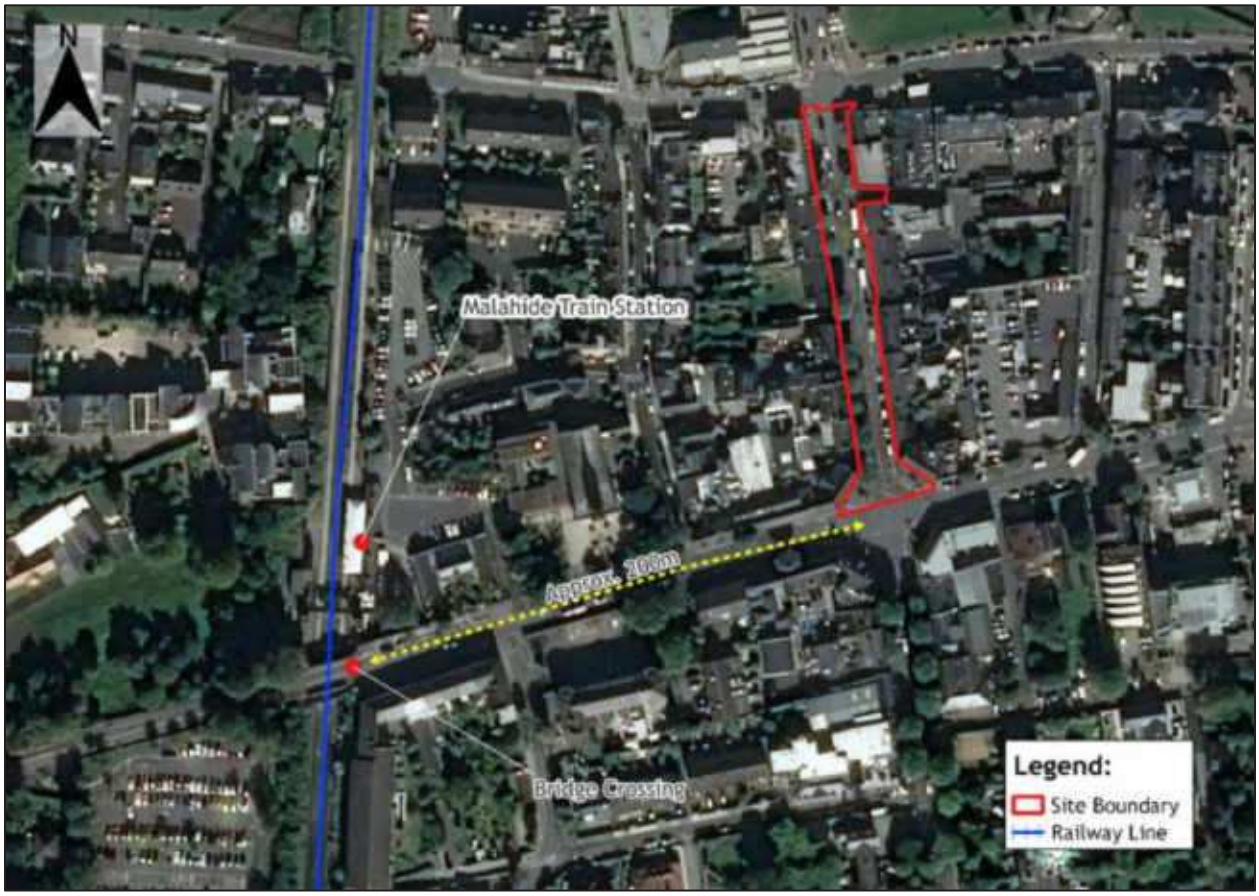


Figure 3-10: Bridge Crossing on The Mall (R106). Ref Google Maps

3.2.3 Strand Street/The Green

Strand Street/The Green is the link between James's Terrace to the east and Bissett's Strand to the West. Strand Street connects with the northern tip of New Street at a signal-controlled crossroads. Refer to Figure 3-11. Strand Street is a single lane two-way carriageway with footpaths on either side of the carriageway and no designated cycle lanes.



Figure 3-11: Strand Street (Looking East) [Junction 1]. © Google Maps

3.2.4 Townyard Lane

Townyard Lane is the link between The Mall (R106) to the south and The Green to the north. Refer to Figure 3-12 and Figure 3-13. Townyard Lane is a single lane one-way (northbound) vehicle traffic system with footpaths on either side of the carriageway and no designated cycle lanes.



Figure 3-12: Townyard Lane (Looking North) © Google Maps



Figure 3-13: Townyard Lane (Looking North) [Junction 3]. © Google Maps

3.2.5 Old Street

Old Street is another link between the Dublin Road/The Mall (R106) and Strand Street, with existing residential/ retail developments on either side of the street. Old Street is a single lane one-way (northbound) vehicle traffic system with parking on either side, wide footpaths on either side of the carriageway and no existing designated cycle lanes. Refer to Figure 3-14 and Figure 3-15.



Figure 3-14: Old Street (Looking North) at junction with Strand Street [Junction 2]. © Google Maps



Figure 3-15: Old Street (Looking North) from Main Street [Junction 6]. © Google Maps

3.2.6 St. James' Terrace

St. James's Terrace is the link between Strand Street/The Green and The Mall (R106). St. James's Terrace is a single lane one-way vehicle traffic system (southbound), with designated car/cycle parking, and footpaths either side of the carriageway. Refer to Figure 3-16 and Figure 3-17. St. James's Terrace has no designated cycle lanes.



Figure 3-16: St. James's Terrace (Looking South). © Google Maps



Figure 3-17: St. James's Terrace (Looking South) at junction with R106 [Junction 7]. © Google Maps

3.2.7 Church Road (R124)

Church Road is the regional road R124 extending to Donaghmede from Malahide. It is a link between Grove Road to the south and The Diamond to the north. Refer to Figure 3-18. Church Road is a single lane two-way carriageway with wide footpaths on both sides of the carriageway and no existing designated cycle lanes. It has a bus stop and pay and display parking.



Figure 3-18: Church Road Lane (Looking North) at St Andrews NS located on the right. © Google Maps

3.2.8 Grove Road

Grove Road is the link between the R106 (Coast Road) to the north and the R124 (Church Road) to the south west. Refer to Figure 3-19, Figure 3-20, Figure 3-21 and Figure 3-22. Grove Road is a single lane two-way carriageway with wide footpaths on both sides of the carriageway and no existing designated cycle lanes.



Figure 3-19: Grove Road (Looking West) at the junction with the R124 [Junction 11]. © Google Maps



Figure 3-20: Grove Road (Looking East) at the junction with The Rise [Junction 10]. © Google Maps



Figure 3-21: Grove Road (Looking North) at the junction with The Grand Hotel. © Google Maps



Figure 3-22: Grove Road (Looking West) at the junction with The Mall (R106) [Junction 9]. © Google Maps

3.2.9 The Rise

The Rise is the link between Grove Road to the south and The Mall (R106) to the north. Refer to Figure 3-23 and Figure 3-24. The Rise is a single lane two-way carriageway with wide footpaths on both sides of the carriageway and no existing designated cycle lanes.



Figure 3-23: The Rise (Looking North). © Google Maps



Figure 3-24: The Rise (Looking North) at the junction with The Mall [Junction 8]. © Google Maps

3.3 Existing Traffic Flows

Classified turning count traffic surveys of the existing junctions were completed by Idaso on Tuesday 10th January 2023 on behalf of the client at various sites. Furthermore, a number of traffic surveys were also completed by ITS across a number of the same sites on Wednesday 9th October 2019 (AM only), Tuesday 12th December 2019, as well as on Wednesday 15th July 2020. Refer to Table 3-1 for a summary.

The locations of the surveyed junctions/sites are shown in Figure 3-25, Figure 3-26 and Figure 3-27. The traffic survey locations and full traffic survey results are included in Appendix A.

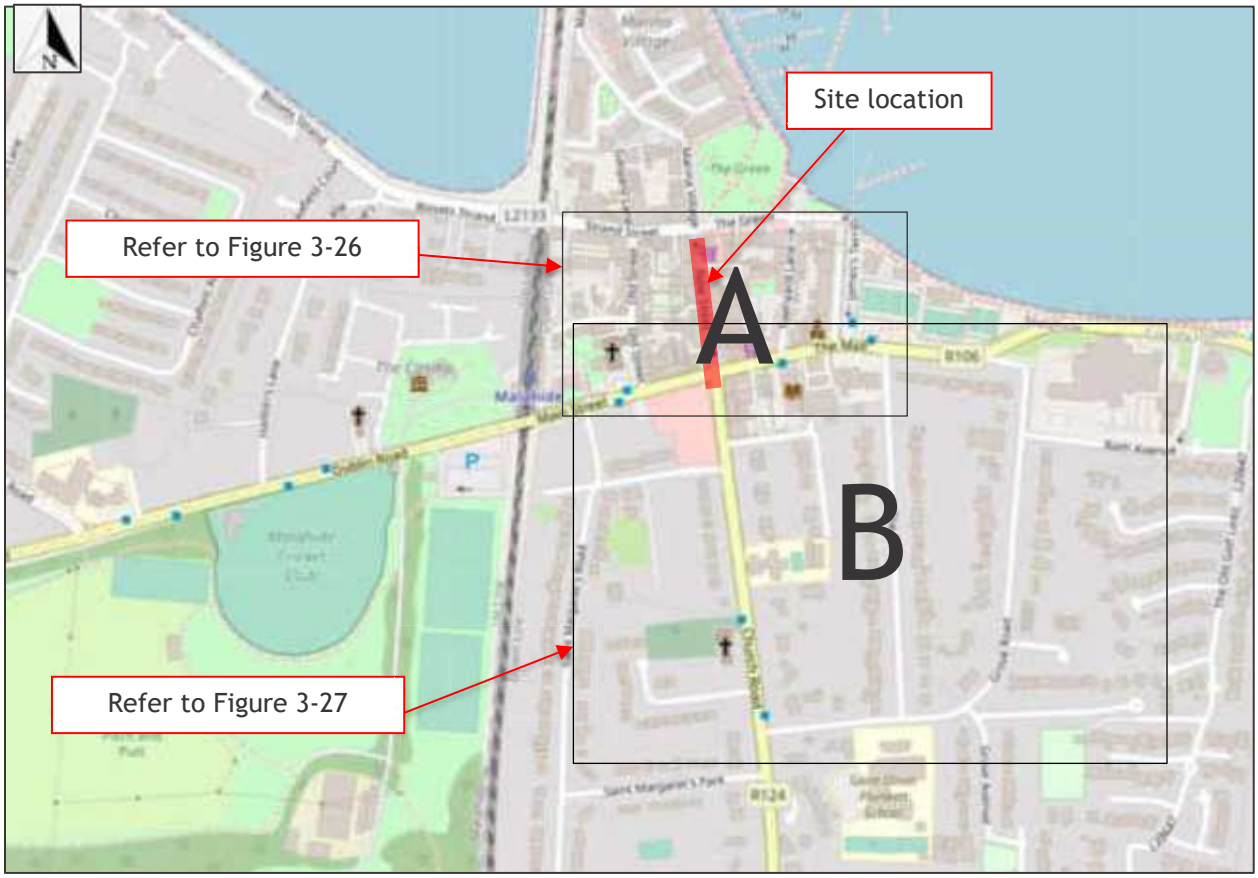


Figure 3-25: Overview - Junction/site locations (Ref openstreetmap.org)

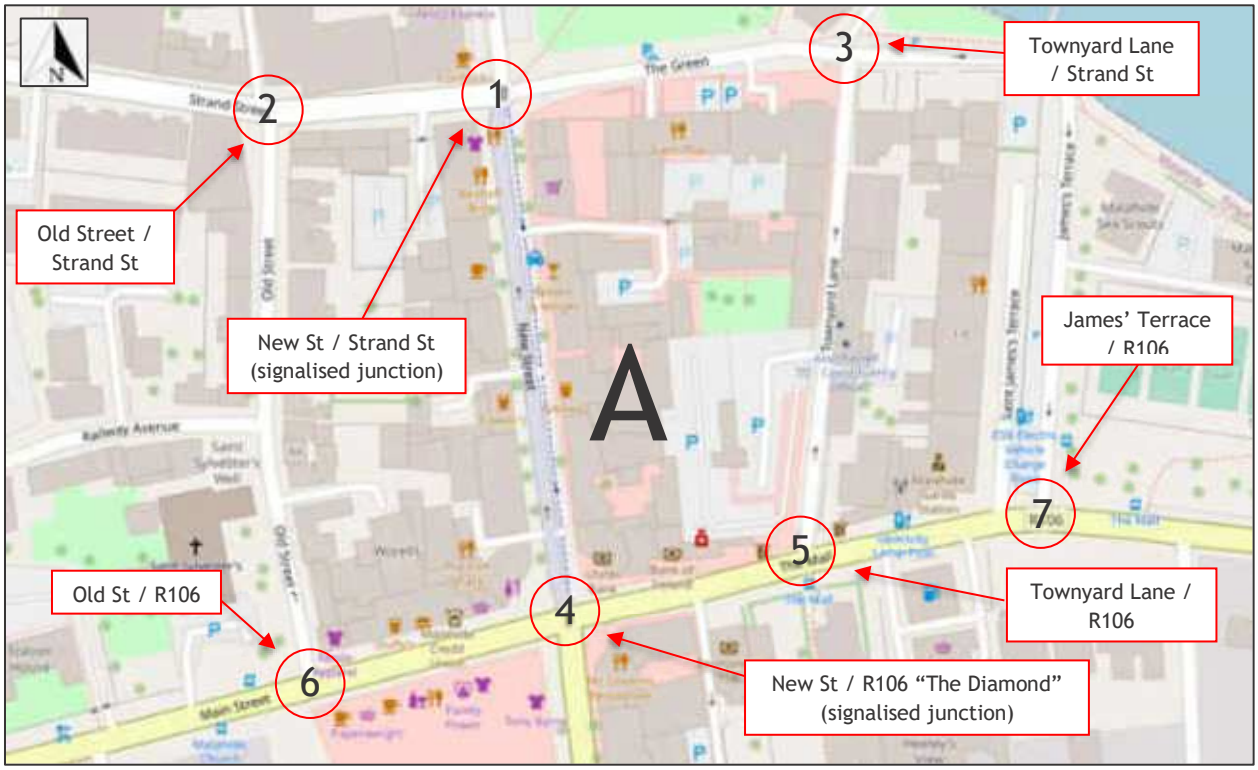


Figure 3-26: Detail A - Junction/site locations (Ref openstreetmap.org)

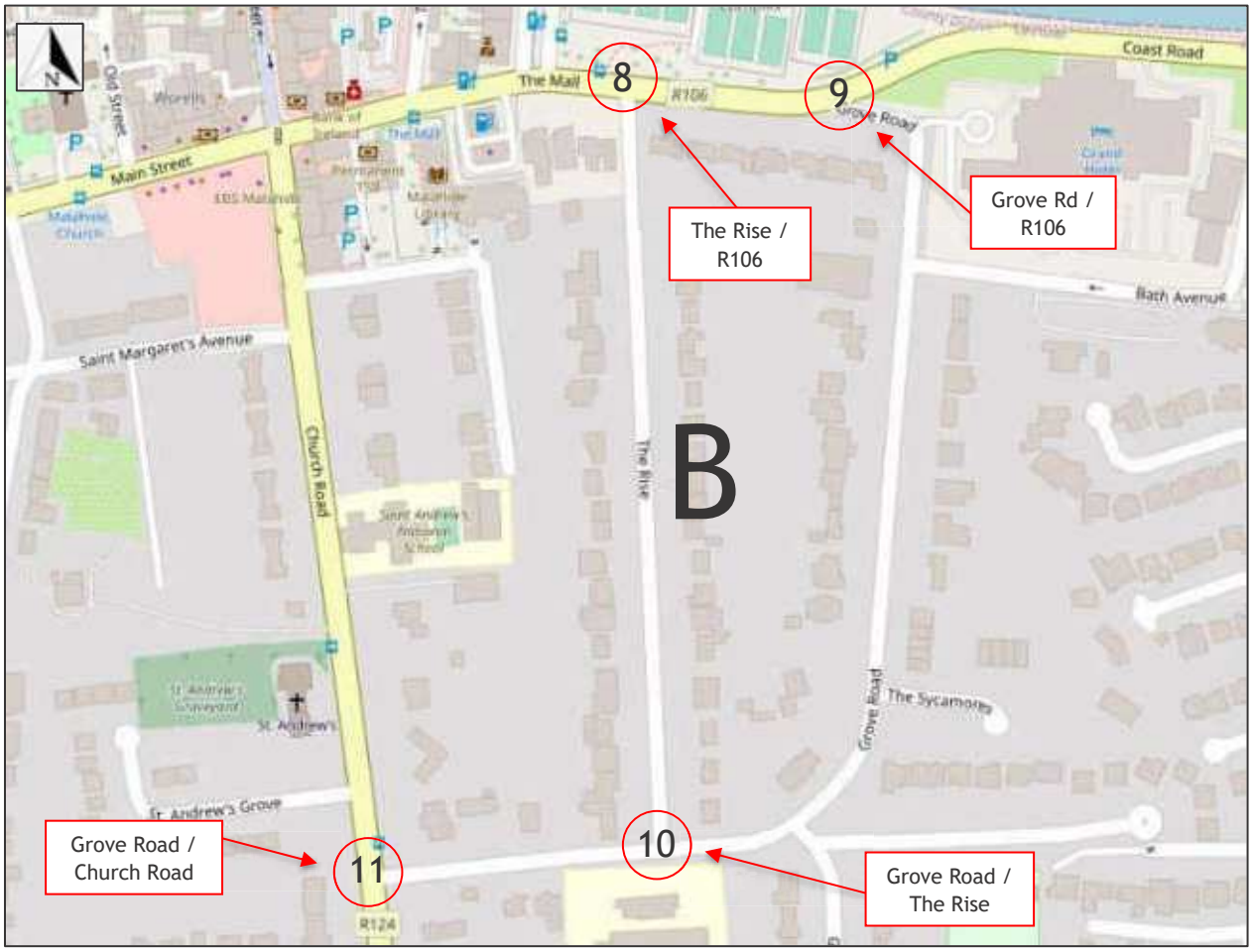


Figure 3-27: Detail B - Site location and surrounding road network (Ref openstreetmap.org)

Junction reference	Site	Survey year(s)		
1	Junction of New Street and the Strand *(signalised junction)*		2020	2023
2	Junction of Old Street and the Strand		2020	2023
3	Junction of Townyard Lane and the Strand			2023
4	Junction of New Street and the R106 *(signalised junction)*	2019	2020	2023
5	Junction of Townyard Lane and the R106		2020	2023
6	Junction of Old Street and the R106		2020	2023
7	Junction of James' Terrace and the R106		2020	2023
8	Junction of The Rise and the R106	2019		2023
9	Junction of Grove Road and the R106	2019		2023
10	Junction of Grove Road and The Rise	2019		2023
11	Junction of Grove Road and Church Road	2019		2023

Table 3-1: Summary of traffic survey site locations and years completed

3.3.1 Junction 1 – New Street and the Strand (signalised junction)

The traffic surveys undertaken found that the mean morning peak hour traffic flow at Junction 1 generally occurred between 08:15 and 09:15 (AM). The evening peak hour flow was found to be between 16:45 and 17:45 (PM). The 2023 surveyed peak hour turning PCUs are presented in Figure 3-28.

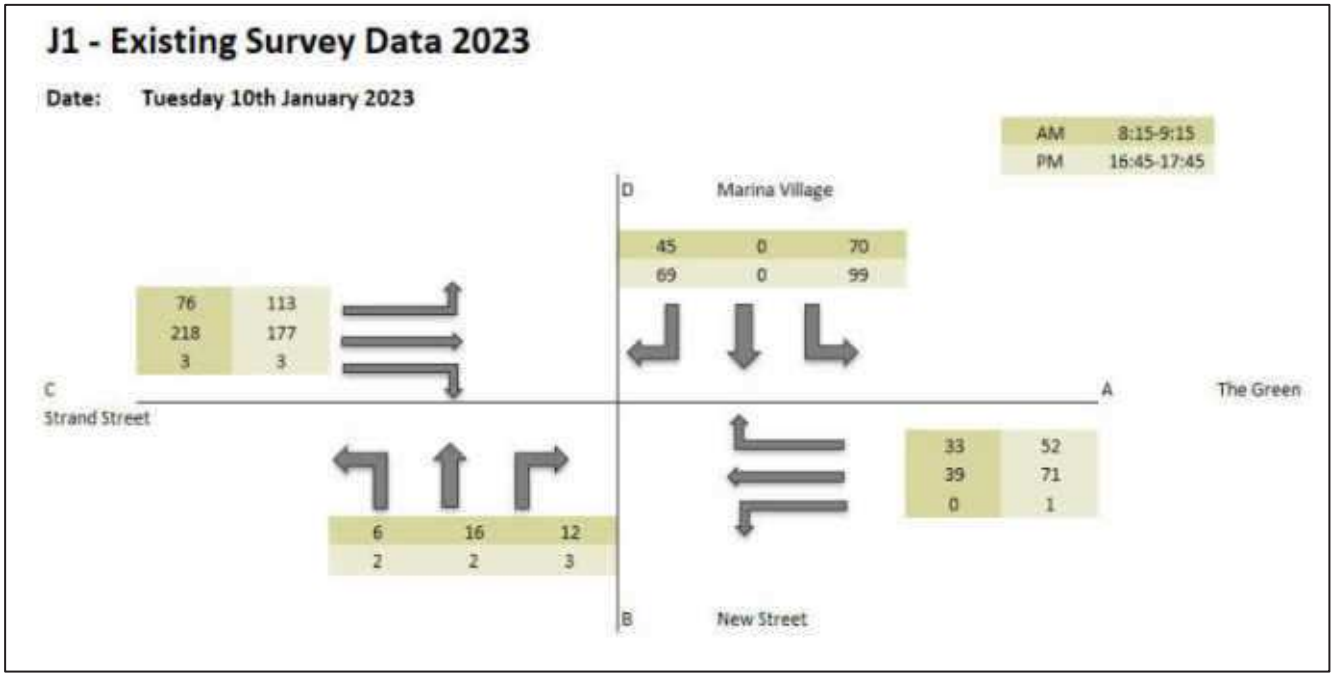


Figure 3-28:January 2023 Peak Hour Traffic Survey Results Junction 1 (PCUs)

3.3.2 Junction 2 - Old Street and the Strand

The traffic surveys undertaken found that the mean morning peak hour traffic flow at Junction 2 generally occurred between 08:30 and 09:30 (AM). The evening peak hour flow was found to be between 17:00 and 18:00 (PM). The 2023 surveyed peak hour turning PCUs are presented in Figure 3-29.

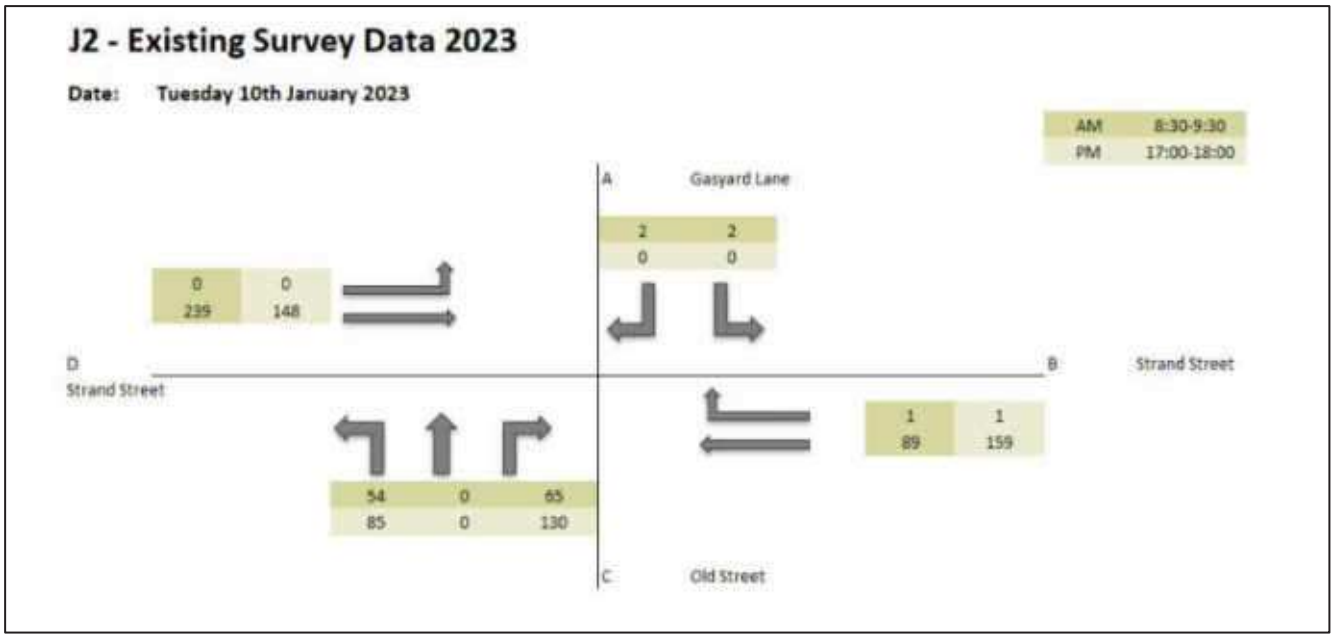


Figure 3-29: January 2023 Peak Hour Traffic Survey Results Junction 2 (PCUs)

3.3.3 Junction 3 – Townyard Lane and the Strand

The traffic surveys undertaken found that the mean morning peak hour traffic flow at Junction 3 generally occurred between 10:30 and 11:30 (AM). The evening peak hour flow was found to be between 16:45 and 17:45 (PM). The 2023 surveyed peak hour turning PCUs are presented in Figure 3-30.

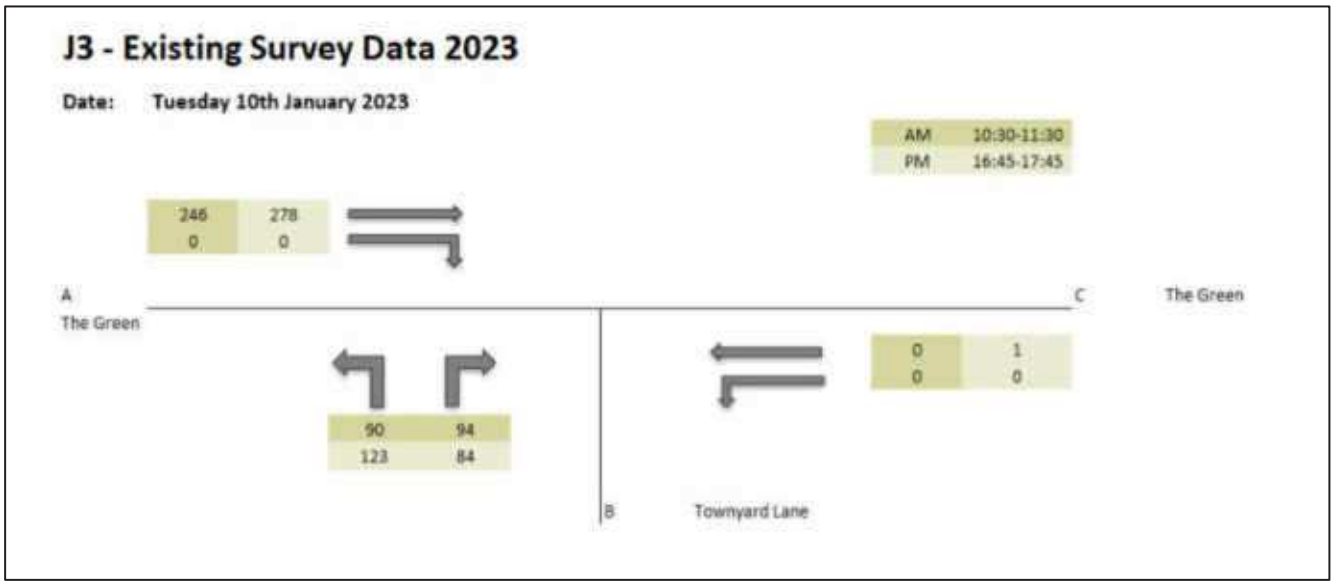


Figure 3-30: January 2023 Peak Hour Traffic Survey Results Junction 3 (PCUs)

3.3.4 Junction 4 – The Diamond - New Street and the R106 (signalised junction)

The traffic surveys undertaken found that the mean morning peak hour traffic flow at Junction 4 generally occurred between 08:30 and 09:30 (AM). The evening peak hour flow was found to be between 15:45 and 16:45 (PM). The 2023 surveyed peak hour turning PCUs are presented in Figure 3-31.

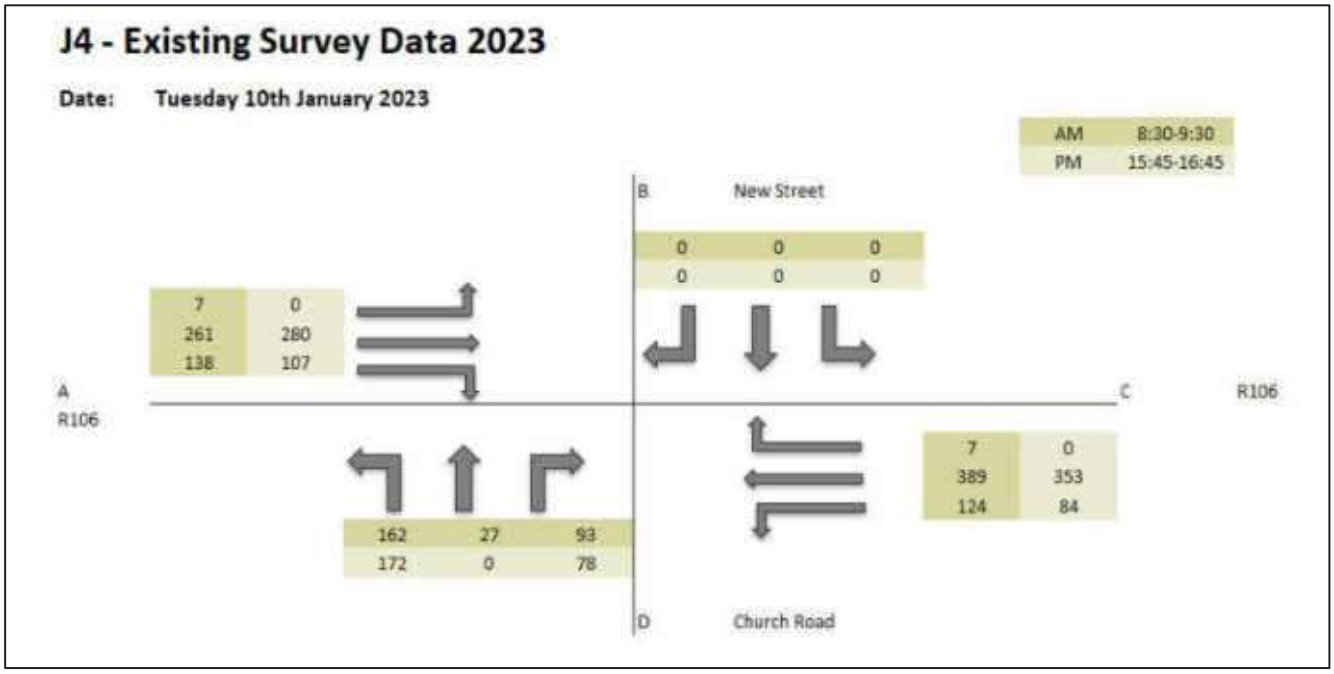


Figure 3-31: January 2023 Peak Hour Traffic Survey Results Junction 4 (PCUs)

3.3.5 Junction 5 – Townyard Lane and The Mall (R106)

The traffic surveys undertaken found that the mean morning peak hour traffic flow at Junction 5 generally occurred between 08:45 and 09:45 (AM). The evening peak hour flow was found to be between 13:00 and 14:00 (PM). The 2023 surveyed peak hour turning PCUs are presented in Figure 3-32.

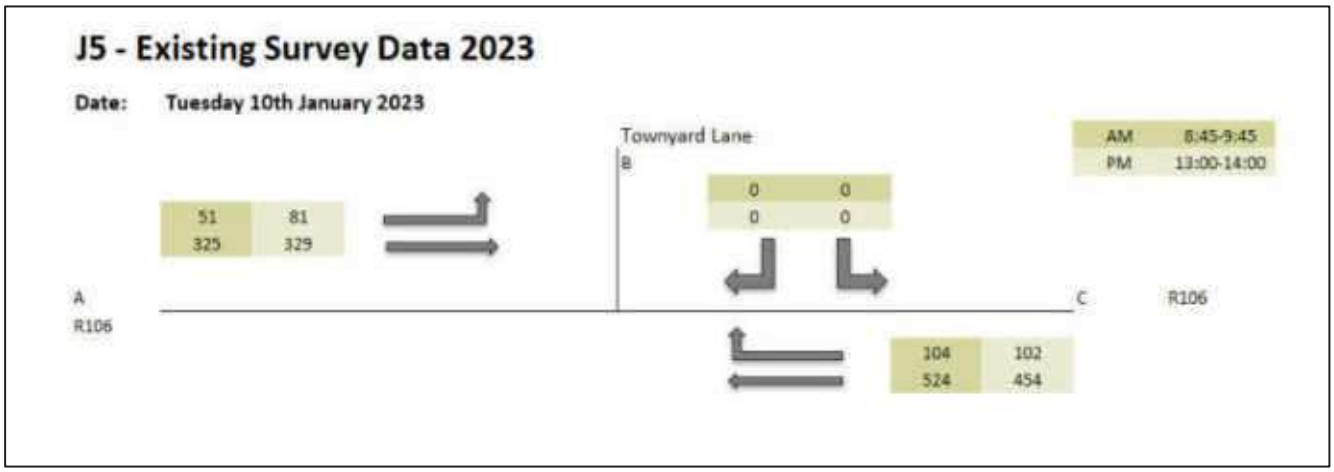


Figure 3-32: January 2023 Peak Hour Traffic Survey Results Junction 5 (PCUs)

3.3.6 Junction 6 – Old Street and the R106

The traffic surveys undertaken found that the mean morning peak hour traffic flow at Junction 6 generally occurred between 08:15 and 09:15 (AM). The evening peak hour flow was found to be between 15:45 and 16:45 (PM). The 2023 surveyed peak hour turning PCUs are presented in Figure 3-33.

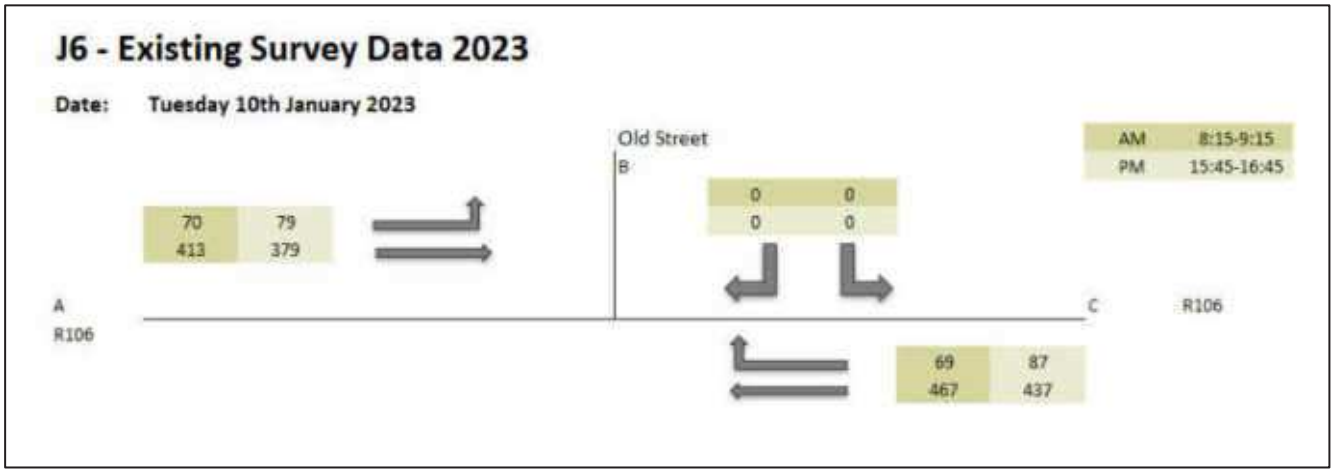


Figure 3-33: January 2023 Peak Hour Traffic Survey Results Junction 6 (PCUs)

3.3.7 Junction 7 – James' Terrace and the R106

The traffic surveys undertaken found that the mean morning peak hour traffic flow at Junction 7 generally occurred between 08:30 and 09:30 (AM). The evening peak hour flow was found to be between 16:30 and 17:30 (PM). The 2023 surveyed peak hour turning PCUs are presented in Figure 3-34.

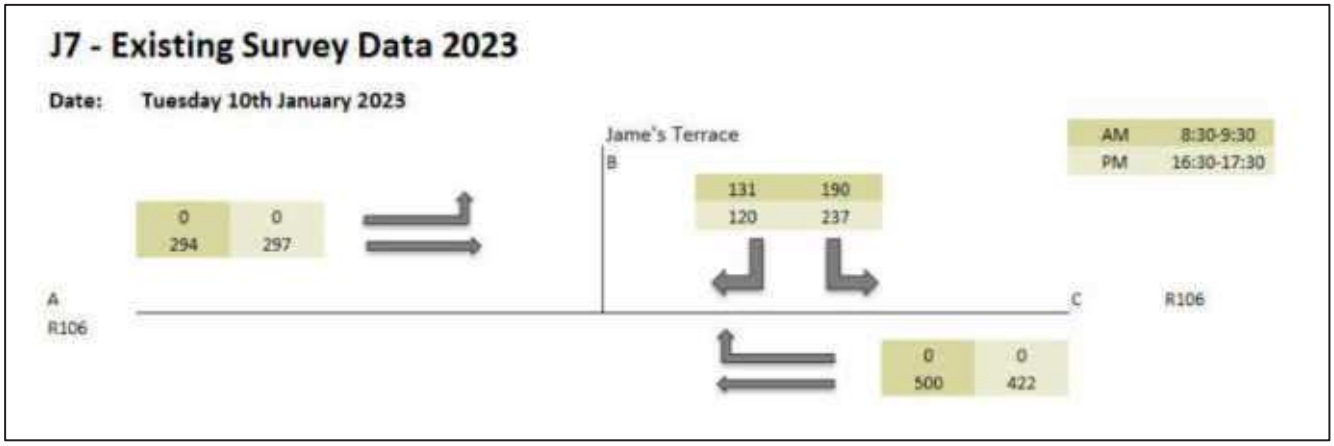


Figure 3-34: January 2023 Peak Hour Traffic Survey Results Junction 7 (PCUs)

3.3.8 Junction 8 – The Rise and the R106

The traffic surveys undertaken found that the mean morning peak hour traffic flow at Junction 8 generally occurred between 08:30 and 09:30 (AM). The evening peak hour flow was found to be between 16:30 and 17:30 (PM). The 2023 surveyed peak hour turning PCUs are presented in Figure 3-35.

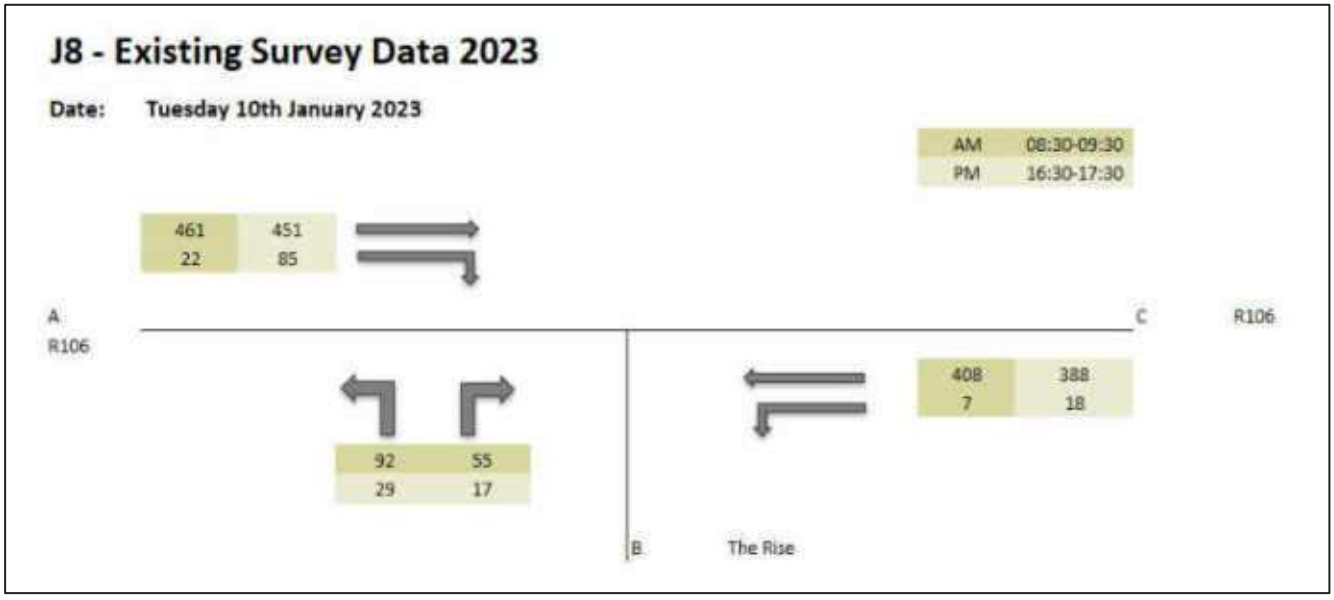


Figure 3-35: January 2023 Peak Hour Traffic Survey Results Junction 8 (PCUs)

3.3.9 Junction 9 – Grove Road and the R106

The traffic surveys undertaken found that the mean morning peak hour traffic flow at Junction 9 generally occurred between 08:30 and 09:30 (AM). The evening peak hour flow was found to be between 16:30 and 17:30 (PM). The 2023 surveyed peak hour turning PCUs are presented in Figure 3-36.

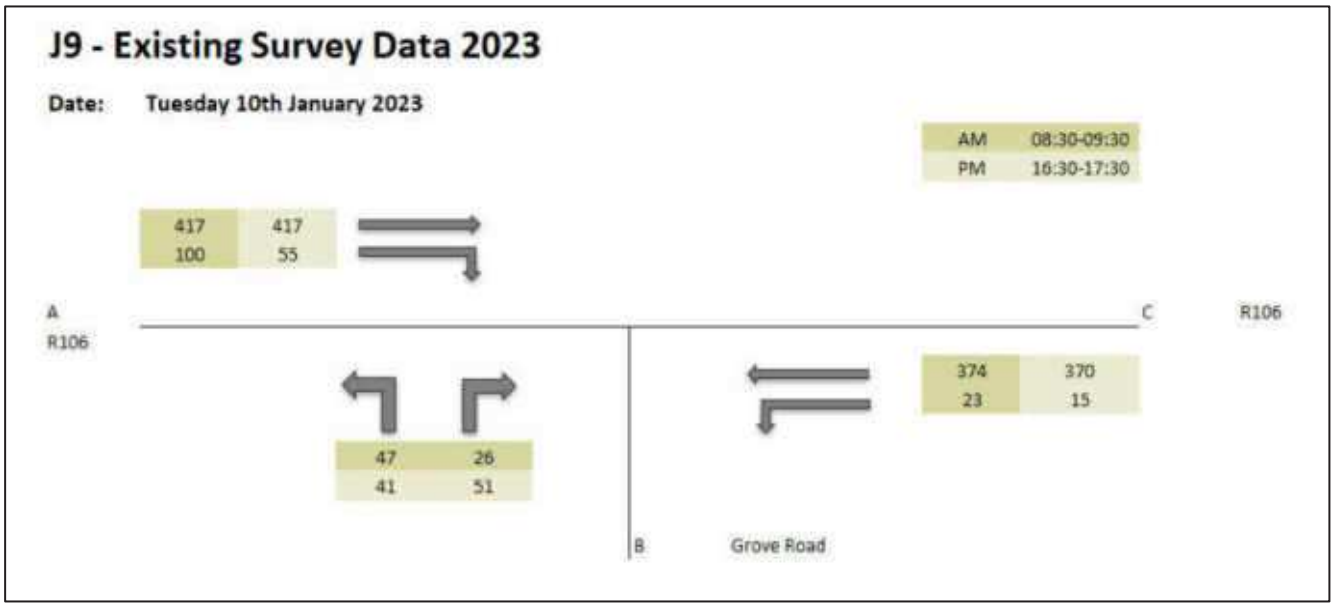


Figure 3-36: January 2023 Peak Hour Traffic Survey Results Junction 9 (PCUs)

3.3.10 Junction 10 – Grove Road and the Rise

The traffic surveys undertaken found that the mean morning peak hour traffic flow at Junction 10 generally occurred between 08:15 and 09:15 (AM). The evening peak hour flow was found to be between 16:30 and 17:30 (PM). The 2023surveyed peak hour turning PCUs are presented in Figure 3-37.

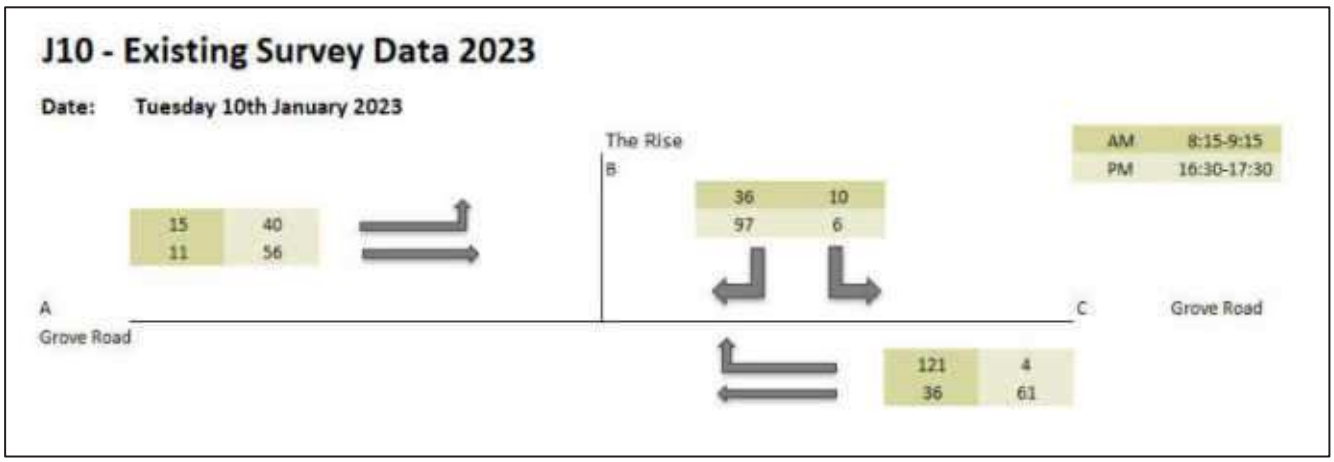


Figure 3-37: January 2023 Peak Hour Traffic Survey Results Junction 10 (PCUs)

3.3.11 Junction 11 – Grove Road and Church Road

The traffic surveys undertaken found that the mean morning peak hour traffic flow at Junction 11 generally occurred between 08:30 and 09:30 (AM). The evening peak hour flow was found to be between 15:45 and 16:45 (PM). The 2023 surveyed peak hour turning PCUs are presented in Figure **3-38**.

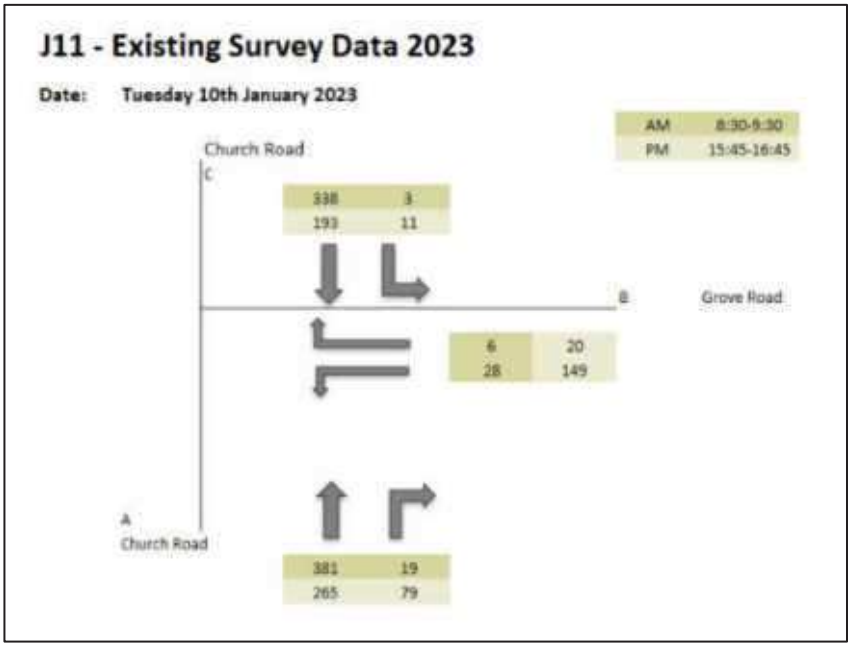


Figure 3-38: January 2023 Peak Hour Traffic Survey Results Junction 11 (PCUs)

3.4 Future Transport Proposals

The site is located in the Fingal Development Plan 2023 – 2029. There are no proposed road upgrades in the vicinity of the site, however the Development Plan outlines indicative cycle/pedestrian routes on The Mall (R106) at the southern border of New Street, as shown in Figure 3-39 and 3-40 below. The Greater Dublin Area (GDA) Cycle Network is also proposed on The Mall (R106).

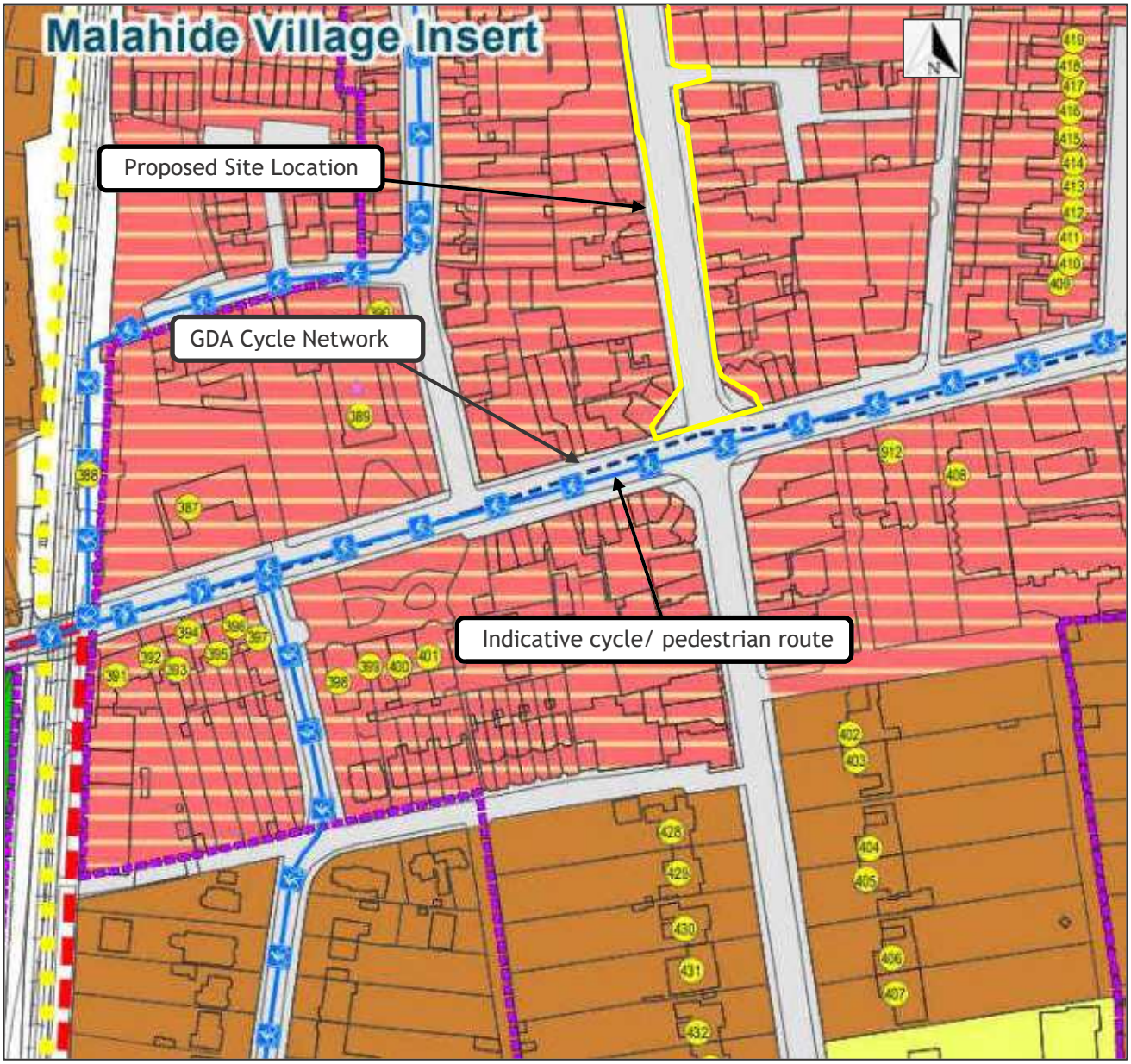


Figure 3-39: Extract from Sheet No.9 from Fingal Development Plan 2017 - 2023.



Figure 3-40: Extract from Fingal Development Plan 2023 – 2029 Interim Publication.

General proposals and objectives as noted in the Development Plan are to reduce car dependency and promote walking and cycling as sustainable modes of transport. The inclusion of indicative cycle/ pedestrian routes and the GDA Cycle Network proposed on The Mall (R106) at the southern end of New Street will improve connectivity to the site.

The land on which the development is proposed is currently a public street and therefore not defined by a land zoning. It is noted that the lands adjacent to either side of New Street are zoned as "TC: Town and District Centre" in the Fingal Development Plan 2023 – 2029 Interim Publication. Refer to Figure 3-39 and Figure 3-40.

4 Proposed Public Realm Improvements

4.1 Description of Proposals

The proposed public realm improvements will comprise: -

i. Widening of footpaths and provision of new kerb edges with existing kerbstones retained, realigned and protected within the widened footpaths and public spaces.
ii. Realignment and narrowing of the trafficable section of New Street (c.150m in length, 0.22ha) and insertion of control measures and all necessary signage to provide for a pedestrianised street with associated traffic flow routes and restrictions allowing for time limited one-way access from 7am to 11am each day for deliveries and emergency vehicles from Main Street/ The Mall to New Street and a two-way access from Strand Street to Ross's Terrace via New Street.
iii. Upgrade of all street surfaces.
iv. Provision of 2no. loading bays at the southern and northern ends of New Street and an accessible parking space in front of the HSE building.
v. Installation of cycle stands at 6no. locations on New Street with capacity for 23no. cycle parking spaces.
vi. Removal and replacement of 11no. existing trees with 37no. trees of species appropriate to the location and environment and provision of soft landscaping and green infrastructure with planting zones for seeded, planted and hedging areas and associated bioretention and tree pit areas.
vii. Provision of outdoor dining zones including tables and chairs and other ancillary moveable structures.
viii. Provision of street furniture including seating, benches and litter and recycling bins and a water feature.
ix. New public lighting.
x. Upgrade of the watermain and foul drainage networks and upgrade and relocation of the surface water drainage network including provision of sustainable urban drainage systems (SUDs) features as part of hard and soft landscaping.
xi. Provision of ducting for existing and future utilities and piped infrastructure.
xii. All associated site and development works.

Fingal County Council will be providing regulatory traffic signs in accordance with Section 95 of the Road Traffic Act 1961 (as amended).

The proposed layout for the public realm improvements is detailed in the series of drawings by DFLA Landscape Architects accompanying this report and an extract is included in Figure 4-1.

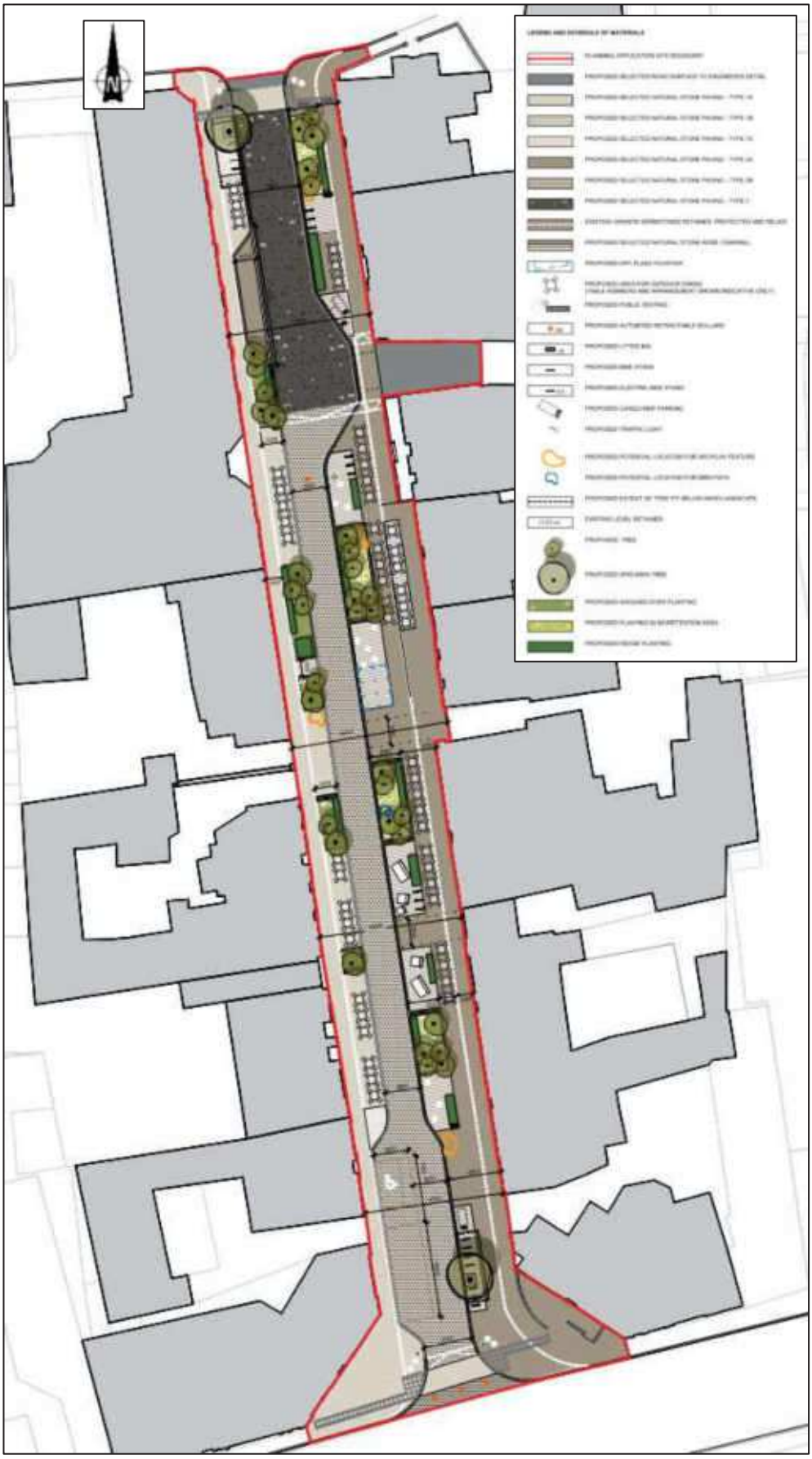


Figure 4-1: Proposed Site Layout (© DFLA)

5 Traffic Forecasting

As discussed in section 4, the proposed public realm improvements for a pedestrianised of New Street has already taken place. Survey data taken in 2019 for a number of junctions was consulted as listed in Table 3-1. In the absences of survey data for all junctions, a growth factor was required in order to estimate 2019 flows based on actual 2023 data.

In the absence of any specific local traffic growth information, it was assumed that baseline traffic grew from 2019 to 2023 at the levels recommended by the TII in the Project Appraisal Guidelines (PAG) – Unit 5.3 - Travel Demand Projections publication by the TII (Oct 2021). The Project Appraisal Guidelines describe three levels of transport model functionality. The static model, which reflects traffic volumes on the basis of link flows, is best suited to the proposed development. Such models do not attempt any route assignment, and hence are applicable for networks where no change in traffic flows will result from a proposed scheme. We have used figures from Table 6.2 'Link-Based Growth Rates' for the Dublin County area.

The 2019 survey year for which the growth was applied would give a 4-year period of growth. This was applied in reverse order i.e. from 2023 back to 2019.

The central growth factors from the Project Appraisal Guidelines – Unit 5.3 publication are appropriate and are detailed below:

- TII Link Based Growth Rates: Annual Growth Factor for 2016-2030 = 1.018 (LVs) and 1.0317 (HVs);

With regards to the volume of traffic using the road, generally the passenger car is adopted as the standard unit and other vehicles are assessed in terms of PCU's. Cars and Light Goods Vehicles are grouped together as Light Vehicles (LV). All other Goods Vehicles, Buses and Coaches are defined as Heavy Vehicles (HV).

6 Trip Assignment and Distribution

There will be no increase in traffic generated by the proposed public realm improvements. However, as cars can no longer use New Street, vehicular traffic will be redistributed to other junctions in the area.

The redistribution of traffic was considered on a junction-by-junction basis. Refer to section 7 of this report for the methodology used at each junction. An overall network flow diagram closest to New Street has been included in Appendix M. (Note: The 2023 diagrams are the actual flows. The 2019 diagrams contain both actual survey data where available and assumed flows calculated using TII growth rates and diverted traffic due to the Pedestrianisation of New Street.)

7 Assessment and Road Impact

The impact on the local external road network has been assessed in this TTA. The scenarios being assessed are as follows: the 2019 'pre-pedestrianisation' of New Street forms the baseline and the analysis seeks to compare this to the 2023 'post-pedestrianisation' traffic arrangements. The 2020 'post-pedestrianisation' scenario is also included for reference but is relied on to a lesser degree due to the impacts of the Covid-19 pandemic on the traffic counts.

This involved examining the traffic flows of the local road network both before and after the proposed development took place.

The morning peak period and the evening peak period have been examined in order to assess the busiest case in terms of local traffic on the road network and traffic generated by the proposed development.

7.1 Junction Analysis

Capacity analysis was carried out for the junctions listed below:

1. Junction of New Street, Strand Street, The Green, Marina Village (signalised junction)
2. Junction of Old Street and Strand Street
3. Junction of Townyard Lane and Strand Street
4. The Diamond - Junction of New Street and the R106 (signalised junction)
5. Junction of Townyard Lane and The Mall (R106)
6. Junction of Old Street and Dublin Road (R106)
7. Junction of James' Terrace and The Mall (R106)
8. Junction of the Rise and The Mall (R106)
9. Junction of Grove Road and The Mall (R106)
10. Junction of Grove Road and the Rise
11. Junction of Grove Road and Church Road

The following scenarios were analysed for all junctions:

1. Survey year: 2023
2. Survey year: 2020 (Where data was available)
3. Survey year: 2019 (Where data was available)
4. Estimated Pre-Pedestrianisation: 2019 (Where no 2019 data was available)

Linsig software was used for the analysis of the signalised junctions. The Junctions 9 software was used for priority junction analysis.

Junctions 9 Analysis Note:

The ratio of flow to capacity (RFC) is an indicator of the likely performance of a junction under design year loading. Due to site-to-site variation, there may be a standard error of prediction of the entry capacity by the formulae of + or - 15% for any site. Thus, queuing should not occur in the various turning movements in the chosen design year peak hour in 5 out of 6 peak hour periods or sites if a maximum RFC of about 85% is used. Once the RFC is at 1.0 the Junctions 9 modelling software produces results regarding queues and delays that is unrepresentative of the actual or likely effects.

LinSig Analysis Note:

The degree of saturation (DOS) is defined as the ratio of demand flow to the maximum flow which can be passed through the junction from a particular approach. If an approach is found to have a DOS greater

than 100%, then it is "over saturated" and long queues will result. The practical capacity is the level of capacity above which the junction is assumed to work inefficiently (usually taken to be 90%). Junction capacities shown below are only one theoretical interpretation of the phase/stage setup for the existing junction. The results should be viewed more for a comparative assessment of with and without proposed development for the various scenarios.

No survey information was available for the pre-pedestrianisation scenario for 6 of the junctions surrounding New Street. In order to compare how the junctions were operating before and after the pedestrianisation of New Street, 2019 flows had to be estimated. This was done using TII growth rates and applying them to the 2023 data. Additionally, assumptions on how the traffic had diverted to other streets post-pedestrianisation had to be made. These were based on proportioning the flows at junctions using existing data and making assumptions on human behaviour, e.g. choosing to avoid the busy town by turning at a certain junction. Refer to Appendix M for Network Flow Diagrams of the assumed diverted traffic movements. (Note: The 2023 diagrams are the actual flows. The 2019 diagrams contain both actual survey data where available and assumed flows calculated using TII growth rates and diverted traffic due to the Pedestrianisation of New Street.)

7.1.1 Junction 1 - New Street and the Strand (signalised junction)

The Linsig output is summarised below and the full detailed output is included in greater detail in Appendix C.

Table 7-1: Summary for Linsig Analysis Results for Junction 1

Peak Hour Flow	Max Degree of Saturation (%)
AM 2023 Existing Survey	45.9
AM 2020 Existing Survey	34.0
AM 2019 Estimated pre-pedestrianisation	69.3
PM 2023 Existing Survey	53.1
PM 2020 Existing Survey	49.0
PM 2019 Estimated pre-pedestrianisation	77.5

The above analysis compares the current performance of the junction using 2023 and 2020 survey data with the estimated performance for 2019. The 2019 figures were estimated using the following methodology and assumptions;

- Using TII growth factors 2019 figures were reverse calculated from 2023. The resulting scenario assumes pedestrianisation of New Street.
- Using the 2019 surveyed data for Junction 4 the total number of PCUs travelling south along New Street was calculated as follows:
    - 33% of traffic that travels south on New Street is assumed to originate from Marina Village.
    - 33% of traffic that travels south on New Street is assumed to originate from The Green.
    - 33% of traffic that travels south on New Street is assumed to originate from Strand Street.

The junction is performing well in all years during the AM and PM peak hours, with an improvement in the 2020, and 2023 scenarios post-pedestrianisation. The above results are based on a 90 second cycle time and calling pedestrians every cycle during peak times.

The results indicate low volumes of traffic resulting in negligible queuing at this junction.

7.1.2 Junction 2 – Old Street and the Strand

The Junction 2 output is summarised below and the full detailed output is included in greater detail in Appendix D.

Table 7-2: Summary of Junctions 9 Analysis Results for Junction 2

Peak Hour Flow	Maximum RFC
AM 2023 Existing Survey	0.56
AM 2020 Existing Survey	0.29
AM 2019 Estimated Pre-Pedestrianisation	-
PM 2023 Existing Survey	0.37
PM 2020 Existing Survey	0.47
PM 2019 Estimated Pre-Pedestrianisation	-

The above analysis compares the current performance of the junction using 2023 survey data with the available 2020 survey data. It should be noted that the 2020 survey results would have been affected by Covid-19 restrictions. No survey was completed for the junction in 2019. However, the junction is operating well within the design threshold in both 2023 and 2020. It is expected that flows would have been less in 2019 as 2023 values would be subject to normal growth as per the TII growth factors, therefore it was not deemed necessary to complete any further analysis.

Based on the survey information, the junction is operating under the design threshold in all years. The results indicate low volumes of traffic resulting in negligible queuing at this junction.

7.1.3 Junction 3 – Townyard Lane and the Strand

The Junction 3 output is summarised below and the full detailed output is included in greater detail in Appendix E.

Table 7-3: Summary of Junctions 9 Analysis Results for Junction 3

Peak Hour Flow	Maximum RFC
AM 2023 Existing Survey	0.40
AM 2020 Existing Survey	-
AM 2019 Estimated Pre-Pedestrianisation	-
PM 2023 Existing Survey	0.47
PM 2020 Existing Survey	-
PM 2019 Estimated Pre-Pedestrianisation	-

The above analysis shows the current performance of the junction using 2023 survey. No survey was completed for the junction in 2019 or 2020. However, the junction is operating well within the design threshold in both 2023 Am and PM scenarios. It is expected that flows would have been less in 2019 as 2023 values would be subject to normal growth as per the TII growth factors and the pedestrianisation in place on New Street, therefore it was not deemed necessary to complete any further analysis.

The results indicate low volumes of traffic resulting in negligible queuing at this junction.

7.1.4 Junction 4 – The Diamond - New Street and the R106 (signalised junction)

The linsig output is summarised below and the full detailed output is included in greater detail in Appendix F.

Table 7-4: Summary of Linsig Analysis Results for Junction 4

Peak Hour Flow	Max Degree of Saturation (%)
AM 2023 Existing Survey	79.6
AM 2020 Existing Survey	115.3
AM 2019 Existing Survey	170.7
PM 2023 Existing Survey	69.4
PM 2020 Existing Survey	136.4
PM 2019 Existing Survey	144.6

The above analysis compares the current performance of the junction using 2023, 2020 and 2019 survey data.

The junction is performing well in 2023 during the AM and PM peak hours, but it is over capacity for 2019 and 2020 scenarios during the AM and PM peak hours. The above results are based on a 90 second cycle time and calling pedestrians every cycle during peak times.

The results indicate maximum queuing of 13.4 PCUs in the peak hour. This is a decrease on the surveyed queuing experienced in 2019, showing that the pedestrianisation of New Street has improved the performance of this junction.

7.1.5 Junction 5 – Townyard Lane and the R106

The Junction 5 output is summarised below and the full detailed output is included in greater detail in Appendix G.

Table 7-5: Summary of Junctions 9 Analysis Results for Junction 5

Peak Hour Flow	Maximum RFC
AM 2023 Existing Survey	0.32
AM 2020 Existing Survey	0.26
AM 2019 Estimated pre-pedestrianisation	0.23
PM 2023 Existing Survey	0.30
PM 2020 Existing Survey	0.36
PM 2019 Estimated pre-pedestrianisation	0.07

The above analysis compares the current performance of the junction using 2023 survey data with the available 2020 survey data and the estimated pre-pedestrianisation values. It should be noted that the 2020 survey results would have been affected by Covid-19 restrictions. In the absence of actual 2019 data an estimated value has been calculated using both TII Growth Factors and accounting for displaced traffic assumed to have previously used New Street. The 2019 figures were estimated using the following methodology and assumptions;

- Using TII growth factors 2019 figures were reverse calculated from 2023. The resulting scenario assumes pedestrianisation of New Street.
- The 2019 survey data indicates that 15 PCUs travelling from the east turn right onto New Street in the AM. Therefore, 15 PCUs were subtracted from the assumed 2019 right turning traffic at Junction 5. This was then repeated for the PM scenario.
- Additionally, a percentage of traffic from Church Road that would have been travelling north on New Street will now turn right onto the R106 and then left onto Townyard lane. Proportions of right turning traffic were calculated based on the 2019 survey at junction 4 and the resulting PCUs were subtracted from the left turning traffic at junction 5.

Based on the 2023 survey information, it is estimated that 1 car will travel along Townyard Lane every 20 seconds compared to 1 car every 40 seconds in 2019. Despite this increase in traffic volumes, the junction is operating under the design threshold in all years. The results indicate low volumes of traffic resulting in negligible queuing at this junction.

7.1.6 Junction 6 – Old Street and the R106

The Junction 6 output is summarised below and the full detailed output is included in greater detail in Appendix H.

Table 7-6:Summary of Junctions 9 Analysis Results for Junction 6

Peak Hour Flow	Maximum RFC
AM 2023 Existing Survey	0.21
AM 2020 Existing Survey	0.21
AM 2019 Estimated pre-pedestrianisation	0.14
PM 2023 Existing Survey	0.26
PM 2020 Existing Survey	0.20
PM 2019 Estimated pre-pedestrianisation	0.13

The above analysis compares the current performance of the junction using 2023 survey data with the available 2020 survey data and the estimated pre-pedestrianisation values. It should be noted that the 2020 survey results would have been affected by Covid-19 restrictions. In the absence of actual 2019 data an estimated value has been calculated using both TII Growth Factors and accounting for displaced traffic assumed to have previously used New Street. The 2019 figures were estimated using the following methodology and assumptions;

- Using TII growth factors 2019 figures were reverse calculated from 2023. The resulting scenario assumes pedestrianisation of New Street.
- It was assumed that traffic travelling west to east in 2019 and turning left at Junction 4 will now turn left at Old Street rather than travelling through the town. These numbers have been subtracted from the assumed 2019 values for Junction 6.
- Additionally, a percentage of traffic from Church Road that would have been travelling north on New Street will now turn left onto the R106 and then right onto Old Street. Proportions of left turning traffic were calculated based on the 2019 survey at junction 4 and the resulting PCUs were subtracted from the right turning traffic at Junction 6.

The junction is operating under the design threshold in all years. The results indicate low volumes of traffic resulting in negligible queuing at this junction. It is noted that bus services have been diverted to Old Street to permit the pedestrianisation of New Street. This has not resulted in queuing at Old Street.

7.1.7 Junction 7 – James Terrace and the R106

The Junction 7 output is summarised below and the full detailed output is included in greater detail in Appendix I.

Table 7-7: Summary of Junctions 9 Analysis Results for Junction 7

Peak Hour Flow	Maximum RFC
AM 2023 Existing Survey	0.80
AM 2020 Existing Survey	0.63
AM 2019 Estimated pre-pedestrianisation	0.41
PM 2023 Existing Survey	0.84
PM 2020 Existing Survey	0.84
PM 2019 Estimated pre-pedestrianisation	0.53

The above analysis compares the current performance of the junction using 2023 survey data with the available 2020 survey data and the estimated pre-pedestrianisation values. It should be noted that the 2020 survey results would have been affected by Covid-19 restrictions. In the absence of actual 2019 data an estimated value has been calculated using both TII Growth Factors and accounting for displaced traffic assumed to have previously used New Street. The 2019 figures were estimated using the following methodology and assumptions;

- Using TII growth factors 2019 figures were reverse calculated from 2023. The resulting scenario assumes pedestrianisation of New Street.
- It was assumed that traffic that would have travelled south along New Street pre-pedestrianisation now travels south along James Terrace. 50% of the surveyed 2019 traffic travelling south on New Street at Junction 4 was subtracted from the reverse calculated 2019 figures.

The junction is operating around the design threshold in 2023 with maximum queuing of 4.7 PCUs experienced at the peak hour. This is an increase of 3.6 PCUs from the 2019 survey results however it is within the norms of an urban environment accounting for the rerouted traffic as a result of the pedestrianisation of New Street.

7.1.8 Junction 8 – The Rise and the R106

The Junction 8 output is summarised below and the full detailed output is included in greater detail in Appendix J.

Table 7-8: Summary of Junctions 9 Analysis Results for Junction 8

Peak Hour Flow	Maximum RFC
AM 2023 Existing Survey	0.47
AM 2020 Existing Survey	-
AM 2019 Existing Survey	0.43
PM 2023 Existing Survey	0.15
PM 2020 Existing Survey	-
PM 2019 Existing Survey	0.18

The above analysis compares the current performance of the junction using 2023 survey data with the available 2019 survey data. No survey was completed for the junction in 2020. The junction is operating well within the design threshold in both 2023 and 2020. There is little difference between the 2019 and 2023 results. The junction is also located at a significant distance from the site and thus would not be overly impacted by the pedestrianisation of New Street. The results indicate low volumes of traffic resulting in negligible queuing at this junction.

7.1.9 Junction 9 – Grove Road and the R106

The Junction 9 output is summarised below and the full detailed output is included in greater detail in Appendix K.

Table 7-9: Summary of Junctions 9 Analysis Results for Junction 9

Peak Hour Flow	Maximum RFC
AM 2023 Existing Survey	0.20
AM 2020 Existing Survey	-
AM 2019 Existing Survey	0.26
PM 2023 Existing Survey	0.23
PM 2020 Existing Survey	-
PM 2019 Existing Survey	0.34

The above analysis compares the current performance of the junction using 2023 survey data with the available 2019 survey data. No survey was completed for the junction in 2020. The junction is operating well within the design threshold in both 2023 and 2020. There is little difference between the 2019 and 2023 results. The junction is also located at a significant distance from the site and thus would not be

overly impacted by the pedestrianisation of New Street. The results indicate low volumes of traffic resulting in negligible queuing at this junction.

7.1.10 Junction 10 – Grove Road and Church Road

The Junction 10 output is summarised below and the full detailed output is included in greater detail in Appendix L.

Table 7-10: Summary of Junctions 9 Analysis Results for Junction 10

Peak Hour Flow	Maximum RFC
AM 2023 Existing Survey	0.24
AM 2020 Existing Survey	-
AM 2019 Existing Survey	0.32
PM 2023 Existing Survey	0.26
PM 2020 Existing Survey	-
PM 2019 Existing Survey	0.12

The above analysis compares the current performance of the junction using 2023 survey data with the available 2019 survey data. No survey was completed for the junction in 2020. The junction is operating well within the design threshold in both 2023 and 2020. There is little difference between the 2019 and 2023 results. The junction is also located at a significant distance from the site and thus would not be overly impacted by the pedestrianisation of New Street. The results indicate low volumes of traffic resulting in negligible queuing at this junction.

7.1.11 Junction 11 – Grove Road and Church Road

The Junction 11 output is summarised below and the full detailed output is included in greater detail in Appendix M.

Table 7-11: Summary of Junctions 9 Analysis Results for Junction 11

Peak Hour Flow	Maximum RFC
AM 2023 Existing Survey	0.11
AM 2020 Existing Survey	-
AM 2019 Existing Survey	0.10
PM 2023 Existing Survey	0.49
PM 2020 Existing Survey	-
AM 2019 Existing Survey	0.51

The above analysis compares the current performance of the junction using 2023 survey data with the available 2019 survey data. No survey was completed for the junction in 2020. The junction is operating well within the design threshold in both 2023 and 2020. There is little difference between the 2019 and 2023 results. The junction is also located at a significant distance from the site and thus would not be overly impacted by the pedestrianisation of New Street. The results indicate low volumes of traffic resulting in negligible queuing at this junction.

7.1.12 Analysis Summary

The junction capacity analysis has been carried out to include for the existing 2023 traffic, the surveyed 2020 traffic and the estimated/surveyed 2019 traffic, summary results are shown in the table below.

Table 7-12: Summary Maximum Results for all Surrounding Junctions

Junction	2023 Surveyed RFC/DOS	2020 Surveyed RFC/DOS	2019 Surveyed RFC/DOS	2019 Estimated RFC/DOS
Junction 1 – New Street and the Strand (signalised junction)	53.1	49.0	-	77.5
Junction 2 – Old Street and the Strand	0.56	0.47	-	*see note below
Junction 3 – Townyard Lane and the Strand	0.47	-	-	*see note below
Junction 4 – New Street and the R106 (signalised junction)	79.6	136.4	170.7	-
Junction 5 – Townyard Lane and the R106	0.32	0.36	-	0.23
Junction 6 – Old Street and the R106	0.26	0.21	-	0.14
Junction 7 – James' Terrace and the R106	0.84	0.84	-	0.53
Junction 8 – The Rise and the R106	0.47	-	0.43	-
Junction 9 – Grove Road and the R106	0.23	-	0.34	-
Junction 10 – Grove Road and The Rise	0.26	-	0.32	-
Junction 11 – Grove Road and Church Road	0.49	-	0.51	-

**Note: Junction operating within design threshold for the 2023 survey year. It is expected that flows would have been less in 2019 as 2023 values would be subject to normal growth as per the TII growth factors, therefore it was not deemed necessary to complete any further analysis.*

It is considered that in urban areas a certain level of congestion is to be expected during peak times. From the above modelling results, it is concluded that the pedestrianisation of New St has had little impact on the operational capacity of the surrounding network of roads and junctions and has resulted in improvements in efficiencies at the Diamond.

8 Road Safety

A Road Safety Audit for the proposed public realm improvements for a pedestrianised New Street has been undertaken by Bruton Consulting Engineers and supplied as a separate report. The recommendations of the report have been addressed where appropriate within the proposed layout design.

9 Internal Layout

The layout of the proposed public realm improvements is detailed in the landscape architect's drawings submitted as part of this planning submission.

The development consists of public realm improvements for a pedestrianised New Street in Malahide, Co. Dublin.

1. The southern portion of the proposed public realm improvements facilitates one-way restricted traffic movements from the southern end of New Street during designated hours to accommodate deliveries, refuse collection and emergency vehicles. Loading bays and accessible parking coincident with the HSE Building are also provided.
2. The northern portion of the proposed public realm improvements provides two-way access from the northern end of New Street to allow for local residential and emergency vehicle access to Ross Cottages dwellings and environs.

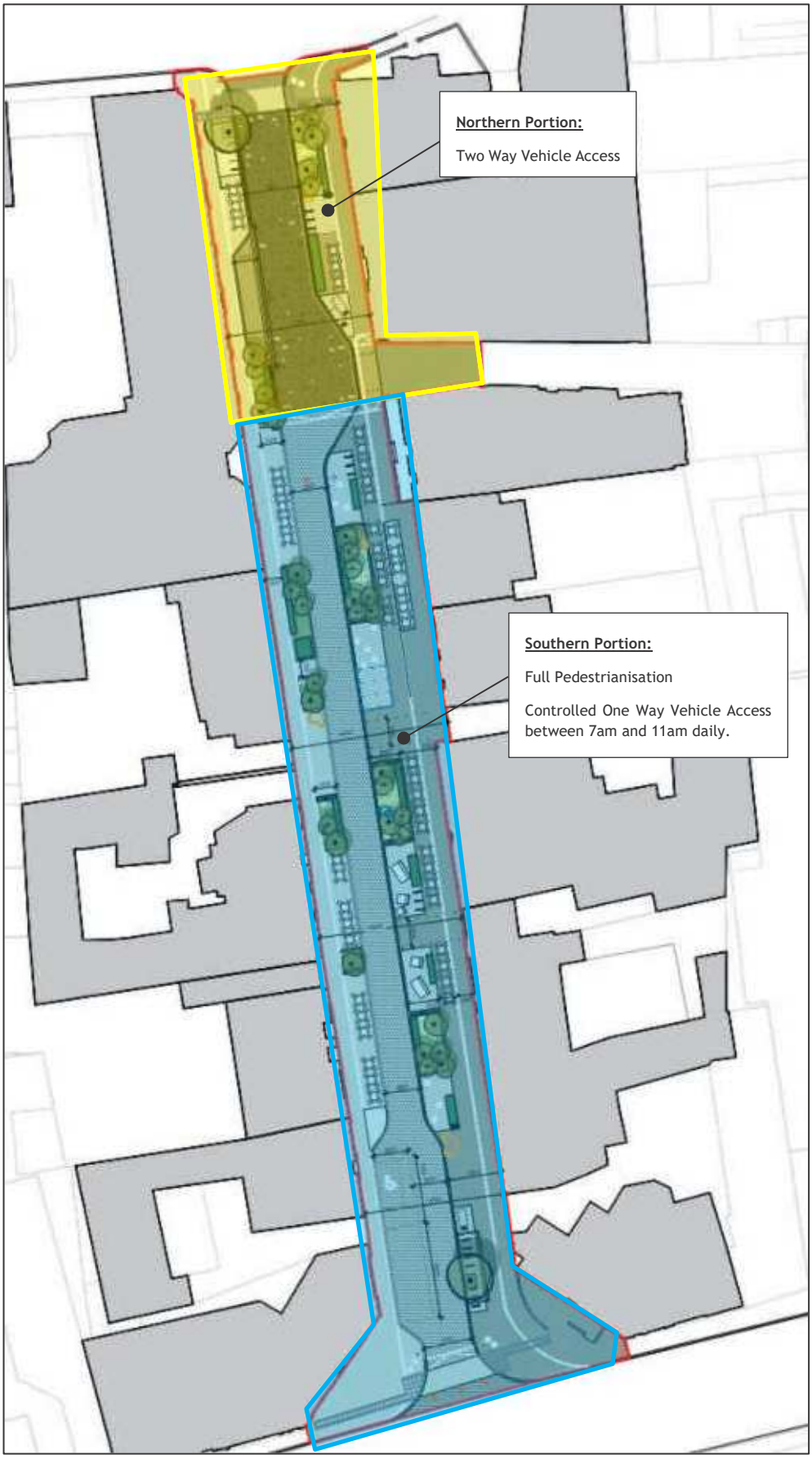


Figure 9-1: Proposed Site Layout (© DFLA)

9.1 DMURS

The roads layout together with pedestrian and cycle facilities for the site have been developed considering the design principles set out in the Design Manual for Roads and Streets (2019). The design speed for the site is 10 kph, and appropriate speed restriction signs will be set out at the entrances to New Street.

The car has a significant impact on how street networks and streets are designed and how people interact with them. The relationship between cars and people can be illustrated via four distinct models:

a. The first model is where traffic and people are segregated, and the car is dominant.
b. The second model is where the car and people are segregated from each other.
c. The third model is where traffic and people mix, although on a more equitable basis.
d. The fourth model is where the car is excluded altogether.

The proposed public realm improvements for a pedestrianised New Street actively migrates from the pre-existing car dominant streetscape and promotion of private motor vehicle use to a pedestrian/cyclist dominated streetscape.

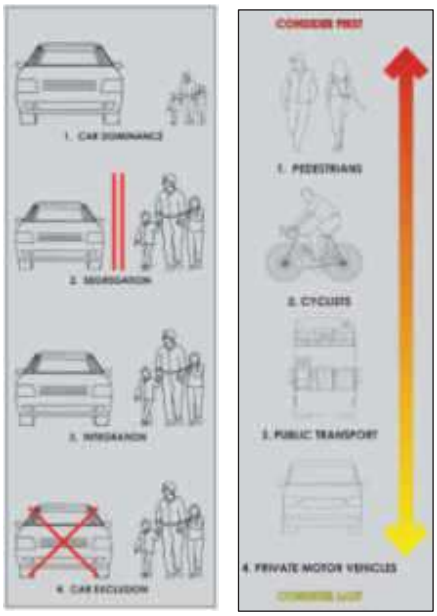


Figure 9-2: DMURS Figure Extracts

A sense of place is established in the public realm design proposals through satisfying the core design principles of:

- **Connectivity:** The creation of vibrant and active places requires pedestrian activity. This in turn requires walkable street networks that can be easily navigated and are well connected.
- **Enclosure:** A sense of enclosure spatially defines streets and creates a more intimate and supervised environment. A sense of enclosure is achieved by orientating buildings toward the street and placing them along its edge as in the case of New Street. The use of street trees and soft and hard landscaping features will also enhance the feeling of enclosure.
- **Active Edge:** An active frontage enlivens the edge of the street creating a more interesting and engaging environment. An active frontage is achieved with frequent entrances and openings that ensure the street is overlooked and generate pedestrian activity as people come and go from buildings, as is naturally the case with New Street and the rejuvenation of activity through the proposed pedestrianisation.
- **Pedestrian Activity/Facilities:** The sense of intimacy, interest and overlooking that is created by a street that is enclosed and lined with active frontages enhances a pedestrian's feeling of security and well-being. Good pedestrian facilities (such as wide footpaths and well-designed crossings) also make walking a more convenient and pleasurable experience that will further encourage pedestrian activity.

9.2 Visibility Splays

The site layout has been developed to provide adequate turning provision for refuse vehicles and fire tender access. Forward visibility and visibility splays have been provided on the basis of the requirements of Sections 4.4.4 and 4.4.5 of the DMURS manual. Compliance with the requirements is set out on the relevant PUNCH drawings.

9.3 Vehicle Manoeuvring

Autotrack analysis has been undertaken to ensure there are no issues with swept paths and manoeuvrability of fire appliances, refuse vehicles and other design vehicles including but not limited to the following:

- Access to the Marina for oversized vehicles carrying boats to/from the Marina, with access required via New Street.
- Fire tender access (to include Turn Table ladder Fire Unit) to New St. & Ross Cottages.
- HGV Access for deliveries
- Accessible parking at HSE Building
- Refuse collection on New Street and Ross Cottages

Please refer to the Vehicle Swept Path drawings prepared by PUNCH for illustration of the various vehicle movements throughout the site extents.

10 Parking

10.1 Car Parking

Due to the nature of the proposed public realm improvements, parking facilities are intentionally limited. Specifically, parking facilities are restricted to a single accessible parking facility at the HSE building location.

It is noted that access to private residential parking is accommodated to existing residential dwellings located on New Street and Ross Cottages.

The 'standard' parking spaces will be demarcated with white lines. All car parking spaces will be 2.4m by 4.8m, with disabled spaces providing an additional width and length of 1.2m.

10.2 Cycle Parking

Cycling is to be significantly encouraged as part of the proposed public realm improvements. Cycle parking serving the public realm improvements is provided as follows:

Table 10-1: Proposed Cycle Parking Quantum for the New Street Public Realm Development

	Standard Bicycle Stands	E-Bike Stands	Cargo Bike Spaces
Total	15	5	3

10.3 Service and Delivery Trips

Vehicular set-down access is provided within the site. Delivery and service access will be facilitated through the loadings bays and designated loading areas distributed throughout the street.

All deliveries will be restricted to designated hours to minimize any potential conflict with non-motorised users. Any non-standard vehicle access, e.g. oversized vehicles carrying boats to/from the Marina, will be scheduled and notified in advance.

11 Construction Stage Traffic

11.1 Construction Phase

The volumes of traffic that will be generated during the construction phase of the proposed public realm improvements will be small in comparison to the existing traffic volumes in the general area.

The construction stage therefore does not require quantitative traffic analysis.

11.2 Construction Traffic Management Plan

The successful contractor will be required to carry out a traffic management plan for the duration of the works. This will involve consultation with the local authority and/or the Gardaí, and once agreed will be adhered to for all aspects of construction that involves movement of vehicles in and out of the site.

12 Public Transport, Pedestrians/ Cyclists

To ensure future transport sustainability and to endeavour to make new developments as accessible as possible to travel by other modes of transport, an assessment has been made of the existing pedestrian, cyclist, and public transport facilities.

12.1 Public Transport

12.1.1 Train Services

Malahide Train Station is served by the following Iarnród Éireann and DART & Dublin Commuter services:

- Dublin – Dundalk/ Newry (Iarnród Éireann)
- Gorey/ Bray – Dublin – Howth/ Newry (DART & Dublin Commuter)
- Newry/ Howth – Dublin – Bray/ Gorey (DART & Dublin Commuter)

As shown in Figure 12-1, the site is connected to the Dublin Area Train and Tram services via the Northwest Commuter Line and to the DART Line. Connection to the Irish Rail network is shown in Figure 12-2. The station is approximately 150m (2-minute walk) from the top entrance of New Street. Please refer to Figure 3-10 for the location of Malahide Train Station with respect to the site boundary.

Train routes are daily.

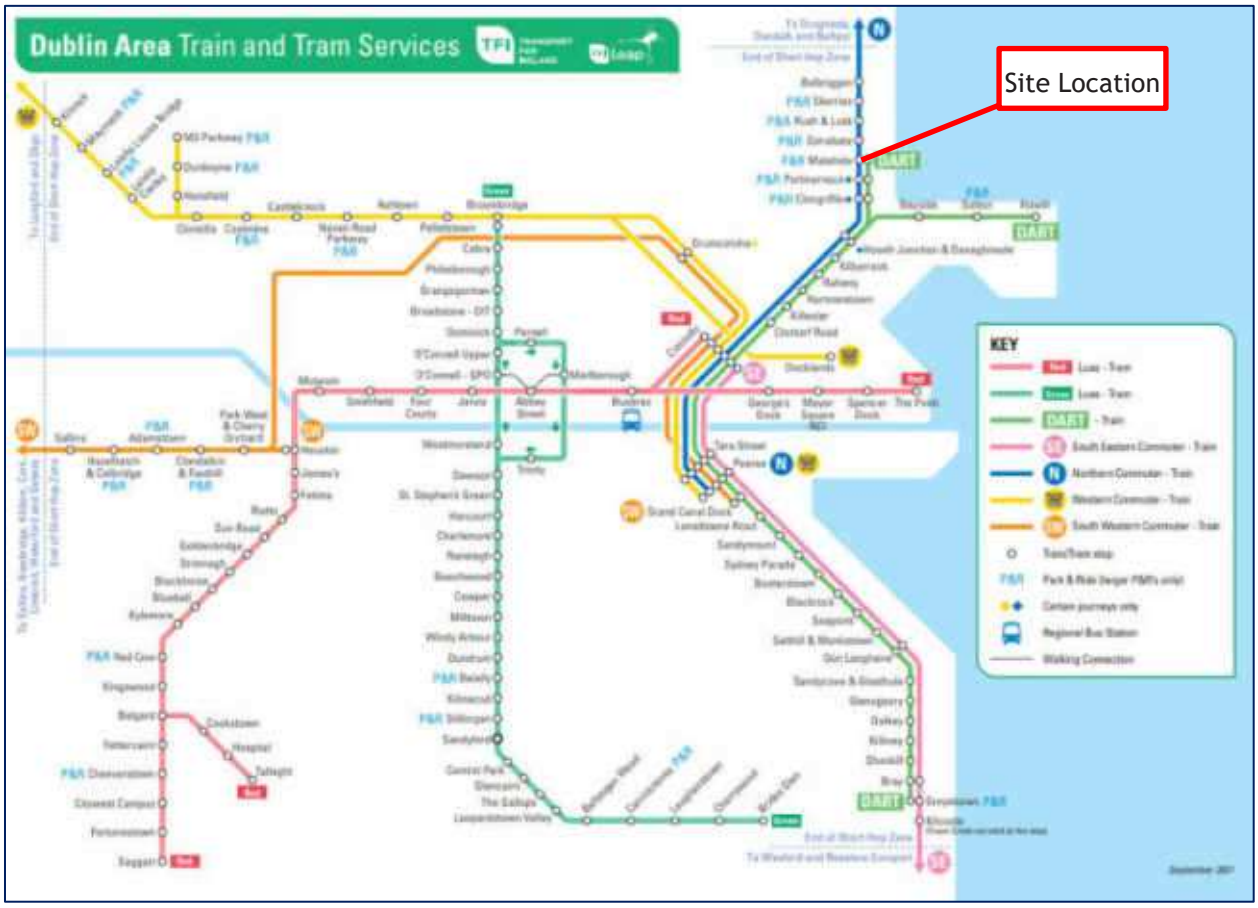


Figure 12-1: Site Location Relative to Dublin Public Transport Network (Ref: https://www.transportforireland.ie)



Figure 12-2: Site Location Relative to National Rail Network (Ref: https://www.irishrail.ie)

12.1.2 Bus Services

The site is in a good location to avail of the majority of bus services available nearby. Figure 12-2 below shows the location of nearby public transport infrastructure in the vicinity of the proposed public realm improvements, and Table 12-1 shows the routes serving the various bus stops.

Bus routes are daily.



Figure 12-3: Existing Bus Stops/ Train Stations in the vicinity of the proposed public realm improvements.

Table 12-1: Bus routes adjacent to the proposed public realm improvements.

Route No.	Route Name	Operated By	Bus Stop ID:				
			3585	3634	4387	3624	3586
32X	Swords Road (Lawson Spinney) - University College Dublin	Dublin Bus	✓	✓	✓		
42	Talbot Street (opp. Bank of Ireland) - Coast Road	Dublin Bus	✓	✓			
42d	The Helix - Strand Road (St. Anne's Estate)	Dublin Bus	✓	✓			
42n	Dublin City South, D'Olier Str - Portmarnock, Strand Road	Nitelink/ Dublin Bus	✓				✓
102	Dublin Airport - Sutton Station	Go-Ahead	✓	✓	✓		✓
102a	Sutton - Swords	Go-Ahead		✓	✓		
102c	Clarehall – Sutton	Go-Ahead	✓	✓	✓		✓
102p	River Valley – Portmarnock	Go-Ahead	✓	✓	✓		✓
102t	Swords - Sutton	Go-Ahead	✓	✓	✓		✓
142	Wendell Avenue - University College of Dublin UCD	Dublin Bus	✓	✓			
H2	National Lottery Head Quarters - Malahide Garda Station	Dublin Bus			✓	✓	✓

It is noted that the H2 bus, terminating on James's Terrace, has been diverted down Old Street to accommodate the pedestrianisation of New Street. The frequency of this service is limited and therefore this diversion has had minimal impact on Old Street. No change has been made to the service near the estuary.

12.1.3 Taxi Services

Taxis are available on request.

As per Fingal Development Plan (2023-2029), the objective of the plan is to facilitate and promote the development of accessible taxi services. It is also the objective of the plan to facilitate the provision of taxi ranks at appropriate locations on streets. The accessibility of these taxi services is an important element in the public transport mix, in providing a demand responsive 24-hour door to door service.

The taxi rank was moved from New Street to James's Terrace to accommodate the pedestrianisation of New Street. This is currently under review by FCC.

12.2 Pedestrians

The proposed public realm improvements will increase the number of pedestrian trips to and from New Street. It is therefore important that the public realm improvements is properly integrated into the existing footpath network. The integration of the footpath to connect to existing pedestrian routes on The Mall (R106) and Strand Street will provide direct pedestrian routes from New Street to/ from surrounding areas. The pedestrian network also provides routes to/ from the surrounding public transport network, including nearby bus routes on The Mall and Dublin Road (R106), as well as Malahide Train Station.

Pedestrian surveys taken in December 2019 on New Street pre-pedestrianisation indicate a total of 2988 pedestrians travelling along New Street over a 13-hour period between 7am and 8pm. The peak hour occurred between 1-2pm with a total of 385 pedestrians travelling along New Street in the hour.

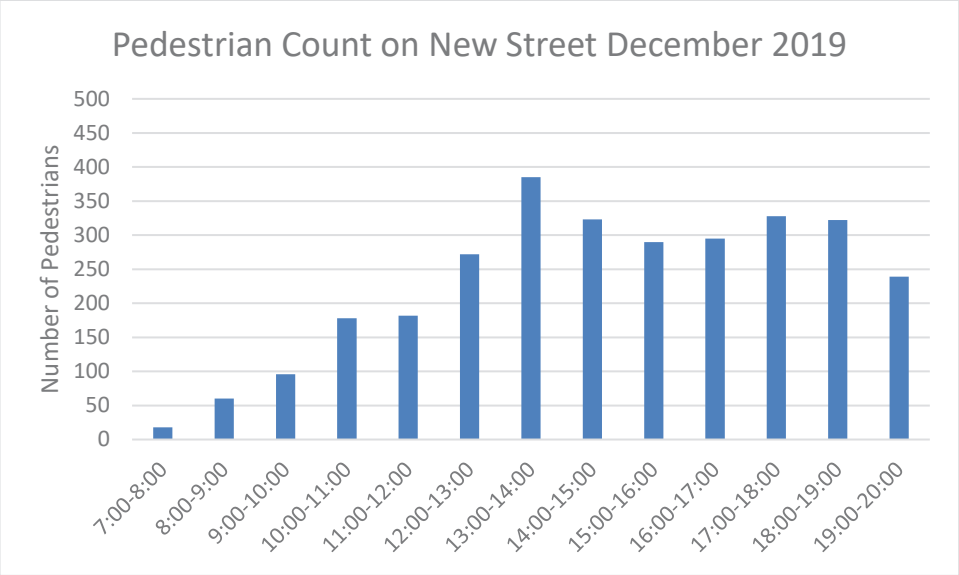


Figure 12-4: Pedestrian Count on New Street (December 2019).

Pedestrian numbers taken in January 2023 show a 23% increase in the number of pedestrians travelling along New Street post pedestrianisation with a total of 3679 pedestrians recorded over the same time period. The peak hour remained 1-2pm with a total of 461 pedestrians travelling along New Street in the hour.

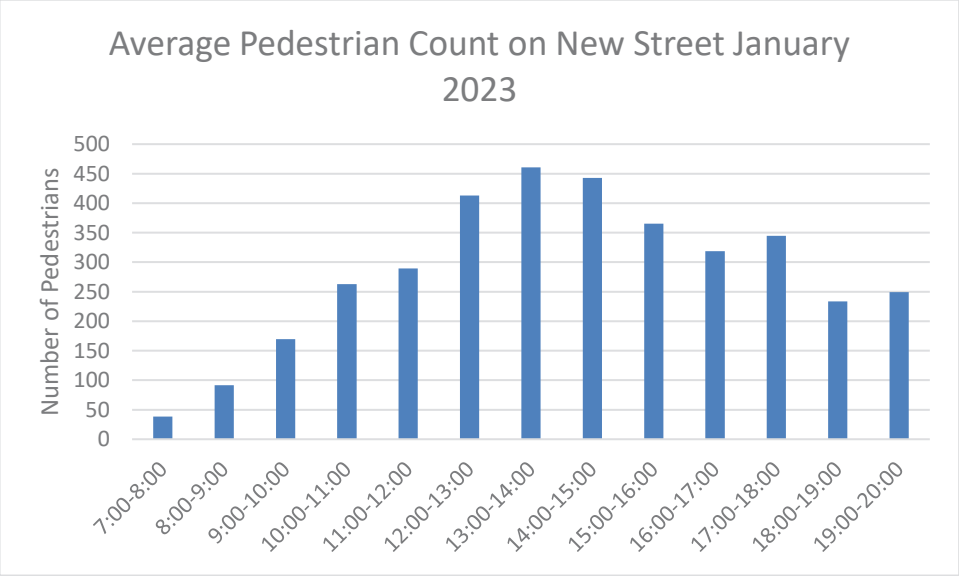


Figure 12-5: Pedestrian Count on New Street (January 2023).

Both surveys were taken during a weekday in winter months, December and January respectively, allowing for a direct comparison to be made. It is expected that the number of pedestrians would increase in the warmer/drier periods of the year.

12.3 Cycling

Cycling is to be significantly encourages as part of the proposed public realm improvements. Bike stand parking is provided at various locations along the street. Cycling enhances both the environment and quality of life of the surrounding area. Cycling has an important transport role, in reducing car usage. The consequential reduction in emissions improves air quality, aids the ecological system and results in less noise pollution.

Providing cycle and pedestrian links that are free of motorised traffic will encourage the use of cycling.

The primary access points to the proposed public realm improvements are via The Diamond, The Mall/Main Street/Dublin Road (R106) to the south and to the north via Strand Street. While there are no existing cycle lanes on either The Mall (R106) or Strand Street, the Fingal Development Plan (2023-2029) outlines proposals for an indicative cycle/pedestrian route on The Mall/Main Street/Dublin Road (R106) at the southern border of New Street. The Greater Dublin Area (GDA) Cycle Network is also proposed on The Mall/Main Street/Dublin Road (R106) which will provide a cycle route from Malahide to Swords. Please refer to Figure 3-39.

The proposed public realm improvements for a pedestrianised New Street will make New Street a focal point with Fingal's Greenway network. New Street would provide connection to numerous alternative Greenway/ cycle way projects that are being proposed or at various planning stages including, the Fingal Coastal Way, Sutton to Malahide Greenway, and Broadmeadow Way. These proposed greenways (shared footpath and cycleways) will provide excellent connection points to and from the proposed public realm improvements at New Street to/ from surrounding areas including: Newbridge Demesne in Donabate to Fingal county boundary, north of Balbriggan (Fingal Coastal Way), Sutton Cross to Baldoyle and Portmarnock to Malahide (Sutton to Malahide Greenway), and Malahide Demesne to Newbridge Demesne via the railway causeway across the Malahide Estuary (Broadmeadow Way).

General proposals and objectives as noted in the Development Plan are to reduce car dependency and promote walking and cycling as sustainable modes of transport. The inclusion of indicative cycle/ pedestrian routes and the GDA Cycle Network proposed on The Mall/Main Street/Dublin Road (R106) at the southern end of New Street as well as proposed Greenways will improve connectivity to the site.

13 Access for People with Disabilities

Parking facilities for disabled users are provided within the proposed public realm improvements at the HSE facility. It is noted that FCC have also provided disabled and age-friendly parking spaces on The Mall and The Green, thus improving facilities in the immediate vicinity of New Street.

14 Summary and Conclusion

1. The development consists of public realm improvements for a pedestrianised New Street in Malahide, Co. Dublin.

2. A number of traffic surveys were compared in order to assess any change in traffic flows due to the proposed public realm improvements for a pedestrianised New Street.

3. It is proposed to access the development as follows:

    a. A one-way restricted vehicular traffic system (northbound).
    b. Deliveries permitted from 7am-11am each day, with vehicle bollards at the Diamond and at the junction with Ross Cottages as control measure.
    c. Unrestricted vehicular access to Ross Cottages (from the north).

4. Capacity analysis was carried out on 11 no. junctions:
    1. Junction of New Street, Strand Street, The Green, Marina Village (signalised junction)
    2. Junction of Old Street and Strand Street
    3. Junction of Townyard Lane and Strand Street
    4. The Diamond - Junction of New Street and the R106 (signalised junction)
    5. Junction of Townyard Lane and The Mall (R106)
    6. Junction of Old Street and Dublin Road (R106)
    7. Junction of James' Terrace and The Mall (R106)
    8. Junction of the Rise and The Mall (R106)
    9. Junction of Grove Road and The Mall (R106)
    10. Junction of Grove Road and the Rise
    11. Junction of Grove Road and Church Road

    The analysis shows that, when comparing the 2023 post-pedestrianisation with the 2019 pre-pedestrianisation scenarios, there are minimal effects on the capacity for the surrounding junctions and there are significant improvements at The Diamond, the main junction in the village.

5. Parking spaces for the proposed development are restricted to a single accessible parking facility at the HSE building location.

6. Secure cycle parking facilities have been provided within the proposed public realm improvements to meet the requirements set out in the Fingal Development Plan.

Appendix A Existing Survey Data (2019, 2020, 2023)



Data Analysis Services

003 (23) 22718 MALAHIDE TRAFFIC SURVEY V2

with compliments

IDASO

Survey Name: 003 (23) 22718 MALAHIDE TRAFFIC SURVEY V2
Date: Tue 10 Jan 2023



Survey Name: 003 (23) 22718 MALAHIDE TRAFFIC SURVEY V2
Date: Tue 10 Jan 2023

CAR	• Saloon • Estate • People Carrier • Taxi • Three-wheel Cars • Car towing Trailer
LGV (Light Goods Vehicles)	• Van • Pick-up • Car Delivery Vans • Minibus • Commercial Vehicles < 3.5 Tonnes – single rear tyres
OGV1 (Other Goods Vehicles)	• 2-Axles Rigid Truck • 3-Axles Rigid Truck • Commercial Vehicles > 3.5 Tonnes – single rear tyres
OGV2 (Other Goods Vehicles)	• 4 or more Axles Rigid Truck • 3 Axle or more Articulated Truck • Vehicles in Category OGV1 towing trailer
PSV (Passenger Service Vehicles)	• Single Deck Bus or Coach • Double Deck Bus or Coach
M/C (Motorcycle)	• Motorcycles • Motor Scooters • Mopeds • Three-wheel motorcycles
P/C (Pedal Cycle)	• Two-wheel pushbike • Three-wheel pushbike



IDASO

Survey Name: 003 (23) 22718 MALAHIDE TRAFFIC SURVEY V2
Site: Site 1
Location: Marina Village/The Green/New St/Strand St
Date: Tue 10-Jan-2023

	A => A									A => B									A => C							
TIME	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT
07:00	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	10	10	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0	0	0	11	0	0	0	0	11	11	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0	0	0	0	15	1	0	0	0	16	16	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0	0	1	0	8	1	0	0	0	10	9.2	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	1	0	44	2	0	0	0	47	46.2	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0	0	0	0	23	2	1	0	0	26	26.5	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0	0	0	0	16	0	1	0	0	17	17.5	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0	0	0	0	12	3	0	0	0	15	15	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0	0	0	0	10	1	0	0	0	11	11	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	61	6	2	0	0	69	70	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0	0	1	0	8	0	1	0	0	10	9.7	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0	0	0	0	14	0	0	0	0	14	14	0	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	0	0	0	0	7	1	0	0	0	8	8	0	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	0	0	0	0	12	0	1	0	0	13	13.5	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	1	0	41	1	2	0	0	45	45.2	0	0	0	0	0	0	0	0
10:00	0	0	0	0	0	0	0	0	0	0	0	9	2	1	0	0	12	12.5	0	0	0	0	0	0	0	0
10:15	0	0	0	0	0	0	0	0	0	0	0	12	0	0	0	0	12	12	0	0	0	0	0	0	0	0
10:30	0	0	0	0	0	0	0	0	0	0	0	14	5	0	0	0	19	19	0	0	0	0	0	0	0	0
10:45	0	0	0	0	0	0	0	0	0	0	0	16	1	0	0	0	17	17	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	51	8	1	0	0	60	60.5	0	0	0	0	0	0	0	0
11:00	0	0	0	0	0	0	0	0	0	0	0	16	2	0	0	0	18	18	0	0	0	0	0	0	0	0
11:15	0	0	0	0	0	0	0	0	0	0	0	10	0	1	0	0	11	11.5	0	0	0	0	0	0	0	0
11:30	0	0	0	0	0	0	0	0	0	0	0	11	1	0	0	0	12	12	0	0	0	0	0	0	0	0
11:45	0	0	0	0	0	0	0	0	0	0	0	23	2	0	0	0	25	25	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	60	5	1	0	0	66	66.5	0	0	0	0	0	0	0	0
12:00	0	0	0	0	0	0	0	0	0	0	0	11	3	0	0	0	14	14	0	0	0	0	0	0	0	0
12:15	0	0	0	0	0	0	0	0	0	0	0	13	0	0	0	0	13	13	0	0	0	0	0	0	0	0
12:30	0	0	0	0	0	0	0	0	0	0	0	25	1	0	0	0	26	26	1	0	0	0	0	0	0	1
12:45	0	0	0	0	0	0	0	0	0	0	0	13	1	0	0	0	14	14	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	62	5	0	0	0	67	67	1	0	0	0	0	0	0	1
13:00	0	0	0	0	0	0	0	0	0	0	0	11	1	0	0	0	12	12	0	0	0	1	0	0	0	1
13:15	0	0	0	0	0	0	0	0	0	1	0	15	1	1	0	0	18	17.7	0	0	0	0	0	0	0	0
13:30	0	0	0	0	0	0	0	0	0	0	0	12	2	0	0	0	14	14	0	0	0	0	0	0	0	0
13:45	0	0	0	0	0	0	0	0	0	0	0	11	0	0	0	0	11	11	1	0	0	0	0	0	0	1
H/TOT	0	0	0	0	0	0	0	0	0	1	0	49	4	1	0	0	55	54.7	1	0	0	1	0	0	0	2
14:00	0	0	0	0	0	0	0	0	0	3	0	15	1	1	0	0	20	18.1	0	0	0	0	0	0	0	0
14:15	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	9	9	0	0	0	0	0	0	0	0
14:30	0	0	0	0	0	0	0	0	0	0	0	17	1	0	0	0	18	18	0	0	0	0	0	0	0	0
14:45	0	0	0	0	0	0	0	0	0	0	0	12	0	0	0	0	12	12	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	3	0	53	2	1	0	0	59	57.1	0	0	0	0	0	0	0	0
15:00	0	0	0	0	0	0	0	0	0	0	0	13	3	0	0	0	16	16	0	0	0	0	0	0	0	0
15:15	0	0	0	0	0	0	0	0	0	0	0	16	1	0	0	0	17	17	1	0	0	0	0	0	0	1
15:30	0	0	0	0	0	0	0	0	0	0	0	19	0	0	0	0	19	19	0	0	0	0	0	0	0	0
15:45	0	0	0	0	0	0	0	0	0	0	0	17	1	0	0	0	18	18	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	65	5	0	0	0	70	70	1	0	0	0	0	0	0	1
16:00	0	0	0	0	0	0	0	0	0	0	0	10	2	0	0	0	12	12	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0	0	0	0	10	1	0	0	0	11	11	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0	0	0	22	0	0	0	0	22	22	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	0	0	0	30	0	0	0	0	30	30	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	72	3	0	0	0	75	75	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0	0	22	0	0	0	0	22	22	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0	0	24	1	0	0	0	25	25	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0	0	0	31	2	0	0	0	33	33	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0	0	0	20	1	0	0	0	21	21	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	97	4	0	0	0	101	101	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0	0	0	0	13	0	0	0	0	13	13	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0	0	12	2	0	0	0	14	14	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0	0	0	17	0	0	0	0	17	17	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0	0	0	0	15	0	0	0	0	15	15	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	57	2	0	0	0	59	59	0	0	0	0	0	0	0	0
12 TOT	0	0	0	0	0	0	0	0	0	6	0	712	47	8	0	0	773	772.2	3	0	0	1	0	0	0	4

	A => D									B => A									B => B								
PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
0	0	0	2	0	0	0	0	2	2	0	0	3	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0
0	0	0	1	1	0	0	0	2	2	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
0	0	0	9	0	0	0	0	9	9	0	0	3	2	0	0	0	5	5	0	0	0	0	0	0	0	0	0
0	0	0	3	2	0	0	0	5	5	0	0	5	1	0	0	0	6	6	0	0	0	0	0	0	0	0	0
0	0	0	15	3	0	0	0	18	18	0	0	12	3	0	0	0	15	15	0	0	0	0	0	0	0	0	0
0	0	0	16	1	0	0	0	17	17	0	0	7	1	0	0	0	8	8	0	0	0	0	0	0	0	0	0
0	0	0	8	0	0	0	0	8	8	0	0	5	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0
0	0	0	8	1	0	0	0	9	9	1	0	5	0	0	0	0	6	5.2	0	0	0	0	0	0	0	0	0
0	0	0	11	0	0	0	0	11	11	0	0	15	0	0	0	0	15	15	0	0	0	0	0	0	0	0	0
0	0	0	43	2	0	0	0	45	45	1	0	32	1	0	0	0	34	33.2	0	0	0	0	0	0	0	0	0
0	1	0	9	1	0	0	0	11	10.2	0	0	7	0	0	0	0	7	7	0	0	0	0	0	0	0	0	0
0	0	0	13	0	0	0	0	13	13	0	0	7	0	0	0	0	7	7	0	0	0	0	0	0	0	0	0
0	0	0	7	1	0	0	0	8	8	0	0	6	0	0	0	0	6	6	0	0	0	0	0	0	0	0	0
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0	0	0	10	1	0	0	0	11	11	0	0	8	1	0	0	0	9	9	0	0	0	0	0	0	0	0	0
0	0	0	40	3	0	0	0	43	43	0	0	40	3	0	0	0	43	43	0	0	0	0	0	0	0	0	0
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0	0	0	6	0	0	0	0	6	6	1	0	4	0	0	0	0	5	4.2	0	0	0	0	0	0	0	0	0
0	0	0	9	0	0	0	0	9	9	1	0	9	0	0	0	0	10	9.2	0	0	0	0	0	0	0	0	0
0	2	0	9	0	0	0	0	11	9.4	0	0	8	0	0	0	0	8	8	0	0	0	0	0	0	0	0	0
0	2	0	30	0	0	0	0	32	30.4	2	0	27	0	0	0	0	29	27.4	0	0	0	0	0	0	0	0	0
0	0	0	3	1	0	0	0	4	4	0	0	6	0	0	0	0	6	6	0	0	0	0	0	0	0	0	0
0	0	0	8	0	0	0	0	8	8	0	0	8	0	0	0	0	8	8	0	0	0	0	0	0	0	0	0
0.2	0	0	9	1	0	0	0	10	10	0	0	4	1	0	0	0	5	5	0	0	0	0	0	0	0	0	0
0	1	0	9	0	0	0	0	10	9.2	0	0	8	0	0	0	0	8	8	0	0	0	0	0	0	0	0	0
0.2	1	0	29	2	0	0	0	32	31.2	0	0	26	1	0	0	0	27	27	0	0	0	0	0	0	0	0	0
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0	0	0	8	2	0	0	0	10	10	0	0	3	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0
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0.2	0	0	9	0	0	0	0	9	9	0	0	10	1	0	0	0	11	11	0	0	0	0	0	0	0	0	0
1.2	0	0	34	6	0	0	0	40	40	0	0	27	2	0	0	0	29	29	0	0	0	0	0	0	0	0	0
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0	0	0	6	0	0	0	0	6	6	1	0	9	0	0	0	0	10	9.2	0	0	0	0	0	0	0	0	0
0	0	0	6	0	0	0	0	6	6	0	0	8	2	1	0	0	11	11.5	0	0	0	0	0	0	0	0	0
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0	0	0	14	1	0	0	0	15	15	0	0	7	0	0	0	0	7	7	0	0	0	0	0	0	0	0	0
0.2	0	0	7	0	0	0	0	7	7	0	0	7	0	0	0	0	7	7	0	0	0	0	0	0	0	0	0
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0	1	0	6	1	0	0	0	8	7.2	0	0	11	0	0	0	0	11	11	0	0	0	0	0	0	0	0	0
0.2	1	0	39	2	0	0	0	42	41.2	1	0	30	0	1	0	0	32	31.7	0	0	0	0	0	0	0	0	0
0	0	0	8	0	0	0	0	8	8	0	0	3	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0
0	0	0	5	0	0	0	0	5	5	0	0	12	2	0	0	0	14	14	0	0	0	0	0	0	0	0	0
0	0	0	10	1	2	0	0	13	14	0	0	23	0	0	0	0	23	23	0	0	0	0	0	0	0	0	0
0	0	0	17	1	0	0	0	18	18	0	0	9	0	0	0	0	9	9	0	0	0	0	0	0	0	0	0
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0	0	0	22	1	0	0	0	23	23	0	0	9	1	0	0	0	10	10	0	0	0	0	0	0	0	0	0
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0	0	0	17	0	0	0	0	17	17	0	0	6	0	0	0	0	6	6	0	0	0	0	0	0	0	0	0
0	0	0	69	3	0	0	0	72	72	1	0	32	3	0	0	0	36	35.2	0	0	0	0	0	0	0	0	0
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0	0	0	7	0	0	0	0	7	7	0	0	5	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0
0	0	0	12	0	0	0	0	12	12	0	0	5	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0
0	0	0	10	0	0	0	0	10	10	1	0	10	0	0	0	0	11	10.2	0	0	0	0	0	0	0	0	0
0	0	0	38	0	0	0	0	38	38	1	0	26	2	0	0	0	29	28.2	0	0	0	0	0	0	0	0	0
1.6	5	0	437	25	2	0	0	469	466	7	0	351	20	2	0	0	380	375.4	0	0	0	0	0	0	0	0	0

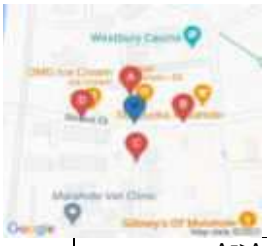
B => C									B => D									C => A									
P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C
0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0
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1	0	0	0	0	0	0	1	0.2	4	0	45	3	0	0	0	52	48.8	0	0	7	3	0	0	0	10	10	0
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0	0	1	0	0	0	0	1	1	0	0	8	4	0	0	0	12	12	0	0	0	0	0	0	0	0	0	0
0	0	1	1	0	0	0	2	2	0	0	16	2	0	0	0	18	18	0	0	0	0	0	0	0	0	0	0
0	0	1	0	0	0	0	1	1	1	0	18	0	0	0	0	19	18.2	0	0	0	0	0	0	0	0	0	0
0	0	4	1	0	0	0	5	5	2	0	52	8	0	0	0	62	60.4	1	0	0	0	0	0	0	1	0.2	0
0	0	0	0	0	0	0	0	0	0	0	14	5	0	0	0	19	19	1	0	0	0	0	0	0	1	0.2	0
0	0	0	0	0	0	0	0	0	0	0	13	0	0	0	0	13	13	0	0	0	0	0	0	0	0	0	0
0	0	0	1	0	0	0	1	1	0	0	21	2	0	0	0	23	23	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0	20	20	1	0	1	0	0	0	0	2	1.2	0
0	0	0	1	0	0	0	1	1	0	0	68	7	0	0	0	75	75	2	0	1	0	0	0	0	3	1.4	0
0	0	1	0	0	0	0	1	1	0	0	20	2	0	0	0	22	22	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	2	0	7	2	0	0	0	11	9.4	0	0	0	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0	0	1	0	8	2	0	0	0	11	10.2	1	0	0	0	0	0	0	1	0.2	0
0	0	0	0	0	0	0	0	0	0	0	11	1	1	0	0	13	13.5	0	0	0	0	0	0	0	0	0	0
0	0	1	0	0	0	0	1	1	3	0	46	7	1	0	0	57	55.1	1	0	0	0	0	0	0	1	0.2	1
0	0	0	0	0	0	0	0	0	0	0	10	3	0	0	0	13	13	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	16	2	0	0	0	18	18	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	11	1	0	0	0	12	12	0	0	0	0	0	0	0	0	0	0
0	0	1	0	0	0	0	1	1	0	0	20	1	0	0	0	21	21	0	0	0	0	0	0	0	0	0	0
0	0	1	0	0	0	0	1	1	0	0	57	7	0	0	0	64	64	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	18	0	0	0	0	18	18	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	1	0	14	2	0	0	0	17	16.2	0	0	0	0	0	0	0	0	0	0
0	0	0	1	0	0	0	1	1	0	0	9	4	0	0	0	13	13	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	18	0	0	0	0	18	18	0	0	0	0	0	0	0	0	0	0
0	0	0	1	0	0	0	1	1	1	0	59	6	0	0	0	66	65.2	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	1	0	20	1	0	0	0	22	21.2	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	17	2	0	0	0	19	19	0	0	1	1	0	0	0	2	2	0
0	0	0	0	0	0	0	0	0	0	0	19	0	0	0	0	19	19	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	9	2	0	0	0	11	11	0	0	0	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0	0	1	0	65	5	0	0	0	71	70.2	0	0	1	1	0	0	0	2	2	1
0	0	2	1	0	0	0	3	3	1	0	20	0	0	0	0	21	20.2	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	1	0	11	1	0	0	0	13	12.2	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	1	0	10	1	0	0	0	12	11.2	0	0	0	0	0	0	0	0	0	0
0	0	1	0	0	0	0	1	1	0	0	12	0	0	0	0	12	12	0	0	0	0	0	0	0	0	0	0
0	0	3	1	0	0	0	4	4	3	0	53	2	0	0	0	58	55.6	0	0	0	0	0	0	0	0	0	0
1	0	14	4	0	0	0	19	18.2	19	0	568	55	2	0	0	644	629.8	6	0	36	7	4	0	0	53	50.2	2

C => B								C => C									C => D										
M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C
0	1	0	1	0	0	2	2.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	1	0	0	1	1.5	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	2	1.2	0	0
0	1	1	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0
0	1	0	2	0	0	3	4	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0
0	3	1	4	0	0	8	10	0	0	0	0	0	0	0	0	0	1	0	2	1	0	0	0	4	3.2	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0
0	1	1	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0
0	1	1	2	0	0	4	5	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0
0	3	0	1	0	0	4	4.5	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0
0	5	2	3	0	0	10	11.5	0	0	0	0	0	0	0	0	0	0	0	5	1	0	0	0	6	6	0	0
0	2	2	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	2	2	0	0
0	5	3	0	0	0	8	8	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	1
0	0	1	1	0	0	2	2.5	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0
0	3	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	0	3	2.7	0	0
0	10	6	1	0	0	17	17.5	0	0	0	0	0	0	0	0	0	1	0	4	2	1	0	0	8	7.7	0	1
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0
0	3	0	1	0	0	4	4.5	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	3	3	0	0
0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0
0	5	1	0	0	0	6	6	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	2	1.2	0	0
0	10	1	1	0	0	12	12.5	0	0	0	0	0	0	0	0	0	1	0	6	2	0	0	0	9	8.2	0	0
0	1	2	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0
0	1	1	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0
0	0	2	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	2	5	0	0	0	7	7	0	0	0	0	0	0	0	0	0	0	0	3	1	0	0	0	4	4	0	0
0	1	1	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0
0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	4	1	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	2	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	2	2	0	0
0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0
0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2	4	0	0	0	6	6	0	0
0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0
0	1	0	0	0	0	2	1.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0
0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0
0	3	1	0	0	0	5	4.2	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0.2	0	0
0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	2	1.2	0	0
0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0
0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0
0	3	2	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0
0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3	0	0
0	1	0	0	0	0	2	1.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	2	0	0	0	0	3	2.2	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0.2	1	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	3	2.2	1	0
0	42	21	9	0	0	74	76.9	0	0	0	0	0	0	0	0	0	5	0	35	11	1	0	0	52	48.5	1	1

D => A							D => B									D => C											
CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR
4	0	0	0	0	4	4	0	0	6	1	1	0	0	8	8.5	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	3	3	0	0	45	2	2	0	2	51	54	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	7	7	0	0	13	0	1	0	0	14	14.5	0	0	0	0	0	0	0	0	0	0	0	0
15	1	0	0	0	16	16	0	0	15	1	0	0	0	16	16	0	0	0	0	0	0	0	0	0	0	0	0
29	1	0	0	0	30	30	0	0	79	4	4	0	2	89	93	0	0	0	0	0	0	0	0	0	0	0	0
19	2	0	0	0	21	21	1	0	34	3	0	0	1	39	39.2	0	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	11	11	0	0	56	4	0	1	0	61	62.3	0	0	0	1	0	0	0	1	1	0	0	0
20	1	1	0	0	22	22.5	1	0	63	4	3	0	1	72	73.7	0	0	1	0	0	0	0	1	1	0	0	0
21	0	0	0	0	21	21	3	0	38	3	1	0	0	45	43.1	0	0	1	0	0	0	0	1	1	0	0	0
71	3	1	0	0	75	75.5	5	0	191	14	4	1	2	217	218.3	0	0	2	1	0	0	0	3	3	0	0	0
22	1	0	0	0	23	23	1	1	37	5	0	0	0	44	42.6	0	0	1	0	0	0	0	1	1	0	0	0
21	0	0	0	0	22	21.4	2	0	30	1	1	0	0	34	32.9	0	0	0	0	0	0	0	0	0	0	0	0
13	1	0	0	0	14	14	0	0	17	2	0	0	1	20	21	0	0	0	0	0	0	0	0	0	0	0	0
22	1	1	0	0	24	24.5	0	0	34	2	1	0	0	37	37.5	0	0	0	0	0	0	0	0	0	0	0	0
78	3	1	0	0	83	82.9	3	1	118	10	2	0	1	135	134	0	0	1	0	0	0	0	1	1	0	0	0
14	0	0	0	0	14	14	1	0	44	5	0	0	1	51	51.2	0	0	0	0	0	0	0	0	0	0	0	0
15	3	0	0	0	18	18	1	0	45	0	1	0	1	48	48.7	0	0	0	0	0	0	0	0	0	0	0	0
22	1	1	0	0	24	24.5	0	0	42	2	1	0	0	45	45.5	0	0	0	0	0	0	0	0	0	0	0	0
15	2	0	0	0	17	17	0	0	29	3	1	0	0	33	33.5	0	0	0	0	0	0	0	0	0	0	0	0
66	6	1	0	0	73	73.5	2	0	160	10	3	0	2	177	178.9	0	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	17	17	0	1	28	4	1	0	1	35	35.9	0	0	1	1	0	0	0	2	2	0	0	0
8	1	0	0	0	9	9	1	0	25	4	0	0	0	30	29.2	0	0	1	0	0	0	0	1	1	0	0	0
16	1	0	0	0	17	17	0	0	32	0	0	0	0	32	32	0	0	1	0	0	0	0	1	1	0	0	0
16	1	0	0	0	17	17	0	0	24	1	0	0	1	26	27	0	0	1	1	0	0	0	2	2	0	0	0
57	3	0	0	0	60	60	1	1	109	9	1	0	2	123	124.1	0	0	4	2	0	0	0	6	6	0	0	0
13	2	0	0	0	15	15	0	0	30	3	0	0	0	33	33	0	0	0	0	0	0	0	0	0	0	0	0
10	1	1	0	0	12	12.5	0	0	36	2	0	0	0	38	38	0	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	13	13	0	1	28	1	0	0	1	31	31.4	0	1	0	1	0	0	0	2	1.4	0	0	0
12	5	0	0	0	17	17	0	0	33	5	0	0	0	38	38	0	0	0	0	0	0	0	0	0	0	0	0
48	8	1	0	0	57	57.5	0	1	127	11	0	0	1	140	140.4	0	1	0	1	0	0	0	2	1.4	0	0	0
16	0	0	0	0	16	16	2	0	30	2	0	0	1	35	34.4	0	0	1	0	0	0	0	1	1	0	0	0
12	1	0	0	0	13	13	0	0	37	1	0	0	0	38	38	0	0	1	1	0	0	0	2	2	0	0	0
12	3	0	0	0	15	15	0	0	27	2	0	0	1	30	31	0	0	0	0	0	0	0	0	0	0	0	0
13	1	0	0	0	14	14	0	0	32	3	0	0	0	35	35	0	0	1	0	0	0	0	1	1	0	0	0
53	5	0	0	0	58	58	2	0	126	8	0	0	2	138	138.4	0	0	3	1	0	0	0	4	4	0	0	0
13	2	0	0	0	15	15	0	0	26	1	2	0	1	30	32	1	0	1	0	0	0	0	2	1.2	0	0	0
14	0	0	0	0	14	14	0	0	47	0	0	0	0	47	47	0	0	2	0	0	0	0	2	2	0	0	0
16	0	0	0	0	16	16	1	0	35	1	2	0	1	40	41.2	0	0	1	0	0	0	0	1	1	0	0	0
25	2	0	0	0	27	27	0	0	35	5	1	0	0	41	41.5	0	0	0	0	0	0	0	0	0	0	0	0
68	4	0	0	0	72	72	1	0	143	7	5	0	2	158	161.7	1	0	4	0	0	0	0	5	4.2	0	0	0
13	0	0	0	0	13	13	0	0	42	1	0	0	0	43	43	0	0	1	0	0	0	0	1	1	0	0	0
11	0	0	0	0	11	11	1	0	32	1	2	0	1	37	38.2	0	0	0	1	0	0	0	1	1	0	0	1
11	1	0	0	0	12	12	0	0	32	4	0	0	1	37	38	0	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	15	15	0	0	47	0	0	0	0	47	47	0	0	1	1	0	0	0	2	2	0	0	0
50	1	0	0	0	51	51	1	0	153	6	2	0	2	164	166.2	0	0	2	2	0	0	0	4	4	0	0	1
16	0	0	0	0	16	16	0	0	30	2	0	0	0	32	32	0	0	1	0	0	0	0	1	1	0	0	0
20	0	0	0	0	20	20	0	0	33	0	0	0	1	34	35	0	0	0	0	0	0	0	0	0	0	0	0
24	2	0	0	0	26	26	0	0	55	1	0	0	1	57	58	0	0	1	0	0	0	0	1	1	0	0	0
26	4	0	0	0	30	30	0	0	40	1	1	0	1	43	44.5	0	0	0	0	0	0	0	0	0	0	0	0
86	6	0	0	0	92	92	0	0	158	4	1	0	3	166	169.5	0	0	2	0	0	0	0	2	2	0	0	0
29	0	0	0	0	29	29	0	1	40	1	0	0	0	42	41.4	0	0	1	0	0	0	0	1	1	0	0	0
27	1	0	0	0	28	28	0	0	28	3	0	0	1	32	33	0	0	0	1	0	0	0	1	1	0	0	0
32	0	0	0	0	32	32	0	0	40	1	0	0	1	42	43	0	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	13	13	0	0	52	2	0	0	0	54	54	0	0	0	0	0	0	0	0	0	0	0	0
101	1	0	0	0	102	102	0	1	160	7	0	0	2	170	171.4	0	0	1	1	0	0	0	2	2	0	0	0
19	0	0	0	0	19	19	1	0	60	1	0	0	1	63	63.2	0	0	0	0	0	0	0	0	0	0	0	0
27	2	0	0	0	29	29	0	0	36	1	0	0	0	37	37	0	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	14	13.2	0	0	25	1	0	0	1	27	28	0	0	0	0	0	0	0	0	0	0	0	0
14	1	0	0	0	15	15	0	0	45	2	0	0	0	47	47	0	0	1	0	0	0	0	1	1	0	0	0
73	3	0	0	0	77	76.2	1	0	166	5	0	0	2	174	175.2	0	0	1	0	0	0	0	1	1	0	0	0
780	44	4	0	0	830	830.6	16	4	1690	95	22	1	23	1851	1871.1	1	1	20	8	0	0	0	30	28.6	0	0	1

D => D

LGV	OGV1	OGV2	PSV	TOT	PCU
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	1	1
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	1	1
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	1	1



IDASO

Survey Name: 003 (23) 22718 MALAHIDE TRAFFIC SURVEY V2
Site: Site 2
Location: Gas Yard Ln/Strand St/Old St/Strand Ct
Date: Tue 10-Jan-2023

	A => A									A => B									A => C							
TIME	**P/C**	**M/C**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
10:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
11:00	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
11:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
12:00	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	2	2	0	0	0	0	0	0	0	0	0
13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	3	0	0	0	0	0	0	0	0	0
14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:30	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
14:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	1	0	2	0	0	3	4	0	0	0	0	0	0	0	0	0
15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:30	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0
15:45	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	2	2	0	0	0	0	0	0	0	0	0
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12 TOT	0	0	0	0	0	0	0	0	0	0	0	10	2	2	0	0	14	15	0	0	0	0	0	0	0	0	0

	A => D									B => A									B => B								
PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	2	0	0	0	0	2	2	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	1	0	0	0	0	1	1	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1.5
0	0	0	3	0	0	0	0	3	3	0	0	1	0	0	0	0	1	1	0	0	0	0	1	0	0	1	1.5
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	1	0	0	0	0	1	1	0	0	1	0	0	0	0	1	1	0	0	1	0	0	0	0	1	1
0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
0	0	0	15	1	0	0	0	16	16	1	0	7	0	0	0	0	8	7.2	0	0	8	0	1	0	0	9	9.5

B => C									B => D									C => A									
P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C
0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	1	0	2	2	0	0	0	5	4.2	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	15	0	0	0	0	15	15	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	7	1	0	0	0	8	8	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	1	0	25	3	0	0	0	29	28.2	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	20	1	0	0	0	21	21	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	1	0	19	0	0	0	0	20	19.2	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	19	0	0	0	0	19	19	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	21	3	0	0	0	24	24	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	1	0	79	4	0	0	0	84	83.2	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	4	0	21	3	1	0	0	29	26.3	0	0	0	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0	20	20	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	12	3	0	0	0	15	15	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	1	0	17	2	0	0	0	20	19.2	0	0	0	0	0	0	0	0	0	0
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0	0	0	0	0	0	0	0	0	0	0	18	2	0	0	0	20	20	0	0	0	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0	0	0	0	22	2	0	0	0	24	24	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	3	0	29	2	0	0	0	34	31.6	0	0	1	0	0	0	0	1	1	0
0	0	0	0	0	0	0	0	0	2	0	20	2	0	0	0	24	22.4	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	5	0	89	8	0	0	0	102	98	0	0	1	0	0	0	0	1	1	1
0	0	0	0	0	0	0	0	0	0	0	16	2	0	0	0	18	18	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	17	3	0	0	0	20	20	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	18	0	0	0	0	18	18	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	2	0	22	0	0	0	0	24	22.4	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	2	0	73	5	0	0	0	80	78.4	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	1	0	14	3	0	0	0	18	17.2	0	0	1	0	0	0	0	1	1	0
0	0	0	0	0	0	0	0	0	0	0	16	3	0	0	0	19	19	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	23	5	0	0	0	28	28	0	0	0	1	0	0	0	1	1	0
0	0	0	0	0	0	0	0	0	2	0	28	0	0	0	0	30	28.4	0	0	0	1	0	0	0	1	1	0
0	0	0	0	0	0	0	0	0	3	0	81	11	0	0	0	95	92.6	0	0	1	2	0	0	0	3	3	0
0	0	0	0	0	0	0	0	0	0	0	24	8	0	0	0	32	32	0	0	0	0	0	0	0	0	0	0
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0	0	0	0	0	0	0	0	0	2	0	12	2	0	0	0	16	14.4	0	0	1	0	1	0	0	2	2.5	0
0	0	0	0	0	0	0	0	0	1	0	17	2	0	0	0	20	19.2	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	19	1	1	0	0	21	21.5	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	3	0	77	7	1	0	0	88	86.1	0	0	1	0	1	0	0	2	2.5	0
0	0	0	0	0	0	0	0	0	1	0	21	6	0	0	0	28	27.2	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	21	2	0	0	0	23	23	0	0	1	0	0	0	0	1	1	0
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0	0	0	0	0	0	0	0	0	2	0	94	11	0	0	0	107	105.4	0	0	1	1	0	0	0	2	2	0
0	0	0	0	0	0	0	0	0	0	0	24	0	0	0	0	24	24	0	0	1	0	0	0	0	1	1	0
0	0	0	0	0	0	0	0	0	1	0	19	2	0	0	0	22	21.2	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	22	4	2	0	0	28	29	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	36	0	0	0	0	36	36	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	1	0	101	6	2	0	0	110	110.2	0	0	1	0	0	0	0	1	1	0
0	0	0	0	0	0	0	0	0	0	0	44	1	0	0	0	45	45	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	35	3	0	0	0	38	38	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	38	2	0	0	0	40	40	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	26	1	0	0	0	27	27	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	143	7	0	0	0	150	150	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	28	0	0	0	0	28	28	0	0	0	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0	0	1	0	21	1	0	0	0	23	22.2	0	0	1	0	0	0	0	1	1	0
0	0	0	0	0	0	0	0	0	1	0	26	0	0	0	0	27	26.2	0	0	1	0	0	0	0	1	1	0
0	0	0	0	0	0	0	0	0	0	0	25	0	0	0	0	25	25	0	0	1	0	0	0	0	1	1	0
0	0	0	0	0	0	0	0	0	2	0	100	1	0	0	0	103	101.4	0	0	3	0	0	0	0	3	3	1
0	0	0	0	0	0	0	0	0	25	0	1041	87	4	0	0	1157	1139	0	0	9	3	2	0	0	14	15	3

C => B								C => C									C => D										
M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C
0	5	1	1	0	0	7	7.5	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	8	8	0	0
0	42	1	2	0	2	47	50	0	0	0	0	0	0	0	0	0	0	0	32	0	0	0	0	32	32	0	0
0	10	0	1	0	0	11	11.5	0	0	0	0	0	0	0	0	0	0	0	16	0	0	0	0	16	16	0	0
0	11	0	0	0	0	11	11	0	0	0	0	0	0	0	0	0	0	0	16	0	0	0	0	16	16	0	0
0	68	2	4	0	2	76	80	0	0	0	0	0	0	0	0	0	0	0	72	0	0	0	0	72	72	0	0
0	21	1	0	0	1	23	24	0	0	0	0	0	0	0	0	0	0	0	22	0	0	1	0	23	24.3	0	0
0	15	0	0	0	0	15	15	0	0	0	0	0	0	0	0	0	0	0	9	0	1	0	0	10	10.5	0	0
0	10	1	1	0	1	13	14.5	0	0	0	0	0	0	0	0	0	0	0	16	0	1	0	0	17	17.5	0	0
0	10	0	1	0	0	11	11.5	0	0	0	0	0	0	0	0	0	0	0	11	1	0	0	0	12	12	0	0
0	56	2	2	0	2	62	65	0	0	0	0	0	0	0	0	0	0	0	58	1	2	1	0	62	64.3	0	0
0	23	1	0	0	0	25	24.2	0	0	0	0	0	0	0	0	0	0	0	14	0	0	0	0	14	14	0	0
1	20	0	0	0	0	21	20.4	0	0	0	0	0	0	0	0	0	0	0	5	1	0	0	0	6	6	0	0
0	9	1	0	0	1	11	12	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	9	9	0	0
0	27	1	1	0	0	29	29.5	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	6	6	0	0
1	79	3	1	0	1	86	86.1	0	0	0	0	0	0	0	0	0	0	0	34	1	0	0	0	35	35	0	0
0	32	4	0	0	1	38	38.2	0	0	0	0	0	0	0	0	0	0	0	9	0	1	0	0	10	10.5	0	0
0	42	3	0	0	1	46	47	0	0	0	0	0	0	0	0	0	1	0	7	0	0	0	0	8	7.2	0	0
0	36	3	2	0	0	41	42	0	0	0	0	0	0	0	0	0	0	0	6	1	0	0	0	7	7	0	0
0	31	1	0	0	0	32	32	0	0	0	0	0	0	0	0	0	0	0	7	2	1	0	0	10	10.5	0	0
0	141	11	2	0	2	157	159.2	0	0	0	0	0	0	0	0	0	1	0	29	3	2	0	0	35	35.2	0	0
0	30	3	1	0	1	35	36.5	0	0	0	0	0	0	0	0	0	0	0	6	1	0	0	0	7	7	0	0
0	16	0	0	0	0	16	16	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	9	9	0	0
0	28	2	0	0	0	30	30	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	9	9	0	0
0	21	2	0	0	1	24	25	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	6	6	0	0
0	95	7	1	0	2	105	107.5	0	0	0	0	0	0	0	0	0	0	0	30	1	0	0	0	31	31	0	0
0	22	3	0	0	0	25	25	0	0	0	0	0	0	0	0	0	0	0	11	0	0	0	0	11	11	0	0
0	21	2	1	0	0	24	24.5	0	0	0	0	0	0	0	0	0	2	0	8	0	0	0	0	10	8.4	0	0
1	23	0	0	0	1	25	25.4	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	6	6	0	0
0	22	5	0	0	0	27	27	0	0	0	0	0	0	0	0	0	0	0	12	0	0	0	0	12	12	0	0
1	88	10	1	0	1	101	101.9	0	0	0	0	0	0	0	0	0	2	0	37	0	0	0	0	39	37.4	0	0
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0	20	1	1	0	0	22	22.5	0	0	0	0	0	0	0	0	0	0	0	11	0	0	0	0	11	11	0	0
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0	70	7	1	0	2	80	82.5	0	0	0	0	0	0	0	0	0	0	0	30	1	0	0	0	31	31	0	0
0	19	1	0	0	1	21	22	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	10	10	0	0
0	13	0	0	0	0	13	13	0	0	0	0	0	0	0	0	0	0	0	11	0	0	0	0	11	11	0	0
0	21	0	1	0	1	23	24.5	0	0	0	0	0	0	0	0	0	0	0	10	1	0	0	0	11	11	0	0
0	32	2	0	0	0	34	34	0	0	0	0	0	0	0	0	0	0	0	10	1	0	0	0	11	11	0	0
0	85	3	1	0	2	91	93.5	0	0	0	0	0	0	0	0	0	0	0	41	2	0	0	0	43	43	0	0
0	21	0	0	0	0	21	21	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	10	10	0	0
0	20	3	2	0	1	26	28	0	0	0	0	0	0	0	0	0	1	0	6	1	1	0	0	9	8.7	0	0
0	18	1	0	0	1	20	21	0	0	0	0	0	0	0	0	0	0	0	15	2	0	0	0	17	17	0	0
0	24	1	0	0	0	25	25	0	0	0	0	0	0	0	0	0	0	0	11	0	0	0	0	11	11	0	0
0	83	5	2	0	2	92	95	0	0	0	0	0	0	0	0	0	1	0	42	3	1	0	0	47	46.7	0	0
0	25	1	0	0	0	26	26	0	0	0	0	0	0	0	0	0	0	0	26	1	0	0	0	27	27	0	0
0	31	0	0	0	1	32	33	0	0	0	0	0	0	0	0	0	0	0	26	1	0	0	0	27	27	0	0
0	41	3	0	0	1	45	46	0	0	0	0	0	0	0	0	0	0	0	17	1	1	0	0	19	19.5	0	0
0	31	1	0	0	1	33	34	0	0	0	0	0	0	0	0	0	0	0	32	1	0	0	0	33	33	0	0
0	128	5	0	0	3	136	139	0	0	0	0	0	0	0	0	0	0	0	101	4	1	0	0	106	106.5	0	0
0	28	0	0	0	0	28	28	0	0	0	0	0	0	0	0	0	0	0	15	0	0	0	0	15	15	0	0
0	29	2	0	0	1	32	33	0	0	0	0	0	0	0	0	0	0	0	18	0	0	0	0	18	18	0	0
0	33	0	0	0	1	34	35	0	0	0	0	0	0	0	0	0	0	0	18	1	0	0	0	19	19	0	0
0	23	0	0	0	0	23	23	0	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0	20	20	0	0
0	113	2	0	0	2	117	119	0	0	0	0	0	0	0	0	0	0	0	71	1	0	0	0	72	72	0	0
0	48	0	0	0	1	50	50.2	0	0	0	0	0	0	0	0	0	0	0	31	0	0	0	0	31	31	0	0
0	28	1	0	0	0	29	29	0	0	0	0	0	0	0	0	0	0	0	21	0	0	0	0	21	21	0	0
0	22	1	0	0	1	24	25	0	0	0	0	0	0	0	0	0	0	0	12	1	0	0	0	13	13	0	0
0	26	1	0	0	0	27	27	0	0	0	0	0	0	0	0	0	0	0	19	1	0	0	0	20	20	0	0
0	124	3	0	0	2	130	131.2	0	0	0	0	0	0	0	0	0	0	0	83	2	0	0	0	85	85	0	0
2	1130	60	15	0	23	1233	1259.9	0	0	0	0	0	0	0	0	0	4	0	628	19	6	1	0	658	659.1	0	0

D => A							D => B									D => C											
CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR
0	0	0	0	0	0	0	0	0	5	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	5	1	0	0	0	6	6	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	10	0	0	0	0	10	10	0	0	0	0	0	0	0	0	0	0	0	0
0	1	0	0	0	1	1	0	0	19	1	0	0	0	20	20	0	0	0	0	0	0	0	0	0	0	0	0
0	1	0	0	0	1	1	0	0	39	2	0	0	0	41	41	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	1	0	33	4	0	0	0	38	37.2	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	53	6	1	1	0	61	62.8	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	3	0	72	4	2	0	0	81	79.6	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	1	0	51	2	0	0	0	54	53.2	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	5	0	209	16	3	1	0	234	232.8	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	1	39	4	0	0	0	44	43.4	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	0	0	1	1	2	0	33	1	1	0	0	37	35.9	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	23	2	0	0	0	25	25	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	0	0	1	1	0	0	31	2	0	0	0	33	33	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	2	2	2	1	126	9	1	0	0	139	137.3	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	26	2	1	0	0	29	29.5	0	0	1	0	0	0	0	1	1	0	0	0
0	0	0	0	0	0	0	1	0	19	0	0	0	0	20	19.2	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	26	1	0	0	0	27	27	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	10	4	1	0	0	15	15.5	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	1	0	81	7	2	0	0	91	91.2	0	0	1	0	0	0	0	1	1	0	0	0
0	0	0	0	0	0	0	0	1	16	1	0	0	0	18	17.4	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	1	0	17	4	0	0	0	22	21.2	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	22	0	0	0	0	22	22	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	20	1	0	0	0	21	21	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	1	1	75	6	0	0	0	83	81.6	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	22	1	0	0	0	23	23	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	22	1	0	0	0	23	23	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	1	20	3	0	0	0	24	23.4	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	25	3	0	0	0	28	28	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	1	89	8	0	0	0	98	97.4	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	2	0	28	0	0	0	0	30	28.4	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	30	1	0	0	0	31	31	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	25	2	0	0	0	27	27	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	0	0	1	1	0	0	31	2	0	0	0	33	33	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	0	0	1	1	2	0	114	5	0	0	0	121	119.4	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	1	0	22	2	0	0	0	25	24.2	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	52	0	0	0	0	52	52	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	1	0	33	2	1	0	0	37	36.7	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	24	5	0	0	0	29	29	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	2	0	131	9	1	0	0	143	141.9	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	32	1	0	0	0	33	33	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	1	0	23	1	0	0	0	25	24.2	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	27	3	0	0	0	30	30	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	36	0	0	0	0	36	36	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	1	0	118	5	0	0	0	124	123.2	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	23	1	0	0	0	24	24	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	26	0	0	0	0	26	26	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	33	0	0	0	0	33	33	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	36	3	1	0	0	40	40.5	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	118	4	1	0	0	123	123.5	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	1	41	1	0	0	0	43	42.4	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	25	2	0	0	0	27	27	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	38	0	0	0	0	38	38	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	3	3	0	0	43	2	0	0	0	45	45	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	3	3	0	1	147	5	0	0	0	153	152.4	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	30	1	0	0	0	31	31	0	0	1	0	0	0	0	1	1	0	0	0
1	0	0	0	0	1	1	0	0	40	2	0	0	0	42	42	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	1	0	11	1	0	0	0	13	12.2	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	33	2	0	0	0	35	35	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	0	0	1	1	1	0	114	6	0	0	0	121	120.2	0	0	1	0	0	0	0	1	1	0	0	0
7	1	0	0	0	8	8	15	4	1361	82	8	1	0	1471	1461.9	0	0	2	0	0	0	0	2	2	0	0	0

D => D

LGV	OGV1	OGV2	PSV	TOT	PCU
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0



IDASO

Survey Name: 003 (23) 22718 MALAHIDE TRAFFIC SURVEY V2
Site: Site 3
Location: The Green/Townyard Lane
Date: Tue 10-Jan-2023

	A => A									A => B									A => C							
TIME	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT
07:00	0	0	0	0	0	0	0	0	0	0	0	16	1	3	0	0	20	21.5	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0	0	0	56	1	0	0	2	59	61	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0	0	0	0	29	3	3	0	0	35	36.5	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0	0	1	0	24	2	3	0	0	30	30.7	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	1	0	125	7	9	0	2	144	149.7	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0	0	1	0	55	6	1	0	1	64	64.7	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0	0	0	0	72	6	1	1	0	80	81.8	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0	0	0	0	77	7	5	0	1	90	93.5	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0	0	4	0	49	6	2	0	0	61	58.8	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	5	0	253	25	9	1	2	295	298.8	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0	0	2	1	47	8	1	0	0	59	57.3	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0	0	2	0	45	3	1	0	0	51	49.9	0	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	0	0	0	0	25	5	1	0	1	32	33.5	0	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	0	0	0	0	49	2	2	0	0	53	54	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	4	1	166	18	5	0	1	195	194.7	0	0	0	0	0	0	0	0
10:00	0	0	0	0	0	0	0	0	0	1	0	50	6	1	0	1	59	59.7	0	0	0	0	0	0	0	0
10:15	0	0	0	0	0	0	0	0	0	1	0	61	2	2	0	1	67	68.2	0	0	0	0	0	0	0	0
10:30	0	0	0	0	0	0	0	0	0	0	0	57	7	0	0	0	64	64	0	0	0	0	0	0	0	0
10:45	0	0	1	0	0	0	0	1	1	0	0	48	7	1	0	0	56	56.5	0	0	0	0	0	0	0	0
H/TOT	0	0	1	0	0	0	0	1	1	2	0	216	22	4	0	2	246	248.4	0	0	0	0	0	0	0	0
11:00	0	0	0	0	0	0	0	0	0	0	1	46	9	0	0	1	57	57.4	0	0	0	0	0	0	0	0
11:15	0	0	0	0	0	0	0	0	0	1	0	34	5	2	0	0	42	42.2	0	0	0	0	0	0	0	0
11:30	0	0	0	0	0	0	0	0	0	0	0	42	2	1	0	0	45	45.5	0	0	0	0	0	0	0	0
11:45	0	0	0	0	0	0	0	0	0	0	0	48	5	1	0	1	55	56.5	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	1	1	170	21	4	0	2	199	201.6	0	0	0	0	0	0	0	0
12:00	0	0	0	0	0	0	0	0	0	0	0	38	8	0	0	0	46	46	0	0	0	0	0	0	0	0
12:15	0	0	0	0	0	0	0	0	0	0	1	50	1	0	0	0	52	51.4	0	0	0	0	0	0	0	0
12:30	0	0	0	0	0	0	0	0	0	0	0	54	2	0	0	1	57	58	0	1	0	0	0	0	0	1
12:45	0	0	0	0	0	0	0	0	0	0	0	52	4	0	0	0	56	56	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	1	194	15	0	0	1	211	211.4	0	1	0	0	0	0	0	1
13:00	0	0	0	0	0	0	0	0	0	2	0	37	3	0	0	1	43	42.4	0	0	0	0	0	0	0	0
13:15	0	0	0	0	0	0	0	0	0	1	0	53	3	1	0	0	58	57.7	0	0	0	0	0	0	0	0
13:30	0	0	0	0	0	0	0	0	0	0	0	41	4	0	0	1	46	47	0	0	0	0	0	0	0	0
13:45	0	0	0	0	0	0	0	0	0	0	0	44	3	0	0	0	47	47	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	3	0	175	13	1	0	2	194	194.1	0	0	0	0	0	0	0	0
14:00	0	0	0	0	0	0	0	0	0	3	0	42	2	3	0	1	51	51.1	0	0	0	0	0	0	0	0
14:15	0	0	0	0	0	0	0	0	0	1	0	59	0	0	0	0	60	59.2	0	0	0	0	0	0	0	0
14:30	0	0	0	0	0	0	0	0	0	1	1	53	2	2	0	1	60	60.6	0	0	0	0	0	0	0	0
14:45	0	0	0	1	0	0	0	1	1	0	0	47	4	1	0	0	52	52.5	0	0	0	0	0	0	0	0
H/TOT	0	0	0	1	0	0	0	1	1	5	1	201	8	6	0	2	223	223.4	0	0	0	0	0	0	0	0
15:00	0	0	0	0	0	0	0	0	0	0	0	56	4	0	0	0	60	60	0	0	0	0	0	0	0	0
15:15	0	0	0	0	0	0	0	0	0	1	0	51	2	2	0	1	57	58.2	0	0	0	0	0	0	0	0
15:30	0	0	0	0	0	0	0	0	0	0	0	53	5	0	0	1	59	60	0	0	0	0	0	0	0	0
15:45	0	0	0	0	0	0	0	0	0	0	0	64	0	0	0	0	64	64	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	1	0	224	11	2	0	2	240	242.2	0	0	0	0	0	0	0	0
16:00	0	0	0	0	0	0	0	0	0	0	0	45	4	0	0	0	49	49	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0	0	0	0	43	1	0	0	1	45	46	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0	0	0	76	2	0	0	1	79	80	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	0	0	0	70	2	1	0	1	74	75.5	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	234	9	1	0	3	247	250.5	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0	1	63	1	0	0	0	65	64.4	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0	0	53	3	0	0	1	57	58	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0	0	0	72	2	0	0	1	75	76	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0	1	0	72	1	0	0	0	74	73.2	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	1	1	260	7	0	0	2	271	271.6	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0	0	1	0	76	2	0	0	1	80	80.2	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0	0	48	1	0	0	0	49	49	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0	0	0	41	2	0	0	1	44	45	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0	0	0	0	62	1	0	0	0	63	63	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	1	0	227	6	0	0	2	236	237.2	0	0	0	0	0	0	0	0
12 TOT	0	0	1	1	0	0	0	2	2	24	5	2445	162	41	1	23	2701	2723.6	0	1	0	0	0	0	0	1

	B => A									B => B									B => C								
PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	1	0	0	0	0	0	0	1	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	1	0	0	0	0	0	0	1	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	1	0	1	0	0	0	0	2	1.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	1	0	1	0	0	0	0	2	1.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	1	0	0	0	0	0	0	1	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	1	0	0	0	0	0	0	1	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	1	0	1	0	0	0	0	2	1.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	1	0	0	0	0	0	0	1	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	2	0	2	0	0	0	0	4	2.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.4	5	0	4	0	0	0	0	9	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

C => A									C => B									C => C								
P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
0	0	4	0	0	0	0	4	4	0	0	2	1	1	0	0	4	4.5	0	0	0	0	0	0	0	0	0
0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	7	2	0	0	0	10	9.2	0	0	0	1	2	0	0	3	4	0	0	0	0	0	0	0	0	0
0	0	7	1	0	0	0	8	8	0	0	2	0	1	0	0	3	3.5	0	0	0	0	0	0	0	0	0
1	0	20	3	0	0	0	24	23.2	0	0	4	2	4	0	0	10	12	0	0	0	0	0	0	0	0	0
0	0	15	3	0	0	0	18	18	0	0	1	0	1	0	0	2	2.5	0	0	0	0	0	0	0	0	0
1	0	14	0	0	0	0	15	14.2	0	0	1	1	0	0	0	2	2	0	0	0	0	0	0	0	0	0
0	0	14	0	0	0	0	14	14	0	0	5	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0
0	0	28	1	0	0	0	29	29	0	0	11	3	2	0	0	16	17	0	0	0	0	0	0	0	0	0
1	0	71	4	0	0	0	76	75.2	0	0	18	4	3	0	0	25	26.5	0	0	0	0	0	0	0	0	0
3	0	21	1	1	0	0	26	24.1	1	0	16	2	0	0	0	19	18.2	0	0	0	0	0	0	0	0	0
0	0	14	1	0	0	0	15	15	0	0	11	3	0	0	0	14	14	0	0	0	0	0	0	0	0	0
0	0	12	2	0	0	0	14	14	0	0	15	0	0	0	0	15	15	0	0	0	0	0	0	0	0	0
0	0	13	3	0	0	0	16	16	0	0	20	3	0	0	0	23	23	0	0	0	0	0	0	0	0	0
3	0	60	7	1	0	0	71	69.1	1	0	62	8	0	0	0	71	70.2	0	0	0	0	0	0	0	0	0
0	0	19	0	0	0	0	19	19	0	0	10	1	1	0	0	12	12.5	0	0	0	0	0	0	0	0	0
0	0	26	4	0	0	0	30	30	0	0	17	1	2	0	0	20	21	0	0	0	0	0	0	0	0	0
3	0	22	1	0	0	0	26	23.6	0	0	22	2	0	0	0	24	24	0	0	0	0	0	0	0	0	0
2	0	15	1	0	0	0	18	16.4	1	0	22	1	0	0	0	24	23.2	0	0	0	0	0	0	0	0	0
5	0	82	6	0	0	0	93	89	1	0	71	5	3	0	0	80	80.7	0	0	0	0	0	0	0	0	0
0	0	18	2	0	0	0	20	20	0	0	19	4	2	0	0	25	26	0	0	0	0	0	0	0	0	0
1	0	19	2	0	0	0	22	21.2	0	0	18	1	0	0	0	19	19	0	0	0	0	0	0	0	0	0
1	0	16	0	0	0	0	17	16.2	0	0	23	0	0	0	0	23	23	0	0	0	0	0	0	0	0	0
0	0	25	0	0	0	0	25	25	1	0	13	3	0	0	0	17	16.2	0	0	0	0	0	0	0	0	0
2	0	78	4	0	0	0	84	82.4	1	0	73	8	2	0	0	84	84.2	0	0	0	0	0	0	0	0	0
1	0	15	3	0	0	0	19	18.2	0	0	20	0	1	0	0	21	21.5	0	0	0	0	0	0	0	0	0
0	0	18	3	0	0	0	21	21	0	0	28	2	0	0	0	30	30	0	0	0	0	0	0	0	0	0
1	0	21	3	0	0	0	25	24.2	0	0	24	0	0	0	0	24	24	0	0	0	0	0	0	0	0	0
0	0	30	1	0	0	0	31	31	0	0	11	3	0	0	0	14	14	0	0	0	0	0	0	0	0	0
2	0	84	10	0	0	0	96	94.4	0	0	83	5	1	0	0	89	89.5	0	0	0	0	0	0	0	0	0
0	0	19	4	0	0	0	23	23	0	0	20	1	0	0	0	21	21	0	0	0	0	0	0	0	0	0
0	0	16	1	0	0	0	17	17	0	0	16	0	1	0	0	17	17.5	0	0	0	0	0	0	0	0	0
0	0	28	3	0	0	0	31	31	0	0	17	0	3	0	0	20	21.5	0	0	0	0	0	0	0	0	0
0	0	29	1	0	0	0	30	30	0	0	16	5	0	0	0	21	21	0	0	0	0	0	0	0	0	0
0	0	92	9	0	0	0	101	101	0	0	69	6	4	0	0	79	81	0	0	0	0	0	0	0	0	0
1	0	22	1	0	0	0	24	23.2	0	0	20	1	0	0	0	21	21	0	0	0	0	0	0	0	0	0
1	0	15	3	0	0	0	19	18.2	0	0	10	2	1	0	0	13	13.5	0	0	0	0	0	0	0	0	0
1	0	14	2	0	0	0	17	16.2	0	0	15	3	1	0	0	19	19.5	0	0	0	0	0	0	0	0	0
0	0	19	2	2	0	0	23	24	0	0	30	1	0	0	0	31	31	0	0	0	0	0	0	0	0	0
3	0	70	8	2	0	0	83	81.6	0	0	75	7	2	0	0	84	85	0	0	0	0	0	0	0	0	0
0	0	17	2	0	0	0	19	19	0	0	23	1	0	0	0	24	24	0	0	0	0	0	0	0	0	0
0	0	25	3	0	0	0	28	28	0	0	19	0	0	0	0	19	19	0	0	0	0	0	0	0	0	0
0	0	16	1	1	0	0	18	18.5	0	0	20	0	0	0	0	20	20	0	0	0	0	0	0	0	0	0
0	0	32	0	0	0	0	32	32	0	0	19	0	0	0	0	19	19	0	0	0	0	0	0	0	0	0
0	0	90	6	1	0	0	97	97.5	0	0	81	1	0	0	0	82	82	0	0	0	0	0	0	0	0	0
0	0	21	0	0	0	0	21	21	1	0	17	0	0	0	0	18	17.2	0	0	0	0	0	0	0	0	0
1	0	29	5	0	0	0	35	34.2	0	0	21	1	0	0	0	22	22	0	0	0	0	0	0	0	0	0
0	0	30	3	0	0	0	33	33	0	0	17	1	0	0	0	18	18	0	0	0	0	0	0	0	0	0
0	0	30	1	0	0	0	31	31	0	0	23	2	0	0	0	25	25	0	0	0	0	0	0	0	0	0
1	0	110	9	0	0	0	120	119.2	1	0	78	4	0	0	0	83	82.2	0	0	0	0	0	0	0	0	0
0	0	28	3	0	0	0	31	31	0	0	19	0	0	0	0	19	19	0	0	0	0	0	0	0	0	0
0	0	25	3	0	0	0	28	28	0	0	21	1	0	0	0	22	22	0	0	0	0	0	0	0	0	0
0	0	28	1	0	0	0	29	29	0	0	19	1	0	0	0	20	20	0	0	0	0	0	0	0	0	0
0	0	14	2	0	0	0	16	16	0	0	21	0	0	0	0	21	21	0	0	0	0	0	0	0	0	0
0	0	95	9	0	0	0	104	104	0	0	80	2	0	0	0	82	82	0	0	0	0	0	0	0	0	0
1	0	27	3	0	0	0	31	30.2	0	0	14	0	0	0	0	14	14	0	0	0	0	0	0	0	0	0
1	0	17	0	0	0	0	18	17.2	0	0	11	0	0	0	0	11	11	0	0	0	0	0	0	0	0	0
1	0	15	1	0	0	0	17	16.2	0	0	9	0	0	0	0	9	9	0	0	0	0	0	0	0	0	0
1	0	24	0	0	0	0	25	24.2	0	0	19	1	0	0	0	20	20	0	0	0	0	0	0	0	0	0
4	0	83	4	0	0	0	91	87.8	0	0	53	1	0	0	0	54	54	0	0	0	0	0	0	0	0	0
22	0	935	79	4	0	0	1040	1024.4	4	0	747	53	19	0	0	823	829.3	0	0	0	0	0	0	0	0	0



IDASO

Survey Name: 003 (23) 22718 MALAHIDE TRAFFIC SURVEY V2
Site: Site 4
Location: New St/The Mall R106/Church Rd/Main St R106
Date: Tue 10-Jan-2023

	A => A									A => B									A => C							
TIME	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
08:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
09:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
10:00	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0.2	0	0	0	0	0	0	0	0
10:15	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0.2	0	0	0	0	0	0	0	0
10:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2	0.4	0	0	0	0	0	0	0	0
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
14:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0.2	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0.2	0	0	0	0	0	0	0	0
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12 TOT	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	3	0.6	3	0	0	1	0	0	0	4

	A => D									B => A									B => B								
PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1.5	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	2	1.2	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	2	2.5	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1.5	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	1	0	1	1	3	0	0	6	6.7	0	0	0	0	0	0	0	0	0
0	1	0	0	0	0	0	0	1	0.2	0	0	0	0	1	0	0	1	1.5	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0
0.2	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	2	2.5	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0
0.2	1	0	0	0	0	0	0	1	0.2	0	0	3	1	2	0	0	6	7	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	0	0	0	0	0	3	1	0	0	0	4	4	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	1	0	0	0	0	0	0	1	0.2	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
0	1	0	0	0	0	0	0	1	0.2	0	0	5	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0.2	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.2	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0.2	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	2	0	0	0	0	0	0	2	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	1	0	0	0	0	0	0	1	0.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1.6	5	0	0	0	0	0	0	5	1	2	0	12	4	5	0	0	23	23.9	0	0	0	0	0	0	0	0	0

B => C									B => D									C => A									
P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C
0	0	2	0	2	0	0	4	5	0	0	38	6	1	1	4	50	55.8	0	0	2	0	0	0	0	2	2	0
0	0	8	1	0	0	0	9	9	0	0	83	3	0	0	2	88	90	0	0	0	0	0	0	0	0	0	0
0	0	5	1	0	0	0	6	6	0	0	74	1	2	0	2	79	82	0	0	1	0	0	0	0	1	1	0
0	0	6	2	0	0	1	9	10	1	0	60	2	5	0	1	69	71.7	0	0	5	0	0	0	0	5	5	0
0	0	21	4	2	0	1	28	30	1	0	255	12	8	1	9	286	299.5	0	0	8	0	0	0	0	8	8	0
0	0	13	2	0	0	0	15	15	1	0	87	9	3	1	3	104	109	0	0	3	1	0	0	0	4	4	0
0	0	21	2	0	0	0	23	23	1	0	73	5	0	1	0	80	80.5	0	0	5	1	0	0	0	6	6	0
0	0	40	2	0	0	0	42	42	1	0	86	4	3	1	5	100	107	0	0	3	0	0	0	0	3	3	0
2	0	29	2	1	0	0	34	32.9	2	0	81	5	1	1	0	90	90.2	0	0	8	0	1	0	0	9	9.5	0
2	0	103	8	1	0	0	114	112.9	5	0	327	23	7	4	8	374	386.7	0	0	19	2	1	0	0	22	22.5	0
0	0	23	2	1	0	0	26	26.5	1	0	99	7	1	0	2	110	111.7	0	0	7	1	0	0	0	8	8	1
0	0	11	1	0	0	0	12	12	0	0	79	5	3	0	1	88	90.5	0	0	1	1	0	0	0	2	2	0
0	0	15	1	0	0	0	16	16	0	0	69	4	1	0	1	75	76.5	0	0	0	1	0	0	0	1	1	0
0	0	16	1	2	0	0	19	20	1	0	59	2	0	0	0	62	61.2	0	0	1	0	0	0	0	1	1	0
0	0	65	5	3	0	0	73	74.5	2	0	306	18	5	0	4	335	339.9	0	0	9	3	0	0	0	12	12	1
0	0	17	1	1	0	0	19	19.5	1	0	70	4	1	0	2	78	79.7	0	0	2	2	0	0	0	4	4	0
0	0	25	2	0	0	0	27	27	0	0	69	7	5	0	1	82	85.5	0	0	3	0	0	0	0	3	3	0
0	0	23	1	0	0	0	24	24	0	0	65	7	0	0	1	73	74	0	0	1	0	0	0	0	1	1	0
0	0	16	2	0	0	0	18	18	0	0	73	10	1	0	2	86	88.5	0	0	2	0	0	0	0	2	2	0
0	0	81	6	1	0	0	88	88.5	1	0	277	28	7	0	6	319	327.7	0	0	8	2	0	0	0	10	10	0
0	0	9	3	1	0	0	13	13.5	1	0	80	11	3	0	0	95	95.7	0	0	1	0	0	0	0	1	1	0
0	0	21	1	1	0	0	23	23.5	1	0	58	9	3	0	2	73	75.7	0	0	0	0	0	0	0	0	0	0
0	0	22	2	2	0	0	26	27	0	0	75	9	1	0	0	85	85.5	0	0	0	0	0	0	0	0	0	0
0	0	23	1	0	0	0	24	24	1	0	66	4	1	0	1	73	73.7	0	0	0	0	0	0	0	0	0	0
0	0	75	7	4	0	0	86	88	3	0	279	33	8	0	3	326	330.6	0	0	1	0	0	0	0	1	1	0
0	0	10	1	0	0	0	11	11	0	0	88	14	2	1	1	106	109.3	0	0	0	0	0	0	0	0	0	0
0	0	19	1	0	0	0	20	20	0	0	56	8	1	0	0	65	65.5	0	0	0	0	0	0	0	0	0	0
0	0	18	1	0	0	0	19	19	0	0	71	13	1	1	2	88	91.8	0	0	0	0	0	0	0	0	0	0
0	0	19	2	0	0	0	21	21	0	0	80	7	0	0	1	88	89	0	0	0	0	0	0	0	0	0	0
0	0	66	5	0	0	0	71	71	0	0	295	42	4	2	4	347	355.6	0	0	0	0	0	0	0	0	0	0
0	0	31	2	0	0	0	33	33	1	0	79	9	3	0	2	94	96.7	0	0	0	0	0	0	0	0	0	0
0	0	19	1	0	0	0	20	20	0	0	72	7	2	0	1	82	84	0	0	0	0	0	0	0	0	0	0
0	0	23	4	0	0	0	27	27	0	0	73	5	4	0	1	83	86	0	0	0	0	0	0	0	0	0	0
0	0	29	2	0	0	0	31	31	0	0	59	7	5	0	1	72	75.5	0	0	0	0	0	0	0	0	0	1
0	0	102	9	0	0	0	111	111	1	0	283	28	14	0	5	331	342.2	0	0	0	0	0	0	0	0	0	1
0	0	28	1	0	0	0	29	29	0	0	63	10	5	0	1	79	82.5	0	0	0	0	0	0	0	0	0	0
0	0	22	1	0	0	0	23	23	0	0	79	9	0	0	1	89	90	0	0	0	0	0	0	0	0	0	0
0	0	35	2	0	0	0	37	37	0	0	70	5	4	1	2	82	87.3	0	0	0	0	0	0	0	0	0	0
0	0	20	2	0	0	0	22	22	0	0	76	13	2	0	0	91	92	0	0	0	0	0	0	0	0	0	0
0	0	105	6	0	0	0	111	111	0	0	288	37	11	1	4	341	351.8	0	0	0	0	0	0	0	0	0	0
0	0	17	0	0	0	0	17	17	0	0	75	9	5	2	1	92	98.1	0	0	0	0	0	0	0	0	0	0
0	0	25	1	0	0	0	26	26	0	0	69	6	2	0	1	78	80	0	0	0	0	0	0	0	0	0	0
0	0	17	0	0	0	0	17	17	0	0	84	12	0	1	2	99	102.3	0	0	0	0	0	0	0	0	0	0
0	0	21	4	0	0	0	25	25	1	0	67	5	2	0	1	76	77.2	1	0	0	0	0	0	0	1	0.2	2
0	0	80	5	0	0	0	85	85	1	0	295	32	9	3	5	345	357.6	1	0	0	0	0	0	0	1	0.2	2
0	0	22	0	0	0	0	22	22	0	0	68	7	2	0	2	79	82	0	0	0	0	0	0	0	0	0	1
0	0	18	0	0	0	1	19	20	1	1	67	12	1	0	5	87	91.1	0	0	0	0	0	0	0	0	0	0
0	0	14	1	0	0	0	15	15	0	0	87	8	0	0	3	98	101	0	0	0	0	0	0	0	0	0	0
0	0	19	2	0	0	0	21	21	0	0	66	5	0	1	1	73	75.3	0	0	0	0	0	0	0	0	0	0
0	0	73	3	0	0	1	77	78	1	1	288	32	3	1	11	337	349.4	0	0	0	0	0	0	0	0	0	1
0	0	19	2	0	0	0	21	21	0	1	70	3	1	0	3	78	80.9	0	0	0	0	0	0	0	0	0	0
0	0	12	2	0	0	0	14	14	0	0	82	5	0	0	0	87	87	0	0	0	0	0	0	0	0	0	0
0	0	20	1	0	0	0	21	21	1	0	82	3	1	0	2	89	90.7	0	0	0	0	0	0	0	0	0	0
0	0	14	2	0	0	0	16	16	0	0	57	2	1	0	0	60	60.5	0	0	0	0	0	0	0	0	0	0
0	0	65	7	0	0	0	72	72	1	1	291	13	3	0	5	314	319.1	0	0	0	0	0	0	0	0	0	0
0	0	22	1	0	0	0	23	23	1	0	76	0	1	0	4	82	85.7	0	0	0	0	0	0	0	0	0	1
0	0	14	1	0	0	0	15	15	0	0	69	4	1	0	2	76	78.5	0	0	0	0	0	0	0	0	0	0
0	0	17	1	0	0	0	18	18	0	0	68	2	0	0	2	72	74	0	0	0	0	0	0	0	0	0	0
0	0	14	1	0	0	0	15	15	0	0	54	0	0	0	0	54	54	0	0	0	0	0	0	0	0	0	0
0	0	67	4	0	0	0	71	71	1	0	267	6	2	0	8	284	292.2	0	0	0	0	0	0	0	0	0	1
2	0	903	69	11	0	2	987	992.9	17	2	3451	304	81	12	72	3939	4052.3	1	0	45	7	1	0	0	54	53.7	6

C => B								C => C									C => D										
M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C
0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	12	0	1	0	1	14	15.5	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	3	0	0	2	21	23	0	0
0	5	1	0	0	0	6	6	0	0	0	0	0	0	0	0	0	0	1	14	0	0	0	3	18	20.4	0	0
0	5	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0	0	17	0	1	0	2	20	22.5	0	0
0	12	1	0	0	0	13	13	0	0	0	0	0	0	0	0	0	0	1	59	3	2	0	8	73	81.4	0	0
0	9	1	0	0	0	10	10	0	0	0	0	0	0	0	0	0	0	0	16	0	0	0	2	18	20	0	0
0	13	1	1	0	0	15	15.5	0	0	0	0	0	0	0	0	0	0	0	52	0	1	0	1	54	55.5	1	0
0	19	3	0	0	0	22	22	0	0	0	0	0	0	0	0	0	2	0	27	2	0	0	1	32	31.4	0	0
0	29	1	0	0	0	30	30	0	0	0	0	0	0	0	0	0	0	0	39	0	0	0	1	40	41	0	0
0	70	6	1	0	0	77	77.5	0	0	0	0	0	0	0	0	0	2	0	134	2	1	0	5	144	147.9	1	0
0	24	1	0	0	0	26	25.2	0	0	0	0	0	0	0	0	0	0	0	33	1	0	0	0	34	34	0	0
0	15	0	0	0	0	15	15	0	0	0	0	0	0	0	0	0	0	0	22	5	2	0	1	30	32	0	0
0	9	2	0	0	0	11	11	0	0	0	0	0	0	0	0	0	0	0	15	3	0	0	1	19	20	0	0
0	17	1	0	0	0	18	18	0	0	0	0	0	0	0	0	0	0	0	23	0	2	0	1	26	28	0	0
0	65	4	0	0	0	70	69.2	0	0	0	0	0	0	0	0	0	0	0	93	9	4	0	3	109	114	0	0
0	12	1	0	0	0	13	13	0	0	0	0	0	0	0	0	0	0	0	26	2	0	0	0	28	28	0	0
0	17	0	0	0	0	17	17	0	0	0	0	0	0	0	0	0	0	0	34	4	1	0	1	40	41.5	0	0
0	16	1	1	0	0	18	18.5	0	0	0	0	0	0	0	0	0	0	0	18	1	0	0	0	19	19	0	0
0	14	1	0	0	0	15	15	0	0	0	0	0	0	0	0	0	0	1	21	3	1	0	1	27	27.9	0	0
0	59	3	1	0	0	63	63.5	0	0	0	0	0	0	0	0	0	0	1	99	10	2	0	2	114	116.4	0	0
0	16	2	0	0	0	18	18	0	0	0	0	0	0	0	0	0	0	0	26	1	0	0	0	27	27	0	0
0	12	3	0	0	0	15	15	0	0	0	0	0	0	0	0	0	0	0	30	2	0	0	1	33	34	0	0
0	13	2	0	0	0	15	15	0	0	0	0	0	0	0	0	0	0	0	21	8	1	0	0	30	30.5	0	0
0	17	1	0	0	0	18	18	0	0	0	0	0	0	0	0	0	0	0	21	2	0	0	1	24	25	1	0
0	58	8	0	0	0	66	66	0	0	0	0	0	0	0	0	0	0	0	98	13	1	0	2	114	116.5	1	0
0	18	2	0	0	0	20	20	0	0	0	0	0	0	0	0	0	0	0	15	1	0	0	0	16	16	0	0
0	15	2	0	0	0	17	17	0	0	0	0	0	0	0	0	0	1	0	19	2	0	1	1	24	25.5	0	0
0	15	3	0	0	0	18	18	0	0	0	0	0	0	0	0	0	0	1	15	3	2	0	0	21	21.4	0	0
0	22	0	0	0	0	22	22	0	0	0	0	0	0	0	0	0	0	0	19	1	0	0	1	21	22	0	0
0	70	7	0	0	0	77	77	0	0	0	0	0	0	0	0	0	1	1	68	7	2	1	2	82	84.9	0	0
0	34	0	0	0	0	34	34	0	0	0	0	0	0	0	0	0	0	0	23	3	0	0	0	26	26	1	0
0	19	1	1	0	0	21	21.5	0	0	0	0	0	0	0	0	0	0	0	27	2	2	1	1	33	36.3	0	0
0	21	3	0	0	0	24	24	0	0	0	0	0	0	0	0	0	0	0	22	1	0	0	0	23	23	0	0
0	24	0	0	0	0	25	24.2	0	0	1	0	0	0	0	1	1	0	0	23	0	0	0	1	24	25	1	0
0	98	4	1	0	0	104	103.7	0	0	1	0	0	0	0	1	1	0	0	95	6	2	1	2	106	110.3	2	0
0	25	1	0	0	0	26	26	0	0	0	0	0	0	0	0	0	0	0	22	2	2	0	0	26	27	0	0
0	26	3	0	0	1	30	31	0	0	0	0	0	0	0	0	0	0	0	17	1	1	0	1	20	21.5	0	0
0	27	2	0	0	0	29	29	0	0	0	0	0	0	0	0	0	0	0	18	2	0	1	0	21	22.3	0	0
0	25	0	1	0	0	26	26.5	0	0	0	0	0	0	0	0	0	0	0	40	1	0	0	1	42	43	0	0
0	103	6	1	0	1	111	112.5	0	0	0	0	0	0	0	0	0	0	0	97	6	3	1	2	109	113.8	0	0
0	22	0	0	0	0	22	22	0	0	0	0	0	0	0	0	0	0	0	28	0	0	0	0	28	28	1	0
0	15	0	0	0	0	15	15	0	0	0	0	0	0	0	0	0	0	0	21	1	1	0	1	24	25.5	0	0
0	18	0	0	0	0	18	18	0	0	0	0	0	0	0	0	0	0	0	23	2	0	0	0	25	25	0	0
0	16	0	0	0	0	18	16.4	0	0	0	0	0	0	0	0	0	0	0	31	0	0	0	1	32	33	0	0
0	71	0	0	0	0	73	71.4	0	0	0	0	0	0	0	0	0	0	0	103	3	1	0	2	109	111.5	1	0
0	21	1	0	0	0	23	22.2	0	0	0	0	0	0	0	0	0	3	0	56	2	1	0	0	62	60.1	0	0
0	21	0	0	0	0	21	21	0	0	0	0	0	0	0	0	0	0	0	48	4	0	0	1	53	54	0	0
0	24	1	0	0	0	25	25	0	0	0	0	0	0	0	0	0	1	0	29	3	0	0	1	34	34.2	0	0
0	19	0	0	0	0	19	19	0	0	0	0	0	0	0	0	0	0	0	14	2	0	0	1	17	18	0	0
0	85	2	0	0	0	88	87.2	0	0	0	0	0	0	0	0	0	4	0	147	11	1	0	3	166	166.3	0	0
0	23	3	0	0	0	26	26	0	0	0	0	0	0	0	0	0	1	0	33	1	0	0	1	36	36.2	0	0
0	13	2	0	0	0	15	15	0	0	0	0	0	0	0	0	0	0	0	42	3	1	0	1	47	48.5	0	0
0	22	0	0	0	0	22	22	0	0	0	0	0	0	0	0	0	0	0	34	0	0	0	1	35	36	0	0
0	21	1	0	0	0	22	22	0	0	0	0	0	0	0	0	0	0	0	32	1	0	0	1	34	35	0	0
0	79	6	0	0	0	85	85	0	0	0	0	0	0	0	0	0	1	0	141	5	1	0	4	152	155.7	0	0
0	18	3	0	0	0	22	21.2	0	0	0	0	0	0	0	0	0	1	0	36	2	0	0	0	39	38.2	0	0
0	25	0	0	0	0	25	25	0	0	1	0	0	0	0	1	1	1	0	27	4	0	0	1	33	33.2	0	0
0	19	0	0	0	0	19	19	0	0	0	0	0	0	0	0	0	0	0	29	2	1	0	0	32	32.5	0	0
0	15	1	0	0	0	16	16	0	0	0	0	0	0	0	0	0	1	0	22	1	1	0	1	26	26.7	0	0
0	77	4	0	0	0	82	81.2	0	0	1	0	0	0	0	1	1	3	0	114	9	2	0	2	130	130.6	0	0
0	847	51	4	0	1	909	907.2	0	0	2	0	0	0	0	2	2	11	3	1248	84	22	3	37	1408	1449.3	5	0

D => A							D => B									D => C											
CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR
0	0	0	0	0	0	0	1	0	19	8	2	1	2	33	36.5	0	0	4	1	0	0	0	5	5	0	0	0
0	0	0	0	0	0	0	0	0	21	5	0	0	3	29	32	0	0	11	0	0	0	1	12	13	0	0	0
3	1	0	0	0	4	4	0	0	32	10	3	0	4	49	54.5	1	0	11	3	0	0	1	16	16.2	0	0	0
1	0	2	0	0	3	4	1	0	46	11	0	0	4	62	65.2	0	0	13	1	0	0	1	15	16	0	0	0
4	1	2	0	0	7	8	2	0	118	34	5	1	13	173	188.2	1	0	39	5	0	0	3	48	50.2	0	0	0
1	0	0	0	0	1	1	0	0	48	6	1	0	3	58	61.5	0	0	35	2	1	0	0	38	38.5	0	0	0
0	1	0	0	0	2	1.2	0	0	42	2	2	1	0	47	49.3	0	0	45	1	0	0	2	48	50	0	0	0
0	0	0	0	0	0	0	0	0	54	10	3	0	1	68	70.5	0	0	46	0	0	0	0	46	46	0	0	0
2	1	0	0	0	3	3	2	0	62	6	3	0	2	75	76.9	0	0	14	2	0	0	1	17	18	0	0	0
3	2	0	0	0	6	5.2	2	0	206	24	9	1	6	248	258.2	0	0	140	5	1	0	3	149	152.5	0	0	0
3	0	0	0	0	3	3	1	0	50	8	3	0	1	63	64.7	0	0	19	1	1	0	1	22	23.5	0	0	0
2	1	0	0	0	3	3	0	0	61	7	2	1	1	72	75.3	0	0	13	2	0	0	1	16	17	0	0	0
1	1	3	0	0	5	6.5	3	0	39	9	0	0	1	52	50.6	0	0	5	2	0	0	0	7	7	0	0	0
3	1	1	0	0	5	5.5	1	0	57	6	4	0	0	68	69.2	1	0	11	1	1	0	1	15	15.7	0	0	0
9	3	4	0	0	16	18	5	0	207	30	9	1	3	255	259.8	1	0	48	6	2	0	3	60	63.2	0	0	0
0	1	0	0	0	1	1	0	0	54	4	3	0	1	62	64.5	1	0	6	3	1	0	1	12	12.7	0	0	0
3	1	0	0	0	4	4	0	0	61	3	1	1	0	66	67.8	0	0	15	0	0	0	0	15	15	0	0	0
2	2	1	0	0	5	5.5	1	0	55	3	1	0	1	61	61.7	0	0	6	0	0	0	1	7	8	0	0	0
2	0	0	0	0	2	2	0	0	53	6	1	0	0	60	60.5	0	0	11	2	1	0	0	14	14.5	0	0	0
7	4	1	0	0	12	12.5	1	0	223	16	6	1	2	249	254.5	1	0	38	5	2	0	2	48	50.2	0	0	0
1	2	0	0	0	3	3	1	0	57	6	2	1	0	67	68.5	0	0	5	2	0	0	1	8	9	0	0	0
1	1	0	0	0	2	2	0	0	53	10	0	0	1	64	65	0	0	4	2	0	0	0	6	6	0	0	0
0	0	0	0	0	0	0	0	0	44	3	2	0	0	49	50	0	0	9	2	0	0	0	11	11	0	0	0
0	0	0	0	0	1	0.2	1	1	55	5	1	0	1	64	64.1	0	0	11	0	0	0	1	12	13	0	0	0
2	3	0	0	0	6	5.2	2	1	209	24	5	1	2	244	247.6	0	0	29	6	0	0	2	37	39	0	0	0
0	0	0	0	0	0	0	0	0	69	4	1	0	1	75	76.5	0	0	8	0	0	0	0	8	8	0	0	0
0	0	0	0	0	0	0	2	0	55	6	1	0	0	64	62.9	0	0	6	2	1	0	1	10	11.5	0	0	0
0	0	0	0	0	0	0	0	0	61	8	0	0	1	70	71	0	0	8	0	0	1	0	9	10.3	0	0	0
0	0	0	0	0	0	0	0	0	76	9	2	0	0	87	88	0	0	14	0	0	0	1	15	16	0	0	0
0	0	0	0	0	0	0	2	0	261	27	4	0	2	296	298.4	0	0	36	2	1	1	2	42	45.8	0	0	0
0	0	0	0	0	1	0.2	0	0	64	6	1	1	1	73	75.8	0	0	7	2	0	0	0	9	9	0	0	1
0	0	0	0	0	0	0	0	0	74	4	1	0	0	79	79.5	0	0	14	0	0	0	1	15	16	0	0	0
0	0	0	0	0	0	0	1	0	54	6	4	0	1	66	68.2	0	0	12	0	1	0	0	13	13.5	0	0	0
0	0	0	0	0	1	0.2	1	0	53	4	4	1	0	63	65.5	0	0	10	0	0	0	1	11	12	0	0	0
0	0	0	0	0	2	0.4	2	0	245	20	10	2	2	281	289	0	0	43	2	1	0	2	48	50.5	0	0	1
0	0	0	0	0	0	0	0	0	43	5	0	0	1	49	50	0	0	9	1	1	0	0	11	11.5	0	0	0
0	0	0	0	0	0	0	1	0	58	10	3	0	1	73	74.7	0	0	15	0	0	0	1	16	17	0	0	0
0	0	0	0	0	0	0	0	0	70	3	1	0	1	75	76.5	1	0	7	0	0	0	0	8	7.2	0	0	1
0	0	0	0	0	0	0	1	0	56	4	1	0	1	63	63.7	0	0	9	2	2	0	2	15	18	0	0	0
0	0	0	0	0	0	0	2	0	227	22	5	0	4	260	264.9	1	0	40	3	3	0	3	50	53.7	0	0	1
0	0	0	0	0	1	0.2	0	0	50	5	0	0	2	57	59	0	0	6	0	0	0	0	6	6	0	0	0
0	0	0	0	0	0	0	0	0	59	4	1	0	0	64	64.5	0	0	18	3	0	0	1	22	23	0	0	0
0	0	0	0	0	0	0	0	0	61	2	0	0	1	64	65	0	0	41	2	1	0	0	44	44.5	0	0	0
0	0	0	0	0	0	0	0	0	55	3	0	0	3	61	64	1	0	36	1	0	0	1	39	39.2	0	0	0
0	0	0	0	0	1	0.2	0	0	225	14	1	0	6	246	252.5	1	0	101	6	1	0	2	111	112.7	0	0	0
0	0	0	0	0	0	0	0	1	64	5	0	0	0	70	69.4	1	0	13	1	0	0	0	15	14.2	0	0	0
0	0	0	0	0	0	0	0	0	71	5	1	0	2	79	81.5	0	0	6	1	0	0	1	8	9	0	0	1
0	0	0	0	0	0	0	0	0	66	2	0	0	2	70	72	0	0	8	2	0	0	0	10	10	0	0	0
0	0	0	0	0	0	0	0	0	77	4	0	0	1	82	83	0	0	10	0	1	0	1	12	13.5	0	0	0
0	0	0	0	0	0	0	0	1	278	16	1	0	5	301	305.9	1	0	37	4	1	0	2	45	46.7	0	0	1
0	0	0	0	0	0	0	0	0	58	4	0	0	0	62	62	0	0	16	0	1	0	1	18	19.5	0	0	1
0	0	0	0	0	0	0	0	0	69	4	0	0	1	74	75	0	1	16	0	0	0	1	18	18.4	0	0	0
0	0	0	0	0	0	0	1	0	67	3	0	0	1	72	72.2	0	0	12	0	0	0	0	12	12	0	0	1
0	0	0	0	0	0	0	0	0	84	2	0	0	0	86	86	0	0	32	0	0	0	3	35	38	0	0	0
0	0	0	0	0	0	0	1	0	278	13	0	0	2	294	295.2	0	1	76	0	1	0	5	83	87.9	0	0	2
0	0	0	0	0	0	0	2	0	70	0	0	0	1	73	72.4	0	0	16	3	0	0	2	21	23	0	0	0
0	0	0	0	0	0	0	0	0	72	3	0	0	0	75	75	0	0	23	0	0	0	2	25	27	0	0	0
0	0	0	0	0	0	0	0	0	70	2	0	0	1	73	74	0	0	20	0	0	0	1	21	22	0	0	0
0	0	0	0	0	0	0	1	0	82	2	1	0	0	86	85.7	0	0	30	0	0	0	2	32	34	0	0	0
0	0	0	0	0	0	0	3	0	294	7	1	0	2	307	307.1	0	0	89	3	0	0	7	99	106	0	0	0
25	13	7	0	0	50	49.5	22	2	2771	247	56	7	49	3154	3221.3	6	1	716	47	13	1	36	820	858.4	0	0	5

D => D					
LGV	OGV1	OGV2	PSV	TOT	PCU
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	1	1
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	1	1
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	1	1
0	0	0	0	0	0
0	0	0	0	1	1
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	1	1
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	1	1
0	0	0	0	1	1
0	0	0	0	0	0
0	0	0	0	1	1
0	0	0	0	0	0
0	0	0	0	2	2
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	5	5



IDASO

Survey Name: 003 (23) 22718 MALAHIDE TRAFFIC SURVEY V2
Site: Site 5
Location: Townyard Lane/The Mall R106
Date: Tue 10-Jan-2023

	A => A									A => B									A => C							
TIME	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12 TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2

	B => A									B => B									B => C								
PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
0	0	0	4	0	1	0	0	5	5.5	0	0	0	0	0	0	0	0	0	0	0	40	7	4	1	4	56	63.3
0	0	0	2	1	2	0	0	5	6	0	0	0	0	0	0	0	0	0	1	0	94	4	0	0	2	101	102.2
0	0	0	7	2	0	0	0	9	9	0	0	1	0	0	0	0	1	1	0	1	82	2	4	0	2	91	94.4
0	0	0	7	0	0	0	0	7	7	0	0	0	0	0	0	0	0	0	2	0	69	4	5	0	2	82	84.9
0	0	0	20	3	3	0	0	26	27.5	0	0	1	0	0	0	0	1	1	3	1	285	17	13	1	10	330	344.8
0	0	0	12	1	1	0	0	14	14.5	0	0	0	0	0	0	0	0	0	0	0	98	11	4	1	3	117	123.3
0	0	0	14	0	0	0	0	14	14	0	0	0	0	0	0	0	0	0	2	0	104	7	1	1	0	115	115.2
0	0	0	17	1	2	0	0	20	21	0	0	0	0	0	0	0	0	0	1	0	131	6	3	1	5	147	154
0	1	0	33	1	0	0	0	35	34.2	0	0	0	0	0	0	0	0	0	4	0	114	9	2	1	0	130	129.1
0	1	0	76	3	3	0	0	83	83.7	0	0	0	0	0	0	0	0	0	7	0	447	33	10	4	8	509	521.6
0	2	0	32	0	0	0	0	34	32.4	0	0	0	0	0	0	0	0	0	1	0	119	12	3	0	2	137	139.7
0	0	0	15	1	0	0	0	16	16	0	0	0	0	0	0	0	0	0	0	0	90	6	2	0	1	99	101
0	0	0	19	1	1	0	0	21	21.5	0	0	0	0	0	0	0	0	0	0	0	85	4	1	0	1	91	92.5
0	0	0	18	1	0	0	0	19	19	0	0	0	0	0	0	0	0	0	1	0	74	3	2	0	0	80	80.2
0	2	0	84	3	1	0	0	90	88.9	0	0	0	0	0	0	0	0	0	2	0	368	25	8	0	4	407	413.4
0	0	0	30	1	1	0	0	32	32.5	0	0	0	0	0	0	0	0	0	1	0	89	8	2	0	2	102	104.2
0	0	0	30	6	0	0	0	36	36	0	0	0	0	0	0	0	0	0	0	0	96	8	5	0	2	111	115.5
0	2	0	34	2	1	0	0	39	37.9	0	0	0	0	0	0	0	0	0	0	1	88	9	1	0	0	99	98.9
0	1	0	27	1	0	0	0	29	28.2	0	0	0	0	0	0	0	0	0	0	0	90	10	0	0	2	102	104
0	3	0	121	10	2	0	0	136	134.6	0	0	0	0	0	0	0	0	0	1	1	363	35	8	0	6	414	422.6
0	0	0	13	3	1	0	0	17	17.5	0	0	0	0	0	0	0	0	0	1	0	89	14	4	0	0	108	109.2
0.2	0	0	17	1	0	0	0	18	18	0	0	0	0	0	0	0	0	0	1	0	79	11	4	0	2	97	100.2
0	0	0	26	0	0	0	0	26	26	0	0	0	0	0	0	0	0	0	0	0	97	9	3	0	0	109	110.5
0	0	0	19	3	0	0	0	22	22	0	0	0	0	0	0	0	0	0	1	0	92	6	1	0	1	101	101.7
0.2	0	0	75	7	1	0	0	83	83.5	0	0	0	0	0	0	0	0	0	3	0	357	40	12	0	3	415	421.6
0	1	0	19	4	1	0	0	25	24.7	0	0	0	0	0	0	0	0	0	1	0	96	15	2	1	1	116	118.5
0	0	0	24	1	0	0	0	25	25	0	0	1	0	0	0	0	1	1	0	0	79	9	1	0	1	90	91.5
0	0	0	16	0	0	0	0	16	16	0	0	0	0	0	0	0	0	0	0	0	86	14	1	1	1	103	105.8
0	0	0	28	3	0	0	0	31	31	0	0	0	0	0	0	0	0	0	0	0	98	9	0	0	1	108	109
0	1	0	87	8	1	0	0	97	96.7	0	0	1	0	0	0	0	1	1	1	0	359	47	4	2	4	417	424.8
0	1	0	24	1	0	0	0	26	25.2	0	0	0	0	0	0	0	0	0	0	0	110	11	4	0	2	127	131
0	0	0	13	0	2	0	0	15	16	0	0	0	0	0	0	0	0	0	0	0	88	10	2	0	1	101	103
0	0	0	27	3	0	0	0	30	30	0	0	0	0	0	0	0	0	0	0	0	96	7	4	0	1	108	111
0	1	0	26	1	0	0	0	28	27.2	0	0	0	0	0	0	0	0	0	0	0	88	9	5	0	1	103	106.5
0	2	0	90	5	2	0	0	99	98.4	0	0	0	0	0	0	0	0	0	0	0	382	37	15	0	5	439	451.5
0	2	0	20	1	1	0	0	24	22.9	0	0	0	0	0	0	0	0	0	0	0	98	11	4	0	1	114	117
0	1	0	19	4	0	0	0	24	23.2	0	0	0	0	0	0	0	0	0	0	0	93	10	0	0	1	104	105
0	0	0	16	3	0	0	0	19	19	0	0	0	0	0	0	0	0	0	0	1	109	4	4	1	2	121	125.7
0	0	0	26	3	2	0	0	31	32	0	0	0	0	0	0	0	0	0	0	0	94	16	2	0	0	112	113
0	3	0	81	11	3	0	0	98	97.1	0	0	0	0	0	0	0	0	0	0	1	394	41	10	1	4	451	460.7
0	0	0	22	3	0	0	0	25	25	0	0	0	0	0	0	0	0	0	0	0	92	9	6	2	1	110	116.6
0	0	0	21	1	1	0	0	23	23.5	0	0	0	0	0	0	0	0	0	0	0	94	7	1	0	1	103	104.5
0	0	0	25	0	0	0	0	25	25	0	0	0	0	0	0	0	0	0	0	0	101	9	0	1	2	113	116.3
0	0	0	27	1	0	0	0	28	28	0	0	0	0	0	0	0	0	0	1	0	89	8	2	0	1	101	102.2
0	0	0	95	5	1	0	0	101	101.5	0	0	0	0	0	0	0	0	0	1	0	376	33	9	3	5	427	439.6
0	0	0	26	0	0	0	0	26	26	0	0	0	0	0	0	0	0	0	0	0	92	7	2	0	3	104	108
0	0	0	22	6	0	0	0	28	28	0	0	0	0	0	0	0	0	0	1	1	84	14	1	0	6	107	112.1
0	0	0	36	2	0	0	0	38	38	0	0	0	0	0	0	0	0	0	0	0	101	8	0	0	2	111	113
0	0	0	33	2	0	0	0	35	35	0	0	0	0	0	0	0	0	0	1	0	81	8	1	1	1	93	95
0	0	0	117	10	0	0	0	127	127	0	0	0	0	0	0	0	0	0	2	1	358	37	4	1	12	415	428.1
0	0	0	27	0	0	0	0	27	27	0	0	0	0	0	0	0	0	0	0	1	89	6	2	0	3	101	104.4
0	0	0	17	2	0	0	0	19	19	0	0	0	0	0	0	0	0	0	0	0	93	7	0	0	0	100	100
0	0	0	25	1	0	0	0	26	26	0	0	0	0	0	0	0	0	0	0	0	103	4	1	0	2	110	112.5
0.2	0	0	21	2	0	0	0	23	23	0	0	0	0	0	0	0	0	0	0	0	76	5	0	0	1	82	83
0.2	0	0	90	5	0	0	0	95	95	0	0	0	0	0	0	0	0	0	0	1	361	22	3	0	6	393	399.9
0	0	0	22	1	0	0	0	23	23	0	0	0	0	0	0	0	0	0	0	0	93	1	0	0	3	97	100
0	1	0	13	0	0	0	0	14	13.2	0	0	0	0	0	0	0	0	0	0	0	83	4	1	0	2	90	92.5
0	2	0	18	1	0	0	0	21	19.4	0	0	0	0	0	0	0	0	0	0	0	84	3	0	0	2	89	91
0	0	0	29	0	0	0	0	29	29	0	0	0	0	0	0	0	0	0	0	0	72	0	0	0	0	72	72
0	3	0	82	2	0	0	0	87	84.6	0	0	0	0	0	0	0	0	0	0	0	332	8	1	0	7	348	355.5
0.4	15	0	1018	72	17	0	0	1122	1118.5	0	0	2	0	0	0	0	2	2	20	5	4382	375	97	12	74	4965	5084.1

C => A									C => B									C => C								
P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
1	0	0	0	0	0	0	1	0.2	0	0	21	7	2	1	2	33	37.3	0	0	0	0	0	0	0	0	0
0	0	0	1	0	0	0	1	1	0	0	20	6	0	0	3	29	32	0	0	0	0	0	0	0	0	0
0	0	1	0	0	0	0	1	1	0	0	35	11	3	0	4	53	58.5	0	0	0	0	0	0	0	0	0
0	0	4	1	0	0	0	5	5	1	0	48	12	0	0	4	65	68.2	0	0	0	0	0	0	0	0	0
1	0	5	2	0	0	0	8	7.2	1	0	124	36	5	1	13	180	196	0	0	0	0	0	0	0	0	0
0	0	7	2	1	0	0	10	10.5	0	0	48	6	0	0	3	57	60	0	0	0	0	0	0	0	0	0
0	0	1	1	0	0	0	2	2	0	0	52	2	3	1	0	58	60.8	0	0	0	0	0	0	0	0	0
0	0	9	1	0	0	0	10	10	0	0	64	10	3	0	1	78	80.5	0	0	0	0	0	0	0	0	0
0	0	7	2	0	0	0	9	9	0	0	81	6	3	0	2	92	95.5	0	0	0	0	0	0	0	0	0
0	0	24	6	1	0	0	31	31.5	0	0	245	24	9	1	6	285	296.8	0	0	0	0	0	0	0	0	0
1	0	17	2	0	0	0	20	19.2	1	1	55	10	3	0	1	71	72.1	0	0	0	0	0	0	0	0	0
0	0	12	1	0	0	0	13	13	0	0	64	6	2	1	1	74	77.3	0	0	1	0	0	0	0	1	1
0	0	13	4	0	0	0	17	17	2	0	36	6	0	0	1	45	44.4	0	0	1	0	0	0	0	1	1
0	0	17	2	1	0	0	20	20.5	1	0	50	6	3	0	0	60	60.7	0	0	1	0	0	0	0	1	1
1	0	59	9	1	0	0	70	69.7	4	1	205	28	8	1	3	250	254.5	0	0	3	0	0	0	0	3	3
0	0	14	1	0	0	0	15	15	0	0	56	3	3	0	1	63	65.5	0	0	0	0	0	0	0	0	0
0	0	23	1	0	0	0	24	24	0	1	54	2	1	1	0	59	60.2	0	0	0	0	0	0	0	0	0
1	0	17	1	0	0	0	19	18.2	1	0	51	4	2	0	1	59	60.2	0	0	0	0	0	0	0	0	0
0	0	15	2	0	0	0	17	17	0	0	56	5	1	0	0	62	62.5	0	0	0	0	0	0	0	0	0
1	0	69	5	0	0	0	75	74.2	1	1	217	14	7	1	2	243	248.4	0	0	0	0	0	0	0	0	0
0	0	20	2	0	0	0	22	22	0	0	54	3	2	1	0	60	62.3	0	0	0	0	0	0	0	0	0
1	0	18	3	0	0	0	22	21.2	0	0	46	10	0	0	1	57	58	0	0	0	0	0	0	0	0	0
1	0	10	0	0	0	0	11	10.2	0	0	45	5	2	0	0	52	53	0	0	0	0	0	0	0	0	0
0	0	16	1	0	0	0	17	17	0	1	57	6	1	0	1	66	66.9	0	0	0	0	0	0	0	0	0
2	0	64	6	0	0	0	72	70.4	0	1	202	24	5	1	2	235	240.2	0	0	0	0	0	0	0	0	0
0	0	20	1	0	0	0	21	21	0	0	67	6	1	0	1	75	76.5	0	0	0	0	0	0	0	0	0
0	0	20	0	0	0	0	20	20	0	0	53	7	1	0	0	61	61.5	0	0	0	0	0	0	0	0	0
0	0	18	3	0	0	0	21	21	1	0	57	8	0	0	1	67	67.2	0	0	0	0	0	0	0	0	0
0	0	19	2	0	0	0	21	21	0	0	74	6	2	0	0	82	83	0	0	0	0	0	0	0	0	0
0	0	77	6	0	0	0	83	83	1	0	251	27	4	0	2	285	288.2	0	0	0	0	0	0	0	0	0
0	0	20	1	1	0	0	22	22.5	0	0	79	4	0	1	1	85	87.3	0	0	0	0	0	0	0	0	0
0	0	20	1	0	0	0	21	21	0	0	76	3	2	0	0	81	82	0	0	0	0	0	0	0	0	0
0	0	12	3	1	0	0	16	16.5	1	0	62	8	3	0	1	75	76.7	0	0	0	0	0	0	0	0	0
1	0	15	2	0	0	0	18	17.2	1	0	60	4	3	1	0	69	71	0	0	0	0	0	0	0	0	0
1	0	67	7	2	0	0	77	77.2	2	0	277	19	8	2	2	310	317	0	0	0	0	0	0	0	0	0
0	0	11	1	0	0	0	12	12	0	0	58	5	1	0	1	65	66.5	0	0	0	0	0	0	0	0	0
0	0	12	3	1	0	0	16	16.5	0	0	70	5	0	0	2	77	79	0	0	0	0	0	0	0	0	0
1	0	20	1	0	0	0	22	21.2	0	0	82	8	3	0	1	94	96.5	0	0	0	0	0	0	0	0	0
0	0	25	0	0	0	0	25	25	0	0	54	4	2	0	1	61	63	0	0	0	0	0	0	0	0	0
1	0	68	5	1	0	0	75	74.7	0	0	264	22	6	0	5	297	305	0	0	0	0	0	0	0	0	0
0	0	18	1	0	0	0	19	19	0	0	54	3	0	0	2	59	61	0	0	0	0	0	0	0	0	0
0	0	21	0	0	0	0	21	21	0	0	55	3	1	0	0	59	59.5	0	0	0	0	0	0	0	0	0
0	0	16	0	0	0	0	16	16	1	0	61	2	0	0	1	65	65.2	0	0	0	0	0	0	0	0	0
0	0	14	0	0	0	0	14	14	2	0	52	3	0	0	3	60	61.4	0	0	0	0	0	0	0	0	0
0	0	69	1	0	0	0	70	70	3	0	222	11	1	0	6	243	247.1	0	0	0	0	0	0	0	0	0
1	0	15	0	0	0	0	16	15.2	0	1	76	6	0	0	0	83	82.4	0	0	0	0	0	0	0	0	0
0	0	21	1	0	0	0	22	22	0	0	67	3	1	0	2	73	75.5	0	0	0	0	0	0	0	0	0
0	0	21	1	0	0	0	22	22	0	0	68	1	0	0	2	71	73	0	0	0	0	0	0	0	0	0
0	0	23	0	0	0	0	23	23	0	0	80	4	0	0	1	85	86	0	0	0	0	0	0	0	0	0
1	0	80	2	0	0	0	83	82.2	0	1	291	14	1	0	5	312	316.9	0	0	0	0	0	0	0	0	0
0	0	18	2	0	0	0	20	20	0	0	63	4	0	0	0	67	67	0	0	0	0	0	0	0	0	0
0	0	12	1	0	0	0	13	13	0	1	69	4	0	0	1	75	75.4	0	0	1	0	0	0	0	1	1
0	0	16	1	0	0	0	17	17	1	0	72	3	0	0	1	77	77.2	0	0	0	0	0	0	0	0	0
0	0	14	0	0	0	0	14	14	0	0	92	4	0	0	0	96	96	1	0	0	0	0	0	0	1	0.2
0	0	60	4	0	0	0	64	64	1	1	296	15	0	0	2	315	315.6	1	0	1	0	0	0	0	2	1.2
0	0	12	1	0	0	0	13	13	3	0	76	2	0	0	1	82	80.6	0	0	0	0	0	0	0	0	0
0	0	14	0	0	0	0	14	14	0	0	82	3	0	0	0	85	85	0	0	0	0	0	0	0	0	0
1	0	11	0	0	0	0	12	11.2	1	0	77	2	0	0	1	81	81.2	0	0	0	0	0	0	0	0	0
0	0	12	1	0	0	0	13	13	0	0	85	2	1	0	0	88	88.5	0	0	0	0	0	0	0	0	0
1	0	49	2	0	0	0	52	51.2	4	0	320	9	1	0	2	336	335.3	0	0	0	0	0	0	0	0	0
9	0	691	55	5	0	0	760	755.3	17	5	2914	243	55	7	50	3291	3361	1	0	4	0	0	0	0	5	4.2



IDASO

Survey Name: 003 (23) 22718 MALAHIDE TRAFFIC SURVEY V2
Site: Site 6
Location: Old St/Main St/Malahide Rd
Date: Tue 10-Jan-2023

	A => A									A => B									A => C							
TIME	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12 TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1

	B => A									B => B									B => C								
PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
0	0	0	1	1	1	0	0	3	3.5	0	0	0	0	0	0	0	0	0	0	0	48	7	1	1	5	62	68.8
0	0	0	9	1	0	0	2	12	14	0	0	0	0	0	0	0	0	0	0	0	91	6	0	0	1	98	99
0	0	0	5	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0	1	85	2	2	0	5	95	100.4
0	0	0	6	1	0	0	0	7	7	0	0	0	0	0	0	0	0	0	1	0	68	1	6	0	4	80	86.2
0	0	0	21	3	1	0	2	27	29.5	0	0	0	0	0	0	0	0	0	1	1	292	16	9	1	15	335	354.4
0	0	0	8	1	1	0	1	11	12.5	0	0	0	0	0	0	0	0	0	2	0	96	5	2	1	4	110	114.7
0	0	0	15	0	0	0	0	15	15	0	0	0	0	0	0	0	0	0	0	0	108	5	1	1	1	116	118.8
0	1	0	13	1	1	0	1	17	17.7	0	0	0	0	0	0	0	0	0	1	0	107	6	2	1	5	122	128.5
0	0	0	22	0	1	0	0	23	23.5	0	0	0	0	0	0	0	0	0	1	0	95	5	0	1	1	103	104.5
0	1	0	58	2	3	0	2	66	68.7	0	0	0	0	0	0	0	0	0	4	0	406	21	5	4	11	451	466.5
0	0	0	12	0	0	0	0	12	12	0	0	0	0	0	0	0	0	0	1	0	113	9	1	0	2	126	127.7
0	0	0	10	2	1	0	0	13	13.5	0	0	0	0	0	0	0	0	0	0	0	93	9	4	0	2	108	112
0	0	0	7	0	0	0	1	8	9	0	0	0	0	0	0	0	0	0	0	0	81	8	1	0	1	91	92.5
0	0	0	15	0	1	0	0	16	16.5	0	0	0	0	0	0	0	0	0	0	0	65	2	1	0	1	69	70.5
0	0	0	44	2	2	0	1	49	51	0	0	0	0	0	0	0	0	0	1	0	352	28	7	0	6	394	402.7
0	0	0	15	3	0	0	1	19	20	0	0	0	0	0	0	0	0	0	1	0	77	4	1	0	1	84	84.7
0	0	0	24	1	1	0	1	27	28.5	0	0	0	0	0	0	0	0	0	0	0	81	10	5	0	1	97	100.5
0	0	0	22	0	0	0	0	22	22	0	0	0	0	0	0	0	0	0	0	0	59	9	0	0	1	69	70
0	0	0	15	0	0	0	0	15	15	0	0	0	0	0	0	0	0	0	0	1	77	11	2	0	2	93	95.4
0	0	0	76	4	1	0	2	83	85.5	0	0	0	0	0	0	0	0	0	1	1	294	34	8	0	5	343	350.6
0	0	0	12	0	0	0	1	13	14	0	0	0	0	0	0	0	0	0	2	0	99	13	3	0	0	117	116.9
0	0	0	9	0	0	0	0	9	9	0	0	0	0	0	0	0	0	0	1	0	75	10	2	0	3	91	94.2
0	0	0	19	1	0	0	0	20	20	0	0	0	0	0	0	0	0	0	0	0	80	17	3	0	0	100	101.5
0	0	0	6	1	0	0	1	8	9	0	0	0	0	0	0	0	0	0	1	0	81	5	1	0	1	89	89.7
0	0	0	46	2	0	0	2	50	52	0	0	0	0	0	0	0	0	0	4	0	335	45	9	0	4	397	402.3
0	0	0	14	1	0	0	0	15	15	0	0	0	0	0	0	0	0	0	1	0	90	14	2	1	1	109	111.5
0	2	0	16	0	0	0	0	18	16.4	0	0	0	0	0	0	0	0	0	0	0	60	9	1	1	1	72	74.8
0	0	1	11	3	0	0	1	16	16.4	0	0	0	0	0	0	0	0	0	0	0	74	13	3	1	1	92	95.8
0	0	0	9	1	0	0	0	10	10	0	0	0	0	0	0	0	0	0	0	0	88	8	0	0	1	97	98
0	2	1	50	5	0	0	1	59	57.8	0	0	0	0	0	0	0	0	0	1	0	312	44	6	3	4	370	380.1
0	0	0	11	0	1	0	1	13	14.5	0	0	0	0	0	0	0	0	0	1	0	97	9	2	0	2	111	113.2
0	0	0	12	0	1	0	0	13	13.5	0	0	0	0	0	0	0	0	0	1	0	87	8	3	1	2	102	106
0	0	0	13	2	0	0	1	16	17	0	0	0	0	0	0	0	0	0	0	0	80	5	4	0	0	89	91
0	0	0	7	0	0	0	0	7	7	0	0	0	0	0	0	0	0	0	0	0	78	6	3	0	1	88	90.5
0	0	0	43	2	2	0	2	49	52	0	0	0	0	0	0	0	0	0	2	0	342	28	12	1	5	390	400.7
0	0	0	12	0	1	0	1	14	15.5	0	0	0	0	0	0	0	0	0	0	0	69	9	8	0	1	87	92
0	0	0	9	0	0	0	0	9	9	0	0	0	0	0	0	0	0	0	0	0	89	9	1	0	2	101	103.5
0	0	0	14	0	1	0	1	16	17.5	0	0	0	0	0	0	0	0	0	0	1	78	6	3	2	1	91	95.5
0	0	0	18	1	0	0	0	19	19	0	0	0	0	0	0	0	0	0	1	0	98	14	2	0	1	116	117.2
0	0	0	53	1	2	0	2	58	61	0	0	0	0	0	0	0	0	0	1	1	334	38	14	2	5	395	408.2
0	0	0	16	1	0	0	0	17	17	0	0	0	0	0	0	0	0	0	0	0	86	7	5	2	1	101	107.1
0	0	0	16	1	0	0	1	18	19	0	0	0	0	0	0	0	0	0	1	0	77	7	3	0	1	89	90.7
0	0	0	18	3	0	0	1	22	23	0	0	0	0	0	0	0	0	0	0	0	90	10	0	1	1	102	104.3
0	0	0	12	0	0	0	0	12	12	0	0	0	0	0	0	0	0	0	0	0	82	7	2	0	2	93	96
0	0	0	62	5	0	0	2	69	71	0	0	0	0	0	0	0	0	0	1	0	335	31	10	3	5	385	398.1
0	0	0	18	1	0	0	1	20	21	0	0	0	1	0	0	0	1	1	4	0	109	7	3	0	1	124	123.3
0	0	0	29	2	0	0	0	31	31	0	0	0	0	0	0	0	0	0	1	1	83	16	1	0	6	108	113.1
0	0	0	18	2	0	0	1	21	22	0	0	0	0	0	0	0	0	0	1	0	100	9	0	0	3	113	115.2
0	0	0	13	1	0	0	1	15	16	0	0	0	0	0	0	0	0	0	0	0	68	6	0	1	1	76	78.3
0	0	0	78	6	0	0	3	87	90	0	0	0	1	0	0	0	1	1	6	1	360	38	4	1	11	421	429.9
0	0	0	16	1	0	0	1	18	19	0	0	0	0	0	0	0	0	0	1	1	92	4	1	0	2	101	102.1
0	0	0	25	2	0	0	0	27	27	0	0	0	0	0	0	0	0	0	0	0	95	5	1	0	2	103	105.5
0	0	0	17	1	0	0	1	19	20	0	0	0	0	0	0	0	0	0	0	0	98	3	1	0	2	104	106.5
0.2	0	0	20	0	0	0	0	20	20	0	0	0	0	0	0	0	0	0	1	0	67	5	1	0	0	74	73.7
0.2	0	0	78	4	0	0	2	84	86	0	0	0	0	0	0	0	0	0	2	1	352	17	4	0	6	382	387.8
0	0	0	17	0	0	0	1	18	19	0	0	0	0	0	0	0	0	0	2	0	97	2	1	0	4	106	108.9
0	0	0	17	0	0	0	0	17	17	0	0	0	0	0	0	0	0	0	1	0	77	9	1	0	3	91	93.7
0	0	0	11	1	0	0	1	13	14	0	0	0	0	0	0	0	0	0	0	0	84	4	1	0	1	90	91.5
0	0	0	12	0	0	0	0	12	12	0	0	0	0	0	0	0	0	0	1	0	61	1	1	0	1	65	65.7
0	0	0	57	1	0	0	2	60	62	0	0	0	0	0	0	0	0	0	4	0	319	16	4	0	9	352	359.8
0.2	3	1	666	37	11	0	23	741	766.5	0	0	0	1	0	0	0	1	1	28	5	4033	356	92	15	86	4615	4741.1

C => A									C => B									C => C								
P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
0	0	7	1	0	0	0	8	8	1	0	22	9	2	1	1	36	38.5	0	0	0	0	0	0	0	0	0
0	0	19	0	2	0	0	21	22	0	0	32	6	0	0	4	42	46	0	0	1	0	0	0	0	1	1
0	0	6	0	1	0	0	7	7.5	1	0	47	15	3	0	5	71	76.7	0	0	0	0	0	0	0	0	0
0	0	12	0	0	0	0	12	12	1	0	63	11	2	0	5	82	87.2	0	0	1	0	0	0	0	1	1
0	0	44	1	3	0	0	48	49.5	3	0	164	41	7	1	15	231	248.4	0	0	2	0	0	0	0	2	2
0	0	26	2	0	1	0	29	30.3	0	0	81	8	2	0	3	94	98	0	0	0	0	0	0	0	0	0
0	0	10	1	0	0	0	11	11	1	0	96	6	2	1	2	108	111.5	0	0	0	0	0	0	0	0	0
0	0	10	0	1	0	0	11	11.5	0	0	89	7	3	0	1	100	102.5	0	0	0	0	0	0	0	0	0
0	0	15	2	0	0	0	17	17	2	0	80	10	3	0	3	98	100.9	0	0	0	0	0	0	0	0	0
0	0	61	5	1	1	0	68	69.8	3	0	346	31	10	1	9	400	412.9	0	0	0	0	0	0	0	0	0
0	0	19	0	0	0	0	19	19	1	0	74	10	4	0	2	91	94.2	0	0	0	0	0	0	0	0	0
0	0	16	1	0	0	0	17	17	0	0	74	10	2	1	2	89	93.3	0	0	0	0	0	0	0	0	0
0	0	5	2	1	0	0	8	8.5	3	0	48	12	4	0	1	68	68.6	0	0	0	0	0	0	0	0	0
0	0	17	0	0	0	0	17	17	2	0	68	9	5	0	1	85	86.9	0	0	0	0	0	0	0	0	0
0	0	57	3	1	0	0	61	61.5	6	0	264	41	15	1	6	333	343	0	0	0	0	0	0	0	0	0
1	0	23	2	0	0	0	26	25.2	1	0	62	7	4	0	2	76	79.2	0	0	0	0	0	0	0	0	0
0	0	31	0	1	0	0	32	32.5	0	0	81	5	1	1	0	88	89.8	0	0	0	0	0	0	0	0	0
0	0	16	4	1	0	0	21	21.5	1	0	61	4	3	0	2	71	73.7	0	0	0	0	0	0	0	0	0
0	0	23	5	0	0	0	28	28	0	0	65	8	1	0	0	74	74.5	0	0	0	0	0	0	0	0	0
1	0	93	11	2	0	0	107	107.2	2	0	269	24	9	1	4	309	317.2	0	0	0	0	0	0	0	0	0
0	0	17	3	1	0	0	21	21.5	1	0	63	10	2	1	1	78	80.5	0	0	0	0	0	0	0	0	0
0	0	16	0	0	0	0	16	16	0	0	60	13	0	0	1	74	75	0	0	0	0	0	0	0	0	0
0	0	13	1	0	0	0	14	14	0	0	54	5	2	0	0	61	62	0	0	0	0	0	0	0	0	0
0	0	20	1	0	0	0	21	21	2	1	71	6	1	0	2	83	83.3	0	0	0	0	0	0	0	0	0
0	0	66	5	1	0	0	72	72.5	3	1	248	34	5	1	4	296	300.8	0	0	0	0	0	0	0	0	0
0	0	22	2	0	0	0	24	24	0	0	71	3	1	0	1	76	77.5	0	0	0	0	0	0	0	0	0
1	0	12	2	2	0	0	17	17.2	2	0	60	8	2	0	1	73	73.4	0	0	0	0	0	0	0	0	0
0	0	13	0	0	0	0	13	13	0	0	71	9	0	1	1	82	84.3	0	0	0	0	0	0	0	0	0
0	0	17	4	0	0	0	21	21	0	0	87	8	2	0	1	98	100	0	0	0	0	0	0	0	0	0
1	0	64	8	2	0	0	75	75.2	2	0	289	28	5	1	4	329	335.2	0	0	0	0	0	0	0	0	0
0	0	14	1	0	0	0	15	15	1	0	70	10	1	1	1	84	86	0	0	0	0	0	0	0	0	0
0	0	17	2	1	0	0	20	20.5	0	0	86	4	1	0	1	92	93.5	0	0	0	0	0	0	0	0	0
0	0	10	3	0	0	0	13	13	1	0	66	7	5	0	1	80	82.7	0	0	0	0	0	0	0	0	0
0	0	11	2	0	0	0	13	13	2	0	67	4	4	1	1	79	81.7	0	0	0	0	0	0	0	0	0
0	0	52	8	1	0	0	61	61.5	4	0	289	25	11	2	4	335	343.9	0	0	0	0	0	0	0	0	0
1	0	13	0	0	0	0	14	13.2	0	0	53	7	1	0	1	62	63.5	0	0	0	0	0	0	0	0	0
0	0	14	0	0	0	0	14	14	1	1	80	8	3	0	2	95	97.1	0	0	0	0	0	0	0	0	0
0	0	14	2	0	0	0	16	16	1	0	70	4	1	0	1	77	77.7	0	0	0	0	0	0	0	0	0
0	0	22	1	0	0	0	23	23	1	0	65	6	3	0	3	78	81.7	0	0	0	0	0	0	0	0	0
1	0	63	3	0	0	0	67	66.2	3	1	268	25	8	0	7	312	320	0	0	0	0	0	0	0	0	0
0	0	14	0	0	0	0	14	14	1	0	56	5	0	0	3	65	67.2	0	0	0	0	0	0	0	0	0
1	0	16	2	1	0	0	20	19.7	0	0	84	7	1	0	0	92	92.5	0	0	0	0	0	0	0	0	0
0	0	11	1	0	0	0	12	12	0	0	102	3	1	0	1	107	108.5	0	0	0	0	0	0	0	0	0
0	0	17	3	0	0	0	20	20	1	0	93	4	0	0	4	102	105.2	0	0	0	0	0	0	0	0	0
1	0	58	6	1	0	0	66	65.7	2	0	335	19	2	0	8	366	373.4	0	0	0	0	0	0	0	0	0
0	0	15	1	0	0	0	16	16	1	1	71	5	0	0	0	78	76.6	0	0	0	0	0	0	0	0	0
0	0	31	0	0	0	0	31	31	0	0	75	6	1	0	3	85	88.5	0	0	0	0	0	0	0	0	0
0	0	15	3	0	0	0	18	18	0	0	71	5	0	0	2	78	80	0	0	0	0	0	0	0	0	0
0	0	30	0	0	0	0	30	30	0	0	90	3	1	0	2	96	98.5	0	0	0	0	0	0	0	0	0
0	0	91	4	0	0	0	95	95	1	1	307	19	2	0	7	337	343.6	0	0	0	0	0	0	0	0	0
0	0	21	0	0	0	0	21	21	0	0	75	5	1	0	1	82	83.5	0	0	0	0	0	0	0	0	0
0	0	19	2	0	0	0	21	21	0	1	88	5	0	0	2	96	97.4	0	0	0	0	0	0	0	0	0
0	0	26	0	0	0	0	26	26	1	0	78	3	0	0	1	83	83.2	0	0	0	0	0	0	0	0	0
0	0	23	0	0	0	0	23	23	1	0	116	3	0	0	3	123	125.2	0	0	0	0	0	0	0	0	0
0	0	89	2	0	0	0	91	91	2	1	357	16	1	0	7	384	389.3	0	0	0	0	0	0	0	0	0
0	0	26	0	0	0	0	26	26	1	0	89	2	0	0	3	95	97.2	0	0	0	0	0	0	0	0	0
0	0	21	1	0	0	0	22	22	0	0	92	3	1	0	2	98	100.5	0	0	0	0	0	0	0	0	0
0	0	17	1	0	0	0	18	18	0	0	88	2	0	0	2	92	94	0	0	0	0	0	0	0	0	0
0	0	15	0	0	0	0	15	15	1	0	116	2	0	0	2	121	122.2	0	0	0	0	0	0	0	0	0
0	0	79	2	0	0	0	81	81	2	0	385	9	1	0	9	406	413.9	0	0	0	0	0	0	0	0	0
4	0	817	58	12	1	0	892	896.1	33	4	3521	312	76	8	84	4038	4141.6	0	0	2	0	0	0	0	2	2



IDASO

Survey Name: 003 (23) 22718 MALAHIDE TRAFFIC SURVEY V2
Site: Site 7
Location: James's Terrace/The Mall R106
Date: Tue 10-Jan-2023

	A => A									A => B									A => C							
TIME	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2
07:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
07:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	3
08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
08:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
10:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
10:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
11:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2
11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4
12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2
13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
13:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3
14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
14:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2
15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
15:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	6
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3
12 TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28	1	0	0	0	29

	A => D									B => A									B => B								
PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
0	0	0	1	0	0	0	0	1	1	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	1	0	0	0	0	1	1	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0
1	0	0	3	1	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	2	0	0	0	0	2	2	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
2	0	0	5	1	0	0	0	6	6	0	0	3	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
2	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	2	0	0	0	0	2	2	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
0	0	0	3	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	7	0	0	0	0	7	7	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0
1	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	4	1	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	4	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	6	1	0	0	0	7	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	1	0	0	0	0	1	1	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
1	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	5	0	0	0	0	5	5	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	1	0	0	0	0	1	1	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
3	0	0	4	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
6	0	0	7	0	0	0	0	7	7	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0
0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	2	0	0	0	0	2	2	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
3	0	0	5	0	0	0	0	5	5	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
29	0	0	47	3	0	0	0	50	50	0	0	10	0	0	0	0	10	10	0	0	0	0	0	0	0	0	0

B => C									B => D									C => A									
P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C
0	0	5	0	1	0	1	7	8.5	0	0	11	2	3	0	0	16	17.5	0	0	0	0	0	0	0	0	0	0
0	0	18	2	0	0	1	21	22	0	0	29	0	0	0	0	29	29	0	0	0	0	0	0	0	0	0	0
0	0	15	4	1	0	0	20	20.5	0	0	19	1	3	0	0	23	24.5	0	0	0	0	0	0	0	0	0	0
0	0	12	0	2	0	1	15	17	0	0	16	1	3	0	0	20	21.5	0	0	0	0	0	0	0	0	0	0
0	0	50	6	4	0	3	63	68	0	0	75	4	9	0	0	88	92.5	0	0	0	0	0	0	0	0	0	0
1	0	30	0	0	0	0	31	30.2	0	0	20	4	2	0	0	26	27	0	0	0	0	0	0	0	0	0	0
0	0	50	4	0	0	1	55	56	0	0	24	4	1	1	0	30	31.8	0	0	0	0	0	0	0	0	0	0
0	0	44	3	1	0	0	48	48.5	0	0	29	4	3	0	0	36	37.5	0	0	0	0	0	0	0	0	0	1
0	0	35	5	3	0	1	44	46.5	0	0	24	4	2	0	0	30	31	0	0	0	0	0	0	0	0	0	0
1	0	159	12	4	0	2	178	181.2	0	0	97	16	8	1	0	122	127.3	0	0	0	0	0	0	0	0	0	1
2	0	33	6	0	0	0	41	39.4	1	0	24	5	1	0	0	31	30.7	0	0	0	0	0	0	0	0	0	0
0	0	29	3	0	0	0	32	32	0	0	21	2	1	0	0	24	24.5	0	0	0	0	0	0	0	0	0	0
0	0	21	3	0	0	0	24	24	0	0	16	3	1	0	0	20	20.5	0	0	1	0	0	0	0	1	1	0
0	0	25	2	0	0	0	27	27	0	0	22	3	1	0	0	26	26.5	0	0	2	0	0	0	0	2	2	0
2	0	108	14	0	0	0	124	122.4	1	0	83	13	4	0	0	101	102.2	0	0	3	0	0	0	0	3	3	0
1	0	37	2	0	0	1	41	41.2	0	0	24	3	3	0	0	30	31.5	0	0	2	0	0	0	0	2	2	0
1	0	35	2	2	0	0	40	40.2	0	0	36	2	2	0	0	40	41	0	0	1	0	0	0	0	1	1	0
0	0	38	7	0	0	1	46	47	0	0	35	2	0	0	0	37	37	0	0	2	0	0	0	0	2	2	0
0	0	32	6	0	0	0	38	38	0	0	41	2	1	0	0	44	44.5	0	0	2	0	0	0	0	2	2	0
2	0	142	17	2	0	2	165	166.4	0	0	136	9	6	0	0	151	154	0	0	7	0	0	0	0	7	7	0
0	1	34	3	0	0	1	39	39.4	0	0	28	8	0	0	0	36	36	0	0	0	0	0	0	0	0	0	0
1	0	22	3	1	0	1	28	28.7	0	0	30	5	3	0	0	38	39.5	0	0	3	0	0	0	0	3	3	0
0	0	33	2	1	0	0	36	36.5	0	0	32	0	0	0	0	32	32	0	0	0	0	0	0	0	0	0	0
0	0	36	4	1	0	0	41	41.5	0	0	30	4	0	0	0	34	34	0	0	0	0	0	0	0	0	0	0
1	1	125	12	3	0	2	144	146.1	0	0	120	17	3	0	0	140	141.5	0	0	3	0	0	0	0	3	3	0
0	0	29	2	0	0	0	31	31	0	0	30	5	1	0	0	36	36.5	0	0	1	0	0	0	0	1	1	0
0	0	42	1	0	0	1	44	45	0	0	29	4	0	0	0	33	33	0	0	0	0	0	0	0	0	0	0
0	0	46	2	0	0	0	48	48	0	0	36	0	0	0	0	36	36	0	0	0	0	0	0	0	0	0	0
0	0	33	3	0	0	1	37	38	0	0	30	3	0	0	0	33	33	0	0	2	0	0	0	0	2	2	0
0	0	150	8	0	0	2	160	162	0	0	125	12	1	0	0	138	138.5	0	0	3	0	0	0	0	3	3	0
3	0	36	1	0	0	0	40	37.6	0	0	27	3	0	0	0	30	30	0	0	1	0	0	0	0	1	1	0
0	0	39	0	0	0	0	39	39	0	0	30	2	2	0	0	34	35	0	0	0	1	0	0	0	1	1	0
0	0	36	0	0	0	1	37	38	0	0	22	2	3	0	0	27	28.5	0	0	0	0	0	0	0	0	0	0
0	0	38	4	0	0	0	42	42	0	0	20	4	0	0	0	24	24	0	0	1	0	0	0	0	1	1	0
3	0	149	5	0	0	1	158	156.6	0	0	99	11	5	0	0	115	117.5	0	0	2	1	0	0	0	3	3	0
0	0	35	2	0	0	1	38	39	0	0	20	2	3	0	0	25	26.5	0	0	0	0	0	0	0	0	0	0
0	0	33	1	0	0	0	34	34	0	0	31	3	0	0	0	34	34	0	0	1	0	0	0	0	1	1	0
1	1	38	3	2	0	1	46	46.6	0	0	31	1	2	0	0	34	35	0	0	1	0	0	0	0	1	1	1
0	0	39	5	0	0	1	45	46	0	0	30	1	1	0	0	32	32.5	0	0	0	0	0	0	0	0	0	0
1	1	145	11	2	0	3	163	165.6	0	0	112	7	6	0	0	125	128	0	0	2	0	0	0	0	2	2	1
0	0	53	1	0	0	0	54	54	0	0	31	3	0	0	0	34	34	0	0	1	0	0	0	0	1	1	0
0	0	44	0	1	0	1	46	47.5	0	0	25	1	1	0	0	27	27.5	0	0	1	0	0	0	0	1	1	0
0	0	49	4	0	0	0	53	53	0	0	35	3	0	0	0	38	38	0	0	1	0	0	0	0	1	1	0
1	0	54	0	0	0	1	56	56.2	0	0	27	0	0	0	0	27	27	0	0	0	0	0	0	0	0	0	0
1	0	200	5	1	0	2	209	210.7	0	0	118	7	1	0	0	126	126.5	0	0	3	0	0	0	0	3	3	0
1	0	33	1	0	0	0	35	34.2	0	0	26	1	0	0	0	27	27	0	0	0	0	0	0	0	0	0	0
0	0	43	3	0	0	1	47	48	0	0	22	0	0	0	0	22	22	0	0	0	0	0	0	0	0	0	0
0	0	59	2	0	0	1	62	63	0	0	34	2	0	0	0	36	36	0	0	0	0	0	0	0	0	0	0
0	0	62	3	0	0	0	65	65	0	0	30	1	1	0	0	32	32.5	0	0	1	0	0	0	0	1	1	0
1	0	197	9	0	0	2	209	210.2	0	0	112	4	1	0	0	117	117.5	0	0	1	0	0	0	0	1	1	0
0	0	56	3	0	0	1	60	61	0	1	29	0	0	0	0	30	29.4	0	0	2	0	0	0	0	2	2	0
0	0	44	1	0	0	0	45	45	0	0	25	4	0	0	0	29	29	0	0	2	0	0	0	0	2	2	0
1	0	61	3	0	0	1	66	66.2	0	0	37	1	0	0	0	38	38	0	0	0	0	0	0	0	0	0	0
1	0	61	2	0	0	0	64	63.2	0	0	22	2	0	0	0	24	24	0	0	0	0	0	0	0	0	0	0
2	0	222	9	0	0	2	235	235.4	0	1	113	7	0	0	0	121	120.4	0	0	4	0	0	0	0	4	4	0
0	0	67	1	0	0	1	69	70	0	0	30	0	0	0	0	30	30	0	0	1	0	0	0	0	1	1	0
0	0	37	1	0	0	0	38	38	0	0	17	1	0	0	0	18	18	0	0	1	0	0	0	0	1	1	0
0	0	35	1	0	0	1	37	38	0	0	18	1	0	0	0	19	19	0	0	0	0	0	0	0	0	0	0
0	0	40	3	0	0	0	43	43	0	0	24	0	0	0	0	24	24	0	0	0	0	0	0	0	0	0	0
0	0	179	6	0	0	2	187	189	0	0	89	2	0	0	0	91	91	0	0	2	0	0	0	0	2	2	0
14	2	1826	114	16	0	23	1995	2013.6	1	1	1279	109	44	1	0	1435	1456.9	0	0	30	1	0	0	0	31	31	2

C => B								C => C									C => D										
M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	34	3	2	1	4	44	50.3	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	74	6	2	0	2	86	87.4	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	73	2	1	0	2	79	80.9	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	64	2	3	0	2	73	74.9	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1	245	13	8	1	10	282	293.5	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	92	8	2	1	3	106	111.3	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	96	4	0	0	0	102	100.4	0	0
0	0	0	0	0	0	1	0.2	0	0	0	0	0	0	0	0	0	1	0	114	3	2	1	5	126	132.5	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	119	6	0	1	0	131	128.3	0	0
0	0	0	0	0	0	1	0.2	0	0	0	0	0	0	0	0	0	8	0	421	21	4	3	8	465	472.5	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	124	7	2	0	2	137	138.4	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	78	5	1	0	1	85	86.5	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	85	2	1	0	1	89	90.5	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	76	2	1	0	1	81	81.7	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	363	16	5	0	5	392	397.1	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	86	8	0	0	1	96	96.2	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	93	10	3	0	2	108	111.5	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	72	10	2	0	0	87	85.8	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	68	8	0	0	2	79	80.2	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1	319	36	5	0	5	370	373.7	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	77	8	4	0	0	90	91.2	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	66	6	1	0	2	76	77.7	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	86	8	3	0	0	97	98.5	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	78	4	1	0	2	86	87.7	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	307	26	9	0	4	349	355.1	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	79	14	2	1	0	98	98.7	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	73	5	1	0	1	80	81.5	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	68	13	1	1	1	84	86.8	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	89	11	0	0	2	102	104	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	309	43	4	2	4	364	371	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	99	10	4	0	1	115	117.2	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	75	7	2	0	1	85	87	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	89	8	3	0	1	101	103.5	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	89	7	3	0	1	101	102.7	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	352	32	12	0	4	402	410.4	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	98	10	2	0	1	113	113.4	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	72	12	0	0	1	86	86.2	0	0
0	0	0	0	0	0	1	0.2	0	0	0	0	0	0	0	0	0	0	1	96	5	2	1	2	107	110.7	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	86	19	3	0	0	108	109.5	0	0
0	0	0	0	0	0	1	0.2	0	0	0	0	0	0	0	0	0	3	1	352	46	7	1	4	414	419.8	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	73	10	5	2	1	91	97.1	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	87	7	1	0	1	96	97.5	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	84	6	0	1	2	94	96.5	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	90	9	2	0	1	102	104	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	334	32	8	3	5	383	395.1	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	88	5	2	0	3	98	102	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	76	19	1	0	6	104	109.1	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	98	7	0	0	2	109	109.4	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	90	8	0	1	1	100	102.3	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	352	39	3	1	12	411	422.8	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	88	4	2	0	3	97	101	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	73	4	0	0	0	77	77	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	84	3	1	0	2	90	92.5	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	73	3	0	0	1	77	78	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	318	14	3	0	6	341	348.5	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	86	2	0	0	3	91	94	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	60	3	1	0	2	68	68.9	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	78	3	0	0	2	84	85.2	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	77	0	0	0	0	77	77	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	301	8	1	0	7	320	325.1	0	0
0	0	0	0	0	0	2	0.4	0	0	0	0	0	0	0	0	0	36	4	3973	326	69	11	74	4493	4584.6	0	0

D => A							D => B									D => C											
CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR
1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	18	7	2	1	2	30	34.3	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21	4	0	0	3	28	31	0	0	0
0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	1	0	38	9	3	0	4	55	59.7	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	48	14	0	0	4	67	70.2	0	0	0
1	1	0	0	0	2	2	0	0	0	0	0	0	0	0	0	2	0	125	34	5	1	13	180	195.2	0	0	0
1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	46	7	0	0	3	56	59	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	51	3	3	1	0	58	60.8	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	61	10	3	0	1	75	77.5	0	0	0
1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	74	5	3	0	2	84	87.5	0	0	0
2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	232	25	9	1	6	273	284.8	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	52	9	3	0	1	67	68.1	0	0	0
2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	60	5	2	1	1	69	72.3	0	0	1
1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	2	0	35	7	0	0	1	45	44.4	0	0	0
2	1	0	0	0	3	3	0	0	0	0	0	0	0	0	0	1	0	44	6	3	0	0	54	54.7	0	0	0
5	1	0	0	0	6	6	0	0	0	0	0	0	0	0	0	4	1	191	27	8	1	3	235	239.5	0	0	1
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	54	0	3	0	1	58	60.5	0	0	0
1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	52	4	1	1	0	59	60.2	0	0	0
2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	1	0	48	2	2	0	1	54	55.2	0	0	0
2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	50	4	1	0	0	55	55.5	0	0	1
5	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0	1	1	204	10	7	1	2	226	231.4	0	0	1
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	52	5	2	1	0	60	62.3	0	0	0
2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	43	8	0	0	1	52	53	0	0	0
1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	45	5	1	0	0	51	51.5	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	54	7	1	0	1	64	64.9	0	0	0
3	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	1	194	25	4	1	2	227	231.7	0	0	0
0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	64	4	1	0	1	70	71.5	0	0	0
1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	51	6	1	0	0	58	58.5	0	0	1
2	1	0	0	0	3	3	0	0	0	0	0	0	0	0	0	1	0	54	7	0	0	1	63	63.2	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	68	5	2	0	0	75	76	0	0	0
3	2	0	0	0	5	5	0	0	0	0	0	0	0	0	0	1	0	237	22	4	0	2	266	269.2	0	0	1
1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	72	5	0	1	1	79	81.3	0	0	0
1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	71	3	1	0	0	75	75.5	0	0	0
1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	1	0	60	8	4	0	1	74	76.2	0	0	0
1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	1	0	53	5	3	1	0	63	65	0	0	0
4	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	2	0	256	21	8	2	2	291	298	0	0	0
1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	55	4	1	0	1	61	62.5	0	0	0
1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	67	6	0	0	2	75	77	0	0	0
1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	79	7	3	0	1	90	92.5	0	0	0
1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	48	4	1	0	1	54	55.5	0	0	0
4	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	249	21	5	0	5	280	287.5	0	0	0
2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	51	4	0	0	2	57	59	0	0	0
2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	49	4	1	0	0	54	54.5	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	60	2	0	0	1	64	64.2	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	47	2	0	0	3	54	55.4	0	0	0
4	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	3	0	207	12	1	0	6	229	233.1	0	0	0
1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	72	7	0	0	0	80	79.4	0	0	1
1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	60	3	1	0	2	66	68.5	0	0	0
1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	70	1	0	0	2	73	75	0	0	0
2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	1	0	79	5	0	0	1	86	86.2	0	0	0
5	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0	1	1	281	16	1	0	5	305	309.1	0	0	1
1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	64	3	0	0	0	67	67	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	67	4	0	0	1	73	73.4	0	0	0
1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	1	0	65	4	0	0	1	71	71.2	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	91	4	0	0	0	95	95	0	0	0
2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	1	1	287	15	0	0	2	306	306.6	0	0	0
1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	1	0	70	2	0	0	1	74	74.2	0	0	0
1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	1	0	74	3	0	0	0	78	77.2	0	0	0
3	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	1	0	70	3	0	0	1	75	75.2	0	0	0
5	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0	0	75	2	1	0	0	78	78.5	0	0	0
10	0	0	0	0	10	10	0	0	0	0	0	0	0	0	0	3	0	289	10	1	0	2	305	305.1	0	0	0
48	4	0	0	0	52	52	0	0	0	0	0	0	0	0	0	18	5	2752	238	53	7	50	3123	3191.2	0	0	4

D => D					
LGV	OGV1	OGV2	PSV	TOT	PCU
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	1	1
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	1	1
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	1	1
0	0	0	0	1	1
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	1	1
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	1	1
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	1	1
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	4	4



IDASO

Survey Name: 003 (23) 22718 MALAHIDE TRAFFIC SURVEY V2
Site: Site 8
Location: The Mall R106/The Rise
Date: Tue 10-Jan-2023

	A => A									A => B									A => C							
TIME	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT
07:00	0	0	0	0	0	0	0	0	0	0	0	21	5	3	1	3	33	38.8	0	0	0	1	0	0	0	1
07:15	0	0	0	0	0	0	0	0	0	0	0	41	4	0	0	4	49	53	0	0	8	0	0	0	0	8
07:30	0	0	0	0	0	0	0	0	0	1	0	44	15	4	0	4	68	73.2	0	0	5	0	0	0	0	5
07:45	0	0	1	0	0	0	0	1	1	1	0	63	14	2	0	5	85	90.2	0	0	2	0	0	0	0	2
H/TOT	0	0	1	0	0	0	0	1	1	2	0	169	38	9	1	16	235	255.2	0	0	15	1	0	0	0	16
08:00	0	0	0	0	0	0	0	0	0	1	0	65	7	0	0	3	76	78.2	0	0	11	0	0	0	0	11
08:15	0	0	0	0	0	0	0	0	0	0	0	84	6	3	1	1	95	98.8	0	0	18	1	0	0	0	19
08:30	0	0	0	0	0	0	0	0	0	0	0	104	11	3	0	1	119	121.5	0	0	2	0	0	0	0	2
08:45	0	0	0	0	0	0	0	0	0	0	0	106	12	7	0	3	128	134.5	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	1	0	359	36	13	1	8	418	433	0	0	31	1	0	0	0	32
09:00	0	0	0	0	0	0	0	0	0	2	1	85	14	3	0	1	106	106.3	1	0	1	0	0	0	0	2
09:15	0	0	0	0	0	0	0	0	0	0	0	84	9	2	1	1	97	100.3	0	0	3	0	0	0	0	3
09:30	0	0	0	0	0	0	0	0	0	2	0	53	10	0	0	1	66	65.4	0	0	3	0	0	0	0	3
09:45	0	0	0	0	0	0	0	0	0	1	0	65	6	3	0	0	75	75.7	0	0	4	1	0	0	0	5
H/TOT	0	0	0	0	0	0	0	0	0	5	1	287	39	8	1	3	344	347.7	1	0	11	1	0	0	0	13
10:00	0	0	1	0	0	0	0	1	1	1	0	83	4	2	0	2	92	94.2	0	0	6	0	0	0	0	6
10:15	0	0	1	0	0	0	0	1	1	1	1	73	4	4	1	0	84	85.9	0	0	11	0	0	0	0	11
10:30	0	0	0	0	0	0	0	0	0	1	0	83	9	2	0	2	97	99.2	0	0	6	0	0	0	0	6
10:45	0	0	0	0	0	0	0	0	0	0	0	73	10	1	0	0	84	84.5	0	0	8	0	0	0	0	8
H/TOT	0	0	2	0	0	0	0	2	2	3	1	312	27	9	1	4	357	363.8	0	0	31	0	0	0	0	31
11:00	0	0	1	0	0	0	0	1	1	0	1	85	8	2	1	1	98	100.7	0	0	6	0	0	0	0	6
11:15	0	0	0	0	0	0	0	0	0	1	0	63	12	1	0	2	79	80.7	0	0	3	0	0	0	0	3
11:30	0	0	1	0	0	0	0	1	1	0	0	72	6	2	0	0	80	81	0	0	5	1	0	0	0	6
11:45	0	0	0	0	0	0	0	0	0	0	1	88	10	2	0	1	102	103.4	0	0	4	2	0	0	0	6
H/TOT	0	0	2	0	0	0	0	2	2	1	2	308	36	7	1	4	359	365.8	0	0	18	3	0	0	0	21
12:00	0	0	0	0	0	0	0	0	0	0	0	84	6	1	0	1	92	93.5	0	0	9	0	0	0	0	9
12:15	0	0	0	0	0	0	0	0	0	0	0	86	6	1	0	1	94	95.5	0	0	5	0	0	0	0	5
12:30	0	0	0	0	0	0	0	0	0	1	0	89	8	0	0	1	99	99.2	0	0	11	1	0	0	0	12
12:45	0	0	1	0	0	0	0	1	1	0	0	100	7	2	0	0	109	110	0	0	4	0	0	0	0	4
H/TOT	0	0	1	0	0	0	0	1	1	1	0	359	27	4	0	3	394	398.2	0	0	29	1	0	0	0	30
13:00	0	0	0	0	0	0	0	0	0	3	0	108	6	0	1	2	120	120.9	0	0	2	0	0	0	0	2
13:15	0	0	0	0	0	0	0	0	0	0	0	104	3	1	0	0	108	108.5	0	0	3	0	0	0	0	3
13:30	0	0	0	0	0	0	0	0	0	1	0	93	6	4	0	2	106	109.2	0	0	3	2	0	0	0	5
13:45	0	0	0	0	0	0	0	0	0	1	0	92	9	3	1	0	106	108	0	0	1	0	0	0	0	1
H/TOT	0	0	0	0	0	0	0	0	0	5	0	397	24	8	2	4	440	446.6	0	0	9	2	0	0	0	11
14:00	0	0	0	0	1	0	0	1	1.5	0	0	83	6	0	0	2	91	93	0	0	7	0	0	0	0	7
14:15	0	0	0	0	0	0	0	0	0	0	0	95	6	0	0	2	103	105	0	0	4	1	0	0	0	5
14:30	0	0	0	0	0	0	0	0	0	1	0	120	10	4	0	2	137	140.2	0	1	1	0	1	0	0	3
14:45	0	0	0	0	0	0	0	0	0	0	0	84	8	0	0	2	94	96	0	0	3	0	0	0	0	3
H/TOT	0	0	0	0	1	0	0	1	1.5	1	0	382	30	4	0	8	425	434.2	0	1	15	1	1	0	0	18
15:00	0	0	0	0	0	0	0	0	0	0	0	95	6	1	0	1	103	104.5	0	0	11	0	0	0	0	11
15:15	0	0	0	0	0	0	0	0	0	0	0	85	4	2	0	1	92	94	0	0	5	0	0	0	0	5
15:30	0	0	0	0	0	0	0	0	0	1	0	98	6	0	0	2	107	108.2	0	0	10	0	0	0	0	10
15:45	0	0	0	0	0	0	0	0	0	3	0	92	2	0	0	4	101	102.6	0	0	10	0	0	0	0	10
H/TOT	0	0	0	0	0	0	0	0	0	4	0	370	18	3	0	8	403	409.3	0	0	36	0	0	0	0	36
16:00	0	0	0	0	0	0	0	0	0	1	1	95	7	0	0	0	104	102.6	0	0	9	0	0	0	0	9
16:15	0	0	0	0	0	0	0	0	0	0	0	90	5	1	0	3	99	102.5	0	0	15	1	0	0	0	16
16:30	0	0	0	0	0	0	0	0	0	0	0	105	2	0	0	3	110	113	0	0	24	1	0	0	0	25
16:45	0	0	0	0	0	0	0	0	0	1	0	114	7	0	0	1	123	123.2	0	0	24	1	0	0	0	25
H/TOT	0	0	0	0	0	0	0	0	0	2	1	404	21	1	0	7	436	441.3	0	0	72	3	0	0	0	75
17:00	0	0	0	0	0	0	0	0	0	0	0	105	5	0	0	1	111	112	0	0	19	0	0	0	0	19
17:15	0	0	0	0	0	0	0	0	0	0	1	104	6	0	0	1	112	112.4	0	0	10	0	0	0	0	10
17:30	0	0	0	0	0	0	0	0	0	2	0	105	7	0	0	2	116	116.4	0	0	20	0	0	0	0	20
17:45	0	0	0	0	0	0	0	0	0	1	0	135	6	0	0	0	142	141.2	0	0	16	0	0	0	0	16
H/TOT	0	0	0	0	0	0	0	0	0	3	1	449	24	0	0	4	481	482	0	0	65	0	0	0	0	65
18:00	0	0	0	0	0	0	0	0	0	1	0	112	3	0	0	2	118	119.2	0	0	24	0	0	0	0	24
18:15	0	0	1	0	0	0	0	1	1	1	0	97	4	0	0	0	102	101.2	0	0	11	0	0	0	0	11
18:30	0	0	0	0	0	0	0	0	0	1	0	97	4	0	0	2	104	105.2	0	0	10	0	0	0	0	10
18:45	0	0	0	0	0	0	0	0	0	0	0	108	4	1	0	0	113	113.5	0	0	8	0	0	0	0	8
H/TOT	0	0	1	0	0	0	0	1	1	3	0	414	15	1	0	4	437	439.1	0	0	53	0	0	0	0	53
12 TOT	0	0	7	0	1	0	0	8	8.5	31	6	4210	335	67	7	73	4729	4816.2	1	1	385	13	1	0	0	401

	B => A									B => B									B => C								
PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
1	0	0	30	4	2	1	4	41	47.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	2	0	72	5	2	0	2	83	84.4	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
5	0	1	71	2	1	0	2	77	78.9	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	6	6
2	2	0	59	3	3	0	2	69	70.9	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4
16	4	1	232	14	8	1	10	270	281.5	0	0	0	0	0	0	0	0	0	0	0	12	0	0	0	0	12	12
11	0	0	91	8	2	1	3	105	110.3	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4
19	2	0	94	4	1	0	0	101	99.9	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3
2	2	0	93	2	1	1	5	104	109.2	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3
0	5	0	86	6	0	1	0	98	95.3	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0.2
32	9	0	364	20	4	3	8	408	414.7	0	0	0	0	0	0	0	0	0	1	0	10	0	0	0	0	11	10.2
1.2	2	0	93	5	2	0	1	103	103.4	0	0	0	1	0	0	0	1	1	0	0	1	0	0	0	0	1	1
3	0	0	75	5	1	0	1	82	83.5	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
3	0	0	82	2	1	0	1	86	87.5	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
5	1	0	75	2	1	0	1	80	80.7	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
12.2	3	0	325	14	5	0	4	351	355.1	0	0	0	1	0	0	0	1	1	0	0	5	1	0	0	0	6	6
6	1	0	83	8	0	0	1	93	93.2	0	0	1	0	0	0	0	1	1	0	0	3	0	0	0	0	3	3
11	0	0	87	9	3	0	2	101	104.5	0	0	0	0	0	0	0	0	0	0	0	4	2	0	0	0	6	6
6	3	1	72	10	2	0	0	88	86	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
8	0	0	65	9	0	0	2	76	78	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	8	8
31	4	1	307	36	5	0	5	358	361.7	0	0	1	0	0	0	0	1	1	0	0	16	2	0	0	0	18	18
6	1	0	69	8	4	0	0	82	83.2	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4
3	1	0	65	7	1	0	2	76	77.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	80	8	3	0	0	91	92.5	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
6	1	0	75	4	1	0	2	83	84.7	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5	5
21	3	0	289	27	9	0	4	332	338.1	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	10	10
9	2	0	72	15	2	1	0	92	92.7	0	0	1	0	0	0	0	1	1	0	0	1	0	0	0	0	1	1
5	0	0	68	4	1	0	1	74	75.5	0	0	1	0	0	0	0	1	1	0	0	1	0	0	0	0	1	1
12	0	0	67	11	1	1	1	81	83.8	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
4	0	0	86	10	0	0	2	98	100	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
30	2	0	293	40	4	2	4	345	352	0	0	2	0	0	0	0	2	2	0	0	4	0	0	0	0	4	4
2	1	0	96	7	4	0	1	109	111.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	70	8	2	0	1	81	83	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	72	7	3	0	1	83	85.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	1	0	83	6	3	0	1	94	95.7	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
11	2	0	321	28	12	0	4	367	375.4	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
7	2	0	87	9	1	0	1	100	99.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	1	0	68	10	0	0	1	80	80.2	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
2.9	1	1	70	4	2	1	2	81	83.9	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
3	0	0	78	17	4	0	0	99	101	0	0	0	0	0	0	0	0	0	0	0	3	0	1	0	0	4	4.5
17.9	4	1	303	40	7	1	4	360	365	0	0	0	0	0	0	0	0	0	0	0	7	0	1	0	0	8	8.5
11	0	0	71	9	4	2	1	87	92.6	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4
5	0	0	78	7	1	0	1	87	88.5	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3
10	1	0	81	6	0	1	2	91	93.5	0	0	1	0	0	0	0	1	1	0	0	7	0	0	0	0	7	7
10	0	0	84	8	2	0	1	95	97	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	10	10
36	1	0	314	30	7	3	5	360	371.6	0	0	1	0	0	0	0	1	1	0	0	24	0	0	0	0	24	24
9	0	0	87	5	2	0	4	98	103	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4
16	1	1	75	19	1	0	5	102	106.1	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	3	3
25	2	0	85	7	0	0	2	96	96.4	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	7	7
25	0	0	80	8	0	1	1	90	92.3	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4
75	3	1	327	39	3	1	12	386	397.8	0	0	0	0	0	0	0	0	0	0	0	17	1	0	0	0	18	18
19	0	0	78	6	2	0	3	89	93	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4
10	0	0	70	5	0	0	0	75	75	0	0	1	0	0	0	0	1	1	0	0	5	0	0	0	0	5	5
20	0	0	84	3	1	0	2	90	92.5	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
16	0	0	68	3	0	0	1	72	73	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	6	6
65	0	0	300	17	3	0	6	326	333.5	0	0	1	0	0	0	0	1	1	0	0	16	0	0	0	0	16	16
24	0	0	83	2	0	0	3	88	91	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	6	6
11	2	0	60	4	1	0	2	69	69.9	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4
10	1	0	72	3	0	0	2	78	79.2	0	0	1	0	0	0	0	1	1	0	0	3	0	0	0	0	3	3
8	0	0	75	0	0	0	0	75	75	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	7	7
53	3	0	290	9	1	0	7	310	315.1	0	0	1	0	0	0	0	1	1	0	0	20	0	0	0	0	20	20
400.1	38	4	3665	314	68	11	73	4173	4261.5	0	0	6	1	0	0	0	7	7	1	0	142	4	1	0	0	148	147.7

C => A									C => B									C => C								
P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	3	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	2	0	0	0	0	2	2	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
0	0	3	0	0	0	0	3	3	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0
0	0	10	0	0	0	0	10	10	0	0	3	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0
0	0	4	0	0	0	0	4	4	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0
0	0	22	0	0	0	0	22	22	0	0	13	0	0	0	0	13	13	0	0	0	0	0	0	0	0	0
0	0	36	0	0	0	0	36	36	0	0	33	0	0	0	0	33	33	0	0	0	0	0	0	0	0	0
0	0	62	0	0	0	0	62	62	0	0	50	0	0	0	0	50	50	0	0	0	0	0	0	0	0	0
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0	0	2	0	0	0	0	2	2	0	0	3	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0
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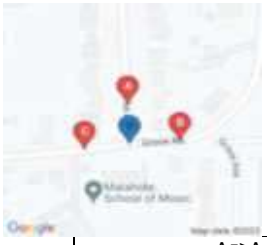
IDASO

Survey Name: 003 (23) 22718 MALAHIDE TRAFFIC SURVEY V2
Site: Site 9
Location: R106 Coast Rd/Grove Rd
Date: Tue 10-Jan-2023

	A => A									A => B									A => C							
TIME	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT
07:00	0	0	0	0	0	1	0	1	2.3	0	0	18	4	2	0	3	27	31	0	0	5	0	0	0	0	5
07:15	0	0	0	0	0	0	0	0	0	0	0	33	4	1	0	4	42	46.5	0	0	4	0	0	0	0	4
07:30	0	0	0	0	0	0	0	0	0	1	0	38	13	4	0	4	60	65.2	0	0	10	3	0	0	0	13
07:45	0	0	0	0	0	0	0	0	0	0	0	57	11	2	0	5	75	81	0	0	7	2	0	0	0	9
H/TOT	0	0	0	0	0	1	0	1	2.3	1	0	146	32	9	0	16	204	223.7	0	0	26	5	0	0	0	31
08:00	0	0	0	0	0	0	0	0	0	0	0	55	6	0	0	2	63	65	0	0	11	1	0	0	0	12
08:15	0	0	0	0	0	0	0	0	0	0	0	72	3	3	1	2	81	85.8	0	0	12	2	0	0	0	14
08:30	0	0	0	0	0	0	0	0	0	0	0	91	11	3	0	1	106	108.5	0	0	22	1	0	0	0	23
08:45	0	0	1	0	0	0	0	1	1	0	0	101	10	6	0	2	119	124	0	0	41	1	1	0	1	44
H/TOT	0	0	1	0	0	0	0	1	1	0	0	319	30	12	1	7	369	383.3	0	0	86	5	1	0	1	93
09:00	0	0	0	0	0	0	0	0	0	2	1	77	14	3	0	1	98	98.3	1	0	15	2	0	0	0	18
09:15	0	0	0	0	0	0	0	0	0	0	0	70	9	2	1	1	83	86.3	0	0	15	0	0	0	0	15
09:30	0	0	3	0	0	0	0	3	3	1	0	47	8	0	0	1	57	57.2	1	0	6	1	0	0	0	8
09:45	0	0	0	1	0	0	0	1	1	1	0	55	6	2	0	0	64	64.2	0	0	10	0	1	0	0	11
H/TOT	0	0	3	1	0	0	0	4	4	4	1	249	37	7	1	3	302	306	2	0	46	3	1	0	0	52
10:00	0	0	1	0	0	0	0	1	1	1	0	70	3	1	0	2	77	78.7	0	0	11	1	1	0	0	13
10:15	0	0	0	0	0	0	0	0	0	2	1	64	4	4	1	0	76	77.1	0	0	9	0	0	0	0	9
10:30	0	0	1	0	0	0	0	1	1	1	0	72	7	2	0	2	84	86.2	0	0	13	1	0	0	0	14
10:45	0	0	0	0	0	0	0	0	0	0	0	61	10	1	0	0	72	72.5	0	0	10	1	0	0	0	11
H/TOT	0	0	2	0	0	0	0	2	2	4	1	267	24	8	1	4	309	314.5	0	0	43	3	1	0	0	47
11:00	0	0	2	0	0	0	0	2	2	0	1	69	7	2	1	1	81	83.7	0	0	10	1	0	0	0	11
11:15	0	0	1	0	0	0	0	1	1	1	0	65	10	1	0	2	79	80.7	0	0	5	1	0	0	0	6
11:30	0	0	0	0	0	0	0	0	0	0	0	65	4	1	0	0	70	70.5	0	0	9	2	1	0	0	12
11:45	0	0	1	0	0	0	0	1	1	0	1	74	8	2	0	1	86	87.4	0	0	9	3	0	0	0	12
H/TOT	0	0	4	0	0	0	0	4	4	1	2	273	29	6	1	4	316	322.3	0	0	33	7	1	0	0	41
12:00	0	0	0	0	0	0	0	0	0	0	0	80	6	1	0	1	88	89.5	0	0	10	0	0	0	0	10
12:15	0	0	1	0	0	0	0	1	1	0	0	75	6	1	0	1	83	84.5	0	0	9	0	0	0	0	9
12:30	0	0	1	0	0	0	0	1	1	1	0	85	8	0	0	1	95	95.2	0	0	13	0	0	0	0	13
12:45	0	0	2	0	0	0	0	2	2	0	0	80	6	1	0	0	87	87.5	0	0	15	2	1	0	0	18
H/TOT	0	0	4	0	0	0	0	4	4	1	0	320	26	3	0	3	353	356.7	0	0	47	2	1	0	0	50
13:00	0	0	0	0	0	0	0	0	0	3	0	83	6	0	1	2	95	95.9	0	0	22	0	0	0	0	22
13:15	0	0	2	0	0	0	0	2	2	0	0	87	3	0	0	0	90	90	0	0	19	0	1	0	0	20
13:30	0	0	0	0	0	0	0	0	0	1	0	86	4	4	0	2	97	100.2	0	0	13	1	0	0	0	14
13:45	0	0	0	0	0	0	0	0	0	0	0	84	9	3	1	0	97	99.8	0	0	11	0	0	0	0	11
H/TOT	0	0	2	0	0	0	0	2	2	4	0	340	22	7	2	4	379	385.9	0	0	65	1	1	0	0	67
14:00	0	0	0	0	0	0	0	0	0	1	0	64	5	0	0	2	72	73.2	0	0	17	1	0	0	0	18
14:15	0	0	1	0	0	0	0	1	1	0	0	76	6	0	0	2	84	86	0	0	18	0	0	0	0	18
14:30	0	0	1	0	0	0	0	1	1	1	0	109	11	4	0	2	127	130.2	0	0	17	1	0	0	0	18
14:45	0	0	1	0	0	0	0	1	1	0	0	70	7	0	0	1	78	79	0	0	13	1	0	0	0	14
H/TOT	0	0	3	0	0	0	0	3	3	2	0	319	29	4	0	7	361	368.4	0	0	65	3	0	0	0	68
15:00	0	0	1	0	0	0	0	1	1	0	0	91	6	1	0	2	100	102.5	0	0	11	0	0	0	0	11
15:15	0	0	2	0	0	0	0	2	2	0	0	80	3	2	0	1	86	88	0	0	9	1	0	0	0	10
15:30	0	0	0	0	0	0	0	0	0	1	0	94	5	0	0	2	102	103.2	0	0	8	1	0	0	0	9
15:45	0	0	0	0	0	0	0	0	0	2	0	86	2	0	0	4	94	96.4	0	0	9	0	0	0	0	9
H/TOT	0	0	3	0	0	0	0	3	3	3	0	351	16	3	0	9	382	390.1	0	0	37	2	0	0	0	39
16:00	0	0	0	0	0	0	0	0	0	1	1	88	7	0	0	0	97	95.6	0	0	7	0	0	0	0	7
16:15	0	0	0	0	0	0	0	0	0	0	0	84	5	1	0	3	93	96.5	0	0	10	0	0	0	0	10
16:30	0	0	0	0	0	0	0	0	0	0	0	98	2	0	0	3	103	106	0	0	13	0	0	0	0	13
16:45	0	0	1	0	0	0	0	1	1	0	0	101	6	0	0	1	108	109	0	0	18	1	0	0	0	19
H/TOT	0	0	1	0	0	0	0	1	1	1	1	371	20	1	0	7	401	407.1	0	0	48	1	0	0	0	49
17:00	0	0	0	0	0	0	0	0	0	0	0	99	4	0	0	1	104	105	0	0	12	1	0	0	0	13
17:15	0	0	0	0	0	0	0	0	0	0	0	91	4	0	0	1	96	97	0	0	11	2	0	0	0	13
17:30	0	0	0	0	0	0	0	0	0	2	0	94	8	0	0	2	106	106.4	0	0	16	0	0	0	0	16
17:45	0	0	0	0	0	0	0	0	0	1	0	133	4	0	0	0	138	137.2	0	0	12	1	0	0	0	13
H/TOT	0	0	0	0	0	0	0	0	0	3	0	417	20	0	0	4	444	445.6	0	0	51	4	0	0	0	55
18:00	0	0	0	0	0	0	0	0	0	1	0	109	3	0	0	2	115	116.2	0	0	15	0	0	0	0	15
18:15	0	0	1	0	0	0	0	1	1	0	0	88	3	0	0	0	91	91	1	0	11	1	0	0	0	13
18:30	0	0	0	0	0	0	0	0	0	1	0	96	4	0	0	2	103	104.2	0	0	6	0	0	0	0	6
18:45	0	0	2	0	0	0	0	2	2	0	0	101	4	1	0	0	106	106.5	0	0	9	0	0	0	0	9
H/TOT	0	0	3	0	0	0	0	3	3	2	0	394	14	1	0	4	415	417.9	1	0	41	1	0	0	0	43
12 TOT	0	0	26	1	0	1	0	28	29.3	26	5	3766	299	61	6	72	4235	4321.5	3	0	588	37	6	0	1	635

	B => A									B => B									B => C								
PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
5	1	0	28	5	2	0	4	40	44.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	1	1	65	6	2	0	2	77	78.6	0	0	1	0	0	0	0	1	1	0	0	2	0	0	0	0	2	2
13	0	1	74	2	1	0	2	80	81.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	2	0	55	2	2	0	3	64	66.4	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
31	4	2	222	15	7	0	11	261	271.1	0	0	1	0	0	0	0	1	1	0	0	3	0	0	0	0	3	3
12	0	0	82	7	2	1	2	94	98.3	0	0	0	0	0	0	0	0	0	0	0	4	0	1	0	0	5	5.5
14	3	0	93	4	1	0	0	101	99.1	0	0	0	0	0	0	0	0	0	0	0	3	1	0	0	0	4	4
23	0	0	85	1	1	0	5	92	97.5	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	8	8
45.5	6	0	81	6	0	1	0	94	90.5	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	8	8
94.5	9	0	341	18	4	2	7	381	385.4	0	0	0	0	0	0	0	0	0	0	0	23	1	1	0	0	25	25.5
17.2	2	0	77	4	2	0	1	86	86.4	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3
15	0	0	71	5	1	0	1	78	79.5	0	0	1	0	0	0	0	1	1	0	0	2	1	0	0	0	3	3
7.2	0	0	72	1	1	0	1	75	76.5	0	0	0	0	0	0	0	0	0	0	0	2	0	1	0	0	3	3.5
11.5	1	0	73	1	1	0	1	77	77.7	0	0	1	0	0	0	0	1	1	0	0	4	0	0	0	0	4	4
50.9	3	0	293	11	5	0	4	316	320.1	0	0	2	0	0	0	0	2	2	0	0	11	1	1	0	0	13	13.5
13.5	1	0	83	6	0	0	1	91	91.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	0	0	79	11	2	0	2	94	97	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
14	2	0	66	7	2	0	0	77	76.4	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4
11	0	0	64	7	0	0	2	73	75	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	3	3
47.5	3	0	292	31	4	0	5	335	339.6	0	0	0	0	0	0	0	0	0	0	0	8	1	0	0	0	9	9
11	1	0	65	7	4	0	0	77	78.2	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
6	1	0	59	6	1	0	2	69	70.7	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5	5
12.5	0	0	71	8	2	0	0	81	82	0	0	0	0	0	0	0	0	0	0	0	6	1	0	0	0	7	7
12	1	0	65	4	1	0	2	73	74.7	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
41.5	3	0	260	25	8	0	4	300	305.6	0	0	0	0	0	0	0	0	0	0	0	15	1	0	0	0	16	16
10	2	0	66	16	2	1	0	87	87.7	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3
9	0	0	62	3	1	0	1	67	68.5	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3
13	0	0	67	11	1	1	1	81	83.8	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3
18.5	0	0	74	10	0	0	2	86	88	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4
50.5	2	0	269	40	4	2	4	321	328	0	0	0	0	0	0	0	0	0	0	0	13	0	0	0	0	13	13
22	1	0	83	6	4	0	1	95	97.2	0	0	0	0	0	0	0	0	0	0	0	3	1	0	0	0	4	4
20.5	0	0	66	10	2	0	1	79	81	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3
14	0	0	60	4	1	0	1	66	67.5	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4
11	1	0	71	7	3	0	1	83	84.7	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3
67.5	2	0	280	27	10	0	4	323	330.4	0	0	0	0	0	0	0	0	0	0	0	13	1	0	0	0	14	14
18	1	0	75	7	1	0	1	85	85.7	0	0	0	0	0	0	0	0	0	0	0	6	1	0	0	0	7	7
18	1	0	56	10	0	0	1	68	68.2	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3
18	1	0	67	4	2	1	2	77	80.5	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	6	6
14	0	0	62	15	5	0	0	82	84.5	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3
68	3	0	260	36	8	1	4	312	318.9	0	0	0	0	0	0	0	0	0	0	0	18	1	0	0	0	19	19
11	0	0	66	8	3	2	1	80	85.1	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3
10	0	0	77	5	1	0	1	84	85.5	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4
9	1	0	80	5	0	1	2	89	91.5	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	9	9
9	0	0	82	7	2	0	1	92	94	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	9	9
39	1	0	305	25	6	3	5	345	356.1	0	0	0	0	0	0	0	0	0	0	0	25	0	0	0	0	25	25
7	0	0	87	5	2	0	4	98	103	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5	5
10	1	1	69	15	1	0	5	92	96.1	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	7	7
13	2	0	83	4	0	0	2	91	91.4	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3
19	0	0	80	7	0	1	1	89	91.3	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	3	3
49	3	1	319	31	3	1	12	370	381.8	0	0	0	0	0	0	0	0	0	0	0	17	1	0	0	0	18	18
13	0	0	78	4	2	0	3	87	91	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
13	0	0	66	4	0	0	0	70	70	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
16	0	0	70	4	1	0	2	77	79.5	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3
13	0	0	59	4	0	0	1	64	65	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	7	7
55	0	0	273	16	3	0	6	298	305.5	0	0	0	0	0	0	0	0	0	0	0	14	0	0	0	0	14	14
15	0	0	78	2	0	0	3	83	86	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3
12.2	2	0	53	3	1	0	2	61	61.9	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5	5
6	1	0	76	2	0	0	2	81	82.2	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3
9	0	0	70	1	0	0	0	71	71	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	8	8
42.2	3	0	277	8	1	0	7	296	301.1	0	0	0	0	0	0	0	0	0	0	0	19	0	0	0	0	19	19
636.6	36	3	3391	283	63	9	73	3858	3943.6	0	0	3	0	0	0	0	3	3	0	0	179	7	2	0	0	188	189

C => A									C => B									C => C								
P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
0	0	2	0	0	0	0	2	2	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
0	0	7	0	0	0	0	7	7	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
0	0	4	0	0	0	0	4	4	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
0	0	6	1	1	0	0	8	8.5	0	0	5	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0
0	0	19	1	1	0	0	21	21.5	0	0	8	0	0	0	0	8	8	0	0	0	0	0	0	0	0	0
0	0	10	0	0	0	0	10	10	0	0	5	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0
0	0	8	0	0	0	0	8	8	0	0	5	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0
1	0	16	1	0	1	0	19	19.5	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
0	0	12	1	0	0	0	13	13	0	0	10	1	0	0	0	11	11	0	0	0	0	0	0	0	0	0
1	0	46	2	0	1	0	50	50.5	0	0	21	1	0	0	0	22	22	0	0	0	0	0	0	0	0	0
0	0	6	0	0	0	0	6	6	0	0	9	0	0	0	0	9	9	0	0	0	0	0	0	0	0	0
0	0	4	0	0	0	0	4	4	0	0	6	0	0	0	0	6	6	0	0	0	0	0	0	0	0	0
0	0	10	1	0	0	0	11	11	0	0	7	0	0	0	0	7	7	0	0	0	0	0	0	0	0	0
0	0	4	1	0	0	0	5	5	0	0	7	0	0	0	0	7	7	0	0	0	0	0	0	0	0	0
0	0	24	2	0	0	0	26	26	0	0	29	0	0	0	0	29	29	0	0	0	0	0	0	0	0	0
0	0	6	1	0	0	0	7	7	0	0	6	2	1	0	0	9	9.5	0	0	0	0	0	0	0	0	0
0	0	11	0	1	0	0	12	12.5	0	0	3	2	0	0	0	5	5	0	0	0	0	0	0	0	0	0
0	1	7	3	0	0	0	11	10.4	0	0	4	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0
0	0	10	1	0	0	0	11	11	0	0	7	0	0	0	0	7	7	0	0	0	0	0	0	0	0	0
0	1	34	5	1	0	0	41	40.9	0	0	20	4	1	0	0	25	25.5	0	0	0	0	0	0	0	0	0
0	0	8	1	0	0	0	9	9	0	0	4	1	0	0	0	5	5	0	0	0	0	0	0	0	0	0
0	0	7	0	0	0	0	7	7	0	0	6	1	0	0	0	7	7	0	0	0	0	0	0	0	0	0
0	0	7	0	1	0	0	8	8.5	0	0	7	1	0	0	0	8	8	0	0	0	0	0	0	0	0	0
0	0	12	0	0	0	0	12	12	0	0	11	0	0	0	0	11	11	0	0	0	0	0	0	0	0	0
0	0	34	1	1	0	0	36	36.5	0	0	28	3	0	0	0	31	31	0	0	0	0	0	0	0	0	0
0	0	4	0	0	0	0	4	4	0	0	3	1	0	0	0	4	4	0	0	0	0	0	0	0	0	0
0	0	3	0	0	0	0	3	3	0	0	7	1	1	0	0	9	9.5	0	0	0	0	0	0	0	0	0
0	0	5	1	0	0	0	6	6	0	0	5	0	1	0	0	6	6.5	0	0	0	0	0	0	0	0	0
0	0	13	0	0	0	0	13	13	0	0	4	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0
0	0	25	1	0	0	0	26	26	0	0	19	2	2	0	0	23	24	0	0	0	0	0	0	0	0	0
0	0	10	1	0	0	0	11	11	0	0	4	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0
0	0	7	0	0	0	0	7	7	0	0	4	1	0	0	0	5	5	0	0	0	0	0	0	0	0	0
0	0	10	1	2	0	0	13	14	1	0	18	1	0	0	0	20	19.2	0	0	0	0	0	0	0	0	0
0	0	9	0	0	0	0	9	9	0	0	10	0	0	0	0	10	10	0	0	0	0	0	0	0	0	0
0	0	36	2	2	0	0	40	41	1	0	36	2	0	0	0	39	38.2	0	0	0	0	0	0	0	0	0
1	0	14	1	0	0	0	16	15.2	0	0	3	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0
0	0	10	0	0	0	0	10	10	0	0	7	0	0	0	0	7	7	0	0	0	0	0	0	0	0	0
0	1	14	0	1	0	0	16	15.9	0	0	31	0	0	0	0	31	31	0	0	0	0	0	0	0	0	0
0	0	11	1	0	0	0	12	12	1	0	21	0	0	0	0	22	21.2	0	0	0	0	0	0	0	0	0
1	1	49	2	1	0	0	54	53.1	1	0	62	0	0	0	0	63	62.2	0	0	0	0	0	0	0	0	0
0	0	6	2	0	0	0	8	8	0	0	6	0	0	0	0	6	6	0	0	0	0	0	0	0	0	0
0	0	4	2	0	0	0	6	6	0	0	15	0	0	0	0	15	15	0	0	0	0	0	0	0	0	0
0	0	6	1	0	0	0	7	7	0	0	11	0	0	0	0	11	11	0	0	0	0	0	0	0	0	0
0	0	8	1	0	0	0	9	9	0	0	8	0	0	0	0	8	8	0	0	0	0	0	0	0	0	0
0	0	24	6	0	0	0	30	30	0	0	40	0	0	0	0	40	40	0	0	0	0	0	0	0	0	0
0	0	6	0	0	0	0	6	6	0	0	11	0	0	0	0	11	11	0	0	0	0	0	0	0	0	0
0	0	10	6	0	0	0	16	16	0	0	15	0	0	0	0	15	15	0	0	0	0	0	0	0	0	0
0	0	7	0	0	0	0	7	7	0	0	11	0	0	0	0	11	11	0	0	0	0	0	0	0	0	0
0	0	8	2	0	0	0	10	10	0	0	6	0	0	0	0	6	6	0	0	0	0	0	0	0	0	0
0	0	31	8	0	0	0	39	39	0	0	43	0	0	0	0	43	43	0	0	0	0	0	0	0	0	0
0	0	8	0	0	0	0	8	8	0	0	16	1	1	0	0	18	18.5	0	0	0	0	0	0	0	0	0
0	0	9	1	0	0	0	10	10	0	0	10	1	0	0	0	11	11	0	0	0	0	0	0	0	0	0
0	0	15	0	0	0	0	15	15	0	0	11	0	0	0	0	11	11	0	0	0	0	0	0	0	0	0
0	0	13	1	0	0	0	14	14	0	0	21	0	0	0	0	21	21	0	0	0	0	0	0	0	0	0
0	0	45	2	0	0	0	47	47	0	0	58	2	1	0	0	61	61.5	0	0	0	0	0	0	0	0	0
0	0	15	0	0	0	0	15	15	0	0	20	0	0	0	0	20	20	0	0	0	0	0	0	0	0	0
0	0	5	1	0	0	0	6	6	0	0	11	0	0	0	0	11	11	0	0	0	0	0	0	0	0	0
0	0	5	2	0	0	0	7	7	0	0	9	0	0	0	0	9	9	0	0	0	0	0	0	0	0	0
0	0	10	0	0	0	0	10	10	0	0	13	0	0	0	0	13	13	0	0	0	0	0	0	0	0	0
0	0	35	3	0	0	0	38	38	0	0	53	0	0	0	0	53	53	0	0	0	0	0	0	0	0	0
2	2	402	35	6	1	0	448	449.5	2	0	417	14	4	0	0	437	437.4	0	0	0	0	0	0	0	0	0



IDASO

Survey Name: 003 (23) 22718 MALAHIDE TRAFFIC SURVEY V2
Site: Site 10
Location: The Rise/Grove Rd
Date: Tue 10-Jan-2023

	A => A									A => B									A => C							
TIME	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
07:15	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	7	0	0	0	0	7
07:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	8
07:45	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	7	0	0	0	0	7
H/TOT	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	23	0	0	0	0	23
08:00	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	12	0	0	0	0	12
08:15	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3	0	0	23	1	0	0	0	24
08:30	0	0	0	0	0	0	0	0	0	0	0	3	0	0	1	0	4	5.3	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	1	0	0	0	0	0	0	1
H/TOT	0	0	0	0	0	0	0	0	0	0	0	8	0	0	1	0	9	10.3	1	0	35	1	0	0	0	37
09:00	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	3	0	0	0	0	3
09:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5
09:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	2	0	0	0	6
H/TOT	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	12	2	0	0	0	14
10:00	0	0	1	0	0	0	0	1	1	0	0	1	0	0	0	0	1	1	0	0	6	0	0	0	0	6
10:15	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	11	1	0	0	0	12
10:30	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	3	3	0	0	7	0	0	0	0	7
10:45	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	14	0	0	0	0	14
H/TOT	0	0	1	0	0	0	0	1	1	0	0	6	1	0	0	0	7	7	0	0	38	1	0	0	0	39
11:00	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	9	0	0	0	0	9
11:15	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	3	0	0	0	0	3
11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	0	0	0	4
11:45	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	7	0	0	0	0	7
H/TOT	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4	0	0	22	1	0	0	0	23
12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	6
12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5
12:30	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	8	0	0	0	0	8
12:45	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	3	0	0	0	0	3
H/TOT	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	22	0	0	0	0	22
13:00	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0
13:15	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0
13:30	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	2	2	0	0	0	0	0	0	0	0
13:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
H/TOT	0	0	0	0	0	0	0	0	0	0	0	3	1	0	0	0	4	4	0	0	1	0	0	0	0	1
14:00	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0
14:15	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3	0	0	0	0	0	0	0	0
14:30	0	0	0	0	0	0	0	0	0	0	1	2	0	1	0	0	4	3.9	0	0	0	0	0	0	0	0
14:45	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	3	0	1	0	0	4
H/TOT	0	0	0	0	0	0	0	0	0	0	1	8	0	1	0	0	10	9.9	0	0	3	0	1	0	0	4
15:00	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	9	0	0	0	0	9
15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	1	0	0	0	10
15:30	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	1	22	0	0	0	0	23
15:45	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	17	0	0	0	0	17
H/TOT	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5	5	0	1	57	1	0	0	0	59
16:00	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	11	0	0	0	0	11
16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	2	1	0	0	19
16:30	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	26	3	0	0	0	29
16:45	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	25	1	0	0	0	26
H/TOT	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3	0	0	78	6	1	0	0	85
17:00	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4	0	0	22	0	0	0	0	22
17:15	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	12	0	0	0	0	12
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23	0	0	0	0	23
17:45	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3	0	0	17	0	0	0	0	17
H/TOT	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	8	8	0	0	74	0	0	0	0	74
18:00	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	28	0	0	0	0	28
18:15	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	11	0	0	0	0	11
18:30	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	15	0	0	0	0	15
18:45	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	13	1	0	0	0	14
H/TOT	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5	5	0	0	67	1	0	0	0	68
12 TOT	0	0	1	0	0	0	0	1	1	0	1	56	2	1	1	0	61	62.2	1	1	432	13	2	0	0	449

	B => A									B => B									B => C								
PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
1	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3
7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	9	9
8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	6	6
7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
23	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0	20	20
12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0	0	0	12	12
24	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	19	0	1	0	0	20	20.5
0	0	0	43	0	0	0	0	43	43	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2	0.4
0.2	0	0	75	0	0	0	1	76	77	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3
36.2	0	0	119	0	0	0	1	120	121	0	0	0	0	0	0	0	0	0	2	0	34	0	1	0	0	37	35.9
0	0	0	15	0	0	0	0	15	15	0	0	3	0	0	0	0	3	3	0	0	1	0	0	0	0	1	1
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	2	0	0	0	14	14
5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	1	1	0	0	10	10.5
6	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	8	0	1	0	0	9	9.5
14	0	0	16	0	0	0	0	16	16	0	0	3	0	0	0	0	3	3	0	0	29	3	2	0	0	34	35
6	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	7	0	2	0	0	9	10
12	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	9	9
7	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	6	1	0	0	0	7	7
14	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	10	10
39	0	0	6	0	0	0	0	6	6	0	0	0	0	0	0	0	0	0	0	0	32	1	2	0	0	35	36
9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	10	3	0	0	0	14	13.2
3	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	10	10
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	1	0	0	0	13	13
7	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	10	3	0	0	0	13	13
23	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	1	0	42	7	0	0	0	50	49.2
6	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	7	7
5	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	15	2	0	0	0	17	17
8	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	12	0	0	0	0	12	12
3	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	8	1	0	0	0	9	9
22	0	0	4	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	42	3	0	0	0	45	45
0	0	0	2	2	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	11	0	0	0	0	11	11	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0.2
0	0	0	20	0	0	0	0	20	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	5	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	38	2	0	0	0	40	40	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0.2
0	0	0	9	1	0	0	0	10	10	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
0	0	0	10	1	0	0	0	11	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	30	2	0	0	0	32	32	0	0	0	0	0	0	0	0	0	1	0	2	0	0	0	0	3	2.2
4.5	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	7	7
4.5	0	0	51	4	0	0	0	55	55	0	0	0	0	0	0	0	0	0	1	0	10	0	0	0	0	11	10.2
9	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	9	9
10	0	0	9	0	0	0	0	9	9	0	0	0	0	0	0	0	0	0	0	0	12	0	0	0	0	12	12
22.4	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	1	0	23	1	0	0	0	25	24.2
17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	27	1	0	0	0	28	28
58.4	0	0	12	0	0	0	0	12	12	0	0	0	0	0	0	0	0	0	1	0	71	2	0	0	0	74	73.2
11	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	14	0	0	0	0	14	14
19.5	0	0	3	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	14	0	0	0	0	14	14
29	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	11	1	0	0	0	12	12
26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	2	0	0	0	16	16
85.5	0	0	5	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0	0	53	3	0	0	0	56	56
22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19	0	0	0	0	19	19
12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	2	0	0	0	18	18
23	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	13	0	0	0	0	13	13
17	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	17	1	0	0	0	18	18
74	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	65	3	0	0	0	68	68
28	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	16	0	0	0	0	16	16
11	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	13	0	0	0	0	13	13
15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	6	6
14	0	0	1	0	0	0	0	1	1	0	0	1	0	0	0	0	1	1	0	0	9	0	0	0	0	9	9
68	0	0	2	0	0	0	0	2	2	0	0	2	0	0	0	0	2	2	0	0	44	0	0	0	0	44	44
448.6	0	0	258	6	0	0	1	265	266	0	0	5	0	0	0	0	5	5	6	0	442	22	5	0	0	475	472.7

C => A									C => B									C => C								
P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
0	0	1	0	0	0	0	1	1	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
0	0	1	0	0	0	0	1	1	0	0	3	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0
0	0	2	0	0	0	0	2	2	0	0	3	0	0	0	0	3	3	0	0	0	0	1	0	0	1	1.5
0	0	4	0	0	0	0	4	4	0	0	4	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0
0	0	8	0	0	0	0	8	8	0	0	11	0	0	0	0	11	11	0	0	0	0	1	0	0	1	1.5
0	0	2	0	0	0	0	2	2	0	0	6	1	0	0	0	7	7	0	0	0	0	0	0	0	0	0
0	0	5	0	0	1	0	6	7.3	0	0	4	0	0	0	0	4	4	0	0	1	0	0	0	0	1	1
0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	4	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	13	0	0	1	0	14	15.3	0	0	10	1	0	0	0	11	11	0	0	1	0	0	0	0	1	1
0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	3	0	0	0	0	3	3	0	0	9	0	1	0	0	10	10.5	0	0	0	0	0	0	0	0	0
0	0	4	0	0	0	0	4	4	0	0	12	0	0	0	0	12	12	0	0	0	0	0	0	0	0	0
0	0	4	0	0	0	0	4	4	0	0	9	0	1	0	0	10	10.5	0	0	0	0	0	0	0	0	0
0	0	13	0	0	0	0	13	13	0	0	30	0	2	0	0	32	33	0	0	0	0	0	0	0	0	0
0	0	4	0	0	0	0	4	4	0	0	8	1	0	0	0	9	9	0	0	0	0	0	0	0	0	0
0	0	7	0	0	0	0	7	7	0	0	6	2	0	0	0	8	8	0	0	1	0	0	0	0	1	1
0	0	3	1	0	0	0	4	4	0	0	9	1	0	0	0	10	10	0	0	2	0	0	0	0	2	2
0	0	3	0	0	0	0	3	3	0	0	9	0	0	0	0	9	9	0	0	0	0	0	0	0	0	0
0	0	17	1	0	0	0	18	18	0	0	32	4	0	0	0	36	36	0	0	3	0	0	0	0	3	3
0	0	1	0	0	0	0	1	1	0	0	3	1	1	0	0	5	5.5	0	0	0	0	0	0	0	0	0
0	0	4	0	0	0	0	4	4	0	0	5	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0
0	0	5	0	0	0	0	5	5	0	0	7	0	0	0	0	7	7	0	0	0	0	0	0	0	0	0
0	0	5	0	0	0	0	5	5	0	0	8	0	0	0	0	8	8	0	0	0	0	0	0	0	0	0
0	0	15	0	0	0	0	15	15	0	0	23	1	1	0	0	25	25.5	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	4	1	0	0	0	5	5	0	0	1	0	0	0	0	1	1
0	0	0	1	0	0	0	1	1	0	0	4	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0
0	0	4	1	0	0	0	5	5	0	0	11	0	1	0	0	12	12.5	0	0	0	0	0	0	0	0	0
0	0	2	0	0	0	0	2	2	0	0	7	0	0	0	0	7	7	0	0	0	0	0	0	0	0	0
0	0	6	2	0	0	0	8	8	0	0	26	1	1	0	0	28	28.5	0	0	1	0	0	0	0	1	1
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	1	0	0	0	0	1	1	1	0	0	0	0	0	0	1	0.2	0	0	0	0	0	0	0	0	0
0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	2	0	0	0	0	2	2	1	0	0	0	0	0	0	1	0.2	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	3	0	0	0	0	3	3	1	0	0	0	0	0	0	1	0.2	0	0	0	0	0	0	0	0	0
0	0	3	0	0	0	0	3	3	0	0	13	0	0	0	0	13	13	0	0	2	0	0	0	1	3	4
0	0	6	0	0	0	0	6	6	1	0	13	0	0	0	0	14	13.2	0	0	2	0	0	0	1	3	4
0	1	5	0	0	0	0	6	5.4	0	0	5	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0
0	0	6	0	0	0	0	6	6	0	0	16	0	0	0	0	16	16	0	0	2	0	0	0	0	2	2
0	0	6	0	0	0	0	6	6	0	0	13	0	0	0	0	13	13	0	0	2	0	0	0	0	2	2
0	0	5	0	0	0	0	5	5	0	0	7	0	0	0	0	7	7	0	0	0	0	0	0	0	0	0
0	1	22	0	0	0	0	23	22.4	0	0	41	0	0	0	0	41	41	0	0	4	0	0	0	0	4	4
0	0	4	0	0	0	0	4	4	0	0	17	0	0	0	0	17	17	0	0	0	0	0	0	0	0	0
0	0	7	1	1	0	0	9	9.5	0	0	16	0	0	0	0	16	16	0	0	0	0	0	0	0	0	0
0	0	6	0	0	0	0	6	6	0	0	11	2	0	0	0	13	13	0	0	0	0	0	0	0	0	0
0	0	9	0	0	0	0	9	9	0	0	11	1	0	0	0	12	12	0	0	1	0	0	0	0	1	1
0	0	26	1	1	0	0	28	28.5	0	0	55	3	0	0	0	58	58	0	0	1	0	0	0	0	1	1
0	0	15	0	0	0	0	15	15	0	0	12	1	1	0	0	14	14.5	0	0	0	0	0	0	0	0	0
0	0	7	0	0	0	0	7	7	0	0	13	0	0	0	0	13	13	0	0	0	0	0	0	0	0	0
0	0	5	0	0	0	0	5	5	0	0	10	0	0	0	0	10	10	0	0	0	0	0	0	0	0	0
0	0	15	0	0	0	0	15	15	0	0	20	0	0	0	0	20	20	0	0	0	0	0	0	0	0	0
0	0	42	0	0	0	0	42	42	0	0	55	1	1	0	0	57	57.5	0	0	0	0	0	0	0	0	0
0	0	11	0	0	0	0	11	11	0	1	20	0	0	0	0	21	20.4	0	0	1	0	0	0	0	1	1
0	0	11	0	0	0	0	11	11	0	0	17	0	0	0	0	17	17	0	0	0	0	0	0	0	0	0
0	0	7	0	0	0	0	7	7	0	0	10	0	0	0	0	10	10	0	0	0	0	0	0	0	0	0
0	0	8	0	0	0	0	8	8	0	0	15	0	0	0	0	15	15	0	0	0	0	0	0	0	0	0
0	0	37	0	0	0	0	37	37	0	1	62	0	0	0	0	63	62.4	0	0	1	0	0	0	0	1	1
0	1	207	4	1	1	0	214	215.2	2	1	358	11	5	0	0	377	377.3	0	0	13	0	1	0	1	15	16.5



IDASO

Survey Name: 003 (23) 22718 MALAHIDE TRAFFIC SURVEY V2
Site: Site 11
Location: Church Rd/Grove Rd
Date: Tue 10-Jan-2023

	A => A									A => B									A => C							
TIME	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	1	2	0	0	15
07:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18	0	0	0	1	19
07:30	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1.5	1	0	18	3	0	0	0	22
07:45	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	20	0	0	0	3	23
H/TOT	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	2	2.5	1	0	68	4	2	0	4	79
08:00	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5	5	0	0	42	3	0	0	0	45
08:15	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3	0	0	84	4	0	0	2	90
08:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	92	2	0	0	0	95
08:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	71	3	0	0	1	75
H/TOT	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	8	8	1	0	289	12	0	0	3	305
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	67	3	2	0	1	75
09:15	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	30	4	1	0	1	36
09:30	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	21	3	0	0	0	24
09:45	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	2.5	0	0	20	1	2	0	1	24
H/TOT	0	0	0	0	0	0	0	0	0	0	0	2	1	1	0	0	4	4.5	2	0	138	11	5	0	3	159
10:00	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	21	6	1	0	1	29
10:15	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	3	3	0	0	26	2	0	0	0	28
10:30	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	21	4	0	0	1	26
10:45	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3	0	0	16	3	1	0	0	20
H/TOT	0	0	0	0	0	0	0	0	0	0	0	9	1	0	0	0	10	10	0	0	84	15	2	0	2	103
11:00	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	2	2.5	0	0	20	5	0	0	1	26
11:15	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	18	4	1	0	0	23
11:30	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	1	0	24	6	1	0	0	32
11:45	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3	0	0	35	2	1	0	1	39
H/TOT	0	0	0	0	0	0	0	0	0	0	0	6	0	1	0	0	7	7.5	1	0	97	17	3	0	2	120
12:00	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	22	1	0	0	0	23
12:15	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	22	2	1	0	1	26
12:30	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	1	0	28	1	0	1	0	31
12:45	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	29	4	0	0	1	34
H/TOT	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	6	6	1	0	101	8	1	1	2	114
13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	37	4	0	0	0	41
13:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	27	3	1	0	1	32
13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	34	4	1	0	0	39
13:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	45	1	0	0	1	48
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	143	12	2	0	2	160
14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	41	3	0	0	0	45
14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	29	1	0	0	1	32
14:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	48	2	0	0	0	50
14:45	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3	0	1	34	2	2	0	2	41
H/TOT	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3	2	1	152	8	2	0	3	168
15:00	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	21	0	0	0	0	21
15:15	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3	0	0	34	3	0	0	1	38
15:30	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4	0	0	59	1	1	0	0	61
15:45	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	0	62	5	0	0	1	68
H/TOT	0	0	1	0	0	0	0	1	1	0	0	9	0	0	0	0	9	9	0	0	176	9	1	0	2	188
16:00	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	32	1	0	0	0	33
16:15	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4	1	0	21	4	0	0	2	28
16:30	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	17	3	0	0	0	20
16:45	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	34	3	1	0	1	39
H/TOT	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	7	7	1	0	104	11	1	0	3	120
17:00	0	0	0	0	0	0	0	0	0	0	0	6	1	0	0	0	7	7	0	0	30	2	1	0	1	34
17:15	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	6	6	0	0	32	2	0	0	1	35
17:30	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	33	1	0	0	0	34
17:45	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	8	8	0	0	45	1	0	0	3	49
H/TOT	0	0	0	0	0	0	0	0	0	0	0	21	1	0	0	0	22	22	0	0	140	6	1	0	5	152
18:00	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	10	10	0	0	38	0	0	0	2	40
18:15	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5	5	0	0	33	1	0	0	2	36
18:30	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	1	0	34	2	0	0	1	38
18:45	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5	5	0	0	30	0	0	0	1	31
H/TOT	0	0	0	0	0	0	0	0	0	0	0	22	0	0	0	0	22	22	1	0	135	3	0	0	6	145
12 TOT	0	0	1	0	0	0	0	1	1	0	0	94	3	3	0	0	100	101.5	11	1	1627	116	20	1	37	1813

	B => A									B => B									B => C								
PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
16	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3
20	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	11	0	0	0	0	11	11
21.2	0	0	3	0	1	0	0	4	4.5	0	0	0	0	0	0	0	0	0	0	0	12	0	0	0	0	12	12
26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	7	7
83.2	0	0	6	0	1	0	0	7	7.5	0	0	0	0	0	0	0	0	0	0	0	33	0	0	0	0	33	33
45	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	13	0	0	0	0	13	13
92	0	0	4	0	1	0	0	5	5.5	0	0	0	0	0	0	0	0	0	0	0	27	1	0	0	0	28	28
94.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
76	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2	0.4
307.2	0	0	6	0	1	0	0	7	7.5	0	0	0	0	0	0	0	0	0	2	0	40	1	0	0	0	43	41.4
75.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
37.5	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	18	1	0	0	0	19	19
24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	1	1	0	0	15	15.5
26	0	0	2	0	1	0	0	3	3.5	0	0	0	0	0	0	0	0	0	0	0	10	3	0	0	0	13	13
162.9	0	0	2	1	1	0	0	4	4.5	0	0	0	0	0	0	0	0	0	0	0	41	5	1	0	0	47	47.5
30.5	0	0	4	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	9	0	2	0	0	11	12
28	0	0	4	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	16	1	0	0	0	17	17
27	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	14	1	0	0	0	15	15
20.5	0	0	5	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0	0	18	0	0	0	0	18	18
106	0	0	14	0	0	0	0	14	14	0	0	0	0	0	0	0	0	0	0	0	57	2	2	0	0	61	62
27	0	0	4	1	0	0	0	5	5	0	0	0	0	0	0	0	0	0	1	0	16	2	0	0	0	19	18.2
23.5	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	10	10
31.7	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	12	3	0	0	0	15	15
40.5	0	0	2	1	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	18	4	0	0	0	22	22
122.7	0	0	10	2	0	0	0	12	12	0	0	0	0	0	0	0	0	0	1	0	56	9	0	0	0	66	65.2
23	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	12	0	0	0	0	12	12
27.5	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	18	1	0	0	0	19	19
31.5	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	18	0	0	0	0	18	18
35	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	8	1	0	0	0	9	9
117	0	0	8	0	0	0	0	8	8	0	0	0	0	0	0	0	0	0	0	0	56	2	0	0	0	58	58
41	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
33.5	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
48.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
162.2	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
44.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43.4	0	0	6	0	0	0	0	6	6	0	0	0	0	0	0	0	0	0	0	0	17	0	0	0	1	18	19
169.8	0	0	6	0	0	0	0	6	6	0	0	0	0	0	0	0	0	0	0	0	17	0	0	0	1	18	19
21	0	0	7	0	0	0	0	7	7	0	0	0	0	0	0	0	0	0	0	0	17	0	1	0	0	18	18.5
39	1	0	3	0	0	0	0	4	3.2	0	0	0	0	0	0	0	0	0	0	0	27	1	0	0	0	28	28
61.5	0	0	3	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	1	1	45	1	0	0	0	48	46.6
69	0	0	5	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0	0	45	1	0	0	0	46	46
190.5	1	0	18	0	0	0	0	19	18.2	0	0	0	0	0	0	0	0	0	1	1	134	3	1	0	0	140	139.1
33	0	0	9	0	0	0	0	9	9	0	0	0	0	0	0	0	0	0	0	0	25	0	0	0	0	25	25
29.2	0	0	3	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	28	2	1	0	0	31	31.5
20	0	0	4	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	40	4	0	0	0	44	44
40.5	0	0	6	0	0	0	0	6	6	0	0	0	0	0	0	0	0	0	0	0	37	3	0	0	0	40	40
122.7	0	0	22	0	0	0	0	22	22	0	0	0	0	0	0	0	0	0	0	0	130	9	1	0	0	140	140.5
35.5	0	0	8	0	0	0	0	8	8	0	0	0	0	0	0	0	0	0	0	0	36	0	0	0	0	36	36
36	0	0	6	1	0	0	0	7	7	0	0	0	0	0	0	0	0	0	0	0	26	1	0	0	0	27	27
34	0	0	3	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	34	0	0	0	0	34	34
52	0	0	7	0	0	0	0	7	7	0	0	0	0	0	0	0	0	0	0	0	31	1	0	0	0	32	32
157.5	0	0	24	1	0	0	0	25	25	0	0	0	0	0	0	0	0	0	0	0	127	2	0	0	0	129	129
42	0	0	9	0	0	0	0	9	9	0	0	0	0	0	0	0	0	0	0	0	50	0	0	0	0	50	50
38	0	0	6	0	0	0	0	6	6	0	0	0	0	0	0	0	0	0	0	0	21	0	0	0	0	21	21
38.2	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	21	0	0	0	0	21	21
32	0	0	4	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	22	0	0	0	0	22	22
150.2	0	0	20	0	0	0	0	20	20	0	0	0	0	0	0	0	0	0	0	0	114	0	0	0	0	114	114
1851.9	1	0	138	4	3	0	0	146	146.7	0	0	0	0	0	0	0	0	0	4	1	806	33	5	0	1	850	849.7

C => A									C => B									C => C								
P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
0	0	13	0	2	0	1	16	18	0	0	3	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0
0	0	24	1	0	0	2	27	29	0	0	5	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0
1	0	20	1	0	0	3	25	27.2	0	0	4	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0
0	0	33	1	0	0	2	36	38	0	0	10	0	0	1	0	11	12.3	0	0	0	0	0	0	0	0	0
1	0	90	3	2	0	8	104	112.2	0	0	22	0	0	1	0	23	24.3	0	0	0	0	0	0	0	0	0
0	0	42	3	0	0	2	47	49	0	0	15	0	0	0	0	15	15	0	0	0	0	0	0	0	0	0
0	0	87	1	0	0	1	89	90	0	0	18	0	0	0	0	18	18	0	0	0	0	0	0	0	0	0
1	0	86	5	0	0	1	93	93.2	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
1	0	101	4	0	0	1	107	107.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	316	13	0	0	5	336	339.4	0	0	34	0	0	0	0	34	34	0	0	0	0	0	0	0	0	0
1	0	89	1	0	0	0	91	90.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	44	6	2	0	2	54	57	0	0	10	1	1	0	0	12	12.5	0	0	0	0	0	0	0	0	0
1	0	27	3	0	0	0	31	30.2	0	0	15	1	0	0	0	16	16	0	0	0	0	0	0	0	0	0
0	0	43	1	1	0	1	46	47.5	0	0	12	3	0	0	0	15	15	0	0	0	0	0	0	0	0	0
2	0	203	11	3	0	3	222	224.9	0	0	37	5	1	0	0	43	43.5	0	0	0	0	0	0	0	0	0
1	0	44	6	0	0	0	51	50.2	0	0	11	1	0	0	0	12	12	0	0	0	0	0	0	0	0	0
0	0	44	6	2	0	1	53	55	0	0	14	2	0	0	0	16	16	0	0	0	0	0	0	0	0	0
0	0	34	2	1	0	0	37	37.5	0	0	11	1	0	0	0	12	12	0	0	0	0	0	0	0	0	0
0	0	34	3	0	0	1	38	39	0	0	9	0	0	0	0	9	9	0	0	0	0	0	0	0	0	0
1	0	156	17	3	0	2	179	181.7	0	0	45	4	0	0	0	49	49	0	0	0	0	0	0	0	0	0
0	0	34	3	0	0	0	37	37	0	0	6	1	0	0	0	7	7	0	0	0	0	0	0	0	0	0
0	0	46	7	0	0	1	54	55	0	0	8	0	0	0	0	8	8	0	0	0	0	0	0	0	0	0
0	0	35	8	1	0	0	44	44.5	0	0	12	0	0	0	0	12	12	0	0	0	0	0	0	0	0	0
1	0	35	2	0	0	1	39	39.2	0	0	10	0	0	0	0	10	10	0	0	0	0	0	0	0	0	0
1	0	150	20	1	0	2	174	175.7	0	0	36	1	0	0	0	37	37	0	0	0	0	0	0	0	0	0
0	0	29	3	0	0	0	32	32	0	0	3	1	0	0	0	4	4	0	0	0	0	0	0	0	0	0
2	0	35	3	0	1	1	42	42.7	0	0	4	0	1	0	0	5	5.5	0	0	0	0	0	0	0	0	0
0	1	29	4	2	0	0	36	36.4	0	0	11	1	0	0	0	12	12	0	0	0	0	0	0	0	0	0
0	0	33	2	0	0	1	36	37	0	0	8	0	0	0	0	8	8	0	0	0	0	0	0	0	0	0
2	1	126	12	2	1	2	146	148.1	0	0	26	2	1	0	0	29	29.5	0	0	0	0	0	0	0	0	0
1	0	62	7	0	0	0	70	69.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	55	3	3	1	1	63	66.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	47	2	0	0	0	49	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	45	2	0	0	1	49	49.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	209	14	3	1	2	231	234.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	59	1	1	0	0	61	61.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	56	9	1	1	2	69	72.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	51	2	0	0	0	53	53	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	51	1	1	0	1	54	55.5	0	0	12	0	0	0	1	13	14	0	0	0	0	0	0	0	0	0
0	0	217	13	3	1	3	237	242.8	0	0	12	0	0	0	1	13	14	0	0	0	0	0	0	0	0	0
0	0	42	0	0	0	0	42	42	0	1	12	0	0	0	0	13	12.4	0	0	0	0	0	0	0	0	0
0	0	42	2	1	0	1	46	47.5	0	0	25	0	0	0	0	25	25	0	0	0	0	0	0	0	0	0
1	0	36	2	0	0	0	39	38.2	0	0	16	0	0	0	0	16	16	0	0	0	0	0	0	0	0	0
3	0	60	2	0	0	1	66	64.6	0	0	14	0	0	0	0	14	14	0	0	0	0	0	0	0	0	0
4	0	180	6	1	0	2	193	192.3	0	1	67	0	0	0	0	68	67.4	0	0	0	0	0	0	0	0	0
2	0	80	8	1	0	0	91	89.9	0	0	22	0	0	0	0	22	22	0	0	0	0	0	0	0	0	0
1	0	69	1	0	0	1	72	72.2	0	0	24	1	1	0	0	26	26.5	0	0	0	0	0	0	0	0	0
0	0	49	8	0	0	1	58	59	0	0	15	2	0	0	0	17	17	0	0	0	0	0	0	0	0	0
0	0	39	3	0	0	1	43	44	0	0	27	1	0	0	0	28	28	0	0	0	0	0	0	0	0	0
3	0	237	20	1	0	3	264	265.1	0	0	88	4	1	0	0	93	93.5	0	0	0	0	0	0	0	0	0
0	0	45	5	0	0	1	51	52	0	0	26	0	1	0	0	27	27.5	0	0	0	0	0	0	0	0	0
0	0	57	3	1	0	1	62	63.5	0	0	11	0	0	0	0	11	11	0	0	0	0	0	0	0	0	0
0	0	52	0	0	0	1	53	54	0	0	15	0	0	0	0	15	15	0	0	0	0	0	0	0	0	0
1	0	52	1	0	0	1	55	55.2	0	0	41	0	0	0	0	41	41	0	0	1	0	0	0	0	1	1
1	0	206	9	1	0	4	221	224.7	0	0	93	0	1	0	0	94	94.5	0	0	1	0	0	0	0	1	1
2	0	46	4	0	0	0	52	50.4	0	1	24	0	0	0	0	25	24.4	0	0	0	0	0	0	0	0	0
2	0	47	3	0	0	1	53	52.4	0	0	27	0	0	0	0	27	27	0	0	0	0	0	0	0	0	0
0	0	45	1	1	0	1	48	49.5	0	0	19	0	0	0	0	19	19	0	0	0	0	0	0	0	0	0
1	0	44	0	1	0	0	46	45.7	0	0	29	0	0	0	0	29	29	0	0	0	0	0	0	0	0	0
5	0	182	8	2	0	2	199	198	0	1	99	0	0	0	0	100	99.4	0	0	0	0	0	0	0	0	0
24	1	2272	146	22	3	38	2506	2539.1	0	2	559	16	4	1	1	583	586.1	0	0	1	0	0	0	0	1	1



IDASO

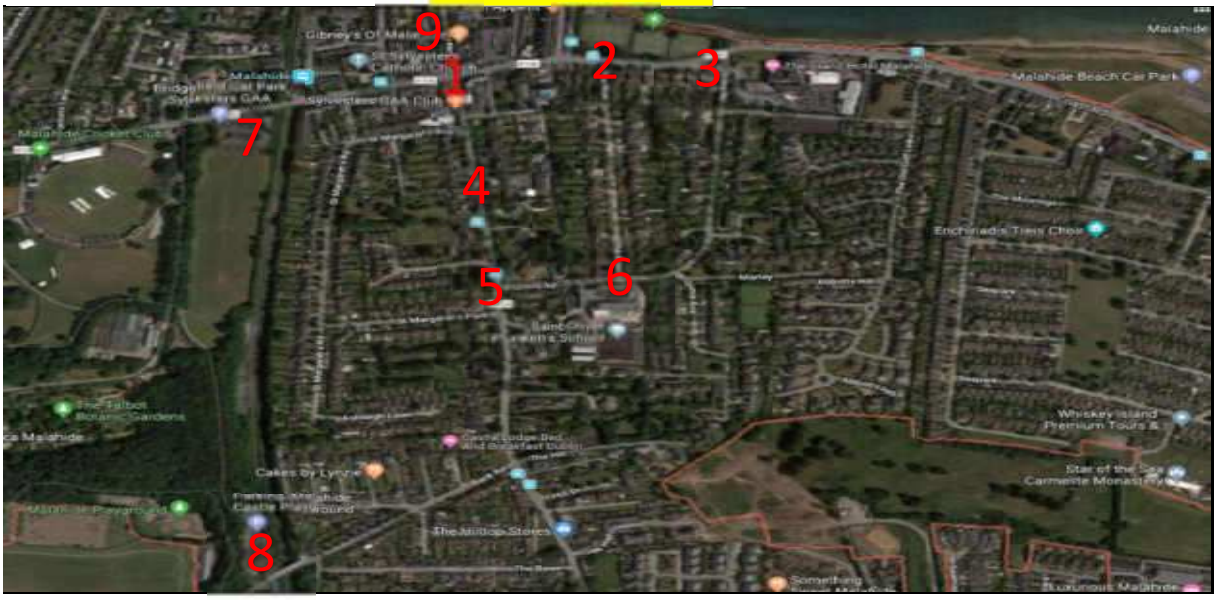
Survey Name: 003 (23) 22718 MALAHIDE TRAFFIC SURVEY V2
Site: Site 12
Location: Church Rd/St Andrews N.S
Date: Tue 10-Jan-2023

	A => A									A => B									A => C							
TIME	**P/C**	**M/C**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**	**PCU**	**P/C**	**M/C**	**CAR**	**LGV**	**OGV1**	**OGV2**	**PSV**	**TOT**
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	1	2	0	0	14
07:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18	0	0	0	1	19
07:30	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	1	0	20	1	1	0	1	24
07:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21	1	0	0	2	24
H/TOT	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	1	0	70	3	3	0	4	81
08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50	2	1	0	0	53
08:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	86	3	0	0	2	91
08:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	94	2	0	0	0	97
08:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	54	3	0	0	1	58
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	284	10	1	0	3	299
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	48	3	2	0	1	56
09:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23	5	1	0	1	30
09:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21	3	0	0	0	24
09:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22	2	3	0	1	28
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	114	13	6	0	3	138
10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23	7	1	0	1	32
10:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	26	3	0	0	0	29
10:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	26	4	0	0	1	31
10:45	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	24	3	1	0	0	28
H/TOT	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	99	17	2	0	2	120
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	5	1	0	1	27
11:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22	4	1	0	0	27
11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	30	6	1	0	0	38
11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	37	3	1	0	1	42
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	109	18	4	0	2	134
12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	1	0	0	0	21
12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23	2	1	0	1	27
12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	30	1	0	1	0	33
12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	27	4	0	0	1	32
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	100	8	1	1	2	113
13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	38	5	0	0	0	43
13:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	29	1	1	0	1	32
13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	34	5	1	0	0	40
13:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	37	2	0	0	1	41
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	138	13	2	0	2	156
14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	36	2	1	0	0	40
14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	36	1	0	0	1	39
14:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	46	2	0	0	0	49
14:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	3	2	0	2	31
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	142	8	3	0	3	159
15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22	0	0	0	0	22
15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	38	2	0	0	1	41
15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	62	1	1	0	0	64
15:45	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	62	5	0	0	1	68
H/TOT	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	184	8	1	0	2	195
16:00	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	33	1	0	0	0	34
16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	25	4	0	0	2	32
16:30	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	15	3	0	0	0	18
16:45	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	7	7	0	0	31	2	1	0	1	35
H/TOT	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	9	9	1	0	104	10	1	0	3	119
17:00	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	6	6	0	0	32	2	1	0	1	36
17:15	0	0	0	0	0	0	0	0	0	1	0	3	0	0	0	0	4	3.2	0	0	29	1	0	0	1	31
17:30	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5	5	0	0	36	1	0	0	0	37
17:45	0	0	0	0	0	0	0	0	0	0	0	11	0	0	0	0	11	11	0	0	49	0	0	0	3	52
H/TOT	0	0	0	0	0	0	0	0	0	1	0	25	0	0	0	0	26	25.2	0	0	146	4	1	0	5	156
18:00	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4	0	0	44	0	0	0	2	46
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	38	0	0	0	2	40
18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	38	0	0	0	1	40
18:45	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	7	7	0	0	34	0	0	0	2	36
H/TOT	0	0	0	0	0	0	0	0	0	0	0	11	0	0	0	0	11	11	1	0	154	0	0	0	7	162
12 TOT	0	0	2	0	0	0	0	2	2	1	0	46	0	0	0	0	47	46.2	11	1	1644	112	25	1	38	1832

	B => A									B => B									B => C								
PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
85.7	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
53.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
93	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
301.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
56.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
31.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
142.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
123	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
37.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
137.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
116	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
41.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
158.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
48.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
161.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
64.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
69	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
197.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
36.5	0	0	6	0	0	0	0	6	6	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	6	6
121.7	0	0	6	0	0	0	0	6	6	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	8	8
37.5	0	0	9	0	0	0	0	9	9	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4	4
32	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	8	8
37	0	0	3	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
55	0	0	11	0	0	0	0	11	11	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	6	6
161.5	0	0	25	0	0	0	0	25	25	0	0	0	0	0	0	0	0	0	0	0	19	0	0	0	0	19	19
48	0	0	5	1	0	0	0	6	6	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2
42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
40.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
168.2	0	0	5	1	0	0	0	6	6	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	3
1874.4	0	0	37	1	0	0	0	38	38	0	0	0	0	0	0	0	0	0	0	0	30	0	0	0	0	30	30

C => A									C => B									C => C								
P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	LGV	OGV1	OGV2	PSV	TOT	PCU
0	0	14	0	2	0	1	17	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	25	1	0	0	2	28	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	25	1	1	0	3	31	33.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	32	1	0	0	2	35	37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	96	3	3	0	8	111	119.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	41	4	1	0	2	48	50.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	82	1	1	0	1	85	86.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	73	5	0	0	1	80	80.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	85	3	0	0	1	90	90.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	281	13	2	0	5	303	307.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	80	1	0	0	0	82	81.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	41	8	2	0	2	53	56	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	30	3	0	0	0	34	33.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	45	1	2	0	1	49	51	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	196	13	4	0	3	218	221.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	48	6	0	0	0	55	54.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	47	6	2	0	1	56	58	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	37	2	1	0	0	40	40.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	40	3	0	0	1	44	45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	172	17	3	0	2	195	197.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	43	4	0	0	0	47	47	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	49	5	0	0	1	55	56	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	36	7	1	0	0	44	44.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	36	3	0	0	1	40	41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	164	19	1	0	2	186	188.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	37	3	0	0	0	40	40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	37	3	0	1	1	44	44.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	1	34	4	2	0	0	41	41.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	35	1	0	0	1	37	38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	1	143	11	2	1	2	162	164.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	59	7	0	0	0	67	66.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	54	2	3	1	1	61	64.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	44	2	0	0	0	46	46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	45	1	0	0	1	48	48.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	202	12	3	1	2	222	225.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	48	2	2	0	0	52	53	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	55	6	1	1	2	65	68.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	44	4	0	0	0	48	48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	66	2	1	0	1	70	71.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	213	14	4	1	3	235	241.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	49	0	0	0	0	49	49	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
1	0	43	2	1	0	1	48	48.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	36	1	0	0	0	38	37.2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1
3	0	68	2	0	0	1	74	72.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	196	5	1	0	2	209	207.5	0	0	1	0	0	0	0	1	1	0	0	1	0	0	0	0	1	1
2	0	93	7	1	0	0	103	101.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	66	4	0	0	1	72	72.2	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0
0	0	51	7	0	0	1	59	60	0	0	2	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0
0	0	36	2	0	0	1	39	40	0	0	8	0	0	0	0	8	8	0	0	0	0	0	0	0	0	0
3	0	246	20	1	0	3	273	274.1	0	0	12	0	0	0	0	12	12	0	0	0	0	0	0	0	0	0
0	0	52	3	0	0	1	56	57	0	0	5	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0
0	0	61	4	1	0	1	67	68.5	0	0	3	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0
0	0	49	0	0	0	1	50	51	0	0	3	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0
1	0	47	2	0	0	1	51	51.2	0	0	12	0	0	0	0	12	12	0	0	0	0	0	0	0	0	0
1	0	209	9	1	0	4	224	227.7	0	0	23	0	0	0	0	23	23	0	0	0	0	0	0	0	0	0
2	0	54	4	0	0	0	60	58.4	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
2	0	51	4	0	0	1	58	57.4	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
0	0	43	4	1	0	1	49	50.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	39	0	1	0	0	41	40.7	0	0	5	0	0	0	0	5	5	0	0	0	0	0	0	0	0	0
5	0	187	12	2	0	2	208	207	0	0	7	0	0	0	0	7	7	0	0	0	0	0	0	0	0	0
24	1	2305	148	27	3	38	2546	2581.6	0	0	43	0	0	0	0	43	43	0	0	1	0	0	0	0	1	1

Sites Overview



Irish Traffic Surveys

Survey Name :	ITS J-372 Malahide
Site:	1 to 9
Date:	12.12.2019
Time:	07:00 - 20:00
Location:	53.4449143,-6.1781695,5326
Classification:	Car, LGV, OGV1, OGV2, PSV, P/C, M/C,Peds

Survey Name :	ITS J-372 Malahide
Site:	Site 1
Date:	12.12.2019
Time:	07:00 - 20:00
Location:	53.4507222,-6.153686
Classification:	Car, LGV, OGV1, OGV2, PSV, P/C, M/C, Peds

Irish Traffic Surveys



	A => A								A => B								
TIME	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT	CAR
07:00	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	2
07:15	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	8
07:30	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	6
07:45	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2	17
H/TOT	0	0	0	0	0	0	0	0	4	1	0	0	0	0	0	5	33
08:00	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	16
08:15	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2	51
08:30	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	4	39
08:45	0	0	0	0	0	0	0	0	3	1	0	0	0	0	0	4	25
H/TOT	0	0	0	0	0	0	0	0	10	1	0	0	0	0	0	11	131
09:00	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	5	30
09:15	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	5	16
09:30	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	10	8
09:45	0	0	0	0	0	0	0	0	6	1	0	0	0	0	0	7	6
H/TOT	0	0	0	0	0	0	0	0	26	1	0	0	0	0	0	27	60
10:00	0	0	0	0	0	0	0	0	5	1	0	0	0	0	0	6	10
10:15	0	0	0	0	0	0	0	0	9	1	0	0	0	0	0	10	14
10:30	0	0	0	0	0	0	0	0	6	2	0	0	0	0	0	8	8
10:45	0	0	0	0	0	0	0	0	6	1	0	0	0	0	0	7	13
H/TOT	0	0	0	0	0	0	0	0	26	5	0	0	0	0	0	31	45
11:00	0	0	0	0	0	0	0	0	2	2	1	0	0	0	0	5	12
11:15	0	0	0	0	0	0	0	0	4	2	0	0	0	0	0	6	10
11:30	0	0	0	0	0	0	0	0	8	2	0	0	0	0	0	10	15
11:45	0	0	0	0	0	0	0	0	6	1	0	0	0	0	0	7	11
H/TOT	0	0	0	0	0	0	0	0	20	7	1	0	0	0	0	28	48
12:00	0	0	0	0	0	0	0	0	8	3	0	0	0	0	0	11	22
12:15	0	0	0	0	0	0	0	0	6	1	0	0	0	0	0	7	11
12:30	0	0	0	0	0	0	0	0	4	2	0	0	0	0	0	6	11
12:45	0	0	0	0	0	0	0	0	8	3	0	0	0	0	0	11	12
H/TOT	0	0	0	0	0	0	0	0	26	9	0	0	0	0	0	35	56
13:00	0	0	0	0	0	0	0	0	5	6	0	0	0	0	0	11	19
13:15	0	0	0	0	0	0	0	0	6	2	0	0	0	0	0	8	10
13:30	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	5	9
13:45	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2	16
H/TOT	0	0	0	0	0	0	0	0	18	8	0	0	0	0	0	26	54
14:00	0	0	0	0	0	0	0	0	6	2	0	0	0	0	0	8	6
14:15	0	0	0	0	0	0	0	0	6	2	0	0	0	0	0	8	15
14:30	0	0	0	0	0	0	0	0	8	1	0	0	0	0	0	9	17
14:45	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	6	18
H/TOT	0	0	0	0	0	0	0	0	26	5	0	0	0	0	0	31	56
15:00	0	0	0	0	0	0	0	0	8	2	0	0	0	0	0	10	12
15:15	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	5	18
15:30	0	0	0	0	0	0	0	0	7	1	0	0	0	0	0	8	20
15:45	0	0	0	0	0	0	0	0	7	1	0	0	0	0	0	8	24
H/TOT	0	0	0	0	0	0	0	0	27	4	0	0	0	0	0	31	74
16:00	0	0	0	0	0	0	0	0	9	2	0	0	0	0	0	11	18
16:15	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	10	13
16:30	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	6	9
16:45	0	0	0	0	0	0	0	0	8	1	0	0	0	0	0	9	11
H/TOT	0	0	0	0	0	0	0	0	33	3	0	0	0	0	0	36	51
17:00	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	10	18
17:15	0	0	0	0	0	0	0	0	10	0	1	0	0	0	0	11	16
17:30	0	0	0	0	0	0	0	0	11	0	0	0	0	0	0	11	14
17:45	0	0	0	0	0	0	0	0	13	0	0	0	0	0	0	13	19
H/TOT	0	0	0	0	0	0	0	0	44	0	1	0	0	0	0	45	67
18:00	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	9	15
18:15	0	0	0	0	0	0	0	0	11	1	0	0	0	0	0	12	18
18:30	0	0	0	0	0	0	0	0	16	0	0	0	0	0	0	16	27
18:45	0	0	0	0	0	0	0	0	7	0	0	0	0	0	0	7	15
H/TOT	0	0	0	0	0	0	0	0	43	1	0	0	0	0	0	44	75
19:00	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	8	25
19:15	0	0	0	0	0	0	0	0	13	0	0	0	0	0	0	13	15
19:30	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	8	18
19:45	0	0	0	0	0	0	0	0	13	0	0	0	0	0	0	13	16
H/TOT	0	0	0	0	0	0	0	0	42	0	0	0	0	0	0	42	74
13 HR TOT	0	0	0	0	0	0	0	0	345	45	2	0	0	0	0	392	824





A => C							A => D								B => A			
LGV	OGV1	OGV2	PSV	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2
0	0	0	0	0	0	2	14	0	1	0	0	0	0	15	2	0	0	0
0	0	0	0	0	0	8	8	0	0	0	0	0	0	8	0	0	0	0
0	0	0	0	0	0	6	13	0	0	0	0	0	0	13	5	0	0	0
0	1	0	0	0	0	18	14	0	0	0	0	1	0	15	4	0	0	0
0	1	0	0	0	0	34	49	0	1	0	0	1	0	51	11	0	0	0
2	0	0	0	0	0	18	10	2	0	0	0	0	0	12	3	0	0	0
2	0	0	0	0	1	54	13	1	0	0	0	0	0	14	2	0	0	0
0	1	0	0	0	0	40	22	1	0	0	0	0	0	23	0	0	0	0
0	0	0	0	0	0	25	31	2	0	0	0	0	0	33	5	0	0	0
4	1	0	0	0	1	137	76	6	0	0	0	0	0	82	10	0	0	0
1	0	0	0	0	0	31	26	1	0	0	0	0	0	27	4	0	0	0
1	0	0	0	0	0	17	15	2	0	0	0	0	0	17	3	1	0	0
0	0	0	0	0	0	8	21	2	2	0	0	0	0	25	6	0	0	0
0	0	0	0	0	0	6	20	8	1	0	0	0	0	29	7	4	0	0
2	0	0	0	0	0	62	82	13	3	0	0	0	0	98	20	5	0	0
3	0	0	0	0	0	13	25	5	1	0	0	0	0	31	7	0	0	0
0	0	0	0	0	0	14	18	5	1	0	0	0	0	24	4	0	0	0
2	1	0	0	0	0	11	13	2	0	0	0	0	0	15	11	0	0	0
2	0	0	0	0	0	15	17	2	0	0	0	0	0	19	4	0	0	0
7	1	0	0	0	0	53	73	14	2	0	0	0	0	89	26	0	0	0
1	0	0	0	0	0	13	17	4	0	0	0	0	0	21	7	0	0	0
1	0	0	0	0	0	11	11	5	2	0	0	0	0	18	11	1	0	0
2	0	0	0	0	0	17	11	4	1	0	0	0	0	16	10	0	1	0
0	0	0	0	0	0	11	14	4	1	1	0	0	0	20	7	1	1	0
4	0	0	0	0	0	52	53	17	4	1	0	0	0	75	35	2	2	0
0	0	0	0	0	0	22	18	7	1	0	0	0	0	26	5	0	2	0
1	0	0	0	0	0	12	15	2	1	0	0	0	0	18	12	0	0	0
0	0	0	0	0	0	11	10	3	1	0	0	0	0	14	10	1	0	0
2	0	0	0	0	0	14	28	2	1	0	0	0	0	31	12	0	0	0
3	0	0	0	0	0	59	71	14	4	0	0	0	0	89	39	1	2	0
3	0	0	0	0	0	22	16	4	1	0	0	0	0	21	8	4	0	0
3	0	0	0	0	0	13	13	3	0	0	0	0	0	16	4	1	1	0
1	0	0	0	0	0	10	16	1	0	0	0	0	0	17	9	0	0	0
2	0	0	0	0	0	18	18	1	1	0	0	0	0	20	6	0	0	0
9	0	0	0	0	0	63	63	9	2	0	0	0	0	74	27	5	1	0
2	0	0	0	0	0	8	16	1	0	0	0	0	0	17	5	0	0	0
0	0	0	0	0	0	15	14	1	0	0	0	0	0	15	4	1	0	0
1	0	0	0	0	0	18	18	4	1	0	0	0	0	23	7	2	0	0
1	0	0	0	0	0	19	15	3	0	0	0	0	0	18	8	0	0	0
4	0	0	0	0	0	60	63	9	1	0	0	0	0	73	24	3	0	0
1	0	0	0	0	0	13	13	3	0	1	0	0	0	17	7	1	0	0
0	0	0	0	0	0	18	20	1	1	0	0	0	0	22	5	2	0	0
3	0	0	0	0	0	23	19	3	0	0	0	0	0	22	12	1	0	0
1	0	0	0	0	0	25	11	4	1	0	0	0	0	16	8	0	0	0
5	0	0	0	0	0	79	63	11	2	1	0	0	0	77	32	4	0	0
0	0	0	0	0	0	18	15	2	0	0	0	0	0	17	10	0	0	0
3	0	0	0	0	0	16	15	1	0	0	0	0	0	16	10	0	0	0
1	0	0	0	0	0	10	14	0	0	0	0	0	0	14	13	0	1	0
2	0	0	0	0	0	13	14	1	0	0	0	0	0	15	9	1	0	0
6	0	0	0	0	0	57	58	4	0	0	0	0	0	62	42	1	1	0
1	0	0	0	0	0	19	16	1	1	0	0	0	0	18	13	2	0	0
0	0	0	0	0	0	16	17	0	0	0	0	0	0	17	7	0	0	0
0	0	0	0	0	0	14	13	2	2	0	0	0	0	17	9	0	0	0
0	0	0	0	0	0	19	29	1	0	0	0	0	0	30	11	0	0	0
1	0	0	0	0	0	68	75	4	3	0	0	0	0	82	40	2	0	0
0	0	0	0	0	0	15	22	0	0	0	0	0	0	22	9	0	0	0
0	0	0	0	0	0	18	23	0	0	0	0	0	0	23	17	1	0	0
0	0	0	0	0	0	27	22	1	0	0	0	0	0	23	11	1	0	0
0	0	0	0	0	0	15	14	1	0	0	0	0	0	15	24	0	0	0
0	0	0	0	0	0	75	81	2	0	0	0	0	0	83	61	2	0	0
0	0	0	0	0	0	25	20	0	0	0	0	0	0	20	11	1	0	0
0	0	0	0	0	0	15	23	0	0	0	0	0	0	23	17	0	0	0
0	0	0	0	0	0	18	33	0	0	0	0	0	0	33	21	0	0	0
0	0	0	0	0	0	16	28	0	0	0	0	0	0	28	9	1	0	0
0	0	0	0	0	0	74	104	0	0	0	0	0	0	104	58	2	0	0
45	3	0	0	0	1	873	911	103	22	2	0	1	0	1039	425	27	6	0

				B => B								B => C						
PSV	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C
0	0	0	2	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
2	0	0	2	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
0	0	0	5	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0
1	0	0	5	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0
3	0	0	14	0	0	0	0	0	0	0	0	18	0	0	0	0	0	0
1	0	0	4	0	0	0	0	0	0	0	0	5	1	0	0	0	0	0
1	0	0	3	0	0	0	0	0	0	0	0	19	1	0	0	0	0	0
1	0	0	1	0	0	0	0	0	0	0	0	21	0	0	0	0	0	0
0	0	0	5	0	0	0	0	0	0	0	0	11	1	0	0	0	0	0
3	0	0	13	0	0	0	0	0	0	0	0	56	3	0	0	0	0	0
0	0	0	4	0	0	0	0	0	0	0	0	21	1	0	0	0	0	0
0	0	0	4	0	0	0	0	0	0	0	0	19	0	0	0	0	0	0
1	0	0	7	0	0	0	0	0	0	0	0	9	1	0	0	0	0	0
1	0	0	12	0	0	0	0	0	0	0	0	11	1	0	0	0	0	0
2	0	0	27	0	0	0	0	0	0	0	0	60	3	0	0	0	0	0
1	0	0	8	0	0	0	0	0	0	0	0	7	3	0	0	0	0	0
0	0	0	4	0	0	0	0	0	0	0	0	13	1	0	0	0	0	0
0	0	0	11	0	0	0	0	0	0	0	0	12	2	0	0	0	0	0
0	0	0	4	0	0	0	0	0	0	0	0	11	2	0	0	0	0	0
1	0	0	27	0	0	0	0	0	0	0	0	43	8	0	0	0	0	0
1	0	0	8	0	0	0	0	0	0	0	0	6	1	1	1	0	0	0
0	0	0	12	0	0	0	0	0	0	0	0	22	1	0	0	0	0	0
0	0	0	11	0	0	0	0	0	0	0	0	13	1	1	0	0	0	0
0	0	0	9	0	0	0	0	0	0	0	0	11	0	0	0	0	0	0
1	0	0	40	0	0	0	0	0	0	0	0	52	3	2	1	0	0	0
1	0	0	8	0	0	0	0	0	0	0	0	6	1	0	0	0	0	0
0	0	0	12	0	0	0	0	0	0	0	0	15	0	0	0	0	0	0
0	0	0	11	0	0	0	0	0	0	0	0	20	2	0	0	0	0	0
0	0	0	12	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0
1	0	0	43	0	0	0	0	0	0	0	0	49	3	0	0	0	0	0
1	0	0	13	0	0	0	0	0	0	0	0	17	0	0	0	0	0	0
0	0	0	6	0	0	0	0	0	0	0	0	16	2	1	0	0	0	0
0	0	0	9	0	0	0	0	0	0	0	0	14	0	1	0	0	0	0
0	0	0	6	0	0	0	0	0	0	0	0	16	1	1	0	0	0	0
1	0	0	34	0	0	0	0	0	0	0	0	63	3	3	0	0	0	0
1	0	0	6	0	0	0	0	0	0	0	0	11	1	0	0	0	0	0
1	0	0	6	0	0	0	0	0	0	0	0	17	2	1	0	0	0	0
0	0	0	9	0	0	0	0	0	0	0	0	15	0	0	0	0	0	0
0	0	0	8	0	0	0	0	0	0	0	0	21	1	0	0	0	0	0
2	0	0	29	0	0	0	0	0	0	0	0	64	4	1	0	0	0	0
0	0	0	8	0	0	0	0	0	0	0	0	15	0	0	0	0	0	0
1	1	0	9	0	0	0	0	0	0	0	0	12	1	0	0	0	0	0
0	0	0	13	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0
0	0	0	8	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0
1	1	0	38	0	0	0	0	0	0	0	0	44	1	0	0	0	0	0
1	0	0	11	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0
0	0	0	10	0	0	0	0	0	0	0	0	10	1	0	0	0	0	0
0	0	0	14	0	0	0	0	0	0	0	0	11	1	0	0	0	0	0
1	0	0	11	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0
2	0	0	46	0	0	0	0	0	0	0	0	35	2	0	0	0	0	0
0	0	0	15	0	0	0	0	0	0	0	0	11	1	0	0	0	0	0
1	1	0	9	0	0	0	0	0	0	0	0	7	0	0	0	0	0	0
0	0	0	9	0	0	0	0	0	0	0	0	11	1	0	0	0	0	0
0	0	0	11	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0
1	1	0	44	0	0	0	0	0	0	0	0	39	2	0	0	0	0	0
1	0	0	10	0	0	0	0	0	0	0	0	5	1	0	0	0	0	0
2	0	0	20	0	0	0	0	0	0	0	0	12	0	0	0	0	0	0
0	0	0	12	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0
0	0	0	24	0	0	0	0	0	0	0	0	12	0	0	0	1	0	0
3	0	0	66	0	0	0	0	0	0	0	0	38	1	0	0	1	0	0
0	0	0	12	0	0	0	0	0	0	0	0	7	0	0	0	1	0	0
0	0	0	17	0	0	0	0	0	0	0	0	12	0	0	0	0	0	0
1	0	0	22	0	0	0	0	0	0	0	0	8	1	0	0	0	0	0
0	0	0	10	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0
1	0	0	61	0	0	0	0	0	0	0	0	33	1	0	0	1	0	0
22	2	0	482	0	0	0	0	0	0	0	0	594	34	6	1	2	0	0

	B => D								C => A									
TOT	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT	CAR	LGV
2	51	3	1	2	1	0	1	59	2	1	0	0	0	0	0	3	1	0
2	77	5	0	0	2	0	0	84	4	0	0	0	0	0	0	4	4	0
8	77	1	1	0	3	0	0	82	3	1	0	0	0	0	0	4	7	0
6	69	4	0	0	1	0	0	74	8	1	0	0	0	0	0	9	5	1
18	274	13	2	2	7	0	1	299	17	3	0	0	0	0	0	20	17	1
6	70	2	0	0	3	0	0	75	16	0	0	0	0	0	0	16	10	1
20	92	1	1	0	0	0	0	94	23	1	0	0	0	0	0	24	14	0
21	80	3	1	0	0	0	1	85	19	1	0	0	0	0	0	20	31	2
12	74	2	1	0	3	0	0	80	11	2	0	0	0	0	0	13	28	2
59	316	8	3	0	6	0	1	334	69	4	0	0	0	0	0	73	83	5
22	62	8	1	0	2	0	0	73	17	1	0	0	0	0	0	18	24	1
19	61	3	1	2	0	0	0	67	21	0	0	0	0	0	0	21	28	1
10	56	7	0	1	2	0	0	66	16	1	0	0	0	0	0	17	22	0
12	68	8	2	0	1	0	0	79	10	0	0	0	0	0	0	10	15	3
63	247	26	4	3	5	0	0	285	64	2	0	0	0	0	0	66	89	5
10	54	4	2	1	1	0	0	62	16	1	0	0	0	0	0	17	16	0
14	62	4	0	0	1	0	0	67	9	1	0	0	0	0	0	10	17	0
14	71	8	2	3	1	0	0	85	12	0	0	0	0	0	0	12	16	2
13	56	4	3	0	0	0	0	63	17	1	0	0	0	0	0	18	19	1
51	243	20	7	4	3	0	0	277	54	3	0	0	0	0	0	57	68	3
9	77	5	1	2	0	1	0	86	12	0	1	0	0	0	0	13	15	2
23	67	6	2	2	0	0	0	77	14	0	0	0	0	0	0	14	16	2
15	52	7	0	1	1	0	0	61	14	2	0	0	0	0	0	16	18	6
11	70	8	1	0	0	0	1	80	17	0	0	0	0	0	0	17	13	2
58	266	26	4	5	1	1	1	304	57	2	1	0	0	0	0	60	62	12
7	75	8	1	1	1	0	0	86	11	1	0	0	0	0	0	12	11	0
15	61	9	0	1	0	0	0	71	17	0	0	0	0	0	0	17	21	3
22	55	5	3	1	1	0	0	65	15	0	0	0	0	0	0	15	17	0
8	62	7	1	0	0	0	0	70	19	2	1	0	0	0	0	22	13	0
52	253	29	5	3	2	0	0	292	62	3	1	0	0	0	0	66	62	3
17	59	7	0	1	3	0	0	70	12	0	0	0	0	0	0	12	19	4
19	78	6	2	0	1	0	0	87	12	3	0	0	1	0	0	16	38	0
15	56	4	3	2	3	0	0	68	8	0	0	0	0	0	0	8	21	0
18	56	5	1	5	0	0	0	67	18	1	0	0	0	0	0	19	25	2
69	249	22	6	8	7	0	0	292	50	4	0	0	1	0	0	55	103	6
12	65	13	3	0	3	0	0	84	14	1	0	0	0	0	0	15	33	2
20	67	8	2	2	1	0	1	81	9	1	0	0	0	0	0	10	18	1
15	55	10	2	0	0	0	0	67	10	3	0	0	0	0	0	13	31	3
22	52	6	3	1	2	0	0	64	13	1	0	0	0	0	0	14	22	2
69	239	37	10	3	6	0	1	296	46	6	0	0	0	0	0	52	104	8
15	69	9	1	1	0	0	0	80	15	2	0	0	0	0	0	17	15	3
13	52	9	3	1	1	0	0	66	12	0	0	0	1	0	0	13	22	1
8	51	5	2	2	1	0	0	61	7	0	0	0	0	0	0	7	8	0
9	60	10	3	2	0	0	0	75	23	0	0	0	0	0	0	23	27	1
45	232	33	9	6	2	0	0	282	57	2	0	0	1	0	0	60	72	5
8	62	9	0	0	0	0	0	71	17	0	0	0	0	0	0	17	25	0
11	63	7	0	1	6	0	0	77	21	1	0	0	0	0	0	22	19	0
12	68	10	2	1	1	0	0	82	14	1	0	0	0	0	0	15	13	0
6	63	8	1	0	0	0	0	72	16	2	0	0	0	0	0	18	23	0
37	256	34	3	2	7	0	0	302	68	4	0	0	0	0	0	72	80	0
12	47	6	0	0	0	0	0	53	15	1	0	0	0	0	0	16	10	0
7	55	4	1	1	2	0	0	63	11	0	0	0	0	0	0	11	13	1
12	70	5	0	0	1	0	0	76	22	0	0	0	0	0	0	22	21	0
10	55	5	0	1	0	0	0	61	12	1	0	0	0	0	0	13	9	1
41	227	20	1	2	3	0	0	253	60	2	0	0	0	0	0	62	53	2
6	64	4	0	0	2	0	0	70	16	2	0	0	0	0	0	18	11	1
12	59	1	0	0	0	0	1	61	20	0	0	0	0	0	0	20	12	2
9	64	3	0	0	2	0	0	69	15	1	0	0	0	0	0	16	15	0
13	66	0	0	1	1	0	1	69	18	0	0	0	0	0	0	18	19	0
40	253	8	0	1	5	0	2	269	69	3	0	0	0	0	0	72	57	3
8	69	2	0	0	2	0	0	73	16	0	0	0	0	0	0	16	17	1
12	73	1	0	0	0	0	0	74	7	0	0	0	0	0	0	7	12	0
9	67	0	0	1	0	0	0	68	15	0	0	0	0	0	0	15	17	0
6	59	4	0	0	1	0	0	64	22	0	0	0	0	0	0	22	12	0
35	268	7	0	1	3	0	0	279	60	0	0	0	0	0	0	60	58	1
637	3323	283	54	40	57	1	6	3764	733	38	2	0	2	0	0	775	908	54

C => B						C => C								C => D				
OGV1	OGV2	PSV	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	PSV
0	0	0	0	0	1	0	0	0	0	0	0	0	0	7	0	0	0	0
0	0	0	0	0	4	0	0	0	0	0	0	0	0	19	0	0	0	1
0	0	0	0	0	7	0	0	0	0	0	0	0	0	12	0	0	0	2
0	0	0	0	0	6	0	0	0	0	0	0	0	0	15	2	0	0	4
0	0	0	0	0	18	0	0	0	0	0	0	0	0	53	2	0	0	7
0	0	0	0	0	11	0	0	0	0	0	0	0	0	23	1	1	1	4
0	0	0	0	0	14	0	0	0	0	0	0	0	0	18	1	0	0	0
0	0	1	0	0	34	0	0	0	0	0	0	0	0	19	0	0	0	1
0	0	0	0	0	30	0	0	0	0	0	0	0	0	15	0	0	0	0
0	0	1	0	0	89	0	0	0	0	0	0	0	0	75	2	1	1	5
0	0	0	0	0	25	0	0	0	0	0	0	0	0	27	2	0	0	1
0	0	0	0	0	29	0	0	0	0	0	0	0	0	24	1	0	0	1
0	0	0	0	0	22	0	0	0	0	0	0	0	0	14	1	1	0	1
0	0	0	0	0	18	0	0	0	0	0	0	0	0	20	3	0	0	0
0	0	0	0	0	94	0	0	0	0	0	0	0	0	85	7	1	0	3
0	0	0	0	0	16	0	0	0	0	0	0	0	0	13	3	0	0	0
0	0	0	0	0	17	0	0	0	0	0	0	0	0	16	2	0	0	1
1	0	0	0	0	19	0	0	0	0	0	0	0	0	8	2	0	0	0
0	0	0	0	0	20	0	0	0	0	0	0	0	0	18	4	0	0	1
1	0	0	0	0	72	0	0	0	0	0	0	0	0	55	11	0	0	2
2	0	0	0	0	19	0	0	0	0	0	0	0	0	16	1	1	0	0
0	0	0	0	0	18	0	0	0	0	0	0	0	0	11	2	1	0	1
0	0	0	0	0	24	0	0	0	0	0	0	0	0	20	4	1	0	0
0	0	0	0	0	15	0	0	0	0	0	0	0	0	21	1	0	0	0
2	0	0	0	0	76	0	0	0	0	0	0	0	0	68	8	3	0	1
0	0	0	0	0	11	0	0	0	0	0	0	0	0	16	2	0	0	0
0	0	0	0	0	24	0	0	0	0	0	0	0	0	16	0	0	0	1
0	0	0	0	0	17	0	0	0	0	0	0	0	0	14	2	0	0	0
0	0	0	0	0	13	0	0	0	0	0	0	0	0	11	1	0	0	1
0	0	0	0	0	65	0	0	0	0	0	0	0	0	57	5	0	0	2
1	0	0	0	0	24	0	0	0	0	0	0	0	0	15	1	0	0	0
0	0	0	0	0	38	0	0	0	0	0	0	0	0	15	1	0	0	0
0	1	0	0	0	22	0	0	0	0	0	0	0	0	9	3	1	0	0
1	0	1	0	0	29	0	0	0	0	0	0	0	0	15	1	0	0	1
2	1	1	0	0	113	0	0	0	0	0	0	0	0	54	6	1	0	1
0	0	0	0	0	35	0	0	0	0	0	0	0	0	12	0	0	0	0
1	0	0	0	0	20	0	0	0	0	0	0	0	0	11	0	0	0	1
0	0	0	0	0	34	0	0	0	0	0	0	0	0	13	2	0	0	1
1	0	0	0	0	25	0	0	0	0	0	0	0	0	24	2	0	0	1
2	0	0	0	0	114	0	0	0	0	0	0	0	0	60	4	0	0	3
0	0	0	0	0	18	0	0	0	0	0	0	0	0	13	2	0	0	0
0	0	0	0	0	23	0	0	0	0	0	0	0	0	12	0	0	0	1
0	0	0	0	0	8	0	0	0	0	0	0	0	0	13	1	0	0	0
0	0	0	0	0	28	0	0	0	0	0	0	0	0	30	3	0	0	1
0	0	0	0	0	77	0	0	0	0	0	0	0	0	68	6	0	0	2
0	0	0	0	0	25	0	0	0	0	0	0	0	0	19	3	0	0	0
0	0	0	0	0	19	0	0	0	0	0	0	0	0	18	2	0	0	1
0	0	0	0	0	13	0	0	0	0	0	0	0	0	18	2	0	0	0
0	0	0	0	0	23	0	0	0	0	0	0	0	0	16	0	0	0	1
0	0	0	0	0	80	0	0	0	0	0	0	0	0	71	7	0	0	2
0	0	0	1	0	11	0	0	0	0	0	0	0	0	18	1	0	0	1
0	0	0	0	0	14	0	0	0	0	0	0	0	0	25	3	0	0	2
0	0	0	0	0	21	0	0	0	0	0	0	0	0	20	0	1	0	1
0	0	0	0	0	10	0	0	0	0	0	0	0	0	18	1	0	0	0
0	0	0	1	0	56	0	0	0	0	0	0	0	0	81	5	1	0	4
0	0	0	0	0	12	0	0	0	0	0	0	0	0	17	3	0	0	1
0	0	0	0	0	14	0	0	0	0	0	0	0	0	23	1	0	0	0
0	0	0	0	0	15	0	0	0	0	0	0	0	0	19	1	0	0	1
0	0	0	0	0	19	0	0	0	0	0	0	0	0	24	1	0	0	1
0	0	0	0	0	60	0	0	0	0	0	0	0	0	83	6	0	0	3
0	0	0	0	0	18	0	0	0	0	0	0	0	0	16	0	0	0	0
0	0	0	0	0	12	0	0	0	0	0	0	0	0	21	0	0	0	1
0	0	0	0	0	17	0	0	0	0	0	0	0	0	18	0	0	0	0
0	0	0	0	0	12	0	0	0	0	0	0	0	0	17	1	0	0	1
0	0	0	0	0	59	0	0	0	0	0	0	0	0	72	1	0	0	2
7	1	2	1	0	973	0	0	0	0	0	0	0	0	882	70	7	1	37

			D => A								D => B							
M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT
0	0	7	2	0	0	0	0	0	0	2	30	1	0	1	1	0	0	33
0	0	20	1	1	0	0	0	0	0	2	24	2	2	2	2	0	0	32
0	0	14	3	1	1	0	0	0	0	5	27	5	3	0	1	0	0	36
0	0	21	6	0	0	0	0	0	0	6	70	3	1	0	5	0	0	79
0	0	62	12	2	1	0	0	0	0	15	151	11	6	3	9	0	0	180
0	0	30	3	1	0	0	0	0	0	4	56	5	4	0	5	0	0	70
0	0	19	2	1	0	0	0	0	0	3	48	4	0	0	0	0	1	53
0	0	20	2	0	0	0	0	0	0	2	42	5	4	3	0	0	0	54
0	0	15	8	0	0	0	0	0	0	8	58	10	1	1	3	0	0	73
0	0	84	15	2	0	0	0	0	0	17	204	24	9	4	8	0	1	250
0	0	30	14	1	0	0	0	0	0	15	72	15	2	2	1	0	0	92
0	0	26	13	0	0	0	0	0	0	13	44	7	3	0	4	0	0	58
0	0	17	16	2	0	0	0	0	0	18	56	10	1	0	1	0	1	69
0	0	23	10	0	1	0	0	0	0	11	54	26	4	0	2	0	0	86
0	0	96	53	3	1	0	0	0	0	57	226	58	10	2	8	0	1	305
0	0	16	11	3	1	0	0	0	0	15	57	30	2	0	0	0	0	89
0	0	19	8	1	0	0	0	0	0	9	49	8	1	0	0	0	0	58
0	0	10	3	0	0	0	0	0	0	3	41	6	0	0	1	0	1	49
0	0	23	8	1	0	0	0	0	0	9	62	7	4	0	0	0	1	74
0	0	68	30	5	1	0	0	0	0	36	209	51	7	0	1	0	2	270
0	0	18	6	3	0	0	0	0	0	9	56	10	1	1	1	0	0	69
0	0	15	7	1	0	0	0	0	0	8	53	11	2	1	0	0	0	67
0	0	25	8	2	1	1	0	0	0	12	46	10	3	1	1	0	1	62
0	0	22	14	2	0	0	0	0	0	16	68	6	0	2	0	0	0	76
0	0	80	35	8	1	1	0	0	0	45	223	37	6	5	2	0	1	274
0	0	18	10	0	0	0	0	0	0	10	66	7	3	0	1	0	1	78
0	1	18	12	0	0	0	0	0	0	12	66	7	1	2	0	0	1	77
0	0	16	11	1	0	0	0	0	0	12	66	4	2	2	1	0	0	75
0	0	13	12	2	0	0	0	0	0	14	53	7	0	0	1	0	0	61
0	1	65	45	3	0	0	0	0	0	48	251	25	6	4	3	0	2	291
0	0	16	11	0	0	0	0	0	0	11	58	2	0	0	1	0	2	63
0	0	16	10	0	0	0	0	0	0	10	51	5	2	2	1	0	0	61
0	0	13	9	1	0	0	0	0	0	10	59	9	1	2	1	0	0	72
0	0	17	10	0	0	0	0	0	0	10	62	6	2	1	0	0	0	71
0	0	62	40	1	0	0	0	0	0	41	230	22	5	5	3	0	2	267
0	0	12	11	2	0	0	0	0	0	13	62	5	1	0	1	0	0	69
0	0	12	11	1	0	0	0	0	0	12	65	1	2	1	2	0	0	71
0	0	16	7	0	0	0	0	0	0	7	61	5	1	1	0	0	0	68
0	0	27	7	1	0	1	0	1	0	10	52	4	1	2	1	0	0	60
0	0	67	36	4	0	1	0	1	0	42	240	15	5	4	4	0	0	268
0	0	15	13	3	0	0	0	0	0	16	73	8	0	1	1	0	0	83
0	0	13	7	3	1	0	0	0	0	11	61	3	0	1	1	0	0	66
0	0	14	4	0	1	0	0	0	0	5	55	4	0	0	0	0	1	60
0	0	34	11	1	0	0	0	0	0	12	58	7	0	0	2	0	0	67
0	0	76	35	7	2	0	0	0	0	44	247	22	0	2	4	0	1	276
0	0	22	12	0	0	0	0	0	0	12	57	3	0	1	0	0	1	62
0	0	21	9	1	1	0	0	0	0	11	52	7	0	0	3	0	0	62
0	0	20	10	1	1	0	0	0	0	12	61	3	1	0	2	0	0	67
0	0	17	8	1	0	0	0	0	0	9	61	6	0	1	2	0	0	70
0	0	80	39	3	2	0	0	0	0	44	231	19	1	2	7	0	1	261
0	0	20	12	1	0	0	0	0	0	13	52	2	0	1	0	0	0	55
0	0	30	11	1	0	0	0	0	0	12	53	1	0	0	1	0	0	55
0	0	22	15	0	0	0	0	0	0	15	64	1	0	0	0	0	1	66
0	0	19	13	0	0	0	0	0	0	13	76	2	0	0	0	0	1	79
0	0	91	51	2	0	0	0	0	0	53	245	6	0	1	1	0	2	255
0	0	21	18	1	0	0	0	0	0	19	58	3	0	0	0	0	2	63
0	0	24	24	0	0	0	0	0	0	24	65	4	0	0	1	0	1	71
0	0	21	19	0	0	0	1	0	0	20	56	0	0	0	0	0	1	57
0	0	26	15	1	0	0	0	0	0	16	63	0	0	0	0	0	0	63
0	0	92	76	2	0	0	1	0	0	79	242	7	0	0	1	0	4	254
0	0	16	16	0	0	0	0	0	0	16	69	0	0	0	1	0	0	70
0	0	22	14	0	0	0	0	0	0	14	55	4	0	0	1	0	0	60
0	0	18	20	0	0	0	0	0	0	20	72	1	0	0	1	0	0	74
0	0	19	22	0	0	0	0	0	0	22	50	0	0	0	0	0	0	50
0	0	75	72	0	0	0	0	0	0	72	246	5	0	0	3	0	0	254
0	1	998	539	42	8	2	1	1	0	593	2945	302	55	32	54	0	17	3405

D => C								D => D							
CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT
2	1	0	0	0	0	0	3	0	0	0	0	0	0	0	0
9	2	0	0	0	0	0	11	0	0	0	0	0	0	0	0
8	1	0	0	2	0	0	11	0	0	0	0	0	0	0	0
9	2	0	0	2	0	0	13	0	0	0	0	0	0	0	0
28	6	0	0	4	0	0	38	0	0	0	0	0	0	0	0
17	1	0	0	0	0	0	18	0	0	0	0	0	0	0	0
38	0	0	0	2	0	0	40	0	0	0	0	0	0	0	0
27	2	0	0	0	0	0	29	0	0	0	0	0	0	0	0
19	1	0	0	2	0	0	22	0	0	0	0	0	0	0	0
101	4	0	0	4	0	0	109	0	0	0	0	0	0	0	0
13	0	1	0	0	0	0	14	0	0	0	0	0	0	0	0
11	1	0	0	1	0	0	13	0	0	0	0	0	0	0	0
8	3	0	0	0	0	0	11	0	0	0	0	0	0	0	0
4	1	0	0	2	0	0	7	0	0	0	0	0	0	0	0
36	5	1	0	3	0	0	45	0	0	0	0	0	0	0	0
7	3	0	0	0	0	0	10	0	0	0	0	0	0	0	0
7	1	0	0	1	0	0	9	0	0	0	0	0	0	0	0
11	2	0	0	1	0	0	14	0	0	0	0	0	0	0	0
11	2	1	0	0	0	0	14	0	0	0	0	0	0	0	0
36	8	1	0	2	0	0	47	0	0	0	0	0	0	0	0
8	0	2	0	1	0	0	11	0	0	0	0	0	0	0	0
4	1	0	0	0	0	0	5	0	0	0	0	0	0	0	0
12	2	0	0	0	0	0	14	0	0	0	0	0	0	0	0
12	1	0	0	1	0	0	14	0	0	0	0	0	0	0	0
36	4	2	0	2	0	0	44	0	0	0	0	0	0	0	0
9	0	1	0	0	0	0	10	0	0	0	0	0	0	0	0
12	1	1	0	1	0	0	15	0	0	0	0	0	0	0	0
6	2	0	0	1	1	0	10	0	0	0	0	0	0	0	0
10	1	0	0	0	0	0	11	0	0	0	0	0	0	0	0
37	4	2	0	2	1	0	46	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0
10	1	0	1	1	0	0	13	0	0	0	0	0	0	0	0
15	2	0	0	2	1	0	20	0	0	0	0	0	0	0	0
12	0	0	0	1	0	0	13	0	0	0	0	0	0	0	0
47	3	0	1	4	1	0	56	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0
9	0	0	0	1	0	0	10	0	0	0	0	0	0	0	0
14	0	0	0	1	0	0	15	0	0	0	0	0	0	0	0
11	1	0	0	1	0	0	13	0	0	0	0	0	0	0	0
41	1	0	0	3	0	0	45	0	0	0	0	0	0	0	0
10	1	0	0	0	0	0	11	0	0	0	0	0	0	0	0
7	4	0	0	1	0	0	12	1	0	0	0	0	0	0	1
23	0	0	0	0	0	0	23	0	0	0	0	0	0	0	0
24	1	0	0	0	0	0	25	0	0	0	0	0	0	0	0
64	6	0	0	1	0	0	71	1	0	0	0	0	0	0	1
12	1	0	0	1	0	1	15	0	0	0	0	0	0	0	0
8	1	0	0	0	0	0	9	0	0	0	0	0	0	0	0
12	0	0	0	0	2	0	14	0	0	0	0	0	0	0	0
13	1	0	0	0	0	0	14	0	0	0	0	0	0	0	0
45	3	0	0	1	2	1	52	0	0	0	0	0	0	0	0
17	1	0	0	1	1	0	20	1	0	0	0	0	0	0	1
12	1	0	0	0	0	0	13	0	0	0	0	0	0	0	0
14	0	0	0	1	0	0	15	0	0	0	0	0	0	0	0
14	0	0	0	1	0	0	15	0	0	0	0	0	0	0	0
57	2	0	0	3	1	0	63	1	0	0	0	0	0	0	1
14	0	0	0	1	0	0	15	0	0	0	0	0	0	0	0
12	0	0	0	2	0	0	14	0	0	0	0	0	0	0	0
11	2	0	0	2	0	0	15	0	0	0	0	0	0	0	0
21	0	0	0	2	0	0	23	0	0	0	0	0	0	0	0
58	2	0	0	7	0	0	67	0	0	0	0	0	0	0	0
18	0	0	0	1	0	0	19	0	0	0	0	0	0	0	0
14	1	0	0	1	0	0	16	0	0	0	0	0	0	0	0
16	0	0	0	1	0	0	17	0	0	0	0	0	0	0	0
20	0	0	0	1	0	0	21	0	0	0	0	0	0	0	0
68	1	0	0	4	0	0	73	0	0	0	0	0	0	0	0
654	49	6	1	40	5	1	756	2	0	0	0	0	0	0	2

Survey Name :	ITS J-372 Malahide
Site:	Site 2
Date:	12.12.2019
Time:	07:00 - 20:00
Location:	53.4510026,-6.1511518
Classification:	Car, LGV, OGV1, OGV2, PSV, P/C, M/C, Peds

Irish Traffic Surveys



	A => A								A => B								
TIME	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT	CAR
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	48
07:15	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2	71
07:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	89
07:45	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	4	100
H/TOT	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	6	308
08:00	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	5	104
08:15	0	0	0	0	0	0	0	0	6	1	0	0	0	0	0	7	121
08:30	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2	74
08:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	60
H/TOT	0	0	0	0	0	0	0	0	13	1	0	0	0	0	0	14	359
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	57
09:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	89
09:30	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2	96
09:45	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2	89
H/TOT	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	4	331
10:00	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2	60
10:15	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2	89
10:30	0	0	0	0	0	0	0	0	6	1	0	0	0	0	0	7	86
10:45	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	66
H/TOT	0	0	0	0	0	0	0	0	11	1	0	0	0	0	0	12	301
11:00	0	0	0	0	0	0	0	0	6	1	0	0	0	0	0	7	79
11:15	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	4	77
11:30	0	0	0	0	0	0	0	0	6	1	0	0	0	0	0	7	81
11:45	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	9	85
H/TOT	0	0	0	0	0	0	0	0	25	2	0	0	0	0	0	27	322
12:00	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	6	78
12:15	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	5	82
12:30	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	4	82
12:45	0	0	0	0	0	0	0	0	4	1	0	0	0	0	0	5	95
H/TOT	0	0	0	0	0	0	0	0	19	1	0	0	0	0	0	20	337
13:00	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	3	85
13:15	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2	108
13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	63
13:45	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	88
H/TOT	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	6	344
14:00	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	86
14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	82
14:30	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2	82
14:45	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	3	72
H/TOT	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	6	322
15:00	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	2	72
15:15	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	83
15:30	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	4	94
15:45	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	6	79
H/TOT	0	0	0	0	0	0	0	0	12	1	0	0	0	0	0	13	328
16:00	0	0	0	0	0	0	0	0	9	1	0	0	0	0	0	10	88
16:15	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	9	93
16:30	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	8	96
16:45	0	0	0	0	0	0	0	0	7	0	0	0	0	0	0	7	82
H/TOT	0	0	0	0	0	0	0	0	33	1	0	0	0	0	0	34	359
17:00	0	0	0	0	0	0	0	0	11	0	0	0	0	0	0	11	87
17:15	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	3	92
17:30	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	5	101
17:45	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	8	83
H/TOT	0	0	0	0	0	0	0	0	27	0	0	0	0	0	0	27	363
18:00	0	0	0	0	0	0	0	0	13	0	0	0	0	0	0	13	90
18:15	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	4	95
18:30	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	67
18:45	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	6	100
H/TOT	0	0	0	0	0	0	0	0	24	0	0	0	0	0	0	24	352
19:00	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2	88
19:15	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	4	99
19:30	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	3	77
19:45	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	84
H/TOT	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	10	348
13 HR TOT	0	0	0	0	0	0	0	0	196	7	0	0	0	0	0	203	4374



A => C							B => A								B => B			
LGV	OGV1	OGV2	PSV	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2
2	1	1	2	0	1	55	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	5	0	1	81	1	0	0	0	0	0	0	1	0	0	0	0
1	0	0	3	0	0	93	1	0	0	0	0	0	0	1	0	0	0	0
4	0	0	2	0	0	106	0	0	0	0	0	0	0	0	0	0	0	0
11	1	1	12	0	2	335	2	0	0	0	0	0	0	2	0	0	0	0
2	0	0	3	0	0	109	0	0	1	0	0	0	0	1	0	0	0	0
5	1	0	1	0	0	128	0	0	0	0	0	0	0	0	0	0	0	0
3	1	0	3	0	0	81	11	0	0	0	0	0	0	11	0	0	0	0
6	1	0	0	0	0	67	30	0	0	0	0	0	0	30	0	0	0	0
16	3	0	7	0	0	385	41	0	1	0	0	0	0	42	0	0	0	0
6	0	0	0	0	0	63	13	0	0	0	0	0	0	13	0	0	0	0
7	2	2	2	0	2	104	1	0	0	0	0	0	0	1	0	0	0	0
9	1	1	1	0	0	108	2	0	0	0	0	0	0	2	0	0	0	0
8	2	0	1	0	0	100	1	0	0	0	0	0	0	1	0	0	0	0
30	5	3	4	0	2	375	17	0	0	0	0	0	0	17	0	0	0	0
6	2	1	2	0	0	71	4	0	0	0	0	0	0	4	0	0	0	0
5	0	1	1	0	0	96	1	0	0	0	0	0	0	1	0	0	0	0
9	5	2	1	1	0	104	2	1	0	0	0	0	0	3	0	0	0	0
5	2	0	1	0	0	74	3	0	0	0	0	0	0	3	0	0	0	0
25	9	4	5	1	0	345	10	1	0	0	0	0	0	11	0	0	0	0
5	2	1	1	1	0	89	1	0	0	0	0	0	0	1	0	0	0	0
9	5	0	0	0	0	91	3	0	1	0	0	0	0	4	0	0	0	0
7	1	1	1	0	0	91	0	0	0	0	0	0	0	0	0	0	0	0
13	5	1	0	0	1	105	0	1	0	0	0	0	0	1	0	0	0	0
34	13	3	2	1	1	376	4	1	1	0	0	0	0	6	0	0	0	0
9	2	1	1	0	0	91	3	0	0	0	0	0	0	3	0	0	0	0
8	0	1	0	0	0	91	4	0	0	0	0	0	0	4	0	0	0	0
8	2	1	2	0	2	97	1	0	0	0	0	0	0	1	0	0	0	0
11	1	0	0	0	0	107	1	0	0	0	0	0	0	1	0	0	0	0
36	5	3	3	0	2	386	9	0	0	0	0	0	0	9	0	0	0	0
6	0	0	4	0	0	95	1	0	0	0	0	0	0	1	0	0	0	0
16	2	0	1	0	0	127	0	0	0	0	0	0	0	0	0	0	0	0
1	3	1	1	0	0	69	6	0	0	0	0	0	0	6	0	0	0	0
6	1	4	0	0	0	99	1	0	0	0	0	0	0	1	0	0	0	0
29	6	5	6	0	0	390	8	0	0	0	0	0	0	8	0	0	0	0
3	3	1	4	0	0	97	1	0	0	0	0	0	0	1	0	0	0	0
10	2	2	1	0	1	98	3	1	0	0	0	0	0	4	0	0	0	0
7	1	0	1	0	0	91	12	0	0	0	0	0	0	12	0	0	0	0
7	3	2	2	1	0	87	14	0	0	0	0	0	0	14	0	0	0	0
27	9	5	8	1	1	373	30	1	0	0	0	0	0	31	0	0	0	0
14	1	0	1	0	0	88	4	0	0	0	0	0	0	4	0	0	0	0
21	2	1	1	0	0	108	0	0	0	0	0	0	0	0	0	0	0	0
7	1	3	1	0	0	106	3	0	0	0	0	0	0	3	0	0	0	0
15	1	1	0	0	1	97	2	1	0	0	0	0	0	3	0	0	0	0
57	5	5	3	0	1	399	9	1	0	0	0	0	0	10	0	0	0	0
7	0	0	2	0	0	97	3	0	0	0	0	0	0	3	0	0	0	0
2	0	0	0	0	0	95	11	0	0	0	0	0	0	11	0	0	0	0
7	2	0	1	0	0	106	3	0	0	0	0	0	0	3	0	0	0	0
10	1	0	2	0	1	96	3	0	0	0	0	0	0	3	0	0	0	0
26	3	0	5	0	1	394	20	0	0	0	0	0	0	20	0	0	0	0
6	1	0	0	0	0	94	3	0	0	0	0	0	0	3	0	0	0	0
5	0	1	4	0	0	102	3	0	0	0	0	0	0	3	0	0	0	0
4	1	1	0	0	0	107	1	0	0	0	0	0	0	1	0	0	0	0
4	0	0	1	0	0	88	6	0	0	0	0	0	0	6	0	0	0	0
19	2	2	5	0	0	391	13	0	0	0	0	0	0	13	0	0	0	0
2	0	0	3	0	0	95	10	0	0	0	0	0	0	10	0	0	0	0
5	0	0	1	0	0	101	2	0	0	0	0	0	0	2	0	0	0	0
2	0	0	1	0	0	70	4	0	0	0	0	0	0	4	0	0	0	0
1	0	1	2	0	0	104	5	0	0	0	0	0	0	5	0	0	0	0
10	0	1	7	0	0	370	21	0	0	0	0	0	0	21	0	0	0	0
3	0	0	3	0	0	94	3	0	0	0	0	0	0	3	0	0	0	0
0	0	0	0	0	1	100	0	0	0	0	0	0	0	0	0	0	0	0
3	0	1	1	0	0	82	6	0	0	0	0	0	0	6	0	0	0	0
1	0	0	3	0	0	88	0	0	0	0	0	0	0	0	0	0	0	0
7	0	1	7	0	1	364	9	0	0	0	0	0	0	9	0	0	0	0
327	61	33	74	3	11	4883	193	4	2	0	0	0	0	199	0	0	0	0

				B => C								C => A						
PSV	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C
0	0	0	0	1	1	0	0	0	0	0	2	34	1	0	2	1	0	0
0	0	0	0	1	1	0	0	0	0	0	2	40	8	4	1	3	0	0
0	0	0	0	4	0	0	0	0	0	0	4	53	6	1	0	3	0	0
0	0	0	0	4	1	0	0	0	0	0	5	99	6	2	0	6	0	0
0	0	0	0	10	3	0	0	0	0	0	13	226	21	7	3	13	0	0
0	0	0	0	5	0	0	0	0	0	0	5	104	5	2	1	4	0	0
0	0	0	0	6	0	0	0	0	0	0	6	113	2	1	0	1	0	1
0	0	0	0	30	0	0	0	0	0	0	30	102	8	5	3	1	0	0
0	0	0	0	40	2	0	0	0	0	0	42	142	8	3	0	3	0	0
0	0	0	0	81	2	0	0	0	0	0	83	461	23	11	4	9	0	1
0	0	0	0	39	2	0	0	1	0	0	42	104	9	0	1	1	0	0
0	0	0	0	22	1	0	0	0	0	0	23	83	7	2	0	4	0	0
0	0	0	0	12	0	0	0	0	0	0	12	70	13	1	0	2	0	1
0	0	0	0	6	1	0	0	0	0	0	7	74	16	4	0	1	0	0
0	0	0	0	79	4	0	0	1	0	0	84	331	45	7	1	8	0	1
0	0	0	0	6	0	0	0	0	0	0	6	86	10	0	0	2	0	0
0	0	0	0	4	0	0	0	0	0	0	4	67	2	0	0	0	0	0
0	0	0	0	8	0	0	0	0	0	0	8	59	7	1	0	1	0	0
0	0	0	0	7	0	0	0	0	0	0	7	85	7	2	0	0	0	1
0	0	0	0	25	0	0	0	0	0	0	25	297	26	3	0	3	0	1
0	0	0	0	6	1	0	0	0	0	0	7	66	8	1	1	2	0	0
0	0	0	0	3	1	0	0	0	0	0	4	78	8	2	2	0	0	2
0	0	0	0	3	0	0	0	0	0	0	3	76	15	4	0	0	0	1
0	0	0	0	9	0	0	0	0	0	0	9	104	8	1	3	1	0	1
0	0	0	0	21	2	0	0	0	0	0	23	324	39	8	6	3	0	4
0	0	0	0	5	0	0	0	0	0	0	5	88	7	2	1	2	0	1
0	0	0	0	5	1	0	0	0	0	0	6	99	11	2	0	0	0	0
0	0	0	0	1	0	0	0	0	0	0	1	109	3	3	2	1	0	0
0	0	0	0	4	0	0	0	0	0	0	4	84	9	0	0	0	0	1
0	0	0	0	15	1	0	0	0	0	0	16	380	30	7	3	3	0	2
0	0	0	0	11	3	0	0	0	0	0	14	101	11	1	0	2	1	0
0	0	0	0	14	0	1	0	0	0	0	15	127	3	3	1	1	0	1
0	0	0	0	8	1	0	0	1	0	0	10	95	11	5	2	1	0	0
0	0	0	0	15	1	1	1	0	0	0	18	112	11	2	1	1	0	0
0	0	0	0	48	5	2	1	1	0	0	57	435	36	11	4	5	1	1
0	0	0	0	6	0	0	0	0	0	0	6	125	8	1	0	2	0	0
0	0	0	0	12	2	1	0	0	0	0	15	97	6	1	1	3	0	0
0	0	0	0	12	4	1	0	0	0	0	17	117	11	0	1	0	0	0
0	0	0	0	20	0	0	0	1	0	0	21	98	6	3	2	1	1	0
0	0	0	0	50	6	2	0	1	0	0	59	437	31	5	4	6	1	0
0	0	0	0	5	1	0	0	0	0	0	6	91	13	0	1	1	0	0
0	0	0	0	7	0	0	0	0	0	0	7	108	1	0	1	2	0	1
0	0	0	0	9	1	0	0	0	0	0	10	103	3	1	0	1	0	1
0	0	0	0	12	1	0	0	0	0	0	13	97	9	0	0	2	0	0
0	0	0	0	33	3	0	0	0	0	0	36	399	26	1	2	6	0	2
0	0	0	0	9	0	0	0	0	0	0	9	107	7	1	1	0	0	1
0	0	0	0	12	0	0	0	0	0	0	12	93	7	0	0	3	0	0
0	0	0	0	6	0	0	0	0	0	0	6	121	5	1	0	3	1	0
0	0	0	0	5	1	0	0	0	0	0	6	122	4	0	1	2	0	1
0	0	0	0	32	1	0	0	0	0	0	33	443	23	2	2	8	1	2
0	0	0	0	5	0	0	0	0	0	0	5	84	4	0	1	1	0	0
0	0	0	0	4	0	0	0	0	0	0	4	103	2	0	0	2	0	0
0	0	0	0	10	0	0	0	0	0	0	10	118	6	0	0	0	0	0
0	0	0	0	7	0	0	0	0	0	0	7	125	2	0	0	0	0	1
0	0	0	0	26	0	0	0	0	0	0	26	430	14	0	1	3	0	1
0	0	0	0	8	0	0	0	0	0	0	8	126	4	0	0	1	0	1
0	0	0	0	4	0	0	0	0	0	0	4	100	6	0	0	2	0	1
0	0	0	0	6	1	0	0	0	0	0	7	118	1	0	0	1	0	1
0	0	0	0	11	0	0	0	0	0	0	11	101	2	0	0	0	0	0
0	0	0	0	29	1	0	0	0	0	0	30	445	13	0	0	4	0	3
0	0	0	0	5	0	0	0	0	0	0	5	122	3	0	0	1	0	0
0	0	0	0	5	0	0	0	0	0	0	5	112	3	0	0	1	0	0
0	0	0	0	4	0	0	0	0	0	0	4	102	3	0	0	1	0	1
0	0	0	0	9	0	0	0	0	0	0	9	92	0	0	0	1	0	0
0	0	0	0	23	0	0	0	0	0	0	23	428	9	0	0	4	0	1
0	0	0	0	472	28	4	1	3	0	0	508	5036	336	62	30	75	3	19

	C => B								C => C							
TOT	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT
38	2	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0
56	2	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0
63	1	0	0	0	0	0	0	1	2	0	0	0	0	0	0	2
113	3	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0
270	8	0	0	0	0	0	0	8	2	0	0	0	0	0	0	2
116	4	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0
118	8	0	0	0	0	0	0	8	0	0	0	0	0	0	0	0
119	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
156	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
509	13	0	0	0	0	0	0	13	0	0	0	0	0	0	0	0
115	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
96	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
87	7	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0
95	6	1	0	0	0	0	0	7	1	0	0	0	0	0	0	1
393	15	1	0	0	0	0	0	16	1	0	0	0	0	0	0	1
98	5	0	1	0	0	0	0	6	0	0	0	0	0	0	0	0
69	8	2	0	0	0	0	0	10	2	0	0	0	0	0	0	2
68	5	1	0	0	0	0	0	6	1	0	0	0	0	0	0	1
95	12	0	0	0	0	0	0	12	1	0	0	0	0	0	0	1
330	30	3	1	0	0	0	0	34	4	0	0	0	0	0	0	4
78	10	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0
92	7	1	0	0	0	0	0	8	0	1	0	0	0	0	0	1
96	3	0	0	0	0	0	0	3	0	1	0	0	0	0	0	1
118	7	1	0	0	0	0	0	8	0	0	0	0	0	0	0	0
384	27	2	0	0	0	0	0	29	0	2	0	0	0	0	0	2
101	6	0	0	0	0	0	0	6	1	0	0	0	0	0	0	1
112	8	1	0	0	0	0	0	9	0	0	0	0	0	0	0	0
118	7	1	0	0	0	0	0	8	0	0	0	0	0	0	0	0
94	6	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0
425	27	2	0	0	0	0	0	29	1	0	0	0	0	0	0	1
116	1	1	0	0	0	0	0	2	0	0	0	0	0	0	0	0
136	1	1	0	0	0	0	0	2	0	0	0	0	0	0	0	0
114	2	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0
127	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
493	5	2	0	0	0	0	0	7	0	0	0	0	0	0	0	0
136	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
108	1	1	0	0	0	0	0	2	0	0	0	0	0	0	0	0
129	2	0	0	0	0	0	0	2	1	1	0	0	0	0	0	2
111	9	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0
484	13	1	0	0	0	0	0	14	1	1	0	0	0	0	0	2
106	4	0	0	0	0	0	0	4	1	0	0	0	0	0	0	1
113	3	1	0	0	0	0	0	4	1	0	0	0	0	0	0	1
109	8	1	0	0	0	0	0	9	0	0	0	0	0	0	0	0
108	6	1	0	0	0	0	0	7	0	0	0	0	0	0	0	0
436	21	3	0	0	0	0	0	24	2	0	0	0	0	0	0	2
117	9	2	0	0	0	0	0	11	0	0	0	0	0	0	0	0
103	21	0	0	0	0	0	0	21	0	0	0	0	0	0	0	0
131	6	1	0	0	0	0	0	7	0	0	0	0	0	0	0	0
130	11	1	0	0	0	0	0	12	0	0	0	0	0	0	0	0
481	47	4	0	0	0	0	0	51	0	0	0	0	0	0	0	0
90	14	0	0	0	0	0	0	14	0	0	0	0	0	0	0	0
107	11	0	0	0	0	0	0	11	0	0	0	0	0	0	0	0
124	3	0	0	0	0	0	0	3	1	0	0	0	0	0	0	1
128	16	0	0	0	0	0	0	16	0	0	0	0	0	0	0	0
449	44	0	0	0	0	0	0	44	1	0	0	0	0	0	0	1
132	11	1	0	0	0	0	0	12	0	0	0	0	0	0	0	0
109	11	1	0	0	0	0	0	12	0	0	0	0	0	0	0	0
121	17	1	0	0	0	0	0	18	0	0	0	0	0	0	0	0
103	11	0	0	0	0	0	0	11	1	0	0	0	0	0	0	1
465	50	3	0	0	0	0	0	53	1	0	0	0	0	0	0	1
126	19	0	0	0	0	0	0	19	0	0	0	0	0	0	0	0
116	13	0	0	0	0	0	0	13	0	0	0	0	0	0	0	0
107	5	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0
93	2	0	0	0	0	0	0	2	1	0	0	0	0	0	0	1
442	39	0	0	0	0	0	0	39	1	0	0	0	0	0	0	1
5561	339	21	1	0	0	0	0	361	14	3	0	0	0	0	0	17

Survey Name :	ITS J-372 Malahide
Site:	Site 3
Date:	12.12.2019
Time:	07:00 - 20:00
Location:	53.4508276,-6.1490066
Classification:	Car, LGV, OGV1, OGV2, PSV, P/C, M/C, Peds

Irish Traffic Surveys



	A => A								A => B								
TIME	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT	CAR
07:00	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2	35
07:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	60
07:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	73
07:45	0	0	0	0	0	0	0	0	7	0	0	0	0	0	0	7	80
H/TOT	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	9	248
08:00	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	9	91
08:15	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	8	115
08:30	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	62
08:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	59
H/TOT	0	0	0	0	0	0	0	0	18	0	0	0	0	0	0	18	327
09:00	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	3	40
09:15	0	0	0	0	0	0	0	0	5	0	0	0	0	0	1	6	71
09:30	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	4	91
09:45	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	83
H/TOT	0	0	0	0	0	0	0	0	13	0	0	0	0	0	1	14	285
10:00	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	9	61
10:15	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	4	92
10:30	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	3	67
10:45	0	0	0	0	0	0	0	0	8	0	2	1	0	0	0	11	60
H/TOT	0	0	0	0	0	0	0	0	24	0	2	1	0	0	0	27	280
11:00	0	0	0	0	0	0	0	0	4	2	1	0	0	0	0	7	85
11:15	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	75
11:30	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	6	81
11:45	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2	79
H/TOT	0	0	0	0	0	0	0	0	13	2	1	0	0	0	0	16	320
12:00	0	0	0	0	0	0	0	0	3	1	0	0	0	0	0	4	67
12:15	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	4	71
12:30	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	5	79
12:45	0	0	0	0	0	0	0	0	3	1	0	0	0	0	0	4	74
H/TOT	0	0	0	0	0	0	0	0	15	2	0	0	0	0	0	17	291
13:00	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	6	78
13:15	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	8	89
13:30	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	5	53
13:45	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	68
H/TOT	0	0	0	0	0	0	0	0	20	0	0	0	0	0	0	20	288
14:00	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	5	89
14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	76
14:30	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	4	59
14:45	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2	70
H/TOT	0	0	0	0	0	0	0	0	11	0	0	0	0	0	0	11	294
15:00	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	5	75
15:15	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	3	73
15:30	0	0	0	0	0	0	0	0	9	1	0	0	0	0	0	10	87
15:45	0	0	0	0	0	0	0	0	5	2	0	0	0	0	0	7	80
H/TOT	0	0	0	0	0	0	0	0	22	3	0	0	0	0	0	25	315
16:00	0	0	0	0	0	0	0	0	3	1	0	0	0	0	0	4	90
16:15	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	3	89
16:30	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	3	91
16:45	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	4	70
H/TOT	0	0	0	0	0	0	0	0	13	1	0	0	0	0	0	14	340
17:00	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2	85
17:15	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	8	79
17:30	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	3	80
17:45	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	6	83
H/TOT	0	0	0	0	0	0	0	0	19	0	0	0	0	0	0	19	327
18:00	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	6	78
18:15	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	5	78
18:30	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	5	59
18:45	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	4	78
H/TOT	0	0	0	0	0	0	0	0	20	0	0	0	0	0	0	20	293
19:00	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	8	73
19:15	0	0	0	0	0	0	0	0	7	0	0	0	0	0	0	7	95
19:30	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	3	56
19:45	0	0	0	0	0	0	0	0	12	0	0	0	0	0	0	12	79
H/TOT	0	0	0	0	0	0	0	0	30	0	0	0	0	0	0	30	303
13 HR TOT	0	0	0	0	0	0	0	0	227	8	3	1	0	0	1	240	3911



A => C							B => A								B => B			
LGV	OGV1	OGV2	PSV	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2
3	1	0	3	0	0	42	4	0	0	0	0	0	0	4	0	0	0	0
1	0	0	4	0	0	65	1	0	0	0	0	0	0	1	0	0	0	0
0	0	0	3	0	0	76	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	2	0	0	83	3	0	0	0	0	0	0	3	0	0	0	0
5	1	0	12	0	0	266	8	0	0	0	0	0	0	8	0	0	0	0
2	0	0	3	0	0	96	6	1	0	0	0	0	0	7	0	0	0	0
6	1	0	1	0	0	123	6	0	0	0	0	0	0	6	0	0	0	0
4	2	0	3	0	0	71	1	0	0	0	0	0	0	1	0	0	0	0
6	0	0	1	0	0	66	7	0	0	0	0	0	0	7	0	0	0	0
18	3	0	8	0	0	356	20	1	0	0	0	0	0	21	0	0	0	0
5	0	0	0	0	0	45	15	0	0	0	0	0	0	15	0	0	0	0
9	1	3	2	0	0	86	9	0	0	0	0	0	0	9	0	0	0	0
5	1	0	2	0	0	99	8	0	0	0	0	0	0	8	0	0	0	0
10	2	0	0	0	0	95	10	1	1	0	0	0	0	12	0	0	0	0
29	4	3	4	0	0	325	42	1	1	0	0	0	0	44	0	0	0	0
5	2	1	2	0	0	71	1	0	0	0	1	0	0	2	0	0	0	0
4	1	1	1	0	0	99	6	0	0	0	0	0	0	6	0	0	0	0
9	2	3	1	0	0	82	8	2	0	0	0	0	0	10	0	0	0	0
6	1	0	1	0	0	68	8	2	1	0	0	0	0	11	0	0	0	0
24	6	5	5	0	0	320	23	4	1	0	1	0	0	29	0	0	0	0
5	1	2	1	1	0	95	8	0	0	0	0	0	0	8	0	0	0	0
9	3	1	1	0	0	89	6	0	0	0	0	0	0	6	0	0	0	0
5	2	1	1	1	0	91	6	1	0	0	0	0	0	7	0	0	0	0
14	4	0	1	0	2	100	7	3	0	0	0	0	0	10	0	0	0	0
33	10	4	4	2	2	375	27	4	0	0	0	0	0	31	0	0	0	0
8	2	1	1	0	0	79	9	0	0	0	0	0	0	9	0	0	0	0
6	0	2	1	0	0	80	6	1	0	0	0	0	0	7	0	0	0	0
8	3	0	1	0	1	92	10	2	0	0	0	0	0	12	0	0	0	0
12	0	1	2	0	0	89	5	0	0	0	0	0	0	5	0	0	0	0
34	5	4	5	0	1	340	30	3	0	0	0	0	0	33	0	0	0	0
18	1	1	2	1	0	101	5	0	0	0	0	0	0	5	0	0	0	0
11	1	0	1	0	0	102	6	0	0	0	0	0	0	6	0	0	0	0
3	2	1	2	0	0	61	11	0	0	0	0	0	0	11	0	0	0	0
6	1	4	0	0	0	79	18	0	0	0	0	0	0	18	0	0	0	0
38	5	6	5	1	0	343	40	0	0	0	0	0	0	40	0	0	0	0
5	1	1	5	0	0	101	21	0	1	0	0	0	0	22	0	0	0	0
8	2	1	1	0	0	88	1	0	1	0	0	0	0	2	0	0	0	0
7	1	0	0	0	1	68	20	0	1	0	0	0	0	21	0	0	0	0
8	2	2	1	1	1	85	42	0	0	0	0	0	0	42	0	0	0	0
28	6	4	7	1	2	342	84	0	3	0	0	0	0	87	0	0	0	0
4	2	0	3	0	0	84	12	0	1	0	0	0	0	13	0	0	0	0
19	1	3	0	0	0	96	7	0	0	0	0	0	0	7	0	0	0	0
9	2	1	0	0	0	99	11	1	0	0	0	0	0	12	0	0	0	0
11	3	1	0	0	0	95	7	1	0	0	0	0	0	8	0	0	0	0
43	8	5	3	0	0	374	37	2	1	0	0	0	0	40	0	0	0	0
4	0	0	2	0	0	96	23	0	0	0	0	0	0	23	0	0	0	0
8	2	0	3	0	0	102	19	1	0	0	0	0	0	20	0	0	0	0
9	2	0	1	0	0	103	14	0	0	0	0	0	0	14	0	0	0	0
6	0	0	1	0	0	77	11	0	0	0	0	0	0	11	0	0	0	0
27	4	0	7	0	0	378	67	1	0	0	0	0	0	68	0	0	0	0
7	0	0	0	0	0	92	20	0	0	0	0	0	0	20	0	0	0	0
5	1	1	4	0	0	90	14	0	0	0	0	0	0	14	0	0	0	0
4	0	0	1	0	0	85	19	0	0	0	0	0	0	19	0	0	0	0
3	0	0	2	0	0	88	12	0	0	0	0	0	0	12	0	0	0	0
19	1	1	7	0	0	355	65	0	0	0	0	0	0	65	0	0	0	0
5	0	0	3	0	0	86	16	0	0	0	0	0	0	16	0	0	0	0
3	0	0	0	0	0	81	12	0	0	0	0	0	0	12	0	0	0	0
3	0	0	1	0	0	63	11	0	0	0	0	0	0	11	0	0	0	0
2	0	0	2	0	0	82	10	0	0	0	0	0	0	10	0	0	0	0
13	0	0	6	0	0	312	49	0	0	0	0	0	0	49	0	0	0	0
3	0	0	3	0	0	79	12	0	0	0	0	0	0	12	0	0	0	0
1	0	0	0	0	0	96	7	0	0	0	0	0	0	7	0	0	0	0
1	0	1	1	0	0	59	12	0	0	0	0	0	0	12	0	0	0	0
2	0	0	3	0	0	84	16	0	0	0	0	0	0	16	0	0	0	0
7	0	1	7	0	0	318	47	0	0	0	0	0	0	47	0	0	0	0
318	53	33	80	4	5	4404	539	16	6	0	1	0	0	562	0	0	0	0

				B => C								C => A							
PSV	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C
0	0	0	0	10	0	0	0	0	0	0	10	27	1	0	1	2	0	0
0	0	0	0	7	0	0	0	0	0	0	7	35	4	2	1	2	0	0
0	0	0	0	13	0	0	0	0	0	0	13	45	5	1	0	3	0	0
0	0	0	0	10	0	0	0	0	0	0	10	76	5	2	0	6	0	0
0	0	0	0	40	0	0	0	0	0	0	40	183	15	5	2	13	0	0
0	0	0	0	13	0	0	0	0	0	0	13	78	4	2	1	3	0	0
0	0	0	0	13	0	0	1	0	0	0	14	91	4	0	0	1	0	1
0	0	0	0	20	0	0	0	0	0	0	20	70	7	0	0	1	0	0
0	0	0	0	20	1	0	0	0	0	0	21	110	7	0	0	1	0	0
0	0	0	0	66	1	0	1	0	0	0	68	349	22	2	1	6	0	1
0	0	0	0	18	2	0	0	0	0	0	20	88	5	0	0	1	0	1
0	0	0	0	17	1	0	0	0	0	2	20	60	5	0	0	4	0	0
0	0	0	0	4	1	0	0	0	0	0	5	63	10	0	0	2	0	1
0	0	0	0	5	0	0	0	0	0	0	5	56	17	0	1	1	0	0
0	0	0	0	44	4	0	0	0	0	2	50	267	37	0	1	8	0	2
0	0	0	0	6	0	0	0	0	0	0	6	74	6	0	0	2	0	0
0	0	0	0	12	1	0	0	0	0	0	13	61	1	0	0	0	0	0
0	0	0	0	12	0	0	0	0	0	0	12	46	5	0	0	1	0	0
0	0	0	0	10	0	1	0	0	0	0	11	131	16	0	1	2	0	1
0	0	0	0	40	1	1	0	0	0	0	42	312	28	0	1	5	0	1
0	0	0	0	8	0	0	0	0	0	0	8	58	9	0	1	2	0	0
0	0	0	0	10	1	0	0	0	0	0	11	67	6	0	2	0	0	2
0	0	0	0	2	0	0	0	0	0	0	2	53	12	0	0	0	0	1
0	0	0	0	16	1	0	0	0	0	0	17	70	9	0	2	1	0	0
0	0	0	0	36	2	0	0	0	0	0	38	248	36	0	5	3	0	3
0	0	0	0	15	0	0	0	0	0	0	15	69	6	0	1	1	0	1
0	0	0	0	14	2	0	0	0	0	0	16	94	9	0	0	1	0	0
0	0	0	0	2	1	0	0	0	0	0	3	98	1	0	2	1	0	0
0	0	0	0	13	1	0	0	0	0	0	14	76	7	0	0	0	0	1
0	0	0	0	44	4	0	0	0	0	0	48	337	23	0	3	3	0	2
0	0	0	0	11	0	0	0	0	0	0	11	78	8	0	0	2	1	0
0	0	0	0	4	12	0	0	0	0	0	16	93	2	0	1	0	0	0
0	0	0	0	17	0	0	1	0	0	0	18	78	11	0	1	1	0	0
0	0	0	0	21	0	0	0	0	0	0	21	98	10	0	1	1	0	0
0	0	0	0	53	12	0	1	0	0	0	66	347	31	0	3	4	1	0
0	0	0	0	12	1	0	0	0	0	0	13	90	5	0	0	2	0	0
0	0	0	0	11	3	0	0	0	0	0	14	70	5	0	1	2	0	0
0	0	0	0	16	2	0	0	0	0	0	18	102	8	0	1	0	0	0
0	0	0	0	9	0	1	0	0	0	0	10	83	6	0	2	1	0	0
0	0	0	0	48	6	1	0	0	0	0	55	345	24	0	4	5	0	0
0	0	0	0	10	0	0	0	0	0	0	10	84	11	0	1	1	0	0
0	0	0	0	18	2	0	0	0	0	0	20	92	2	0	1	2	0	0
0	0	0	0	14	0	0	0	0	0	0	14	84	4	0	0	1	0	1
0	0	0	0	14	0	0	0	0	0	0	14	80	10	0	0	2	0	0
0	0	0	0	56	2	0	0	0	0	0	58	340	27	0	2	6	0	1
0	0	0	0	12	0	0	0	0	0	0	12	93	7	0	1	0	0	0
0	0	0	0	13	0	0	0	0	0	0	13	90	4	0	0	3	0	0
0	0	0	0	13	1	0	0	0	0	0	14	101	6	0	0	3	0	1
0	0	0	0	9	4	0	0	0	0	0	13	98	2	0	1	2	0	1
0	0	0	0	47	5	0	0	0	0	0	52	382	19	0	2	8	0	2
0	0	0	0	9	0	0	0	0	0	0	9	76	4	0	0	1	0	0
0	0	0	0	10	0	0	0	0	0	0	10	79	0	0	0	2	0	0
0	0	0	0	10	0	0	0	0	0	0	10	89	3	0	0	0	0	0
0	0	0	0	11	1	0	0	0	0	0	12	101	2	0	0	0	0	0
0	0	0	0	40	1	0	0	0	0	0	41	345	9	0	0	3	0	0
0	0	0	0	19	0	0	0	0	0	0	19	92	3	0	0	1	0	0
0	0	0	0	12	0	0	0	0	0	0	12	80	4	0	0	2	0	1
0	0	0	0	9	0	0	0	0	0	0	9	99	2	0	0	1	0	0
0	0	0	0	21	0	0	0	0	0	0	21	80	1	0	0	0	0	0
0	0	0	0	61	0	0	0	0	0	0	61	351	10	0	0	4	0	1
0	0	0	0	9	0	0	0	0	0	0	9	79	2	0	0	1	0	0
0	0	0	0	10	0	0	0	0	0	0	10	84	2	0	0	1	0	0
0	0	0	0	15	0	0	0	0	0	0	15	68	2	0	0	0	0	0
0	0	0	0	12	0	0	0	0	0	0	12	40	0	0	0	1	0	0
0	0	0	0	46	0	0	0	0	0	0	46	271	6	0	0	3	0	0
0	0	0	0	621	38	2	2	0	0	2	665	4077	287	7	24	71	1	13

	C => B								C => C							
TOT	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT
31	5	0	0	0	0	0	0	5	0	0	0	1	0	0	0	1
44	6	2	1	0	0	0	0	9	0	0	0	0	0	0	0	0
54	8	0	0	0	0	0	0	8	0	0	0	0	0	0	0	0
89	17	0	0	0	0	0	0	17	0	0	0	0	0	0	0	0
218	36	2	1	0	0	0	0	39	0	0	0	1	0	0	0	1
88	19	0	0	0	0	0	0	19	0	0	0	0	0	0	0	0
97	21	0	0	0	0	0	0	21	0	0	0	0	0	0	0	0
78	38	1	0	0	0	0	0	39	0	0	0	0	0	0	0	0
118	50	1	0	0	0	0	0	51	0	0	0	0	0	0	0	0
381	128	2	0	0	0	0	0	130	0	0	0	0	0	0	0	0
95	24	0	0	0	0	0	0	24	0	0	0	0	0	0	0	0
69	15	1	0	0	0	0	0	16	0	0	0	0	0	0	0	0
76	10	2	0	0	0	0	0	12	0	0	0	0	0	0	0	0
75	11	0	0	0	0	0	0	11	1	0	0	0	0	0	0	1
315	60	3	0	0	0	0	0	63	1	0	0	0	0	0	0	1
82	9	0	0	0	0	0	0	9	1	0	0	0	0	0	0	1
62	8	0	0	0	0	0	0	8	1	0	0	0	0	0	0	1
52	14	1	0	0	0	0	0	15	0	0	0	0	0	0	0	0
151	17	0	0	0	0	0	0	17	2	0	0	0	0	0	0	2
347	48	1	0	0	0	0	0	49	4	0	0	0	0	0	0	4
70	11	0	0	0	0	0	0	11	1	0	0	0	0	0	0	1
77	10	0	1	0	0	0	0	11	1	0	0	0	0	0	0	1
66	9	3	1	0	0	0	0	13	2	0	0	0	0	0	0	2
82	11	0	0	0	0	0	0	11	1	0	0	0	0	0	0	1
295	41	3	2	0	0	0	0	46	5	0	0	0	0	0	0	5
78	20	1	0	0	0	0	0	21	0	0	0	0	0	0	0	0
104	16	0	0	0	0	0	0	16	0	0	0	0	0	0	0	0
102	18	2	0	0	0	0	0	20	0	0	0	0	0	0	0	0
84	17	3	0	0	0	0	0	20	0	0	0	0	0	0	0	0
368	71	6	0	0	0	0	0	77	0	0	0	0	0	0	0	0
89	25	2	0	0	0	0	0	27	1	0	0	0	0	0	0	1
96	28	0	1	1	0	1	0	31	0	0	0	0	0	0	0	0
91	22	0	0	0	0	0	0	22	0	0	0	0	0	0	0	0
110	20	1	1	0	0	0	0	22	0	0	0	0	0	0	0	0
386	95	3	2	1	0	1	0	102	1	0	0	0	0	0	0	1
97	33	1	0	0	0	0	0	34	1	0	0	0	0	0	0	1
78	20	2	0	0	1	0	0	23	2	0	0	0	0	0	0	2
111	28	1	0	0	0	0	0	29	0	0	0	0	0	0	0	0
92	13	0	1	0	0	0	0	14	0	0	0	0	0	0	0	0
378	94	4	1	0	1	0	0	100	3	0	0	0	0	0	0	3
97	15	1	0	0	0	0	0	16	0	0	0	0	0	0	0	0
97	13	0	0	0	0	0	0	13	0	0	0	0	0	0	0	0
90	14	0	0	0	0	0	0	14	0	0	0	0	0	0	0	0
92	16	0	0	0	0	0	0	16	0	0	0	0	0	0	0	0
376	58	1	0	0	0	0	0	59	0	0	0	0	0	0	0	0
101	20	0	0	0	0	0	0	20	0	0	0	0	0	0	0	0
97	18	0	0	0	0	0	0	18	0	0	0	0	0	0	0	0
111	13	1	0	0	0	0	0	14	0	0	0	0	0	0	0	0
104	17	0	0	0	0	0	0	17	0	0	0	0	0	0	0	0
413	68	1	0	0	0	0	0	69	0	0	0	0	0	0	0	0
81	5	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0
81	8	1	0	0	0	0	0	9	0	0	0	0	0	0	0	0
92	14	0	0	0	0	0	0	14	0	0	0	0	0	0	0	0
103	15	0	0	0	0	0	0	15	1	0	0	0	0	0	0	1
357	42	1	0	0	0	0	0	43	1	0	0	0	0	0	0	1
96	19	0	0	0	0	0	0	19	0	0	0	0	0	0	0	0
87	7	1	0	0	0	0	0	8	0	0	0	0	0	0	0	0
102	13	0	0	0	0	0	0	13	0	0	0	0	0	0	0	0
81	16	0	0	0	0	0	0	16	0	0	0	0	0	0	0	0
366	55	1	0	0	0	0	0	56	0	0	0	0	0	0	0	0
82	18	0	0	0	0	0	0	18	0	0	0	0	0	0	0	0
87	20	0	0	0	0	0	0	20	0	0	0	0	0	0	0	0
70	27	0	0	0	0	0	0	27	0	0	0	0	0	0	0	0
41	19	0	0	0	0	0	0	19	0	0	0	0	0	0	0	0
280	84	0	0	0	0	0	0	84	0	0	0	0	0	0	0	0
4480	880	28	6	1	1	1	0	917	15	0	0	1	0	0	0	16

Survey Name :	ITS J-372 Malahide
Site:	Site 3
Date:	12.12.2019
Time:	07:00 - 20:00
Location:	53.4489025,-6.1531956
Classification:	Car, LGV, OGV1, OGV2, PSV, P/C, M/C, Peds

Irish Traffic Surveys



	A => A								A => B									
TIME	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT	CAR	LGV
07:00	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	8	8	1
07:15	0	0	0	0	0	0	0	0	20	0	0	0	0	0	0	20	29	0
07:30	1	0	0	0	0	0	0	1	26	0	0	0	2	0	0	28	25	2
07:45	0	0	0	0	0	0	0	0	29	2	0	0	1	0	0	32	41	1
H/TOT	1	0	0	0	0	0	0	1	83	2	0	0	3	0	0	88	103	4
08:00	0	0	0	0	0	0	0	0	50	2	1	0	0	0	0	53	42	0
08:15	0	0	0	0	0	0	0	0	106	4	0	0	2	0	0	112	75	2
08:30	0	0	0	0	0	0	0	0	108	1	2	0	0	0	0	111	72	4
08:45	0	0	0	0	0	0	0	0	63	1	0	0	2	0	0	66	88	3
H/TOT	0	0	0	0	0	0	0	0	327	8	3	0	4	0	0	342	277	9
09:00	0	0	0	0	0	0	0	0	65	1	1	0	0	0	0	67	86	3
09:15	0	0	0	0	0	0	0	0	47	1	0	0	1	0	0	49	76	2
09:30	0	0	0	0	0	0	0	0	20	2	0	0	0	0	1	23	54	5
09:45	0	0	0	0	0	0	0	0	21	5	1	0	2	0	0	29	46	5
H/TOT	0	0	0	0	0	0	0	0	153	9	2	0	3	0	1	168	262	15
10:00	0	0	0	0	0	0	0	0	30	6	0	0	0	0	0	36	51	8
10:15	0	0	0	0	0	0	0	0	32	3	0	0	1	0	0	36	48	1
10:30	1	0	0	0	0	0	0	1	28	4	1	0	1	0	0	34	48	2
10:45	2	0	0	0	0	0	0	2	32	1	1	0	0	0	0	34	50	7
H/TOT	3	0	0	0	0	0	0	3	122	14	2	0	2	0	0	140	197	18
11:00	0	0	0	0	0	0	0	0	27	1	4	0	1	0	0	33	52	1
11:15	0	0	0	0	0	0	0	0	31	2	1	0	0	0	0	34	44	4
11:30	0	0	0	0	0	0	0	0	34	5	0	0	0	0	0	39	56	7
11:45	0	0	0	0	0	0	0	0	38	2	0	0	1	0	0	41	42	3
H/TOT	0	0	0	0	0	0	0	0	130	10	5	0	2	0	0	147	194	15
12:00	0	0	0	0	0	0	0	0	29	1	1	0	0	0	0	31	52	4
12:15	0	0	0	0	0	0	0	0	45	2	1	0	1	0	0	49	57	4
12:30	0	0	0	0	0	0	0	0	32	2	0	0	1	1	0	36	43	4
12:45	0	0	0	0	0	0	0	0	34	2	0	0	0	0	0	36	50	3
H/TOT	0	0	0	0	0	0	0	0	140	7	2	0	2	1	0	152	202	15
13:00	0	0	0	0	0	0	0	0	44	5	0	0	0	0	0	49	62	8
13:15	0	0	0	0	0	0	0	0	41	6	2	1	1	0	0	51	50	1
13:30	1	0	0	0	0	0	0	1	29	3	1	0	2	0	0	35	47	3
13:45	1	0	0	0	0	0	0	1	49	5	1	0	1	0	0	56	60	4
H/TOT	2	0	0	0	0	0	0	2	163	19	4	1	4	0	0	191	219	16
14:00	0	0	0	0	0	0	0	0	28	4	0	0	0	0	0	32	57	2
14:15	0	0	0	0	0	0	0	0	43	3	1	0	1	0	0	48	48	6
14:30	0	0	0	0	0	0	0	0	47	1	0	0	1	0	0	49	69	7
14:45	0	0	0	0	0	0	0	0	53	4	0	0	1	0	0	58	75	7
H/TOT	0	0	0	0	0	0	0	0	171	12	1	0	3	0	0	187	249	22
15:00	1	0	0	0	0	0	0	1	42	1	0	0	0	0	0	43	40	6
15:15	0	0	0	0	0	0	0	0	39	6	0	0	1	0	0	46	58	5
15:30	0	0	0	0	0	0	0	0	58	2	0	0	0	0	0	60	52	2
15:45	0	0	0	0	0	0	0	0	68	1	1	0	0	0	0	70	64	5
H/TOT	1	0	0	0	0	0	0	1	207	10	1	0	1	0	0	219	214	18
16:00	0	0	0	0	0	0	0	0	41	0	0	0	1	0	0	42	88	2
16:15	0	0	0	0	0	0	0	0	33	3	0	0	0	0	0	36	59	5
16:30	0	0	0	0	0	0	0	0	34	1	0	0	2	0	0	37	66	3
16:45	0	0	0	0	0	0	0	0	38	1	0	0	0	0	0	39	54	1
H/TOT	0	0	0	0	0	0	0	0	146	5	0	0	3	0	0	154	267	11
17:00	1	0	0	0	0	0	0	1	52	5	0	0	1	0	0	58	59	1
17:15	0	0	0	0	0	0	0	0	31	2	0	0	0	0	0	33	54	2
17:30	0	0	0	0	0	0	0	0	46	1	0	0	1	0	0	48	67	1
17:45	0	0	0	0	0	0	0	0	43	1	0	0	1	0	0	45	49	1
H/TOT	1	0	0	0	0	0	0	1	172	9	0	0	3	0	0	184	229	5
18:00	0	0	0	0	0	0	0	0	41	0	0	0	1	0	0	42	60	5
18:15	0	0	0	0	0	0	0	0	35	1	0	0	2	0	0	38	64	0
18:30	0	0	0	0	0	0	0	0	46	2	0	0	2	0	0	50	57	2
18:45	0	0	0	0	0	0	0	0	46	0	0	0	3	0	0	49	66	2
H/TOT	0	0	0	0	0	0	0	0	168	3	0	0	8	0	0	179	247	9
19:00	0	0	0	0	0	0	0	0	52	0	0	0	2	0	0	54	58	0
19:15	0	0	0	0	0	0	0	0	44	0	0	0	1	0	0	45	47	3
19:30	0	0	0	0	0	0	0	0	36	1	0	0	1	0	0	38	55	0
19:45	1	0	0	0	0	0	0	1	42	0	0	0	1	0	0	43	43	0
H/TOT	1	0	0	0	0	0	0	1	174	1	0	0	5	0	0	180	203	3
13 HR TOT	9	0	0	0	0	0	0	9	2156	109	20	1	43	1	1	2331	2863	160



B => A						B => B							
OGV1	OGV2	PSV	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT
0	0	0	0	0	9	0	0	0	0	0	0	0	0
0	0	2	0	0	31	0	0	0	0	0	0	0	0
0	0	3	0	1	31	0	0	0	0	0	0	0	0
0	0	2	0	0	44	0	0	0	0	0	0	0	0
0	0	7	0	1	115	0	0	0	0	0	0	0	0
1	0	4	0	0	47	0	0	0	0	0	0	0	0
0	0	1	0	0	78	0	0	0	0	0	0	0	0
0	0	1	0	0	77	0	0	0	0	0	0	0	0
0	0	1	0	0	92	0	0	0	0	0	0	0	0
1	0	7	0	0	294	0	0	0	0	0	0	0	0
0	0	0	0	0	89	0	0	0	0	0	0	0	0
0	0	1	0	0	79	0	0	0	0	0	0	0	0
1	0	1	0	0	61	0	0	0	0	0	0	0	0
0	0	0	0	0	51	0	0	0	0	0	0	0	0
1	0	2	0	0	280	0	0	0	0	0	0	0	0
0	0	0	0	0	59	0	0	0	0	0	0	0	0
1	0	1	0	0	51	0	0	0	0	0	0	0	0
0	0	0	0	0	50	0	0	0	0	0	0	0	0
0	0	1	0	0	58	0	0	0	0	0	0	0	0
1	0	2	0	0	218	0	0	0	0	0	0	0	0
4	0	0	0	0	57	0	0	0	0	0	0	0	0
2	0	1	0	0	51	0	0	0	0	0	0	0	0
1	0	0	0	0	64	1	0	0	0	0	0	0	1
0	0	1	0	0	46	0	0	0	0	0	0	0	0
7	0	2	0	0	218	1	0	0	0	0	0	0	1
1	0	0	0	1	58	0	0	0	0	0	0	0	0
0	0	1	1	0	63	0	0	0	0	0	0	0	0
0	0	0	0	0	47	0	0	0	0	0	0	0	0
1	0	1	0	0	55	0	0	0	0	0	0	0	0
2	0	2	1	1	223	0	0	0	0	0	0	0	0
2	0	0	1	0	73	0	0	0	0	0	0	0	0
1	0	1	0	0	53	0	0	0	0	0	0	0	0
0	1	0	0	0	51	0	0	0	0	0	0	0	0
1	0	3	0	0	68	0	1	0	0	0	0	0	1
4	1	4	1	0	245	0	1	0	0	0	0	0	1
0	0	0	0	0	59	0	0	0	0	0	0	0	0
1	0	1	0	0	56	0	0	0	0	0	0	0	0
0	0	1	0	0	77	0	0	0	0	0	0	0	0
1	0	1	0	0	84	1	0	0	0	0	0	0	1
2	0	3	0	0	276	1	0	0	0	0	0	0	1
0	0	0	0	0	46	0	0	0	0	0	0	0	0
0	0	1	0	1	65	0	0	0	0	0	0	0	0
0	0	0	0	0	54	0	0	0	0	0	0	0	0
0	0	1	0	0	70	1	0	0	0	0	0	0	1
0	0	2	0	1	235	1	0	0	0	0	0	0	1
0	0	0	0	2	92	0	0	0	0	0	0	0	0
0	0	1	0	0	65	0	0	0	0	0	0	0	0
0	0	1	0	0	70	0	0	0	0	0	0	0	0
0	0	1	0	1	57	0	0	0	0	0	0	0	0
0	0	3	0	3	284	0	0	0	0	0	0	0	0
0	0	0	0	0	60	0	0	0	0	0	0	0	0
1	0	1	0	0	58	0	0	0	0	0	0	0	0
0	0	1	0	0	69	0	0	0	0	0	0	0	0
1	0	0	0	0	51	0	0	0	0	0	0	0	0
2	0	2	0	0	238	0	0	0	0	0	0	0	0
0	0	1	0	3	69	0	0	0	0	0	0	0	0
0	0	1	0	0	65	0	0	0	0	0	0	0	0
0	0	0	0	0	59	0	0	0	0	0	0	0	0
0	0	1	0	0	69	0	0	0	0	0	0	0	0
0	0	3	0	3	262	0	0	0	0	0	0	0	0
0	0	1	0	0	59	0	0	0	0	0	0	0	0
0	0	1	0	0	51	0	0	0	0	0	0	0	0
0	0	0	0	0	55	0	0	0	0	0	0	0	0
1	0	1	0	0	45	0	0	0	0	0	0	0	0
1	0	3	0	0	210	0	0	0	0	0	0	0	0
21	1	42	2	9	3098	3	1	0	0	0	0	0	4

Survey Name :	ITS J-372 Malahide
Site:	Site 3
Date:	12.12.2019
Time:	07:00 - 20:00
Location:	53.4473207,-6.1528574
Classification:	Car, LGV, OGV1, OGV2, PSV, P/C, M/C, Peds

Irish Traffic Surveys



	A => A								A => B								
TIME	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT	CAR
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
07:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17
07:30	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	25
07:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	33
H/TOT	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	86
08:00	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2	39
08:15	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	3	102
08:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	106
08:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	67
H/TOT	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	5	314
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	77
09:15	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	6	46
09:30	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	3	21
09:45	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	3	10
H/TOT	0	0	0	0	0	0	0	0	10	1	1	0	0	0	0	12	154
10:00	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	4	20
10:15	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	4	19
10:30	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	4	24
10:45	0	0	0	0	0	0	0	0	5	1	0	0	0	0	0	6	28
H/TOT	0	0	0	0	0	0	0	0	17	1	0	0	0	0	0	18	91
11:00	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	24
11:15	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	29
11:30	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	2	31
11:45	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	5	32
H/TOT	0	0	0	0	0	0	0	0	7	2	0	0	0	0	0	9	116
12:00	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2	31
12:15	0	0	0	0	0	0	0	0	3	1	1	0	0	0	0	5	32
12:30	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	36
12:45	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	5	29
H/TOT	0	0	0	0	0	0	0	0	10	2	1	0	0	0	0	13	128
13:00	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	41
13:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	44
13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	33
13:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	41
H/TOT	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	159
14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	26
14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	42
14:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40
14:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	59
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	167
15:00	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2	38
15:15	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	3	39
15:30	0	0	0	0	0	0	0	0	4	1	0	0	0	0	0	5	39
15:45	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	5	75
H/TOT	0	0	0	0	0	0	0	0	14	1	0	0	0	0	0	15	191
16:00	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	5	28
16:15	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	3	28
16:30	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	4	31
16:45	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2	31
H/TOT	0	0	0	0	0	0	0	0	14	0	0	0	0	0	0	14	118
17:00	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	60
17:15	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	32
17:30	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	4	38
17:45	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	5	42
H/TOT	0	0	0	0	0	0	0	0	11	0	0	0	0	0	0	11	172
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	42
18:15	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	31
18:30	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	5	34
18:45	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	6	42
H/TOT	0	0	0	0	0	0	0	0	12	0	0	0	0	0	0	12	149
19:00	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	5	44
19:15	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2	42
19:30	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2	31
19:45	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2	36
H/TOT	0	0	0	0	0	0	0	0	11	0	0	0	0	0	0	11	153
13 HR TOT	0	0	0	0	0	0	0	0	112	8	2	0	0	0	0	122	1998



A => C							B => A								B => B			
LGV	OGV1	OGV2	PSV	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2
0	0	0	0	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	0	0	0	18	3	0	0	0	0	0	0	3	0	0	0	0
0	0	0	2	0	0	27	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	2	0	0	37	1	1	0	0	0	0	0	2	0	0	0	0
3	0	0	4	0	0	93	4	1	0	0	0	0	0	5	0	0	0	0
4	0	0	0	0	0	43	4	0	0	0	0	0	0	4	0	0	0	0
4	0	0	2	0	1	109	1	1	0	0	0	0	0	2	0	0	0	0
2	1	0	0	0	0	109	0	0	0	0	0	0	0	0	0	0	0	0
2	1	0	2	0	0	72	0	0	0	0	0	0	0	0	0	0	0	0
12	2	0	4	0	1	333	5	1	0	0	0	0	0	6	0	0	0	0
3	1	0	0	0	0	81	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	1	0	0	48	7	0	0	0	0	0	0	7	0	0	0	0
1	0	0	0	0	0	22	12	0	0	0	0	0	0	12	0	0	0	0
1	0	0	2	0	0	13	4	1	0	0	0	0	0	5	0	0	0	0
6	1	0	3	0	0	164	23	1	0	0	0	0	0	24	0	0	0	0
6	0	0	0	0	0	26	2	0	0	0	0	0	0	2	0	0	0	0
1	0	0	1	0	0	21	3	0	0	0	0	0	0	3	0	0	0	0
4	1	0	0	0	0	29	7	0	0	0	0	0	0	7	0	0	0	0
0	1	0	1	0	0	30	3	1	0	0	0	0	0	4	0	0	0	0
11	2	0	2	0	0	106	15	1	0	0	0	0	0	16	0	0	0	0
1	3	0	0	0	0	28	3	0	0	0	0	0	0	3	0	0	0	0
1	1	0	1	0	0	32	5	0	0	0	0	0	0	5	0	0	0	0
5	0	0	0	0	0	36	5	0	0	0	0	0	0	5	0	0	0	0
2	0	0	1	0	0	35	5	1	0	0	0	0	0	6	0	0	0	0
9	4	0	2	0	0	131	18	1	0	0	0	0	0	19	0	0	0	0
0	1	0	0	0	0	32	4	0	0	0	0	0	0	4	0	0	0	0
1	0	0	0	0	0	33	5	0	0	0	0	0	0	5	0	0	0	0
1	0	0	0	1	0	38	7	1	0	0	0	0	0	8	0	0	0	0
2	0	0	0	0	0	31	3	0	0	0	0	0	0	3	0	0	0	0
4	1	0	0	1	0	134	19	1	0	0	0	0	0	20	0	0	0	0
4	0	0	0	0	0	45	0	0	0	0	0	0	0	0	0	0	0	0
7	1	0	1	0	0	53	0	0	0	0	0	0	0	0	0	0	0	0
3	1	0	9	1	0	47	0	0	0	0	0	0	0	0	0	0	0	0
6	1	0	3	0	0	51	0	0	0	0	0	0	0	0	0	0	0	0
20	3	0	13	1	0	196	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	30	0	0	0	0	0	0	0	0	0	0	0	0
3	1	0	1	0	0	47	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	1	0	0	42	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	1	0	0	63	10	0	0	0	0	0	0	10	0	0	0	0
11	1	0	3	0	0	182	10	0	0	0	0	0	0	10	0	0	0	0
2	0	0	0	0	0	40	4	0	0	0	0	0	0	4	0	0	0	0
4	1	0	0	0	0	44	2	0	0	0	0	0	0	2	0	0	0	0
1	0	0	1	0	0	41	6	1	0	0	0	0	0	7	0	0	0	0
2	0	0	0	0	0	77	8	0	0	0	0	0	0	8	0	0	0	0
9	1	0	1	0	0	202	20	1	0	0	0	0	0	21	0	0	0	0
0	0	0	1	0	0	29	9	0	0	0	0	0	0	9	0	0	0	0
5	0	0	0	0	0	33	7	3	0	0	0	0	0	10	0	0	0	0
0	0	0	2	0	0	33	9	0	0	0	0	0	0	9	0	0	0	0
3	0	0	0	0	0	34	3	0	0	0	0	0	0	3	0	0	0	0
8	0	0	3	0	0	129	28	3	0	0	0	0	0	31	0	0	0	0
5	0	0	1	0	0	66	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	35	7	1	0	0	0	0	0	8	0	0	0	0
2	0	0	1	0	0	41	3	0	0	0	0	0	0	3	0	0	0	0
1	0	0	1	0	0	44	2	0	0	0	0	0	0	2	0	0	0	0
11	0	0	3	0	0	186	12	1	0	0	0	0	0	13	0	0	0	0
1	0	0	1	0	0	44	2	0	0	0	0	0	0	2	0	0	0	0
0	0	0	2	0	0	33	7	0	0	0	0	0	0	7	0	0	0	0
3	0	0	2	0	0	39	6	0	0	0	0	0	0	6	0	0	0	0
2	0	0	3	0	0	47	4	0	0	0	0	0	0	4	0	0	0	0
6	0	0	8	0	0	163	19	0	0	0	0	0	0	19	0	0	0	0
0	0	0	2	0	0	46	11	0	0	0	0	0	0	11	0	0	0	0
0	0	0	0	0	0	42	7	2	0	0	0	0	0	9	0	0	0	0
1	0	0	2	0	0	34	5	0	0	0	0	0	0	5	0	0	0	0
0	0	0	1	0	0	37	1	0	0	0	0	0	0	1	0	0	0	0
1	0	0	5	0	0	159	24	2	0	0	0	0	0	26	0	0	0	0
111	15	0	51	2	1	2178	197	13	0	0	0	0	0	210	0	0	0	0

				B => C								C => A							
PSV	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C
0	0	0	0	1	1	0	0	0	0	0	2	89	1	0	0	1	0	0
0	0	0	0	9	1	0	0	0	0	0	10	26	0	0	0	2	0	0
0	0	0	0	5	0	0	0	0	0	0	5	25	2	0	0	3	0	0
0	0	0	0	11	0	0	0	0	0	0	11	33	2	1	0	2	0	2
0	0	0	0	26	2	0	0	0	0	0	28	173	5	1	0	8	0	2
0	0	0	0	25	3	0	0	0	0	0	28	42	1	2	0	3	0	0
0	0	0	0	27	1	0	0	0	0	0	28	74	2	0	0	0	0	0
0	0	0	0	1	0	0	0	0	0	0	1	87	3	0	0	2	0	0
0	0	0	0	0	0	0	0	0	0	0	0	96	6	0	0	1	0	0
0	0	0	0	53	4	0	0	0	0	0	57	299	12	2	0	6	0	0
0	0	0	0	0	0	0	0	0	0	0	0	83	4	0	0	0	0	0
0	0	0	0	25	3	0	0	0	0	0	28	52	3	0	0	1	0	0
0	0	0	0	38	1	0	0	0	0	0	39	42	4	1	0	1	0	0
0	0	0	0	21	0	0	0	0	0	0	21	41	4	0	0	0	0	0
0	0	0	0	84	4	0	0	0	0	0	88	218	15	1	0	2	0	0
0	0	0	0	19	0	0	0	0	0	0	19	38	4	0	0	0	0	0
0	0	0	0	18	1	0	0	0	0	0	19	40	0	1	0	1	0	0
0	0	0	0	19	3	0	0	0	0	0	22	35	3	0	0	0	0	0
0	0	0	0	22	1	0	1	0	0	0	24	47	6	0	0	1	0	0
0	0	0	0	78	5	0	1	0	0	0	84	160	13	1	0	2	0	0
0	0	0	0	29	1	0	0	0	0	0	30	43	1	3	0	0	0	0
0	0	0	0	23	6	2	0	0	0	0	31	38	3	1	0	1	0	1
0	0	0	0	13	2	1	0	0	0	0	16	51	9	1	0	0	0	0
0	0	0	0	27	1	1	0	0	0	0	29	46	2	0	0	1	0	0
0	0	0	0	92	10	4	0	0	0	0	106	178	15	5	0	2	0	1
0	0	0	0	24	2	0	0	0	0	0	26	41	2	0	0	0	0	1
0	0	0	0	20	0	0	1	0	0	0	21	52	5	0	0	1	0	0
0	0	0	0	24	5	0	0	0	0	0	29	35	3	0	0	0	0	0
0	0	0	0	19	2	0	0	0	0	0	21	44	3	1	0	1	0	0
0	0	0	0	87	9	0	1	0	0	0	97	172	13	1	0	2	0	1
0	0	0	0	2	0	0	0	0	0	0	2	62	7	2	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	57	1	0	0	1	0	0
0	0	0	0	0	0	0	0	0	0	0	0	48	4	0	0	1	0	0
0	0	0	0	0	0	0	0	0	0	0	0	51	5	0	0	2	0	0
0	0	0	0	2	0	0	0	0	0	0	2	218	17	2	0	4	0	0
0	0	0	0	0	0	0	0	0	0	0	0	58	3	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	50	4	2	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	68	8	0	0	1	0	0
0	0	0	0	11	1	0	0	0	0	0	12	55	5	1	0	1	0	0
0	0	0	0	11	1	0	0	0	0	0	12	231	20	3	0	2	0	0
0	0	0	0	4	0	0	0	0	0	0	4	39	5	1	0	0	0	0
0	0	0	0	17	0	0	0	0	0	0	17	48	5	0	0	1	0	1
0	0	0	0	24	3	0	0	0	0	0	27	44	2	0	0	0	0	0
0	0	0	0	36	1	0	0	0	0	0	37	58	3	0	0	1	0	0
0	0	0	0	81	4	0	0	0	0	0	85	189	15	1	0	2	0	1
0	0	0	0	32	4	0	0	0	0	0	36	82	2	1	0	0	0	2
0	0	0	0	30	3	0	0	0	0	0	33	56	1	0	0	1	0	0
0	0	0	0	34	2	0	0	0	0	0	36	48	4	0	0	1	0	0
0	0	0	0	26	1	0	0	0	0	0	27	45	4	0	0	1	0	0
0	0	0	0	122	10	0	0	0	0	0	132	231	11	1	0	3	0	2
0	0	0	0	29	1	0	0	0	0	0	30	52	2	0	0	0	0	0
0	0	0	0	18	1	1	0	0	0	0	20	48	6	0	0	1	0	0
0	0	0	0	23	0	1	0	0	0	0	24	65	2	0	0	1	0	0
0	0	0	0	33	0	0	0	0	0	0	33	51	3	1	0	0	0	0
0	0	0	0	103	2	2	0	0	0	0	107	216	13	1	0	2	0	0
0	0	0	0	32	0	0	0	0	0	0	32	53	4	0	0	1	0	1
0	0	0	0	29	0	0	0	0	0	0	29	55	2	0	0	1	0	1
0	0	0	0	24	0	0	0	0	0	0	24	54	2	0	0	0	0	0
0	0	0	0	29	0	0	0	0	0	0	29	61	3	0	0	1	0	0
0	0	0	0	114	0	0	0	0	0	0	114	223	11	0	0	3	0	2
0	0	0	0	43	0	0	0	0	0	0	43	52	0	0	0	1	0	0
0	0	0	0	41	3	0	0	0	0	0	44	45	1	0	0	1	0	0
0	0	0	0	28	2	0	0	0	0	0	30	46	0	0	0	0	0	0
0	0	0	0	12	0	0	0	0	0	0	12	36	0	0	0	1	0	0
0	0	0	0	124	5	0	0	0	0	0	129	179	1	0	0	3	0	0
0	0	0	0	977	56	6	2	0	0	0	1041	2687	161	19	0	41	0	9

	C => B								C => C							
TOT	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT
91	3	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0
28	5	2	0	0	0	0	0	7	0	0	0	0	0	0	0	0
30	9	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0
40	8	4	0	0	0	0	0	12	0	0	0	0	0	0	0	0
189	25	6	0	0	0	0	0	31	0	0	0	0	0	0	0	0
48	14	1	0	0	0	0	0	15	0	0	0	0	0	0	0	0
76	9	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0
92	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
103	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
319	23	1	0	0	0	0	0	24	0	0	0	0	0	0	0	0
87	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
56	7	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0
48	10	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0
45	15	1	0	0	0	0	0	16	0	0	0	0	0	0	0	0
236	32	1	0	0	0	0	0	33	0	0	0	0	0	0	0	0
42	14	2	0	0	0	0	0	16	0	0	0	0	0	0	0	0
42	10	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0
38	12	1	0	0	0	0	0	13	0	0	0	0	0	0	0	0
54	12	4	1	0	0	0	0	17	0	0	0	0	0	0	0	0
176	48	7	1	0	0	0	0	56	0	0	0	0	0	0	0	0
47	18	1	0	1	0	0	0	20	0	0	0	0	0	0	0	0
44	13	1	0	0	0	0	0	14	0	0	0	0	0	0	0	0
61	11	1	1	0	0	0	0	13	0	0	0	0	0	0	0	0
49	10	2	0	0	0	0	0	12	0	0	0	0	0	0	0	0
201	52	5	1	1	0	0	0	59	0	0	0	0	0	0	0	0
44	19	1	1	0	0	0	0	21	0	0	0	0	0	0	0	0
58	18	2	0	0	0	0	0	20	0	0	0	0	0	0	0	0
38	12	1	0	0	0	0	0	13	0	0	0	0	0	0	0	0
49	2	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0
189	51	4	1	0	0	0	0	56	0	0	0	0	0	0	0	0
71	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
53	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
58	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
241	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
61	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
56	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
77	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
62	11	0	1	0	0	0	0	12	0	0	0	0	0	0	0	0
256	11	0	1	0	0	0	0	12	0	0	0	0	0	0	0	0
45	17	1	0	0	0	0	0	18	0	0	0	0	0	0	0	0
55	20	0	0	0	0	1	0	21	0	0	0	0	0	0	0	0
46	15	1	0	0	0	0	0	16	0	0	0	0	0	0	0	0
62	16	2	0	0	0	0	0	18	0	0	0	0	0	0	0	0
208	68	4	0	0	0	1	0	73	0	0	0	0	0	0	0	0
87	26	0	0	0	0	0	0	26	0	0	0	0	0	0	0	0
58	29	3	1	0	0	0	0	33	0	0	0	0	0	0	0	0
53	19	4	0	0	0	0	0	23	0	0	0	0	0	0	0	0
50	19	2	0	0	0	0	0	21	0	0	0	0	0	0	0	0
248	93	9	1	0	0	0	0	103	0	0	0	0	0	0	0	0
54	27	2	0	0	0	0	0	29	0	0	0	0	0	0	0	0
55	26	0	0	0	0	0	0	26	0	0	0	0	0	0	0	0
68	19	2	0	0	0	0	0	21	0	0	0	0	0	0	0	0
55	21	0	0	0	0	0	0	21	0	0	0	0	0	0	0	0
232	93	4	0	0	0	0	0	97	0	0	0	0	0	0	0	0
59	40	1	0	0	0	0	0	41	0	0	0	0	0	0	0	0
59	16	0	0	0	0	0	0	16	0	0	0	0	0	0	0	0
56	20	0	0	0	0	0	0	20	0	0	0	0	0	0	0	0
65	19	0	0	0	0	0	0	19	0	0	0	0	0	0	0	0
239	95	1	0	0	0	0	0	96	0	0	0	0	0	0	0	0
53	16	0	0	0	0	0	0	16	0	0	0	0	0	0	0	0
47	13	1	0	0	0	0	0	14	0	0	0	0	0	0	0	0
46	14	0	0	0	0	0	0	14	0	0	0	0	0	0	0	0
37	9	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0
183	52	1	0	0	0	0	0	53	0	0	0	0	0	0	0	0
2917	643	43	5	1	0	1	0	693	0	0	0	0	0	0	0	0

Survey Name :	ITS J-372 Malahide
Site:	Site 3
Date:	12.12.2019
Time:	07:00 - 20:00
Location:	53.4474898,-6.1503887
Classification:	Car, LGV, OGV1, OGV2, PSV, P/C, M/C, Peds

Irish Traffic Surveys



	A => A								A => B								
TIME	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT	CAR
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
07:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
07:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
07:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
08:00	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2	9
08:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
08:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0
H/TOT	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	3	18
09:00	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	4	0
09:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
09:30	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2	8
09:45	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	8
H/TOT	0	0	0	0	0	0	0	0	6	2	0	0	0	0	0	8	22
10:00	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	6
10:15	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	12
10:30	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	4
10:45	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	2	18
H/TOT	0	0	0	0	0	0	0	0	3	1	1	0	0	0	0	5	40
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
11:15	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	10
11:30	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2	4
11:45	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	3	16
H/TOT	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	6	37
12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
12:30	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	5
12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
H/TOT	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	31
13:00	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	2	0
13:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:30	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0
13:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	2	1	0	0	0	0	0	3	0
14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:15	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0
14:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:45	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	10
H/TOT	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2	10
15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
15:30	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	6
15:45	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2	4
H/TOT	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	3	13
16:00	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	8
16:15	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	3	12
16:30	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	11
16:45	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	4	17
H/TOT	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	9	48
17:00	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	3	21
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
17:30	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	5	8
17:45	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2	21
H/TOT	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	10	61
18:00	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	16
18:15	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	2	13
18:30	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	19
18:45	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2	23
H/TOT	0	0	0	0	0	0	0	0	5	1	0	0	0	0	0	6	71
19:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20
19:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12
19:30	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	7
19:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14
H/TOT	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	53
13 HR TOT	0	0	0	0	0	0	0	0	51	5	1	0	0	0	0	57	415





A => C							B => A								B => B			
LGV	OGV1	OGV2	PSV	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2
0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	2	0	1	0	0	0	0	0	1	0	0	0	0
0	0	0	0	0	0	1	1	0	0	0	0	0	0	1	0	0	0	0
0	0	0	0	0	0	6	0	0	1	0	0	0	0	1	0	0	0	0
0	0	0	0	0	0	11	1	1	1	0	0	0	0	3	0	0	0	0
0	0	0	0	0	0	9	1	0	0	0	0	0	0	1	0	0	0	0
1	0	0	0	0	0	10	5	0	0	0	0	0	0	5	0	0	0	0
0	0	0	0	0	0	0	44	0	0	0	0	0	0	44	0	0	0	0
0	0	0	0	0	0	0	99	1	0	0	0	0	0	100	0	0	0	0
1	0	0	0	0	0	19	149	1	0	0	0	0	0	150	0	0	0	0
0	0	0	0	0	0	0	46	2	0	0	1	0	0	49	1	0	0	0
0	0	0	0	0	0	6	2	1	0	0	0	0	0	3	0	0	0	0
0	0	0	0	0	0	8	4	0	0	0	0	0	0	4	0	0	0	0
0	0	0	0	0	0	8	0	1	0	0	0	0	0	1	0	0	0	0
0	0	0	0	0	0	22	52	4	0	0	1	0	0	57	1	0	0	0
0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	12	2	1	0	0	0	0	0	3	0	0	0	0
1	0	0	0	0	0	5	2	0	0	0	0	0	0	2	0	0	0	0
1	0	0	0	0	0	19	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	42	4	1	0	0	0	0	0	5	0	0	0	0
0	0	0	0	0	0	7	1	0	1	0	0	0	0	2	0	0	0	0
2	0	0	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	4	1	0	0	0	0	0	0	1	1	0	0	0
0	0	0	0	0	0	16	2	0	0	0	0	0	0	2	0	0	0	0
2	0	0	0	0	0	39	4	0	1	0	0	0	0	5	1	0	0	0
0	0	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	0	0	0	11	1	0	0	0	0	0	0	1	0	0	0	0
1	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	8	2	0	0	0	0	0	0	2	0	0	0	0
2	0	0	0	0	0	33	3	0	0	0	0	0	0	3	0	0	0	0
0	0	0	0	0	0	0	11	2	0	0	0	0	0	13	0	0	0	0
0	0	0	0	0	0	0	14	0	1	0	0	0	0	15	0	0	0	0
0	0	0	0	0	0	0	14	0	0	0	1	0	0	15	0	0	0	0
0	0	0	0	0	0	0	13	1	1	0	0	0	0	15	0	0	0	0
0	0	0	0	0	0	0	52	3	2	0	1	0	0	58	0	0	0	0
0	0	0	0	0	0	0	7	0	0	0	0	0	0	7	0	0	0	0
0	0	0	0	0	0	0	12	2	1	0	0	0	0	15	0	0	0	0
0	0	0	0	0	0	0	27	1	0	0	0	0	0	28	0	0	0	0
0	0	0	0	0	0	10	14	0	0	0	1	0	0	15	0	0	0	0
0	0	0	0	0	0	10	60	3	1	0	1	0	0	65	0	0	0	0
0	0	0	0	0	0	1	1	0	0	0	0	0	0	1	0	0	0	0
0	0	0	0	0	0	2	1	1	0	0	0	0	0	2	0	0	0	0
2	0	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	0	0	0	5	2	0	0	0	0	0	0	2	0	0	0	0
3	0	0	0	0	0	16	4	1	0	0	0	0	0	5	0	0	0	0
2	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	14	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	0	0	0	12	2	0	0	0	0	0	0	2	0	0	0	0
0	0	0	0	0	0	17	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	53	2	0	0	0	0	0	0	2	0	0	0	0
0	0	0	0	0	0	21	1	0	0	0	0	0	0	1	0	0	0	0
0	0	0	0	0	0	11	2	0	0	0	0	0	0	2	1	0	0	0
0	0	0	0	0	0	8	1	0	0	0	0	0	0	1	0	0	0	0
0	0	0	0	0	0	21	2	0	0	0	0	0	0	2	0	0	0	0
0	0	0	0	0	0	61	6	0	0	0	0	0	0	6	1	0	0	0
0	0	0	0	0	0	16	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	13	1	1	0	0	0	0	0	2	0	0	0	0
0	0	0	0	0	0	19	1	0	0	0	0	0	0	1	0	0	0	0
0	0	0	0	0	0	23	1	0	0	0	0	0	0	1	0	0	0	0
0	0	0	0	0	0	71	3	1	0	0	0	0	0	4	0	0	0	0
0	0	0	0	0	0	20	1	0	0	0	0	0	0	1	0	0	0	0
0	0	0	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	7	2	0	0	0	0	0	0	2	0	0	0	0
0	0	0	0	0	0	14	0	1	0	0	0	0	0	1	0	0	0	0
0	0	0	0	0	0	53	3	1	0	0	0	0	0	4	0	0	0	0
15	0	0	0	0	0	430	343	16	5	0	3	0	0	367	3	0	0	0

				B => C								C => A						
PSV	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	9	1	0	0	0	0	0	10	2	0	0	0	0	0	0
0	0	0	0	3	1	0	0	0	0	0	4	3	0	0	0	0	0	0
0	0	0	0	10	0	0	0	0	0	0	10	1	0	0	0	0	0	0
0	0	0	0	22	2	0	0	0	0	0	24	6	0	0	0	0	0	0
0	0	0	0	19	0	1	0	0	0	0	20	5	0	1	0	0	0	0
0	0	0	0	16	0	0	0	0	0	0	16	7	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	35	0	1	0	0	0	0	36	12	0	1	0	0	0	0
0	0	0	1	3	0	0	0	0	0	0	3	0	0	0	0	0	0	0
0	0	0	0	25	3	0	0	0	0	0	28	1	0	0	0	0	0	0
0	0	0	0	40	2	1	0	0	0	0	43	5	0	0	0	0	0	0
0	0	0	0	17	1	0	0	0	0	0	18	4	0	0	0	0	0	0
0	0	0	1	85	6	1	0	0	0	0	92	10	0	0	0	0	0	0
0	0	0	0	14	0	0	0	0	0	0	14	10	0	0	0	0	0	0
0	0	0	0	8	1	0	0	0	0	0	9	4	0	0	0	0	0	0
0	0	0	0	18	2	0	0	0	0	0	20	6	0	0	0	0	0	0
0	0	0	0	13	1	0	1	0	0	0	15	8	1	0	0	0	0	0
0	0	0	0	53	4	0	1	0	0	0	58	28	1	0	0	0	0	0
0	0	0	0	9	2	0	0	0	0	0	11	10	0	0	0	0	0	0
0	0	0	0	20	3	0	0	0	0	0	23	4	0	0	0	0	0	0
0	0	0	1	11	2	0	0	0	0	0	13	2	0	1	0	0	0	0
0	0	0	0	14	1	0	0	0	0	0	15	3	0	0	0	0	0	0
0	0	0	1	54	8	0	0	0	0	0	62	19	0	1	0	0	0	0
0	0	0	0	16	2	0	0	0	0	0	18	9	1	0	0	0	0	0
0	0	0	0	14	0	0	0	0	0	0	14	5	0	0	0	0	0	0
0	0	0	0	26	4	0	0	0	0	1	31	5	0	0	0	0	0	0
0	0	0	0	14	2	0	0	0	0	0	16	1	0	0	0	0	0	0
0	0	0	0	70	8	0	0	0	0	1	79	20	1	0	0	0	0	0
0	0	0	0	1	0	0	0	0	0	0	1	0	1	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	1	0	0	0	0	0	0	1	0	1	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	28	2	0	0	0	0	0	30	7	0	0	0	0	0	0
0	0	0	0	28	2	0	0	0	0	0	30	7	0	0	0	0	0	0
0	0	0	0	18	2	0	0	0	0	0	20	4	0	0	0	0	0	0
0	0	0	0	24	1	0	0	0	0	0	25	5	0	0	0	0	0	0
0	0	0	0	19	1	0	0	0	0	0	20	9	2	0	0	0	0	0
0	0	0	0	35	2	0	0	0	0	0	37	9	1	0	0	0	0	0
0	0	0	0	96	6	0	0	0	0	0	102	27	3	0	0	0	0	0
0	0	0	0	28	3	0	0	0	0	0	31	15	0	0	0	0	0	0
0	0	0	0	17	2	0	0	0	0	0	19	14	0	0	0	0	0	0
0	0	0	0	22	4	0	0	0	0	0	26	7	0	0	0	0	0	0
0	0	0	0	12	0	0	0	0	0	0	12	8	2	0	0	0	0	0
0	0	0	0	79	9	0	0	0	0	0	88	44	2	0	0	0	0	0
0	0	0	0	8	0	0	0	0	0	0	8	8	0	0	0	0	0	0
0	0	0	1	12	0	0	0	0	0	0	12	11	0	0	0	0	0	0
0	0	0	0	12	0	0	0	0	0	0	12	8	0	0	0	0	0	0
0	0	0	0	15	0	0	0	0	0	0	15	12	0	0	0	0	0	0
0	0	0	1	47	0	0	0	0	0	0	47	39	0	0	0	0	0	0
0	0	0	0	22	1	0	0	0	1	0	24	18	0	0	0	0	0	0
0	0	0	0	18	0	0	0	0	0	0	18	6	0	0	0	0	0	0
0	0	0	0	11	0	0	0	0	0	0	11	7	0	0	0	0	0	0
0	0	0	0	9	0	0	0	0	0	0	9	7	0	0	0	0	0	0
0	0	0	0	60	1	0	0	0	1	0	62	38	0	0	0	0	0	0
0	0	0	0	21	0	0	0	0	0	0	21	8	0	0	0	0	0	0
0	0	0	0	43	3	0	0	0	0	0	46	4	0	0	0	0	0	0
0	0	0	0	16	0	0	0	0	0	0	16	7	0	0	0	0	0	0
0	0	0	0	7	0	0	0	0	0	0	7	3	0	0	0	0	0	0
0	0	0	0	87	3	0	0	0	0	0	90	22	0	0	0	0	0	0
0	0	0	3	717	49	2	1	0	1	1	771	272	8	2	0	0	0	0

	C => B								C => C							
TOT	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT
0	3	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0
2	6	1	0	0	0	0	0	7	0	0	0	0	0	0	0	0
3	6	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0
1	4	4	0	0	0	0	0	8	0	0	0	0	0	0	0	0
6	19	5	0	0	0	0	0	24	0	0	0	0	0	0	0	0
6	11	0	0	0	0	0	0	11	0	0	0	0	0	0	0	0
7	14	0	0	0	0	0	0	14	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	25	0	0	0	0	0	0	25	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	9	0	1	0	0	0	0	10	1	0	0	0	0	0	0	1
5	8	0	1	0	0	0	0	9	0	0	0	0	0	0	0	0
4	9	1	1	0	0	0	0	11	0	0	0	0	0	0	0	0
10	26	1	3	0	0	0	0	30	1	0	0	0	0	0	0	1
10	7	3	0	0	0	0	0	10	0	0	0	0	0	0	0	0
4	6	0	0	0	0	0	0	6	1	0	0	0	0	0	0	1
6	10	2	0	0	0	0	0	12	0	0	0	0	0	0	0	0
9	8	2	1	0	0	0	0	11	0	0	0	0	0	0	0	0
29	31	7	1	0	0	0	0	39	1	0	0	0	0	0	0	1
10	11	1	0	1	0	0	0	13	0	0	0	0	0	0	0	0
4	10	1	0	0	0	0	0	11	0	0	0	0	0	0	0	0
3	9	1	0	0	0	0	0	10	1	1	0	0	0	0	0	2
3	12	2	0	0	0	0	0	14	0	0	0	0	0	0	0	0
20	42	5	0	1	0	0	0	48	1	1	0	0	0	0	0	2
10	10	1	1	0	0	0	0	12	1	0	0	0	0	0	0	1
5	12	3	1	0	0	0	0	16	0	0	0	0	0	0	0	0
5	6	2	0	0	0	0	0	8	0	0	0	0	0	0	0	0
1	6	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0
21	34	6	2	0	0	0	0	42	1	0	0	0	0	0	0	1
1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	6	0	1	0	0	0	0	7	0	0	0	0	0	0	0	0
7	6	0	1	0	0	0	0	7	0	0	0	0	0	0	0	0
4	11	1	0	0	0	0	0	12	0	0	0	0	0	0	0	0
5	13	0	0	0	0	1	1	15	0	0	0	0	0	0	0	0
11	9	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0
10	8	2	0	0	0	0	0	10	0	0	0	0	0	0	0	0
30	41	3	0	0	0	1	1	46	0	0	0	0	0	0	0	0
15	19	0	0	0	0	0	0	19	0	0	0	0	0	0	0	0
14	16	2	1	0	0	0	0	19	0	0	0	0	0	0	0	0
7	16	3	0	0	0	0	1	20	0	0	0	0	0	0	0	0
10	11	1	0	0	0	0	0	12	0	0	0	0	0	0	0	0
46	62	6	1	0	0	0	1	70	0	0	0	0	0	0	0	0
8	22	1	0	0	0	0	0	23	1	0	0	0	0	0	0	1
11	10	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0
8	16	2	0	0	0	0	0	18	1	0	0	0	0	0	0	1
12	15	0	0	0	0	0	0	15	0	0	0	0	0	0	0	0
39	63	3	0	0	0	0	0	66	2	0	0	0	0	0	0	2
18	24	3	0	0	0	0	0	27	0	0	0	0	0	0	0	0
6	10	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0
7	15	0	0	0	0	0	0	15	0	0	0	0	0	0	0	0
7	12	0	0	0	0	0	0	12	1	0	0	0	0	0	0	1
38	61	3	0	0	0	0	0	64	1	0	0	0	0	0	0	1
8	11	0	0	0	0	0	0	11	1	0	0	0	0	0	0	1
4	9	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0
7	7	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0
3	9	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0
22	36	0	0	0	0	0	0	36	1	0	0	0	0	0	0	1
282	446	39	8	1	0	1	2	497	8	1	0	0	0	0	0	9

Survey Name :	ITS J-372 Malahide
Site:	Site 3
Date:	12.12.2019
Time:	07:00 - 20:00
Location:	53.4510366,-6.1537031
Classification:	Car, LGV, OGV1, OGV2, PSV, P/C, M/C, Peds

Irish Traffic Surveys



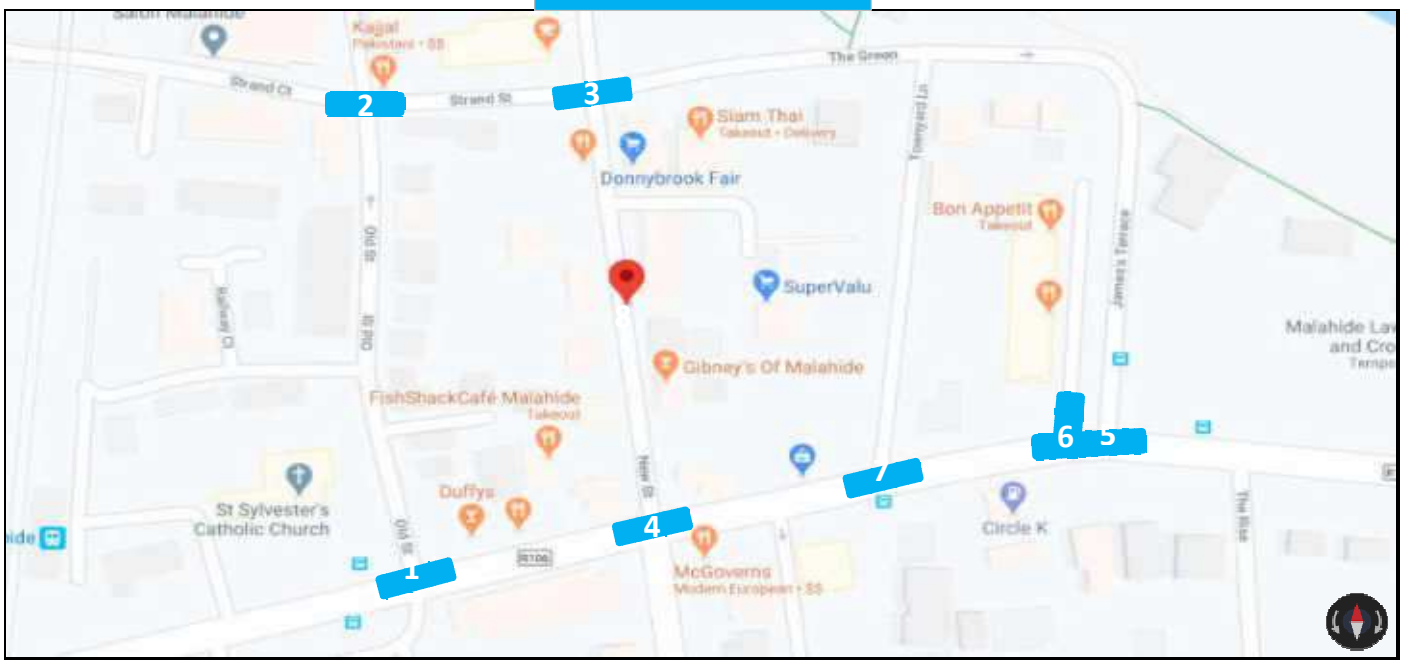
	A => A								A => B								
TIME	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT	CAR
07:00	0	0	0	0	0	0	0	0	17	2	1	0	0	0	0	20	5
07:15	0	0	0	0	0	0	0	0	16	0	0	0	0	0	0	16	6
07:30	0	0	0	0	0	0	0	0	24	0	0	0	0	0	0	24	10
07:45	0	0	0	0	0	0	0	0	28	1	0	0	0	0	0	29	14
H/TOT	0	0	0	0	0	0	0	0	85	3	1	0	0	0	0	89	35
08:00	0	0	0	0	0	0	0	0	37	3	0	0	0	0	1	41	23
08:15	0	0	0	0	0	0	0	0	52	2	1	0	0	0	0	55	23
08:30	0	0	0	0	0	0	0	0	54	0	0	0	0	0	0	54	23
08:45	0	0	0	0	0	0	0	0	54	2	0	0	0	0	0	56	23
H/TOT	0	0	0	0	0	0	0	0	197	7	1	0	0	0	1	206	92
09:00	0	0	0	0	0	0	0	0	49	0	0	0	0	0	0	49	33
09:15	0	0	0	0	0	0	0	0	45	3	0	0	0	0	0	48	33
09:30	0	0	0	0	0	0	0	0	36	4	1	0	0	0	0	41	35
09:45	0	0	0	0	0	0	0	0	33	6	1	0	0	0	0	40	30
H/TOT	0	0	0	0	0	0	0	0	163	13	2	0	0	0	0	178	131
10:00	0	0	0	0	0	0	0	0	41	8	1	0	0	0	0	50	30
10:15	0	0	0	0	0	0	0	0	38	8	0	0	0	0	0	46	24
10:30	0	0	0	0	0	0	0	0	27	4	1	0	0	0	0	32	26
10:45	0	0	0	0	0	0	0	0	35	8	0	0	0	0	0	43	27
H/TOT	0	0	0	0	0	0	0	0	141	28	2	0	0	0	0	171	107
11:00	0	0	0	0	0	0	0	0	24	7	2	0	0	0	0	33	23
11:15	0	0	0	0	0	0	0	0	26	6	1	0	0	0	0	33	34
11:30	0	0	0	0	0	0	0	0	34	7	0	0	0	0	0	41	34
11:45	0	0	0	0	0	0	0	0	32	9	0	1	0	0	0	42	34
H/TOT	0	0	0	0	0	0	0	0	116	29	3	1	0	0	0	149	125
12:00	0	0	0	0	0	0	0	0	45	9	1	0	0	0	0	55	31
12:15	0	0	0	0	0	0	0	0	31	1	2	0	0	0	0	34	44
12:30	0	0	0	0	0	0	0	0	24	7	0	0	0	0	0	31	42
12:45	0	0	0	0	0	0	0	0	38	6	0	0	0	0	0	44	39
H/TOT	0	0	0	0	0	0	0	0	138	23	3	0	0	0	0	164	156
13:00	0	0	0	0	0	0	0	0	37	11	0	0	0	0	0	48	33
13:15	0	0	0	0	0	0	0	0	32	7	0	0	0	0	0	39	32
13:30	0	0	0	0	0	0	0	0	31	2	0	0	0	0	0	33	25
13:45	0	0	0	0	0	0	0	0	36	3	1	0	0	0	0	40	32
H/TOT	0	0	0	0	0	0	0	0	136	23	1	0	0	0	0	160	122
14:00	0	0	0	0	0	0	0	0	25	5	0	0	0	0	0	30	31
14:15	0	0	0	0	0	0	0	0	36	3	1	0	0	0	0	40	26
14:30	0	0	0	0	0	0	0	0	45	5	1	0	0	0	0	51	26
14:45	0	0	0	0	0	0	0	0	36	6	0	0	0	0	0	42	29
H/TOT	0	0	0	0	0	0	0	0	142	19	2	0	0	0	0	163	112
15:00	0	0	0	0	0	0	0	0	28	4	1	1	0	0	0	34	34
15:15	0	0	0	0	0	0	0	0	46	3	1	0	0	0	0	50	27
15:30	0	0	0	0	0	0	0	0	47	5	0	0	0	0	0	52	27
15:45	0	0	0	0	0	0	0	0	36	5	2	0	0	0	0	43	33
H/TOT	0	0	0	0	0	0	0	0	157	17	4	1	0	0	0	179	121
16:00	0	0	0	0	0	0	0	0	42	3	0	0	0	0	0	45	39
16:15	0	0	0	0	0	0	0	0	38	4	0	0	0	0	0	42	38
16:30	0	0	0	0	0	0	0	0	25	1	0	0	0	0	0	26	37
16:45	0	0	0	0	0	0	0	0	40	4	1	0	0	0	0	45	33
H/TOT	0	0	0	0	0	0	0	0	145	12	1	0	0	0	0	158	147
17:00	0	0	0	0	0	0	0	0	49	1	1	0	0	0	0	51	36
17:15	0	0	0	0	0	0	0	0	40	1	1	0	0	0	0	42	34
17:30	0	0	0	0	0	0	0	0	45	2	1	0	0	0	0	48	45
17:45	0	0	0	0	0	0	0	0	56	2	0	0	0	0	0	58	36
H/TOT	0	0	0	0	0	0	0	0	190	6	3	0	0	0	0	199	151
18:00	0	0	0	0	0	0	0	0	45	1	0	0	0	0	0	46	45
18:15	0	0	0	0	0	0	0	0	52	0	0	0	0	0	0	52	61
18:30	0	0	0	0	0	0	0	0	59	1	0	0	0	0	0	60	43
18:45	0	0	0	0	0	0	0	0	37	2	0	0	0	0	0	39	58
H/TOT	0	0	0	0	0	0	0	0	193	4	0	0	0	0	0	197	207
19:00	0	0	0	0	0	0	0	0	56	0	0	0	0	0	0	56	51
19:15	1	0	0	0	0	0	0	1	53	1	0	0	0	0	0	54	38
19:30	0	0	0	0	0	0	0	0	60	1	0	0	0	0	0	61	53
19:45	0	0	0	0	0	0	0	0	47	2	0	0	0	0	0	49	54
H/TOT	1	0	0	0	0	0	0	1	216	4	0	0	0	0	0	220	196
13 HR TOT	1	0	0	0	0	0	0	1	2019	188	23	2	0	0	1	2233	1702





B => A							B => B							
LGV	OGV1	OGV2	PSV	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT
1	0	0	0	0	0	6	0	0	0	0	0	0	0	0
1	0	0	2	0	0	9	0	0	0	0	0	0	0	0
3	3	0	1	0	0	17	0	0	0	0	0	0	0	0
1	1	0	0	0	0	16	0	0	0	0	0	0	0	0
6	4	0	3	0	0	48	0	0	0	0	0	0	0	0
1	0	0	1	0	0	25	0	0	0	0	0	0	0	0
1	0	0	1	0	0	25	0	0	0	0	0	0	0	0
0	0	0	1	0	0	24	0	0	0	0	0	0	0	0
1	0	0	0	0	0	24	0	0	0	0	0	0	0	0
3	0	0	3	0	0	98	0	0	0	0	0	0	0	0
2	0	0	0	0	0	35	0	0	0	0	0	0	0	0
1	1	0	0	0	0	35	0	0	0	0	0	0	0	0
3	0	0	1	0	0	39	0	0	0	0	0	0	0	0
3	1	0	0	0	0	34	0	0	0	0	0	0	0	0
9	2	0	1	0	0	143	0	0	0	0	0	0	0	0
3	0	0	1	0	0	34	0	0	0	0	0	0	0	0
3	1	0	0	0	0	28	0	0	0	0	0	0	0	0
1	0	0	0	0	0	27	0	0	0	0	0	0	0	0
3	0	0	0	0	0	30	0	0	0	0	0	0	0	0
10	1	0	1	0	0	119	0	0	0	0	0	0	0	0
4	1	0	1	0	0	29	0	0	0	0	0	0	0	0
2	0	0	0	0	1	37	0	0	0	0	0	0	0	0
3	2	1	0	0	0	40	0	0	0	0	0	0	0	0
4	1	0	0	0	0	39	0	0	0	0	0	0	0	0
13	4	1	1	0	1	145	0	0	0	0	0	0	0	0
2	2	0	1	0	1	37	0	0	0	0	0	0	0	0
0	0	0	0	0	0	44	0	0	0	0	0	0	0	0
1	1	0	0	0	1	45	0	0	0	0	0	0	0	0
2	1	0	0	0	0	42	0	0	0	0	0	0	0	0
5	4	0	1	0	2	168	0	0	0	0	0	0	0	0
5	0	0	1	0	0	39	0	0	0	0	0	0	0	0
0	1	0	0	0	0	33	0	0	0	0	0	0	0	0
1	0	0	0	0	0	26	0	0	0	0	0	0	0	0
2	0	0	0	0	0	34	0	0	0	0	0	0	0	0
8	1	0	1	0	0	132	0	0	0	0	0	0	0	0
2	0	0	1	0	0	34	0	0	0	0	0	0	0	0
3	1	0	1	0	0	31	0	0	0	0	0	0	0	0
2	0	0	0	0	0	28	0	0	0	0	0	0	0	0
3	0	1	0	1	0	34	0	0	0	0	0	0	0	0
10	1	1	2	1	0	127	0	0	0	0	0	0	0	0
4	0	0	0	0	0	38	0	0	0	0	0	0	0	0
5	0	0	1	1	1	35	0	0	0	0	0	0	0	0
2	2	0	0	0	0	31	0	0	0	0	0	0	0	0
1	0	0	0	0	0	34	0	0	0	0	0	0	0	0
12	2	0	1	1	1	138	0	0	0	0	0	0	0	0
0	0	0	1	0	0	40	0	0	0	0	0	0	0	0
2	1	0	0	0	0	41	0	0	0	0	0	0	0	0
2	2	0	0	0	0	41	0	0	0	0	0	0	0	0
4	0	0	1	0	0	38	0	0	0	0	0	0	0	0
8	3	0	2	0	0	160	0	0	0	0	0	0	0	0
4	0	0	0	0	0	40	0	0	0	0	0	0	0	0
1	0	0	1	1	0	37	0	0	0	0	0	0	0	0
0	0	0	0	0	0	45	0	0	0	0	0	0	0	0
1	0	0	0	0	0	37	0	0	0	0	0	0	0	0
6	0	0	1	1	0	159	0	0	0	0	0	0	0	0
2	0	0	1	0	1	49	0	0	0	0	0	0	0	0
1	0	0	2	0	0	64	0	0	0	0	0	0	0	0
2	0	0	1	0	0	46	1	0	0	0	0	0	0	1
3	0	0	0	0	0	61	0	0	0	0	0	0	0	0
8	0	0	4	0	1	220	1	0	0	0	0	0	0	1
0	0	0	0	0	0	51	0	0	0	0	0	0	0	0
0	0	0	0	0	0	38	0	0	0	0	0	0	0	0
0	0	0	0	0	0	53	0	0	0	0	0	0	0	0
0	0	0	0	0	0	54	0	0	0	0	0	0	0	0
0	0	0	0	0	0	196	0	0	0	0	0	0	0	0
98	22	2	21	3	5	1853	1	0	0	0	0	0	0	1

Sites Overview



Survey Name :	ITS J-410 Malahide
Site:	1
Date:	15.07.2020
Time:	07:00-19:00
Location:	53.451441, -6.153758
Classification:	Car, LGV, OGV1, OGV2, PSV, P/C, M/C

Irish Traffic Surveys

Site 1, Card A5



Mapping Image

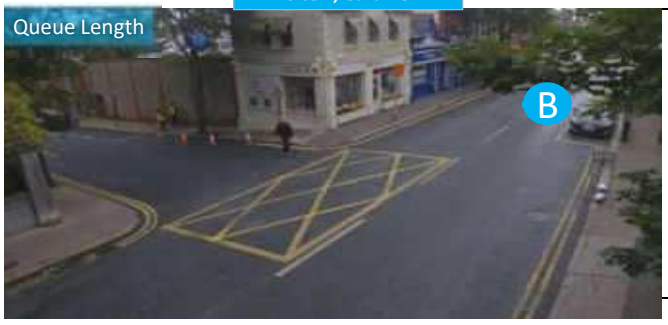


Survey duration:	12h
Time Period:	07:00-19:00
Junction Type:	4 Arm Junction
Reporting Interval:	15min
Classification scheme:	Car, LGV, OGV1, OGV2, PSV, P/C, M/C
Queues Required:	Yes
Pedestrian required:	No

Site 1, Card Nov19



Site 1, Card A5



Survey Name :	ITS J-410 Malahide
Site:	1
Date:	15.07.2020
Time:	07:00-19:00
Location:	53.451441, -6.153758
Classification:	Car, LGV, OGV1, OGV2, PSV, P/C, M/C

Irish Traffic Surveys



	A => A								A => B							
TIME	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
H/TOT	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12 TOT	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1



A => C								B => A							
CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT
0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
0	0	0	0	0	0	0	0	1	1	0	0	3	0	0	5
0	0	0	0	0	0	0	0	4	0	0	0	0	0	1	5
0	0	0	0	0	0	0	0	11	2	0	0	1	0	1	15
0	0	0	0	0	0	0	0	18	3	0	0	4	0	2	27
0	0	0	0	0	0	1	1	10	0	0	0	0	0	1	11
0	0	0	0	0	0	0	0	13	2	1	0	0	0	0	16
0	0	0	0	0	0	0	0	12	1	0	0	1	0	0	14
0	0	0	0	0	0	0	0	13	0	1	0	0	0	0	14
0	0	0	0	0	0	1	1	48	3	2	0	1	0	1	55
0	0	0	0	0	0	0	0	6	1	0	0	0	0	0	7
0	0	0	0	0	0	0	0	11	0	0	0	1	0	1	13
0	0	0	0	0	0	0	0	11	0	0	0	0	0	1	12
0	0	0	0	0	0	0	0	8	3	0	0	1	0	0	12
0	0	0	0	0	0	0	0	36	4	0	0	2	0	2	44
0	0	0	0	0	0	0	0	17	2	0	0	0	0	0	19
0	0	0	0	0	0	0	0	11	0	1	0	0	0	0	12
0	0	0	0	0	0	0	0	12	1	1	0	0	0	0	14
0	0	0	0	0	0	0	0	15	2	2	0	1	0	0	20
0	0	0	0	0	0	0	0	55	5	4	0	1	0	0	65
0	0	0	0	0	0	0	0	11	2	0	0	0	0	0	13
0	0	0	0	0	0	0	0	13	1	2	0	0	0	0	16
0	0	0	0	0	0	1	1	21	1	0	0	0	0	0	22
0	0	1	0	0	0	0	1	10	0	0	0	1	0	0	11
0	0	1	0	0	0	1	2	55	4	2	0	1	0	0	62
0	0	0	0	0	0	0	0	10	3	0	0	0	0	0	13
0	0	0	0	0	0	1	1	13	2	0	0	0	0	0	15
0	0	0	0	0	0	1	1	16	0	0	0	0	0	0	16
0	0	0	0	0	0	0	0	18	1	0	0	0	0	0	19
0	0	0	0	0	0	2	2	57	6	0	0	0	0	0	63
0	0	0	0	0	0	0	0	9	2	0	0	1	0	1	13
0	0	0	0	0	0	0	0	17	4	0	0	0	0	1	22
0	0	0	0	0	0	0	0	25	1	0	0	0	0	1	27
0	0	0	0	0	0	0	0	24	1	0	0	0	0	0	25
0	0	0	0	0	0	0	0	75	8	0	0	1	0	3	87
0	0	0	0	0	0	1	1	9	3	0	0	1	0	0	13
0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	9
0	0	0	0	0	0	0	0	16	0	0	0	0	0	0	16
0	0	0	0	0	0	2	2	14	0	1	0	0	0	0	15
0	0	0	0	0	0	3	3	48	3	1	0	1	0	0	53
0	0	0	0	0	0	0	0	11	4	0	0	1	0	0	16
0	0	0	0	0	0	0	0	16	3	0	0	0	0	1	20
0	0	0	0	0	0	1	1	13	1	0	0	1	0	0	15
0	0	0	0	0	0	0	0	15	1	0	0	0	0	0	16
0	0	0	0	0	0	1	1	55	9	0	0	2	0	1	67
0	0	0	0	0	0	0	0	15	1	0	0	2	0	0	18
0	0	0	0	0	0	0	0	7	3	0	0	0	0	0	10
0	0	0	0	0	0	0	0	17	1	0	0	1	0	0	19
0	1	0	0	0	0	0	1	18	2	0	0	0	1	0	21
0	1	0	0	0	0	0	1	57	7	0	0	3	1	0	68
0	0	0	0	0	0	1	1	18	3	0	0	0	0	0	21
0	0	0	0	0	0	0	0	24	1	0	0	0	0	3	28
0	0	0	0	0	0	1	1	18	3	0	0	1	0	0	22
0	0	0	0	0	0	1	1	21	1	0	0	0	0	0	22
0	0	0	0	0	0	3	3	81	8	0	0	1	0	3	93
0	0	0	0	0	0	0	0	14	1	0	0	1	0	0	16
0	0	0	0	0	0	0	0	12	2	0	0	0	0	0	14
0	0	0	0	0	0	0	0	23	1	0	0	0	0	0	24
0	0	0	0	0	0	0	0	26	1	0	0	0	0	0	27
0	0	0	0	0	0	0	0	75	5	0	0	1	0	0	81
0	1	1	0	0	0	11	13	660	65	9	0	18	1	12	765

B => B								B => C							
CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT
0	0	0	0	0	0	0	0	36	2	0	0	2	0	1	41
0	0	0	0	0	0	0	0	37	6	1	0	2	0	1	47
0	0	0	0	0	0	0	0	46	4	1	1	2	0	4	58
0	0	0	0	0	0	0	0	40	6	1	0	1	1	3	52
0	0	0	0	0	0	0	0	159	18	3	1	7	1	9	198
0	0	0	0	0	0	0	0	60	4	0	0	3	0	9	76
0	0	0	0	0	0	0	0	59	7	2	0	1	0	5	74
0	0	0	0	0	0	0	0	81	8	3	1	1	0	1	95
1	0	0	0	0	0	0	1	71	2	0	2	1	0	2	78
1	0	0	0	0	0	0	1	271	21	5	3	6	0	17	323
0	0	0	0	0	0	0	0	69	13	3	0	2	0	1	88
0	0	0	0	0	0	0	0	57	7	3	2	2	0	0	71
0	0	0	0	0	0	0	0	64	10	3	0	0	0	0	77
0	0	0	0	0	0	0	0	81	12	0	1	2	0	2	98
0	0	0	0	0	0	0	0	271	42	9	3	6	0	3	334
0	0	0	0	0	0	0	0	71	10	5	0	1	0	0	87
0	0	0	0	0	0	0	0	73	8	3	0	1	0	2	87
0	0	0	0	0	0	0	0	89	13	2	1	1	1	3	110
0	0	0	0	0	0	0	0	98	10	0	0	1	1	2	112
0	0	0	0	0	0	0	0	331	41	10	1	4	2	7	396
0	0	0	0	0	0	0	0	82	13	1	4	1	0	1	102
0	0	0	0	0	0	0	0	79	12	4	1	1	0	1	98
0	0	0	0	0	0	0	0	91	16	0	0	1	1	2	111
0	0	0	0	0	0	0	0	92	9	5	0	1	0	6	113
0	0	0	0	0	0	0	0	344	50	10	5	4	1	10	424
0	0	0	0	0	0	0	0	101	3	3	1	1	0	5	114
0	0	0	0	0	0	0	0	90	9	0	1	1	0	4	105
0	0	0	0	0	0	0	0	77	17	1	1	1	5	2	104
0	0	0	0	0	0	0	0	85	10	3	1	1	0	3	103
0	0	0	0	0	0	0	0	353	39	7	4	4	5	14	426
0	0	0	0	0	0	0	0	95	7	2	1	1	0	3	109
0	0	0	0	0	0	0	0	90	8	0	0	1	0	7	106
0	0	0	0	0	0	0	0	95	6	6	0	1	0	2	110
0	0	0	0	0	0	0	0	76	13	1	0	1	0	7	98
0	0	0	0	0	0	0	0	356	34	9	1	4	0	19	423
0	0	0	0	0	0	0	0	96	14	0	0	1	1	3	115
0	0	0	0	0	0	0	0	83	8	0	1	1	0	2	95
0	0	0	0	0	0	0	0	93	16	2	1	1	0	1	114
0	0	0	0	0	0	0	0	93	8	3	2	1	0	6	113
0	0	0	0	0	0	0	0	365	46	5	4	4	1	12	437
0	0	0	0	0	0	0	0	88	6	2	2	2	1	5	106
0	0	0	0	0	0	0	0	87	12	3	0	1	2	5	110
0	0	0	0	0	0	0	0	89	18	3	1	1	0	1	113
0	0	0	0	0	0	0	0	106	15	0	1	1	1	3	127
0	0	0	0	0	0	0	0	370	51	8	4	5	4	14	456
0	0	0	0	0	0	0	0	90	16	1	0	1	0	2	110
0	0	0	0	0	0	0	0	90	7	0	1	1	0	5	104
0	0	0	0	0	0	0	0	101	11	2	0	2	0	3	119
0	0	0	0	0	0	0	0	91	16	0	0	1	0	6	114
0	0	0	0	0	0	0	0	372	50	3	1	5	0	16	447
0	0	0	0	0	0	0	0	105	15	0	0	1	0	7	128
0	0	0	0	0	0	0	0	76	5	0	0	1	0	14	96
0	0	0	0	0	0	0	0	100	10	0	0	2	0	5	117
0	0	0	0	0	0	0	0	85	6	1	0	1	0	8	101
0	0	0	0	0	0	0	0	366	36	1	0	5	0	34	442
0	0	0	0	0	0	0	0	87	7	0	0	1	0	5	100
0	0	0	0	0	0	0	0	91	4	0	0	2	1	7	105
0	0	0	0	0	0	0	0	100	4	0	0	2	0	10	116
0	0	0	0	0	0	0	0	86	4	1	0	1	0	4	96
0	0	0	0	0	0	0	0	364	19	1	0	6	1	26	417
1	0	0	0	0	0	0	1	3922	447	71	27	60	15	181	4723

C => A								C => B							
CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT
5	2	2	0	0	0	0	9	16	11	1	0	3	0	1	32
6	4	1	0	0	0	0	11	15	15	0	1	1	0	2	34
4	2	0	0	0	0	0	6	38	12	0	0	2	0	4	56
7	3	0	0	0	0	1	11	45	16	2	0	0	0	4	67
22	11	3	0	0	0	1	37	114	54	3	1	6	0	11	189
3	2	1	0	0	0	0	6	35	10	6	0	2	0	2	55
14	2	0	0	0	0	0	16	34	9	1	1	1	0	4	50
13	1	1	0	0	0	0	15	45	6	2	2	2	0	0	57
14	5	0	0	0	0	0	19	59	12	1	0	0	0	4	76
44	10	2	0	0	0	0	56	173	37	10	3	5	0	10	238
12	3	0	0	0	0	0	15	33	14	6	1	1	0	1	56
6	4	1	0	0	0	0	11	53	7	1	0	1	0	1	63
10	1	1	1	0	0	0	13	59	18	3	0	3	0	0	83
17	3	0	0	0	0	0	20	76	9	3	1	1	0	1	91
45	11	2	1	0	0	0	59	221	48	13	2	6	0	3	293
6	4	0	0	0	0	0	10	55	9	3	0	2	1	2	72
13	1	1	1	0	0	1	17	58	11	2	0	0	0	0	71
12	0	0	0	0	0	0	12	57	10	0	0	2	0	1	70
13	2	0	0	0	0	0	15	79	4	2	2	0	0	1	88
44	7	1	1	0	0	1	54	249	34	7	2	4	1	4	301
8	1	0	0	0	0	0	9	70	7	2	1	2	1	2	85
12	0	0	0	0	0	0	12	73	7	5	0	0	0	1	86
14	0	0	0	0	0	1	15	81	8	1	1	2	1	5	99
18	1	0	0	0	0	1	20	84	5	2	0	0	0	0	91
52	2	0	0	0	0	2	56	308	27	10	2	4	2	8	361
8	0	0	0	0	0	0	8	93	11	1	1	2	0	1	109
15	1	0	0	0	1	0	17	76	8	3	1	0	0	2	90
15	1	0	0	0	0	0	16	92	7	0	0	2	0	2	103
18	2	1	0	0	0	0	21	92	12	1	1	0	0	4	110
56	4	1	0	0	1	0	62	353	38	5	3	4	0	9	412
19	2	0	0	0	0	0	21	89	6	0	1	1	0	0	97
19	1	0	0	0	0	0	20	82	7	1	0	1	1	6	98
11	0	0	0	0	0	2	13	84	5	1	1	1	0	6	98
19	1	0	0	0	0	1	21	77	9	1	0	1	0	1	89
68	4	0	0	0	0	3	75	332	27	3	2	4	1	13	382
19	1	0	1	0	0	0	21	76	6	1	2	1	0	7	93
18	3	0	0	0	0	0	21	109	9	1	1	1	0	3	124
16	0	0	0	0	0	2	18	78	9	1	0	1	0	2	91
17	3	0	1	0	0	4	25	86	9	0	1	1	1	3	101
70	7	0	2	0	0	6	85	349	33	3	4	4	1	15	409
16	1	0	0	0	0	0	17	67	10	0	1	2	0	4	84
13	1	0	1	0	0	2	17	69	7	0	0	0	0	5	81
15	1	0	0	0	0	4	20	72	3	0	1	1	0	6	83
19	1	0	1	0	0	0	21	88	3	1	2	1	2	3	100
63	4	0	2	0	0	6	75	296	23	1	4	4	2	18	348
11	0	0	0	0	0	0	11	104	8	0	0	1	1	5	119
15	3	0	0	0	0	1	19	99	5	0	0	1	1	3	109
13	1	0	0	0	0	1	15	71	3	1	0	2	1	9	87
21	0	0	0	0	0	0	21	86	3	0	0	1	0	5	95
60	4	0	0	0	0	2	66	360	19	1	0	5	3	22	410
19	1	0	0	0	0	0	20	89	10	0	1	2	1	7	110
23	2	0	0	0	0	5	30	73	4	0	1	1	0	3	82
12	1	0	0	0	0	0	13	79	6	1	1	2	0	3	92
22	3	0	0	0	0	0	25	97	3	0	1	2	0	3	106
76	7	0	0	0	0	5	88	338	23	1	4	7	1	16	390
21	2	0	0	0	0	4	27	93	8	0	0	2	0	4	107
23	0	0	0	0	1	0	24	99	7	1	0	1	0	3	111
12	1	0	0	0	0	0	13	94	0	0	0	1	0	4	99
20	0	0	0	0	0	1	21	84	2	0	0	2	0	9	97
76	3	0	0	0	1	5	85	370	17	1	0	6	0	20	414
676	74	9	6	0	2	31	798	3463	380	58	27	59	11	149	4147

C => C							
CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	1

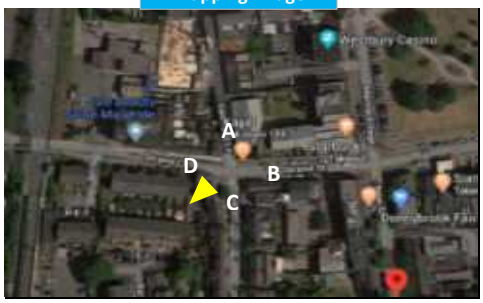
Survey Name :	ITS J-410 Malahide
Site:	2
Date:	03.07.2020
Time:	07:00-19:00
Location:	53.451441, -6.153758
Classification:	Car, LGV, OGV1, OGV2, PSV, P/C, M/C

Irish Traffic Surveys

Site 2, Card M24



Mapping Image



Survey duration:	12h
Time Period:	07:00-19:00
Junction Type:	4 Arm Junction
Reporting Interval:	15min
Classification scheme:	Car, LGV, OGV1, OGV2, PSV, P/C, M/C
Queues Required:	Yes
Pedestrian required:	No

Site 2, Card S38



Site 2, Card M24



Survey Name :	ITS J-410 Malahide
Site:	2
Date:	15.07.2020
Time:	07:00-19:00
Location:	53.451441, -6.153758
Classification:	Car, LGV, OGV1, OGV2, PSV, P/C, M/C

Irish Traffic Surveys



	A => A								A => B							
TIME	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
H/TOT	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
08:00	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
08:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
08:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
H/TOT	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:45	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
H/TOT	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
14:00	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:45	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
H/TOT	0	0	0	0	0	0	0	0	2	1	0	0	0	0	0	3
15:00	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
15:15	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
15:30	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
15:45	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
H/TOT	0	0	0	0	0	0	0	0	1	3	0	0	0	0	0	4
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12 TOT	0	0	0	0	0	0	0	0	8	5	0	0	0	0	0	13



A => C								A => D							
CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	2
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0	11	1	0	0	0	0	1	13

B => A								B => B							
CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	1	1	1	0	0	0	0	0	2
0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	1
0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	2	0	0	0	0	0	2	1	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1
1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
4	2	0	0	0	0	0	6	5	3	0	0	0	0	0	8

B => C								B => D							
CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT
0	0	0	0	0	0	0	0	1	0	0	0	0	0	2	3
0	0	0	0	0	0	0	0	5	2	0	0	0	0	2	9
0	0	0	0	0	0	0	0	5	1	0	0	0	0	0	6
0	0	0	0	0	0	0	0	9	1	0	0	0	0	0	10
0	0	0	0	0	0	0	0	20	4	0	0	0	0	4	28
0	0	0	0	0	0	1	1	9	1	0	0	0	0	1	11
0	0	0	0	0	0	1	1	12	5	0	0	0	0	0	17
0	0	0	0	0	0	0	0	10	4	0	0	0	0	0	14
0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	9
0	0	0	0	0	0	2	2	40	10	0	0	0	0	1	51
0	0	0	0	0	0	0	0	11	1	0	0	0	0	1	13
0	0	0	0	0	0	0	0	14	3	0	0	0	0	2	19
0	0	0	0	0	0	0	0	10	3	1	0	0	0	2	16
0	0	0	0	0	0	0	0	12	2	0	0	0	0	0	14
0	0	0	0	0	0	0	0	47	9	1	0	0	0	5	62
0	0	0	0	0	0	0	0	15	7	0	0	0	0	0	22
0	0	0	0	0	0	0	0	17	0	0	0	0	0	2	19
0	0	0	0	0	0	0	0	25	3	0	0	0	0	0	28
0	0	0	0	0	0	0	0	31	2	0	0	0	0	1	34
0	0	0	0	0	0	0	0	88	12	0	0	0	0	3	103
0	0	0	0	0	0	0	0	28	1	0	0	0	0	2	31
0	0	0	0	0	0	0	0	24	0	0	0	0	0	1	25
0	0	0	0	0	0	1	1	26	3	0	0	0	0	1	30
0	0	0	0	0	0	0	0	18	5	0	0	0	0	2	25
0	0	0	0	0	0	1	1	96	9	0	0	0	0	6	111
0	0	0	0	0	0	0	0	22	1	0	0	0	0	1	24
0	0	0	0	0	0	0	0	33	5	0	0	0	0	2	40
0	0	0	0	0	0	0	0	33	4	0	0	0	0	1	38
0	0	0	0	0	0	0	0	32	4	0	0	0	0	2	38
0	0	0	0	0	0	0	0	120	14	0	0	0	0	6	140
0	0	0	0	0	0	0	0	33	6	0	0	0	0	1	40
0	0	0	0	0	0	0	0	27	2	0	0	0	0	3	32
0	0	0	0	0	0	4	4	26	2	0	0	0	0	1	29
0	0	0	0	0	0	2	2	23	1	0	0	0	0	1	25
0	0	0	0	0	0	6	6	109	11	0	0	0	0	6	126
0	0	0	0	0	0	0	0	32	3	0	0	0	0	0	35
0	0	0	0	0	0	0	0	19	2	0	0	0	0	1	22
0	0	0	0	0	0	0	0	21	2	0	0	0	0	0	23
0	0	0	0	0	0	2	2	20	2	0	0	0	0	1	23
0	0	0	0	0	0	2	2	92	9	0	0	0	0	2	103
0	0	0	0	0	0	0	0	28	1	0	0	0	0	0	29
0	0	0	0	0	0	0	0	32	5	1	0	0	0	1	39
0	0	0	0	0	0	0	0	26	2	0	0	0	0	4	32
0	0	0	0	0	0	0	0	33	2	0	0	0	0	0	35
0	0	0	0	0	0	0	0	119	10	1	0	0	0	5	135
0	0	0	0	0	0	0	0	30	5	0	0	0	0	2	37
0	0	0	0	0	0	2	2	34	3	0	0	0	0	1	38
0	0	0	0	0	0	0	0	36	3	0	0	0	0	1	40
0	0	0	0	0	0	0	0	38	3	0	0	0	0	4	45
0	0	0	0	0	0	2	2	138	14	0	0	0	0	8	160
0	0	0	0	0	0	1	1	45	1	0	0	0	1	4	51
0	0	0	0	0	0	5	5	23	4	0	0	0	0	4	31
0	0	0	0	0	0	1	1	33	2	0	0	0	0	6	41
0	0	0	0	0	0	0	0	21	1	1	0	0	0	5	28
0	0	0	0	0	0	7	7	122	8	1	0	0	1	19	151
0	0	0	0	0	0	4	4	26	1	0	0	0	0	2	29
0	0	0	0	0	0	0	0	21	0	0	0	0	0	2	23
0	0	0	0	0	0	1	1	29	3	0	0	0	0	2	34
0	0	0	0	0	0	1	1	22	1	0	0	0	0	9	32
0	0	0	0	0	0	6	6	98	5	0	0	0	0	15	118
0	0	0	0	0	0	26	26	1089	115	3	0	0	1	80	1288

C => A								C => B							
CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT
0	0	0	0	0	0	0	0	4	1	2	0	0	0	0	7
0	0	0	0	0	0	0	0	4	4	1	0	3	0	0	12
0	0	0	0	0	0	0	0	10	2	0	0	0	0	0	12
0	0	0	0	0	0	0	0	14	4	0	0	1	0	1	20
0	0	0	0	0	0	0	0	32	11	3	0	4	0	1	51
0	0	0	0	0	0	0	0	10	1	1	0	0	0	0	12
0	0	0	0	0	0	0	0	13	2	0	0	0	0	0	15
0	0	0	0	0	0	0	0	19	1	0	0	0	0	1	21
0	0	0	0	0	0	0	0	13	5	1	0	0	0	0	19
0	0	0	0	0	0	0	0	55	9	2	0	0	0	1	67
0	0	0	0	0	0	0	0	14	0	1	0	0	0	0	15
0	0	0	0	0	0	0	0	10	3	1	0	1	0	0	15
0	0	0	0	0	0	0	0	14	1	2	0	0	0	0	17
0	0	0	0	0	0	0	0	15	3	1	0	1	0	0	20
0	0	0	0	0	0	0	0	53	7	5	0	2	0	0	67
0	0	0	0	0	0	0	0	23	4	0	0	0	0	0	27
0	0	0	0	0	0	0	0	15	1	0	0	0	0	0	16
0	0	0	0	0	0	0	0	16	1	2	0	0	0	0	19
1	1	0	0	0	0	0	2	24	2	2	0	1	0	0	29
1	1	0	0	0	0	0	2	78	8	4	0	1	0	0	91
0	0	0	0	0	0	0	0	11	3	0	0	0	0	0	14
0	0	0	0	0	0	0	0	18	2	1	0	0	0	0	21
0	0	0	0	0	0	0	0	25	1	0	0	0	0	0	26
0	0	0	0	0	0	0	0	22	1	0	0	1	0	1	25
0	0	0	0	0	0	0	0	76	7	1	0	1	0	1	86
0	0	0	0	0	0	0	0	18	2	0	0	0	0	0	20
0	0	0	0	0	0	0	0	22	2	0	0	0	1	0	25
0	0	0	0	0	0	0	0	20	1	0	0	0	0	0	21
0	0	0	0	0	0	0	0	29	4	1	0	0	0	0	34
0	0	0	0	0	0	0	0	89	9	1	0	0	1	0	100
1	0	0	0	0	0	0	1	29	5	0	0	1	0	1	36
0	0	0	0	0	0	0	0	22	4	0	0	0	0	0	26
0	0	0	0	0	0	0	0	24	3	0	0	0	0	0	27
1	0	0	0	0	0	0	1	29	1	1	0	0	0	0	31
2	0	0	0	0	0	0	2	104	13	1	0	1	0	1	120
0	1	0	0	0	0	0	1	20	2	0	1	1	0	0	24
0	0	0	0	0	0	0	0	23	3	0	0	0	0	0	26
0	0	0	0	0	0	0	0	22	0	0	0	0	0	2	24
0	0	0	0	0	0	0	0	23	2	0	1	0	0	1	27
0	1	0	0	0	0	0	1	88	7	0	2	1	0	3	101
1	1	0	0	0	0	0	2	19	3	0	0	1	0	0	23
0	0	0	0	0	0	0	0	16	1	1	1	0	0	3	22
0	0	0	0	0	0	0	0	17	3	0	0	1	0	2	23
0	0	0	0	0	0	0	0	26	1	0	0	0	0	0	27
1	1	0	0	0	0	0	2	78	8	1	1	2	0	5	95
0	0	0	0	0	0	0	0	20	1	0	0	2	0	0	23
0	0	0	0	0	0	0	0	20	3	1	0	0	0	1	25
0	0	0	0	0	0	0	0	18	0	0	0	1	0	1	20
2	0	0	0	0	0	0	2	23	5	0	0	0	0	0	28
2	0	0	0	0	0	0	2	81	9	1	0	3	0	2	96
1	0	0	0	0	0	0	1	25	2	0	0	0	0	0	27
0	0	0	0	0	0	0	0	27	2	0	0	0	0	4	33
1	1	0	0	0	0	0	2	20	0	0	0	1	0	0	21
0	0	0	0	0	0	0	0	26	3	1	0	0	0	0	30
2	1	0	0	0	0	0	3	98	7	1	0	1	0	4	111
1	0	0	0	0	0	0	1	21	1	0	0	1	0	4	27
1	0	0	0	0	0	0	1	29	4	0	0	0	1	0	34
0	0	0	0	0	0	0	0	22	1	0	0	0	0	0	23
0	0	0	0	0	0	0	0	38	3	0	0	0	0	1	42
2	0	0	0	0	0	0	2	110	9	0	0	1	1	5	126
10	4	0	0	0	0	0	14	942	104	20	3	17	2	23	1111

C => C								C => D							
CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT
0	0	0	0	0	0	0	0	2	1	0	0	0	0	0	3
0	0	0	0	0	0	0	0	3	1	0	0	0	0	0	4
0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	4
0	0	0	0	0	0	0	0	4	1	0	0	0	0	1	6
0	0	0	0	0	0	0	0	11	3	0	0	0	0	3	17
0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	5
0	0	0	0	0	0	0	0	9	2	1	0	0	0	0	12
0	0	0	0	0	0	0	0	6	2	1	0	0	0	0	9
0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	6
0	0	0	0	0	0	0	0	26	4	2	0	0	0	0	32
0	0	0	0	0	0	0	0	8	2	0	0	0	0	0	10
0	0	0	0	0	0	0	0	5	0	0	0	0	0	1	6
0	0	0	0	0	0	0	0	9	0	0	0	0	0	2	11
0	0	0	0	0	0	0	0	8	2	0	0	0	0	0	10
0	0	0	0	0	0	0	0	30	4	0	0	0	0	3	37
0	0	0	0	0	0	0	0	4	2	0	0	0	0	0	6
0	0	0	0	0	0	0	0	4	0	0	1	0	0	0	5
0	0	0	0	0	0	0	0	11	1	1	0	0	0	0	13
0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	8
0	0	0	0	0	0	0	0	27	3	1	1	0	0	0	32
0	0	0	0	0	0	0	0	11	0	0	0	0	0	1	12
0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	10
0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	9
0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	9
0	0	0	0	0	0	0	0	39	0	0	0	0	0	1	40
0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	9
0	0	0	0	0	0	0	0	9	2	0	0	0	0	0	11
0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	8
0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	8
0	0	0	0	0	0	0	0	34	2	0	0	0	0	0	36
0	0	0	0	0	0	0	0	10	1	0	0	0	0	0	11
0	0	0	0	0	0	0	0	9	0	0	0	0	0	1	10
0	0	0	0	0	0	0	0	16	0	0	0	0	0	3	19
0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	9
0	0	0	0	0	0	0	0	44	1	0	0	0	0	4	49
0	0	0	0	0	0	0	0	11	1	0	0	0	0	0	12
0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	9
0	0	0	0	0	0	0	0	12	0	1	0	0	0	0	13
0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	9
0	0	0	0	0	0	0	0	41	1	1	0	0	0	0	43
0	0	0	0	0	0	0	0	7	1	0	0	0	0	1	9
0	0	0	0	0	0	0	0	14	1	0	0	0	0	0	15
0	0	0	0	0	0	0	0	11	0	0	0	0	0	0	11
0	0	0	0	0	0	0	0	11	1	1	0	0	0	0	13
0	0	0	0	0	0	0	0	43	3	1	0	0	0	1	48
0	0	0	0	0	0	0	0	9	1	0	0	0	0	0	10
0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	5
0	0	0	0	0	0	0	0	15	2	0	0	0	0	0	17
0	0	0	0	0	0	0	0	13	0	0	0	0	1	0	14
0	0	0	0	0	0	0	0	42	3	0	0	0	1	0	46
0	0	0	0	0	0	0	0	10	2	0	0	0	0	0	12
0	0	0	0	0	0	0	0	17	1	0	0	0	0	1	19
0	0	0	0	0	0	0	0	21	0	0	0	0	0	0	21
0	0	0	0	0	0	0	0	13	1	0	0	0	0	0	14
0	0	0	0	0	0	0	0	61	4	0	0	0	0	1	66
0	0	0	0	0	0	0	0	15	0	0	0	0	0	0	15
0	0	0	0	0	0	0	0	13	0	0	0	0	0	0	13
0	0	0	0	0	0	0	0	11	0	0	0	0	0	0	11
0	0	0	0	0	0	0	0	11	1	0	0	0	0	0	12
0	0	0	0	0	0	0	0	50	1	0	0	0	0	0	51
0	0	0	0	0	0	0	0	448	29	5	1	0	1	13	497

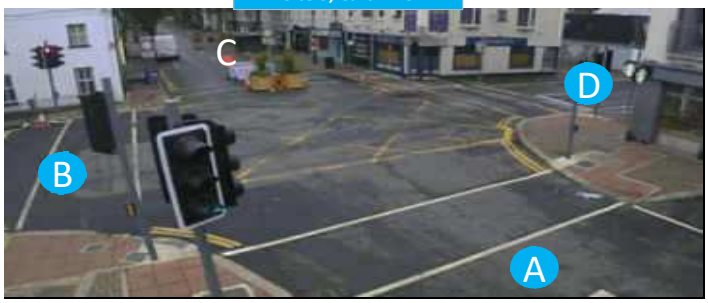
D => A								D => B							
CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT
0	0	0	0	0	0	0	0	6	1	0	0	0	0	2	9
0	0	0	0	0	0	0	0	4	2	0	0	0	0	0	6
0	0	0	0	0	0	0	0	7	3	0	0	0	0	2	12
0	0	0	0	0	0	0	0	18	5	0	0	0	0	2	25
0	0	0	0	0	0	0	0	35	11	0	0	0	0	6	52
0	0	0	0	0	0	0	0	12	2	0	0	0	0	2	16
0	0	0	0	0	0	0	0	15	2	0	0	0	0	2	19
0	0	0	0	0	0	0	0	21	3	1	0	0	0	1	26
0	0	0	0	0	0	0	0	30	2	0	0	0	0	3	35
0	0	0	0	0	0	0	0	78	9	1	0	0	0	8	96
0	0	0	0	0	0	0	0	25	1	0	0	0	0	1	27
0	0	0	0	0	0	0	0	25	4	1	0	0	0	0	30
0	0	0	0	0	0	0	0	23	2	1	0	0	0	0	26
0	1	0	0	0	0	0	1	27	4	0	0	0	0	2	33
0	1	0	0	0	0	0	1	100	11	2	0	0	0	3	116
0	0	0	0	0	0	0	0	24	7	0	0	0	0	0	31
0	0	0	0	0	0	0	0	33	4	0	0	0	0	1	38
1	0	0	0	0	0	0	1	25	0	0	1	0	0	1	27
1	0	0	0	0	0	0	1	31	3	0	0	0	0	1	35
2	0	0	0	0	0	0	2	113	14	0	1	0	0	3	131
0	0	0	0	0	0	0	0	20	1	0	0	0	0	3	24
0	0	0	0	0	0	0	0	32	2	0	0	0	0	1	35
0	0	0	0	0	0	0	0	23	5	0	0	0	0	3	31
0	0	0	0	0	0	0	0	27	0	0	0	0	0	2	29
0	0	0	0	0	0	0	0	102	8	0	0	0	0	9	119
0	0	0	0	0	0	1	1	18	1	0	0	0	0	0	19
0	0	0	0	0	0	0	0	24	4	0	0	0	0	5	33
0	0	0	0	0	0	0	0	41	4	0	0	0	0	3	48
0	0	0	0	0	0	0	0	42	6	0	0	0	0	3	51
0	0	0	0	0	0	1	1	125	15	0	0	0	0	11	151
0	0	0	0	0	0	0	0	34	3	0	0	0	0	6	43
0	0	0	0	0	0	0	0	28	3	0	0	0	0	1	32
0	0	0	0	0	0	0	0	40	2	0	0	0	0	6	48
0	0	0	0	0	0	0	0	46	2	0	0	0	0	4	52
0	0	0	0	0	0	0	0	148	10	0	0	0	0	17	175
0	0	0	0	0	0	0	0	46	3	0	0	0	0	1	50
1	0	0	0	0	0	0	1	38	5	0	0	0	0	0	43
0	0	0	0	0	0	0	0	41	4	0	0	0	0	3	48
0	0	0	0	0	0	0	0	36	3	0	0	0	0	2	41
1	0	0	0	0	0	0	1	161	15	0	0	0	0	6	182
0	0	0	0	0	0	0	0	34	1	0	0	0	0	1	36
1	0	0	0	0	0	0	1	32	2	1	0	0	0	3	38
0	0	0	0	0	0	0	0	37	2	0	0	0	0	1	40
0	0	0	0	0	0	0	0	34	6	0	0	0	0	2	42
1	0	0	0	0	0	0	1	137	11	1	0	0	0	7	156
0	0	0	0	0	0	0	0	38	3	0	0	0	0	2	43
1	0	0	0	0	0	0	1	33	6	0	0	0	0	5	44
0	0	0	0	0	0	0	0	36	2	0	0	0	1	4	43
0	0	0	0	0	0	0	0	44	2	0	0	0	0	5	51
1	0	0	0	0	0	0	1	151	13	0	0	0	1	16	181
0	0	0	0	0	0	0	0	35	1	0	0	0	0	4	40
0	0	0	0	0	0	0	0	56	4	0	0	0	0	3	63
0	0	0	0	0	0	0	0	48	2	0	0	0	0	2	52
0	0	0	0	0	0	0	0	53	3	0	0	0	0	4	60
0	0	0	0	0	0	0	0	192	10	0	0	0	0	13	215
0	0	0	0	0	0	0	0	49	1	0	0	0	0	2	52
0	0	0	0	0	0	0	0	50	1	0	0	0	0	5	56
0	0	0	0	0	0	0	0	50	1	0	0	0	0	9	60
0	0	0	0	0	0	0	0	34	0	1	0	0	0	13	48
0	0	0	0	0	0	0	0	183	3	1	0	0	0	29	216
5	1	0	0	0	0	1	7	1525	130	5	1	0	1	128	1790

D => C								D => D							
CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0
0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	3	6	0	0	0	0	0	0	0	0

Survey Name :	ITS J-410 Malahide
Site:	3
Date:	15.07.20
Time:	07:00-19:00
Location:	53.451441, -6.153758
Classification:	Car, LGV, OGV1, OGV2, PSV, P/C, M/C

Irish Traffic Surveys

Site 3, Card A10

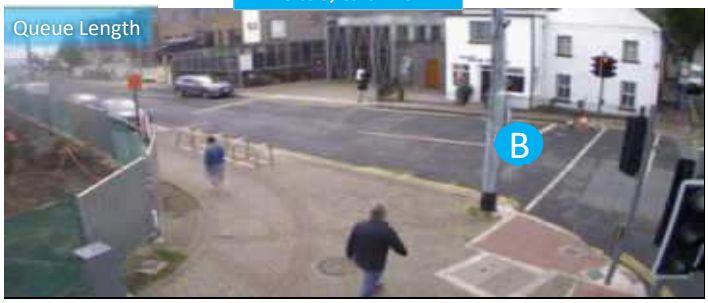


Mapping Image

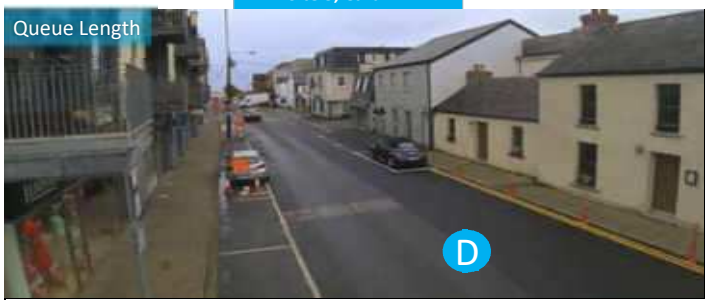


Survey duration:	12h
Time Period:	07:00-19:00
Junction Type:	4 Arm Junction
Reporting Interval:	15min
Classification scheme:	Car, LGV, OGV1, OGV2, PSV, P/C, M/C
Queues Required:	Yes
Pedestrian required:	No

Site 3, Card T16



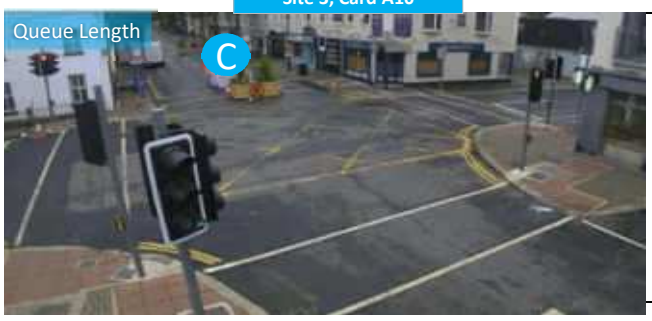
Site 3, Card A7



Site 3, Card T7



Site 3, Card A10



Survey Name :	ITS J-410 Malahide
Site:	3
Date:	15.07.2020
Time:	07:00-19:00
Location:	53.451441, -6.153758
Classification:	Car, LGV, OGV1, OGV2, PSV, P/C, M/C

Irish Traffic Surveys



	A => A								A => B							
TIME	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT
07:00	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	6
07:15	0	0	0	0	0	0	0	0	4	1	0	0	0	0	0	5
07:30	0	0	0	0	0	0	0	0	9	1	0	0	0	0	0	10
07:45	0	0	0	0	0	0	0	0	9	1	0	0	0	1	0	11
H/TOT	0	0	0	0	0	0	0	0	28	3	0	0	0	1	0	32
08:00	0	0	0	0	0	0	0	0	14	1	1	0	0	1	0	17
08:15	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	8
08:30	0	0	0	0	0	0	0	0	17	1	0	0	0	0	0	18
08:45	0	0	0	0	0	0	0	0	15	1	0	0	0	0	0	16
H/TOT	0	0	0	0	0	0	0	0	54	3	1	0	0	1	0	59
09:00	0	0	0	0	0	0	0	0	8	4	1	0	0	0	0	13
09:15	0	0	0	0	0	0	0	0	10	2	2	0	0	0	0	14
09:30	0	0	0	0	0	0	0	0	14	0	0	0	0	0	0	14
09:45	0	0	0	0	0	0	0	0	13	0	0	0	0	0	0	13
H/TOT	0	0	0	0	0	0	0	0	45	6	3	0	0	0	0	54
10:00	0	0	0	0	0	0	0	0	8	3	0	0	0	0	0	11
10:15	0	0	0	0	0	0	0	0	13	2	0	0	0	0	1	16
10:30	0	0	0	0	0	0	0	0	9	1	0	0	0	0	0	10
10:45	0	0	0	0	0	0	0	0	14	1	0	0	0	0	0	15
H/TOT	0	0	0	0	0	0	0	0	44	7	0	0	0	0	1	52
11:00	0	0	0	0	0	0	0	0	13	1	0	0	0	0	0	14
11:15	0	0	0	0	0	0	0	0	7	2	0	0	0	0	0	9
11:30	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	10
11:45	0	0	0	0	0	0	0	0	12	3	0	0	0	0	0	15
H/TOT	0	0	0	0	0	0	0	0	42	6	0	0	0	0	0	48
12:00	0	0	0	0	0	0	0	0	15	0	0	0	0	0	0	15
12:15	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	6
12:30	0	1	0	0	0	0	0	1	8	1	0	0	0	0	0	9
12:45	0	0	0	0	0	0	0	0	17	1	0	0	0	0	2	20
H/TOT	0	1	0	0	0	0	0	1	46	2	0	0	0	0	2	50
13:00	0	0	0	0	0	0	0	0	16	1	0	0	0	0	0	17
13:15	0	0	0	0	0	0	0	0	14	3	0	0	0	0	0	17
13:30	0	0	0	0	0	0	0	0	14	1	0	0	0	0	4	19
13:45	0	0	0	0	0	0	0	0	14	2	0	0	0	0	4	20
H/TOT	0	0	0	0	0	0	0	0	58	7	0	0	0	0	8	73
14:00	0	0	0	0	0	0	0	0	19	2	0	0	0	0	0	21
14:15	0	0	0	0	0	0	0	0	13	2	0	0	0	0	2	17
14:30	0	0	0	0	0	0	0	0	20	2	0	0	0	0	0	22
14:45	0	0	0	0	0	0	1	1	12	0	0	0	0	0	1	13
H/TOT	0	0	0	0	0	0	1	1	64	6	0	0	0	0	3	73
15:00	0	0	0	0	0	0	0	0	11	2	1	0	0	0	0	14
15:15	0	0	0	0	0	0	0	0	16	1	0	0	0	0	1	18
15:30	0	0	0	0	0	0	0	0	9	1	1	0	0	0	2	13
15:45	0	0	0	0	0	0	0	0	8	1	0	0	0	0	0	9
H/TOT	0	0	0	0	0	0	0	0	44	5	2	0	0	0	3	54
16:00	0	0	0	0	0	0	0	0	18	3	0	0	0	0	0	21
16:15	0	0	0	0	0	0	0	0	18	1	0	0	0	0	2	21
16:30	1	0	0	0	0	0	0	1	19	2	0	0	0	0	0	21
16:45	0	0	0	0	0	0	0	0	16	1	0	0	0	1	9	27
H/TOT	1	0	0	0	0	0	0	1	71	7	0	0	0	1	11	90
17:00	0	0	0	0	0	0	0	0	20	2	0	0	0	0	0	22
17:15	0	0	0	0	0	0	0	0	10	0	0	0	0	1	5	16
17:30	0	0	0	0	0	0	0	0	20	1	0	0	0	0	0	21
17:45	0	0	0	0	0	0	0	0	15	1	0	0	0	0	2	18
H/TOT	0	0	0	0	0	0	0	0	65	4	0	0	0	1	7	77
18:00	0	0	0	0	0	0	0	0	12	2	0	0	0	0	0	14
18:15	0	0	0	0	0	0	0	0	20	1	0	0	0	0	0	21
18:30	0	0	0	0	0	0	0	0	20	1	0	0	0	0	2	23
18:45	0	0	0	0	0	0	0	0	26	2	0	0	0	0	1	29
H/TOT	0	0	0	0	0	0	0	0	78	6	0	0	0	0	3	87
12 TOT	1	1	0	0	0	0	1	3	639	62	6	0	0	4	38	749



A => C								A => D							
CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	4
0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	3
0	0	0	0	0	0	0	0	3	1	0	0	0	0	0	4
0	0	0	0	0	0	0	0	10	1	0	0	0	0	0	11
0	0	0	0	0	0	1	1	5	0	0	0	0	0	2	7
1	0	0	0	0	0	0	1	10	2	0	0	0	0	0	12
0	0	0	0	0	0	0	0	5	2	0	0	0	0	0	7
0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	6
1	0	0	0	0	0	1	2	26	4	0	0	0	0	2	32
0	1	0	0	0	0	1	2	4	0	0	0	0	0	0	4
0	0	0	0	0	0	0	0	5	1	0	0	0	0	0	6
0	0	0	0	0	0	0	0	4	2	1	0	0	0	0	7
0	0	0	0	0	0	0	0	3	1	0	0	0	0	0	4
0	1	0	0	0	0	1	2	16	4	1	0	0	0	0	21
0	0	0	0	0	0	0	0	3	1	0	0	0	0	0	4
0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	4
0	0	0	0	0	0	0	0	5	3	0	0	0	0	0	8
0	0	0	0	0	0	0	0	15	0	0	0	0	0	0	15
0	0	0	0	0	0	0	0	27	4	0	0	0	0	0	31
0	0	0	0	0	0	1	1	12	0	0	0	0	0	0	12
0	0	0	0	0	0	0	0	7	0	0	0	0	0	0	7
0	0	0	0	0	0	0	0	10	1	0	0	0	0	1	12
0	0	0	0	0	0	0	0	8	1	0	0	0	0	0	9
0	0	0	0	0	0	1	1	37	2	0	0	0	0	1	40
0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	9
0	0	0	0	0	0	0	0	13	1	0	0	0	0	0	14
0	0	0	0	0	0	0	0	9	5	1	0	0	0	0	15
0	0	0	0	0	0	0	0	8	1	0	0	0	0	0	9
0	0	0	0	0	0	0	0	39	7	1	0	0	0	0	47
0	0	0	0	0	0	0	0	11	3	0	0	0	0	0	14
0	0	0	0	0	0	0	0	11	1	0	0	0	0	1	13
0	0	0	0	0	0	0	0	7	1	0	0	0	0	4	12
0	0	0	0	0	0	3	3	8	2	0	0	0	0	0	10
0	0	0	0	0	0	3	3	37	7	0	0	0	0	5	49
0	0	0	0	0	0	0	0	11	1	0	0	0	0	0	12
0	0	0	0	0	0	0	0	5	0	0	0	0	0	1	6
0	0	0	0	0	0	0	0	5	1	0	0	0	0	0	6
0	0	0	0	0	0	2	2	6	0	0	0	0	0	2	8
0	0	0	0	0	0	2	2	27	2	0	0	0	0	3	32
0	0	0	0	0	0	1	1	9	0	0	0	0	0	1	10
0	0	0	0	0	0	1	1	15	2	0	0	0	0	0	17
0	0	0	0	0	0	0	0	8	2	0	0	0	0	0	10
0	0	0	0	0	0	1	1	12	0	0	0	0	0	0	12
0	0	0	0	0	0	3	3	44	4	0	0	0	0	1	49
0	0	0	0	0	0	0	0	11	1	0	0	0	0	1	13
0	0	0	0	0	0	0	0	11	3	0	0	0	0	0	14
0	0	0	0	0	0	1	1	13	2	0	0	0	0	2	17
0	0	0	0	0	0	1	1	16	1	0	0	0	0	1	18
0	0	0	0	0	0	2	2	51	7	0	0	0	0	4	62
0	0	0	0	0	0	2	2	16	0	0	0	0	0	3	19
0	0	0	0	0	0	0	0	6	1	0	0	0	0	2	9
0	0	0	0	0	0	1	1	14	0	0	0	0	0	4	18
0	0	0	0	0	0	0	0	10	1	0	0	0	0	3	14
0	0	0	0	0	0	3	3	46	2	0	0	0	0	12	60
0	0	0	0	0	0	0	0	8	0	0	0	0	0	3	11
0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	8
0	0	0	0	0	0	1	1	6	2	0	0	0	0	3	11
0	0	0	0	0	0	2	2	14	0	0	0	0	0	5	19
0	0	0	0	0	0	3	3	36	2	0	0	0	0	11	49
1	1	0	0	0	0	19	21	396	46	2	0	0	0	39	483

B => A								B => B							
CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT
2	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	1	0	7	0	0	0	0	0	0	0	0
5	0	1	0	0	0	0	6	0	0	0	0	0	0	0	0
13	0	1	0	0	1	0	15	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0
6	1	0	0	0	1	0	8	0	0	0	0	0	0	0	0
5	2	0	0	0	0	0	7	0	0	0	0	0	0	0	0
3	3	0	0	0	0	0	6	0	0	0	0	0	0	0	0
18	6	0	0	0	1	0	25	0	0	0	0	0	0	0	0
9	1	2	0	0	0	0	12	0	0	0	0	0	0	0	0
3	0	0	0	0	1	0	4	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0
2	2	0	0	0	0	0	4	0	0	0	0	0	0	0	0
19	3	2	0	0	1	0	25	0	0	0	0	0	0	0	0
1	1	0	0	0	0	0	2	0	0	0	0	0	0	0	0
4	3	0	0	0	0	1	8	1	0	0	0	0	0	0	1
4	2	0	0	0	0	0	6	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	11	0	0	0	0	0	0	0	0
20	6	0	0	0	0	1	27	1	0	0	0	0	0	0	1
2	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0
10	1	0	0	0	0	0	11	0	0	0	0	0	0	0	0
3	1	0	0	0	0	0	4	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0
24	2	0	0	0	0	0	26	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	5	1	0	0	0	0	0	0	1
2	0	0	0	0	0	0	2	1	0	0	0	0	0	0	1
9	2	0	0	0	0	0	11	0	0	0	0	0	0	0	0
12	1	0	0	0	0	0	13	0	0	0	0	0	0	0	0
28	3	0	0	0	0	0	31	2	0	0	0	0	0	0	2
10	1	0	0	0	1	0	12	0	0	0	0	0	0	0	0
17	1	0	0	0	0	0	18	1	0	0	0	0	0	0	1
14	3	0	0	0	0	0	17	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	11	0	0	0	0	0	0	0	0
52	5	0	0	0	1	0	58	1	0	0	0	0	0	0	1
9	0	0	0	0	0	2	11	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0
11	1	0	0	0	0	0	12	0	0	0	0	0	0	0	0
5	1	0	0	0	0	0	6	0	0	0	0	0	0	0	0
32	2	0	0	0	0	2	36	0	0	0	0	0	0	0	0
5	1	0	0	0	0	0	6	0	0	0	0	0	0	0	0
8	1	0	0	0	0	0	9	0	0	0	0	0	0	0	0
11	2	0	0	0	0	0	13	0	0	0	0	0	0	0	0
2	1	0	0	0	0	0	3	0	0	0	0	0	0	0	0
26	5	0	0	0	0	0	31	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	12	0	0	0	0	0	0	0	0
12	0	0	0	0	0	2	14	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0
10	0	0	0	0	0	2	12	0	1	0	0	0	0	0	1
38	0	0	0	0	0	4	42	0	1	0	0	0	0	0	1
10	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0
6	0	0	0	0	0	4	10	0	0	0	0	0	0	0	0
9	1	0	0	0	0	0	10	0	0	0	0	0	0	0	0
11	0	0	0	0	0	2	13	0	0	0	0	0	0	0	0
36	1	0	0	0	0	6	43	0	0	0	0	0	0	0	0
10	0	0	0	0	0	1	11	0	0	0	0	0	0	0	0
9	1	0	0	0	0	0	10	0	0	0	0	0	0	0	0
13	0	0	0	0	0	4	17	0	0	0	0	0	0	0	0
13	0	0	0	0	0	3	16	0	0	0	0	0	0	0	0
45	1	0	0	0	0	8	54	0	0	0	0	0	0	0	0
351	34	3	0	0	4	21	413	4	1	0	0	0	0	0	5

B => C								B => D							
CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT
0	0	1	0	0	0	0	1	0	0	0	0	0	0	2	2
0	0	1	0	0	0	0	1	2	2	0	0	0	0	0	4
0	0	0	0	0	0	0	0	2	1	0	0	0	0	2	5
0	1	0	0	0	0	0	1	5	1	0	0	0	0	0	6
0	1	2	0	0	0	0	3	9	4	0	0	0	0	4	17
0	0	0	0	0	0	0	0	4	1	0	0	0	0	0	5
1	0	0	0	0	0	0	1	5	3	0	0	0	0	0	8
0	0	0	0	0	0	0	0	6	1	0	0	0	0	0	7
0	0	0	0	0	0	0	0	2	3	0	0	0	0	0	5
1	0	0	0	0	0	0	1	17	8	0	0	0	0	0	25
0	1	0	0	0	0	1	2	6	1	0	0	0	0	1	8
0	1	1	0	0	0	0	2	12	3	0	0	0	0	1	16
0	0	1	0	0	0	0	1	7	0	0	0	0	0	2	9
1	0	0	0	0	0	0	1	9	1	0	0	0	0	0	10
1	2	2	0	0	0	1	6	34	5	0	0	0	0	4	43
0	1	0	0	0	0	0	1	11	5	0	0	0	0	0	16
0	1	0	0	0	0	0	1	10	0	0	0	0	0	2	12
0	0	0	0	0	0	0	0	21	0	0	0	0	0	0	21
0	0	0	0	0	0	0	0	15	2	0	0	0	0	1	18
0	2	0	0	0	0	0	2	57	7	0	0	0	0	3	67
0	0	0	0	0	0	0	0	14	1	0	0	0	0	2	17
0	0	0	0	0	0	0	0	16	0	0	0	0	0	1	17
0	0	0	0	0	0	0	0	19	2	0	0	0	0	0	21
1	0	0	0	0	0	0	1	8	3	0	0	0	0	0	11
1	0	0	0	0	0	0	1	57	6	0	0	0	0	3	66
0	0	0	0	0	0	0	0	14	1	0	0	0	0	3	18
0	0	0	0	0	0	0	0	20	3	0	0	0	0	2	25
0	0	0	0	0	0	0	0	24	4	0	0	0	0	0	28
0	0	0	0	0	0	0	0	23	1	0	0	0	0	2	26
0	0	0	0	0	0	0	0	81	9	0	0	0	0	7	97
0	0	0	0	0	0	0	0	19	4	0	0	0	0	1	24
1	0	0	0	0	0	0	1	15	2	0	0	0	0	1	18
0	0	0	0	0	0	2	2	20	1	0	0	0	0	1	22
0	0	0	0	0	0	0	0	14	0	0	0	0	0	2	16
1	0	0	0	0	0	2	3	68	7	0	0	0	0	5	80
1	0	0	0	0	0	0	1	21	2	0	0	0	0	0	23
1	0	0	0	0	0	0	1	14	3	0	0	0	0	1	18
1	0	0	0	0	0	0	1	16	1	0	0	0	0	0	17
0	1	0	0	0	0	0	1	12	1	0	0	0	0	1	14
3	1	0	0	0	0	0	4	63	7	0	0	0	0	2	72
0	0	0	0	0	0	0	0	18	2	0	0	0	0	0	20
0	0	0	0	0	0	2	2	18	5	1	0	0	0	2	26
0	0	0	0	0	0	0	0	22	0	0	0	0	0	2	24
0	0	0	0	0	0	2	2	23	2	0	0	0	0	0	25
0	0	0	0	0	0	4	4	81	9	1	0	0	0	4	95
0	0	0	0	0	0	0	0	18	3	0	0	0	0	1	22
0	0	0	0	0	0	0	0	19	0	0	0	0	0	1	20
0	0	0	0	0	0	0	0	21	1	0	0	0	0	2	24
1	0	0	0	0	0	0	1	20	2	0	0	0	0	1	23
1	0	0	0	0	0	0	1	78	6	0	0	0	0	5	89
0	0	0	0	0	0	0	0	29	1	0	0	0	1	2	33
0	0	0	0	0	0	0	0	14	3	0	0	0	0	1	18
0	0	0	0	0	0	0	0	13	1	0	0	0	0	5	19
0	0	0	0	0	0	0	0	11	0	1	0	0	0	2	14
0	0	0	0	0	0	0	0	67	5	1	0	0	1	10	84
0	0	0	0	0	0	0	0	15	1	0	0	0	0	2	18
1	0	0	0	0	0	0	1	10	0	0	0	0	0	2	12
0	0	0	0	0	0	0	0	21	2	0	0	0	0	0	23
0	0	0	0	0	0	0	0	7	1	0	0	0	1	2	11
1	0	0	0	0	0	0	1	53	4	0	0	0	1	6	64
9	6	4	0	0	0	7	26	665	77	2	0	0	2	53	799

C => A								C => B							
CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT
0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	3
0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	2
0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
0	0	0	0	0	0	1	1	3	1	1	0	0	0	1	6
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
0	0	0	0	0	0	0	0	1	2	0	0	0	0	0	3
0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	1	0	0	0	0	0	1	1	0	1	0	0	0	0	2
0	0	0	0	0	0	0	0	0	4	1	0	0	0	0	5
0	1	0	0	0	0	1	2	1	4	2	0	0	0	0	7
0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2
0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
0	0	0	0	0	0	0	0	2	3	0	0	0	0	1	6
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	1	0	0	0	0	0	2	3
0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0
0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
0	0	0	0	0	0	3	3	1	0	0	0	0	0	2	3
0	0	0	0	0	0	2	2	0	0	0	0	0	0	2	2
0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
0	0	0	0	0	0	5	5	0	0	0	0	0	0	0	0
0	0	0	0	0	0	8	8	0	0	0	0	0	0	4	4
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
0	0	0	0	0	0	5	5	1	0	0	0	0	0	0	1
0	0	0	0	0	0	1	1	0	0	0	0	0	0	1	1
0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
0	0	0	0	0	0	8	8	1	0	0	0	0	0	1	2
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
0	0	0	0	0	0	7	7	1	0	0	0	0	0	3	4
0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
0	0	0	0	0	0	8	8	2	0	0	0	0	0	3	5
0	0	0	0	0	0	2	2	1	0	0	0	0	0	0	1
0	0	0	0	0	0	1	1	0	0	0	0	0	0	1	1
0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
0	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0
0	0	0	0	0	0	6	6	1	0	0	0	0	0	2	3
0	1	0	0	0	0	1	2	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	2
0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
0	1	0	0	0	0	1	2	1	0	0	0	0	0	3	4
0	2	0	0	0	0	36	38	13	10	3	0	0	0	18	44

C => C								C => D							
CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	2
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0	2	0	0	0	0	0	1	3
0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	2
0	0	0	0	0	0	0	0	2	1	0	0	0	0	0	3
0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
0	0	0	0	0	0	0	0	3	1	0	0	0	0	4	8
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
0	0	0	0	0	0	1	1	10	2	0	0	0	0	15	27

D => A								D => B							
CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT
5	1	0	0	0	0	0	6	6	1	1	0	0	0	2	10
3	3	1	0	0	0	0	7	5	2	0	0	3	0	0	10
3	3	0	0	0	0	0	6	10	3	0	0	0	0	2	15
17	5	0	0	0	0	1	23	15	3	0	0	1	0	2	21
28	12	1	0	0	0	1	42	36	9	1	0	4	0	6	56
10	1	0	0	0	0	0	11	11	3	0	0	0	0	2	16
13	2	0	0	0	0	0	15	16	2	1	0	0	0	2	21
12	1	0	0	0	0	1	14	26	1	1	0	1	0	0	29
12	3	0	0	0	0	0	15	30	7	1	0	0	0	4	42
47	7	0	0	0	0	1	55	83	13	3	0	1	0	8	108
8	1	0	0	0	0	0	9	22	1	0	0	0	0	1	24
12	2	1	0	0	0	0	15	21	5	1	0	1	0	0	28
14	0	0	0	0	0	0	14	20	1	1	0	0	0	0	22
8	2	0	0	0	0	0	10	31	5	1	0	1	0	2	40
42	5	1	0	0	0	0	48	94	12	3	0	2	0	3	114
17	2	0	0	0	0	0	19	29	8	0	0	0	0	0	37
11	1	0	0	0	0	1	13	33	4	1	0	0	0	1	39
10	1	0	0	0	0	0	11	32	1	2	1	0	0	2	38
14	0	0	0	0	0	0	14	41	4	2	0	1	0	1	49
52	4	0	0	0	0	1	57	135	17	5	1	1	0	4	163
13	0	0	0	0	0	0	13	26	2	0	0	0	0	1	29
9	1	0	0	0	0	0	10	34	4	1	0	0	0	2	41
11	1	0	0	0	0	0	12	38	4	0	0	0	0	3	45
23	1	0	0	0	0	1	25	28	2	0	0	1	0	1	32
56	3	0	0	0	0	1	60	126	12	1	0	1	0	7	147
9	2	0	0	0	0	0	11	32	1	0	0	0	0	0	33
11	4	0	0	0	0	0	15	33	2	0	0	0	1	3	39
13	1	0	0	0	0	0	14	44	4	0	0	0	0	0	48
18	1	0	0	0	0	1	20	50	7	1	0	0	0	1	59
51	8	0	0	0	0	1	60	159	14	1	0	0	1	4	179
21	6	0	0	0	0	2	29	36	3	0	0	1	0	1	41
17	3	0	0	0	0	1	21	42	4	0	0	0	0	0	46
13	1	0	0	0	0	0	14	43	4	0	0	0	0	6	53
28	1	0	0	0	0	0	29	38	3	0	0	0	0	4	45
79	11	0	0	0	0	3	93	159	14	0	0	1	0	11	185
18	1	0	0	0	0	0	19	51	5	0	1	1	0	0	58
14	1	0	0	0	0	0	15	49	5	0	0	0	0	0	54
23	1	0	0	0	0	3	27	34	3	0	0	0	0	0	37
19	0	0	0	0	0	1	20	50	5	0	1	0	0	3	59
74	3	0	0	0	0	4	81	184	18	0	2	1	0	3	208
10	0	0	0	0	0	0	10	42	3	0	0	1	0	1	47
11	1	1	0	0	0	2	15	35	4	0	0	0	0	1	40
11	2	0	0	0	0	0	13	40	4	0	1	1	0	3	49
21	1	0	0	0	0	0	22	43	5	0	0	0	0	5	53
53	4	1	0	0	0	2	60	160	16	0	1	2	0	10	189
19	0	0	0	0	0	0	19	38	5	0	0	2	0	0	45
13	3	0	0	0	0	1	17	38	5	0	0	0	0	2	45
9	1	0	0	0	0	0	10	49	3	0	0	1	1	4	58
22	2	0	0	0	0	0	24	45	3	0	0	0	0	4	52
63	6	0	0	0	0	1	70	170	16	0	0	3	1	10	200
19	0	0	0	0	0	1	20	35	3	0	0	0	0	3	41
23	2	0	0	0	0	0	25	49	4	0	0	0	0	1	54
17	1	0	0	0	0	5	23	53	1	0	0	1	0	4	59
15	3	0	0	0	0	3	21	59	5	0	0	0	0	1	65
74	6	0	0	0	0	9	89	196	13	0	0	1	0	9	219
27	2	0	0	0	0	4	33	40	0	0	0	1	0	1	42
25	3	0	0	0	1	0	29	62	1	0	0	0	0	5	68
13	1	0	0	0	0	5	19	49	2	0	0	0	0	2	53
27	0	0	0	0	0	0	27	51	2	0	0	0	0	8	61
92	6	0	0	0	1	9	108	202	5	0	0	1	0	16	224
711	75	3	0	0	1	33	823	1704	159	14	4	18	2	91	1992

D => C								D => D							
CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT
0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	2	0	0	0	0	0	3	0	0	0	0	0	0	0	0
1	2	0	1	0	0	0	4	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0
2	1	0	0	0	0	0	3	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0
1	1	0	1	0	0	0	3	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	1	0	1	0	0	0	6	0	0	0	0	0	0	0	0
1	1	0	0	0	0	0	2	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	1	0	0	0	0	0	3	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0
0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	1	0	0	0	0	1	2	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0
0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	4	4	0	0	0	0	0	0	0	0
0	0	0	0	0	0	4	4	0	0	0	0	0	0	0	0
1	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0
1	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0
0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
2	0	0	0	0	0	7	9	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	1	0	0	0	0	0	2	0	0	0	0	0	0	0	0
1	1	0	0	0	0	2	4	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
0	0	0	0	0	0	4	4	0	0	0	0	0	0	0	0
1	0	0	0	0	0	5	6	0	0	0	0	0	0	0	0
16	7	0	2	0	0	20	45	0	0	0	0	0	0	0	0

Survey Name :	ITS J-410 Malahide
Site:	4
Date:	15.07.2020
Time:	07:00-19:00
Location:	53.451441, -6.153758
Classification:	Car, LGV, OGV1, OGV2, PSV, P/C, M/C

Irish Traffic Surveys

Site 4, Card T13



Mapping Image

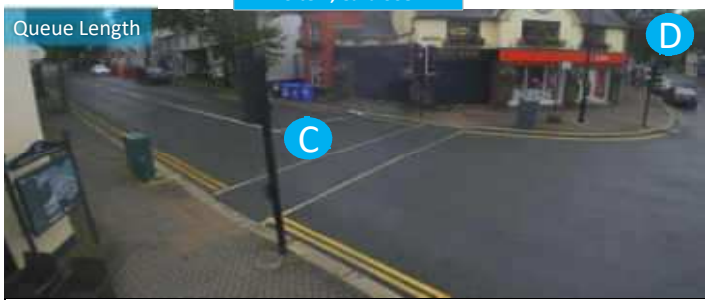


Survey duration:	12h
Time Period:	07:00-19:00
Junction Type:	4 Arm Junction
Reporting Interval:	15min
Classification scheme:	Car, LGV, OGV1, OGV2, PSV, P/C, M/C
Queues Required:	Yes
Pedestrian required:	No

Site 4, Card T13



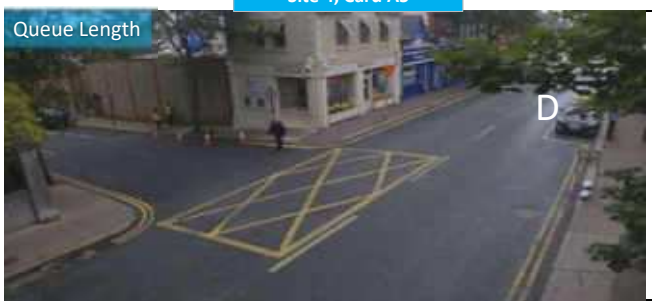
Site 4, Card S08



Site 4, Card A8



Site 4, Card A5



Survey Name :	ITS J-410 Malahide
Site:	4
Date:	15.07.2020
Time:	07:00-19:00
Location:	53.451441, -6.153758
Classification:	Car, LGV, OGV1, OGV2, PSV, P/C, M/C

Irish Traffic Surveys



	A => A								A => B							
TIME	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT
07:00	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
07:15	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
07:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	2
08:00	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
08:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
H/TOT	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
11:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:15	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
14:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
14:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	2
15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
H/TOT	0	0	0	0	0	0	1	1	0	1	0	0	0	0	0	1
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
18:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	2
12 TOT	0	0	0	0	0	0	1	1	2	4	1	0	0	0	8	15



A => C								A => D							
CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3
0	0	1	0	0	0	0	1	0	3	0	0	0	0	0	3
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	2
0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	1	0	0	0	0	0	1	0	2	0	0	0	0	1	3
1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	2
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	1	0	1	1	0	0	0	0	2
0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	2	2	0	0	0	0	0	0	1	1
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	2	2	0	0	0	0	0	0	1	1
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	4	4	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	4	4	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	1	1	0	0	0	0	0	0	1	1
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	1	1	0	0	0	0	0	0	3	3
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
1	2	1	0	0	0	12	16	0	6	1	0	0	0	5	12

B => A								B => B							
CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0
0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
0	0	1	0	0	0	1	2	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
0	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0
0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	5	5	0	0	0	0	0	0	0	0
0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0
0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
0	1	0	0	0	0	3	4	0	0	0	0	0	0	0	0
0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
0	0	0	0	0	0	6	6	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	7	7	0	0	0	0	0	0	0	0
0	2	1	0	0	0	24	27	0	0	0	0	0	0	0	0

B => C								B => D							
CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT
4	1	1	0	0	0	0	6	33	2	0	0	1	0	1	37
0	0	0	0	0	0	0	0	31	4	1	0	3	0	1	40
5	0	0	0	0	0	0	5	41	5	1	1	1	0	4	53
5	0	0	0	0	0	0	5	40	4	1	0	1	1	2	49
14	1	1	0	0	0	0	16	145	15	3	1	6	1	8	179
13	2	0	0	0	0	0	15	55	2	0	0	1	0	9	67
8	0	0	0	0	0	0	8	59	7	3	0	0	0	5	74
12	0	1	0	0	0	0	13	77	8	3	1	2	0	1	92
20	1	0	0	0	0	1	22	60	2	0	1	0	0	2	65
53	3	1	0	0	0	1	58	251	19	6	2	3	0	17	298
10	1	0	0	0	0	0	11	61	11	3	0	1	0	0	76
9	0	0	0	0	0	0	9	57	7	3	2	2	0	0	71
6	0	1	0	0	0	2	9	57	7	3	0	0	0	0	67
14	4	1	0	0	0	1	20	61	10	0	1	2	0	2	76
39	5	2	0	0	0	3	49	236	35	9	3	5	0	2	290
13	3	0	0	0	0	0	16	71	9	5	0	1	0	0	86
13	0	0	0	0	0	0	13	64	6	3	0	0	0	1	74
17	2	0	0	0	0	0	19	81	10	2	1	1	1	0	96
12	1	1	0	0	0	0	14	88	9	1	0	1	1	2	102
55	6	1	0	0	0	0	62	304	34	11	1	3	2	3	358
14	1	0	0	0	0	0	15	82	12	2	2	1	0	1	100
15	0	0	0	0	0	1	16	70	10	4	0	0	0	0	84
17	1	0	0	0	0	0	18	76	12	0	0	1	1	1	91
14	3	0	0	0	0	0	17	84	4	4	0	1	1	4	98
60	5	0	0	0	0	1	66	312	38	10	2	3	2	6	373
18	2	0	0	0	1	0	21	95	5	2	0	1	0	5	108
15	2	0	0	0	0	0	17	89	8	1	1	0	0	3	102
8	0	0	0	0	0	0	8	67	13	1	1	1	4	2	89
19	2	0	0	0	0	1	22	76	8	3	1	0	0	2	90
60	6	0	0	0	1	1	68	327	34	7	3	2	4	12	389
18	2	0	0	0	0	0	20	78	8	2	1	2	0	2	93
13	2	0	0	0	0	0	15	78	8	1	0	0	0	6	93
10	2	0	0	0	0	0	12	98	6	4	1	1	0	2	112
16	1	0	0	0	0	1	18	77	13	0	1	0	0	5	96
57	7	0	0	0	0	1	65	331	35	7	3	3	0	15	394
22	0	0	0	1	0	2	25	83	11	0	0	2	1	3	100
21	5	0	0	0	0	0	26	71	7	0	1	0	0	1	80
15	2	0	0	0	0	1	18	81	14	2	1	1	0	1	100
13	1	0	0	0	0	0	14	83	6	4	2	0	0	3	98
71	8	0	0	1	0	3	83	318	38	6	4	3	1	8	378
13	2	0	0	0	0	0	15	81	7	2	2	3	1	5	101
16	4	0	0	0	0	2	22	79	12	3	0	0	2	3	99
13	1	0	0	0	0	0	14	88	12	3	1	2	0	0	106
18	1	0	0	0	0	0	19	98	12	0	1	0	1	1	113
60	8	0	0	0	0	2	70	346	43	8	4	5	4	9	419
13	0	0	0	0	0	0	13	83	12	1	0	3	0	2	101
6	1	0	0	0	0	0	7	81	8	1	0	0	0	4	94
12	1	0	0	0	0	0	13	89	9	1	0	2	0	3	104
8	1	0	0	0	0	0	9	93	12	0	0	0	1	3	109
39	3	0	0	0	0	0	42	346	41	3	0	5	1	12	408
12	0	0	0	1	0	1	14	90	14	0	0	1	0	3	108
19	3	0	0	0	1	2	25	67	6	0	0	0	0	6	79
12	0	0	0	0	0	0	12	92	9	0	0	2	0	2	105
15	1	0	0	0	0	0	16	85	6	1	0	0	0	7	99
58	4	0	0	1	1	3	67	334	35	1	0	3	0	18	391
19	1	0	0	0	0	0	20	80	8	0	0	2	0	1	91
12	1	0	0	0	0	0	13	73	5	0	0	1	1	7	87
18	1	0	0	0	1	0	20	92	6	1	0	1	0	6	106
16	1	0	0	0	1	1	19	89	3	1	0	2	0	1	96
65	4	0	0	0	2	1	72	334	22	2	0	6	1	15	380
631	60	5	0	2	4	16	718	3584	389	73	23	47	16	125	4257

C => A								C => B							
CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT
0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	2
0	0	0	0	0	0	0	0	2	1	0	0	0	0	0	3
1	0	0	0	0	0	0	1	4	1	0	0	0	0	0	5
0	0	0	0	0	0	0	0	10	1	0	0	0	0	0	11
1	0	0	0	0	0	0	1	17	3	1	0	0	0	0	21
0	0	0	0	0	0	0	0	9	0	1	0	0	0	0	10
0	0	0	0	0	0	0	0	11	0	0	0	0	1	1	13
0	0	0	0	0	0	0	0	10	1	0	0	0	0	0	11
0	0	0	0	0	0	0	0	18	1	0	0	0	0	0	19
0	0	0	0	0	0	0	0	48	2	1	0	0	1	1	53
0	0	0	0	0	0	0	0	9	0	0	0	0	0	1	10
0	0	0	0	0	0	0	0	9	2	1	0	0	1	0	13
0	0	0	0	0	0	0	0	8	2	1	0	0	0	0	11
0	0	0	0	0	0	0	0	14	2	0	0	0	0	0	16
0	0	0	0	0	0	0	0	40	6	2	0	0	1	1	50
1	0	0	0	0	0	0	1	16	2	0	0	0	0	0	18
0	0	0	0	0	0	1	1	20	1	0	0	0	0	0	21
0	0	0	0	0	0	0	0	19	1	0	0	0	0	0	20
0	0	0	0	0	0	0	0	19	1	1	0	0	0	0	21
1	0	0	0	0	0	1	2	74	5	1	0	0	0	0	80
0	0	0	0	0	0	0	0	9	1	0	0	0	0	0	10
0	0	0	0	0	0	0	0	9	2	0	0	0	0	0	11
0	0	0	0	0	0	0	0	15	0	0	0	0	1	1	17
0	0	0	0	0	0	0	0	14	1	0	0	0	0	0	15
0	0	0	0	0	0	0	0	47	4	0	0	0	1	1	53
0	0	0	0	0	0	0	0	25	1	0	0	0	0	0	26
0	0	0	0	0	0	0	0	21	3	0	0	0	0	0	24
0	0	0	0	0	0	1	1	14	2	0	0	0	0	0	16
0	0	0	0	0	0	0	0	22	2	0	0	0	0	0	24
0	0	0	0	0	0	1	1	82	8	0	0	0	0	0	90
0	0	0	0	0	0	0	0	16	3	0	0	0	0	0	19
0	0	0	0	0	0	1	1	21	2	0	0	0	0	2	25
0	0	0	0	0	0	0	0	21	0	0	0	0	0	0	21
0	0	0	0	0	0	0	0	18	0	0	0	0	0	0	18
0	0	0	0	0	0	1	1	76	5	0	0	0	0	2	83
0	0	0	0	0	0	0	0	23	2	0	0	0	0	0	25
0	0	0	0	0	0	0	0	26	1	0	0	0	0	0	27
0	0	0	0	0	0	0	0	20	2	0	0	0	0	0	22
0	0	0	0	0	0	0	0	25	2	0	0	0	0	1	28
0	0	0	0	0	0	0	0	94	7	0	0	0	0	1	102
0	0	0	0	0	0	0	0	13	2	0	0	0	0	1	16
0	0	0	0	0	0	0	0	21	2	1	0	0	0	0	24
0	0	0	0	0	0	0	0	21	2	0	0	0	0	0	23
0	0	0	0	0	0	0	0	18	1	0	0	0	0	1	20
0	0	0	0	0	0	0	0	73	7	1	0	0	0	2	83
0	0	0	0	0	0	0	0	21	1	0	0	0	0	0	22
0	0	0	0	0	0	0	0	27	3	0	0	0	0	0	30
0	0	0	0	0	0	1	1	25	0	0	0	0	0	0	25
0	0	0	0	0	0	0	0	13	0	0	0	0	0	2	15
0	0	0	0	0	0	1	1	86	4	0	0	0	0	2	92
0	0	0	0	0	0	0	0	16	2	0	0	0	0	1	19
0	0	0	0	0	0	1	1	19	1	0	0	0	0	0	20
0	0	0	0	0	0	0	0	17	2	0	0	0	0	0	19
0	0	0	0	0	0	0	0	13	0	0	0	0	0	0	13
0	0	0	0	0	0	1	1	65	5	0	0	0	0	1	71
0	0	0	0	0	0	0	0	21	1	0	0	0	0	0	22
0	0	0	0	0	0	0	0	26	2	0	0	0	0	0	28
0	0	0	0	0	0	0	0	18	0	0	0	0	0	0	18
0	0	0	0	0	0	0	0	21	0	0	0	0	0	1	22
0	0	0	0	0	0	0	0	86	3	0	0	0	0	1	90
2	0	0	0	0	0	5	7	788	59	6	0	0	3	12	868

C => C								C => D							
CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT
0	0	0	0	0	0	0	0	4	0	0	0	1	0	0	5
0	0	0	0	0	0	0	0	6	4	0	0	2	0	0	12
0	0	0	0	0	0	0	0	7	0	0	0	1	1	0	9
0	0	0	0	0	0	0	0	12	0	0	0	1	0	2	15
0	0	0	0	0	0	0	0	29	4	0	0	5	1	2	41
0	0	0	0	0	0	0	0	17	2	0	0	2	0	0	21
0	0	0	0	0	0	0	0	13	2	0	0	1	0	0	16
0	0	0	0	0	0	0	0	14	2	0	0	0	0	0	16
0	0	0	0	0	0	0	0	23	0	1	0	1	0	0	25
0	0	0	0	0	0	0	0	67	6	1	0	4	0	0	78
0	0	0	0	0	0	0	0	12	2	0	0	1	0	0	15
0	0	0	0	0	0	0	0	16	0	0	0	1	0	1	18
0	0	0	0	0	0	0	0	17	3	0	0	0	0	1	21
0	0	0	0	0	0	0	0	27	6	0	0	1	0	1	35
0	0	0	0	0	0	0	0	72	11	0	0	3	0	3	89
0	0	0	0	0	0	0	0	18	1	0	0	0	0	0	19
0	0	0	0	0	0	0	0	18	1	1	0	1	0	2	23
0	0	0	0	0	0	0	0	21	3	0	0	0	0	0	24
0	0	0	0	0	0	0	0	22	4	1	0	1	0	0	28
0	0	0	0	0	0	0	0	79	9	2	0	2	0	2	94
0	0	0	0	0	0	0	0	17	2	1	0	0	0	0	20
1	0	0	0	0	0	0	1	20	4	2	1	1	0	0	28
0	0	0	0	0	0	0	0	31	5	0	0	0	0	0	36
0	0	0	0	0	0	0	0	16	6	1	0	1	0	0	24
1	0	0	0	0	0	0	1	84	17	4	1	2	0	0	108
0	0	0	0	0	0	0	0	16	1	0	1	0	0	0	18
0	0	0	0	0	0	0	0	15	2	0	0	1	0	0	18
0	0	0	0	0	0	0	0	27	4	0	0	0	0	0	31
0	0	0	0	0	0	0	0	27	1	0	0	1	0	0	29
0	0	0	0	0	0	0	0	85	8	0	1	2	0	0	96
0	0	0	0	0	0	0	0	28	3	0	0	0	0	0	31
0	0	0	0	0	0	0	0	28	3	0	0	1	0	0	32
0	0	0	0	0	0	0	0	22	1	0	0	0	0	1	24
0	0	0	0	0	0	0	0	28	1	0	0	1	0	0	30
0	0	0	0	0	0	0	0	106	8	0	0	2	0	1	117
0	0	0	0	0	0	0	0	23	4	0	0	0	0	0	27
0	0	0	0	0	0	0	0	20	2	0	0	1	0	1	24
0	0	0	0	0	0	0	0	27	3	0	0	0	0	0	30
0	0	0	0	0	0	0	0	20	3	0	0	1	0	0	24
0	0	0	0	0	0	0	0	90	12	0	0	2	0	1	105
0	0	0	0	0	0	0	0	19	3	0	0	0	0	0	22
0	0	0	0	0	0	0	0	19	4	1	0	1	0	0	25
0	0	0	0	0	0	0	0	24	4	0	0	0	0	0	28
0	0	0	0	0	0	0	0	17	2	0	0	1	0	0	20
0	0	0	0	0	0	0	0	79	13	1	0	2	0	0	95
0	0	0	0	0	0	0	0	27	1	0	0	0	0	0	28
0	0	0	0	0	0	0	0	16	0	0	0	1	0	0	17
0	0	0	0	0	0	0	0	31	3	1	0	1	0	0	36
0	0	0	0	0	0	0	0	18	6	0	0	1	0	0	25
0	0	0	0	0	0	0	0	92	10	1	0	3	0	0	106
0	0	0	0	0	0	0	0	30	2	0	0	0	0	0	32
0	0	0	0	0	0	0	0	36	0	0	0	1	0	2	39
0	0	0	0	0	0	0	0	27	4	0	0	1	0	0	32
0	0	0	0	0	0	0	0	24	0	0	0	1	0	0	25
0	0	0	0	0	0	0	0	117	6	0	0	3	0	2	128
0	0	0	0	0	0	0	0	22	1	0	0	0	0	3	26
0	0	0	0	0	0	0	0	27	3	0	0	1	0	0	31
0	0	0	0	0	0	0	0	30	2	0	0	1	0	0	33
0	0	0	0	0	0	0	0	21	3	0	0	0	0	0	24
0	0	0	0	0	0	0	0	100	9	0	0	2	0	3	114
1	0	0	0	0	0	0	1	1000	113	9	2	32	1	14	1171

D => A								D => B							
CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT
0	0	1	0	0	0	0	1	12	8	0	0	3	0	1	24
0	0	0	0	0	0	0	0	14	9	1	1	0	0	2	27
0	0	0	0	0	0	1	1	43	7	0	0	1	0	0	51
1	0	0	0	0	0	0	1	41	12	2	0	0	0	2	57
1	0	1	0	0	0	1	3	110	36	3	1	4	0	5	159
0	0	0	0	0	0	1	1	29	9	5	0	1	0	2	46
0	0	0	0	0	0	0	0	27	8	1	1	0	0	3	40
0	1	0	0	0	0	0	1	41	5	1	1	1	0	0	49
0	0	0	0	0	0	0	0	52	10	2	0	0	0	4	68
0	1	0	0	0	0	1	2	149	32	9	2	2	0	9	203
0	0	0	0	0	0	0	0	30	10	5	1	1	0	0	47
0	0	0	0	0	0	0	0	51	8	1	0	0	0	0	60
0	4	0	0	0	0	0	4	48	14	3	0	1	0	1	67
0	0	0	0	0	0	0	0	61	7	2	1	0	0	0	71
0	4	0	0	0	0	0	4	190	39	11	2	2	0	1	245
0	1	0	0	0	0	0	1	53	4	4	0	2	1	1	65
0	0	0	0	0	0	0	0	50	10	0	0	0	0	0	60
0	0	0	0	0	0	0	0	49	8	0	0	0	0	1	58
0	0	0	0	0	0	0	0	66	6	3	1	0	0	1	77
0	1	0	0	0	0	0	1	218	28	7	1	2	1	3	260
0	0	0	0	0	0	0	0	56	6	2	1	1	1	1	68
0	0	0	0	0	0	1	1	71	8	4	0	0	0	0	83
0	0	0	0	0	0	2	2	72	6	1	0	1	0	3	83
0	0	0	0	0	0	0	0	75	4	1	0	0	0	0	80
0	0	0	0	0	0	3	3	274	24	8	1	2	1	4	314
0	0	0	0	0	0	0	0	84	9	1	1	1	0	0	96
0	0	0	0	0	0	0	0	64	8	4	1	0	0	4	81
0	0	0	0	0	0	0	0	72	6	0	0	1	0	2	81
0	0	0	0	0	0	2	2	79	9	1	1	0	0	1	91
0	0	0	0	0	0	2	2	299	32	6	3	2	0	7	349
0	0	0	0	0	0	0	0	66	6	0	1	1	0	2	76
0	0	0	0	0	0	1	1	76	5	0	0	0	0	2	83
0	0	0	0	0	0	0	0	74	5	0	2	1	1	1	84
0	0	0	0	0	0	0	0	73	6	1	0	0	0	1	81
0	0	0	0	0	0	1	1	289	22	1	3	2	1	6	324
0	1	0	0	0	0	0	1	63	7	0	1	0	0	6	77
0	1	0	0	0	0	0	1	91	5	0	1	1	0	1	99
0	0	0	0	0	0	1	1	66	11	1	0	1	0	1	80
0	0	0	0	0	0	0	0	73	7	0	1	0	1	3	85
0	2	0	0	0	0	1	3	293	30	1	3	2	1	11	341
0	0	0	0	0	0	0	0	60	9	0	1	1	0	2	73
0	0	0	0	0	0	0	0	62	5	0	0	0	0	1	68
0	0	0	0	0	0	0	0	63	5	0	1	1	0	4	74
0	0	0	0	0	0	0	0	76	4	0	1	0	2	1	84
0	0	0	0	0	0	0	0	261	23	0	3	2	2	8	299
0	0	0	0	0	0	2	2	82	8	0	0	1	1	3	95
0	0	0	0	0	0	1	1	87	7	0	0	0	1	3	98
0	0	0	0	0	0	5	5	63	1	1	0	1	1	2	69
0	0	0	0	0	0	1	1	75	2	0	0	0	0	4	81
0	0	0	0	0	0	9	9	307	18	1	0	2	3	12	343
0	0	0	0	0	0	0	0	81	8	0	0	1	1	5	96
0	0	0	0	0	0	1	1	64	3	0	1	0	0	3	71
0	0	1	0	0	0	0	1	71	6	0	1	0	0	3	81
1	0	0	0	0	0	0	1	81	3	0	1	1	0	3	89
1	0	1	0	0	0	1	3	297	20	0	3	2	1	14	337
0	1	0	0	0	0	0	1	78	5	0	1	1	0	2	87
0	0	0	0	0	0	0	0	72	7	0	0	0	0	1	80
1	0	0	0	0	0	0	1	82	3	0	0	1	0	3	89
0	0	0	0	0	0	0	0	84	2	0	0	0	0	7	93
1	1	0	0	0	0	0	2	316	17	0	1	2	0	13	349
3	9	2	0	0	0	19	33	3003	321	47	23	26	10	93	3523

D => C								D => D							
CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT
4	2	0	0	0	0	0	6	0	0	0	0	0	0	0	0
3	3	0	0	1	0	0	7	1	0	0	0	0	0	0	1
8	2	0	0	1	1	0	12	0	0	0	0	0	0	0	0
4	4	0	0	0	0	1	9	0	0	0	0	0	0	0	0
19	11	0	0	2	1	1	34	1	0	0	0	0	0	0	1
6	0	1	0	1	0	0	8	0	0	0	0	0	0	0	0
7	0	0	0	1	0	0	8	0	0	0	0	0	0	0	0
3	0	0	0	0	0	1	4	0	0	0	0	0	0	0	0
5	2	0	0	0	0	0	7	0	0	0	0	0	0	0	0
21	2	1	0	2	0	1	27	0	0	0	0	0	0	0	0
3	2	0	0	0	0	0	5	0	0	0	0	0	0	0	0
5	2	0	0	1	0	0	8	0	0	0	0	0	0	0	0
9	0	0	0	0	0	2	11	0	0	0	0	0	0	0	0
9	2	1	0	0	0	0	12	1	0	0	0	0	0	0	1
26	6	1	0	1	0	2	36	1	0	0	0	0	0	0	1
8	3	1	0	1	0	0	13	0	0	0	0	0	0	0	0
4	0	1	0	0	0	0	5	0	0	0	0	0	0	0	0
7	0	0	0	0	0	1	8	0	0	0	0	0	0	0	0
13	1	0	1	0	0	0	15	0	0	0	0	0	0	0	0
32	4	2	1	1	0	1	41	0	0	0	0	0	0	0	0
12	1	0	0	0	0	0	13	0	0	0	0	0	0	0	0
3	0	1	0	1	0	0	5	0	0	0	0	0	0	0	0
8	2	0	1	1	0	0	12	0	0	0	0	0	0	0	0
6	3	0	0	0	0	0	9	0	0	1	0	0	0	0	1
29	6	1	1	2	0	0	39	0	0	1	0	0	0	0	1
9	2	0	0	1	0	0	12	0	0	0	0	0	0	0	0
10	2	0	0	0	0	0	12	0	0	0	0	0	0	0	0
10	2	0	0	0	0	0	12	0	0	0	0	0	0	0	0
18	3	0	0	0	0	0	21	0	0	0	0	0	0	0	0
47	9	0	0	1	0	0	57	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	18	0	0	0	0	0	0	0	0
8	2	1	0	1	0	0	12	0	0	0	0	0	0	0	0
12	0	0	0	0	0	1	13	0	0	0	0	0	0	0	0
6	2	0	0	1	0	0	9	1	0	0	0	0	0	0	1
44	4	1	0	2	0	1	52	1	0	0	0	0	0	0	1
10	0	0	1	0	0	0	11	0	1	0	0	0	0	0	1
16	0	1	0	1	0	0	18	0	0	0	0	0	0	0	0
12	2	0	0	0	0	0	14	1	0	0	0	0	0	0	1
9	1	0	0	1	0	0	11	0	0	0	0	0	0	0	0
47	3	1	1	2	0	0	54	1	1	0	0	0	0	0	2
9	2	0	0	1	0	2	14	0	0	0	0	0	0	0	0
7	3	0	0	0	0	0	10	0	0	0	0	0	0	0	0
5	0	0	0	0	0	2	7	0	0	0	0	0	0	0	0
16	0	0	1	1	0	1	19	0	1	0	0	0	0	0	1
37	5	0	1	2	0	5	50	0	1	0	0	0	0	0	1
12	1	0	0	0	0	0	13	0	0	0	0	0	0	0	0
11	1	0	0	1	0	0	13	0	0	0	0	0	0	0	0
12	1	0	0	1	0	0	14	0	0	0	0	0	0	0	0
9	0	0	0	1	0	0	10	0	0	0	0	0	0	0	0
44	3	0	0	3	0	0	50	0	0	0	0	0	0	0	0
8	0	1	0	0	0	3	12	0	0	0	0	0	0	0	0
5	0	0	0	0	0	2	7	0	0	0	0	0	0	0	0
8	1	0	0	2	0	0	11	0	0	0	0	0	0	0	0
17	0	0	0	1	0	0	18	1	0	0	0	0	0	0	1
38	1	1	0	3	0	5	48	1	0	0	0	0	0	0	1
16	0	1	0	1	0	1	19	0	0	0	0	0	0	0	0
24	1	0	0	1	0	1	27	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0
4	0	0	0	2	0	1	7	0	0	0	0	0	0	0	0
49	1	1	0	4	0	3	58	0	0	0	0	0	0	0	0
433	55	9	4	25	1	19	546	5	2	1	0	0	0	0	8

Survey Name :	ITS J-410 Malahide
Site:	5
Date:	03.07.2020
Time:	07:00-19:00
Location:	53.451441, -6.153758
Classification:	Car, LGV, OGV1, OGV2, PSV, P/C, M/C

Irish Traffic Surveys

Site 5, Card T1



Mapping Image

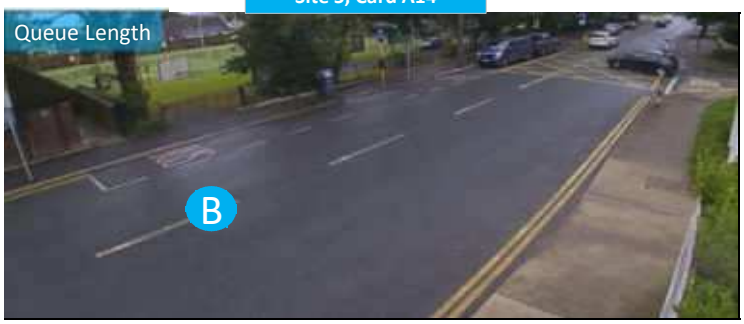


Survey duration:	12h
Time Period:	07:00-19:00
Junction Type:	3 Arm Junction
Reporting Interval:	15min
Classification scheme:	Car, LGV, OGV1, OGV2, PSV, P/C, M/C
Queues Required:	Yes
Pedestrian required:	No

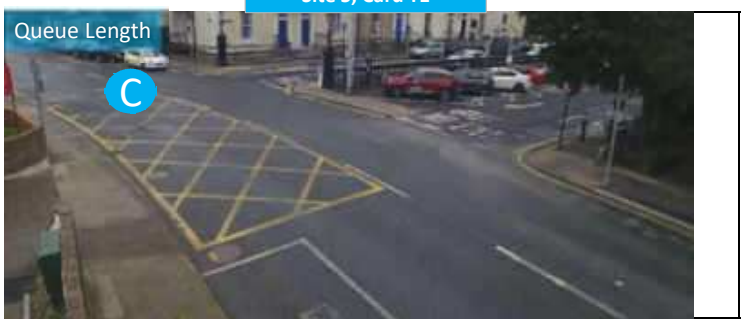
Site 5, Card S14



Site 5, Card A14



Site 5, Card T1



Survey Name :	ITS J-410 Malahide
Site:	Site 5
Date:	15-07-2020
Time:	07:00-19:00
Location:	53.451441, -6.153758
Classification:	Car, LGV, OGV1, OGV2, PSV, P/C, M/C

Irish Traffic Surveys



	A => A								A => B							
TIME	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT
07:00	0	0	0	0	0	0	0	0	4	1	0	0	0	0	2	7
07:15	0	0	0	0	0	0	0	0	4	3	0	0	0	0	0	7
07:30	0	0	0	0	0	0	0	0	7	4	1	0	2	0	3	17
07:45	0	0	0	0	0	0	0	0	18	3	0	0	1	0	1	23
H/TOT	0	0	0	0	0	0	0	0	33	11	1	0	3	0	6	54
08:00	0	0	0	0	0	0	0	0	12	4	1	0	0	1	2	20
08:15	0	0	0	0	0	0	0	0	14	1	0	0	1	0	2	18
08:30	0	0	0	0	0	0	0	0	25	3	0	0	0	0	0	28
08:45	0	0	0	0	0	0	0	0	29	4	2	1	0	0	0	36
H/TOT	0	0	0	0	0	0	0	0	80	12	3	1	1	1	4	102
09:00	0	0	0	0	0	0	0	0	17	2	0	0	0	0	0	19
09:15	0	0	0	0	0	0	0	0	25	4	1	0	0	0	2	32
09:30	0	0	0	0	0	0	0	0	21	2	0	0	1	0	0	24
09:45	0	0	0	0	0	0	0	0	25	6	3	0	0	0	0	34
H/TOT	0	0	0	0	0	0	0	0	88	14	4	0	1	0	2	109
10:00	0	0	0	0	0	0	0	0	36	6	0	0	1	0	0	43
10:15	0	0	0	0	0	0	0	0	42	5	1	0	0	0	0	48
10:30	0	0	0	0	0	0	0	0	33	3	1	0	0	0	0	37
10:45	0	0	0	0	0	0	0	0	44	3	1	0	0	0	0	48
H/TOT	0	0	0	0	0	0	0	0	155	17	3	0	1	0	0	176
11:00	0	0	0	0	0	0	0	0	33	3	0	0	1	0	0	37
11:15	0	0	0	0	0	0	0	0	32	2	0	0	0	0	0	34
11:30	0	0	0	0	0	0	0	0	38	3	0	0	0	0	2	43
11:45	0	0	0	0	0	0	0	0	29	1	0	0	0	0	1	31
H/TOT	0	0	0	0	0	0	0	0	132	9	0	0	1	0	3	145
12:00	0	0	0	0	0	0	0	0	39	0	0	0	1	0	0	40
12:15	0	0	0	0	0	0	0	0	34	2	0	0	0	1	3	40
12:30	0	0	0	0	0	0	0	0	48	4	0	0	0	0	0	52
12:45	0	0	0	0	0	0	0	0	47	2	1	0	0	0	4	54
H/TOT	0	0	0	0	0	0	0	0	168	8	1	0	1	1	7	186
13:00	0	0	0	0	0	0	0	0	50	1	0	0	1	0	0	52
13:15	0	0	0	0	0	0	0	0	36	4	0	0	0	0	0	40
13:30	0	0	0	0	0	0	0	0	47	5	0	0	0	0	0	52
13:45	0	0	0	0	0	0	0	0	37	4	0	0	0	0	2	43
H/TOT	0	0	0	0	0	0	0	0	170	14	0	0	1	0	2	187
14:00	0	0	0	0	0	0	0	0	51	6	0	0	1	0	0	58
14:15	0	0	0	0	0	0	0	0	50	4	0	1	0	0	0	55
14:30	0	0	0	0	0	0	0	0	49	2	0	0	0	0	0	51
14:45	0	0	0	0	0	0	0	0	51	1	0	0	0	0	2	54
H/TOT	0	0	0	0	0	0	0	0	201	13	0	1	1	0	2	218
15:00	0	0	0	0	0	0	0	0	54	1	0	0	1	0	0	56
15:15	0	0	0	0	0	0	0	0	38	4	0	0	0	0	2	44
15:30	0	0	0	0	0	0	0	0	45	2	1	0	0	0	0	48
15:45	0	0	0	0	0	0	0	0	37	4	1	0	1	0	1	44
H/TOT	0	0	0	0	0	0	0	0	174	11	2	0	2	0	3	192
16:00	0	0	0	0	0	0	0	0	50	6	0	0	1	0	0	57
16:15	0	0	0	0	0	0	0	0	44	4	0	0	0	0	2	50
16:30	0	0	0	0	0	0	0	0	68	2	0	0	1	1	6	78
16:45	0	0	0	0	0	0	0	0	56	2	0	0	0	1	1	60
H/TOT	0	0	0	0	0	0	0	0	218	14	0	0	2	2	9	245
17:00	0	0	0	0	0	0	0	0	53	3	0	0	1	0	4	61
17:15	0	0	0	0	0	0	0	0	64	2	0	0	0	0	2	68
17:30	0	0	0	0	0	0	0	0	59	2	0	0	0	0	3	64
17:45	0	0	0	0	0	0	0	0	63	4	0	0	1	0	1	69
H/TOT	0	0	0	0	0	0	0	0	239	11	0	0	2	0	10	262
18:00	0	0	0	0	0	0	0	0	49	2	0	0	0	0	0	51
18:15	0	0	0	0	0	0	0	0	58	1	0	0	0	0	2	61
18:30	0	0	0	0	0	0	0	0	42	2	0	0	1	0	2	47
18:45	0	0	0	0	0	0	0	0	62	2	0	0	0	0	2	66
H/TOT	0	0	0	0	0	0	0	0	211	7	0	0	1	0	6	225
12 TOT	0	0	0	0	0	0	0	0	1869	141	14	2	17	4	54	2101



A => C								B => A							
CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT
8	1	2	0	0	0	0	11	0	0	0	0	0	0	0	0
4	1	1	0	0	0	0	6	0	0	0	0	0	0	0	0
14	2	0	1	0	0	0	17	0	0	0	0	0	0	0	0
7	0	0	0	1	0	0	8	0	0	0	0	0	0	0	0
33	4	3	1	1	0	0	42	0	0	0	0	0	0	0	0
19	1	0	0	0	0	0	20	0	0	0	0	0	0	0	0
13	1	0	0	0	0	0	14	0	0	0	0	0	0	0	0
26	1	2	1	0	0	0	30	0	0	0	0	0	0	0	0
22	2	0	0	0	0	0	24	0	0	0	0	0	0	0	0
80	5	2	1	0	0	0	88	0	0	0	0	0	0	0	0
13	3	2	0	0	0	0	18	0	0	0	0	0	0	0	0
18	2	2	1	0	0	0	23	0	0	0	0	0	0	0	0
16	3	2	0	0	0	0	21	0	0	0	0	0	0	0	0
19	6	1	1	0	0	0	27	0	0	0	0	0	0	0	0
66	14	7	2	0	0	0	89	0	0	0	0	0	0	0	0
16	7	1	0	0	0	0	24	0	0	0	0	0	0	0	0
17	3	0	0	0	0	1	21	0	0	0	0	0	0	0	0
29	6	0	1	0	0	0	36	0	0	0	0	0	0	0	0
24	1	2	0	0	0	0	27	0	0	0	0	0	0	0	0
86	17	3	1	0	0	1	108	0	0	0	0	0	0	0	0
19	3	1	2	0	0	0	25	0	0	0	0	0	0	0	0
19	4	0	0	0	0	0	23	0	0	0	0	0	0	0	0
21	3	0	0	0	0	0	24	0	0	0	0	0	0	0	0
20	4	2	0	0	0	0	26	0	0	0	0	0	0	0	0
79	14	3	2	0	0	0	98	0	0	0	0	0	0	0	0
21	1	0	2	0	0	0	24	0	0	0	0	0	0	0	0
22	4	0	0	0	0	0	26	0	0	0	0	0	0	0	0
16	5	0	1	0	0	0	22	0	0	0	0	0	0	0	0
32	3	0	1	0	0	0	36	0	0	0	0	0	0	0	0
91	13	0	4	0	0	0	108	0	0	0	0	0	0	0	0
25	5	0	1	0	0	0	31	0	0	0	0	0	0	0	0
24	5	0	1	0	0	0	30	0	0	0	0	0	0	0	0
22	2	0	1	0	0	0	25	0	0	0	0	0	0	0	0
29	3	0	1	0	0	0	33	0	0	0	0	0	0	0	0
100	15	0	4	0	0	0	119	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	27	0	0	0	0	0	0	0	0
28	4	0	1	0	0	0	33	0	0	0	0	0	0	0	0
19	4	0	1	0	0	0	24	0	0	0	0	0	0	0	0
20	4	0	2	0	0	0	26	0	0	0	0	0	0	1	1
94	12	0	4	0	0	0	110	0	0	0	0	0	0	1	1
24	6	0	0	0	0	0	30	0	0	0	0	0	0	0	0
21	4	0	0	0	0	0	25	0	0	0	0	0	0	0	0
18	2	0	1	0	0	0	21	0	0	0	0	0	0	0	0
25	4	0	1	0	0	0	30	0	0	0	0	0	0	1	1
88	16	0	2	0	0	0	106	0	0	0	0	0	0	1	1
24	7	0	1	0	0	1	33	0	0	0	0	0	0	0	0
21	2	0	0	0	0	0	23	0	0	0	0	0	0	0	0
24	4	1	0	0	0	1	30	0	0	0	0	0	0	0	0
17	1	0	0	0	0	0	18	0	0	0	0	0	0	0	0
86	14	1	1	0	0	2	104	0	0	0	0	0	0	0	0
35	4	0	0	0	0	0	39	1	0	0	0	0	0	0	1
25	1	0	0	0	1	0	27	1	0	0	0	0	0	0	1
20	1	0	0	0	0	0	21	1	0	0	0	0	0	0	1
25	1	0	0	0	0	0	26	0	0	0	0	0	0	0	0
105	7	0	0	0	1	0	113	3	0	0	0	0	0	0	3
26	1	0	0	0	0	0	27	0	0	0	0	0	0	0	0
27	1	0	0	0	0	0	28	0	0	0	0	0	0	0	0
47	2	0	0	0	0	0	49	0	0	0	0	0	0	0	0
33	3	0	0	0	0	0	36	0	0	0	0	0	0	0	0
133	7	0	0	0	0	0	140	0	0	0	0	0	0	0	0
1041	138	19	22	1	1	3	1225	3	0	0	0	0	0	2	5

B => B								B => C							
CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT
0	0	0	0	0	0	0	0	30	3	0	0	1	0	2	36
0	0	0	0	0	0	0	0	31	4	0	0	3	0	3	41
0	0	0	0	0	0	0	0	37	5	0	1	1	1	4	49
0	0	0	0	0	0	0	0	44	5	1	0	1	0	3	54
0	0	0	0	0	0	0	0	142	17	1	1	6	1	12	180
0	0	0	0	0	0	0	0	51	4	0	0	1	0	9	65
0	0	0	0	0	0	0	0	69	7	3	0	0	0	6	85
0	0	0	0	0	0	0	0	87	10	3	0	2	0	2	104
0	0	0	0	0	0	0	0	66	8	2	1	0	0	2	79
0	0	0	0	0	0	0	0	273	29	8	1	3	0	19	333
0	0	0	0	0	0	0	0	74	7	2	0	1	0	1	85
0	0	0	0	0	0	0	0	56	8	1	1	2	0	1	69
0	0	0	0	0	0	0	0	72	8	1	0	0	0	4	85
1	0	0	0	0	0	0	1	70	10	0	0	2	0	4	86
1	0	0	0	0	0	0	1	272	33	4	1	5	0	10	325
0	0	0	0	0	0	0	0	88	8	4	0	1	0	0	101
0	0	0	0	0	0	0	0	74	6	3	0	1	0	2	86
0	0	0	0	0	0	0	0	89	9	4	0	1	1	0	104
0	0	0	0	0	0	0	0	94	11	0	0	1	1	3	110
0	0	0	0	0	0	0	0	345	34	11	0	4	2	5	401
0	0	0	0	0	0	0	0	102	6	1	0	1	0	2	112
0	0	0	0	0	0	0	0	86	10	5	0	1	0	1	103
0	0	0	0	0	0	0	0	87	8	2	0	0	0	1	98
0	0	0	0	0	0	0	0	96	5	4	0	1	1	5	112
0	0	0	0	0	0	0	0	371	29	12	0	3	1	9	425
0	0	0	0	0	0	0	0	100	2	1	0	1	0	6	110
0	0	0	0	0	0	0	0	100	12	1	0	0	1	3	117
0	0	0	0	0	0	0	0	94	8	2	1	1	2	5	113
0	0	0	0	0	0	0	0	98	9	2	0	0	0	3	112
0	0	0	0	0	0	0	0	392	31	6	1	2	3	17	452
0	0	0	0	0	0	0	0	98	8	2	0	2	1	1	112
0	0	0	0	0	0	0	0	81	12	3	0	0	0	6	102
0	0	0	0	0	0	0	0	112	6	3	0	1	0	3	125
0	0	0	0	0	0	0	0	93	10	0	0	0	0	6	109
0	0	0	0	0	0	0	0	384	36	8	0	3	1	16	448
0	0	0	0	0	0	0	0	93	10	0	0	3	1	5	112
0	0	0	0	0	0	0	0	87	6	0	0	0	0	2	95
0	0	0	0	0	0	0	0	95	16	3	0	1	0	3	118
0	0	0	0	0	0	0	0	96	2	1	2	0	0	5	106
0	0	0	0	0	0	0	0	371	34	4	2	4	1	15	431
0	0	0	0	0	0	0	0	91	8	2	1	3	1	7	113
0	0	0	0	0	0	0	0	87	11	2	1	0	1	3	105
0	0	0	0	0	0	0	0	107	15	5	1	2	0	5	135
0	0	0	0	0	0	0	0	104	10	1	0	0	1	0	116
0	0	0	0	0	0	0	0	389	44	10	3	5	3	15	469
0	0	0	0	0	0	0	0	88	7	1	0	3	0	5	104
0	0	0	0	0	0	0	0	85	7	2	0	0	0	4	98
0	0	0	0	0	0	0	0	90	7	0	0	2	0	4	103
0	0	0	0	0	0	0	0	107	14	0	0	1	1	9	132
0	0	0	0	0	0	0	0	370	35	3	0	6	1	22	437
0	0	0	0	0	0	0	0	93	10	2	0	1	1	5	112
0	0	0	0	0	0	0	0	81	5	0	0	0	0	8	94
0	0	0	0	0	0	0	0	90	9	0	0	2	0	5	106
0	0	0	0	0	0	0	0	89	5	1	0	2	0	6	103
0	0	0	0	0	0	0	0	353	29	3	0	5	1	24	415
0	0	0	0	0	0	0	0	79	8	0	0	2	0	5	94
0	0	0	0	0	0	0	0	85	6	0	0	2	1	5	99
0	0	0	0	0	0	0	0	81	2	1	0	1	0	8	93
0	0	0	0	0	0	0	0	86	3	0	0	2	2	6	99
0	0	0	0	0	0	0	0	331	19	1	0	7	3	24	385
1	0	0	0	0	0	0	1	3993	370	71	9	53	17	188	4701

C => A								C => B							
CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT
0	0	0	0	0	0	0	0	13	2	1	0	3	0	1	20
0	0	0	0	0	0	0	0	12	9	1	1	0	0	2	25
0	0	0	0	0	0	0	0	28	6	1	0	1	0	2	38
0	0	0	0	0	0	0	0	41	11	1	0	0	0	2	55
0	0	0	0	0	0	0	0	94	28	4	1	4	0	7	138
0	0	0	0	0	0	0	0	29	9	6	0	1	0	0	45
0	0	0	0	0	0	0	0	27	6	1	2	0	0	3	39
0	0	0	0	0	0	0	0	40	5	1	0	1	0	3	50
0	0	0	0	0	0	0	0	40	10	2	0	0	0	2	54
0	0	0	0	0	0	0	0	136	30	10	2	2	0	8	188
0	0	0	0	0	0	0	0	30	4	4	0	1	0	1	40
0	0	0	0	0	0	0	0	44	8	2	0	0	0	1	55
0	0	0	0	0	0	0	0	41	9	4	0	1	0	1	56
0	0	0	0	0	0	0	0	55	5	2	0	0	0	0	62
0	0	0	0	0	0	0	0	170	26	12	0	2	0	3	213
0	0	0	0	0	0	0	0	50	2	3	0	2	1	0	58
0	0	0	0	0	0	0	0	59	7	0	0	0	0	0	66
0	0	0	0	0	0	0	0	38	8	1	0	1	0	2	50
0	0	0	0	0	0	0	0	54	3	4	0	0	0	1	62
0	0	0	0	0	0	0	0	201	20	8	0	3	1	3	236
0	0	0	0	0	0	0	0	49	5	0	0	1	0	0	55
0	0	0	0	0	0	0	0	64	4	5	0	0	0	0	73
0	0	0	0	0	0	0	0	66	5	0	0	1	0	1	73
0	0	0	0	0	0	0	0	67	2	2	0	0	0	0	71
0	0	0	0	0	0	0	0	246	16	7	0	2	0	1	272
0	0	0	0	0	0	0	0	80	5	1	0	1	0	0	87
0	0	0	0	0	0	0	0	69	7	2	0	1	0	2	81
0	0	0	0	0	0	0	0	68	5	1	0	1	0	2	77
0	0	0	0	0	0	0	0	73	8	1	0	0	0	4	86
0	0	0	0	0	0	0	0	290	25	5	0	3	0	8	331
0	0	0	0	0	0	0	0	69	9	1	0	1	0	2	82
0	0	0	0	0	0	0	0	72	2	0	0	0	0	4	78
0	0	0	0	0	0	0	0	70	2	2	0	1	1	1	77
0	0	0	0	0	0	0	0	68	4	1	0	0	0	1	74
0	0	0	0	0	0	0	0	279	17	4	0	2	1	8	311
0	0	0	0	0	0	0	0	71	4	1	0	0	0	5	81
0	0	0	0	0	0	0	0	76	4	0	0	1	0	1	82
0	0	0	0	0	0	0	0	73	9	2	0	1	0	2	87
0	0	0	0	0	0	0	0	76	5	0	0	0	0	5	86
0	0	0	0	0	0	0	0	296	22	3	0	2	0	13	336
0	0	0	0	0	0	0	0	52	5	0	0	1	0	3	61
0	0	0	0	0	0	0	0	64	4	0	0	0	0	3	71
0	0	0	0	0	0	0	0	67	5	0	0	0	0	2	74
0	0	0	0	0	0	0	0	66	3	0	1	1	1	2	74
0	0	0	0	0	0	0	0	249	17	0	1	2	1	10	280
0	0	0	0	0	0	0	0	82	5	0	0	1	2	1	91
0	0	0	0	0	0	0	0	94	7	0	0	0	1	2	104
0	0	0	0	0	0	0	0	60	1	1	0	1	1	5	69
0	0	0	0	0	0	0	0	71	2	0	0	1	1	7	82
0	0	0	0	0	0	0	0	307	15	1	0	3	5	15	346
0	0	0	0	0	0	0	0	76	6	0	0	2	0	6	90
0	0	0	0	0	0	0	0	59	3	0	1	0	0	3	66
0	0	0	0	0	0	0	0	63	9	0	1	0	0	2	75
0	0	0	0	0	0	0	0	73	2	0	1	1	0	4	81
0	0	0	0	0	0	0	0	271	20	0	3	3	0	15	312
0	0	0	0	0	0	0	0	73	1	0	1	1	0	2	78
0	0	0	0	0	0	0	0	70	6	0	0	0	0	2	78
0	0	0	0	0	0	0	0	79	1	0	0	1	0	5	86
0	0	0	0	0	0	0	0	80	1	0	0	1	0	9	91
0	0	0	0	0	0	0	0	302	9	0	1	3	0	18	333
0	0	0	0	0	0	0	0	2841	245	54	8	31	8	109	3296

			C => C				
CAR	**LGV**	**OGV1**	**OGV2**	**PSV**	**M/C**	**P/C**	**TOT**
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	1
1	0	0	0	0	0	0	1
2	0	0	0	0	0	0	2
0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	1
2	0	0	0	0	0	0	2
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	5

Survey Name :	ITS J-410 Malahide
Site:	6
Date:	03.07.2020
Time:	07:00-19:00
Location:	53.451441, -6.153758
Classification:	Car, LGV, OGV1, OGV2, PSV, P/C, M/C

Irish Traffic Surveys

Site 6, Card T1



Mapping Image

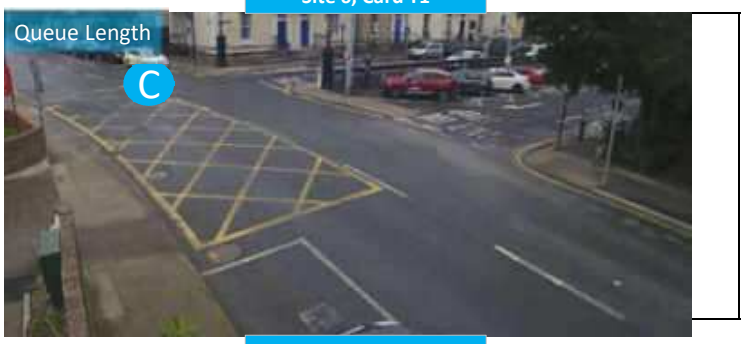


Survey duration:	12h
Time Period:	07:00-19:00
Junction Type:	3 Arm Junction
Reporting Interval:	15min
Classification scheme:	Car, LGV, OGV1, OGV2, PSV, P/C, M/C
Queues Required:	Yes
Pedestrian required:	No

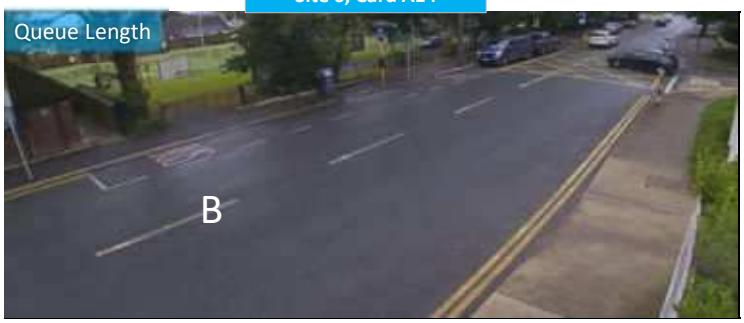
Site 6, Card S14



Site 6, Card T1



Site 6, Card A14



Survey Name :	ITS J-410 Malahide
Site:	site 6
Date:	15-07-2020
Time:	07:00-19:00
Location:	
Classification:	Car, LGV, OGV1, OGV2, PSV, P/C, M/C

Irish Traffic Surveys



	A => A								A => B							
TIME	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0	1	1	0	0	0	1	3
07:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
H/TOT	0	0	0	0	0	0	0	0	0	2	1	0	0	0	1	4
08:00	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
08:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	2
H/TOT	0	0	0	0	0	0	0	0	2	1	0	0	0	0	0	3
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
09:45	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
H/TOT	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	2
10:00	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
10:15	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
10:30	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	4
10:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	6
11:00	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
11:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
H/TOT	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
12:00	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	2	0	0	0	0	0	1	3
13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:15	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
13:30	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
13:45	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
H/TOT	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	5
14:00	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
14:15	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
14:30	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
14:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	5
15:00	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	3
15:15	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	2
15:30	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
15:45	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
H/TOT	0	0	0	0	0	0	0	0	6	1	0	0	0	0	0	7
16:00	0	0	0	0	0	0	0	0	2	1	0	0	0	0	0	3
16:15	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
16:30	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	5	1	0	0	0	0	0	6
17:00	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	3
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	2
18:45	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
H/TOT	0	0	0	0	0	0	0	0	2	1	0	0	0	0	0	3
12 TOT	0	0	0	0	0	0	0	0	39	7	1	0	0	0	2	49



A => C								B => A							
CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT
1	1	0	0	0	0	0	2	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
5	1	0	0	0	0	0	6	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	1	1	0	0	0	0	0	1	2
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	2	1	0	0	0	0	0	1	2
1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1
2	0	0	0	0	0	0	2	3	0	0	0	0	0	0	3
1	0	0	0	0	0	0	1	2	0	0	0	0	0	0	2
1	0	0	0	0	0	0	1	2	0	0	0	0	0	0	2
2	0	0	0	0	0	0	2	2	0	0	0	0	0	0	2
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	4	6	0	0	0	0	0	0	6
1	0	0	0	0	0	0	1	1	0	0	0	0	0	1	2
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
3	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	4	2	0	0	0	0	0	1	3
1	1	0	0	0	0	0	2	1	0	0	0	0	0	0	1
2	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	2	1	0	0	0	0	0	0	1
1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1
6	1	0	0	0	0	0	7	3	0	0	0	0	0	0	3
1	1	0	0	0	0	0	2	1	1	0	0	0	0	0	2
1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	2	1	0	0	0	0	0	0	1
4	1	0	0	0	0	0	5	3	1	0	0	0	0	0	4
2	0	0	0	0	0	0	2	1	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
3	0	0	0	0	0	0	3	1	0	0	0	0	0	0	1
3	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	8	4	0	0	0	0	0	0	4
2	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	2	1	1	0	0	0	0	0	2
0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	4	2	1	0	0	0	0	0	3
0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
3	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0
1	1	0	0	0	0	0	2	0	1	0	0	0	0	0	1
4	1	0	0	0	0	0	5	2	2	0	0	0	0	0	4
1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1
2	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	5	1	0	0	0	0	0	0	1
3	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0
2	0	0	0	0	0	1	3	1	0	0	0	0	0	0	1
1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	3	2	0	0	0	0	0	0	2
9	0	0	0	0	0	1	10	3	0	0	0	0	0	0	3
57	4	0	0	0	0	1	62	30	4	0	0	0	0	2	36

B => B								B => C							
CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT
0	0	0	0	0	0	0	0	30	3	0	0	1	0	2	36
0	0	0	0	0	0	0	0	31	4	0	0	3	0	3	41
0	0	0	0	0	0	0	0	37	5	0	1	1	1	4	49
0	0	0	0	0	0	0	0	44	5	1	0	1	0	3	54
0	0	0	0	0	0	0	0	142	17	1	1	6	1	12	180
0	0	0	0	0	0	0	0	51	4	0	0	1	0	9	65
0	0	0	0	0	0	0	0	69	7	3	0	0	0	6	85
0	0	0	0	0	0	0	0	87	10	3	0	2	0	2	104
0	0	0	0	0	0	0	0	66	8	2	1	0	0	2	79
0	0	0	0	0	0	0	0	273	29	8	1	3	0	19	333
0	0	0	0	0	0	0	0	74	7	2	0	1	0	1	85
0	0	0	0	0	0	0	0	56	8	1	1	2	0	1	69
0	0	0	0	0	0	0	0	72	8	1	0	0	0	4	85
1	0	0	0	0	0	0	1	70	10	0	0	2	0	4	86
1	0	0	0	0	0	0	1	272	33	4	1	5	0	10	325
0	0	0	0	0	0	0	0	88	8	4	0	1	0	0	101
0	0	0	0	0	0	0	0	74	6	3	0	1	0	2	86
0	0	0	0	0	0	0	0	89	9	4	0	1	1	0	104
0	0	0	0	0	0	0	0	94	11	0	0	1	1	3	110
0	0	0	0	0	0	0	0	345	34	11	0	4	2	5	401
0	0	0	0	0	0	0	0	102	6	1	0	1	0	2	112
0	0	0	0	0	0	0	0	86	10	5	0	1	0	1	103
0	0	0	0	0	0	0	0	87	8	2	0	0	0	1	98
0	0	0	0	0	0	0	0	96	5	4	0	1	1	5	112
0	0	0	0	0	0	0	0	371	29	12	0	3	1	9	425
0	0	0	0	0	0	0	0	100	2	1	0	1	0	6	110
0	0	0	0	0	0	0	0	100	12	1	0	0	1	3	117
0	0	0	0	0	0	0	0	94	8	2	1	1	2	5	113
0	0	0	0	0	0	0	0	98	9	2	0	0	0	3	112
0	0	0	0	0	0	0	0	392	31	6	1	2	3	17	452
0	0	0	0	0	0	0	0	98	8	2	0	2	1	1	112
0	0	0	0	0	0	0	0	81	12	3	0	0	0	6	102
0	0	0	0	0	0	0	0	112	6	3	0	1	0	3	125
0	0	0	0	0	0	0	0	93	10	0	0	0	0	6	109
0	0	0	0	0	0	0	0	384	36	8	0	3	1	16	448
0	0	0	0	0	0	0	0	93	10	0	0	3	1	5	112
0	0	0	0	0	0	0	0	87	6	0	0	0	0	2	95
0	0	0	0	0	0	0	0	95	16	3	0	1	0	3	118
0	0	0	0	0	0	0	0	96	2	1	2	2	0	5	108
0	0	0	0	0	0	0	0	371	34	4	2	6	1	15	433
0	0	0	0	0	0	0	0	91	8	2	1	3	1	7	113
0	0	0	0	0	0	0	0	87	11	2	1	0	1	3	105
0	0	0	0	0	0	0	0	107	15	5	1	2	0	5	135
0	0	0	0	0	0	0	0	104	10	1	0	0	1	0	116
0	0	0	0	0	0	0	0	389	44	10	3	5	3	15	469
0	0	0	0	0	0	0	0	88	7	1	0	3	0	5	104
0	0	0	0	0	0	0	0	85	7	2	0	0	0	4	98
0	0	0	0	0	0	0	0	90	7	0	0	0	0	4	101
0	0	0	0	0	0	0	0	107	14	0	0	1	1	9	132
0	0	0	0	0	0	0	0	370	35	3	0	4	1	22	435
0	0	0	0	0	0	0	0	93	10	2	0	1	1	5	112
0	0	0	0	0	0	0	0	81	5	0	0	0	0	8	94
0	0	0	0	0	0	0	0	90	9	0	0	2	0	5	106
0	0	0	0	0	0	0	0	89	5	1	0	2	0	6	103
0	0	0	0	0	0	0	0	353	29	3	0	5	1	24	415
0	0	0	0	0	0	0	0	79	8	0	0	2	0	5	94
0	0	0	0	0	0	0	0	85	6	0	0	2	1	5	99
0	0	0	0	0	0	0	0	81	2	1	0	1	0	8	93
0	0	0	0	0	0	0	0	86	3	0	0	2	2	6	99
0	0	0	0	0	0	0	0	331	19	1	0	7	3	24	385
1	0	0	0	0	0	0	1	3993	370	71	9	53	17	188	4701

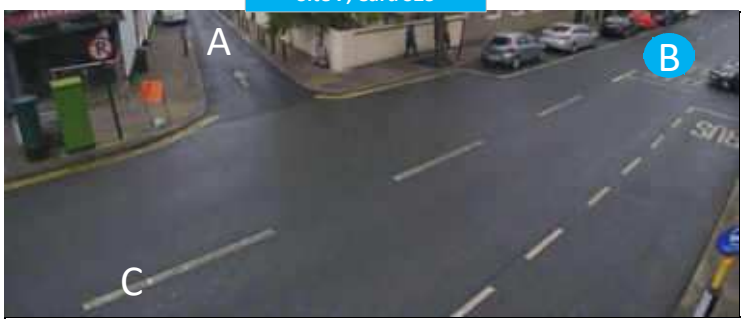
C => A								C => B							
CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT
0	1	0	0	0	0	0	1	13	2	1	0	3	0	1	20
0	1	1	0	0	0	0	2	12	9	1	1	0	0	2	25
0	0	0	0	0	0	0	0	28	6	1	0	1	0	2	38
2	0	0	0	0	0	0	2	41	11	1	0	0	0	2	55
2	2	1	0	0	0	0	5	94	28	4	1	4	0	7	138
0	0	0	0	0	0	0	0	29	9	6	0	1	0	0	45
2	0	0	0	0	0	0	2	27	6	1	2	0	0	3	39
2	0	0	0	0	0	0	2	40	5	1	0	1	0	3	50
2	0	0	0	0	0	0	2	40	10	2	0	0	0	2	54
6	0	0	0	0	0	0	6	136	30	10	2	2	0	8	188
0	0	0	0	0	0	0	0	30	4	4	0	1	0	1	40
0	0	0	0	0	0	0	0	44	8	2	0	0	0	1	55
3	0	0	0	0	0	0	3	41	9	4	0	1	0	1	56
4	0	0	0	0	0	0	4	55	5	2	0	0	0	0	62
7	0	0	0	0	0	0	7	170	26	12	0	2	0	3	213
1	0	0	0	0	0	0	1	50	2	3	0	2	1	0	58
2	0	0	0	0	0	0	2	59	7	0	0	0	0	0	66
3	0	0	0	0	0	0	3	38	8	1	0	1	0	2	50
1	0	0	0	0	0	0	1	54	3	4	0	0	0	1	62
7	0	0	0	0	0	0	7	201	20	8	0	3	1	3	236
0	0	0	0	0	0	0	0	49	5	0	0	1	0	0	55
0	0	0	0	0	0	0	0	64	4	5	0	0	0	0	73
0	0	0	0	0	0	1	1	66	5	0	0	1	0	1	73
1	0	0	0	0	0	0	1	67	2	2	0	0	0	0	71
1	0	0	0	0	0	1	2	246	16	7	0	2	0	1	272
4	0	0	0	0	0	0	4	80	5	1	0	1	0	0	87
1	0	0	0	0	0	0	1	69	7	2	0	1	0	2	81
0	0	0	0	0	0	0	0	68	5	1	0	1	0	2	77
1	0	0	0	0	0	0	1	73	8	1	0	0	0	4	86
6	0	0	0	0	0	0	6	290	25	5	0	3	0	8	331
0	0	0	0	0	0	0	0	69	9	1	0	1	0	2	82
0	0	0	0	0	0	0	0	72	2	0	0	0	0	4	78
2	0	0	0	0	0	0	2	70	2	2	0	1	1	1	77
1	0	0	0	0	0	0	1	68	4	1	0	0	0	1	74
3	0	0	0	0	0	0	3	279	17	4	0	2	1	8	311
2	0	0	0	0	0	0	2	71	4	1	0	0	0	5	81
3	0	0	0	0	0	0	3	76	4	0	0	1	0	1	82
0	0	0	0	0	0	0	0	73	9	2	0	1	0	2	87
1	0	0	0	0	0	0	1	76	5	0	0	0	0	5	86
6	0	0	0	0	0	0	6	296	22	3	0	2	0	13	336
0	0	0	0	0	0	0	0	52	5	0	0	1	0	3	61
0	0	0	0	0	0	0	0	64	4	0	0	0	0	3	71
1	0	0	0	0	0	0	1	67	5	0	0	0	0	2	74
2	0	0	0	0	0	0	2	66	3	0	1	1	1	2	74
3	0	0	0	0	0	0	3	249	17	0	1	2	1	10	280
0	0	0	0	0	0	0	0	82	5	0	0	1	2	1	91
1	0	0	0	0	0	0	1	94	7	0	0	0	1	2	104
0	0	0	0	0	0	1	1	60	1	1	0	1	1	5	69
0	0	0	0	0	0	0	0	71	2	0	0	1	1	7	82
1	0	0	0	0	0	1	2	307	15	1	0	3	5	15	346
1	0	0	0	0	0	0	1	76	6	0	0	2	0	6	90
2	0	0	0	0	0	0	2	59	3	0	1	0	0	3	66
0	0	0	0	0	0	0	0	63	9	0	1	0	0	2	75
2	0	0	0	0	0	0	2	73	2	0	1	1	0	4	81
5	0	0	0	0	0	0	5	271	20	0	3	3	0	15	312
2	0	0	0	0	0	0	2	73	1	0	1	1	0	2	78
3	0	0	0	0	0	0	3	70	6	0	0	0	0	2	78
2	0	0	0	0	0	0	2	79	1	0	0	1	0	5	86
2	0	0	0	0	0	0	2	80	1	0	0	1	0	9	91
9	0	0	0	0	0	0	9	302	9	0	1	3	0	18	333
56	2	1	0	0	0	2	61	2841	245	54	8	31	8	109	3296

C => C							
CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	1
1	0	0	0	0	0	0	1
2	0	0	0	0	0	0	2
0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	1
2	0	0	0	0	0	0	2
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	5

Survey Name :	ITS J-410 Malahide
Site:	7
Date:	03.07.2020
Time:	07:00-19:00
Location:	53.451441, -6.153758
Classification:	Car, LGV, OGV1, OGV2, PSV, P/C, M/C

Irish Traffic Surveys

Site 7, Card S23

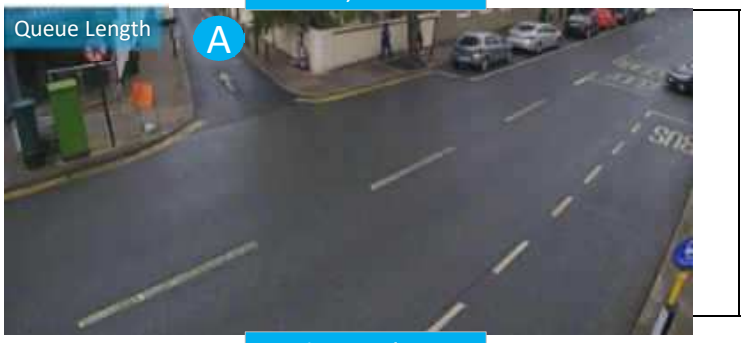


Mapping Image



Survey duration:	12h
Time Period:	07:00-19:00
Junction Type:	3 Arm Junction
Reporting Interval:	15min
Classification scheme:	Car, LGV, OGV1, OGV2, PSV, P/C, M/C
Queues Required:	Yes
Pedestrian required:	No

Site 7, Card S23



Site 7, Card T22



Site 7, Card T1



Survey Name :	ITS J-410 Malahide
Site:	Site 7
Date:	15-07-2020
Time:	07:00-19:00
Location:	53.451441, -6.153758
Classification:	Car, LGV, OGV1, OGV2, PSV, P/C, M/C

Irish Traffic Surveys



	A => A								A => B							
TIME	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12 TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



A => C								B => A							
CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT
0	0	0	0	0	0	0	0	3	2	1	0	0	0	1	7
0	0	0	0	0	0	0	0	5	1	0	0	0	0	2	8
0	0	0	0	0	0	0	0	6	0	0	0	0	1	0	7
0	0	0	0	0	0	0	0	9	2	0	0	0	0	0	11
0	0	0	0	0	0	0	0	23	5	1	0	0	1	3	33
0	0	0	0	0	0	0	0	12	0	0	0	0	0	0	12
0	0	0	0	0	0	0	0	11	2	0	0	0	0	0	13
0	0	0	0	0	0	0	0	15	6	1	0	0	0	0	22
0	0	0	0	0	0	0	0	13	3	0	0	0	0	0	16
0	0	0	0	0	0	0	0	51	11	1	0	0	0	0	63
0	0	0	0	0	0	0	0	18	1	2	0	0	0	0	21
0	0	0	0	0	0	0	0	12	3	0	0	0	0	0	15
0	0	0	0	0	0	0	0	20	1	0	0	0	0	2	23
0	0	0	0	0	0	0	0	16	3	0	0	0	0	0	19
0	0	0	0	0	0	0	0	66	8	2	0	0	0	2	78
0	0	0	0	0	0	0	0	23	4	0	0	0	0	0	27
0	0	0	0	0	0	0	0	17	3	0	0	0	0	1	21
0	0	0	0	0	0	0	0	29	3	1	0	0	0	0	33
0	0	0	0	0	0	0	0	16	2	0	0	0	0	2	20
0	0	0	0	0	0	0	0	85	12	1	0	0	0	3	101
0	0	0	0	0	0	0	0	27	0	0	0	0	0	0	27
0	0	0	0	0	0	0	0	19	3	0	0	0	0	1	23
0	0	0	0	0	0	0	0	21	1	1	0	0	0	0	23
0	0	0	0	0	0	0	0	22	0	0	0	0	0	2	24
0	0	0	0	0	0	0	0	89	4	1	0	0	0	3	97
0	0	0	0	0	0	0	0	19	1	0	0	0	0	0	20
0	0	0	0	0	0	0	0	25	5	0	0	0	0	1	31
0	0	0	0	0	0	0	0	33	2	0	0	0	0	0	35
0	0	0	0	0	0	0	0	31	6	0	0	0	0	1	38
0	0	0	0	0	0	0	0	108	14	0	0	0	0	2	124
0	0	0	0	0	0	0	0	29	4	0	0	0	1	0	34
0	0	0	0	0	0	0	0	27	4	0	0	0	0	0	31
0	0	0	0	0	0	0	0	32	0	0	0	0	0	1	33
0	0	0	0	0	0	0	0	21	0	0	0	0	0	0	21
0	0	0	0	0	0	0	0	109	8	0	0	0	1	1	119
0	0	0	0	0	0	0	0	30	1	0	0	0	0	0	31
0	0	0	0	0	0	0	0	27	1	0	0	0	0	0	28
0	0	0	0	0	0	0	0	22	2	0	0	0	0	0	24
0	0	0	0	0	0	0	0	22	3	0	0	0	0	0	25
0	0	0	0	0	0	0	0	101	7	0	0	0	0	0	108
0	0	0	0	0	0	0	0	31	2	0	0	0	0	0	33
0	0	0	0	0	0	0	0	16	3	0	0	0	0	0	19
0	0	0	0	0	0	0	0	29	2	0	0	0	0	0	31
0	0	0	0	0	0	0	0	23	3	0	0	0	0	0	26
0	0	0	0	0	0	0	0	99	10	0	0	0	0	0	109
0	0	0	0	0	0	0	0	19	4	0	0	0	0	0	23
0	0	0	0	0	0	0	0	32	1	0	0	0	0	2	35
0	0	0	0	0	0	0	0	27	1	0	0	0	0	1	29
0	0	0	0	0	0	0	0	33	3	0	0	0	0	5	41
0	0	0	0	0	0	0	0	111	9	0	0	0	0	8	128
0	0	0	0	0	0	0	0	31	3	0	0	0	0	0	34
0	0	0	0	0	0	0	0	23	1	0	0	0	0	0	24
0	0	0	0	0	0	0	0	25	1	0	0	0	0	1	27
0	0	0	0	0	0	0	0	26	0	0	0	0	0	3	29
0	0	0	0	0	0	0	0	105	5	0	0	0	0	4	114
0	0	0	0	0	0	0	0	21	1	0	0	0	0	2	24
0	0	0	0	0	0	0	0	29	2	0	0	0	0	1	32
0	0	0	0	0	0	0	0	37	0	0	0	0	0	0	37
0	0	0	0	0	0	0	0	23	0	0	0	0	1	3	27
0	0	0	0	0	0	0	0	110	3	0	0	0	1	6	120
0	0	0	0	0	0	0	0	1057	96	6	0	0	3	32	1194

B => B								B => C							
CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT
0	0	0	0	0	0	0	0	34	3	0	0	1	0	1	39
0	0	0	0	0	0	0	0	32	4	1	0	3	0	1	41
0	0	0	0	0	0	0	0	47	5	0	2	1	0	4	59
0	0	0	0	0	0	0	0	47	4	1	0	1	1	3	57
0	0	0	0	0	0	0	0	160	16	2	2	6	1	9	196
0	0	0	0	0	0	0	0	63	3	0	0	1	0	9	76
0	0	0	0	0	0	0	0	73	4	3	0	0	0	6	86
0	0	0	0	0	0	0	0	94	8	4	1	2	0	1	110
0	0	0	0	0	0	0	0	76	6	0	1	0	0	3	86
0	0	0	0	0	0	0	0	306	21	7	2	3	0	19	358
0	0	0	0	0	0	0	0	75	9	3	0	1	0	1	89
0	0	0	0	0	0	0	0	65	7	3	2	2	0	1	80
0	0	0	0	0	0	0	0	66	8	4	0	0	0	2	80
0	0	0	0	0	0	0	0	75	13	1	1	3	0	4	97
0	0	0	0	0	0	0	0	281	37	11	3	6	0	8	346
0	0	0	0	0	0	0	0	81	11	5	0	1	0	0	98
0	0	0	0	0	0	0	0	81	8	3	0	0	0	1	93
0	0	0	0	0	0	0	0	93	12	3	0	1	1	1	111
0	0	0	0	0	0	0	0	100	10	2	0	1	1	0	114
0	0	0	0	0	0	0	0	355	41	13	0	3	2	2	416
0	0	0	0	0	0	0	0	98	12	3	2	0	0	1	116
0	0	0	0	0	0	0	0	83	9	5	2	0	0	1	100
0	0	0	0	0	0	0	0	98	13	1	0	1	0	1	114
0	0	0	0	0	0	0	0	95	7	5	0	1	0	3	111
0	0	0	0	0	0	0	0	374	41	14	4	2	0	6	441
0	0	0	0	0	0	0	0	119	3	1	2	1	0	5	131
0	0	0	0	0	0	0	0	102	10	1	1	1	1	2	118
0	0	0	0	0	0	0	0	85	10	2	2	0	3	4	106
0	0	0	0	0	0	0	0	98	11	2	1	0	0	2	114
0	0	0	0	0	0	0	0	404	34	6	6	2	4	13	469
0	0	0	0	0	0	0	0	99	10	2	1	2	0	2	116
0	0	0	0	0	0	0	0	90	9	2	0	0	0	5	106
0	0	0	0	0	0	0	0	115	7	3	1	1	0	2	129
0	0	0	0	0	0	0	0	98	13	0	1	0	0	5	117
0	0	0	0	0	0	0	0	402	39	7	3	3	0	14	468
0	0	0	0	0	0	0	0	112	9	0	0	3	1	5	130
0	0	0	0	0	0	0	0	104	10	0	1	0	0	2	117
0	0	0	0	0	0	0	0	100	15	3	1	1	0	1	121
0	0	0	0	0	0	0	0	113	6	2	2	0	0	6	129
0	0	0	0	0	0	0	0	429	40	5	4	4	1	14	497
0	0	0	0	0	0	0	0	105	11	2	2	3	1	7	131
0	0	0	0	0	0	0	0	95	14	2	1	0	2	3	117
0	0	0	0	0	0	0	0	118	13	4	2	2	0	3	142
0	0	0	0	0	0	0	0	109	8	0	1	0	1	1	120
0	0	0	0	0	0	0	0	427	46	8	6	5	4	14	510
0	0	0	0	0	0	0	0	119	12	2	0	3	0	3	139
0	0	0	0	0	0	0	0	91	8	2	0	0	0	3	104
0	0	0	0	0	0	0	0	97	10	1	0	2	0	4	114
0	0	0	0	0	0	0	0	101	12	0	0	1	1	2	117
0	0	0	0	0	0	0	0	408	42	5	0	6	1	12	474
0	0	0	0	0	0	0	0	101	13	1	0	1	0	5	121
0	0	0	0	0	0	0	0	90	7	0	0	0	1	8	106
0	0	0	0	0	0	0	0	99	9	0	0	2	1	3	114
0	0	0	0	0	0	0	0	98	8	1	0	0	0	7	114
0	0	0	0	0	0	0	0	388	37	2	0	3	2	23	455
0	0	0	0	0	0	0	0	100	7	0	0	2	0	3	112
0	0	0	0	0	0	0	0	90	5	0	0	2	1	s	98
0	0	0	0	0	0	0	0	108	6	1	0	1	0	8	124
0	0	0	0	0	0	0	0	117	5	0	0	2	1	3	128
0	0	0	0	0	0	0	0	415	23	1	0	7	2	14	462
0	0	0	0	0	0	0	0	4349	417	81	30	50	17	148	5092

C => A								C => B							
CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT
0	3	0	0	0	0	0	3	13	5	0	0	0	0	1	19
1	2	1	0	0	0	0	4	15	10	3	0	0	0	2	30
4	3	0	0	0	0	0	7	29	5	1	0	1	0	2	38
4	0	1	0	0	0	0	5	47	14	1	0	0	0	2	64
9	8	2	0	0	0	0	19	104	34	5	0	1	0	7	151
7	0	0	0	0	0	0	7	29	8	5	0	1	0	0	43
8	1	0	0	0	0	0	9	28	6	1	2	0	0	0	37
10	0	0	1	0	0	0	11	41	5	1	0	1	0	2	50
17	3	0	0	0	0	0	20	47	8	2	0	0	0	3	60
42	4	0	1	0	0	0	47	145	27	9	2	2	0	5	190
8	3	2	1	0	0	0	14	32	7	3	0	1	0	1	44
9	0	1	0	0	1	0	11	49	7	3	0	1	0	0	60
8	1	2	0	0	0	0	11	41	15	4	0	1	0	1	62
15	4	1	1	0	0	0	21	67	5	2	0	0	0	0	74
40	8	6	2	0	1	0	57	189	34	12	0	3	0	2	240
17	2	0	0	0	0	0	19	50	3	3	0	2	1	0	59
14	4	0	0	0	0	0	18	58	8	0	0	0	0	0	66
20	2	0	0	0	0	0	22	45	8	0	0	1	0	1	55
27	3	0	1	0	0	0	31	58	4	4	0	0	0	1	67
78	11	0	1	0	0	0	90	211	23	7	0	3	1	2	247
13	1	0	1	0	0	0	15	50	6	2	0	1	0	1	60
17	2	0	0	0	0	0	19	66	5	3	1	0	0	0	75
11	0	1	0	0	0	1	13	74	5	1	0	1	0	2	83
12	1	0	0	0	0	0	13	77	3	1	0	0	0	0	81
53	4	1	1	0	0	1	60	267	19	7	1	2	0	3	299
26	2	0	1	0	0	0	29	84	5	1	0	1	0	0	91
12	2	0	1	0	0	0	15	73	7	2	0	0	0	2	84
23	3	1	0	0	0	0	27	68	6	1	0	1	0	1	77
21	2	0	1	0	0	0	24	81	8	1	0	0	0	4	94
82	9	1	3	0	0	0	95	306	26	5	0	2	0	7	346
13	1	0	1	0	0	0	15	69	10	1	0	1	0	2	83
20	3	0	1	0	0	0	24	77	3	0	0	0	1	4	85
21	0	0	2	0	0	1	24	69	3	0	0	1	0	1	74
17	3	0	0	0	0	0	20	79	4	1	0	1	0	1	86
71	7	0	4	0	0	1	83	294	20	2	0	3	1	8	328
13	0	0	1	0	0	0	14	75	5	1	0	0	0	5	86
31	0	0	1	0	0	1	33	84	8	0	0	1	0	1	94
18	3	0	0	0	0	0	21	80	9	1	0	1	0	2	93
21	0	0	1	0	0	0	22	77	6	0	0	0	1	4	88
83	3	0	3	0	0	1	90	316	28	2	0	2	1	12	361
20	4	0	1	0	0	0	25	55	7	0	0	1	0	3	66
18	0	1	0	0	0	0	19	67	5	0	0	0	0	1	73
20	0	0	1	0	0	1	22	66	5	0	0	1	0	3	75
18	1	1	1	0	1	1	23	80	3	0	1	0	0	2	86
76	5	2	3	0	1	2	89	268	20	0	1	2	0	9	300
22	1	0	0	0	0	0	23	77	6	0	0	1	2	1	87
18	0	0	0	0	0	0	18	100	8	0	0	1	1	2	112
18	0	0	0	0	0	0	18	66	1	1	0	2	0	5	75
18	0	0	0	0	0	0	18	69	2	0	0	0	0	7	78
76	1	0	0	0	0	0	77	312	17	1	0	4	3	15	352
18	0	0	0	0	0	0	18	80	6	0	0	1	1	6	94
14	0	0	0	0	0	0	14	74	3	0	1	0	0	3	81
17	2	0	0	0	0	0	19	69	9	0	1	0	0	2	81
12	1	0	0	0	0	0	13	78	2	0	1	1	0	4	86
61	3	0	0	0	0	0	64	301	20	0	3	2	1	15	342
24	1	0	0	0	0	0	25	84	3	0	1	1	0	2	91
23	2	0	0	0	0	0	25	71	8	0	0	0	0	2	81
16	0	0	0	0	0	0	16	87	0	0	0	1	0	5	93
17	1	0	0	0	0	0	18	82	0	0	0	0	0	9	91
80	4	0	0	0	0	0	84	324	11	0	1	2	0	18	356
751	67	12	18	0	2	5	855	3037	279	50	8	28	7	103	3512

C => C							
CAR	LGV	OGV1	OGV2	PSV	M/C	P/C	TOT
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	1
1	0	0	0	0	0	0	1
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	1


Sites Overview
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Irish Traffic Surveys

Survey Name :	ITS J-347 Malahide
Site:	
Date:	09.10.2019
Time:	07:00 - 12:00
Location:	53.4449143,-6.1781695,5326
Classification:	Car, LGV, OGV1, OGV2, PSV, P/C, M/C, Peds

Irish Traffic Surveys

Survey Name :	ITS J-347 Malahide
Site:	Site 1
Date:	09.10.2019
Time:	07:00 - 12:00
Location:	53.450726, -6.15363
Classification:	Car, LGV, OGV1, OGV2, Bus, P/C, M/C

	A => A									
TIME	CAR	LGV	OGV1	OGV2	Bus	M/C	P/C	TOT	CAR	LGV
07:00	0	0	0	0	0	0	0	0	1	0
07:15	0	0	0	0	0	0	0	0	4	1
07:30	0	0	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0	3	1
H/TOT	0	0	0	0	0	0	0	0	8	2
08:00	0	0	0	0	0	0	0	0	4	2
08:15	0	0	0	0	0	0	0	0	3	0
08:30	0	0	0	0	0	0	0	0	4	0
08:45	0	0	0	0	0	0	0	0	5	0
H/TOT	0	0	0	0	0	0	0	0	16	2
09:00	0	0	0	0	0	0	0	0	5	1
09:15	0	0	0	0	0	0	0	0	2	0
09:30	0	0	0	0	0	0	0	0	4	0
09:45	0	0	0	0	0	0	0	0	5	0
H/TOT	0	0	0	0	0	0	0	0	16	1
10:00	0	0	0	0	0	0	0	0	6	0
10:15	0	0	0	0	0	0	0	0	4	0
10:30	0	0	0	0	0	0	0	0	4	0
10:45	0	0	0	0	0	0	0	0	3	2
H/TOT	0	0	0	0	0	0	0	0	17	2
11:00	0	0	0	0	0	0	0	0	6	3
11:15	0	0	0	0	0	0	0	0	7	2
11:30	0	0	0	0	0	0	0	0	3	1
11:45	0	0	0	0	0	0	0	0	4	0
H/TOT	0	0	0	0	0	0	0	0	20	6
4 hr TOT	0	0	0	0	0	0	0	0	77	13



A => B						A => C							
OGV1	OGV2	Bus	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	Bus	M/C	P/C	TOT
2	0	0	0	0	3	2	1	0	0	0	0	0	3
1	0	0	0	0	6	6	1	0	0	0	0	0	7
0	0	0	0	0	0	7	0	1	0	0	0	0	8
0	0	0	0	0	4	7	0	0	0	0	0	0	7
3	0	0	0	0	13	22	2	1	0	0	0	0	25
0	0	0	0	0	6	26	0	0	0	0	0	0	26
1	0	0	0	0	4	45	0	1	0	0	0	0	46
0	0	0	0	0	4	29	2	0	0	0	0	0	31
0	0	0	0	0	5	38	2	0	0	0	1	0	41
1	0	0	0	0	19	138	4	1	0	0	1	0	144
0	0	0	0	0	6	18	1	0	0	0	0	0	19
1	0	0	0	0	3	8	1	0	0	0	0	0	9
1	0	0	0	0	5	14	0	0	0	0	0	1	15
0	0	0	0	0	5	7	1	0	0	0	0	1	9
2	0	0	0	0	19	47	3	0	0	0	0	2	52
0	0	0	0	0	6	8	1	0	0	0	0	0	9
0	0	0	0	0	4	9	1	0	0	0	0	0	10
0	0	0	0	0	4	15	2	0	0	0	0	0	17
0	0	0	0	2	7	10	0	0	0	0	0	0	10
0	0	0	0	2	21	42	4	0	0	0	0	0	46
1	0	0	0	0	10	17	0	1	0	0	0	0	18
0	0	0	0	0	9	12	3	0	0	0	0	0	15
0	0	0	0	0	4	12	2	0	0	0	0	0	14
0	0	0	0	0	4	20	0	0	0	0	0	0	20
1	0	0	0	0	27	61	5	1	0	0	0	0	67
7	0	0	0	2	99	310	18	3	0	0	1	2	334

A => D								B => A							
CAR	LGV	OGV1	OGV2	Bus	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	Bus	M/C	P/C	TOT
11	1	0	0	0	0	0	3	4	1	0	0	0	0	0	5
14	1	1	0	0	0	0	7	1	0	0	0	2	0	0	3
11	2	0	0	0	0	1	8	1	0	1	0	1	0	0	3
8	2	1	0	0	0	0	7	4	0	0	0	0	0	0	4
44	6	2	0	0	0	1	25	10	1	1	0	3	0	0	15
10	1	1	0	0	0	0	26	5	0	0	0	1	0	0	6
15	2	0	0	0	0	0	46	5	0	1	0	0	1	0	7
17	2	2	0	0	0	0	31	2	0	0	0	0	0	0	2
14	0	0	0	0	0	0	41	9	1	0	0	1	0	0	11
56	5	3	0	0	0	0	144	21	1	1	0	2	1	0	26
13	0	0	0	0	0	0	19	8	0	1	0	0	0	0	9
10	3	0	0	0	0	0	9	4	2	0	0	0	0	0	6
12	3	1	0	0	0	0	15	9	1	0	0	1	0	0	11
7	2	0	0	0	0	0	9	5	2	0	0	1	0	0	8
42	8	1	0	0	0	0	52	26	5	1	0	2	0	0	34
22	0	0	0	0	0	0	9	8	1	0	0	0	0	2	11
14	4	1	0	0	0	0	10	10	0	0	0	0	0	0	10
16	3	0	0	0	0	0	17	12	2	0	0	0	0	0	14
14	4	0	0	0	0	0	10	9	1	0	0	0	0	1	11
66	11	1	0	0	0	0	46	39	4	0	0	0	0	3	46
14	3	0	0	0	0	0	18	7	0	0	0	1	0	0	8
2	2	1	0	0	0	0	15	8	2	1	0	0	0	0	11
12	0	1	0	0	0	0	14	2	0	0	0	0	0	0	2
8	4	0	0	0	0	0	20	9	3	0	0	0	0	0	12
36	9	2	0	0	0	0	67	26	5	1	0	1	0	0	33
244	39	9	0	0	0	1	334	122	16	4	0	8	1	3	154

B => B								B => C							
CAR	LGV	OGV1	OGV2	Bus	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	Bus	M/C	P/C	TOT
0	0	0	0	0	0	0	0	7	0	0	0	0	0	0	7
0	0	0	0	0	0	0	0	5	0	1	0	0	0	0	6
0	0	0	0	0	0	0	0	9	3	0	0	0	0	0	12
0	0	0	0	0	0	0	0	5	1	0	0	0	0	1	7
0	0	0	0	0	0	0	0	26	4	1	0	0	0	1	32
0	0	0	0	0	0	0	0	5	3	1	0	0	0	0	9
0	0	0	0	0	0	0	0	7	2	0	0	0	0	0	9
0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	10
0	0	0	0	0	0	0	0	21	0	0	0	0	0	0	21
0	0	0	0	0	0	0	0	43	5	1	0	0	0	0	49
0	0	0	0	0	0	0	0	18	1	0	0	0	0	0	19
0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
0	0	0	0	0	0	0	0	7	2	0	0	0	0	0	9
0	0	0	0	0	0	0	0	7	0	0	0	0	0	0	7
0	0	0	0	0	0	0	0	34	3	0	0	0	0	0	37
0	0	0	0	0	0	0	0	8	1	0	0	0	0	0	9
0	0	0	0	0	0	0	0	9	1	0	0	0	0	0	10
0	0	0	0	0	0	0	0	12	1	1	0	0	0	0	14
0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	10
0	0	0	0	0	0	0	0	39	3	1	0	0	0	0	43
0	0	0	0	0	0	0	0	13	3	0	0	0	0	0	16
0	0	0	0	0	0	0	0	7	1	0	0	0	0	0	8
0	0	0	0	0	0	0	0	6	4	0	0	0	0	0	10
0	0	0	0	0	0	0	0	10	2	0	0	0	1	0	13
0	0	0	0	0	0	0	0	36	10	0	0	0	1	0	47
0	0	0	0	0	0	0	0	178	25	3	0	0	1	1	208

B => D								C => A							
CAR	LGV	OGV1	OGV2	Bus	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	Bus	M/C	P/C	TOT
38	2	0	3	2	0	2	7	5	0	0	0	0	0	0	5
70	7	0	1	2	0	0	6	4	2	0	0	0	0	0	6
63	5	0	0	1	0	3	12	5	0	0	0	0	0	0	5
87	4	1	0	4	0	1	7	12	0	0	0	0	0	0	12
258	18	1	4	9	0	6	32	26	2	0	0	0	0	0	28
72	4	3	0	3	0	1	9	12	0	0	0	0	0	0	12
99	3	2	0	0	0	0	9	18	1	0	0	0	0	0	19
79	5	1	1	3	0	0	10	24	1	0	0	0	0	0	25
81	4	0	0	0	0	1	21	17	0	0	0	0	0	0	17
331	16	6	1	6	0	2	49	71	2	0	0	0	0	0	73
78	5	1	0	1	0	1	19	24	0	0	0	0	0	0	24
77	11	2	0	1	0	0	2	11	2	0	0	0	0	0	13
64	2	0	1	1	0	2	9	5	0	0	0	0	0	1	6
57	4	2	1	0	0	0	7	10	1	0	0	0	0	0	11
276	22	5	2	3	0	3	37	50	3	0	0	0	0	1	54
69	6	1	0	3	0	0	9	7	1	0	0	0	0	0	8
54	6	1	3	0	0	1	10	18	0	0	0	0	0	0	18
61	7	1	0	1	1	0	14	10	1	0	0	0	0	0	11
56	4	0	0	0	0	0	10	10	0	0	0	0	0	0	10
240	23	3	3	4	1	1	43	45	2	0	0	0	0	0	47
53	7	1	0	1	0	2	16	15	2	0	0	0	0	0	17
74	5	5	1	0	0	1	8	8	0	0	0	0	0	0	8
66	6	3	4	2	0	4	10	10	1	0	0	0	0	0	11
70	4	4	0	0	0	1	13	9	1	0	0	0	0	0	10
263	22	13	5	3	0	8	47	42	4	0	0	0	0	0	46
1368	101	28	15	25	1	20	208	234	13	0	0	0	0	1	248

C => B								C => C							
CAR	LGV	OGV1	OGV2	Bus	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	Bus	M/C	P/C	TOT
1	1	0	0	0	0	0	2	0	0	0	0	0	0	0	0
5	1	0	0	0	0	0	6	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0
13	2	0	0	0	0	0	15	0	0	0	0	0	0	0	0
8	1	0	0	0	0	0	9	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	11	0	0	0	0	0	0	0	0
15	1	0	0	0	0	0	16	0	0	0	0	0	0	0	0
17	0	1	0	1	0	0	19	0	0	0	0	0	0	0	0
51	2	1	0	1	0	0	55	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	16	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	12	0	0	0	0	0	0	0	0
8	1	0	0	0	0	0	9	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0
43	1	0	0	0	0	0	44	0	0	0	0	0	0	0	0
10	1	0	0	0	0	0	11	0	0	0	0	0	0	0	0
10	0	1	0	0	0	0	11	0	0	0	0	0	0	0	0
13	1	0	0	0	0	0	14	0	0	0	0	0	0	0	0
17	0	0	0	0	1	0	18	0	0	0	0	0	0	0	0
50	2	1	0	0	1	0	54	0	0	0	0	0	0	0	0
7	2	0	0	0	0	0	9	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	16	0	0	0	0	0	0	0	0
12	1	0	0	0	0	1	14	0	0	0	0	0	0	0	0
7	3	0	0	0	0	0	10	0	0	0	0	0	0	0	0
42	6	0	0	0	0	1	49	0	0	0	0	0	0	0	0
199	13	2	0	1	1	1	217	0	0	0	0	0	0	0	0

C => D								D => A							
CAR	LGV	OGV1	OGV2	Bus	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	Bus	M/C	P/C	TOT
5	1	1	0	1	0	0	8	12	2	0	0	0	1	0	15
21	1	0	0	2	0	2	26	2	1	0	0	0	0	0	3
14	2	0	0	1	0	0	17	2	0	2	0	0	0	0	4
14	2	1	0	3	0	1	21	5	1	1	1	0	0	0	8
54	6	2	0	7	0	3	72	21	4	3	1	0	1	0	30
19	0	0	0	5	0	0	24	4	0	0	0	0	0	0	4
22	0	1	0	0	0	0	23	4	0	1	0	0	0	0	5
23	0	0	0	1	0	0	24	5	0	2	0	0	0	0	7
17	0	0	0	1	0	0	18	14	0	0	0	0	0	0	14
81	0	1	0	7	0	0	89	27	0	3	0	0	0	0	30
23	0	0	0	1	0	0	24	7	1	0	0	0	0	0	8
18	2	2	0	1	0	0	23	6	1	0	0	0	0	0	7
12	1	1	1	0	0	0	15	8	0	0	0	0	0	0	8
11	3	0	0	0	0	0	14	7	1	1	0	0	1	0	10
64	6	3	1	2	0	0	76	28	3	1	0	0	1	0	33
8	1	0	0	0	0	0	9	7	0	0	0	0	0	0	7
16	2	1	0	1	0	0	20	5	2	0	0	0	0	0	7
16	2	0	0	0	0	0	18	11	2	0	0	0	0	0	13
19	2	3	0	1	0	0	25	9	3	1	0	0	0	0	13
59	7	4	0	2	0	0	72	32	7	1	0	0	0	0	40
17	2	1	0	0	0	0	20	10	1	0	0	0	0	0	11
16	3	0	0	1	0	0	20	9	0	2	0	0	0	0	11
21	3	0	1	0	0	0	25	5	1	1	0	0	0	0	7
10	3	0	0	1	0	0	14	8	2	1	0	0	0	0	11
64	11	1	1	2	0	0	79	32	4	4	0	0	0	0	40
322	30	11	2	20	0	3	388	140	18	12	1	0	2	0	173

D => B								D => C							
CAR	LGV	OGV1	OGV2	Bus	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	Bus	M/C	P/C	TOT
22	5	0	0	3	0	0	30	2	4	0	0	0	0	0	6
38	10	0	0	3	0	0	51	9	1	0	0	0	0	0	10
48	6	1	0	1	0	0	56	8	3	0	0	2	0	0	13
57	9	2	1	4	0	0	73	13	2	0	0	2	0	0	17
165	30	3	1	11	0	0	210	32	10	0	0	4	0	0	46
41	11	1	0	5	0	1	59	22	2	0	0	1	0	1	26
49	8	2	2	0	1	1	63	41	0	0	0	1	0	0	42
41	3	1	0	1	0	1	47	28	1	0	1	3	0	0	33
56	2	5	0	2	0	1	66	16	1	1	1	0	0	0	19
187	24	9	2	8	1	4	235	107	4	1	2	5	0	1	120
54	5	0	2	2	0	1	64	17	0	0	0	1	0	1	19
49	6	3	0	3	0	1	62	5	4	0	0	1	0	1	11
46	6	1	1	1	0	0	55	6	0	0	0	0	0	0	6
64	8	2	0	1	0	0	75	5	0	0	0	1	0	0	6
213	25	6	3	7	0	2	256	33	4	0	0	3	0	2	42
65	8	2	2	1	0	0	78	9	1	0	0	0	0	0	10
53	7	1	1	0	0	0	62	9	3	1	0	1	0	0	14
49	9	0	0	1	0	0	59	4	0	2	0	1	0	0	7
56	6	2	0	0	0	1	65	5	0	0	0	1	0	0	6
223	30	5	3	2	0	1	264	27	4	3	0	3	0	0	37
45	11	4	2	1	0	0	63	8	1	1	0	0	0	0	10
60	4	3	0	0	0	0	67	9	1	1	0	1	0	0	12
42	7	1	1	2	0	2	55	3	2	0	0	1	0	0	6
60	4	1	0	0	0	2	67	6	3	0	0	0	0	0	9
207	26	9	3	3	0	4	252	26	7	2	0	2	0	0	37
995	135	32	12	31	1	11	1217	225	29	6	2	17	0	3	282

D => D							
CAR	LGV	OGV1	OGV2	Bus	M/C	P/C	TOT
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0

Irish Traffic Surveys

Survey Name :	ITS J-347 Malahide
Site:	Site 2
Date:	09.10.2019
Time:	07:00 - 12:00
Location:	53.450925, -6.1509
Classification:	Car, LGV, OGV1, OGV2, Bus, P/C, M/C

	A => A									
TIME	CAR	LGV	OGV1	OGV2	Bus	M/C	P/C	TOT	CAR	LGV
07:00	1	0	0	0	0	0	0	1	0	0
07:15	0	0	0	0	0	0	0	0	5	1
07:30	0	0	0	0	0	0	0	0	1	0
07:45	0	0	0	0	0	0	0	0	2	0
H/TOT	1	0	0	0	0	0	0	1	8	1
08:00	0	0	0	0	0	0	0	0	5	0
08:15	0	0	0	0	0	0	0	0	6	0
08:30	0	0	0	0	0	0	0	0	6	1
08:45	0	0	0	0	0	0	0	0	1	0
H/TOT	0	0	0	0	0	0	0	0	18	1
09:00	1	0	0	0	0	0	0	1	0	0
09:15	0	0	0	0	0	0	0	0	3	0
09:30	0	0	0	0	0	0	0	0	7	0
09:45	0	0	0	0	0	0	0	0	3	0
H/TOT	1	0	0	0	0	0	0	1	13	0
10:00	0	0	0	0	0	0	0	0	3	0
10:15	2	0	0	0	0	0	0	2	3	0
10:30	0	0	0	0	0	0	0	0	3	0
10:45	0	0	0	0	0	0	0	0	0	0
H/TOT	2	0	0	0	0	0	0	2	9	0
11:00	0	0	0	0	0	0	0	0	5	0
11:15	0	0	0	0	0	0	0	0	2	0
11:30	0	0	0	0	0	0	0	0	3	0
11:45	1	0	0	0	0	0	0	1	5	0
H/TOT	1	0	0	0	0	0	0	1	15	0
4hr TOT	5	0	0	0	0	0	0	5	63	2



A => B						A => C							
OGV1	OGV2	Bus	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	Bus	M/C	P/C	TOT
0	0	0	0	0	0	47	1	2	0	2	0	1	53
0	0	0	0	0	6	72	3	2	0	5	0	0	82
0	0	0	0	0	1	79	7	0	0	4	0	4	94
0	0	0	0	0	2	104	6	2	0	3	0	1	116
0	0	0	0	0	9	302	17	6	0	14	0	6	345
0	0	0	0	0	5	91	9	3	0	0	0	0	103
0	0	0	0	0	6	145	9	1	0	0	0	1	156
0	0	0	0	0	7	98	6	1	1	3	0	0	109
0	0	0	0	0	1	86	7	0	0	1	0	1	95
0	0	0	0	0	19	420	31	5	1	4	0	2	463
0	0	0	0	0	0	95	6	1	0	1	0	1	104
0	0	0	0	0	3	94	14	2	0	1	0	2	113
0	0	0	0	0	7	90	5	0	1	2	0	3	101
0	0	0	0	0	3	86	6	3	1	1	0	2	99
0	0	0	0	0	13	365	31	6	2	5	0	8	417
0	0	0	0	0	3	87	5	2	0	3	0	4	101
0	1	0	0	0	4	102	9	2	2	0	0	2	117
0	0	0	0	0	3	92	11	1	0	1	1	5	111
0	0	0	0	0	0	80	3	1	0	0	0	1	85
0	1	0	0	0	10	361	28	6	2	4	1	12	414
0	0	0	0	0	5	83	12	2	0	2	0	2	101
0	0	0	0	0	2	67	8	4	0	0	1	4	84
0	0	0	0	0	3	77	12	3	1	2	0	3	98
0	0	0	0	0	5	104	4	4	0	0	0	1	113
0	0	0	0	0	15	331	36	13	1	4	1	10	396
0	1	0	0	0	66	1779	143	36	6	31	2	38	2035

B => A								B => B							
CAR	LGV	OGV1	OGV2	Bus	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	Bus	M/C	P/C	TOT
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	11	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	20	0	0	0	0	0	0	0	0
36	0	0	0	0	0	0	36	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	11	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0
2	1	0	0	0	0	0	3	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0
19	1	0	0	0	0	0	20	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0
73	1	0	0	0	0	0	74	0	0	0	0	0	0	0	0

B => C								C => A							
CAR	LGV	OGV1	OGV2	Bus	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	Bus	M/C	P/C	TOT
2	0	0	0	0	0	0	2	23	5	0	0	4	0	0	32
4	0	0	0	0	0	0	4	70	8	1	0	4	0	1	84
4	0	0	0	0	0	1	5	75	5	1	0	2	0	1	84
2	1	0	0	0	0	0	3	98	10	1	1	6	0	2	118
12	1	0	0	0	0	1	14	266	28	3	1	16	0	4	318
4	0	0	0	0	0	0	4	86	10	1	0	3	0	1	101
6	0	0	0	0	0	0	6	126	11	2	2	3	0	0	144
17	0	0	0	0	0	0	17	109	7	3	0	2	0	1	122
50	2	0	0	0	0	0	52	111	2	5	0	3	0	0	121
77	2	0	0	0	0	0	79	432	30	11	2	11	0	2	488
29	0	0	0	0	0	0	29	109	8	2	1	4	0	1	125
5	1	0	0	0	0	0	6	80	8	4	0	3	0	0	95
1	0	0	0	0	0	0	1	72	11	1	0	2	0	0	86
5	0	0	0	0	0	0	5	81	8	2	0	2	0	1	94
40	1	0	0	0	0	0	41	342	35	9	1	11	0	2	400
5	0	0	0	0	0	0	5	95	4	1	1	2	0	2	105
2	0	1	1	0	0	0	4	69	6	4	1	0	0	1	81
5	1	0	0	0	0	0	6	68	7	0	0	1	0	1	77
2	0	0	0	0	0	0	2	89	7	5	0	1	0	4	106
14	1	1	1	0	0	0	17	321	24	10	2	4	0	8	369
4	0	0	0	0	0	0	4	89	13	4	1	2	0	1	110
3	0	0	0	0	0	0	3	93	8	2	0	0	0	1	104
0	1	0	0	0	0	0	1	78	8	0	0	2	0	2	90
4	0	0	0	0	0	0	4	93	5	1	0	0	0	1	100
11	1	0	0	0	0	0	12	353	34	7	1	4	0	5	404
154	6	1	1	0	0	1	163	1714	151	40	7	46	0	21	1979

C => B								C => C							
CAR	LGV	OGV1	OGV2	Bus	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	Bus	M/C	P/C	TOT
1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	8	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	27	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	15	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	11	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0
2	1	0	0	0	0	0	3	0	0	0	0	0	0	0	0
20	1	0	0	0	0	0	21	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0
5	1	0	0	0	0	0	6	0	0	0	0	0	0	0	0
21	1	0	0	0	0	0	22	0	0	0	0	0	0	0	0
92	2	0	0	0	0	0	94	0	0	0	0	0	0	0	0

Irish Traffic Surveys

Survey Name :	ITS J-347 Malahide
Site:	Site 3
Date:	09.10.2019
Time:	07:00 - 12:00
Location:	53.450911, -6.14919
Classification:	Car, LGV, OGV1, OGV2, Bus, P/C, M/C

	A => A									
TIME	CAR	LGV	OGV1	OGV2	Bus	M/C	P/C	TOT	CAR	LGV
07:00	0	0	0	0	0	0	0	0	2	0
07:15	0	0	0	0	0	0	0	0	2	0
07:30	0	0	0	0	0	0	0	0	2	0
07:45	0	0	0	0	0	0	0	0	3	0
H/TOT	0	0	0	0	0	0	0	0	9	0
08:00	0	0	0	0	0	0	0	0	11	1
08:15	0	0	0	0	0	0	0	0	17	0
08:30	0	0	0	0	0	0	0	0	28	2
08:45	0	0	0	0	0	0	0	0	16	0
H/TOT	0	0	0	0	0	0	0	0	72	3
09:00	2	0	0	0	0	0	0	2	7	0
09:15	0	0	0	0	0	0	0	0	5	0
09:30	0	0	0	0	0	0	0	0	4	1
09:45	0	0	0	0	0	0	0	0	7	0
H/TOT	2	0	0	0	0	0	0	2	23	1
10:00	0	0	0	0	0	0	0	0	3	0
10:15	0	0	0	0	0	0	0	0	2	0
10:30	0	0	0	0	0	0	0	0	8	0
10:45	0	0	0	0	0	0	0	0	12	0
H/TOT	0	0	0	0	0	0	0	0	25	0
11:00	0	0	0	0	0	0	0	0	6	0
11:15	0	0	0	0	0	0	0	0	7	0
11:30	0	0	0	0	0	0	0	0	2	2
11:45	0	0	0	0	0	0	0	0	5	1
H/TOT	0	0	0	0	0	0	0	0	0	0
4 hr TOT	2	0	0	0	0	0	0	2	149	7



A => B						A => C							
OGV1	OGV2	Bus	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	Bus	M/C	P/C	TOT
0	0	0	0	0	2	43	3	1	1	2	0	2	52
0	0	0	0	0	2	67	7	0	1	4	0	0	79
0	0	0	0	0	2	73	6	0	0	4	0	4	87
0	0	0	0	0	3	94	8	1	0	3	0	1	107
0	0	0	0	0	9	277	24	2	2	13	0	7	325
0	0	0	0	0	12	98	9	4	0	3	0	1	115
0	0	0	0	0	17	129	7	1	0	0	0	1	138
0	0	0	0	0	30	107	4	1	1	3	0	0	116
0	0	0	0	0	16	67	8	2	0	1	0	1	79
0	0	0	0	0	75	401	28	8	1	7	0	3	448
0	0	0	0	0	7	82	2	1	0	1	0	1	87
0	0	0	0	0	5	88	12	2	0	1	0	1	104
1	0	0	0	0	6	81	6	0	1	2	0	3	93
0	0	0	0	0	7	77	4	2	0	1	0	3	87
1	0	0	0	0	25	328	24	5	1	5	0	8	371
0	0	0	0	0	3	76	3	2	0	3	0	4	88
0	0	0	0	0	2	92	8	1	3	0	0	5	109
0	0	0	0	0	8	71	10	2	0	1	0	2	86
1	0	0	0	0	13	60	4	0	0	0	0	1	65
1	0	0	0	0	26	299	25	5	3	4	0	12	348
0	0	0	0	0	6	73	10	1	0	2	0	2	88
0	0	0	0	0	7	62	6	5	1	0	0	4	78
0	0	0	0	0	4	61	10	3	1	2	0	3	80
0	0	0	0	0	6	82	4	3	1	0	0	1	91
0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	158	1583	131	32	10	33	0	40	1829

B => A								B => B							
CAR	LGV	OGV1	OGV2	Bus	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	Bus	M/C	P/C	TOT
3	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0
6	1	0	0	0	0	0	7	0	0	0	0	0	0	0	0
14	1	0	0	0	0	0	15	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	11	1	0	0	0	0	0	0	1
4	1	0	0	0	0	0	5	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	20	0	0	0	0	0	0	0	0
42	1	0	0	0	0	0	43	1	0	0	0	0	0	0	1
18	1	0	0	0	0	0	19	1	0	0	0	0	0	0	1
9	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0
41	1	0	0	0	0	0	42	1	0	0	0	0	0	0	1
8	3	1	0	0	0	0	12	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	12	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0
35	3	1	0	0	0	0	39	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0
7	1	0	0	0	0	0	8	0	0	0	0	0	0	0	0
8	1	0	0	0	0	0	9	0	0	0	0	0	0	0	0
9	1	0	0	0	0	0	10	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
166	9	1	0	0	0	0	176	2	0	0	0	0	0	0	2

B => C								C => A							
CAR	LGV	OGV1	OGV2	Bus	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	Bus	M/C	P/C	TOT
2	0	1	0	0	0	0	3	19	3	1	0	4	0	0	27
3	2	1	0	0	0	0	6	54	12	1	0	3	0	1	71
6	2	0	0	0	0	0	8	63	4	1	0	2	0	0	70
9	0	0	0	0	0	0	9	75	9	1	1	6	0	1	93
20	4	2	0	0	0	0	26	211	28	4	1	15	0	2	261
4	1	0	0	0	0	0	5	67	12	1	0	3	0	1	84
15	0	0	0	0	0	0	15	97	9	2	2	3	1	0	114
5	1	0	0	0	0	0	6	95	8	3	0	0	0	2	108
24	0	0	0	0	0	0	24	81	5	5	0	3	0	1	95
48	2	0	0	0	0	0	50	340	34	11	2	9	1	4	401
9	2	0	0	0	0	0	11	84	8	1	2	4	0	0	99
8	0	0	0	0	0	1	9	52	7	4	0	3	0	0	66
12	2	0	0	0	0	0	14	62	11	1	0	2	0	0	76
7	0	1	0	0	0	0	8	73	6	2	0	1	0	1	83
36	4	1	0	0	0	1	42	271	32	8	2	10	0	1	324
11	3	0	0	0	0	0	14	75	5	1	2	2	0	1	86
9	0	1	0	0	0	0	10	63	4	1	1	0	0	0	69
16	2	0	0	0	0	0	18	56	11	0	0	1	0	2	70
17	0	0	0	0	0	0	17	66	7	0	0	1	0	4	78
53	5	1	0	0	0	0	59	260	27	2	3	4	0	7	303
12	1	1	0	0	0	0	14	70	14	4	2	2	0	2	94
8	0	0	0	0	0	1	9	71	8	2	0	0	0	1	82
15	2	0	0	0	0	0	17	72	8	2	0	2	0	3	87
17	1	1	0	0	0	0	19	91	5	0	1	0	0	4	101
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
209	19	6	0	0	0	2	236	1386	156	33	11	42	1	24	1653

C => B								C => C							
CAR	LGV	OGV1	OGV2	Bus	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	Bus	M/C	P/C	TOT
6	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0
7	1	0	0	0	0	0	8	0	0	0	0	0	0	0	0
8	2	0	0	0	0	0	10	1	0	0	0	0	0	0	1
16	2	0	0	0	0	0	18	1	0	0	0	0	0	0	1
37	5	0	0	0	0	0	42	2	0	0	0	0	0	0	2
17	0	0	0	0	0	0	17	1	0	0	0	0	0	0	1
16	2	1	0	0	0	0	19	0	0	0	0	0	0	0	0
17	0	0	0	1	0	0	18	1	0	0	0	0	0	0	1
33	0	0	0	0	0	0	33	0	0	0	0	0	0	0	0
83	2	1	0	1	0	0	87	2	0	0	0	0	0	0	2
23	1	0	0	0	0	0	24	0	0	0	0	0	0	0	0
24	1	0	0	0	0	0	25	0	0	0	0	0	0	0	0
6	1	0	0	0	0	0	7	1	0	0	0	0	0	0	1
10	3	0	0	0	0	0	13	0	0	0	0	0	0	0	0
63	6	0	0	0	0	0	69	1	0	0	0	0	0	0	1
15	0	0	0	0	0	0	15	0	0	0	0	0	0	0	0
6	4	2	0	0	0	0	12	2	0	0	0	0	0	0	2
12	0	0	0	0	0	0	12	0	0	0	0	0	0	0	0
17	1	0	0	0	0	0	18	3	0	0	0	0	0	0	3
50	5	2	0	0	0	0	57	5	0	0	0	0	0	0	5
12	0	0	0	0	0	0	12	1	0	0	0	0	0	0	1
16	0	0	0	0	0	0	16	2	0	0	0	0	0	0	2
7	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0
7	1	1	0	0	0	0	9	2	0	0	0	0	0	0	2
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
275	19	4	0	1	0	0	299	15	0	0	0	0	0	0	15

Irish Traffic Surveys

Survey Name :	ITS J-347 Malahide
Site:	Site 4
Date:	09.10.2019
Time:	07:00 - 12:00
Location:	53.448917, -6.15321
Classification:	Car, LGV, OGV1, OGV2, Bus, P/C, M/C

	A => A									
TIME	CAR	LGV	OGV1	OGV2	Bus	M/C	P/C	TOT	CAR	LGV
07:00	0	0	0	0	0	0	0	0	12	1
07:15	0	0	0	0	0	0	0	0	25	1
07:30	0	0	0	0	0	0	0	0	27	6
07:45	0	0	0	0	0	0	0	0	25	4
H/TOT	0	0	0	0	0	0	0	0	89	12
08:00	0	0	0	0	0	0	0	0	52	4
08:15	0	0	0	0	0	0	0	0	110	3
08:30	0	0	0	0	0	0	0	0	74	4
08:45	0	0	0	0	0	0	0	0	75	3
H/TOT	0	0	0	0	0	0	0	0	311	14
09:00	0	0	0	0	0	0	0	0	77	3
09:15	0	0	0	0	0	0	0	0	24	1
09:30	0	0	0	0	0	0	0	0	29	1
09:45	0	0	0	0	0	0	0	0	17	2
H/TOT	0	0	0	0	0	0	0	0	147	7
10:00	0	0	0	0	0	0	0	0	23	3
10:15	0	0	0	0	0	0	0	0	26	4
10:30	0	0	0	0	0	0	0	0	35	2
10:45	0	0	0	0	0	0	0	0	26	3
H/TOT	0	0	0	0	0	0	0	0	110	12
11:00	0	0	0	0	0	0	0	0	36	5
11:15	0	0	0	0	0	0	0	0	28	6
11:30	0	0	0	0	0	0	0	0	24	6
11:45	0	0	0	0	0	0	0	0	39	5
H/TOT	0	0	0	0	0	0	0	0	127	22
4 hr TOT	0	0	0	0	0	0	0	0	784	67



A => B						B => A							
OGV1	OGV2	Bus	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	Bus	M/C	P/C	TOT
0	0	0	0	0	13	15	2	0	0	1	0	0	18
0	0	1	0	0	27	29	1	0	0	2	0	2	34
1	0	2	0	0	36	26	1	0	0	2	0	0	29
0	0	1	0	0	30	35	3	0	0	2	0	1	41
1	0	4	0	0	106	105	7	0	0	7	0	3	122
1	0	1	0	1	59	46	1	0	0	5	0	0	52
1	0	1	0	1	116	69	1	2	0	0	0	0	72
0	1	2	0	0	81	55	2	1	0	1	0	0	59
1	0	0	0	0	79	62	0	1	0	2	0	1	66
3	1	4	0	2	335	232	4	4	0	8	0	1	249
0	0	1	0	0	81	74	0	1	0	1	0	0	76
1	0	1	0	0	27	42	4	1	0	1	0	0	48
0	0	0	1	1	32	27	0	1	1	0	0	2	31
1	0	1	0	0	21	35	4	0	0	1	0	0	40
2	0	3	1	1	161	178	8	3	1	3	0	2	195
0	0	0	0	0	26	34	3	0	0	0	0	0	37
1	0	1	0	0	32	52	3	2	0	1	0	0	58
1	0	0	0	0	38	37	2	0	0	0	0	0	39
2	0	1	0	0	32	52	5	1	0	2	0	0	60
4	0	2	0	0	128	175	13	3	0	3	0	0	194
0	0	0	0	0	41	43	3	1	0	0	0	0	47
2	0	1	0	0	37	35	3	0	1	1	0	0	40
0	0	1	0	0	31	40	2	0	0	0	0	0	42
0	0	0	0	0	44	27	10	0	0	1	0	0	38
2	0	2	0	0	153	145	18	1	1	2	0	0	167
12	1	15	1	3	883	835	50	11	2	23	0	6	927

B => B							
CAR	LGV	OGV1	OGV2	Bus	M/C	P/C	TOT
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0

Irish Traffic Surveys

Survey Name :	ITS J-347 Malahide
Site:	Site 5
Date:	09.10.2019
Time:	07:00 - 12:00
Location:	53.447320, -6.1529
Classification:	Car, LGV, OGV1, OGV2, Bus, P/C, M/C

	A => A									
TIME	CAR	LGV	OGV1	OGV2	Bus	M/C	P/C	TOT	CAR	LGV
07:00	0	0	0	0	0	0	0	0	1	0
07:15	0	0	0	0	0	0	0	0	1	0
07:30	0	0	0	0	0	0	0	0	2	2
07:45	0	0	0	0	0	0	0	0	2	1
H/TOT	0	0	0	0	0	0	0	0	6	3
08:00	0	0	0	0	0	0	0	0	3	3
08:15	0	0	0	0	0	0	0	0	3	3
08:30	0	0	0	0	0	0	0	0	12	1
08:45	0	0	0	0	0	0	0	0	19	1
H/TOT	0	0	0	0	0	0	0	0	37	8
09:00	0	0	0	0	0	0	0	0	11	0
09:15	0	0	0	0	0	0	0	0	1	0
09:30	0	0	0	0	0	0	0	0	2	1
09:45	0	0	0	0	0	0	0	0	1	0
H/TOT	0	0	0	0	0	0	0	0	15	1
10:00	0	0	0	0	0	0	0	0	1	0
10:15	0	0	0	0	0	0	0	0	3	0
10:30	0	0	0	0	0	0	0	0	2	0
10:45	0	0	0	0	0	0	0	0	1	0
H/TOT	0	0	0	0	0	0	0	0	7	0
11:00	0	0	0	0	0	0	0	0	3	0
11:15	0	0	0	0	0	0	0	0	3	1
11:30	0	0	0	0	0	0	0	0	0	0
11:45	0	0	0	0	0	0	0	0	2	0
H/TOT	0	0	0	0	0	0	0	0	0	0
4hr TOT	0	0	0	0	0	0	0	0	73	13





A => B						A => C							
OGV1	OGV2	Bus	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	Bus	M/C	P/C	TOT
0	0	0	0	0	1	11	2	0	0	0	0	0	13
0	0	0	0	0	1	22	2	1	0	0	0	0	25
0	0	0	0	0	4	26	5	0	0	2	0	0	33
1	0	0	0	0	4	24	1	0	0	2	0	0	27
1	0	0	0	0	10	83	10	1	0	4	0	0	98
0	0	0	0	0	6	47	3	1	0	0	0	2	53
0	0	0	0	0	6	106	3	0	0	2	0	2	113
0	0	0	0	0	13	64	1	0	1	2	0	0	68
0	0	0	0	0	20	60	3	1	0	0	0	0	64
0	0	0	0	0	45	277	10	2	1	4	0	4	298
0	0	0	0	0	11	77	3	0	0	1	0	0	81
1	0	0	0	0	2	28	1	0	0	1	0	0	30
1	0	0	0	0	4	25	0	0	0	0	1	1	27
0	0	0	0	0	1	18	2	1	0	1	0	0	22
2	0	0	0	0	18	148	6	1	0	3	1	1	160
0	0	0	0	0	1	18	2	0	0	0	0	0	20
0	0	0	0	0	3	25	3	1	0	1	0	0	30
0	0	0	0	0	2	30	3	1	0	0	0	0	34
0	0	0	0	0	1	26	2	0	0	0	0	0	28
0	0	0	0	0	7	99	10	2	0	1	0	0	112
0	0	0	0	0	3	29	3	0	0	0	0	0	32
0	0	0	0	0	4	26	4	2	0	1	0	0	33
0	0	0	0	0	0	25	4	0	0	1	0	0	30
0	0	0	0	0	2	33	7	0	0	0	1	1	42
0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	89	720	54	8	1	14	2	6	805

B => A								B => B							
CAR	LGV	OGV1	OGV2	Bus	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	Bus	M/C	P/C	TOT
3	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0
3	1	0	0	0	0	0	4	0	0	0	0	0	0	0	0
3	1	0	0	0	0	0	4	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0
18	2	0	0	0	0	0	20	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	16	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0
1	0	1	0	0	0	0	2	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0
23	0	1	0	0	0	0	24	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	11	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0
4	1	0	0	0	0	0	5	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
2	1	0	0	0	0	0	3	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
70	4	1	0	0	0	0	75	0	0	0	0	0	0	0	0

B => C								C => A							
CAR	LGV	OGV1	OGV2	Bus	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	Bus	M/C	P/C	TOT
1	0	0	0	0	0	0	1	12	3	0	0	1	0	0	16
10	0	0	0	0	0	0	10	28	1	0	0	2	0	2	33
5	0	0	0	0	0	0	5	21	3	0	0	0	0	0	24
12	1	1	0	0	0	0	14	35	1	1	0	1	0	2	40
28	1	1	0	0	0	0	30	96	8	1	0	4	0	4	113
23	0	0	0	0	0	1	24	45	0	0	0	5	0	0	50
26	0	0	0	0	0	0	26	71	2	1	0	1	0	0	75
30	1	1	0	0	0	0	32	55	1	0	0	0	0	0	56
56	0	0	0	0	0	0	56	74	0	1	0	2	0	0	77
135	1	1	0	0	0	1	138	245	3	2	0	8	0	0	258
49	1	0	0	1	0	0	51	48	0	1	0	1	0	0	50
24	0	0	0	0	0	0	24	38	4	1	0	1	0	0	44
23	0	0	0	0	0	0	23	27	1	1	1	0	1	1	32
3	1	0	0	0	0	0	4	29	3	0	0	1	0	0	33
99	2	0	0	1	0	0	102	142	8	3	1	3	1	1	159
4	0	0	0	0	0	0	4	30	3	0	0	0	0	0	33
15	0	0	0	0	0	0	15	51	2	2	0	1	0	0	56
11	1	0	0	0	0	0	12	36	1	0	0	0	0	0	37
16	1	0	0	0	0	0	17	48	5	3	0	2	0	0	58
46	2	0	0	0	0	0	48	165	11	5	0	3	0	0	184
11	0	1	0	0	0	0	12	31	3	1	0	0	0	0	35
18	0	0	0	0	0	0	18	32	1	0	1	1	0	0	35
13	0	0	0	0	0	0	13	39	2	0	0	0	1	0	42
14	2	0	0	0	1	0	17	20	9	0	0	1	0	0	30
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
364	8	3	0	1	1	1	378	770	45	12	2	20	2	5	856

C => B								C => C							
CAR	LGV	OGV1	OGV2	Bus	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	Bus	M/C	P/C	TOT
4	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0
6	1	1	0	0	0	0	8	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0
11	1	0	0	0	0	0	12	0	0	0	0	0	0	0	0
27	2	1	0	0	0	0	30	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	15	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	18	0	0	0	0	0	0	0	0
44	2	0	0	0	0	0	46	0	0	0	0	0	0	0	0
36	1	0	0	0	0	0	37	0	0	0	0	0	0	0	0
113	3	0	0	0	0	0	116	0	0	0	0	0	0	0	0
14	1	0	0	0	0	0	15	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	17	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	12	0	0	0	0	0	0	0	0
17	2	0	0	0	0	0	19	0	0	0	0	0	0	0	0
60	3	0	0	0	0	0	63	0	0	0	0	0	0	0	0
8	3	1	0	0	0	0	12	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0
12	3	0	0	0	0	0	15	0	0	0	0	0	0	0	0
11	1	0	0	0	0	0	12	0	0	0	0	0	0	0	0
37	7	1	0	0	0	0	45	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	16	0	0	0	0	0	0	0	0
8	3	0	0	0	0	0	11	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0
12	2	0	0	0	0	0	14	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
279	20	2	0	0	0	0	301	0	0	0	0	0	0	0	0

Irish Traffic Surveys

Survey Name :	ITS J-347 Malahide
Site:	Site 6
Date:	09.10.2019
Time:	07:00 - 12:00
Location:	53.447465, -6.15065
Classification:	Car, LGV, OGV1, OGV2, Bus, P/C, M/C

	A => A									
TIME	CAR	LGV	OGV1	OGV2	Bus	M/C	P/C	TOT	CAR	LGV
07:00	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	2	0
07:30	0	0	0	0	0	0	0	0	2	0
07:45	0	0	0	0	0	0	0	0	2	0
H/TOT	0	0	0	0	0	0	0	0	6	0
08:00	0	0	0	0	0	0	0	0	0	0
08:15	0	0	0	0	0	0	0	0	0	1
08:30	0	0	0	0	0	0	0	0	1	0
08:45	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	1	1
09:00	0	0	0	0	0	0	0	0	1	0
09:15	0	0	0	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	0	2	0
09:45	0	0	0	0	0	0	0	0	2	0
H/TOT	0	0	0	0	0	0	0	0	5	0
10:00	0	0	0	0	0	0	0	0	0	3
10:15	0	0	0	0	0	0	0	0	0	0
10:30	0	0	0	0	0	0	0	0	2	0
10:45	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	2	3
11:00	0	0	0	0	0	0	0	0	0	0
11:15	0	0	0	0	0	0	0	0	0	0
11:30	0	0	0	0	0	0	0	0	1	0
11:45	0	0	0	0	0	0	0	0	1	0
H/TOT	0	0	0	0	0	0	0	0	0	0
4 hr TOT	0	0	0	0	0	0	0	0	16	4



A => B						A => C							
OGV1	OGV2	Bus	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	Bus	M/C	P/C	TOT
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	2	2	0	0	0	0	0	0	2
0	0	0	0	0	2	1	0	0	0	0	0	0	1
0	0	0	0	0	2	5	0	0	0	0	0	0	5
0	0	0	0	0	6	8	0	0	0	0	0	0	8
0	0	0	0	0	0	11	0	0	0	0	0	1	12
0	0	0	0	0	1	21	0	0	0	0	0	0	21
0	0	0	0	0	1	10	0	0	0	0	0	0	10
0	0	0	0	0	0	10	0	0	0	0	0	0	10
0	0	0	0	0	2	52	0	0	0	0	0	1	53
0	0	0	0	0	1	6	0	0	0	0	0	0	6
0	0	0	0	0	0	7	0	0	0	0	0	0	7
1	0	0	0	0	3	7	0	0	0	0	0	0	7
0	0	0	0	0	2	7	0	0	0	0	0	0	7
1	0	0	0	0	6	27	0	0	0	0	0	0	27
0	0	0	0	0	3	14	0	0	0	0	0	0	14
0	0	0	0	0	0	4	0	0	0	0	0	0	4
0	0	0	0	0	2	5	0	0	0	0	0	0	5
0	0	0	0	0	0	1	1	0	0	0	0	0	2
0	0	0	0	0	5	24	1	0	0	0	0	0	25
1	0	0	0	0	1	13	0	0	0	0	0	0	13
1	0	0	0	0	1	6	0	0	0	0	0	0	6
0	0	0	0	0	1	7	0	0	0	0	0	0	7
0	0	0	0	0	1	8	1	0	0	0	0	0	9
0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	23	145	2	0	0	0	0	1	148

B => A								B => B							
CAR	LGV	OGV1	OGV2	Bus	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	Bus	M/C	P/C	TOT
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0
17	1	0	0	0	0	0	18	0	0	0	0	0	0	0	0
35	0	0	0	0	0	0	35	0	0	0	0	0	0	0	0
54	1	0	0	0	0	0	55	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	1	0	0	0	0	0	4	0	0	0	0	0	0	0	0
8	1	0	0	0	0	0	9	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
72	3	0	0	0	0	0	75	0	0	0	0	0	0	0	0

B => C								C => A							
CAR	LGV	OGV1	OGV2	Bus	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	Bus	M/C	P/C	TOT
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	6	1	0	0	0	0	0	0	1
5	1	0	0	0	0	0	6	1	0	0	0	0	0	0	1
13	1	0	0	0	0	0	14	2	0	0	0	0	0	0	2
24	2	0	0	0	0	0	26	4	0	0	0	0	0	0	4
20	1	0	0	0	0	0	21	9	0	0	0	0	0	0	9
21	1	0	0	0	0	0	22	7	0	0	0	0	0	0	7
25	1	1	0	0	0	0	27	10	0	0	0	0	0	0	10
56	1	0	0	0	0	0	57	48	3	0	0	0	0	0	51
122	4	1	0	0	0	0	127	74	3	0	0	0	0	0	77
50	1	0	0	0	0	0	51	8	0	0	0	0	0	0	8
18	0	0	0	0	0	0	18	6	0	0	0	0	0	0	6
16	0	1	0	0	0	0	17	5	1	0	0	0	0	0	6
11	1	0	0	0	0	0	12	7	0	0	0	0	0	0	7
95	2	1	0	0	0	0	98	26	1	0	0	0	0	0	27
7	1	0	0	0	0	0	8	6	1	0	0	0	0	0	7
11	1	0	0	0	0	0	12	6	0	0	0	0	0	0	6
7	1	0	0	0	0	0	8	3	1	0	0	0	0	0	4
13	1	1	0	0	0	0	15	3	0	0	0	0	0	0	3
38	4	1	0	0	0	0	43	18	2	0	0	0	0	0	20
10	0	0	0	0	0	0	10	7	0	0	0	0	0	0	7
15	1	0	0	0	0	1	17	1	0	0	0	0	0	0	1
8	0	0	0	0	0	0	8	0	0	0	0	0	0	0	0
7	1	0	0	0	0	1	9	5	0	0	0	0	0	0	5
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
319	14	3	0	0	0	2	338	135	6	0	0	0	0	0	141

C => B								C => C							
CAR	LGV	OGV1	OGV2	Bus	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	Bus	M/C	P/C	TOT
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	1	0	0	0	0	0	2	0	0	0	0	0	0	0	0
6	1	0	0	0	0	0	7	0	0	0	0	0	0	0	0
12	3	0	0	0	0	0	15	0	0	0	0	0	0	0	0
19	5	0	0	0	0	0	24	0	0	0	0	0	0	0	0
8	1	0	0	0	0	0	9	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	12	0	0	0	0	0	0	0	0
29	1	0	0	0	0	0	30	0	0	0	0	0	0	0	0
12	1	0	0	0	0	0	13	0	0	0	0	0	0	0	0
61	3	0	0	0	0	0	64	0	0	0	0	0	0	0	0
16	1	0	0	0	0	0	17	0	0	0	0	0	0	0	0
10	0	1	0	0	0	0	11	0	0	0	0	0	0	0	0
10	0	1	0	0	0	0	11	0	0	0	0	0	0	0	0
10	1	0	0	0	0	0	11	0	0	0	0	0	0	0	0
46	2	2	0	0	0	0	50	0	0	0	0	0	0	0	0
4	4	1	0	0	0	0	9	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0
12	1	0	0	0	0	0	13	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0
31	5	1	0	0	0	0	37	0	0	0	0	0	0	0	0
13	2	0	0	0	0	0	15	0	0	0	0	0	0	0	0
10	2	0	0	0	0	0	12	0	0	0	0	0	0	0	0
6	1	0	0	0	0	0	7	0	0	0	0	0	0	0	0
10	2	0	0	0	0	0	12	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
196	22	3	0	0	0	0	221	0	0	0	0	0	0	0	0

Irish Traffic Surveys

Survey Name :	ITS J-347 Malahide
Site:	Site 9
Date:	09.10.2019
Time:	07:00 - 12:00
Location:	53.451484, -6.1538
Classification:	Car, LGV, OGV1, OGV2, Bus, P/C, M/C

	A => A									
TIME	CAR	LGV	OGV1	OGV2	Bus	M/C	P/C	TOT	CAR	LGV
07:00	0	0	0	0	0	0	0	0	12	2
07:15	0	0	0	0	0	0	0	0	25	3
07:30	0	0	0	0	0	0	0	0	20	2
07:45	0	0	0	0	0	0	0	0	17	2
H/TOT	0	0	0	0	0	0	0	0	74	9
08:00	0	0	0	0	0	0	0	0	45	2
08:15	0	0	0	0	0	0	0	0	66	3
08:30	0	0	0	0	0	0	0	0	45	6
08:45	0	0	0	0	0	0	0	0	55	4
H/TOT	0	0	0	0	0	0	0	0	211	15
09:00	0	0	0	0	0	0	0	0	34	1
09:15	0	0	0	0	0	0	0	0	18	3
09:30	0	0	0	0	0	0	0	0	28	3
09:45	0	0	0	0	0	0	0	0	23	3
H/TOT	0	0	0	0	0	0	0	0	103	10
10:00	0	0	0	0	0	0	0	0	42	1
10:15	0	0	0	0	0	0	0	0	26	3
10:30	0	0	0	0	0	0	0	0	34	3
10:45	0	0	0	0	0	0	0	0	29	7
H/TOT	0	0	0	0	0	0	0	0	131	14
11:00	0	0	0	0	0	0	0	0	37	4
11:15	0	0	0	0	0	0	0	0	25	6
11:30	0	0	0	0	0	0	0	0	21	2
11:45	0	0	0	0	0	0	0	0	33	4
H/TOT	0	0	0	0	0	0	0	0	116	16
4 hr TOT	0	0	0	0	0	0	0	0	635	64



A => B						B => A				
OGV1	OGV2	Bus	M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	Bus
1	0	0	0	0	15	11	1	0	0	0
2	0	0	0	0	30	6	3	0	0	2
1	0	0	0	1	24	8	1	3	0	1
2	0	0	0	0	21	19	1	1	1	0
6	0	0	0	1	90	44	6	4	1	3
1	0	0	0	0	48	19	0	0	0	1
3	0	0	0	1	73	25	1	2	0	0
0	0	0	0	0	51	29	3	2	0	0
0	0	0	0	1	60	32	1	0	0	1
4	0	0	0	2	232	105	5	4	0	2
1	0	0	0	0	36	35	2	0	0	0
0	0	0	0	0	21	24	4	0	0	0
2	0	0	1	0	34	23	2	0	0	1
1	0	0	0	1	28	25	3	1	0	1
4	0	0	1	1	119	107	11	1	0	2
0	0	0	0	0	43	22	2	0	0	0
1	0	0	0	0	30	34	2	0	0	0
0	0	0	0	0	37	32	5	0	0	0
0	0	0	0	0	36	26	4	1	0	0
1	0	0	0	0	146	114	13	1	0	0
2	0	0	0	0	43	33	3	0	0	1
0	0	0	0	0	31	27	1	3	0	0
1	0	0	0	0	24	15	3	1	0	0
0	0	0	0	0	37	28	4	2	0	0
3	0	0	0	0	135	103	11	6	0	1
18	0	0	1	4	722	473	46	16	1	8

			B => B							
M/C	P/C	TOT	CAR	LGV	OGV1	OGV2	Bus	M/C	P/C	TOT
1	0	13	0	0	0	0	0	0	0	0
0	0	11	0	0	0	0	0	0	0	0
0	0	13	0	0	0	0	0	0	0	0
0	1	23	0	0	0	0	0	0	0	0
1	1	60	0	0	0	0	0	0	0	0
0	0	20	0	0	0	0	0	0	0	0
0	1	29	0	0	0	0	0	0	0	0
0	0	34	0	0	0	0	0	0	0	0
0	0	34	0	0	0	0	0	0	0	0
0	1	117	0	0	0	0	0	0	0	0
0	0	37	0	0	0	0	0	0	0	0
0	1	29	0	0	0	0	0	0	0	0
0	1	27	0	0	0	0	0	0	0	0
0	1	31	0	0	0	0	0	0	0	0
0	3	124	0	0	0	0	0	0	0	0
0	2	26	0	0	0	0	0	0	0	0
0	0	36	0	0	0	0	0	0	0	0
0	0	37	0	0	0	0	0	0	0	0
0	1	32	0	0	0	0	0	0	0	0
0	3	131	0	0	0	0	0	0	0	0
0	1	38	0	0	0	0	0	0	0	0
0	0	31	0	0	0	0	0	0	0	0
0	0	19	0	0	0	0	0	0	0	0
0	0	34	0	0	0	0	0	0	0	0
0	1	122	0	0	0	0	0	0	0	0
1	9	554	0	0	0	0	0	0	0	0

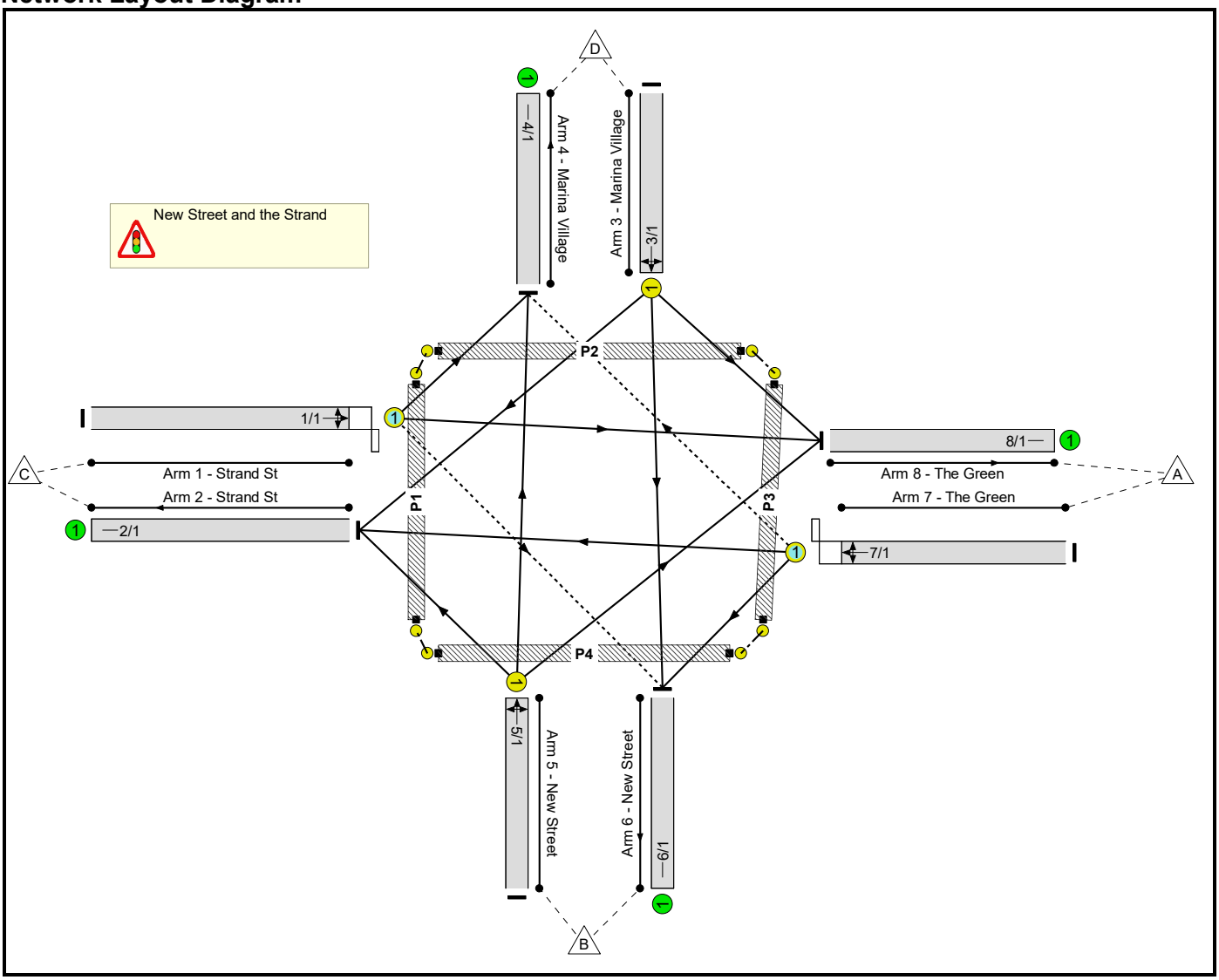
Appendix B Junction 1 - New Street and the Strand - Linsig Analysis

Full Input Data And Results

User and Project Details

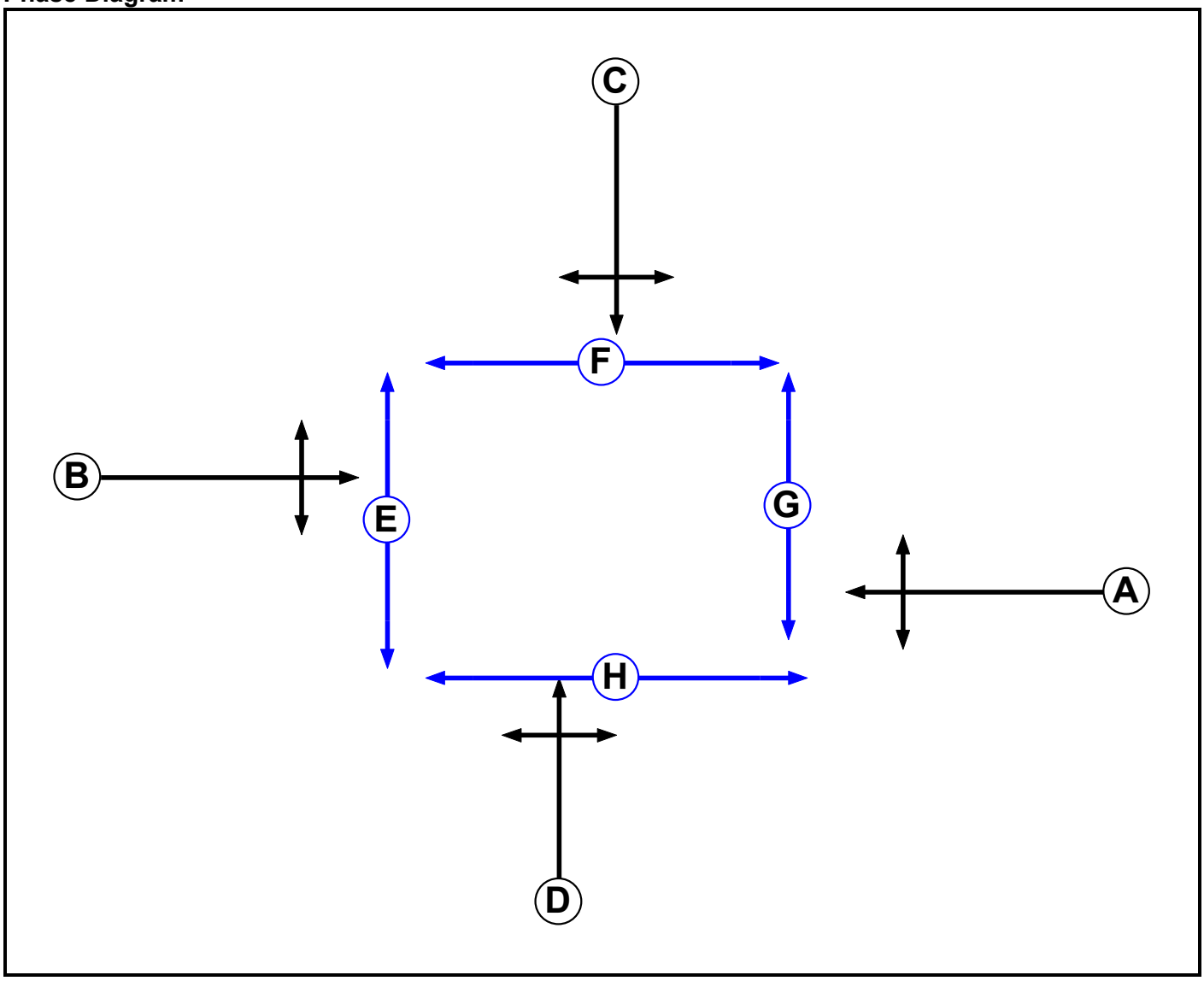
Project:	**Public Realm at New Street, Malahide, Co. Dublin**
Title:	**Public Realm at New Street, Malahide, Co. Dublin**
Location:	
Client:	Fingal County Council
Date Started:	January 2023
Checked By:	D Lehane
Additional detail:	
File name:	222126 New Street - Jn 1_JPM 2023-01-30.lsg3x
Author:	JP Murray
Company:	PUNCH Consulting Engineers
Address:	Carnegie House, Library Road, Dun Laoghaire, Co Dublin, A96 C7W7, Ireland

Network Layout Diagram



Full Input Data And Results

Phase Diagram



Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7
C	Traffic		7	7
D	Traffic		7	7
E	Pedestrian		7	7
F	Pedestrian		7	7
G	Pedestrian		7	7
H	Pedestrian		7	7

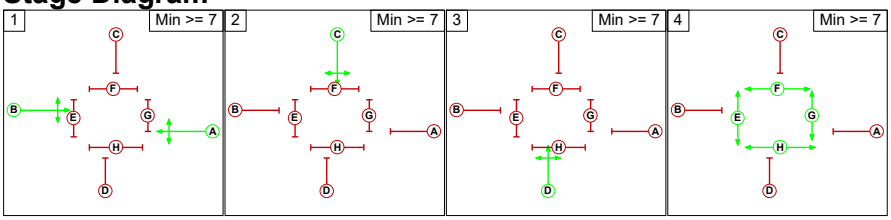
Phase Intergreens Matrix

		Starting Phase							
		A	B	C	D	E	F	G	H
Terminating Phase	A		-	6	5	8	6	6	7
	B	-		5	12	6	7	14	12
	C	6	6		6	6	6	7	8
	D	6	6	6		7	8	6	6
	E	9	9	9	9		-	-	-
	F	13	13	13	13	-		-	-
	G	11	11	11	11	-	-		-
	H	9	9	9	9	-	-	-	

Phases in Stage

Stage No.	Phases in Stage
1	A B
2	C
3	D
4	E F G H

Stage Diagram



Phase Delays

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Prohibited Stage Change

		To Stage			
		1	2	3	4
From Stage	1		6	12	14
	2	6		6	8
	3	6	6		8
	4	13	13	13	

Full Input Data And Results

Give-Way Lane Input Data

Junction: New Street and the Strand

Lane	Movement	Max Flow when Giving Way (PCU/Hr)	Min Flow when Giving Way (PCU/Hr)	Opposing Lane	Opp. Lane Coeff.	Opp. Mvmnts.	Right Turn Storage (PCU)	Non-Blocking Storage (PCU)	RTF	Right Turn Move up (s)	Max Turns in Intergreen (PCU)
1/1 (Strand St)	6/1 (Right)	1439	0	7/1	1.09	To 2/1 (Ahead) To 6/1 (Left)	2.00	0.50	0.50	2	2.00
7/1 (The Green)	4/1 (Right)	1439	0	1/1	1.09	To 4/1 (Left) To 8/1 (Ahead)	2.00	0.50	0.50	2	2.00

Lane Input Data

Junction: New Street and the Strand												
Lane	**Lane Type**	**Phases**	**Start Disp.**	**End Disp.**	**Physical Length (PCU)**	**Sat Flow Type**	**Def User Saturation Flow (PCU/Hr)**	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Turns**	**Turning Radius (m)**
1/1 (Strand St)	O	B	2	3	10.4	Geom	-	3.50	0.00	Y	Arm 4 Left	8.78
											Arm 6 Right	12.17
											Arm 8 Ahead	Inf
2/1 (Strand St)	U		2	3	60.0	Geom	-	4.00	0.00	Y		
3/1 (Marina Village)	U	C	2	3	12.2	Geom	-	3.15	0.00	Y	Arm 2 Right	13.47
											Arm 6 Ahead	Inf
											Arm 8 Left	8.13
4/1 (Marina Village)	U		2	3	60.0	Geom	-	3.50	0.00	Y		
5/1 (New Street)	U	D	2	3	4.4	Geom	-	2.50	0.00	Y	Arm 2 Left	8.13
											Arm 4 Ahead	Inf
											Arm 8 Right	15.78
6/1 (New Street)	U		2	3	60.0	Geom	-	2.50	0.00	Y		
7/1 (The Green)	O	A	2	3	17.4	Geom	-	5.00	0.00	Y	Arm 2 Ahead	Inf
											Arm 4 Right	12.39
											Arm 6 Left	15.78
8/1 (The Green)	U		2	3	60.0	Geom	-	3.90	0.00	Y		

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2023 Existing Survey AM'	08:30	09:30	01:00	
2: '2023 Existing Survey PM'	16:30	17:30	01:00	
3: '2019 Estimated AM'	08:30	09:30	01:00	
4: '2019 Estimated PM'	16:30	17:30	01:00	
5: '2020 Existing Survey AM'	08:30	09:30	01:00	
6: '2020 Existing Survey PM'	16:30	17:30	01:00	

Traffic Flows, Desired

Scenario 1: '2023 AM' (FG1: '2023 Existing Survey AM', Plan 1: 'Sequence 1')
Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	0	39	33	72
	B	12	0	6	16	34
	C	218	3	0	76	297
	D	70	0	45	0	115
	Tot.	300	3	90	125	518

Scenario 2: '2023 PM' (FG2: '2023 Existing Survey PM', Plan 1: 'Sequence 1')
Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	1	71	52	124
	B	3	0	2	2	7
	C	177	3	0	113	293
	D	99	0	69	0	168
	Tot.	279	4	142	167	592

Scenario 3: '2020 AM' (FG5: '2020 Existing Survey AM', Plan 1: 'Sequence 1')
Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	2	65	26	93
	B	5	0	1	0	6
	C	165	3	0	56	224
	D	51	0	31	0	82
	Tot.	221	5	97	82	405

Scenario 4: '2020 PM' (FG6: '2020 Existing Survey PM', Plan 1: 'Sequence 1')
Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	1	59	48	108
	B	1	0	0	1	2
	C	212	2	0	100	314
	D	85	1	40	0	126
	Tot.	298	4	99	149	550

Scenario 5: '2019 AM' (FG3: '2019 Estimated AM', Plan 1: 'Sequence 1')
Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	86	37	31	154
	B	50	0	45	54	149
	C	203	89	0	70	362
	D	65	86	42	0	193
	Tot.	318	261	124	155	858

Scenario 6: '2019 PM' (FG4: '2019 Estimated PM', Plan 1: 'Sequence 1')
Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	70	66	48	184
	B	74	0	73	73	220
	C	165	72	0	105	342
	D	92	69	64	0	225
	Tot.	331	211	203	226	971

Full Input Data And Results

Network Results

Scenario 1: '2023 AM' (FG1: '2023 Existing Survey AM', Plan 1: 'Sequence 1')

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Public Realm at New Street, Malahide, Co. Dublin	-	-	**N/A**	-	-		-	-	-	-	-	-	**45.9%**
New Street and the Strand	-	-	**N/A**	-	-		-	-	-	-	-	-	**45.9%**
1/1	Strand St Left Right Ahead	O	N/A	N/A	B		1	30	-	297	1880	648	45.9%
2/1	Strand St	U	N/A	N/A	-		-	-	-	90	2015	2015	4.5%
3/1	Marina Village Right Ahead Left	U	N/A	N/A	C		1	13	-	115	1670	260	44.3%
4/1	Marina Village	U	N/A	N/A	-		-	-	-	125	1965	1965	6.4%
5/1	New Street Left Ahead Right	U	N/A	N/A	D		1	7	-	34	1749	155	21.9%
6/1	New Street	U	N/A	N/A	-		-	-	-	3	1865	1865	0.2%
7/1	The Green Ahead Right Left	O	N/A	N/A	A		1	30	-	72	2004	460	15.6%
8/1	The Green	U	N/A	N/A	-		-	-	-	300	2005	2005	15.0%
Ped Link: P1	E	-	N/A	-	E		1	8	-	0	-	0	0.0%
Ped Link: P2	F	-	N/A	-	F		1	7	-	0	-	0	0.0%
Ped Link: P3	G	-	N/A	-	G		1	9	-	0	-	0	0.0%
Ped Link: P4	H	-	N/A	-	H		1	9	-	0	-	0	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Public Realm at New Street, Malahide, Co. Dublin	**-**	**-**	**36**	**0**	**0**	**3.8**	**1.2**	**0.0**	**5.0**	**-**	**-**	**-**	**-**
New Street and the Strand	**-**	**-**	**36**	**0**	**0**	**3.8**	**1.2**	**0.0**	**5.0**	**-**	**-**	**-**	**-**
1/1	297	297	3	0	0	1.9	0.4	0.0	2.3	28.1	5.8	0.4	6.2
2/1	90	90	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
3/1	115	115	-	-	-	1.1	0.4	-	1.5	46.8	2.6	0.4	3.0
4/1	125	125	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
5/1	34	34	-	-	-	0.4	0.1	-	0.5	52.9	0.8	0.1	0.9
6/1	3	3	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
7/1	72	72	33	0	0	0.4	0.1	0.0	0.5	27.0	1.2	0.1	1.3
8/1	300	300	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): 96.2 Total Delay for Signalled Lanes (pcuHr): 4.85 Cycle Time (s): 90
PRC Over All Lanes (%): 96.2 Total Delay Over All Lanes(pcuHr): 5.00

Full Input Data And Results

Scenario 2: '2023 PM' (FG2: '2023 Existing Survey PM', Plan 1: 'Sequence 1')

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Public Realm at New Street, Malahide, Co. Dublin	-	-	**N/A**	-	-		-	-	-	-	-	-	**53.1%**
New Street and the Strand	-	-	**N/A**	-	-		-	-	-	-	-	-	**53.1%**
1/1	Strand St Left Right Ahead	O	N/A	N/A	B		1	26	-	293	1841	552	53.1%
2/1	Strand St	U	N/A	N/A	-		-	-	-	142	2015	2015	7.0%
3/1	Marina Village Right Ahead Left	U	N/A	N/A	C		1	17	-	168	1672	334	50.2%
4/1	Marina Village	U	N/A	N/A	-		-	-	-	167	1965	1965	8.5%
5/1	New Street Left Ahead Right	U	N/A	N/A	D		1	7	-	7	1706	152	4.6%
6/1	New Street	U	N/A	N/A	-		-	-	-	4	1865	1865	0.2%
7/1	The Green Ahead Right Left	O	N/A	N/A	A		1	26	-	124	2011	352	35.2%
8/1	The Green	U	N/A	N/A	-		-	-	-	279	2005	2005	13.9%
Ped Link: P1	E	-	N/A	-	E		1	8	-	0	-	0	0.0%
Ped Link: P2	F	-	N/A	-	F		1	7	-	0	-	0	0.0%
Ped Link: P3	G	-	N/A	-	G		1	9	-	0	-	0	0.0%
Ped Link: P4	H	-	N/A	-	H		1	9	-	0	-	0	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Public Realm at New Street, Malahide, Co. Dublin	**-**	**-**	**54**	**0**	**1**	**4.5**	**1.5**	**0.1**	**6.1**	**-**	**-**	**-**	**-**
New Street and the Strand	**-**	**-**	**54**	**0**	**1**	**4.5**	**1.5**	**0.1**	**6.1**	**-**	**-**	**-**	**-**
1/1	293	293	3	0	0	2.1	0.6	0.0	2.7	33.1	6.0	0.6	6.6
2/1	142	142	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
3/1	168	168	-	-	-	1.5	0.5	-	2.0	42.8	3.7	0.5	4.2
4/1	167	167	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
5/1	7	7	-	-	-	0.1	0.0	-	0.1	50.3	0.2	0.0	0.2
6/1	4	4	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
7/1	124	124	51	0	1	0.8	0.3	0.1	1.2	34.6	2.3	0.3	2.6
9/1	279	279	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): 69.6 Total Delay for Signalled Lanes (pcuHr): 5.98 Cycle Time (s): 90
PRC Over All Lanes (%): 69.6 Total Delay Over All Lanes(pcuHr): 6.15

Full Input Data And Results

Scenario 3: '2020 AM' (FG5: '2020 Existing Survey AM', Plan 1: 'Sequence 1')

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Public Realm at New Street, Malahide, Co. Dublin	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**34.0%**
New Street and the Strand	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**34.0%**
1/1	Strand St Left Right Ahead	O	N/A	N/A	B		1	31	-	224	1882	669	33.5%
2/1	Strand St	U	N/A	N/A	-		-	-	-	97	2015	2015	4.8%
3/1	Marina Village Right Ahead Left	U	N/A	N/A	C		1	12	-	82	1668	241	34.0%
4/1	Marina Village	U	N/A	N/A	-		-	-	-	82	1965	1965	4.2%
5/1	New Street Left Ahead Right	U	N/A	N/A	D		1	7	-	6	1680	149	4.0%
6/1	New Street	U	N/A	N/A	-		-	-	-	5	1865	1865	0.3%
7/1	The Green Ahead Right Left	O	N/A	N/A	A		1	31	-	93	2042	584	15.9%
8/1	The Green	U	N/A	N/A	-		-	-	-	221	2005	2005	11.0%
Ped Link: P1	E	-	N/A	-	E		1	8	-	0	-	0	0.0%
Ped Link: P2	F	-	N/A	-	F		1	7	-	0	-	0	0.0%
Ped Link: P3	G	-	N/A	-	G		1	9	-	0	-	0	0.0%
Ped Link: P4	H	-	N/A	-	H		1	9	-	0	-	0	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Public Realm at New Street, Malahide, Co. Dublin	**-**	**-**	**29**	**0**	**0**	**2.7**	**0.7**	**0.0**	**3.4**	**-**	**-**	**-**	**-**
New Street and the Strand	**-**	**-**	**29**	**0**	**0**	**2.7**	**0.7**	**0.0**	**3.4**	**-**	**-**	**-**	**-**
1/1	224	224	3	0	0	1.3	0.3	0.0	1.6	25.3	4.0	0.3	4.3
2/1	97	97	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
3/1	82	82	-	-	-	0.8	0.3	-	1.0	45.9	1.8	0.3	2.1
4/1	82	82	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
5/1	6	6	-	-	-	0.1	0.0	-	0.1	50.4	0.1	0.0	0.2
6/1	5	5	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
7/1	93	93	26	0	0	0.5	0.1	0.0	0.6	24.3	1.6	0.1	1.6
8/1	221	221	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): 164.4 Total Delay for Signalled Lanes (pcuHr): 3.33 Cycle Time (s): 90
PRC Over All Lanes (%): 164.4 Total Delay Over All Lanes(pcuHr): 3.44

Full Input Data And Results

Scenario 4: '2020 PM' (FG6: '2020 Existing Survey PM', Plan 1: 'Sequence 1')

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Public Realm at New Street, Malahide, Co. Dublin	-	-	**N/A**	-	-		-	-	-	-	-	-	**49.0%**
New Street and the Strand	-	-	**N/A**	-	-		-	-	-	-	-	-	**49.0%**
1/1	Strand St Left Right Ahead	O	N/A	N/A	B		1	30	-	314	1862	641	49.0%
2/1	Strand St	U	N/A	N/A	-		-	-	-	99	2015	2015	4.9%
3/1	Marina Village Right Ahead Left	U	N/A	N/A	C		1	13	-	126	1664	259	48.7%
4/1	Marina Village	U	N/A	N/A	-		-	-	-	149	1965	1965	7.6%
5/1	New Street Left Ahead Right	U	N/A	N/A	D		1	7	-	2	1780	158	1.3%
6/1	New Street	U	N/A	N/A	-		-	-	-	4	1865	1865	0.2%
7/1	The Green Ahead Right Left	O	N/A	N/A	A		1	30	-	108	2005	439	24.6%
8/1	The Green	U	N/A	N/A	-		-	-	-	298	2005	2005	14.9%
Ped Link: P1	E	-	N/A	-	E		1	8	-	0	-	0	0.0%
Ped Link: P2	F	-	N/A	-	F		1	7	-	0	-	0	0.0%
Ped Link: P3	G	-	N/A	-	G		1	9	-	0	-	0	0.0%
Ped Link: P4	H	-	N/A	-	H		1	9	-	0	-	0	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Public Realm at New Street, Malahide, Co. Dublin	**-**	**-**	**49**	**0**	**1**	**3.9**	**1.3**	**0.1**	**5.2**	**-**	**-**	**-**	**-**
New Street and the Strand	**-**	**-**	**49**	**0**	**1**	**3.9**	**1.3**	**0.1**	**5.2**	**-**	**-**	**-**	**-**
1/1	314	314	2	0	0	2.0	0.5	0.0	2.5	28.7	6.1	0.5	6.6
2/1	99	99	-	-	-	0.0	0.0	-	0.0	0.9	0.0	0.0	0.0
3/1	126	126	-	-	-	1.2	0.5	-	1.7	48.2	2.9	0.5	3.3
4/1	149	149	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
5/1	2	2	-	-	-	0.0	0.0	-	0.0	49.3	0.0	0.0	0.1
6/1	4	4	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
7/1	108	108	47	0	1	0.6	0.2	0.1	0.9	29.0	1.9	0.2	2.0
8/1	298	298	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): 83.8 Total Delay for Signalled Lanes (pcuHr): 5.09 Cycle Time (s): 90
PRC Over All Lanes (%): 83.8 Total Delay Over All Lanes(pcuHr): 5.24

Full Input Data And Results

Scenario 5: '2019 AM' (FG3: '2019 Estimated AM', Plan 1: 'Sequence 1')

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Public Realm at New Street, Malahide, Co. Dublin	-	-	**N/A**	-	-		-	-	-	-	-	-	**69.3%**
New Street and the Strand	-	-	**N/A**	-	-		-	-	-	-	-	-	**69.3%**
1/1	Strand St Left Right Ahead	O	N/A	N/A	B		1	25	-	362	1848	523	69.3%
2/1	Strand St	U	N/A	N/A	-		-	-	-	124	2015	2015	6.2%
3/1	Marina Village Right Ahead Left	U	N/A	N/A	C		1	14	-	193	1777	296	65.2%
4/1	Marina Village	U	N/A	N/A	-		-	-	-	155	1965	1965	7.9%
5/1	New Street Left Ahead Right	U	N/A	N/A	D		1	11	-	149	1715	229	65.2%
6/1	New Street	U	N/A	N/A	-		-	-	-	261	1865	1865	14.0%
7/1	The Green Ahead Right Left	O	N/A	N/A	A		1	25	-	154	1963	386	39.9%
8/1	The Green	U	N/A	N/A	-		-	-	-	318	2005	2005	15.9%
Ped Link: P1	E	-	N/A	-	E		1	8	-	0	-	0	0.0%
Ped Link: P2	F	-	N/A	-	F		1	7	-	0	-	0	0.0%
Ped Link: P3	G	-	N/A	-	G		1	9	-	0	-	0	0.0%
Ped Link: P4	H	-	N/A	-	H		1	9	-	0	-	0	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Public Realm at New Street, Malahide, Co. Dublin	**-**	**-**	**119**	**0**	**1**	**7.4**	**3.5**	**0.1**	**10.9**	**-**	**-**	**-**	**-**
New Street and the Strand	**-**	**-**	**119**	**0**	**1**	**7.4**	**3.5**	**0.1**	**10.9**	**-**	**-**	**-**	**-**
1/1	362	362	88	0	1	2.9	1.1	0.0	4.0	40.2	8.0	1.1	9.2
2/1	124	124	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
3/1	193	193	-	-	-	1.9	0.9	-	2.8	52.2	4.5	0.9	5.4
4/1	155	155	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
5/1	149	149	-	-	-	1.5	0.9	-	2.4	59.1	3.5	0.9	4.4
6/1	261	261	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
7/1	154	154	31	0	0	1.1	0.3	0.0	1.4	32.9	3.0	0.3	3.3
8/1	318	318	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): 29.9 Total Delay for Signalled Lanes (pcuHr): 10.70 Cycle Time (s): 90
PRC Over All Lanes (%): 29.9 Total Delay Over All Lanes(pcuHr): 10.95

Full Input Data And Results

Scenario 6: '2019 PM' (FG4: '2019 Estimated PM', Plan 1: 'Sequence 1')

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Public Realm at New Street, Malahide, Co. Dublin	-	-	**N/A**	-	-		-	-	-	-	-	-	**77.5%**
New Street and the Strand	-	-	**N/A**	-	-		-	-	-	-	-	-	**77.5%**
1/1	Strand St Left Right Ahead	O	N/A	N/A	B		1	22	-	342	1822	466	73.5%
2/1	Strand St	U	N/A	N/A	-		-	-	-	203	2015	2015	10.1%
3/1	Marina Village Right Ahead Left	U	N/A	N/A	C		1	14	-	225	1743	290	77.5%
4/1	Marina Village	U	N/A	N/A	-		-	-	-	226	1965	1965	11.5%
5/1	New Street Left Ahead Right	U	N/A	N/A	D		1	14	-	220	1706	284	77.4%
6/1	New Street	U	N/A	N/A	-		-	-	-	211	1865	1865	11.3%
7/1	The Green Ahead Right Left	O	N/A	N/A	A		1	22	-	184	1981	247	74.5%
8/1	The Green	U	N/A	N/A	-		-	-	-	331	2005	2005	16.5%
Ped Link: P1	E	-	N/A	-	E		1	8	-	0	-	0	0.0%
Ped Link: P2	F	-	N/A	-	F		1	7	-	0	-	0	0.0%
Ped Link: P3	G	-	N/A	-	G		1	9	-	0	-	0	0.0%
Ped Link: P4	H	-	N/A	-	H		1	9	-	0	-	0	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Public Realm at New Street, Malahide, Co. Dublin	**-**	**-**	**119**	**0**	**1**	**8.8**	**6.3**	**0.1**	**15.2**	**-**	**-**	**-**	**-**
New Street and the Strand	**-**	**-**	**119**	**0**	**1**	**8.8**	**6.3**	**0.1**	**15.2**	**-**	**-**	**-**	**-**
1/1	342	342	71	0	1	2.9	1.4	0.0	4.3	45.3	7.8	1.4	9.1
2/1	203	203	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1
3/1	225	225	-	-	-	2.2	1.6	-	3.9	62.1	5.4	1.6	7.0
4/1	226	226	-	-	-	0.0	0.1	-	0.1	1.0	0.0	0.1	0.1
5/1	220	220	-	-	-	2.2	1.6	-	3.8	62.5	5.3	1.6	6.9
6/1	211	211	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
7/1	184	184	47	0	1	1.4	1.4	0.1	2.9	56.5	3.8	1.4	5.2
8/1	331	331	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): 16.2 Total Delay for Signalled Lanes (pcuHr): 14.89 Cycle Time (s): 90
PRC Over All Lanes (%): 16.2 Total Delay Over All Lanes(pcuHr): 15.17

Appendix C Junction 2 - Old Street and the Strand Junctions 9 Analysis

Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9.5.0.6896
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Filename: Junction 2 - Strand Street.Old Street.Gasyard Lane.j9
Path: \\w2k19-dl-fs01\users\CAD\DWGS\222\101-150\222126\3.0 Calculations\1. Civils\222126-PUNCH-XX-XX-CA-C-0008_Traffic\Junctions 9
Report generation date: 27/01/2023 11:24:57

»2023 Survey Year, AM
»2023 Survey Year, PM
»2020 Survey Year, AM
»2020 Survey Year, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	2023 Survey Year							
Stream B-ACD	0.2	8.83	0.20	A	0.6	12.00	0.37	B
Stream A-BCD	0.0	0.00	0.00	A	0.0	0.00	0.00	A
Stream D-ABC	1.3	17.51	0.56	C	0.6	12.58	0.36	B
Stream C-ABD	0.2	6.73	0.13	A	0.4	7.67	0.26	A
	2020 Survey Year							
Stream B-ACD	0.3	9.70	0.26	A	0.5	11.32	0.35	B
Stream A-BCD	0.0	0.00	0.00	A	0.0	0.00	0.00	A
Stream D-ABC	0.4	10.86	0.29	B	0.9	14.93	0.47	B
Stream C-ABD	0.2	7.30	0.18	A	0.3	7.32	0.21	A

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

File summary

File Description

Title	
Location	
Site number	
Date	23/01/2023
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	MPPNET\RLee
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2023 Survey Year	AM	ONE HOUR	08:15	09:45	15
D2	2023 Survey Year	PM	ONE HOUR	16:45	18:15	15
D3	2020 Survey Year	AM	ONE HOUR	08:15	09:45	15
D4	2020 Survey Year	PM	ONE HOUR	16:45	18:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2023 Survey Year, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Strand Street/Old Street/Gasyard Lan	Crossroads	Two-way		12.18	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Gasyard Lane		Major
B	Strand Street		Minor
C	Old Street		Major
D	Strand Street		Minor

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
A - Gasyard Lane	6.00			80.0	✓	0.00
C - Old Street	6.00			0.0	✓	0.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - Strand Street	One lane	4.00	25	15
D - Strand Street	One lane	3.00	20	12

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
1	A-D	620	-	-	-	-	-	-	0.240	0.343	0.240	-	-	-
1	B-A	542	0.099	0.250	0.250	-	-	-	0.157	0.357	-	0.250	0.250	0.125
1	B-C	697	0.107	0.270	-	-	-	-	-	-	-	-	-	-
1	B-D, nearside lane	542	0.099	0.250	0.250	-	-	-	0.157	0.357	0.157	-	-	-
1	B-D, offside lane	542	0.099	0.250	0.250	-	-	-	0.157	0.357	0.157	-	-	-
1	C-B	574	0.222	0.222	0.318	-	-	-	-	-	-	-	-	-
1	D-A	631	-	-	-	-	-	-	0.245	-	0.097	-	-	-
1	D-B, nearside lane	490	0.142	0.142	0.322	-	-	-	0.226	0.226	0.089	-	-	-

1	D-B, offside lane	490	0.142	0.142	0.322	-	-	-	0.226	0.226	0.089	-	-	-
1	D-C	490	-	0.142	0.322	0.113	0.226	0.226	0.226	0.226	0.089	-	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.
Streams may be combined, in which case capacity will be adjusted.
Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2023 Survey Year	AM	ONE HOUR	08:15	09:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Gasyard Lane		✓	4	100.000
B - Strand Street		✓	90	100.000
C - Old Street		✓	119	100.000
D - Strand Street		✓	239	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Gasyard Lane	B - Strand Street	C - Old Street	D - Strand Street
From	A - Gasyard Lane	0	2	0	2
	B - Strand Street	1	0	0	89
	C - Old Street	0	65	0	54
	D - Strand Street	0	239	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Gasyard Lane	B - Strand Street	C - Old Street	D - Strand Street
From	A - Gasyard Lane	0	0	0	0
	B - Strand Street	0	0	0	0
	C - Old Street	0	0	0	0
	D - Strand Street	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.20	8.83	0.2	A
A-BCD	0.00	0.00	0.0	A
A-B				
A-C				
D-ABC	0.56	17.51	1.3	C
C-ABD	0.13	6.73	0.2	A
C-D				
C-A				

Main Results for each time segment

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	68	518	0.131	67	0.1	7.972	A
A-BCD	0	594	0.000	0	0.0	0.000	A
A-B	0			0			
A-C	0			0			
D-ABC	180	475	0.379	178	0.6	11.997	B
C-ABD	52	602	0.087	52	0.1	6.546	A
C-D	37			37			
C-A	0			0			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	81	513	0.158	81	0.2	8.321	A
A-BCD	0	588	0.000	0	0.0	0.000	A
A-B	0			0			
A-C	0			0			
D-ABC	215	472	0.455	214	0.8	13.881	B
C-ABD	64	607	0.105	63	0.1	6.622	A
C-D	43			43			
C-A	0			0			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	99	507	0.196	99	0.2	8.823	A
A-BCD	0	581	0.000	0	0.0	0.000	A
A-B	0			0			
A-C	0			0			
D-ABC	263	468	0.562	261	1.2	17.244	C
C-ABD	79	614	0.129	79	0.2	6.725	A
C-D	52			52			
C-A	0			0			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	99	507	0.196	99	0.2	8.833	A
A-BCD	0	581	0.000	0	0.0	0.000	A
A-B	0			0			
A-C	0			0			
D-ABC	263	468	0.562	263	1.3	17.505	C
C-ABD	79	615	0.129	79	0.2	6.727	A
C-D	52			52			
C-A	0			0			

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	81	513	0.158	81	0.2	8.336	A
A-BCD	0	588	0.000	0	0.0	0.000	A
A-B	0			0			
A-C	0			0			
D-ABC	215	472	0.455	216	0.9	14.154	B
C-ABD	64	607	0.105	64	0.1	6.629	A
C-D	43			43			

C-A	0			0			

09:30 - 09:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	68	518	0.131	68	0.2	8.003	A
A-BCD	0	594	0.000	0	0.0	0.000	A
A-B	0			0			
A-C	0			0			
D-ABC	180	475	0.379	181	0.6	12.271	B
C-ABD	53	602	0.087	53	0.1	6.560	A
C-D	37			37			
C-A	0			0			

2023 Survey Year, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Strand Street/Old Street/Gasyard Lan	Crossroads	Two-way		9.42	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2023 Survey Year	PM	ONE HOUR	16:45	18:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Gasyard Lane		✓	0	100.000
B - Strand Street		✓	160	100.000
C - Old Street		✓	215	100.000
D - Strand Street		✓	148	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Gasyard Lane	B - Strand Street	C - Old Street	D - Strand Street
From	A - Gasyard Lane	0	0	0	0
	B - Strand Street	1	0	0	159
	C - Old Street	0	130	0	85
	D - Strand Street	0	148	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Gasyard Lane	B - Strand Street	C - Old Street	D - Strand Street
	A - Gasyard Lane	0	0	0	0

From	B - Strand Street	0	0	0	0
	C - Old Street	0	0	0	0
	D - Strand Street	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.37	12.00	0.6	B
A-BCD	0.00	0.00	0.0	A
A-B				
A-C				
D-ABC	0.36	12.58	0.6	B
C-ABD	0.26	7.67	0.4	A
C-D				
C-A				

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	120	497	0.242	119	0.3	9.489	A
A-BCD	0	571	0.000	0	0.0	0.000	A
A-B	0			0			
A-C	0			0			
D-ABC	111	462	0.241	110	0.3	10.191	B
C-ABD	109	618	0.177	108	0.2	7.058	A
C-D	53			53			
C-A	0			0			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	144	488	0.295	143	0.4	10.428	B
A-BCD	0	561	0.000	0	0.0	0.000	A
A-B	0			0			
A-C	0			0			
D-ABC	133	457	0.291	133	0.4	11.104	B
C-ABD	133	626	0.213	133	0.3	7.300	A
C-D	60			60			
C-A	0			0			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	176	476	0.370	176	0.6	11.949	B
A-BCD	0	548	0.000	0	0.0	0.000	A
A-B	0			0			
A-C	0			0			
D-ABC	163	449	0.363	162	0.6	12.524	B
C-ABD	168	638	0.263	168	0.4	7.654	A
C-D	69			69			
C-A	0			0			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	176	476	0.370	176	0.6	12.004	B
A-BCD	0	548	0.000	0	0.0	0.000	A
A-B	0			0			
A-C	0			0			
D-ABC	163	449	0.363	163	0.6	12.580	B
C-ABD	168	638	0.263	168	0.4	7.665	A
C-D	69			69			
C-A	0			0			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	144	488	0.295	144	0.4	10.497	B
A-BCD	0	561	0.000	0	0.0	0.000	A
A-B	0			0			
A-C	0			0			
D-ABC	133	457	0.291	134	0.4	11.169	B
C-ABD	133	626	0.213	134	0.3	7.318	A
C-D	60			60			
C-A	0			0			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	120	497	0.242	121	0.3	9.582	A
A-BCD	0	571	0.000	0	0.0	0.000	A
A-B	0			0			
A-C	0			0			
D-ABC	111	462	0.241	112	0.3	10.292	B
C-ABD	109	618	0.177	110	0.2	7.090	A
C-D	53			53			
C-A	0			0			

2020 Survey Year, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Strand Street/Old Street/Gasyard Lan	Crossroads	Two-way		8.55	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2020 Survey Year	AM	ONE HOUR	08:15	09:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Gasyard Lane		✓	2	100.000
B - Strand Street		✓	116	100.000
C - Old Street		✓	133	100.000
D - Strand Street		✓	120	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Gasyard Lane	B - Strand Street	C - Old Street	D - Strand Street
From	A - Gasyard Lane	0	0	0	2
	B - Strand Street	0	0	0	116
	C - Old Street	2	93	0	38
	D - Strand Street	1	119	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Gasyard Lane	B - Strand Street	C - Old Street	D - Strand Street
	A - Gasyard Lane	0	0	0	0

From	B - Strand Street	0	0	0	0
	C - Old Street	0	0	0	0
	D - Strand Street	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.26	9.70	0.3	A
A-BCD	0.00	0.00	0.0	A
A-B				
A-C				
D-ABC	0.29	10.86	0.4	B
C-ABD	0.18	7.30	0.2	A
C-D				
C-A				

Main Results for each time segment

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	87	513	0.170	87	0.2	8.430	A
A-BCD	0	589	0.000	0	0.0	0.000	A
A-B	0			0			
A-C	0			0			
D-ABC	90	472	0.191	89	0.2	9.380	A
C-ABD	74	594	0.124	73	0.1	6.899	A
C-D	25			25			
C-A	1			1			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	104	507	0.206	104	0.3	8.935	A
A-BCD	0	583	0.000	0	0.0	0.000	A
A-B	0			0			
A-C	0			0			
D-ABC	108	469	0.230	108	0.3	9.966	A
C-ABD	89	598	0.149	89	0.2	7.062	A
C-D	29			29			
C-A	2			2			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	128	499	0.256	127	0.3	9.685	A
A-BCD	0	574	0.000	0	0.0	0.000	A
A-B	0			0			
A-C	0			0			
D-ABC	132	464	0.285	132	0.4	10.836	B
C-ABD	111	604	0.183	110	0.2	7.291	A
C-D	34			34			
C-A	2			2			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	128	499	0.256	128	0.3	9.704	A
A-BCD	0	574	0.000	0	0.0	0.000	A
A-B	0			0			
A-C	0			0			
D-ABC	132	463	0.285	132	0.4	10.863	B
C-ABD	111	604	0.183	111	0.2	7.295	A
C-D	34			34			
C-A	2			2			

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	104	507	0.206	105	0.3	8.962	A
A-BCD	0	583	0.000	0	0.0	0.000	A
A-B	0			0			
A-C	0			0			
D-ABC	108	468	0.230	108	0.3	10.005	B
C-ABD	89	599	0.149	89	0.2	7.074	A
C-D	29			29			
C-A	2			2			

09:30 - 09:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	87	512	0.170	88	0.2	8.477	A
A-BCD	0	589	0.000	0	0.0	0.000	A
A-B	0			0			
A-C	0			0			
D-ABC	90	472	0.191	91	0.2	9.443	A
C-ABD	74	595	0.124	74	0.2	6.920	A
C-D	25			25			
C-A	1			1			

2020 Survey Year, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Strand Street/Old Street/Gasyard Lan	Crossroads	Two-way		10.52	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2020 Survey Year	PM	ONE HOUR	16:45	18:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Gasyard Lane		✓	0	100.000
B - Strand Street		✓	155	100.000
C - Old Street		✓	177	100.000
D - Strand Street		✓	195	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		A - Gasyard Lane	B - Strand Street	C - Old Street	D - Strand Street
From	A - Gasyard Lane	0	0	0	0
	B - Strand Street	1	0	1	153
	C - Old Street	5	107	0	65
	D - Strand Street	0	195	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A - Gasyard Lane	B - Strand Street	C - Old Street	D - Strand Street
	A - Gasyard Lane	0	0	0	0

From	B - Strand Street	0	0	0	0
	C - Old Street	0	0	0	0
	D - Strand Street	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-ACD	0.35	11.32	0.5	B
A-BCD	0.00	0.00	0.0	A
A-B				
A-C				
D-ABC	0.47	14.93	0.9	B
C-ABD	0.21	7.32	0.3	A
C-D				
C-A				

Main Results for each time segment

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	117	506	0.231	116	0.3	9.189	A
A-BCD	0	580	0.000	0	0.0	0.000	A
A-B	0			0			
A-C	0			0			
D-ABC	147	467	0.315	145	0.5	11.132	B
C-ABD	88	610	0.145	87	0.2	6.883	A
C-D	42			42			
C-A	3			3			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	139	499	0.279	139	0.4	9.998	A
A-BCD	0	572	0.000	0	0.0	0.000	A
A-B	0			0			
A-C	0			0			
D-ABC	175	462	0.380	175	0.6	12.507	B
C-ABD	107	617	0.174	107	0.2	7.059	A
C-D	48			48			
C-A	4			4			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	171	489	0.349	170	0.5	11.278	B
A-BCD	0	561	0.000	0	0.0	0.000	A
A-B	0			0			
A-C	0			0			
D-ABC	215	456	0.471	214	0.9	14.807	B
C-ABD	134	627	0.215	134	0.3	7.312	A
C-D	56			56			
C-A	4			4			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	171	489	0.349	171	0.5	11.321	B
A-BCD	0	561	0.000	0	0.0	0.000	A
A-B	0			0			
A-C	0			0			
D-ABC	215	456	0.471	215	0.9	14.933	B
C-ABD	134	627	0.215	134	0.3	7.321	A
C-D	56			56			
C-A	4			4			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	139	499	0.280	140	0.4	10.055	B
A-BCD	0	572	0.000	0	0.0	0.000	A
A-B	0			0			
A-C	0			0			
D-ABC	175	462	0.380	176	0.6	12.653	B
C-ABD	107	617	0.174	108	0.2	7.072	A
C-D	48			48			
C-A	4			4			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-ACD	117	506	0.231	117	0.3	9.270	A
A-BCD	0	580	0.000	0	0.0	0.000	A
A-B	0			0			
A-C	0			0			
D-ABC	147	466	0.315	147	0.5	11.310	B
C-ABD	88	610	0.145	88	0.2	6.906	A
C-D	42			42			
C-A	3			3			

Appendix D Junction 3 - Townyard Lane and the Strand Junctions 9 Analysis

Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9.5.0.6896
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Filename: Junction 3 - Townyard Lane.The Green.j9
Path: \\w2k19-dl-fs01\users\CAD\DWGS\222\101-150\222126\3.0 Calculations\1. Civils\222126-PUNCH-XX-XX-CA-C-0008_Traffic\Junctions 9
Report generation date: 27/01/2023 11:23:26

»2023 Survey Year, AM
»2023 Survey Year, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	2023 Survey Year							
Stream B-AC	0.7	11.84	0.40	B	0.9	14.02	0.47	B
Stream C-AB	0.0	0.00	0.00	A	0.0	0.00	0.00	A

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

File summary

File Description

Title	
Location	
Site number	
Date	17/01/2023
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	MPPNET\RLee
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2023 Survey Year	AM	ONE HOUR	10:15	11:45	15
D2	2023 Survey Year	PM	ONE HOUR	16:30	18:00	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2023 Survey Year, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Townyard Lane/The Green	T-Junction	Two-way		5.07	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	The Green		Major
B	Townyard Lane		Minor
C	The Green		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - The Green	6.00			0.0	✓	0.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - Townyard Lane	One lane	3.20	40	20

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	510	0.093	0.235	0.148	0.336
1	B-C	649	0.100	0.252	-	-
1	C-B	574	0.222	0.222	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.
Streams may be combined, in which case capacity will be adjusted.
Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2023 Survey Year	AM	ONE HOUR	10:15	11:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - The Green		✓	246	100.000
B - Townyard Lane		✓	184	100.000
C - The Green		✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - The Green	B - Townyard Lane	C - The Green
From	A - The Green	0	0	246
	B - Townyard Lane	90	0	94
	C - The Green	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - The Green	B - Townyard Lane	C - The Green
From	A - The Green	0	0	0
	B - Townyard Lane	0	0	0
	C - The Green	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.40	11.84	0.7	B
C-AB	0.00	0.00	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

10:15 - 10:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	139	528	0.263	137	0.4	9.187	A
C-AB	0	533	0.000	0	0.0	0.000	A
C-A	0			0			
A-B	0			0			
A-C	185			185			

10:30 - 10:45

Stream	Total Demand	Capacity	RFC	Throughput	End queue	Delay (s)	Unsignalised

	(PCU/hr)	(PCU/hr)		(PCU/hr)	(PCU)		level of service
B-AC	165	519	0.319	165	0.5	10.161	B
C-AB	0	525	0.000	0	0.0	0.000	A
C-A	0			0			
A-B	0			0			
A-C	221			221			

10:45 - 11:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	203	507	0.400	202	0.7	11.781	B
C-AB	0	514	0.000	0	0.0	0.000	A
C-A	0			0			
A-B	0			0			
A-C	271			271			

11:00 - 11:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	203	507	0.400	203	0.7	11.839	B
C-AB	0	514	0.000	0	0.0	0.000	A
C-A	0			0			
A-B	0			0			
A-C	271			271			

11:15 - 11:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	165	519	0.319	166	0.5	10.229	B
C-AB	0	525	0.000	0	0.0	0.000	A
C-A	0			0			
A-B	0			0			
A-C	221			221			

11:30 - 11:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	139	528	0.263	139	0.4	9.276	A
C-AB	0	533	0.000	0	0.0	0.000	A
C-A	0			0			
A-B	0			0			
A-C	185			185			

2023 Survey Year, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Townyard Lane/The Green	T-Junction	Two-way		5.99	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2023 Survey Year	PM	ONE HOUR	16:30	18:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - The Green		✓	278	100.000
B - Townyard Lane		✓	207	100.000
C - The Green		✓	1	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - The Green	B - Townyard Lane	C - The Green
From	A - The Green	0	0	278
	B - Townyard Lane	123	0	84
	C - The Green	1	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - The Green	B - Townyard Lane	C - The Green
From	A - The Green	0	0	0
	B - Townyard Lane	0	0	0
	C - The Green	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.47	14.02	0.9	B
C-AB	0.00	0.00	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	156	508	0.307	154	0.4	10.124	B
C-AB	0	527	0.000	0	0.0	0.000	A
C-A	0			0			
A-B	0			0			
A-C	209			209			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	186	498	0.374	185	0.6	11.492	B
C-AB	0	518	0.000	0	0.0	0.000	A
C-A	0			0			
A-B	0			0			
A-C	250			250			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	228	484	0.470	227	0.9	13.910	B
C-AB	0	506	0.000	0	0.0	0.000	A
C-A	0			0			
A-B	0			0			
A-C	306			306			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	228	484	0.470	228	0.9	14.025	B
C-AB	0	506	0.000	0	0.0	0.000	A
C-A	0			0			
A-B	0			0			
A-C	306			306			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	186	498	0.374	187	0.6	11.617	B
C-AB	0	518	0.000	0	0.0	0.000	A
C-A	0			0			
A-B	0			0			
A-C	250			250			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	156	508	0.307	156	0.4	10.259	B
C-AB	0	527	0.000	0	0.0	0.000	A
C-A	0			0			
A-B	0			0			
A-C	209			209			

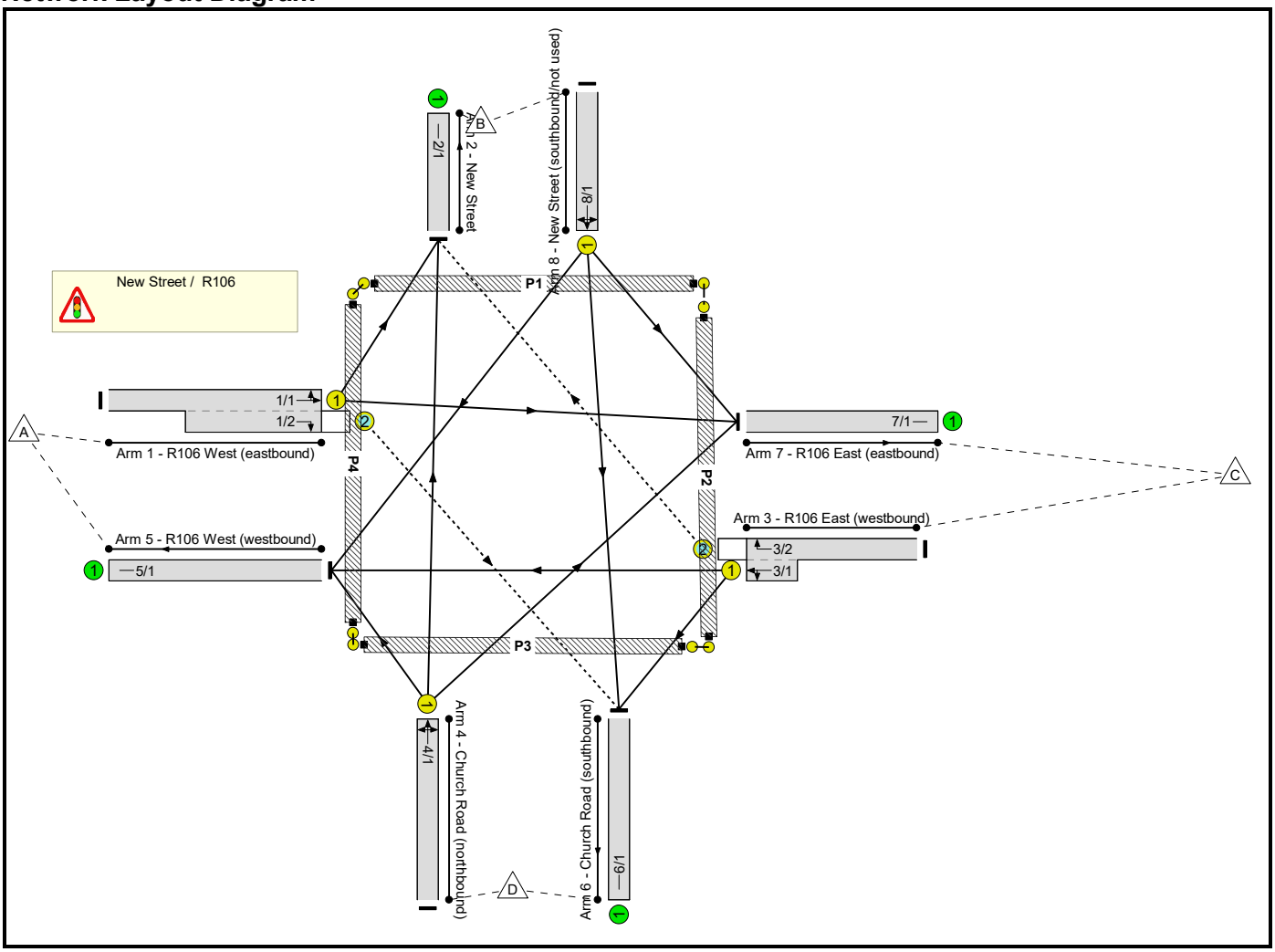
Appendix E Junction 4 - New Street and the R106 - Linsig Analysis

Full Input Data And Results

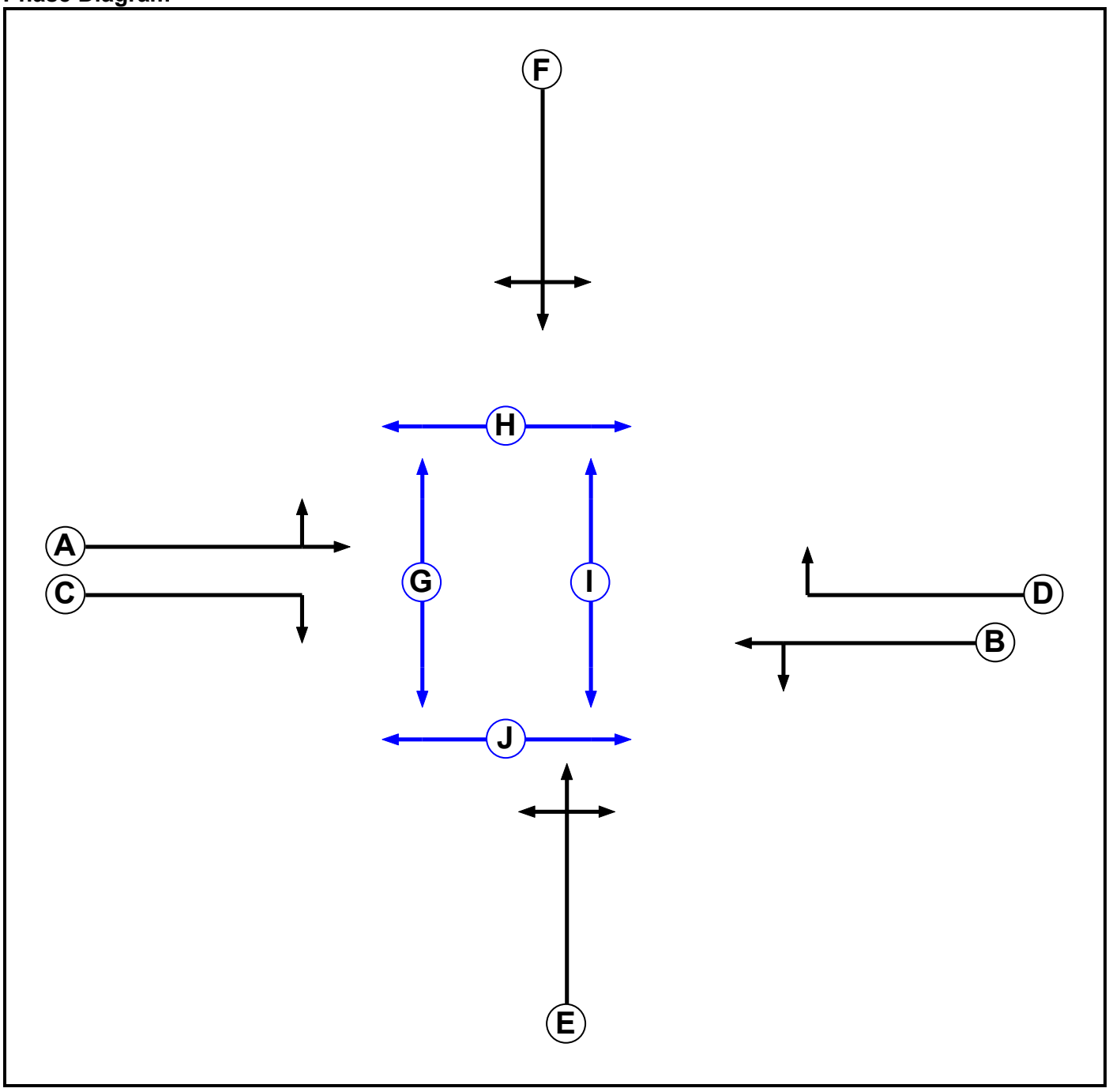
User and Project Details

Project:	**Public Realm at New Street, Malahide, Co. Dublin**
Title:	**Public Realm at New Street, Malahide, Co. Dublin**
Location:	
Client:	Fingal County Council
Date Started:	January 2023
Checked By:	D Lehane
Additional detail:	
File name:	222126 New Street - Jn 4_JPM 2023-01-27.lsg3x
Author:	JP Murray
Company:	PUNCH Consulting Engineers
Address:	Carnegie House, Library Road, Dun Laoghaire, Co Dublin, A96 C7W7, Ireland

Network Layout Diagram



Phase Diagram



Full Input Data And Results

Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7
C	Traffic		7	7
D	Traffic		7	7
E	Traffic		7	7
F	Traffic		7	7
G	Pedestrian		7	7
H	Pedestrian		7	7
I	Pedestrian		7	7
J	Pedestrian		7	7

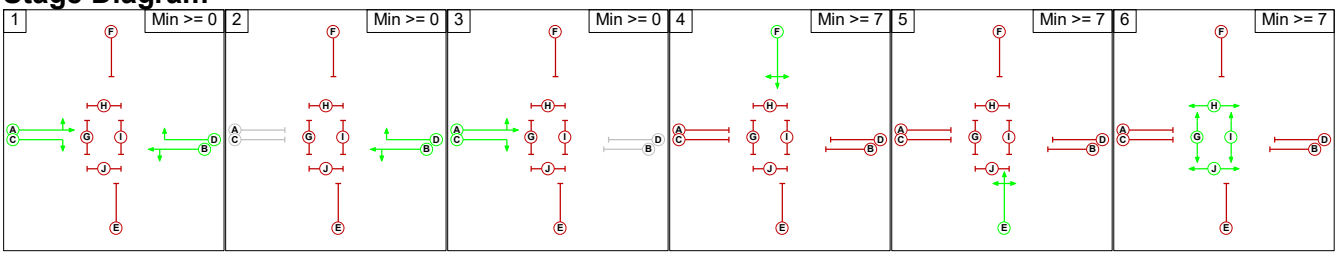
Phase Intergreens Matrix

Terminating Phase \ Starting Phase	A	B	C	D	E	F	G	H	I	J
A		-	-	-	5	6	5	7	8	-
B	-		-	-	6	5	8	-	5	7
C	-	-		-	5	5	5	-	-	8
D	-	-	-		5	5	-	7	5	-
E	6	5	5	6		6	7	8	8	5
F	5	5	6	5	6		8	5	7	8
G	12	12	12	-	12	12		-	-	-
H	12	-	-	12	12	12	-		-	-
I	12	12	-	12	12	12	-	-		-
J	-	11	11	-	11	11	-	-	-	

Phases in Stage

Stage No.	Phases in Stage
1	A B C D
2	B D
3	A C
4	F
5	E
6	G H I J

Stage Diagram



Phase Delays

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Prohibited Stage Change

From Stage \ To Stage	1	2	3	4	5	6
1		0	0	6	6	8
2	2		2	5	6	8
3	2	2		6	5	8
4	6	5	6		6	8
5	6	6	6	6		8
6	12	12	12	12	12	

Full Input Data And Results

Give-Way Lane Input Data

Junction: New Street / R106

Lane	Movement	Max Flow when Giving Way (PCU/Hr)	Min Flow when Giving Way (PCU/Hr)	Opposing Lane	Opp. Lane Coeff.	Opp. Mvmnts.	Right Turn Storage (PCU)	Non-Blocking Storage (PCU)	RTF	Right Turn Move up (s)	Max Turns in Intergreen (PCU)
1/2 (R106 West (eastbound))	6/1 (Right)	1439	0	3/1	1.09	All	2.00	-	0.50	2	2.00
3/2 (R106 East (westbound))	2/1 (Right)	1439	0	1/1	1.09	All	2.00	-	0.50	2	2.00

Lane Input Data

Junction: New Street / R106

Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1 (R106 West (eastbound))	U	A	2	3	60.0	Geom	-	2.65	0.00	Y	Arm 2 Left	10.68
											Arm 7 Ahead	Inf
1/2 (R106 West (eastbound))	O	C	2	3	9.6	Geom	-	2.74	0.00	N	Arm 6 Right	18.47
2/1 (New Street)	U		2	3	60.0	Inf	-	-	-	-	-	-
3/1 (R106 East (westbound))	U	B	2	3	3.6	Geom	-	2.60	0.00	Y	Arm 5 Ahead	Inf
											Arm 6 Left	10.65
3/2 (R106 East (westbound))	O	D	2	3	3.5	Geom	-	2.60	0.00	N	Arm 2 Right	13.49
4/1 (Church Road (northbound))	U	E	2	3	60.0	Geom	-	2.40	0.00	Y	Arm 2 Ahead	Inf
											Arm 5 Left	17.37
											Arm 7 Right	17.13
5/1 (R106 West (westbound))	U		2	3	60.0	Inf	-	-	-	-	-	-
6/1 (Church Road (southbound))	U		2	3	60.0	Inf	-	-	-	-	-	-
7/1 (R106 East (eastbound))	U		2	3	60.0	Inf	-	-	-	-	-	-
8/1 (New Street (southbound/not used))	U	F	2	3	60.0	Geom	-	3.50	0.00	Y	Arm 5 Right	15.97
											Arm 6 Ahead	Inf
											Arm 7 Left	13.49

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2023 Survey Year AM'	08:30	09:30	01:00	
2: '2023 Survey Year PM'	15:45	16:45	01:00	
3: '2019 Survey Year AM'	08:30	09:30	01:00	
4: '2019 Survey Year PM'	18:00	19:00	01:00	
5: '2020 Survey Year AM'	08:30	09:30	01:00	
6: '2020 Survey Year PM'	15:45	16:45	01:00	

Traffic Flows, Desired

Scenario 1: '2023 Existing Survey AM' (FG1: '2023 Survey Year AM', Plan 2: 'Network Control Plan 2 (2023)')
Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	7	261	138	406
	B	0	0	0	0	0
	C	389	7	0	124	520
	D	162	27	93	0	282
	Tot.	551	41	354	262	1208

Scenario 2: '2023 Existing Survey PM' (FG2: '2023 Survey Year PM', Plan 2: 'Network Control Plan 2 (2023)')
Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	0	280	107	387
	B	0	0	0	0	0
	C	353	0	0	84	437
	D	172	0	78	0	250
	Tot.	525	0	358	191	1074

Scenario 3: '2020 Existing Survey AM' (FG5: '2020 Survey Year AM', Plan 2: 'Network Control Plan 2 (2023)')
Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	1	316	50	367
	B	0	0	0	0	0
	C	382	0	0	63	445
	D	117	0	58	0	175
	Tot.	499	1	374	113	987

Scenario 4: '2020 Existing Survey PM' (FG6: '2020 Survey Year PM', Plan 2: 'Network Control Plan 2 (2023)')
Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	2	338	58	398
	B	0	0	1	1	2
	C	382	0	0	82	464
	D	106	0	101	0	207
	Tot.	488	2	440	141	1071

Scenario 5: '2019 Existing Survey AM' (FG3: '2019 Survey Year AM', Plan 1: 'Network Control Plan 1 (2019)')
Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	28	287	110	425
	B	97	0	15	150	262
	C	338	15	0	75	428
	D	86	75	104	0	265
	Tot.	521	118	406	335	1380

Scenario 6: '2019 Existing Survey PM' (FG4: '2019 Survey Year PM', Plan 1: 'Network Control Plan 1 (2019)')
Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	77	261	78	416
	B	81	0	43	85	209
	C	277	70	0	44	391
	D	89	70	66	0	225
	Tot.	447	217	370	207	1241

Full Input Data And Results

Network Results

Scenario 1: '2023 Existing Survey AM' (FG1: '2023 Survey Year AM', Plan 2: 'Network Control Plan 2 (2023)')

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Public Realm at New Street, Malahide, Co. Dublin	-	-	**N/A**	-	-		-	-	-	-	-	-	**79.6%**
New Street / R106	-	-	**N/A**	-	-		-	-	-	-	-	-	**79.6%**
1/1+1/2	R106 West (eastbound) Left Right Ahead	U+O	N/A	N/A	A C		2	38	-	406	1873:1877	707+311	37.9 : 44.4%
2/1	New Street	U	N/A	N/A	-		-	-	-	41	Inf	Inf	0.0%
3/2+3/1	R106 East (westbound) Right Ahead Left	O+U	N/A	N/A	D B		1	31	-	520	1813:1813	9+645	79.6 : 79.6%
4/1	Church Road (northbound) Ahead Left Right	U	N/A	N/A	E		1	18	-	282	1720	363	77.7%
5/1	R106 West (westbound)	U	N/A	N/A	-		-	-	-	551	Inf	Inf	0.0%
6/1	Church Road (southbound)	U	N/A	N/A	-		-	-	-	262	Inf	Inf	0.0%
7/1	R106 East (eastbound)	U	N/A	N/A	-		-	-	-	354	Inf	Inf	0.0%
8/1	New Street (southbound/not used) Right Ahead Left	U	N/A	N/A	F		0	0	-	0	1965	0	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	H		1	7	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	I		1	7	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	J		1	10	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	G		1	8	-	0	-	0	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Public Realm at New Street, Malahide, Co. Dublin	**-**	**-**	**95**	**8**	**42**	**8.2**	**3.9**	**0.6**	**12.7**	**-**	**-**	**-**	**-**
New Street / R106	**-**	**-**	**95**	**8**	**42**	**8.2**	**3.9**	**0.6**	**12.7**	**-**	**-**	**-**	**-**
1/1+1/2	406	406	88	8	42	1.8	0.3	0.6	2.8	24.7	4.2	0.3	4.6
2/1	41	41	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/2+3/1	520	520	7	0	0	3.8	1.9	0.0	5.7	39.2	11.5	1.9	13.4
4/1	282	282	-	-	-	2.6	1.7	-	4.3	54.8	6.6	1.7	8.2
5/1	551	551	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	262	262	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	354	354	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): 13.1 Total Delay for Signalled Lanes (pcuHr): 12.74 Cycle Time (s): 90
PRC Over All Lanes (%): 13.1 Total Delay Over All Lanes(pcuHr): 12.74

Full Input Data And Results

Scenario 2: '2023 Existing Survey PM' (FG2: '2023 Survey Year PM', Plan 2: 'Network Control Plan 2 (2023)')

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Public Realm at New Street, Malahide, Co. Dublin	-	-	**N/A**	-	-		-	-	-	-	-	-	**73.2%**
New Street / R106	-	-	**N/A**	-	-		-	-	-	-	-	-	**73.2%**
1/1+1/2	R106 West (eastbound) Left Right Ahead	U+O	N/A	N/A	A C		2	39	-	387	1880:1877	754+288	37.1 : 37.1%
2/1	New Street	U	N/A	N/A	-		-	-	-	0	Inf	Inf	0.0%
3/2+3/1	R106 East (westbound) Right Ahead Left	O+U	N/A	N/A	D B		1	32	-	437	2015:1826	0+670	0.0 : 65.3%
4/1	Church Road (northbound) Ahead Left Right	U	N/A	N/A	E		1	17	-	250	1707	341	73.2%
5/1	R106 West (westbound)	U	N/A	N/A	-		-	-	-	525	Inf	Inf	0.0%
6/1	Church Road (southbound)	U	N/A	N/A	-		-	-	-	191	Inf	Inf	0.0%
7/1	R106 East (eastbound)	U	N/A	N/A	-		-	-	-	358	Inf	Inf	0.0%
8/1	New Street (southbound/not used) Right Ahead Left	U	N/A	N/A	F		0	0	-	0	1965	0	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	H		1	7	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	I		1	7	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	J		1	10	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	G		1	8	-	0	-	0	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Public Realm at New Street, Malahide, Co. Dublin	**-**	**-**	**96**	**6**	**5**	**6.8**	**2.6**	**0.4**	**9.8**	**-**	**-**	**-**	**-**
New Street / R106	**-**	**-**	**96**	**6**	**5**	**6.8**	**2.6**	**0.4**	**9.8**	**-**	**-**	**-**	**-**
1/1+1/2	387	387	96	6	5	1.6	0.3	0.4	2.3	21.2	4.4	0.3	4.7
2/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/2+3/1	437	437	0	0	0	2.9	0.9	0.0	3.8	31.4	9.0	0.9	9.9
4/1	250	250	-	-	-	2.3	1.3	-	3.7	52.9	5.8	1.3	7.2
5/1	525	525	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	191	191	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	358	358	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): 22.9 Total Delay for Signalled Lanes (pcuHr): 9.76 Cycle Time (s): 90
PRC Over All Lanes (%): 22.9 Total Delay Over All Lanes(pcuHr): 9.76

Full Input Data And Results

Scenario 3: '2020 Existing Survey AM' (FG5: '2020 Survey Year AM', Plan 2: 'Network Control Plan 2 (2023)')

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Public Realm at New Street, Malahide, Co. Dublin	-	-	**N/A**	-	-		-	-	-	-	-	-	**115.3%**
New Street / R106	-	-	**N/A**	-	-		-	-	-	-	-	-	**115.3%**
1/1+1/2	R106 West (eastbound) Left Right Ahead	U+O	N/A	N/A	A C		2	42	-	367	1879:1877	883+139	35.9 : 35.9%
2/1	New Street	U	N/A	N/A	-		-	-	-	1	Inf	Inf	0.0%
3/2+3/1	R106 East (westbound) Right Ahead Left	O+U	N/A	N/A	D B		1	42	-	445	2015:1838	0+878	0.0 : 50.7%
4/1	Church Road (northbound) Ahead Left Right	U	N/A	N/A	E		1	7	-	175	1707	152	115.3%
5/1	R106 West (westbound)	U	N/A	N/A	-		-	-	-	499	Inf	Inf	0.0%
6/1	Church Road (southbound)	U	N/A	N/A	-		-	-	-	113	Inf	Inf	0.0%
7/1	R106 East (eastbound)	U	N/A	N/A	-		-	-	-	374	Inf	Inf	0.0%
8/1	New Street (southbound/not used) Right Ahead Left	U	N/A	N/A	F		0	0	-	0	1965	0	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	H		1	7	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	I		1	7	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	J		1	10	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	G		1	8	-	0	-	0	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Public Realm at New Street, Malahide, Co. Dublin	**-**	**-**	**41**	**3**	**6**	**5.7**	**15.4**	**0.1**	**21.2**	**-**	**-**	**-**	**-**
New Street / R106	**-**	**-**	**41**	**3**	**6**	**5.7**	**15.4**	**0.1**	**21.2**	**-**	**-**	**-**	**-**
1/1+1/2	367	367	41	3	6	1.0	0.3	0.1	1.4	13.8	4.0	0.3	4.2
2/1	1	1	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/2+3/1	445	445	0	0	0	2.0	0.5	0.0	2.5	20.3	7.7	0.5	8.2
4/1	175	152	-	-	-	2.7	14.6	-	17.3	356.0	5.0	14.6	19.6
5/1	483	483	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	113	113	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	366	366	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): -28.1 Total Delay for Signalled Lanes (pcuHr): 21.22 Cycle Time (s): 90
PRC Over All Lanes (%): -28.1 Total Delay Over All Lanes(pcuHr): 21.22

Full Input Data And Results

Scenario 4: '2020 Existing Survey PM' (FG6: '2020 Survey Year PM', Plan 2: 'Network Control Plan 2 (2023)')

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Public Realm at New Street, Malahide, Co. Dublin	-	-	**N/A**	-	-		-	-	-	-	-	-	**Inf %**
New Street / R106	-	-	**N/A**	-	-		-	-	-	-	-	-	**Inf %**
1/1+1/2	R106 West (eastbound) Left Right Ahead	U+O	N/A	N/A	A C		2	42	-	398	1878:1877	880+150	38.7 : 38.7%
2/1	New Street	U	N/A	N/A	-		-	-	-	2	Inf	Inf	0.0%
3/2+3/1	R106 East (westbound) Right Ahead Left	O+U	N/A	N/A	D B		1	42	-	464	2015:1829	0+874	0.0 : 53.1%
4/1	Church Road (northbound) Ahead Left Right	U	N/A	N/A	E		1	7	-	207	1707	152	136.4%
5/1	R106 West (westbound)	U	N/A	N/A	-		-	-	-	488	Inf	Inf	0.0%
6/1	Church Road (southbound)	U	N/A	N/A	-		-	-	-	141	Inf	Inf	0.0%
7/1	R106 East (eastbound)	U	N/A	N/A	-		-	-	-	440	Inf	Inf	0.0%
8/1	New Street (southbound/not used) Right Ahead Left	U	N/A	N/A	F		0	0	-	2	1862	0	Inf %
Ped Link: P1	Unnamed Ped Link	-	N/A	-	H		1	7	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	I		1	7	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	J		1	10	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	G		1	8	-	0	-	0	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Public Realm at New Street, Malahide, Co. Dublin	**-**	**-**	**48**	**3**	**7**	**8.0**	**31.6**	**0.1**	**39.8**	**-**	**-**	**-**	**-**
New Street / R106	**-**	**-**	**48**	**3**	**7**	**8.0**	**31.6**	**0.1**	**39.8**	**-**	**-**	**-**	**-**
1/1+1/2	398	398	48	3	7	1.1	0.3	0.1	1.6	14.2	4.3	0.3	4.7
2/1	2	2	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/2+3/1	464	464	0	0	0	2.1	0.6	0.0	2.7	20.8	8.0	0.6	8.6
4/1	207	152	-	-	-	4.7	29.4	-	34.1	592.7	7.2	29.4	36.6
5/1	460	460	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	140	140	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	412	412	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	2	0	-	-	-	0.1	1.4	-	1.5	2684.3	0.2	1.4	1.5
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): -Inf Total Delay for Signalled Lanes (pcuHr): 39.82 Cycle Time (s): 90
PRC Over All Lanes (%): -Inf Total Delay Over All Lanes(pcuHr): 39.82

Full Input Data And Results

Scenario 5: '2019 Existing Survey AM' (FG3: '2019 Survey Year AM', Plan 1: 'Network Control Plan 1 (2019)')

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Public Realm at New Street, Malahide, Co. Dublin	-	-	**N/A**	-	-		-	-	-	-	-	-	**170.7%**
New Street / R106	-	-	**N/A**	-	-		-	-	-	-	-	-	**170.7%**
1/1+1/2	R106 West (eastbound) Left Right Ahead	U+O	N/A	N/A	A C		2	28	-	425	1857:1877	618+216	51.0 : 51.0%
2/1	New Street	U	N/A	N/A	-		-	-	-	118	Inf	Inf	0.0%
3/2+3/1	R106 East (westbound) Right Ahead Left	O+U	N/A	N/A	D B		1	28	-	428	1813:1828	21+583	70.8 : 70.8%
4/1	Church Road (northbound) Ahead Left Right	U	N/A	N/A	E		1	7	-	265	1746	155	170.7%
5/1	R106 West (westbound)	U	N/A	N/A	-		-	-	-	521	Inf	Inf	0.0%
6/1	Church Road (southbound)	U	N/A	N/A	-		-	-	-	335	Inf	Inf	0.0%
7/1	R106 East (eastbound)	U	N/A	N/A	-		-	-	-	406	Inf	Inf	0.0%
8/1	New Street (southbound/not used) Right Ahead Left	U	N/A	N/A	F		1	7	-	262	1887	168	156.2%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	H		1	7	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	I		1	7	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	J		1	10	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	G		1	8	-	0	-	0	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Public Realm at New Street, Malahide, Co. Dublin	**-**	**-**	**94**	**8**	**24**	**20.1**	**106.3**	**0.4**	**126.8**	**-**	**-**	**-**	**-**
New Street / R106	**-**	**-**	**94**	**8**	**24**	**20.1**	**106.3**	**0.4**	**126.8**	**-**	**-**	**-**	**-**
1/1+1/2	425	425	80	7	23	2.2	0.5	0.4	3.1	26.3	5.4	0.5	5.9
2/1	87	87	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/2+3/1	428	428	14	1	0	3.2	1.2	0.0	4.4	36.9	9.1	1.2	10.3
4/1	265	155	-	-	-	8.1	56.1	-	64.2	872.3	11.2	56.1	67.3
5/1	450	450	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	281	281	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	358	358	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	262	168	-	-	-	6.7	48.5	-	55.1	757.6	9.4	48.5	57.9
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): -89.7 Total Delay for Signalled Lanes (pcuHr): 126.83 Cycle Time (s): 90
PRC Over All Lanes (%): -89.7 Total Delay Over All Lanes(pcuHr): 126.83

Full Input Data And Results

Scenario 6: '2019 Existing Survey PM' (FG4: '2019 Survey Year PM', Plan 1: 'Network Control Plan 1 (2019)')

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Public Realm at New Street, Malahide, Co. Dublin	-	-	**N/A**	-	-		-	-	-	-	-	-	**144.6%**
New Street / R106	-	-	**N/A**	-	-		-	-	-	-	-	-	**144.6%**
1/1+1/2	R106 West (eastbound) Left Right Ahead	U+O	N/A	N/A	A C		2	28	-	416	1822:1877	603+139	56.1 : 56.1%
2/1	New Street	U	N/A	N/A	-		-	-	-	217	Inf	Inf	0.0%
3/2+3/1	R106 East (westbound) Right Ahead Left	O+U	N/A	N/A	D B		1	28	-	391	1813:1839	113+520	61.8 : 61.8%
4/1	Church Road (northbound) Ahead Left Right	U	N/A	N/A	E		1	7	-	225	1750	156	144.6%
5/1	R106 West (westbound)	U	N/A	N/A	-		-	-	-	447	Inf	Inf	0.0%
6/1	Church Road (southbound)	U	N/A	N/A	-		-	-	-	207	Inf	Inf	0.0%
7/1	R106 East (eastbound)	U	N/A	N/A	-		-	-	-	370	Inf	Inf	0.0%
8/1	New Street (southbound/not used) Right Ahead Left	U	N/A	N/A	F		1	7	-	209	1855	165	126.8%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	H		1	7	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	I		1	7	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	J		1	10	-	0	-	0	0.0%
Ped Link: P4	Unnamed Ped Link	-	N/A	-	G		1	8	-	0	-	0	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Public Realm at New Street, Malahide, Co. Dublin	**-**	**-**	**129**	**8**	**11**	**14.3**	**61.9**	**0.4**	**76.6**	**-**	**-**	**-**	**-**
New Street / R106	**-**	**-**	**129**	**8**	**11**	**14.3**	**61.9**	**0.4**	**76.6**	**-**	**-**	**-**	**-**
1/1+1/2	416	416	64	4	10	2.1	0.6	0.2	3.0	25.8	5.9	0.6	6.6
2/1	195	195	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
3/2+3/1	391	391	65	4	2	2.7	0.8	0.2	3.7	33.7	7.3	0.8	8.1
4/1	225	156	-	-	-	5.6	36.3	-	41.9	670.0	8.3	36.3	44.6
5/1	402	402	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	189	189	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	341	341	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	209	165	-	-	-	3.8	24.2	-	28.1	483.3	6.3	24.2	30.5
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P4	0	0	-	-	-	-	-	-	-	-	-	-	-

C1 PRC for Signalled Lanes (%): -60.7 Total Delay for Signalled Lanes (pcuHr): 76.58 Cycle Time (s): 90
PRC Over All Lanes (%): -60.7 Total Delay Over All Lanes(pcuHr): 76.58

Appendix F Junction 5 - Townyard Lane and the R106 Junctions 9 Analysis

Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9.5.0.6896
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Filename: Junction 5 - Townyard Lane.R106.j9
Path: \\w2k19-dl-fs01\users\CAD\DWGS\222\101-150\222126\3.0 Calculations\1. Civils\222126-PUNCH-XX-XX-CA-C-0008_Traffic\Junctions 9
Report generation date: 31/01/2023 11:09:36

»2023 Survey Year, AM
»2023 Survey Year, PM
»2020 Survey Year, AM
»2020 Survey Year, PM
»2019 Estimated, AM
»2019 Estimated, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	2023 Survey Year							
Stream B-AC	0.0	0.00	0.00	A	0.0	0.00	0.00	A
Stream C-AB	0.9	5.66	0.32	A	0.8	5.88	0.30	A
	2020 Survey Year							
Stream B-AC	0.0	0.00	0.00	A	0.0	0.00	0.00	A
Stream C-AB	0.7	5.53	0.26	A	1.0	6.14	0.36	A
	2019 Estimated							
Stream B-AC	0.0	0.00	0.00	A	0.0	0.00	0.00	A
Stream C-AB	0.6	5.10	0.23	A	0.1	4.78	0.07	A

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

File summary

File Description

Title	
Location	
Site number	
Date	17/01/2023
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	MPPNET\RLee
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units

m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2023 Survey Year	AM	ONE HOUR	08:30	10:00	15
D2	2023 Survey Year	PM	ONE HOUR	12:45	14:15	15
D3	2020 Survey Year	AM	ONE HOUR	08:30	10:00	15
D4	2020 Survey Year	PM	ONE HOUR	12:45	14:15	15
D5	2019 Estimated	AM	ONE HOUR	08:30	10:00	15
D6	2019 Estimated	PM	ONE HOUR	12:45	14:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2023 Survey Year, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Junction 5	T-Junction	Two-way		1.34	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	R106		Major
B	Townyard Lane		Minor
C	R106		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - R106	6.00			100.0	✓	0.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - Townyard Lane	One lane	3.20	0	0

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	487	0.089	0.224	0.141	0.321
1	B-C	636	0.098	0.247	-	-
1	C-B	632	0.245	0.245	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.
Streams may be combined, in which case capacity will be adjusted.
Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2023 Survey Year	AM	ONE HOUR	08:30	10:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - R106		✓	376	100.000
B - Townyard Lane		✓	0	100.000
C - R106		✓	628	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - R106	B - Townyard Lane	C - R106
From	A - R106	0	51	325
	B - Townyard Lane	0	0	0
	C - R106	524	104	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - R106	B - Townyard Lane	C - R106
From	A - R106	0	0	0
	B - Townyard Lane	0	0	0
	C - R106	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.00	0.00	0.0	A
C-AB	0.32	5.66	0.9	A
C-A				
A-B				
A-C				

2023 Survey Year, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Junction 5	T-Junction	Two-way		1.28	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2023 Survey Year	PM	ONE HOUR	12:45	14:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - R106		✓	410	100.000
B - Townyard Lane		✓	0	100.000
C - R106		✓	556	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - R106	B - Townyard Lane	C - R106
From	A - R106	0	81	329
	B - Townyard Lane	0	0	0
	C - R106	454	102	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - R106	B - Townyard Lane	C - R106
From	A - R106	0	0	0
	B - Townyard Lane	0	0	0
	C - R106	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.00	0.00	0.0	A
C-AB	0.30	5.88	0.8	A
C-A				
A-B				
A-C				

2020 Survey Year, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Junction 5	T-Junction	Two-way		1.13	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2020 Survey Year	AM	ONE HOUR	08:30	10:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - R106		✓	370	100.000
B - Townyard Lane		✓	0	100.000
C - R106		✓	545	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - R106	B - Townyard Lane	C - R106
From	A - R106	0	80	290
	B - Townyard Lane	0	0	0
	C - R106	454	91	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - R106	B - Townyard Lane	C - R106
From	A - R106	0	0	0
	B - Townyard Lane	0	0	0
	C - R106	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.00	0.00	0.0	A
C-AB	0.26	5.53	0.7	A
C-A				
A-B				
A-C				

2020 Survey Year, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Junction 5	T-Junction	Two-way		1.48	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2020 Survey Year	PM	ONE HOUR	12:45	14:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - R106		✓	443	100.000
B - Townyard Lane		✓	0	100.000
C - R106		✓	622	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - R106	B - Townyard Lane	C - R106
From	A - R106	0	87	356
	B - Townyard Lane	0	0	0
	C - R106	509	113	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - R106	B - Townyard Lane	C - R106
From	A - R106	0	0	0
	B - Townyard Lane	0	0	0
	C - R106	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.00	0.00	0.0	A
C-AB	0.36	6.14	1.0	A
C-A				
A-B				
A-C				

2019 Estimated, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Junction 5	T-Junction	Two-way		1.00	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2019 Estimated	AM	ONE HOUR	08:30	10:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - R106		✓	310	100.000
B - Townyard Lane		✓	0	100.000
C - R106		✓	569	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - R106	B - Townyard Lane	C - R106
From	A - R106	0	7	303
	B - Townyard Lane	0	0	0
	C - R106	488	81	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - R106	B - Townyard Lane	C - R106
From	A - R106	0	0	0
	B - Townyard Lane	0	0	0
	C - R106	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.00	0.00	0.0	A
C-AB	0.23	5.10	0.6	A
C-A				
A-B				
A-C				

2019 Estimated, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Junction 5	T-Junction	Two-way		0.29	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2019 Estimated	PM	ONE HOUR	12:45	14:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - R106		✓	352	100.000
B - Townyard Lane		✓	0	100.000
C - R106		✓	448	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - R106	B - Townyard Lane	C - R106
From	A - R106	0	46	306
	B - Townyard Lane	0	0	0
	C - R106	423	25	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - R106	B - Townyard Lane	C - R106
From	A - R106	0	0	0
	B - Townyard Lane	0	0	0
	C - R106	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.00	0.00	0.0	A
C-AB	0.07	4.78	0.1	A
C-A				
A-B				
A-C				

Appendix G Junction 6 - Old Street and the R106 Junctions 9 Analysis

Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9.5.0.6896
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Filename: Junction 6 - Old Street.R106.j9
Path: \\w2k19-dl-fs01\users\CAD\DWGS\222\101-150\222126\3.0 Calculations\1. Civils\222126-PUNCH-XX-XX-CA-C-0008_Traffic\Junctions 9
Report generation date: 31/01/2023 11:10:40

»2023 Survey Year, AM
»2023 Survey Year, PM
»2020 Survey Year, AM
»2020 Survey Year, PM
»2019 Estimated, AM
»2019 Estimated, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	2023 Survey Year							
Stream B-AC	0.0	0.00	0.00	A	0.0	0.00	0.00	A
Stream C-AB	0.5	5.26	0.21	A	0.6	5.70	0.26	A
	2020 Survey Year							
Stream B-AC	0.0	0.00	0.00	A	0.0	0.00	0.00	A
Stream C-AB	0.5	5.35	0.21	A	0.5	5.20	0.20	A
	2019 Estimated							
Stream B-AC	0.0	0.00	0.00	A	0.0	0.00	0.00	A
Stream C-AB	0.3	5.03	0.14	A	0.3	4.98	0.13	A

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

File summary

File Description

Title	
Location	
Site number	
Date	17/01/2023
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	MPPNET\RLee
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units

m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2023 Survey Year	AM	ONE HOUR	08:00	09:30	15
D2	2023 Survey Year	PM	ONE HOUR	15:30	17:00	15
D3	2020 Survey Year	AM	ONE HOUR	08:00	09:30	15
D4	2020 Survey Year	PM	ONE HOUR	15:30	17:00	15
D5	2019 Estimated	AM	ONE HOUR	08:00	09:30	15
D6	2019 Estimated	PM	ONE HOUR	15:30	17:00	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2023 Survey Year, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Old Street/R106	T-Junction	Two-way		0.76	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	R106		Major
B	Old Street		Minor
C	R106		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - R106	6.00			100.0	✓	0.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - Old Street	One lane	3.30	0	0

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	492	0.090	0.227	0.143	0.324
1	B-C	643	0.099	0.249	-	-
1	C-B	632	0.245	0.245	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.
Streams may be combined, in which case capacity will be adjusted.
Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2023 Survey Year	AM	ONE HOUR	08:00	09:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - R106		✓	483	100.000
B - Old Street		✓	0	100.000
C - R106		✓	536	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - R106	B - Old Street	C - R106
From	A - R106	0	70	413
	B - Old Street	0	0	0
	C - R106	467	69	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - R106	B - Old Street	C - R106
From	A - R106	0	0	0
	B - Old Street	0	0	0
	C - R106	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.00	0.00	0.0	A
C-AB	0.21	5.26	0.5	A
C-A				
A-B				
A-C				

2023 Survey Year, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Old Street/R106	T-Junction	Two-way		1.03	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2023 Survey Year	PM	ONE HOUR	15:30	17:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - R106		✓	458	100.000
B - Old Street		✓	0	100.000
C - R106		✓	524	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - R106	B - Old Street	C - R106
From	A - R106	0	79	379
	B - Old Street	0	0	0
	C - R106	437	87	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - R106	B - Old Street	C - R106
From	A - R106	0	0	0
	B - Old Street	0	0	0
	C - R106	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.00	0.00	0.0	A
C-AB	0.26	5.70	0.6	A
C-A				
A-B				
A-C				

2020 Survey Year, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Old Street/R106	T-Junction	Two-way		0.86	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2020 Survey Year	AM	ONE HOUR	08:00	09:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - R106		✓	414	100.000
B - Old Street		✓	0	100.000
C - R106		✓	504	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - R106	B - Old Street	C - R106
From	A - R106	0	50	364
	B - Old Street	0	0	0
	C - R106	430	74	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - R106	B - Old Street	C - R106
From	A - R106	0	0	0
	B - Old Street	0	0	0
	C - R106	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.00	0.00	0.0	A
C-AB	0.21	5.35	0.5	A
C-A				
A-B				
A-C				

2020 Survey Year, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Old Street/R106	T-Junction	Two-way		0.73	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2020 Survey Year	PM	ONE HOUR	15:30	17:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - R106		✓	471	100.000
B - Old Street		✓	1	100.000
C - R106		✓	524	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - R106	B - Old Street	C - R106
From	A - R106	0	66	405
	B - Old Street	0	0	1
	C - R106	458	66	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - R106	B - Old Street	C - R106
From	A - R106	0	0	0
	B - Old Street	0	0	0
	C - R106	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.00	0.00	0.0	A
C-AB	0.20	5.20	0.5	A
C-A				
A-B				
A-C				

2019 Estimated, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Old Street/R106	T-Junction	Two-way		0.52	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2019 Estimated	AM	ONE HOUR	08:00	09:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - R106		✓	435	100.000
B - Old Street		✓	0	100.000
C - R106		✓	481	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - R106	B - Old Street	C - R106
From	A - R106	0	51	384
	B - Old Street	0	0	0
	C - R106	434	47	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - R106	B - Old Street	C - R106
From	A - R106	0	0	0
	B - Old Street	0	0	0
	C - R106	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.00	0.00	0.0	A
C-AB	0.14	5.03	0.3	A
C-A				
A-B				
A-C				

2019 Estimated, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Old Street/R106	T-Junction	Two-way		0.54	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2019 Estimated	PM	ONE HOUR	15:30	17:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - R106		✓	388	100.000
B - Old Street		✓	0	100.000
C - R106		✓	481	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - R106	B - Old Street	C - R106
From	A - R106	0	35	353
	B - Old Street	0	0	0
	C - R106	434	47	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - R106	B - Old Street	C - R106
From	A - R106	0	0	0
	B - Old Street	0	0	0
	C - R106	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.00	0.00	0.0	A
C-AB	0.13	4.98	0.3	A
C-A				
A-B				
A-C				

Appendix H Junction 7 - James' Terrace and the R106 Junctions 9 Analysis

Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9.5.0.6896
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Filename: Junction 7 - Jame's Terrace.R106.j9
Path: \\w2k19-dl-fs01\users\CAD\DWGS\222\101-150\222126\3.0 Calculations\1. Civils\222126-PUNCH-XX-XX-CA-C-0008_Traffic\Junctions 9
Report generation date: 31/01/2023 11:11:32

»2023 Survey Year, AM
»2023 Survey Year, PM
»2020 Survey Year, AM
»2020 Survey Year, PM
»2019 Estimated, AM
»2019 Estimated, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	2023 Survey Year							
Stream B-AC	3.6	39.16	0.80	E	4.7	46.19	0.84	E
Stream C-AB	0.0	0.00	0.00	A	0.0	0.00	0.00	A
	2020 Survey Year							
Stream B-AC	1.7	21.15	0.63	C	4.5	44.75	0.84	E
Stream C-AB	0.0	0.00	0.00	A	0.0	4.60	0.00	A
	2019 Estimated							
Stream B-AC	0.7	13.58	0.41	B	1.1	16.16	0.53	C
Stream C-AB	0.0	0.00	0.00	A	0.0	0.00	0.00	A

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

File summary

File Description

Title	
Location	
Site number	
Date	17/01/2023
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	MPPNET\RLee
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units

m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2023 Survey Year	AM	ONE HOUR	08:15	09:45	15
D2	2023 Survey Year	PM	ONE HOUR	16:15	17:45	15
D3	2020 Survey Year	AM	ONE HOUR	08:15	09:45	15
D4	2020 Survey Year	PM	ONE HOUR	16:15	17:45	15
D5	2019 Estimated	AM	ONE HOUR	08:15	09:45	15
D6	2019 Estimated	PM	ONE HOUR	16:15	17:45	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2023 Survey Year, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Junction 7 - Jame's Terrace/R106	T-Junction	Two-way		11.27	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	R106		Major
B	Jame's Terrace		Minor
C	R106		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - R106	6.00			80.0	✓	0.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - Jame's Terrace	One lane	3.25	0	0

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	490	0.089	0.225	0.142	0.322
1	B-C	640	0.098	0.248	-	-
1	C-B	620	0.240	0.240	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.
Streams may be combined, in which case capacity will be adjusted.
Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2023 Survey Year	AM	ONE HOUR	08:15	09:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - R106		✓	294	100.000
B - Jame's Terrace		✓	321	100.000
C - R106		✓	500	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - R106	B - Jame's Terrace	C - R106
From	A - R106	0	0	294
	B - Jame's Terrace	131	0	190
	C - R106	500	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - R106	B - Jame's Terrace	C - R106
From	A - R106	0	0	0
	B - Jame's Terrace	0	0	0
	C - R106	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.80	39.16	3.6	E
C-AB	0.00	0.00	0.0	A
C-A				
A-B				
A-C				

2023 Survey Year, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Junction 7 - Jame's Terrace/R106	T-Junction	Two-way		15.33	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2023 Survey Year	PM	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - R106		✓	297	100.000
B - Jame's Terrace		✓	357	100.000
C - R106		✓	422	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - R106	B - Jame's Terrace	C - R106
From	A - R106	0	0	297
	B - Jame's Terrace	120	0	237
	C - R106	422	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - R106	B - Jame's Terrace	C - R106
From	A - R106	0	0	0
	B - Jame's Terrace	0	0	0
	C - R106	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.84	46.19	4.7	E
C-AB	0.00	0.00	0.0	A
C-A				
A-B				
A-C				

2020 Survey Year, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Junction 7 - Jame's Terrace/R106	T-Junction	Two-way		5.86	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2020 Survey Year	AM	ONE HOUR	08:15	09:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - R106		✓	268	100.000
B - Jame's Terrace		✓	265	100.000
C - R106		✓	424	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - R106	B - Jame's Terrace	C - R106
From	A - R106	0	0	268
	B - Jame's Terrace	103	0	162
	C - R106	424	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - R106	B - Jame's Terrace	C - R106
From	A - R106	0	0	0
	B - Jame's Terrace	0	0	0
	C - R106	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.63	21.15	1.7	C
C-AB	0.00	0.00	0.0	A
C-A				
A-B				
A-C				

2020 Survey Year, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Junction 7 - Jame's Terrace/R106	T-Junction	Two-way		14.03	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2020 Survey Year	PM	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - R106		✓	332	100.000
B - Jame's Terrace		✓	349	100.000
C - R106		✓	433	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - R106	B - Jame's Terrace	C - R106
From	A - R106	0	0	332
	B - Jame's Terrace	110	0	239
	C - R106	432	1	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - R106	B - Jame's Terrace	C - R106
From	A - R106	0	0	0
	B - Jame's Terrace	0	0	0
	C - R106	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.84	44.75	4.5	E
C-AB	0.00	4.60	0.0	A
C-A				
A-B				
A-C				

2019 Estimated, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Junction 7 - Jame's Terrace/R106	T-Junction	Two-way		2.53	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2019 Estimated	AM	ONE HOUR	08:15	09:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - R106		✓	274	100.000
B - Jame's Terrace		✓	169	100.000
C - R106		✓	465	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - R106	B - Jame's Terrace	C - R106
From	A - R106	0	0	274
	B - Jame's Terrace	69	0	100
	C - R106	465	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - R106	B - Jame's Terrace	C - R106
From	A - R106	0	0	0
	B - Jame's Terrace	0	0	0
	C - R106	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.41	13.58	0.7	B
C-AB	0.00	0.00	0.0	A
C-A				
A-B				
A-C				

2019 Estimated, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Junction 7 - Jame's Terrace/R106	T-Junction	Two-way		4.11	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2019 Estimated	PM	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - R106		✓	276	100.000
B - Jame's Terrace		✓	228	100.000
C - R106		✓	393	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - R106	B - Jame's Terrace	C - R106
From	A - R106	0	0	276
	B - Jame's Terrace	77	0	151
	C - R106	393	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - R106	B - Jame's Terrace	C - R106
From	A - R106	0	0	0
	B - Jame's Terrace	0	0	0
	C - R106	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.53	16.16	1.1	C
C-AB	0.00	0.00	0.0	A
C-A				
A-B				
A-C				

Appendix I Junction 8 - The Rise and the R106 Junctions 9 Analysis

Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9.5.0.6896
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Filename: Junction 8 - The Rise.R106.j9
Path: \\w2k19-dl-fs01\users\CAD\DWGS\222\101-150\222126\3.0 Calculations\1. Civils\222126-PUNCH-XX-XX-CA-C-0008_Traffic\Junctions 9
Report generation date: 27/01/2023 11:17:46

»2023 Survey Year, AM
»2023 Survey Year, PM
»2019 Survey Year, AM
»2019 Survey Year, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	2023 Survey Year							
Stream B-AC	0.9	19.32	0.47	C	0.2	12.33	0.15	B
Stream C-AB	0.0	5.09	0.02	A	0.1	5.34	0.06	A
	2019 Survey Year							
Stream B-AC	0.7	19.17	0.43	C	0.2	13.21	0.18	B
Stream C-AB	0.1	5.28	0.05	A	0.3	5.47	0.11	A

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

File summary

File Description

Title	
Location	
Site number	
Date	17/01/2023
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	MPPNET\RLee
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2023 Survey Year	AM	ONE HOUR	08:15	09:45	15

D2	2023 Survey Year	PM	ONE HOUR	16:15	17:45	15
D3	2019 Survey Year	AM	ONE HOUR	08:15	09:45	15
D4	2019 Survey Year	PM	ONE HOUR	16:15	17:45	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2023 Survey Year, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Junction 8 - The Rise/R106	T-Junction	Two-way		2.79	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	R106		Major
B	The Rise		Minor
C	R106		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - R106	6.00			0.0	✓	0.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - The Rise	One lane	2.50	30	25

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	475	0.086	0.218	0.137	0.312
1	B-C	608	0.093	0.235	-	-
1	C-B	574	0.222	0.222	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.
Streams may be combined, in which case capacity will be adjusted.
Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2023 Survey Year	AM	ONE HOUR	08:15	09:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - R106		✓	483	100.000
B - The Rise		✓	147	100.000
C - R106		✓	415	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - R106	B - The Rise	C - R106
From	A - R106	0	22	461
	B - The Rise	92	0	55
	C - R106	408	7	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - R106	B - The Rise	C - R106
From	A - R106	0	0	0
	B - The Rise	0	0	0
	C - R106	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.47	19.32	0.9	C
C-AB	0.02	5.09	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	111	403	0.275	109	0.4	12.212	B
C-AB	9	716	0.013	9	0.0	5.092	A
C-A	303			303			
A-B	17			17			
A-C	347			347			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	132	380	0.348	132	0.5	14.465	B
C-AB	12	747	0.017	12	0.0	4.900	A
C-A	361			361			
A-B	20			20			
A-C	414			414			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	162	348	0.465	161	0.8	19.082	C

C-AB	18	791	0.023	18	0.0	4.654	A
C-A	439			439			
A-B	24			24			
A-C	508			508			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	162	348	0.465	162	0.9	19.325	C
C-AB	18	791	0.023	18	0.0	4.656	A
C-A	439			439			
A-B	24			24			
A-C	508			508			

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	132	380	0.348	133	0.5	14.684	B
C-AB	12	747	0.017	12	0.0	4.901	A
C-A	361			361			
A-B	20			20			
A-C	414			414			

09:30 - 09:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	111	403	0.275	111	0.4	12.390	B
C-AB	9	716	0.013	9	0.0	5.092	A
C-A	303			303			
A-B	17			17			
A-C	347			347			

2023 Survey Year, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Junction 8 - The Rise/R106	T-Junction	Two-way		0.77	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2023 Survey Year	PM	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - R106		✓	536	100.000
B - The Rise		✓	46	100.000
C - R106		✓	406	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - R106	B - The Rise	C - R106
From	A - R106	0	85	451
	B - The Rise	29	0	17
	C - R106	388	18	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - R106	B - The Rise	C - R106
From	A - R106	0	0	0
	B - The Rise	0	0	0
	C - R106	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.15	12.33	0.2	B
C-AB	0.06	5.34	0.1	A
C-A				
A-B				
A-C				

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	35	399	0.087	34	0.1	9.863	A
C-AB	23	698	0.033	23	0.0	5.335	A
C-A	282			282			
A-B	64			64			
A-C	340			340			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	41	375	0.110	41	0.1	10.768	B
C-AB	31	725	0.043	31	0.1	5.187	A
C-A	334			334			
A-B	76			76			
A-C	405			405			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	51	343	0.148	50	0.2	12.311	B
C-AB	45	765	0.059	45	0.1	5.000	A
C-A	402			402			
A-B	94			94			
A-C	497			497			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	51	343	0.148	51	0.2	12.326	B
C-AB	45	765	0.059	45	0.1	5.001	A
C-A	402			402			
A-B	94			94			
A-C	497			497			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	41	375	0.110	42	0.1	10.789	B
C-AB	31	725	0.043	31	0.1	5.189	A
C-A	334			334			
A-B	76			76			
A-C	405			405			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	35	399	0.087	35	0.1	9.890	A
C-AB	23	698	0.034	23	0.0	5.341	A
C-A	282			282			
A-B	64			64			
A-C	340			340			

2019 Survey Year, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Junction 8 - The Rise/R106	T-Junction	Two-way		2.39	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2019 Survey Year	AM	ONE HOUR	08:15	09:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - R106		✓	541	100.000
B - The Rise		✓	126	100.000
C - R106		✓	408	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - R106	B - The Rise	C - R106
From	A - R106	0	13	528
	B - The Rise	83	0	43
	C - R106	394	14	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - R106	B - The Rise	C - R106
From	A - R106	0	0	0
	B - The Rise	0	0	0
	C - R106	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.43	19.17	0.7	C
C-AB	0.05	5.28	0.1	A
C-A				
A-B				
A-C				

Main Results for each time segment

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	95	387	0.245	94	0.3	12.234	B
C-AB	18	700	0.026	18	0.0	5.277	A
C-A	289			289			
A-B	10			10			
A-C	398			398			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	113	362	0.313	113	0.4	14.442	B
C-AB	25	728	0.034	25	0.0	5.114	A
C-A	342			342			
A-B	12			12			
A-C	475			475			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	139	326	0.425	138	0.7	18.966	C
C-AB	35	769	0.046	35	0.1	4.907	A
C-A	414			414			
A-B	14			14			
A-C	581			581			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	139	326	0.425	139	0.7	19.168	C
C-AB	36	769	0.046	36	0.1	4.910	A
C-A	414			414			
A-B	14			14			
A-C	581			581			

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	113	361	0.313	114	0.5	14.627	B
C-AB	25	728	0.034	25	0.0	5.118	A
C-A	342			342			
A-B	12			12			
A-C	475			475			

09:30 - 09:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	95	387	0.245	95	0.3	12.385	B
C-AB	18	700	0.026	18	0.0	5.280	A
C-A	289			289			
A-B	10			10			
A-C	398			398			

2019 Survey Year, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Junction 8 - The Rise/R106	T-Junction	Two-way		1.05	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2019 Survey Year	PM	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - R106		✓	541	100.000
B - The Rise		✓	53	100.000
C - R106		✓	434	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - R106	B - The Rise	C - R106
From	A - R106	0	51	490
	B - The Rise	33	0	20
	C - R106	400	34	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - R106	B - The Rise	C - R106
From	A - R106	0	0	0
	B - The Rise	0	0	0
	C - R106	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.18	13.21	0.2	B
C-AB	0.11	5.47	0.3	A
C-A				
A-B				
A-C				

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	40	392	0.102	39	0.1	10.213	B
C-AB	45	704	0.064	44	0.1	5.458	A
C-A	282			282			
A-B	38			38			
A-C	369			369			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	48	366	0.130	48	0.1	11.287	B
C-AB	60	732	0.082	60	0.2	5.358	A
C-A	330			330			
A-B	46			46			
A-C	440			440			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	58	331	0.176	58	0.2	13.181	B
C-AB	87	774	0.113	87	0.3	5.242	A
C-A	391			391			
A-B	56			56			
A-C	540			540			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	58	331	0.176	58	0.2	13.207	B
C-AB	87	774	0.113	87	0.3	5.248	A
C-A	390			390			
A-B	56			56			
A-C	540			540			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	48	366	0.130	48	0.2	11.317	B
C-AB	60	733	0.083	61	0.2	5.364	A
C-A	330			330			
A-B	46			46			
A-C	440			440			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	40	391	0.102	40	0.1	10.249	B
C-AB	45	704	0.064	45	0.1	5.471	A
C-A	282			282			
A-B	38			38			
A-C	369			369			

Appendix J Junction 9 - Grove Road and the R106

Junctions 9 Analysis

Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9.5.0.6896
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Filename: Junction 9 - R106.Grove Road.j9
Path: I:\DWGS\222\101-150\222126\3.0 Calculations\1. Civils\222126-PUNCH-XX-XX-CA-C-0008_Traffic\Junctions 9
Report generation date: 27/01/2023 11:16:40

»2023 Survey Year, AM
»2023 Survey Year, PM
»2019 Survey Year, AM
»2019 Survey Year, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	2023 Survey Year							
Stream B-AC	0.3	11.54	0.20	B	0.3	10.74	0.23	B
Stream C-AB	0.1	5.43	0.07	A	0.1	5.31	0.05	A
	2019 Survey Year							
Stream B-AC	0.3	12.80	0.26	B	0.5	13.04	0.34	B
Stream C-AB	0.1	5.41	0.06	A	0.1	5.44	0.06	A

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

File summary

File Description

Title	
Location	
Site number	
Date	17/01/2023
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	MPPNET\RLee
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2023 Survey Year	AM	ONE HOUR	08:15	09:45	15
D2	2023 Survey Year	PM	ONE HOUR	16:15	17:45	15
D3	2019 Survey Year	AM	ONE HOUR	08:15	09:45	15
D4	2019 Survey Year	PM	ONE HOUR	16:15	17:45	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2023 Survey Year, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Junction 9 - R106/Grove Road	T-Junction	Two-way		1.10	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	R106		Major
B	Grove Road		Minor
C	R106		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - R106	6.00			0.0	✓	0.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - Grove Road	One lane	3.30	70	45

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	538	0.098	0.248	0.156	0.354
1	B-C	672	0.103	0.260	-	-
1	C-B	574	0.222	0.222	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.
Streams may be combined, in which case capacity will be adjusted.
Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2023 Survey Year	AM	ONE HOUR	08:15	09:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - R106		✓	517	100.000
B - Grove Road		✓	73	100.000
C - R106		✓	397	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - R106	B - Grove Road	C - R106
From	A - R106	0	100	417
	B - Grove Road	47	0	26
	C - R106	374	23	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - R106	B - Grove Road	C - R106
From	A - R106	0	0	0
	B - Grove Road	0	0	0
	C - R106	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.20	11.54	0.3	B
C-AB	0.07	5.43	0.1	A
C-A				
A-B				
A-C				

Main Results for each time segment

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	55	453	0.121	54	0.1	9.027	A
C-AB	29	693	0.042	29	0.1	5.422	A
C-A	270			270			
A-B	75			75			
A-C	314			314			

08:30 - 08:45

Stream	Total Demand	Capacity	RFC	Throughput	End queue	Delay (s)	Unsignalised

	(PCU/hr)	(PCU/hr)		(PCU/hr)	(PCU)		level of service
B-AC	66	428	0.154	65	0.2	9.939	A
C-AB	39	719	0.054	39	0.1	5.295	A
C-A	318			318			
A-B	90			90			
A-C	375			375			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	80	392	0.205	80	0.3	11.522	B
C-AB	56	757	0.074	56	0.1	5.134	A
C-A	381			381			
A-B	110			110			
A-C	459			459			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	80	392	0.205	80	0.3	11.543	B
C-AB	56	757	0.074	56	0.1	5.138	A
C-A	381			381			
A-B	110			110			
A-C	459			459			

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	66	427	0.154	66	0.2	9.964	A
C-AB	39	719	0.054	39	0.1	5.297	A
C-A	318			318			
A-B	90			90			
A-C	375			375			

09:30 - 09:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	55	453	0.121	55	0.1	9.061	A
C-AB	29	693	0.042	29	0.1	5.427	A
C-A	270			270			
A-B	75			75			
A-C	314			314			

2023 Survey Year, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Junction 9 - R106/Grove Road	T-Junction	Two-way		1.20	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2023 Survey Year	PM	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - R106		✓	472	100.000
B - Grove Road		✓	92	100.000
C - R106		✓	385	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - R106	B - Grove Road	C - R106
From	A - R106	0	55	417
	B - Grove Road	41	0	51
	C - R106	370	15	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - R106	B - Grove Road	C - R106
From	A - R106	0	0	0
	B - Grove Road	0	0	0
	C - R106	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.23	10.74	0.3	B
C-AB	0.05	5.31	0.1	A
C-A				
A-B				
A-C				

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	69	491	0.141	69	0.2	8.506	A
C-AB	19	697	0.027	19	0.0	5.308	A
C-A	271			271			
A-B	41			41			
A-C	314			314			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	83	468	0.177	83	0.2	9.323	A
C-AB	25	724	0.035	25	0.0	5.152	A
C-A	321			321			
A-B	49			49			
A-C	375			375			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	101	436	0.232	101	0.3	10.720	B
C-AB	36	762	0.047	36	0.1	4.954	A
C-A	388			388			
A-B	61			61			
A-C	459			459			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	101	436	0.232	101	0.3	10.742	B
C-AB	36	762	0.047	36	0.1	4.955	A
C-A	388			388			
A-B	61			61			
A-C	459			459			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	83	468	0.177	83	0.2	9.351	A
C-AB	25	724	0.035	25	0.0	5.154	A
C-A	321			321			
A-B	49			49			
A-C	375			375			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	69	491	0.141	69	0.2	8.542	A
C-AB	19	697	0.027	19	0.0	5.311	A
C-A	271			271			
A-B	41			41			
A-C	314			314			

2019 Survey Year, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Junction 9 - R106/Grove Road	T-Junction	Two-way		1.35	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2019 Survey Year	AM	ONE HOUR	08:15	09:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - R106		✓	519	100.000
B - Grove Road		✓	90	100.000
C - R106		✓	384	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - R106	B - Grove Road	C - R106
From	A - R106	0	130	389
	B - Grove Road	69	0	21
	C - R106	366	18	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - R106	B - Grove Road	C - R106
From	A - R106	0	0	0
	B - Grove Road	0	0	0
	C - R106	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.26	12.80	0.3	B
C-AB	0.06	5.41	0.1	A
C-A				
A-B				
A-C				

Main Results for each time segment

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	68	439	0.154	67	0.2	9.650	A
C-AB	23	688	0.033	22	0.0	5.407	A
C-A	266			266			
A-B	98			98			
A-C	293			293			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	81	415	0.195	81	0.2	10.770	B
C-AB	30	713	0.042	30	0.1	5.268	A
C-A	315			315			
A-B	117			117			
A-C	350			350			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	99	380	0.261	99	0.3	12.762	B
C-AB	43	750	0.057	43	0.1	5.092	A
C-A	380			380			
A-B	143			143			
A-C	428			428			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	99	380	0.261	99	0.3	12.800	B
C-AB	43	750	0.057	43	0.1	5.095	A
C-A	380			380			
A-B	143			143			
A-C	428			428			

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	81	415	0.195	81	0.2	10.812	B
C-AB	30	713	0.042	30	0.1	5.273	A
C-A	315			315			
A-B	117			117			
A-C	350			350			

09:30 - 09:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	68	439	0.154	68	0.2	9.700	A
C-AB	23	688	0.033	23	0.0	5.411	A
C-A	266			266			
A-B	98			98			
A-C	293			293			

2019 Survey Year, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Junction 9 - R106/Grove Road	T-Junction	Two-way		1.82	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2019 Survey Year	PM	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - R106		✓	513	100.000
B - Grove Road		✓	127	100.000
C - R106		✓	380	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - R106	B - Grove Road	C - R106
From	A - R106	0	111	402
	B - Grove Road	69	0	58
	C - R106	361	19	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - R106	B - Grove Road	C - R106
From	A - R106	0	0	0
	B - Grove Road	0	0	0
	C - R106	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.34	13.04	0.5	B
C-AB	0.06	5.44	0.1	A
C-A				
A-B				
A-C				

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	96	473	0.202	95	0.3	9.489	A
C-AB	24	686	0.035	24	0.0	5.431	A
C-A	262			262			
A-B	84			84			
A-C	303			303			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	114	449	0.254	114	0.3	10.722	B
C-AB	32	711	0.044	31	0.1	5.299	A
C-A	310			310			
A-B	100			100			
A-C	361			361			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	140	416	0.336	139	0.5	12.977	B
C-AB	45	747	0.060	45	0.1	5.127	A
C-A	374			374			
A-B	122			122			
A-C	443			443			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	140	416	0.336	140	0.5	13.036	B
C-AB	45	747	0.060	45	0.1	5.131	A
C-A	373			373			
A-B	122			122			
A-C	443			443			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	114	449	0.254	115	0.3	10.784	B
C-AB	32	711	0.044	32	0.1	5.302	A
C-A	310			310			
A-B	100			100			
A-C	361			361			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	96	473	0.202	96	0.3	9.559	A
C-AB	24	686	0.035	24	0.0	5.437	A
C-A	262			262			
A-B	84			84			
A-C	303			303			

Appendix K Junction 10 - Grove Road and The Rise Junctions 9 Analysis

Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9.5.0.6896
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Filename: Junction 10 - The Rise.Grove Road.j9
Path: \\w2k19-dl-fs01\users\CAD\DWGS\222\101-150\222126\3.0 Calculations\1. Civils\222126-PUNCH-XX-XX-CA-C-0008_Traffic\Junctions 9
Report generation date: 31/01/2023 11:12:21

»2023 Survey Year, AM
»2023 Survey Year, PM
»2019 Survey Year, AM
»2019 Survey Year, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	2023 Survey Year							
Stream B-AC	0.1	9.14	0.11	A	0.3	10.87	0.26	B
Stream C-AB	0.3	7.97	0.24	A	0.0	6.14	0.01	A
	2019 Survey Year							
Stream B-AC	0.1	8.53	0.05	A	0.1	9.20	0.12	A
Stream C-AB	0.5	8.48	0.32	A	0.0	5.90	0.01	A

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

File summary

File Description

Title	
Location	
Site number	
Date	17/01/2023
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	MPPNET\RLee
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2023 Survey Year	AM	ONE HOUR	08:00	09:30	15
D2	2023 Survey Year	PM	ONE HOUR	16:15	17:45	15
D3	2019 Survey Year	AM	ONE HOUR	08:00	09:30	15
D4	2019 Survey Year	PM	ONE HOUR	16:15	17:45	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2023 Survey Year, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Junction 10 - The Rise/ Grove Road	T-Junction	Two-way		6.30	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Grove Road		Major
B	The Rise		Minor
C	Grove Road		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - Grove Road	6.00			0.0	✓	0.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - The Rise	One lane	2.40	25	20

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	466	0.085	0.214	0.135	0.306
1	B-C	598	0.092	0.232	-	-
1	C-B	574	0.222	0.222	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.
Streams may be combined, in which case capacity will be adjusted.
Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2023 Survey Year	AM	ONE HOUR	08:00	09:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Grove Road		✓	26	100.000
B - The Rise		✓	46	100.000
C - Grove Road		✓	157	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Grove Road	B - The Rise	C - Grove Road
From	A - Grove Road	0	15	11
	B - The Rise	36	0	10
	C - Grove Road	36	121	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Grove Road	B - The Rise	C - Grove Road
From	A - Grove Road	0	0	0
	B - The Rise	0	0	0
	C - Grove Road	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.11	9.14	0.1	A
C-AB	0.24	7.97	0.3	A
C-A				
A-B				
A-C				

2023 Survey Year, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Junction 10 - The Rise/ Grove Road	T-Junction	Two-way		4.34	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2023 Survey Year	PM	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Grove Road		✓	96	100.000
B - The Rise		✓	103	100.000
C - Grove Road		✓	65	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Grove Road	B - The Rise	C - Grove Road
From	A - Grove Road	0	40	56
	B - The Rise	97	0	6
	C - Grove Road	61	4	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Grove Road	B - The Rise	C - Grove Road
From	A - Grove Road	0	0	0
	B - The Rise	0	0	0
	C - Grove Road	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.26	10.87	0.3	B
C-AB	0.01	6.14	0.0	A
C-A				
A-B				
A-C				

2019 Survey Year, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Junction 10 - The Rise/ Grove Road	T-Junction	Two-way		6.04	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2019 Survey Year	AM	ONE HOUR	08:00	09:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Grove Road		✓	26	100.000
B - The Rise		✓	21	100.000
C - Grove Road		✓	232	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Grove Road	B - The Rise	C - Grove Road
From	A - Grove Road	0	6	20
	B - The Rise	14	0	7
	C - Grove Road	75	157	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Grove Road	B - The Rise	C - Grove Road
From	A - Grove Road	0	0	0
	B - The Rise	0	0	0
	C - Grove Road	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.05	8.53	0.1	A
C-AB	0.32	8.48	0.5	A
C-A				
A-B				
A-C				

2019 Survey Year, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Junction 10 - The Rise/ Grove Road	T-Junction	Two-way		1.69	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2019 Survey Year	PM	ONE HOUR	16:15	17:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Grove Road		✓	114	100.000
B - The Rise		✓	48	100.000
C - Grove Road		✓	117	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Grove Road	B - The Rise	C - Grove Road
From	A - Grove Road	0	46	68
	B - The Rise	41	0	7
	C - Grove Road	113	4	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Grove Road	B - The Rise	C - Grove Road
From	A - Grove Road	0	0	0
	B - The Rise	0	0	0
	C - Grove Road	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.12	9.20	0.1	A
C-AB	0.01	5.90	0.0	A
C-A				
A-B				
A-C				

Appendix L Junction 11 - Grove Road and Church Road Junctions 9 Analysis

Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9.5.0.6896
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Filename: Junction 11 - Church Road.Grove Road.j9
Path: I:\DWGS\222\101-150\222126\3.0 Calculations\1. Civils\222126-PUNCH-XX-XX-CA-C-0008_Traffic\Junctions 9
Report generation date: 27/01/2023 11:13:34

»2023 Survey Year, AM
»2023 Survey Year, PM
»2019 Survey Year, AM
»2019 Survey Year, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	2023 Survey Year							
Stream B-AC	0.1	11.68	0.11	B	0.9	18.70	0.49	C
Stream C-AB	0.0	5.25	0.01	A	0.0	5.91	0.03	A
	2019 Survey Year							
Stream B-AC	0.1	12.10	0.10	B	1.0	18.72	0.51	C
Stream C-AB	0.0	5.07	0.01	A	0.1	6.09	0.04	A

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

File summary

File Description

Title	
Location	
Site number	
Date	17/01/2023
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	MPPNET\RLee
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2023 Survey Year	AM	ONE HOUR	08:15	09:45	15
D2	2023 Survey Year	PM	ONE HOUR	15:30	17:00	15
D3	2019 Survey Year	AM	ONE HOUR	08:15	09:45	15
D4	2019 Survey Year	PM	ONE HOUR	15:30	17:00	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2023 Survey Year, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Junction 11 - Church Road/Grove Road	T-Junction	Two-way		0.55	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Church Road		Major
B	Grove Road		Minor
C	Church Road		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - Church Road	6.00			0.0	✓	0.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - Grove Road	One lane	2.50	20	16

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	467	0.085	0.215	0.135	0.307
1	B-C	602	0.092	0.233	-	-
1	C-B	574	0.222	0.222	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.
Streams may be combined, in which case capacity will be adjusted.
Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2023 Survey Year	AM	ONE HOUR	08:15	09:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Church Road		✓	400	100.000
B - Grove Road		✓	34	100.000
C - Church Road		✓	341	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Church Road	B - Grove Road	C - Church Road
From	A - Church Road	0	19	381
	B - Grove Road	28	0	6
	C - Church Road	338	3	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Church Road	B - Grove Road	C - Church Road
From	A - Church Road	0	0	0
	B - Grove Road	0	0	0
	C - Church Road	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.11	11.68	0.1	B
C-AB	0.01	5.25	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	26	391	0.066	25	0.1	9.850	A
C-AB	4	690	0.005	4	0.0	5.245	A
C-A	253			253			
A-B	14			14			
A-C	287			287			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	31	372	0.082	30	0.1	10.547	B
C-AB	5	714	0.007	5	0.0	5.071	A
C-A	302			302			
A-B	17			17			
A-C	343			343			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	37	346	0.108	37	0.1	11.672	B
C-AB	7	750	0.009	7	0.0	4.843	A
C-A	369			369			
A-B	21			21			
A-C	419			419			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	37	346	0.108	37	0.1	11.682	B
C-AB	7	750	0.009	7	0.0	4.845	A
C-A	369			369			
A-B	21			21			
A-C	419			419			

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	31	372	0.082	31	0.1	10.561	B
C-AB	5	714	0.007	5	0.0	5.071	A
C-A	302			302			
A-B	17			17			
A-C	343			343			

09:30 - 09:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	26	391	0.066	26	0.1	9.868	A
C-AB	4	690	0.005	4	0.0	5.245	A
C-A	253			253			
A-B	14			14			
A-C	287			287			

2023 Survey Year, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Junction 11 - Church Road/Grove Road	T-Junction	Two-way		4.53	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2023 Survey Year	PM	ONE HOUR	15:30	17:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Church Road		✓	344	100.000
B - Grove Road		✓	169	100.000
C - Church Road		✓	204	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Church Road	B - Grove Road	C - Church Road
From	A - Church Road	0	79	265
	B - Grove Road	149	0	20
	C - Church Road	193	11	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Church Road	B - Grove Road	C - Church Road
From	A - Church Road	0	0	0
	B - Grove Road	0	0	0
	C - Church Road	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.49	18.70	0.9	C
C-AB	0.03	5.91	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

15:30 - 15:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	127	411	0.310	125	0.4	12.549	B
C-AB	11	620	0.017	11	0.0	5.909	A
C-A	143			143			
A-B	59			59			
A-C	200			200			

15:45 - 16:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	152	397	0.383	151	0.6	14.600	B
C-AB	14	630	0.022	14	0.0	5.840	A
C-A	170			170			
A-B	71			71			
A-C	238			238			

16:00 - 16:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	186	378	0.492	185	0.9	18.460	C
C-AB	18	644	0.028	18	0.0	5.747	A
C-A	207			207			
A-B	87			87			
A-C	292			292			

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	186	378	0.492	186	0.9	18.695	C
C-AB	18	644	0.028	18	0.0	5.747	A
C-A	206			206			
A-B	87			87			
A-C	292			292			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	152	397	0.383	153	0.6	14.836	B
C-AB	14	630	0.022	14	0.0	5.841	A
C-A	170			170			
A-B	71			71			
A-C	238			238			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	127	411	0.310	128	0.5	12.766	B
C-AB	11	620	0.017	11	0.0	5.909	A
C-A	143			143			
A-B	59			59			
A-C	200			200			

2019 Survey Year, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Junction 11 - Church Road/Grove Road	T-Junction	Two-way		0.52	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2019 Survey Year	AM	ONE HOUR	08:15	09:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Church Road		✓	370	100.000
B - Grove Road		✓	31	100.000
C - Church Road		✓	379	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Church Road	B - Grove Road	C - Church Road
From	A - Church Road	0	9	361
	B - Grove Road	29	0	2
	C - Church Road	376	3	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Church Road	B - Grove Road	C - Church Road
From	A - Church Road	0	0	0
	B - Grove Road	0	0	0
	C - Church Road	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.10	12.10	0.1	B
C-AB	0.01	5.07	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	23	377	0.062	23	0.1	10.167	B
C-AB	4	715	0.005	4	0.0	5.064	A
C-A	282			282			
A-B	7			7			
A-C	272			272			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	28	358	0.078	28	0.1	10.901	B
C-AB	5	744	0.007	5	0.0	4.869	A
C-A	336			336			
A-B	8			8			
A-C	325			325			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	34	332	0.103	34	0.1	12.088	B
C-AB	7	786	0.009	7	0.0	4.619	A
C-A	410			410			
A-B	10			10			
A-C	397			397			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	34	332	0.103	34	0.1	12.097	B
C-AB	7	786	0.009	7	0.0	4.619	A
C-A	410			410			
A-B	10			10			
A-C	397			397			

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	28	358	0.078	28	0.1	10.915	B
C-AB	5	744	0.007	5	0.0	4.871	A
C-A	336			336			
A-B	8			8			
A-C	325			325			

09:30 - 09:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	23	377	0.062	23	0.1	10.187	B
C-AB	4	715	0.005	4	0.0	5.066	A
C-A	282			282			
A-B	7			7			
A-C	272			272			

2019 Survey Year, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Junction 11 - Church Road/Grove Road	T-Junction	Two-way		4.74	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2019 Survey Year	PM	ONE HOUR	15:30	17:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Church Road		✓	363	100.000
B - Grove Road		✓	178	100.000
C - Church Road		✓	192	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Church Road	B - Grove Road	C - Church Road
From	A - Church Road	0	101	262
	B - Grove Road	142	0	36
	C - Church Road	175	17	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - Church Road	B - Grove Road	C - Church Road
From	A - Church Road	0	0	0
	B - Grove Road	0	0	0
	C - Church Road	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.51	18.72	1.0	C
C-AB	0.04	6.09	0.1	A
C-A				
A-B				
A-C				

Main Results for each time segment

15:30 - 15:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	134	420	0.319	132	0.5	12.420	B
C-AB	16	607	0.027	16	0.0	6.090	A
C-A	128			128			
A-B	76			76			
A-C	197			197			

15:45 - 16:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	160	407	0.393	159	0.6	14.508	B
C-AB	21	615	0.033	21	0.0	6.056	A
C-A	152			152			
A-B	91			91			
A-C	236			236			

16:00 - 16:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	196	388	0.505	195	1.0	18.475	C
C-AB	27	626	0.043	27	0.1	6.011	A
C-A	184			184			
A-B	111			111			
A-C	288			288			

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	196	388	0.505	196	1.0	18.724	C
C-AB	27	626	0.043	27	0.1	6.015	A
C-A	184			184			
A-B	111			111			
A-C	288			288			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	160	407	0.393	161	0.7	14.752	B
C-AB	21	615	0.033	21	0.0	6.058	A
C-A	152			152			
A-B	91			91			
A-C	236			236			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	134	420	0.319	135	0.5	12.646	B
C-AB	16	607	0.027	16	0.0	6.091	A
C-A	128			128			
A-B	76			76			
A-C	197			197			

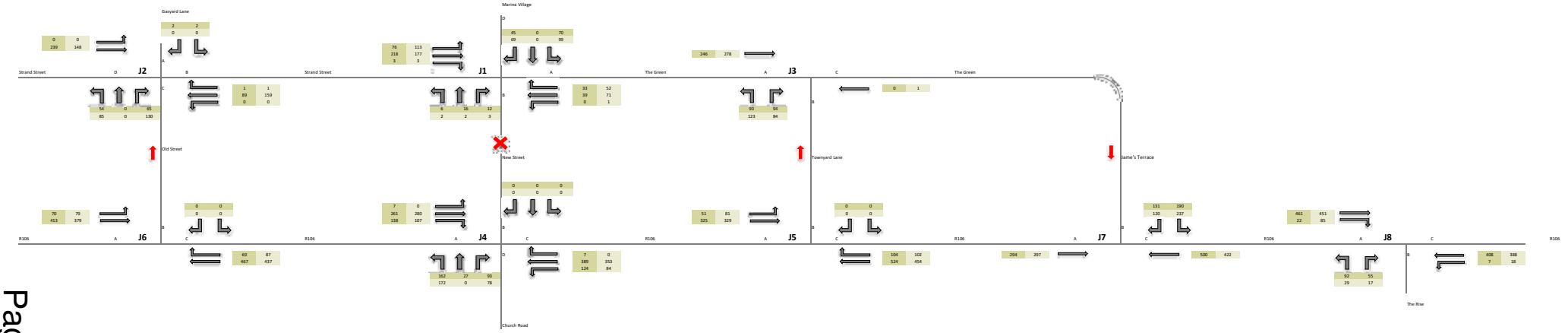
Appendix M Network Flow Diagrams

Existing Survey Data 2023

Date: Tuesday 10th January 2023

LEGEND:

Peak Traffic Figure (AM)
Peak Traffic Figure (PM)

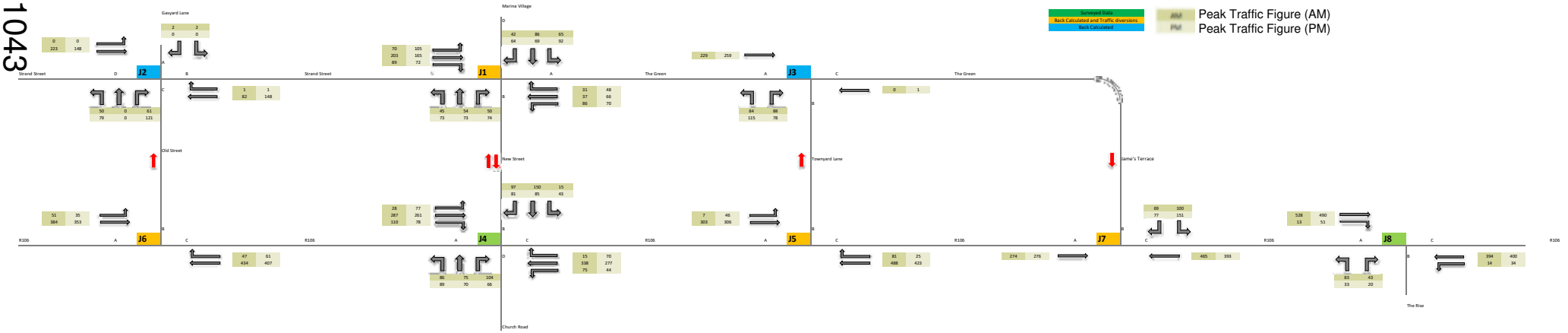


2041 Estimated and Actual Data

LEGEND:

Surveyed Data
Back Calculated and Traffic diversions
Back Calculated

Peak Traffic Figure (AM)
Peak Traffic Figure (PM)



Title: **QUALITY AUDIT**

INCLUDING

Stage 1 Road Safety Audit, Access Audit, Cycle Audit, Walking Audit & Non Motorised User Audit.

For:

Public Realm Improvements for a Pedestrianised New Street

Client: **Fingal County Council**

Report reference: **1652R01**

VERSION: **FINAL (14-11-2022)**

Prepared By:

Bruton Consulting Engineers Ltd

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1.0 Introduction

This report was prepared in response to a request from Mr. Paul Casey, PUNCH Consulting Engineers, for a Quality Audit of the Public Realm Improvements for a Pedestrianised New Street.

The Quality Audit has been carried out in accordance with the guidance in the Design Manual for Urban Roads and Streets (DMURS), produced by Department of Transport Tourism and Sport in March 2013 and as updated in June 2019.

This portion of the Quality Audit is a design stage audit and includes a Stage 1 Road Safety Audit (in accordance with TII Publication GE-DTY-01024, dated December 2017), an access audit, a walking audit, a cycling audit and a non motorised user audit, i.e. aspects of a quality Audit carried out independent of the Design Team and generally included as appendices to the overall Audit.

The Road Safety and Quality Audit Team comprised of:

Team Leader:	**Norman Bruton,** BE CEng FIEI, Cert Comp RSA.
	TII Road safety Auditor approval number: NB 168446
Team Member:	**Owen O'Reilly**, B.SC. Eng Dip Struct. Eng NCEA Civil Dip Civil. Eng CEng MIEI
	TII Auditor Approval no. OO 1291756

This portion of the Quality Audit involved the examination of drawings and other material and a site visit by the Audit Team, on the 26th of October 2022. The weather at the time of the site visit was dry and the road surface was damp.

The problems raised in this Quality Audit may belong to more than one of the categories of Audit named above. A table has been provided at the start of Section 3 of this report detailing which category of audit each problem is associated with.

Recommendations have been provided to help improve the quality of the design with regard to the areas described above. A feedback form has also been provided for the designer to complete indicating whether or not he/she will accept those recommendations or provide alternative recommendations for implementation.

The information supplied to the Audit Team is listed in **Appendix A.**

The feedback form is contained in **Appendix B.**

A plan drawing showing the problem locations is contained in **Appendix C**.

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2.0 Background

The proposed development comprises of public realm improvements for a pedestrianised New Street in Malahide, Fingal.

The street runs in a north-south alignment and is perpendicular to Strand Street in the north and Main Street to the south. Currently the street functions predominantly as a pedestrian zone, with vehicle access restricted to 7am – 11am daily and two-way vehicular access available to Ross Cottages on the east side at all times. A footpath of varying widths runs the full length of the street between the kerb and buildings lines, with mature trees growing at intervals in the footpath. The street is composed of a mix of predominantly commercial and some residential properties, most of which front directly onto the public footpath. The roof line is fairly consistent for the length of the street and the height of all the buildings remains at two storeys, with some minor deviation in the eaves height from ground level. The street runs in an even gradient from the southern end (9.13OD) to the northern end (2.88OD) with a level difference of approx. 6m between the two ends. The character of the street is one of a busy neighbourhood commercial zone with mixed product and service offerings.

The proposed layout for the development is detailed in the series of drawings by DFLA Landscape Architects and PUNCH Consulting Engineers.

The site location map is shown below.

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Site Location Map – image courtesy of openstreetmap.org

The Road Safety Authority's website did not provide collision data at the time of writing of this report due to an ongoing review of policy with regard to making such information available publicly.

3.0 Issues Identified in this Quality Audit

Summary Table of Problem Categories

Problem Reference	Access Audit	Walking Audit	Cycling Audit	Non-Motorised User Audit	Road Safety Audit	Quality Audit
3.1		✓		✓		✓
3.2			✓	✓	✓	✓
3.3		✓		✓	✓	✓
3.4	✓	✓		✓		✓
3.5	✓			✓		✓
3.6		✓		✓	✓	✓
3.7		✓		✓		✓
3.8	✓			✓		✓

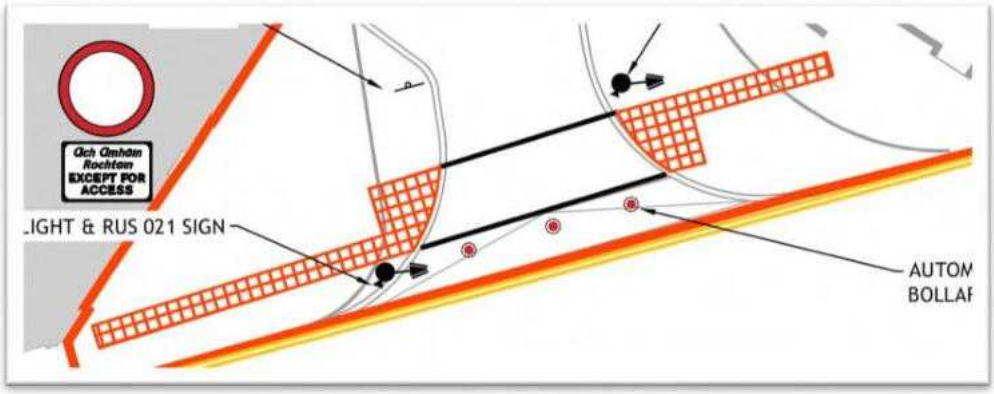
3.1 Problem – Pedestrian Crossing

LOCATION

Drawing 222126-PUNCH-XX-XX-DR-C-0450 P01, Pedestrian crossing at southern end of New Street.

ISSUE

It is proposed to provide a signalised controlled pedestrian crossing at the top of New Street. Access to the street is to be very restricted for vehicles and when the bollards are up pedestrians will not need signal control. It is felt by the Audit Team that the signals may not be required and if provided will be mainly ignored by pedestrians.



RECOMMENDATION

It is recommended that the need for signals be assessed and the possibility of a courtesy crossing system be provided whereby vehicles will wait for a gap in pedestrian activity to cross and that the bollards movement will signal the upcoming hazard for pedestrians.

3.2 Problem – Cyclist Use

LOCATION

Drawing 222126-PUNCH-XX-XX-DR-C-0450 P01, Cyclists.

ISSUE

It is unclear if the scheme is to be two-way for cyclists and if southbound cycling is to be permitted how cyclists can turn right at The Mall to travel towards the train station.

RECOMMENDATION

A lack of provision for southbound cyclists will result in possible pedestrian/cyclists collisions where space is limited and possible vehicle cyclist collisions at the Mall/Main Street junction.

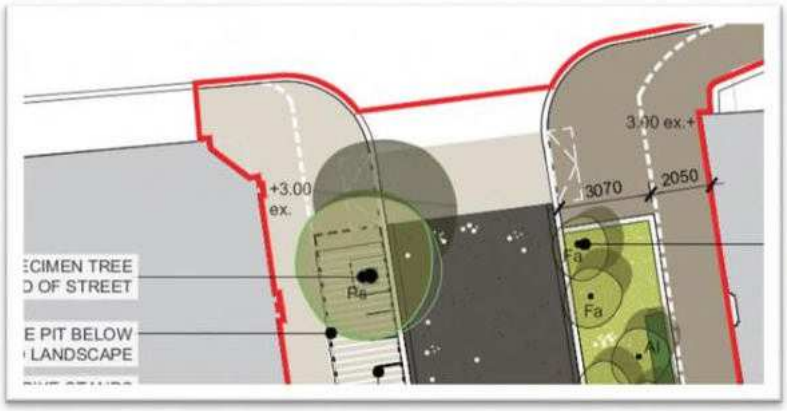
3.3 Problem – Visibility Splay

LOCATION

Drawing Fc.03-DR-2001 Rev B DFLA, Specimen Tree.

ISSUE

It is proposed to provide a specimen tree at either end of the street. There is a risk that the northern tree could block a drivers visibility of the traffic signal head. This could result in collisions with crossing pedestrians.



RECOMMENDATION

It is recommended that the tree and signal pole be located where visual obstruction to the signal head does not occur.

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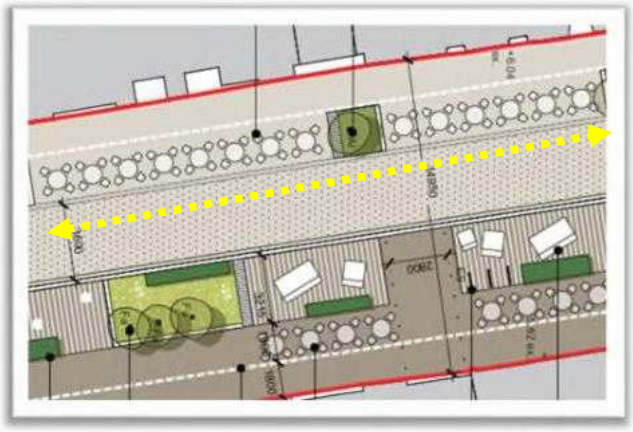
3.4 Problem – Pedestrian Permeability

LOCATION

Drawing Fc.03-DR-2001 Rev B DFLA, Seating and dining areas.

ISSUE

Although the seating and dining areas are shown indicatively there is a risk that they may be continuous over long lengths leading of a lack of permeability for pedestrians from one side of New Street to the other.



RECOMMENDATION

It is recommended that planned permeability gaps be provided.

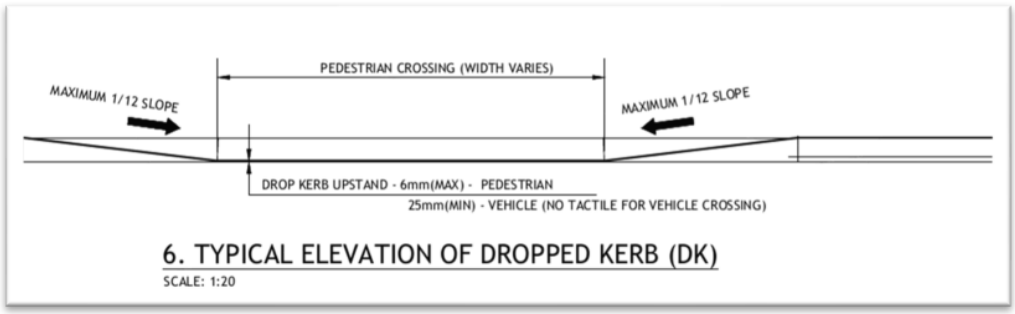
3.5 Problem – Risk of Compound Gradient

LOCATION

Drawing 222126-PUNCH-XX-XX-DR-C-0550 P01, Dropped kerbs

ISSUE

There is a relatively steep longitudinal fall on New Street. At proposed dropped kerb locations there could be a compound gradient which may lead to inaccessibility for some mobility impaired users.



RECOMMENDATION

It is recommended that shallower gradients be used where there is an existing longfall to avoid a cumulative gradient effect or that the alternative of raised or partially crossings be provided.

3.6 Problem – Footpath Width at Loading Bay

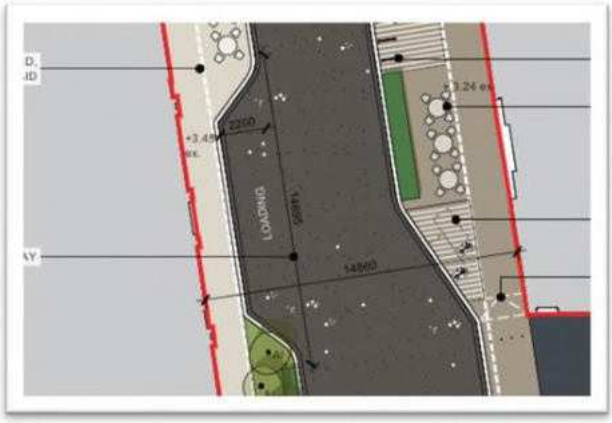
LOCATION

Drawing Fc.03-DR-2001 Rev B DFLA, Loading bay at northern end.

ISSUE

It is proposed to provide a loading bay at the northern end of the scheme that will be of similar construction to the carriageway. The loading bay will be restricted to 4 hours use per day from 7am to 11am.

The footpath to the rear of the loading bay is to be 1.8m wide but with a smaller effective width given the kerb boundary with the loading bay and the building on the inside. During busy periods this may be restrictive and lead to pedestrians entering the carriageway area.



RECOMMENDATION

It is recommended that the loading bay be used as a footpath outside loading hours, that no height difference be provided and that the bay be subtly marked as a loading area through slight colour contrast.

3.7 Problem – Right Turning Lane at the Diamond

LOCATION

Drawing 222126-PUNCH-XX-XX-DR-C-0450 P01, The Mall.

ISSUE

There is an existing right turning lane and right turning pocked on the Mall to turn onto New Street with detector loops. This lane will no longer be widely used and the loop could be triggered unnecessarily.



RECOMMENDATION

It is recommended that an assessment on the need for a right turning lane be carried out and if not additional footpath space could be provided to pedestrians on the Mall.

3.8 Problem – Building Access

LOCATION

Throughout the scheme, steps into retail units.

ISSUE

There are steps into some of the existing retail units. This may limit access for some mobility impaired pedestrians.



RECOMMENDATION

It is recommended that the proposed levels be flush with the doors of these premises to allow access for all. This may require additional drainage features to avoid dampness.

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4.0 Observations

4.1 Observation – Tree at HSE Centre

It is assumed that the existing tree adjacent to the disabled parking space beside the HSE centre is to be removed and will not be a hazard for exiting vehicle occupants.



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5.0 Quality Audit Statement

This portion of the Quality Audit has been carried out in accordance with the guidance given in DMURS and takes into consideration the principles approaches and standards of that Manual.

The quality audit has been carried out by the persons named below who have not been involved in any design work on this scheme as a member of the Design Team.

Norman Bruton **Signed:** 

(Quality Audit Team Leader) **Dated: 14-11-2022**

Owen O'Reilly **Signed:** 

(Quality Audit Team Member) **Dated: 14-11-2022**

Appendix A

List of Material Supplied for this Quality Audit;

Drawing 222126-PUNCH-XX-XX-DR-C-0100
Drawing 222126-PUNCH-XX-XX-DR-C-0150
Drawing 222126-PUNCH-XX-XX-DR-C-0350
Drawing 222126-PUNCH-XX-XX-DR-C-0450
Drawing 222126-PUNCH-XX-XX-DR-C-0480
Drawing 222126-PUNCH-XX-XX-DR-C-0500
Drawing 222126-PUNCH-XX-XX-DR-C-0501
Drawing 222126-PUNCH-XX-XX-DR-C-0502
Drawing 222126-PUNCH-XX-XX-DR-C-0503
Drawing 222126-PUNCH-XX-XX-DR-C-0550
Drawing 222126-PUNCH-XX-XX-DR-C-0600
Drawing 222126-PUNCH-XX-XX-DR-C-0601
Drawing 222126-PUNCH-XX-XX-DR-C-0602
Drawing 222126-PUNCH-XX-XX-DR-C-0603
Drawing 222126-PUNCH-XX-XX-DR-C-0604
Drawing 222126-PUNCH-XX-XX-DR-C-0625
Drawing 222126-PUNCH-XX-XX-RG-C-001
Drawing 222126-PUNCH-XX-XX-RG-C-200
Report 222126-PUNCH-XX-XX-RP-C-0005Traffic and Transport Assessment
Drawing Fc.03_2401 Landscape Sections 1 Rev A
Drawing Fc.03_2402 Landscape Sections 2
Drawing Fc.03_2500 Typical Landscape Details
Drawing Fc.03_2000 Site Location Map
Drawing Fc.03_2001 Public Realm Plan Rev B
Drawing NSM-X-X-DR-AXE-EE-60101

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Appendix B

Feedback Form

QUALITY AUDIT FORM – FEEDBACK ON QUALITY AUDIT REPORT

Scheme: New Street, Malahide
Quality Audit

Date Audit (site visit) Completed, 26-10-2022

Paragraph No. in Quality Audit Report	Problem accepted (yes/no)	Recommended measure accepted (yes/no)	Alternative measures (describe)	Alternative measures accepted by Auditors (Yes/No)
3.1	Yes	Yes		
3.2	No	No	The section of New Street between The Diamond and Ross Cottages will be designated as a Destination Street (a node), and not a cycling street. Cyclists utilising the pedestrianised section of New Street will need to dismount. This is in line with the modal hierarchy and Active Travel principles. In accordance with the Fingal Development Plan 2017-2023, cyclist access to the Dart Station from New Street is to be facilitated via westbound on the Strand, southbound along Old Street and westward on Railway Avenue.	Yes
3.3	No	No	The proposed location of the signal head is north of the pedestrian crossing point, remote from the proposed specimen tree. The proposed specimen tree is 'Pinus Sylvestris' and the associated foliage is not anticipated to obscure the visibility of the signal head to road users. Furthermore, there is an additional signal head at the other side of the junction to provide further guidance to traffic.	Yes
3.4	Yes	Yes		
3.5	Yes	No	The only dropped kerb locations are at the pedestrian crossings at the extreme northern and southern	Yes

			extents of New Street. These locations (particularly the northern end) coincide with flat topography and are unaffected by the compound gradient effect outlined in the audit observation. Particular attention will be brought to the detailed design of these dropped kerb locations to ensure that the issue of compound gradient does not adversely impact on accessibility.	
3.6	Yes	Yes		
3.7	No	No	This right turning facility will remain in place to facilitate delivery vehicles between 07:00 and 11:00 each day approaching the Diamond junction from the east.	Yes
3.8	Yes	Yes	Each threshold will be examined at detail design stage to review if improved access can be provided.	Yes

Signed…… **Date** 11/11/2022
Design Team Leader

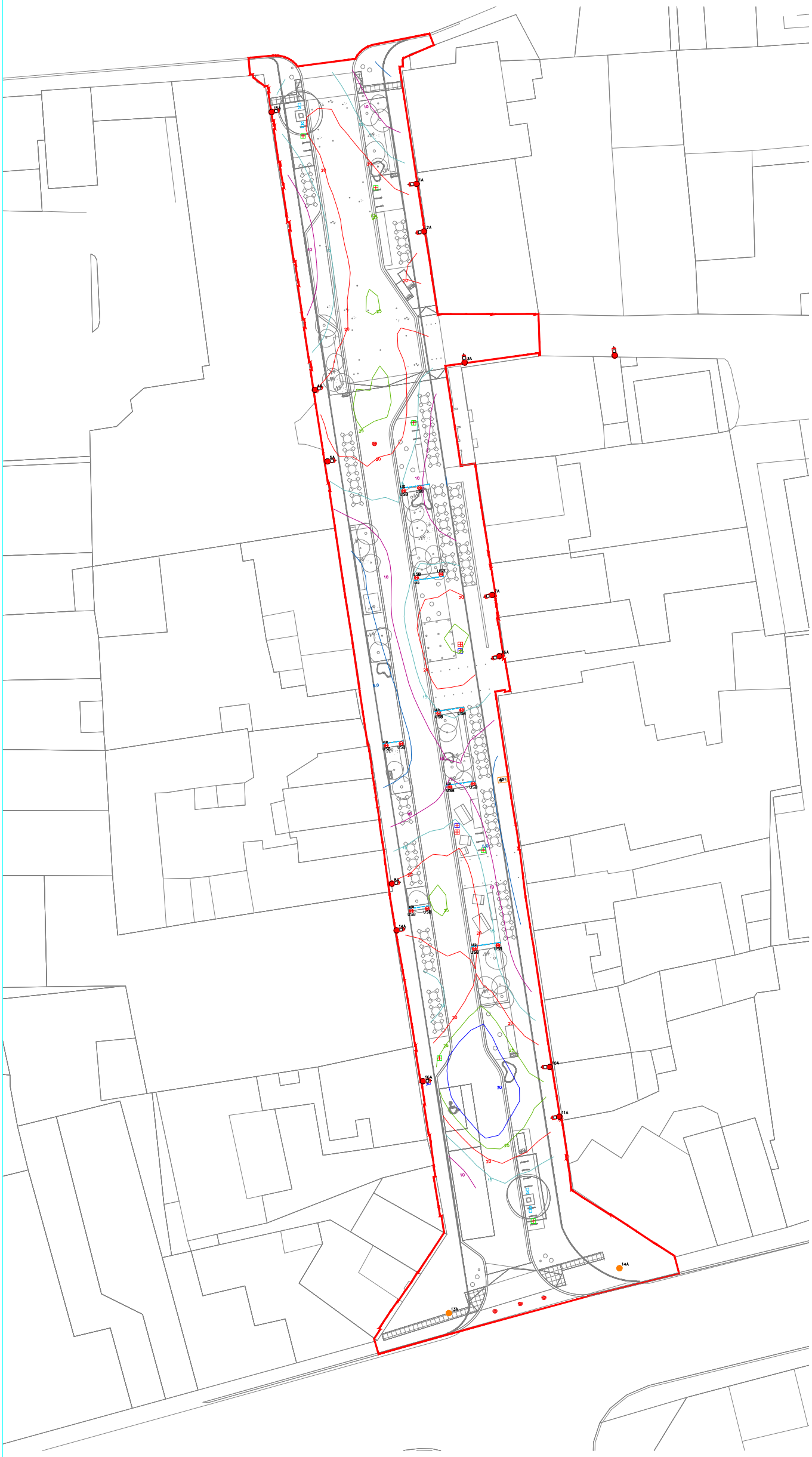
Signed…… **Date**: …14/11/2022……
Audit Team Leader

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Appendix C

Problem Location Plan.


STRAND STREET
PROPOSED SMALL TREES IN BIORETENTION AREAS ON EAST SIDE OF STREET
PROPOSED LOCATION FOR ART/PLAY FEATURE
PROPOSED ELECTRIC BIKE STAND
PROPOSED BIKE STANDS
PROPOSED AREA FOR OUTDOOR DINING (TABLE NUMBERS AND ARRANGEMENT SHOWN INDICATIVELY
PROPOSED CARGO BIKE PARKING
PROPOSED DISHED FOOTPATH AT ENTRANCE TO ROSS COTTAGES
RETRACTABLE BOLLARDS
PROPOSED PUBLIC SEATING
PROPOSED HEDGE PLANTING
PROPOSED SMALL INGROUND FOUNTAIN
PROPOSED LITTER BIN LOCATION
EXISTING ANTIQUE KERB, RETAINED, PROTECTED AND RELAID
PROPOSED DISABLED PARKING SPACE
PROPOSED LOADING BAY
PROPOSED EXTENT OF TREE PIT BELOW HARD LANDSCAPE
3.1
3.2
3.3
3.4
3.5 example
3.6
3.7
3.8 example



GENERAL NOTES:

1. This is a performance drawing which should be used for guidance and pricing only.
2. Construction/working drawings are the sole responsibility of the contractor.
3. Do not scale from this drawing use figured dimensions only.
4. This drawing to be read in conjunction with the relevant architects drawings and structural engineers drawings.
5. The consulting engineer shall be notified by the contractor of any errors and omissions.
6. Exact location of all plant equipment and penetrations are the responsibility of the contractor who shall co-ordinate the installation with other trades.
7. The contractor shall note that all ductwork routes are indicative only.
8. This drawing is intended to be viewed in colour.
9. Mini-pillar and micro-pillar locations shall be installed as per the FCC (Fingal County Council) Street Lighting Technical Specification 2019. If this is not physically possible, and only with permission of ESB Networks and FCC, Public Lighting Division, these may be installed closer than specified within the Public Lighting document.
10. Ducting for Public Lighting shall be installed as per the FCC Street Lighting Technical Specification 2019 and in accordance with the DTTAS Guidelines for Managing Openings in Public Roads Second Edition, April 2017. Ducting shall be made to IS135 Class B. Ducting shall be red in colour and be tagged with the words "Street Lighting".
11. Each luminaire shall have its own separate photocell to control the fitting, as per the FCC. Street Lighting Technical Specification.
12. Lighting shall have a 35lux on/18lux off dusk to dawn photocell controlled switching regime ,as per the FCC Street Lighting Technical Specification.
13. Mini/Micro pillar locations have been excluded from this drawing.
14. All new Public Lighting circuits shall be fed from the ESB Network, ESBN maps included for reference. Once application for Public Lighting has been submitted locations for all pillars shall be as per ESB guidance.
15. Lighting within the development shall adhere to the above in terms of ducting and layout of mini/micro pillars.

Symbols Reference:

- 25 lux
- 20 lux
- 15 lux
- 10 lux
- 5 lux

- Existing Column mounted Luminaires – to be retained
- Luminaire A
- LED — LED strip in IP/IK rated housing
- Car Barrier system – ELV/LV ducting and links
- In-ground Power Unit
- In-ground Potable Water Unit
- EV Bike Charging location
- WiFi — Existing Public Wi-Fi access point to be retained
- USB — USB in-bench charging
- Feature Uplighter



Proposed luminaire – wall mounted on a bracket system



Existing luminaire type located at the traffic diamond to the south of the site – to be retained

REV	DATE	REVISION DESCRIPTION	DRN	CHK
0	05.04.23	Issued for Planning	JC	JS

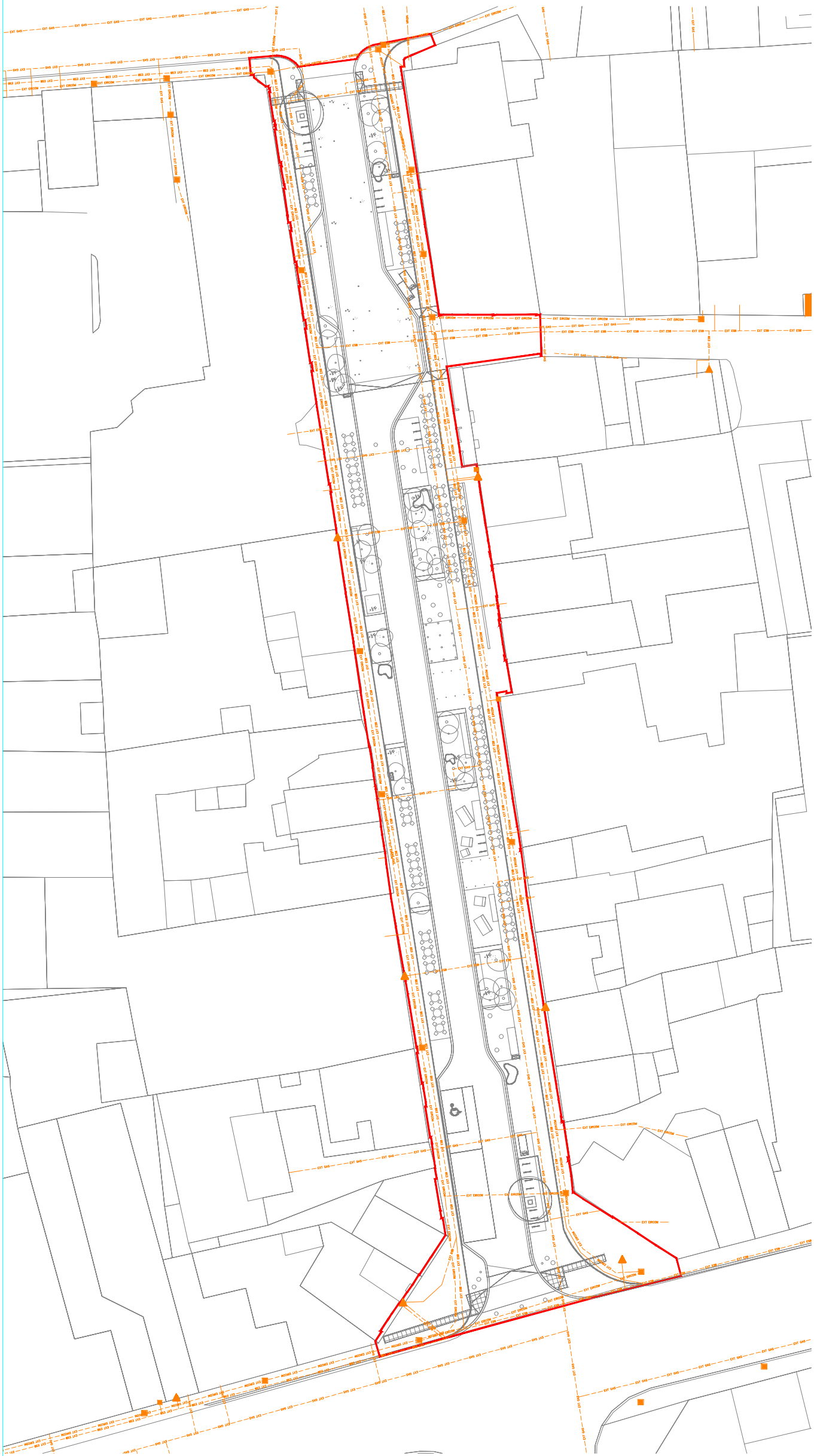
Planning Permission

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Client:	Fingal County Council
Architect:	Dermot Foley Landscape
Project: Title:	Proposed Public Realm Improvements for a Pedestrianised New Street Mechanical & Electrical Site Services
Drg. No:	NSM-X-X-DR-AXE-EE-60101
Job No:	22074
Purpose Code:	P3
Revision:	0
Scale:	1:250 @ A1

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General Notes:

1. This drawing is to be read in conjunction with all relevant architects drawings, survey drawings and mechanical & electrical report.
2. All cabling shall be mechanically protected using this method from point to point with no breaks.
3. All cable entries shall be fully weather sealed with sealable cable entry devices.
4. The complete installation shall satisfy IS 10101, all relevant standards, contract drawings and specification requirements.
5. JB1 draw chambers to house IP rated low voltage drivers for supply to the LED striplights recessed below the benches. Drivers must be no more than 10m of the connection to the LED strip – chambers and man holes to be at the back of all walls/fixed furniture.

Symbols Reference:

- ESB ESB — 2No. New ESB 125mm Red duct
- TELECOM — 2No. Universal Telco Ducting
- PUB LTG — 2No. Public Lighting Ducting – 107mm (OD)twin wall rigid duct
- 1No 110mm LV Ducting
- ESB ESB — Existing ESB ducting
- EIRCOM EIRCOM — Existing Eir Ducting
- VIRGIN VIRGIN — Existing Virgin Media Ducting
- EXT GAS — Existing Gas Pipe
- Proposed FCC Mini Pillar location – for Lighting & Power
- Proposed ESB un-metered Mini Pillar location

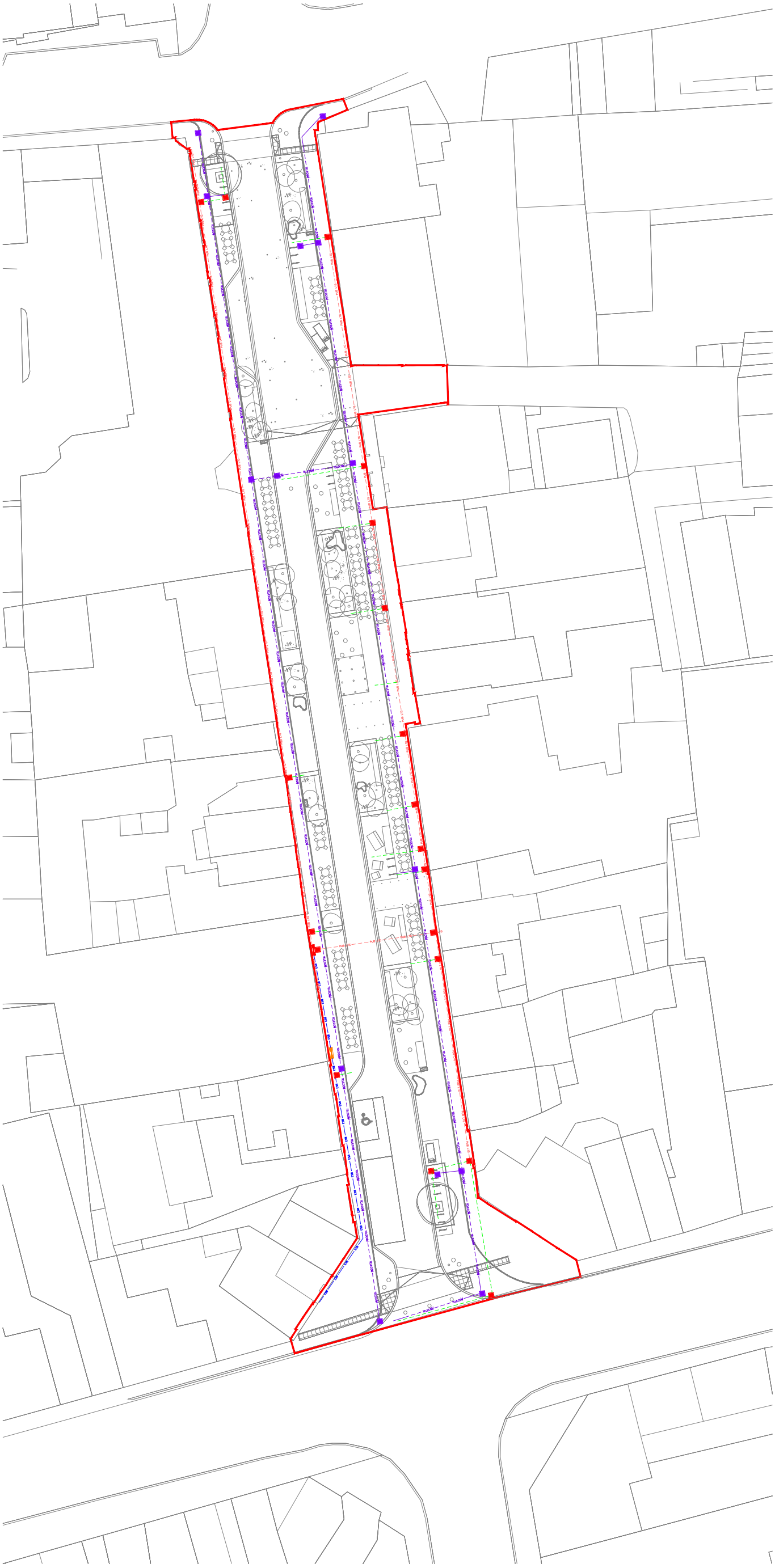
REV	DATE	REVISION DESCRIPTION	DRN	CHK
0	05.04.23	Issued for Planning	JC	JS

Planning Permission

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Client:	Fingal County Council
Architect:	Dermot Foley Landscape
Project: Title:	Proposed Public Realm Improvements for a Pedestrianised New Street Existing Site Services
Drg. No:	NSM-X-X-DR-AXE-EE-60102
Job No:	22074
Purpose Code:	P3
Revision:	0
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- 1No 110mm LV Ducting
- ESB ESB — Existing ESB ducting
- EIRCOM EIRCOM — Existing Eir Ducting
- VIRGIN VIRGIN — Existing Virgin Media Ducting
- EXT GAS — Existing Gas Pipe
- Proposed FCC Mini Pillar location – for Lighting & Power
- Proposed ESB un-metered Mini Pillar location

REV	DATE	REVISION DESCRIPTION	DRN	CHK
0	05.04.23	Issued for Planning	JC	JS

Planning Permission

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Client:	Fingal County Council
Architect:	Dermot Foley Landscape
Project: Title:	Proposed Public Realm Improvements for a Pedestrianised New Street Proposed Site Services
Drg. No:	NSM-X-X-DR-AXE-EE-60103
Job No:	22074
Scale:	1:250 @ A1
Purpose Code:	P3
Revision:	0

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Appendix B5 - Archaeological Assessment

Document	ID No.	Size	Produced by
Archaeological Assessment	-	-	Archaeology Plan

archaeology plan
HERITAGE SOLUTIONS

Archaeological Assessment at New Street, Malahide

WALSH & GIACOMETTI 20/10/2022



ARCHAEOLOGICAL PLANNING CONSULTANCY ARCHAEOLOGICAL ASSESSMENT CULTURAL HERITAGE BUILT HERITAGE
archaeology plan 32 fitzwilliam place dublin 2 tel 01 6761373 mob 087 2497733 email@archaeologyplan.com www.archaeologyplan.com

archaeology plan
HERITAGE SOLUTIONS

SITE NAME

Archaeological assessment at New Street, Malahide, Co. Dublin

CLIENT

Fingal County Council

PLANNING

Planning application

PROJECT REF

22-15

REPORT AUTHORS

Brandon Walsh
Antoine Giacometti (project manager)

DATE

20/10/2022

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Features in the wider landscape
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New Street
Ross Cottages

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Archaeological potential
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Impact Assessment
Mitigation measures

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Section 1 Introduction

Report summary

The results of an archaeological assessment at New Street, Malahide, County Dublin are presented in this report. The assessment outlines an examination of the archaeological, historical and cartographic background of the study area and surrounding environment. It also details the findings of a site inspection.

For the purpose of this assessment the study area has been separated into three distinct zones of archaeological potential. The first zone comprises New Street, a north-south running single carriageway with a row of commercial properties running either side along its length. It ends at a junction with Strand Street in the north and at the Diamond in the south. The second zone includes a panhandle running east and a small area known as Ross Cottages. The last zone is the Diamond, which forms the junction between New Street, the Mall, Main Street and Church Street. These Study Area zones are distinct from the site boundary, as shown in the image below.

Study area location

The study area is located at the centre of Malahide village, north County Dublin. It is contained between an existing intersection referred to as 'the diamond' on the R106 to the south, and Strand Road to the north. The road is approximately 150m in length and 14m in width, with 1.7m wide footpaths in the west and 1.2m wide in the east The road takes up an area of 2,224m^2.

The location of the study area in Malahide





The study area in the wider landscape

Methodology

For the purposes of this assessment a number of cartographic, documentary and illustrative resources were employed. As a foundation for the assessment the files in the Records of Monuments and Places (RMP), excavations.ie and the topographical files for the study area were examined. Additionally, a number of features dating to the industrial period are discussed using the records at the National Inventory of Architectural Heritage (NIAH). The Record of Protected Structures (RPS), separate from the NIAH files, was also examined. Features within the study area that form part of one or both of these records are discussed in this report.

Cartography

Online cartographic resources, such as HeritageMaps.ie or the Historic Environment Viewer provide an overlay of the 1837 edition (6-inch) and the 1913 edition (25-inch) ordnance survey maps. These were consulted as a way to track the development and expansion of Malahide town in the nineteenth and early twentieth centuries. John Rocque's 1760 map, which depicts Malahide, is the earliest map that was identified as depicting the street layout of the town. The street layout was also analysed in a chart of the Bay of Dublin and Sea Coast by Bernard Scale, dated to 1765.

A number of cartographic sources were not used in this assessment either due to an overlap of information, a lack of accurate representation of Malahide, or a lack of access to the resource.

This includes:
• Taylor and Skinner's 1778 map of the roads of Ireland
• William Duncan's 1821 map (although the environs map of 1853 is nearly identical)
• Griffith's valuation map (the text is shown in this report but the map was not of a high enough quality)
• Ordnance survey maps outside of the 1843 and 1913 editions, due to access

Illustrative evidence

A number of photographs, postcards and illustrations are used throughout this report. These have been collected primarily through

online resources and the ACA document published in 2009. Additionally, photographs provided by the Malahide Historical Society on malahideheritage.ie and through their Facebook page have been used. These offer a glimpse into the visual history of the town that is missing in cartographic and literary resources. The catalogue at the National Library of Ireland was also used to gain access to historic photography and illustrations.

Documentary evidence

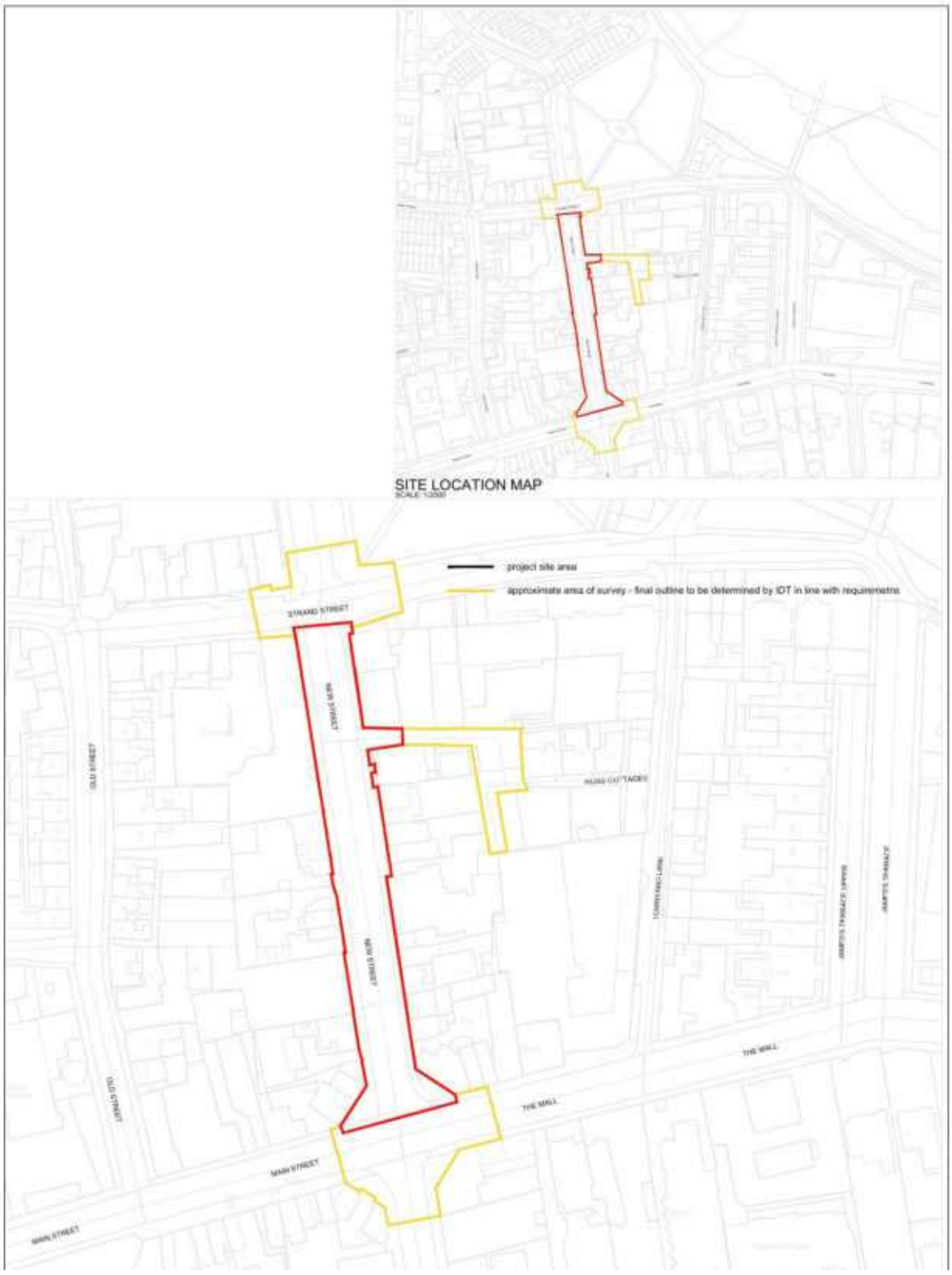
In researching this report a series of commonly used documentary resources were made use of. This includes Samuel Lewis (1837) and John D'Alton's (1838) descriptions of Malahide town as it was during their time. D'Alton also offers some information into the history of Malahide village, although this is primarily done through the perspective of the Talbots. A number of articles detailing the development of Malahide were accessed through JSTOR, including the Dublin Historical Record. The listings of Griffith's Valuation records (1847-1864) were also used in order to identify the occupants of Ross Cottages. Census records dating to 1901 and 1911 were employed to identify the occupants and owners of shops, private dwellings and public houses.

A number of resources were not usable due to a lack of mentioning Malahide, or the information they provided was not relevant to this report. This includes Ball's (1920) A History of County Dublin Vol. 6, Southern Fingal, which did not mention Malahide in great detail. Thom's directories were also not useful as they did not afford any relevant information.

The Diamond at Malahide, early 20th century



The extent of the site at New Street (red line). Note that the extent of the site is smaller than the Study Area examined in this report



Section 2 Archaeological Background

Recorded monuments

The Record of Monuments and Places (RMP) was founded under the National Monuments Act 1994 Amendment. Features, structures, sites or objects listed within the records are known as Recorded Monuments. A set of maps which accompany the RMP files outline zones of archaeological potential surrounding listed monuments. The RMP files are one of the primary repositories of information on the archaeological record.

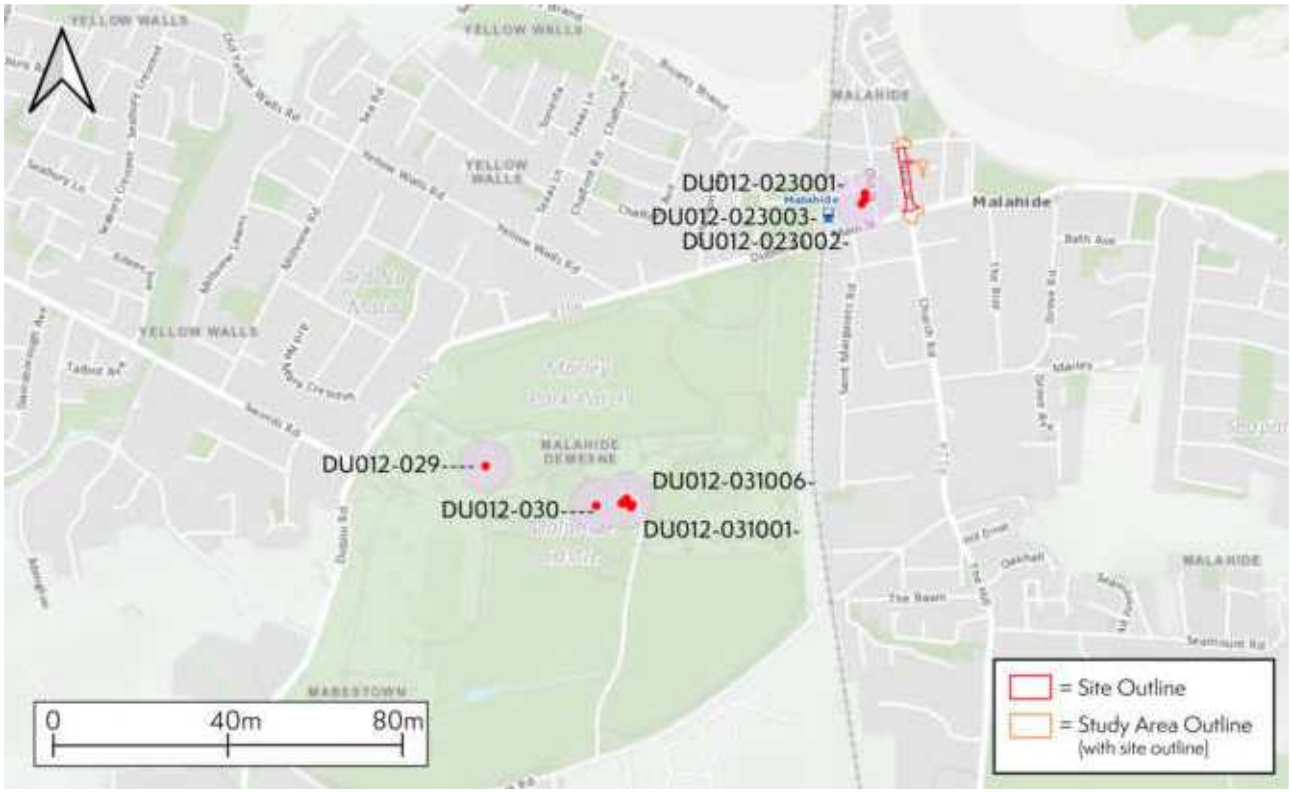
The Record of Monuments and Places (RMP) comprise the following elements: (i) Letter or letters indicating county (DU=Dublin); (ii) A three digit number indicating the relevant ordnance survey six inch sheet number (e.g. 010); (iii) A three to six digit number indicating the dedicated number of the individual site or monument. The Archive Unit of the National Monuments Section of the Department of Housing holds a file for every site listed on the RMP.

There are no recorded monuments within the study area along New Street or at the Diamond. Three records are of particular importance to the study area as they are located on a parallel street to the west, Old Street.

Ritual site - holy well DU012-023001-

This holy well is located 80m west of the study area, on the corner of Old Street and Railway Avenue (formerly Fountain Lane, after the well). The well is traditionally called 'Sunday's Well', or St Sylvester's Well. It is adjacent to St Sylvester's Church in the north and is widely accessible to

The RMP files near the study area





Photograph of St Sylvester's Holy Well c.1948 (from McLoughlin 2009)

RMP	Feature	Townland	Distance
DU012-023001-	Ritua site - holy well	Malahide	90m
DU012-023003-	Earthwork	Malahide	100m
DU012-023002-	Church	Malahide	100m
DU012-030----	Malahide Castle	Malahide Demesne	950m
DU012-031001-	Malahide Castle church & grounds	Malahide Demesne	950m

The RMP files in the vicinty and wider landscape of the study area

the public. A modern stone plaque placed during refurbishment in 2001 dates the well to AD 430. Old Street, formerly Chapel Street, was originally the centre of Malahide and the well would have been a vital source of water for the village's inhabitants (malahideheritage.ie 2020). The well would have originally been open at the top, with the water being accessed through a bucket and rope (ibid.).

D'Alton (1838, 186) describes the feature as 'a well of clear and wholesome water, dedicated to the Blessed Virgin, and covered with an arched enclosure, within which her statue was formerly set'. The dedication of the well has resulted in a number of debates as to the source of its eponym. D'Alton (1838) states that it was dedicated to the Blessed Virgin. O'Reilly (1910, 153) refers to it as named after Sylvester, a disciple of St Patrick. Alternate theories suggest it is named after either St Sylvester I or St Sylvester II, with the latter being more common among the French, due to his Norman origins (malahideheritage.ie 2020).



St Sylvester's holy well in the present day

Earthwork DU012-023003-

According to Flanagan (1984, 112) a mound once existed on the site of St Sylvester's Church. An extension constructed in 2010 saw a series of test excavations taking place on site (10E0426). A small pit/drainage gully with a silty fill dating to the medieval period was identified. Excavations the following year (11E0326) discovered medieval structural remains, ditches, pits, and eighteenth or nineteenth century masonry walls. Ceramic found during the excavation demonstrated a degree of occupancy in the near vicinity during the thirteenth or fourteenth centuries. An interpretation of inhabitation at the site of the earthwork should take account of the holy well to the north. The well demonstrates that the area was occupied from at least the fifth century AD. No extant remains of the earthwork are present today.

Church DU012-023002-

Flanagan (1984, 112) states that an early church stood in the earthwork (DU012-023003) which predates St Sylvester's Church, constructed in 1845. As discussed above, test excavations on the site of the later church revealed a number of medieval features dating to the thirteenth or fourteenth centuries. The identification of medieval structural remains (11E0326) further suggests that the early church may survive as subsurface foundation remains.

Features in the wider landscape

The historic and cartographic background provided in section 3 establishes a strong dichotomy between the village of Malahide and the construction of Malahide Castle to the southwest. The wealth and prosperity of the Talbots residing in the castle was not present in the poor farming village at Malahide. An examination of the castle, then, is required as it affords the polar opposite link of how the wider landscape developed under the sway and influence of the Talbot family.

Malahide Castle DU012-030----

Malahide Castle is a detached three-storey over basement medieval mansion dating to c.1450.



A Malahide Castle print - published by Newman & Co. (1838-1880)

The castle has gone through a number of renovations throughout its history (in approximately 1650, 1770, 1825, 1975, and 1990) (NIAH 2005). It is built on a rise that oversees the surrounding landscape. It was originally constructed from wood, later to be replaced by a stone fortress (malahidecastleandgardens.ie 2022). The castle on its exterior is of Georgian Gothic style. The ground floor of the late medieval core of the castle is entered through a Gothic doorway, with entrance to the upper floors being a spiral staircase. Ornamentation in the castle includes corbel heads of Edward IV, sixteenth century carved panelling, and a Fleming carving over the fireplace of the Assumption of the Virgin, among others. The history of the castle and Malahide in general will be provided in section 3.

Malahide Castle church DU012-031001-

A church and surrounding graveyard/grounds are located 30m east of Malahide Castle. D'Alton (1838) describes the church as 'the venerable remains of [an] ancient chapel, the entrance to which is guarded by two magnificent sycamores'. The church contains a chancel and nave, with a sacristy on the southeastern corner. The side walls of the nave have stepped battlements and the entire structure is formed of coursed, well mortared limestone masonry. The church contains a number of RMP files including two architectural fragments (DU012-031004 & DU012-031005) and two Sheela-na-gigs (DU012-031002 & DU012-031003). The church is also surrounded by a graveyard on all sides (DU012-031006). The graveyard is primarily occupied by burials dating to the eighteenth, nineteenth and mid-twentieth centuries. The interior of the church has been used for internment and contains an altar tomb dedicated to Maud Plunkett (c. 1494).

Previous excavations

No listed excavations have taken place on New Street. A number of excavations have been conducted in the region surrounding the study area. The primary source of information on licensed excavations in Ireland in the last decades are the volumes of the Excavations Bulletins series and their online version, the Excavations database (www.excavations.ie). While no excavations have taken place directly within the study area, a number of works have been carried out in the near vicinity. For the purposes of this report a radius of 500m will be used for examining prior excavations.

Railway Avenue - 01E0421

A series of four test-trenches, covering a total of 45m² were excavated in May 2001. The excavation revealed no features dating prior to the post-medieval period. Substantial stone walls were uncovered in all test trenches and were assumed to have been part of one single structure. A later examination of the ordnance survey maps demonstrated that the walls likely belonged to an earlier structure of St Sylvester's Church nearby.

St Sylvester's Church - 10E0426

Test excavations were carried out in the area for a proposed parish centre to the west of the

Previous archaeological excavations that presented archaeological material within 120m of the study area

Licence	Address	Findings	Distance
01E0421	Railway Avenue	Substantial stone walls	70m
10E0426	St Sylvester's Church	Foundation walls	110m
11E0326	St Sylvester's Church	Foundation walls & medieval occupation layers	120m
E4381	Multiple	Stone culverts, post medieval archaeology	N/A

Previous excavations near the study area



church. A separate trench was excavated at the prayer chapel to the east of the church as well. The excavations were similar to those conducted in 2001 as they uncovered a series of foundation walls for an earlier church structure. It was noted in the excavation that an earlier deposit of medieval archaeology may exist.

St Sylvester's Church - 11E0326

A second excavation at the site of St Sylvester's Church the following year. The earliest activity identified on site was medieval occupation layers characterised by structural remains and subsoil cut features. The walls were constructed from undressed limestone with poor facing. The fill surrounding the wall had inclusions of seashell, animal bone and charcoal flecking. A stone drain was also excavated to the south. A later wall was also identified during excavation, which was constructed sometime between 1837 and 1867 (depicted on two separate editions of the ordnance survey maps). A series of finds demonstrate that the site was multi-phased, these include: a flint scraper, a retouched flake, flint debitage, a medieval pottery assemblage, post-medieval pottery, and a number of metal artefacts.

Pipeline - E4381

The construction of a pipeline measuring 1.1km in length commenced in October 2011. The pipe ran from the Dublin Road through Malahide Castle and terminated at Black Road. The excavations uncovered a number of eighteenth century landscaping features, stone culverts, limestone walls, and a metalled surface. A number of post-medieval finds were recovered including animal bone, pottery sherds, a small milled copper coin, and a clay pipe bowl. The excavator deemed that no features dating prior to the eighteenth century were identified during the excavation.

St Sylvester's Church, taken from Railway Avenue



Topographical files

In compiling this report the files of the National Museum of Ireland (NMI) were consulted. These contain information on the archaeological artefacts in the collections of the NMI and the discovery locations of those artefacts. No topographical files are listed within the study area. Thus, it is necessary to examine the region surrounding the study area in order to establish a concise historical narrative. Three files are noted within 500m of the study area.

Bronze lid - 1984:146

A bronze lid was uncovered on the beach to the east of Malahide, across from the Grand Hotel. The file lists the lid as possibly belonging to a spirit measure. The lid is designed in a domed manner, with its centre topped by a raised, stepped pattern. The underside has a raised lip or rim. The figure 6 or 9 appears on the upper surface of the lid. It is noted as belonging to either the seventeenth or eighteenth century.

Flint scraper - 1966:42

A flint scraper was uncovered in Broomfield, Malahide, southeast of the study area. It was found on the surface and presented to the museum in a collection of other objects. The scraper is honey-brown and made from a thin flake. One side of the flint is noted as sharp and finely worked. Its dimensions are 2.8cm in length, 1.9m in width and 0.4cm in depth. It was presented with a slate pencil, broken tortoise shell from an ornamental box, and a sperm whale tooth.

Flint assemblage - 1964:29-30

A series of flint objects were presented to the museum for analysis. It should be noted that the

Topographical files within 1.1km of the study area



ID	Address	Topographical File	Distance
1984:146	Grand Hotel, Malahide	Bronze lid (post-medieval)	470m
1966:42	Broomfield	Flint scraper	1km
1964:29-30	Multiple	Flint assemblage	1.09km
1968:151	Paddy's Hill	Stone assemblage	1.1km

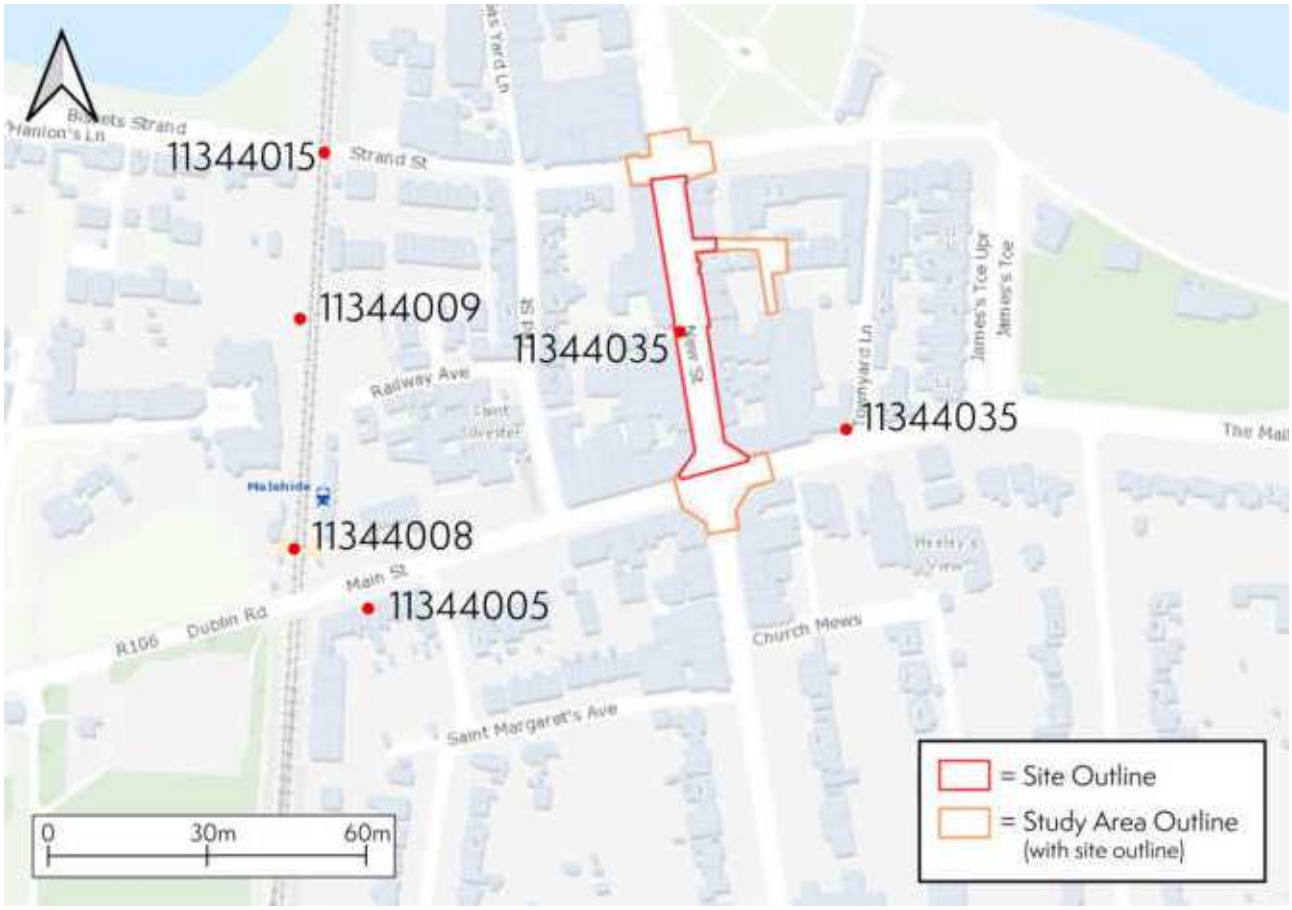
The topographical files within 1.1km of the study area

assemblage represents flint objects from a number of different locations. Among these were twenty-eight waste flint flakes from Feltrim Hill, five waste core-like flints from Kilcrea, and twelve waste flint and three flint flakes with obvious retouching from Paddy's Hill (Keeling & Kelley 1994, 3). The museum determined the objects to be of little archaeological value.

Stone assemblage - 1968:151

A number of stone artefacts were presented to the museum, who subsequently purchased them for the sum of £30. These included two polished stone axehead fragments, waste flint material, two flint flakes, five water rolled flint flakes, six chert flakes, a flint scraper, an animal tooth, bone fragments, a bronze object, and an iron object. The finds are primarily prehistoric in nature, with the metal objects discovered to be modern. They were located adjacent to 1964:29-30, at Paddy's Hill.

The industrial heritage sites (NIAH) within the vicinity of the study area



Ref	Address	Feature	Distance
11344035	New Street	Lamp standard	0m
11344036	The Mall, Malahide	Post box (ER VII)	50m
11344008	Main Street, Malahide	Railway station	140m
11344055	Main Street, Malahide	Station master's house	170m
11344009	Main Street, Malahide	Signal box	180m
11344015	Strand Street, Malahide	Railway bridge	180m

The industrial heritage sites (NIAH) within 180m of the study area

Industrial heritage

The industrial period in Ireland is generally accepted to date between 1750 and 1930 (Rynne 2006). The period came with an entirely new economic and social experience. Ireland, however, failed to reach the degree of industrialisation seen in the United Kingdom or the rest of Europe (Ulster Historical Foundation 2021). Ireland as a whole remained an agricultural economy catering to its own growing population and the ever-increasing demands of the British market and Empire. Consequently, the majority of industrial activity was centred in cities and large port towns.

No features in the Dublin City Industrial Heritage Records are located within Malahide or the study area. For the purpose of this assessment the ordnance survey maps have been examined with a short list of industrial heritage near New Street dating to the industrial period in Ireland. The database for the National Inventory of Architectural Heritage has been employed for reference numbers.

Lamp standard - 11344035

A freestanding gas lamp standard constructed

Malahide Railway Station



from cast-iron in 1900. It comprises a chamfered square pedestal with a foliated shaft (NIAH 2005). The top is intricately decorated and fitted with a double lamp, facing opposite sides. This has been removed and is no longer present.

Post box - 11344036

This is a freestanding cast-iron postbox dating to 1905. It is decorated with the monogram 'ER VII'.

Malahide Railway Station - 11344008

The Malahide Railway Station was designed by George Papworth and was constructed in 1851 (NIAH 2005). It is a detached nine-bay single storey building constructed from yellow bricks. The entrance to the station is a Tudor style projecting porch at the centre of the structure on its street facing side. It is still in use as a railway station.

Station master's house - 11344005

To the east of the railway station stands a detached single storey building constructed from red brick. It was built in 1880 and has retained all of its original features in the present day. The quoins and dressings of the house are in yellow brick. It is presently in use as a domestic structure.

Signal box - 11344009

A detached single storey timber signal box constructed in 1855. It is located north of the railway station along the tracks, west of New Street.

Railway bridge - 11344015

To the north of the railway station and signal box is a single-arch ashlar limestone bridge built for the railway line in 1844. Still in use in the present day.

Railway station bridge on Strand Street



Section 3 History and Cartography

Introduction

In 1609 Fynes Moryson, in his 'Description of Ireland', described Fingal as "a little territory, as it were the garner of the kingdom, which is environed by the sea and great rivers, and this situation hath defended it from the incursions of rebels in former civil wars". The name 'Fingal' in the ninth century referred not to the land north of Dublin but rather a people, the fair strangers later known as the Vikings. By the eleventh century it was synonymous with a place, stretching from the River Delvin toward Dublin City. The names of ***Fingal, Fine Gall, Fingall, Crích Gall*** or ***Fyngall*** are named in the Irish annals, as well as Welsh, Scandinavian and Anglo-Norman sources (Baker 2010, 1).

Malahide is located in the northeast of Fingal, situated at the mouth of the shallow Broadmeadow estuary. It is 4km east of Swords and 13km north of Dublin city. The name Malahide, as demonstrated by the Placenames Database of Ireland, has undergone a number of changes since it first appeared (Malachida) in 1181. It possibly derives from the Irish *Baile Átha Thíd*, referring to 'the town of the ford of Thíd'. The modern Irish name *Mullach Íde* means 'the hill-top of Ide', or Hyde's Brow. This likely refers to the Norman family that occupied the Donabate Area (McLoughlin 2009, 6).

Lewis (1837) describes Malahide as having 'a

A photograph of Malahide Castle, circa. 1865-1914



pleasing and sequestered character, [containing] many handsome cottages, chiefly occupied by visitors during the bathing season and in some instances by permanent residents. D'Alton (1838) describes Malahide as 'a well-built and pleasantly situated village on the brow of the sea'.

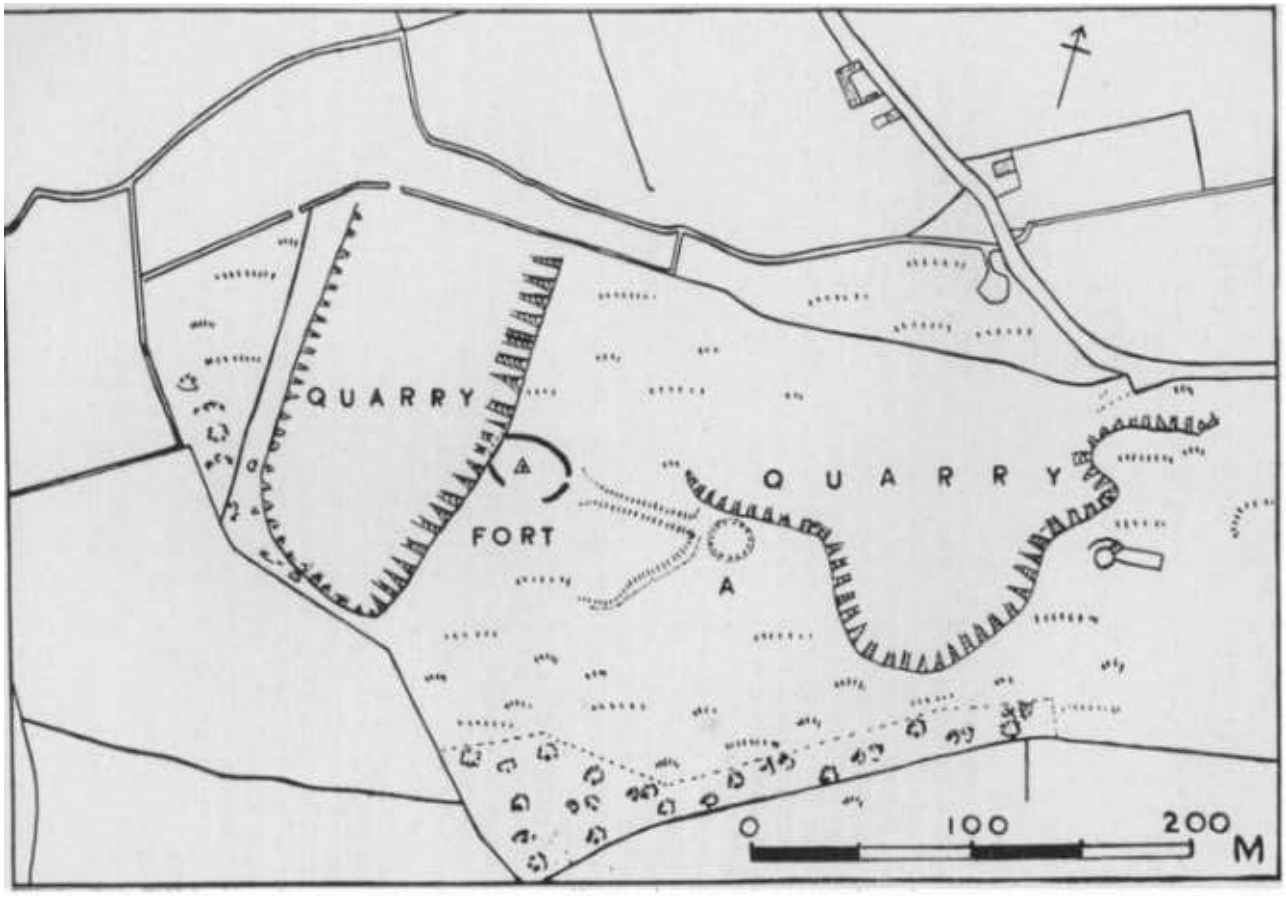
Prehistory

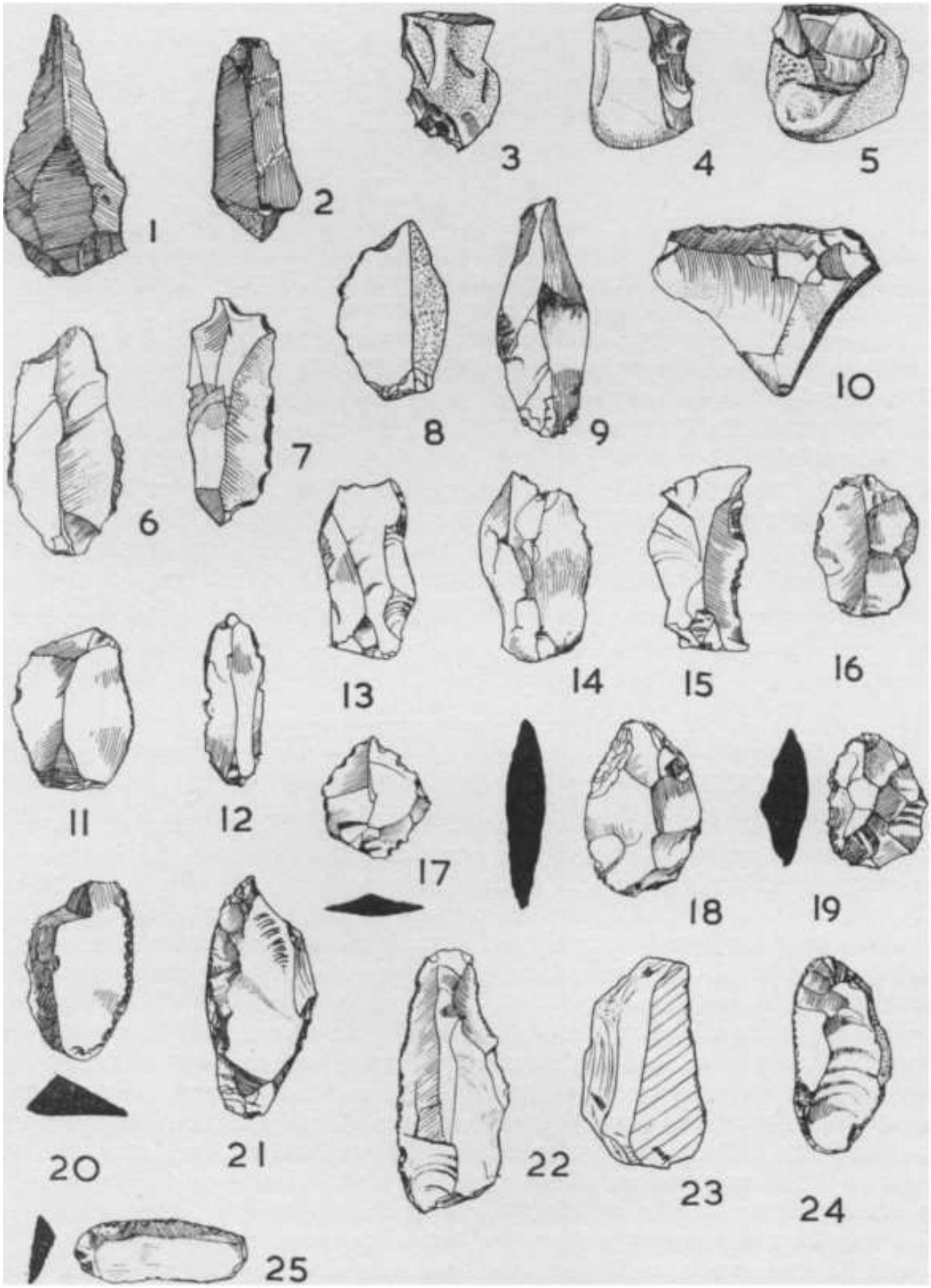
A considerable amount of flint artefacts were collected between 1964 and 1981 by amateur archaeologist Noel Flanagan. A large portion of this material was uncovered in the townland of Robswalls, east of Malahide. The date range for these artefacts ranges between the Mesolithic and the Early Bronze Age. These finds form part of a range of collections uncovered throughout the coast of north County Dublin. Flint flakes dating from the Mesolithic and Neolithic periods have been found at Sutton (Stout & Stout 1992) and Paddy's Hill, overlooking the Malahide Estuary (1964:29-30). Other prehistoric artefacts in the wider landscape include a stone axe in Saintdoolaghs (1940:49), a flint arrowhead in Feltrim (1947:159), three waste flints in Ballymadrough (1978:70-72), and flint flakes in Lanestown (1978:73-74).

Excavations by Keeling and Keeley (1994) revealed a substantial quantity of lithic material (almost 3000) at Paddy's Hill in Robswalls (DU012-037). These vary in date between the Neolithic and Early Bronze Age.

Malahide Hill, southeast of the town, is a focal point of prehistoric activity. It is a highly-visible setting for a number of monuments which run along the crest of the ridge (Giacometti 2017, 28). Included within these are a burnt mound (DU012-065), a barrow (14E161), a mound (DU012-032) and two medieval middens (DU012-062 & DU012-012). The ridge is also the location of two lithic scatters (DU012-063 & 00E0037).

Excavations at Feltrim Hill by Hartnett et al. (1964)





Lithics uncovered during excavations at Feltrim (Hartnett et al. 1964)

Excavations at Feltrim Hill (DU012-02502) exhibited evidence of Neolithic activity through pottery sherds and worked lithics, however no evidence of occupation was uncovered (Hartnett & Eogan 1964). These included eighteen neolithic stone axes (Baker 2010, 10). To the northeast, the coast has a strong view of Lambay Island. This was shown through excavations by Cooney (2000, 196) to have once been a manufactory of Neolithic axes (93E0144). The island is also home to five Neolithic cairns. A burial in the west of the island contained an extensive collection of Neolithic artefacts, including flint, stone axes, an adze, and decorated pottery (DU009-001012).

Excavations by Giacometti (2017) at Seamount, Malahide examined a prehistoric penannular enclosure and barrow, and an early medieval resource processing area. Through excavation an identification was made for the historic continuity of landscape. The site ranged in date from the Late Bronze Age to the Early Medieval Period. A Late Bronze Age burial monument (barrow) at the crest of the hill demonstrated evidence for maintenance during the Iron Age. Toward the base of the hill a Late Bronze Age enclosure was identified. Between these monuments a number of features forming an early medieval farmstead was uncovered.

The prehistoric monuments situated along Malahide Hill formed visible markers within the landscape, which could have defined territory and ownership (ibid. 27). Even after their origins had been forgotten, they continued to define space and boundaries. For example, the early medieval farmstead identified during excavation was positioned with reference to the two prehistoric monuments. The medieval church parish boundary too followed in a similar manner.

Settlement in Fingal during the Bronze Age tended to be focused at coastal areas. A number of sites dating to this period The remains of a round house have been excavated at Balbriggan (02E0298). Lusk appears to have been occupied during the transition from the Neolithic to the Bronze Age. Excavations revealed pits, hearths, and Beaker pottery, in conjunction with a possible structure (02E1719).

A circular ring-ditch was excavated by Antoine Giacometti at Mountgorry, Swords in 2004 (04E1066). The feature had an entrance to the southeast, with a single large pit filled with burnt bone and charcoal at its centre. Bronze

Dublin environs map of Malahide, 1853



Age pottery fragments were recovered from the ditch fill and central pit. Further evidence of settlement during the Bronze Age was identified during a geophysical survey at Skerries. A number of features such as fulactha fiadh, huts, ring-ditches, and at least three round houses were noted (Baker 2010, 26).

Closer to Malahide, a ring-ditch was excavated in the townland of Drinan (DU012-093). It consisted of a circular ditch with a single large pit filled with charcoal and burnt bone. The fill contained sherds of Bronze Age pottery. An unexcavated ring-ditch to the north in the townland of Seatown East may also be evidence of Bronze Age settlement in the area. Such ring-ditches are evident in the wider landscape of Fingal as well.

Early medieval period

The early medieval period dates between the fifth and twelfth centuries AD in Ireland. It was a period of heavy societal fragmentation, based primarily on the fine, a kin-group based on a common great-grandfather. A network of dynasties developed, resulting in constant warfare over land supremacy (Baker 2010, 31). The basis of social interaction surrounded the transacting of cattle, land and female slaves (ibid.). The plains of north County Dublin formed part of the kingdom of Brega during this period. Initially the land was occupied by the Laigin, although the extent of their hegemony was limited to south of the River Liffey during the fifth century AD. The land was controlled by *Síl nÁedo Sláine*, a dynasty of Uí Néill (Byrne 1973). A number of features dating to the early medieval period are located in the region surrounding New Street.

According to Tírechán, a seventh century Irish bishop, St Patrick is believed to have landed on Inishpatrick, the 'Island of Patrick', in 432 AD. Patrick is stated to have arrived by sea to "the plains of Brega… with the true light of miraculous doctrine, lighting the thick clouds of ignorance" (cited in Swift 2004, 61). The following centuries would see the development of a number of religious centres throughout Fingal, including Swords and Lusk. Many of these early churches were constructed from wood and either went out of use or were replaced by more substantial stone structures in the following centuries. It is unclear as to whether the church in Malahide was part of this original tradition, however the evidence for stone foundations dating to the medieval period suggests that the original church was of some antiquity.

The holy well (DU012-023001) at St Sylvester's Church is the closest feature dating to the early medieval period in the near vicinity of the study area. Lewis (1837) states that 'in the [town] centre is a well of excellent water, arched over and dedicated to the Blessed Virgin'. To the southeast in the townland of Robswalls in a kink in a field boundary is a natural spring called St Patricks' Well (DU012-038). Further south in Portmarnock in the townland of Burrow is St Marnock's Well (DU015-007002). The Pattern day at the well was August 18th (Ó Danachair 1958, 78). The RMP file states that during its peak the well comprised a large circular pool with sixteen stone steps leading down to it. A hoard of medieval coins were found at the well. The well was destroyed in 1854, along with its associated Ogham stone (DU015-007003). An additional holy well (DU012-039) known as Tobermaclaney was located west of Carrick Martello tower. The 1830 ordnance survey map recorded that the water ran down the hill to form two small pools beside the tower.

The closest evidence for settlement during the early medieval period in the area surrounding Malahide is a cashel west of Feltrim. The cashel comprises an oval area enclosed by a drystone wall (measuring 35m east/west, 25m north/south). The entrance is to the east, and was originally protected by a timber gate (Eogan & Hartnett 1964, 21). Excavations in the 1940s identified extensive activity for domestic activity on the site (ibid.).

Further settlement include ringforts and enclosures at Broomfield, Grange, Springhill, Saintdoolaghs, and Kinsaley (DU012-033, DU015-003001 & -003002, DU015-126, DU015-123, DU015-010). In addition, a multi-period site in the townland of Drinan exhibited a number of enclosures dating to the early medieval and medieval periods. The excavation revealed a truncated ringfort, and it was believed

to have been occupied in the eleventh or twelfth centuries (Halliday 2005).

The Vikings wintered for the first time in Dublin in 841-2 AD. Ball (1920) states that the name Fingal, or Fine Gall, was employed to denote the district that the Vikings left for their excursions. The harbour of Malahide was said to be integral to Viking raids and the Danes had settled there by 892 AD (Bradley et al. 2009, 51). After Viking expansion northwards in the mid 11th century, Hammond McTurkill , the last Viking king of Dublin, settled at Malahide in 1171 (Lewis 1837, 337). Hammond's name lasted until the 19th century when the townland of Hamonstown (or Hamonswood) northwest of Malahide Demesne was renamed to Yellow Walls (oldyellowwalls.org 2022, also see D'Alton 1838 who names Hamonstown). Bradley (1992) suggests that this area of Dublin should be considered as 'the rurally settled area of the Dublin Scandinavians'.



The thatched cottages of Old Street (FCC 2009, 8)

Medieval period onward

The Anglo-Normans that arrived in 1169 knew of the richness of the soil throughout Fingal (Baker 2010, 47). The new settlers employed an aggressive system of intensive agriculture throughout the landscape, likely owing to the destruction of prehistoric monuments. The Hiberno-Norse occupants of Fingal were initially opposed to the Anglo-Normans, however their resistance was ultimately unsuccessful. The kingdom of Leinster was granted to Strongbow in 1171 by Henry II. Lordships were afforded to

The medieval wall uncovered during excavations beneath St Sylvester's Church (11E0326; McQuade 2012)





Malahide in 1844, note the new railway line spanning the estuary

nobles who accompanied Strongbow to Ireland shortly thereafter. The count of Dublin was retained by the English Crown, which was at this point divided into five baronies. These were granted to Hugh de Lacy, who confirmed it to his son Walter de Lacy in 1208 (Veach 2010, 179). This period was followed by an early period of colonisation in which land grants were given to the Talbots, Barnewells, and St Lawrences (O'Donnell 2008, 50).

The medieval period onward in Malahide is defined by the arrival of the Talbots, who constructed a motte and bailey approximately 1km southwest of the small village in c.1250 AD (Duffy & Simpson 2009, 210). The castle was originally constructed from wood (mentioned in section 2) and was passed down through the male heirs of Sir Richard Talbot for the next eight centuries. A diary entry from 1780 describes the castle as a "large and spacious castle in the highest repair" (Little 1948, 2). The castle and land were sequestered in the 1650s by Cromwellian forces, however the lands were later retrieved by the Talbots in the following decades. The castle and grounds were placed on sale in 1973 after the death of Lord Talbot, which were purchased by Dublin City Council.

The town of Malahide's population rose from 100 to 200 in the seventeenth century. During this period, the court and its offices were erected with stone walls and slate roofs, in stark contrast to the thatched mud walled homes of the villagers (McLoughlin 2009, 7). The town was centred around St Sylvester's Well, its water source. An account by John Dunton in 1699 stated that Malahide "contained 30 ordinary huts in all, and not one without several little children who are sprawling about the fireplace (for there was but a small appearance of a fire on it) like so many maggots on a dunghill in a summer's day". The town in this period was poor, and was overseen and heavily influenced by the Talbot family in Malahide castle.

The Talbots played an influential role in the redevelopment of the town in the eighteenth century. As a trustee of the turnpike at Malahide, Richard Talbot was integral in the changes of the street layout being undertaken at the time (Greene 2012, 75). Main Street was extended westward into a shape more familiar today. In addition, the centre of the village was moved



The dispensary on New Street

eastward to New Street, with the Diamond being a focal point.

New Street and the Diamond were built up with houses far grander than their thatched cottage counterparts in Old Street. These developments continued into the nineteenth century, as Malahide slowly became industralised. In 1837 Lewis wrote that 'the trade of the town, never very extensive, received a great check from the priveleges granted to the port of Dublin in the sixteenth century... [a] cotton manufacture was introduced here on an extensive scale... though the Irish parliament granted £2000 for the completion of the requisite machinery, it was ultimately abandoned'. Lewis further states that the primary export at Malahide was flour and meal, with coal being imported from Whitehaven and Scotland. D'Alton (1838, 191) confirms that the cotton manufactory 'metamorphosed into one for silk, which gives daily employment to but eight individuals'.

A number of structures relate to the operation of the railway line from its initial construction in 1844 onwards. These include the railway station building, station master's house, signal box and the railway bridge. A single industrial feature is located within the study area, a lamp standard.

In the nineteenth century the town saw the construction of the coal works on the northern coast, adjacent to the present day junction of New Street and Strand Street (visible on the first edition OS map). At a later point (prior to the 1913 OS map) the coal works was repurposed as an oil works. Developments also took place southward along New Street. Plates and photographs from the period depict a number of upper-class homes New Street (page 20).

Lewis (1837) and D'Alton (1838, 191) both suggest that industry at Malahide was never grand in scale. D'Alton states that the fishing industry by the time of his writing had declined considerably, with 'but three wherries here now fit to put to sea'. In addition, no pier or quay was constructed north of the village. Fishing vessels were easily beached on the shoreline, with many

Malahide Dispensary.

A Dispensary for Sick Poor, will open in Malahide, on the first day of May, 1817.

THIS DISPENSARY will be supported by public Subscription; and each Subscriber shall have a power of recommending an unlimited number of patients.

PRINTED TICKETS of recommendation will be furnished to each Subscriber; and no application will be attended to, unless the person making the same shall produce, upon his first coming to the Dispensary, one of those printed Tickets, signed by a Subscriber.

THE immediate management of the Dispensary will be vested in a *Committee of Seven*, who will meet at the Dispensary on the *First Monday of every Month*, to make such Rules and Regulations as may, from time to time, appear necessary.

The Committee for the present year:

R. W. TALBOT, Esq.
GENERAL LLOYD,
CHARLES COBBE, Esq.
JOHN SHAW, Esq.
JOSEPH MACARTNEY, Esq.
ANDREW CRAWFORD, Esq.
Mich[illegible] HENLY, Esq.

AN ANNUAL MEETING of the SUBSCRIBERS will be held at the Dispensary, on the *First day of May*, in each succeeding year, to inspect the Books of the Establishment, appoint a Committee, &c. &c.

A BLANK BOOK will be constantly upon a table in the Dispensary, to which *every Subscriber* shall have access, during Dispensary hours, for the purpose of making such observations therein as he, or she, may think proper to submit to the consideration of the Committee.

FROM the First day of *May*, to the First day of *October*, in each year, the Dispensary will open every Morning, (Sunday excepted,) at Eight o'Clock, and close at Five in the Afternoon;—and from the First day of *October*, to the First day of *May*, it will open at *Nine o'Clock* in the Morning, and close at *Three*.

PERSONS applying for Medical Aid must come to the Dispensary within these hours; otherwise they will not be admitted.

IN cases however of *Accident* or *Sudden Illness*, the Ticket of a Subscriber will be attended to upon *any Day*, or *at any time of the Day or Night*; but it is expected that no Subscriber will send to the Dispensary at extra hours, except in cases of real danger; or such at least as appear to admit of no delay.

PATIENTS, who by reason of severe sickness, are unable to attend at the Dispensary, shall be visited at their own homes, *provided the distance does not exceed three miles.*

IN *Labour Cases* attended with danger or extraordinary difficulty, the Dispensary Physician will visit the Patient at a distance not exceeding three miles; but it is to be particularly understood, that if the case should not require or admit of immediate assistance, he shall not be expected to continue in attendance; in all such cases the expediency of remaining with the Patient must rest with the Physician, and be determined by him.

ON *Wednesdays* and *Saturdays*, the Children of the Poor will be Vaccinated at the Dispensary.

AN Apothecary will reside at the Dispensary, and the Physician will attend every Morning as soon as it opens, and remain for two hours.

NOLAN, PRINTER, DUBLIN.

A pamphlet noting the opening of the Malahide Dispensary

owners allowing their boats to 'ride afloat in the channel in perfect safety' (ibid.).

Possibly the most prominent feature of the west side of New Street is the dispensary. It is a two storey red-brick structure with an arched entrance way, and horizontal blue-brick string coursing. The building heavily contrasts in style with all other structures on the street. The foundation of the dispensary was possibly encouraged by a 1765 Act which gave Grand Juries the power to match local voluntary subscriptions in order to establish local dispensaries. A local committee was established in 1817, which sought the construction of a dispensary 'for the more immediate relief of the poor in the vicinity to which all persons, unable to pay for advice and medicines, residing within four miles of the dispensary house, and bringing proper recommendations from subscriber, will be admissible' (cited in a document detailing the official opening of the dispensary, Macartney & Crawford, 1817).

Subscribers to the programme paid one guinea per year, which afforded them the privilege of recommending patients for medical treatments to the dispensary. The subscribers were described as a 'very respectable list of nobility and gentry who have honoured this institution with their patronage and support' (Greene 2012).

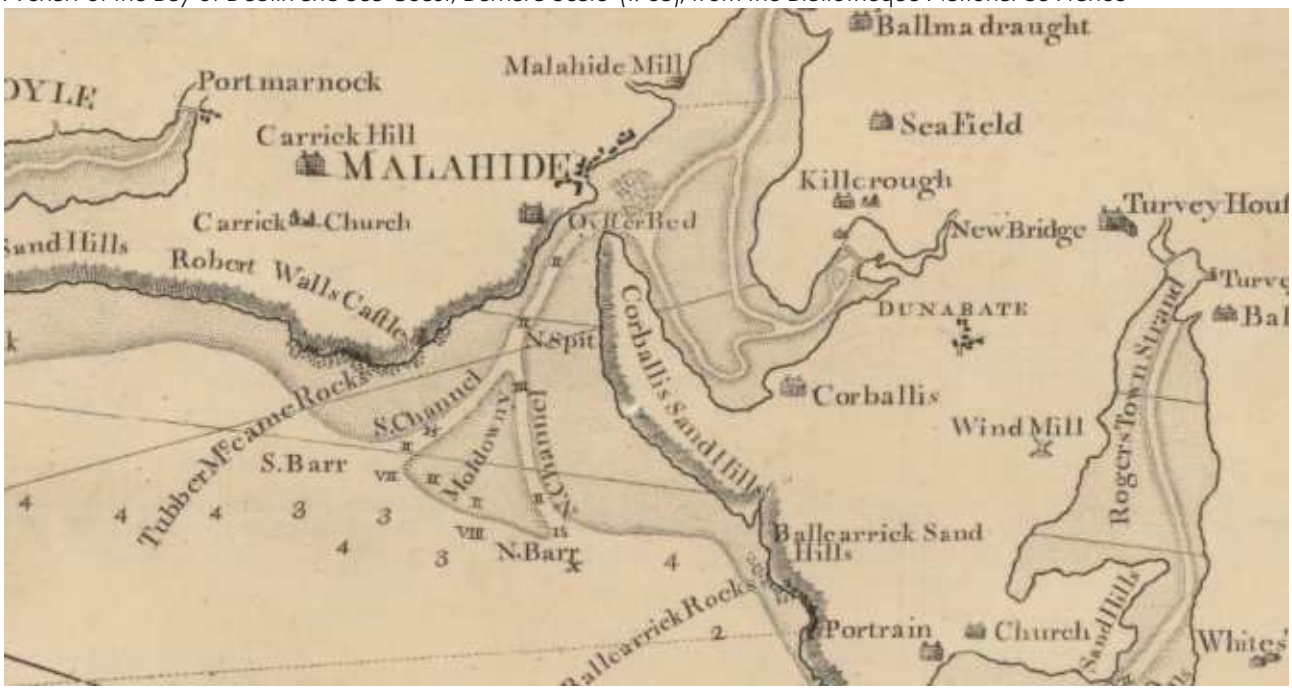
The dispensary opened on the 1st of May 1817, It was housed originally on the eastern side of New Street, as depicted on the first edition ordnance survey map. The 1908 ordnance survey map depicts the dispensary as being located in the current location of Donnybrook Fair. The red-brick structure that currently standings in New Street housed the dispensary from the later 19th century onward (McLoughlin 2009).

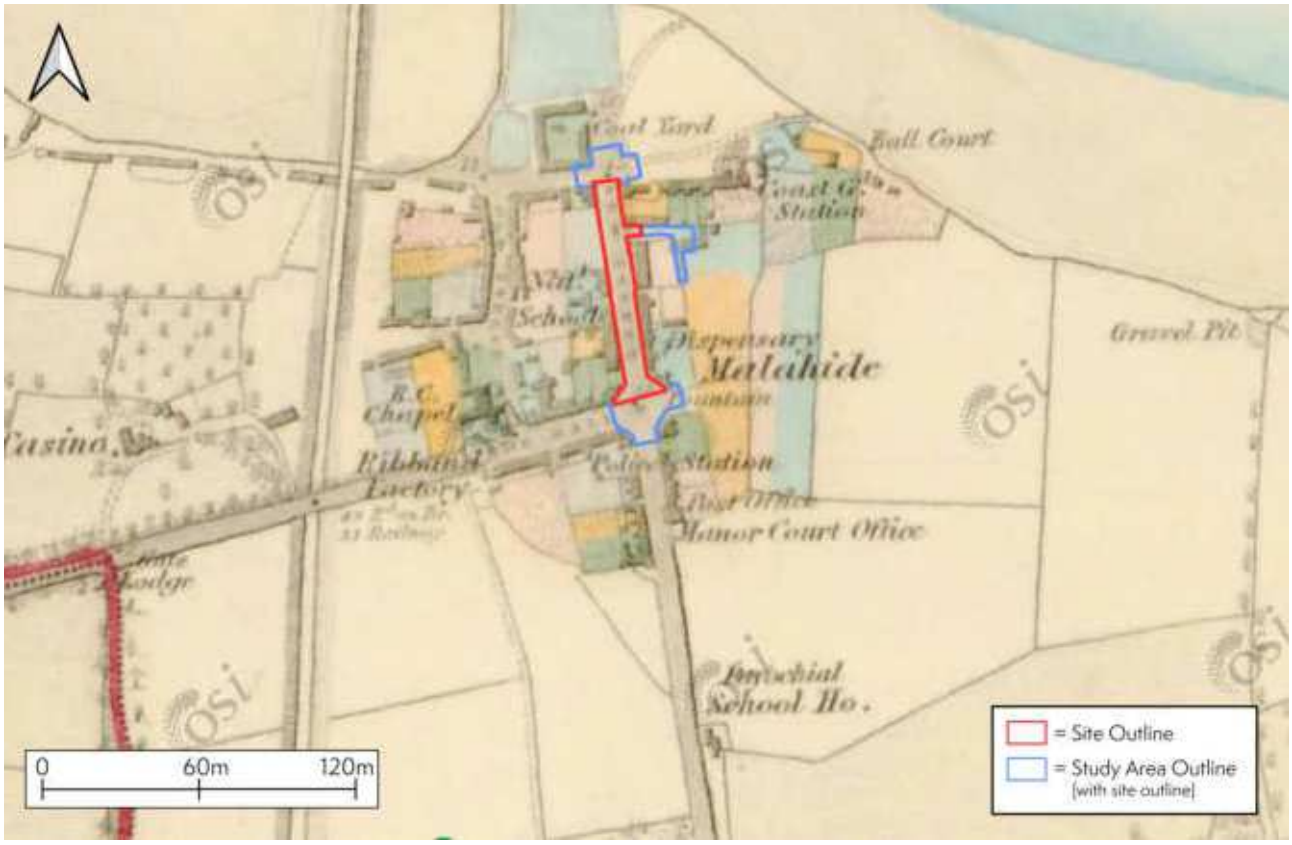
The 1901 census lists 71 individuals living on New Street. An examination of the census data from the national archives provides the following statistics:

- the average age of individual was 24.9
- the male to female ratio was 52/48%
- the data exhibited 23 unique surnames, with 12 heads of families listed
- 99% of adults were literate
- 12 houses are listed n New Street in 1901

The professions of those inhabiting New Street includes domestic servants, clerks, coal merchants, shop workers, victuallers, painters, post office workers, labourers and teachers. Furthermore, only one person was listed as being ill.

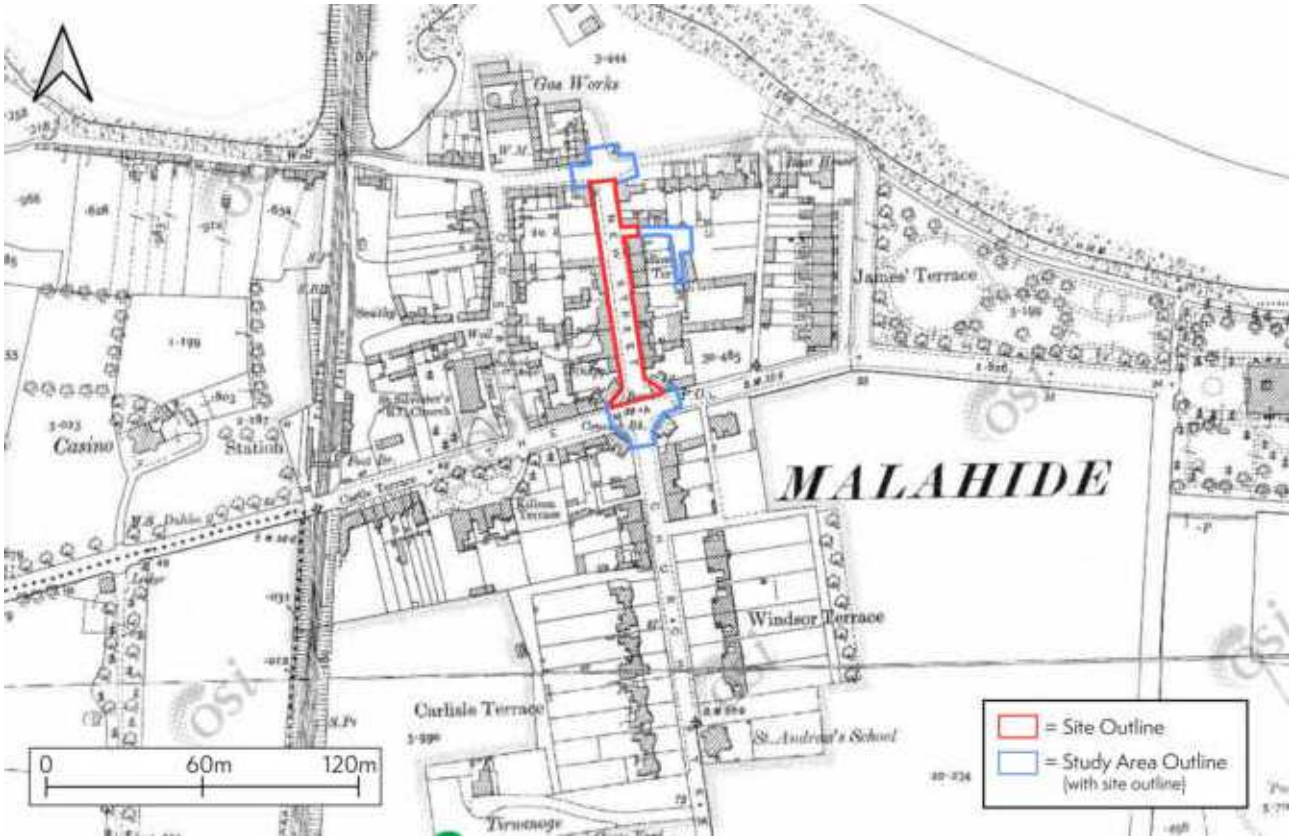
A chart of the Bay of Dublin and Sea Coast, Bernard Scale (1765), from the Bibliotheque National de France





The study area outline over the 6-inch ordnance survey map

The study area outline over the 25-inch ordnance survey map



There were some notable changes in the 1911 census. Notably, the population had increased to 84 since a decade prior.

• the average age raised to 27.6
• the male to female ratio raised to 54/46%
• the data exhibited 26 unique surnames, with 16 heads of families
• 99% of adults were literate
• 18 houses were listed on New Street in 1911

Additional professions mentioned in the 1911 census include fishmongers, hospital workers, general practitioner, telegraph messengers, car drivers, carpenters and a dairy owner.

These figures are notable when compared with the census information from Old Street for the same years. 96 individuals occupied Old Street in 1901 and 100 in 1911.

• the average age of individual was 28.8 in 1901 and 31.56 in 1911, nearly four years above New Street in both censuses
• in 1901 and 1911 the percentage of male inhabitants were 41.6% and 47% respectively
• the number of unique surnames were 34 in 1901 and 1911, with 26 heads of family in 1901 and 28 in 1911
• 85.8% of adults were literate in 1901 and 97% in 1911

The professions represented on Old Street similarly match those on New Street. With a slight tendency toward labourer or clerk jobs on Old Street.

The data suggests that literacy was generally higher in New Street. Additionally, the number of male occupants was lower on Old Street. Interestingly, the average age was higher on Old Street. It is unclear as to whether this is due to the difference in the male/female ratio exhibited in both streets. The surname to head of family ratio is also noteworthy, as Old Street families tended to be smaller than those at New Street.

The site outline overlaid on Rocque's 1760 map, using Dublin Historic Maps resource for georeferencing





Taylor's 1816 map of the environs of Dublin, which is potentially the first map depicting the layout of the Diamond

Cartography

The landscape of Malahide has changed extensively since the first appearance of human beings there in prehistory. The greatest of these changes, however, took place from the nineteenth century onwards with the development of the small fishing village of Malahide into a seaside resort town. The coast has been altered through the reclamation of land at the northern shore of the town. This occurred originally with the construction of oil and coal works during the industrial period, and the Marina in later years. In addition, the street layout of Malahide town has been changed in the past three centuries, with developments at New Street, Strand Street, The Mall and Church Street.

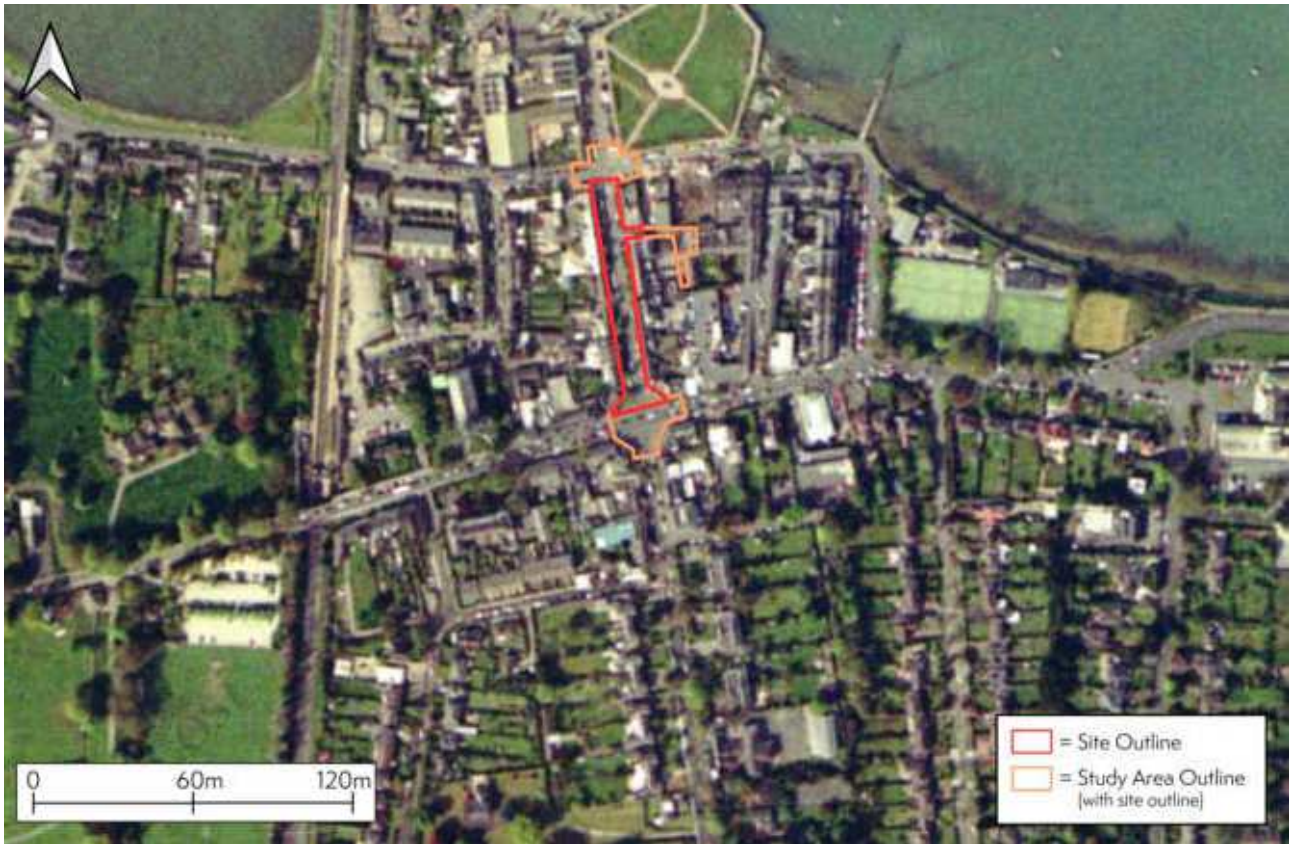
For the purpose of this assessment Dublin's historic cartography was analysed through www.dublinhistoricmaps.ie. This resource offers a wide variety of georeferenced historic maps of Dublin and its surrounding environs. The earliest map that affords a detailed view of Malahide was published by John Rocque in 1760. The georeferenced image depicts The Diamond as being the junction of Church Road, Railway Avenue and Old Street. Rocque offers a glimpse into Malahide prior to the construction of New Street. The location of the site outline over structures that would later be removed for the creation of New Street is notable. Rocque also lists a chapel as being located in the area of New Street. It is ambiguous as to whether this refers to the presently standing church in the west or if this may have been a separate structure altogether. It is possible that D'Alton is describing this chapel when he states that it 'is very old and inadequate for its congregation'. Excavations outlined in this report have demonstrated the existence of a stone structure predating St Sylvester's Church (10E0426 & 11E0326).

The first edition OS map, published prior to the construction of St Sylvester's Church in 1845, lists the structure as a Roman Catholic chapel. This may refer to the chapel listed in Rocque. Regardless, the identification of possible subsurface structures predating New Street are archaeological receptors that must be heeded in the development proposal.



The study area outline over the ortho 1995 map

The study area outline over the ortho 2000 map





The study area outline over the ortho 1995 map

The study area outline over the most recent aerial imagery



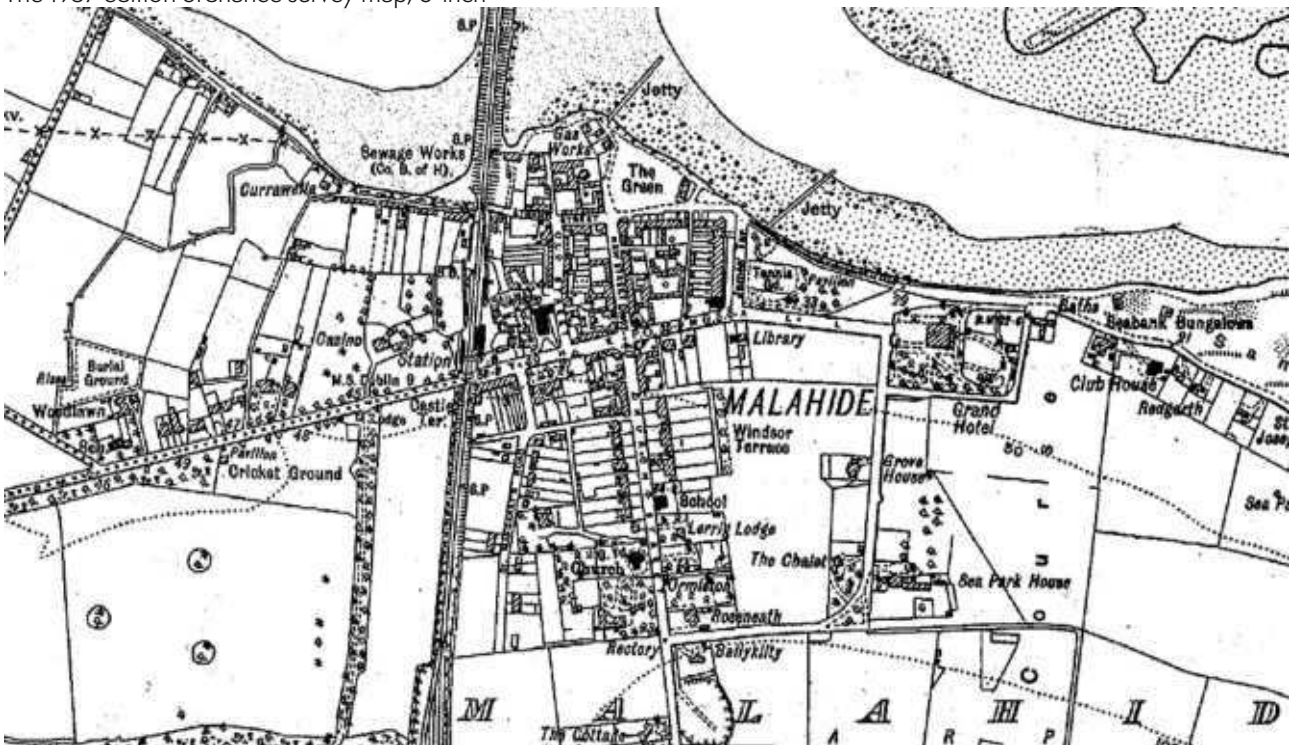
The focal point of Malahide village shifted eastward in the nineteenth century. Prior to this, much of the town's social and commercial activity took place on the junction of Old Street and Railway Avenue; the location of the church, well, and cottages. The street layout can be seen in a chart of the Bay of Dublin and Sea Coast by Bernard Scale, dated to 1765. This map, however, affords less detail of specific structures in the town than Rocque's map. The general layout of the town is similar in Scale's map, with Old Street as a focal point and the town stretching westwards.

The Diamond in the nineteenth century became the home of new grander developments, overshadowing the humble homes of those residing on Old Street. The Talbots of Malahide Castle were influential in the changes that took place to the town's road system during this period (Greene 2012, 75). The primary junction within the town moved to the Diamond's present location. New street was constructed c.1800, which in turn saw the erection of a number of upper-class homes.

By this point the population of the village had expanded to over a thousand residents. Malahide town had become an established trading port, used for exporting flour and corn meal, and importing coal (McLoughlin 2008, 10). In the late eighteenth and early nineteenth centuries Malahide underwent the process of industralisation. The exportation of cornmeal and flour through milling was paired with the appearance of a small silk and cotton mill. The town is also shown as having a ribband factory in the first edition OS map (1836). The coal yard (later an oil works) is of note as it borders the study area on the northern side. This links the study area directly with the development of industrial works throughout the town.

The construction of the railway line in 1844 connected Malahide with the city of Dublin (Railscot 2007). Easy access to the harbour made Malahide a popular destination as a seaside resort. Tourists flocked to the sea-baths, which resembled Roman Baths on the eastern side of the Grand Hotel (thegrand.ie 2022). The prominence of the town is demonstrated through the 25-inch OS map, which depicts a series of terrace's, estates and homes of upper class families.

The 1937 edition ordnance survey map, 6-inch



Section 4 Site Visit

Introduction

The study area was inspected on 03/06/2022 as part of this assessment. It was the primary objective of the inspection to analyse the grounds of the study area and identify any extant archaeological remains outlined in the previous sections. In addition, the wider area surrounding New Street was examined in order to establish a detailed understanding of Malahide's development from a small fishing village to a prominent tourist destination. For the purpose of this assessment, the study area is separated into three components: the Diamond, New Street and Ross Cottages.

The Diamond

The distinctive appearance of the Diamond is created by four structures that create its outline. Historic photography depicts these as two-storey, five bay dwellings with gable chimneys and front railings (McLoughlin 2009, 27). The front railings created a garden space which would have extended toward the modern road surface. Only two of these structures survive in the northwest and northeast of the junction. The southeastern and southwestern sides are modern structures that mimic the character of the surviving buildings.

A close-up of the south-eastern home at the Diamond





The northeastern house, now in use as a bank

The northwestern house, now in use as a pharmacy and jeweller



The town is notable for its common use of arched entrance ways, visible in old photographs of these houses. The two southern homes were later demolished and replaced with twentieth century structures, which resemble the original two in the north. Old photography can luckily offer a picture of the southern homes prior to their removal (page 30). In addition, the junction was notable for its fountain, which is present in maps between Rocque and the first edition OS. The date of the fountain's removal is not firmly established but it appears to have been demolished at some point in the latter half of the nineeenth century. The Diamond does not appear to have held any commercial use (i.e. acted as a market square), like the similar developments in Slane Village (Hurley & McLoughlin 2008, 12). Instead, it was employed as the entranceway to the new central hub of Malahide: New Street.

New Street

A large portion of Malahide Village's historic extant structures are located in the southern half of New Street, near the Diamond. This is mostly due to the location of the original shoreline and mudflats further inland near the northern half of the street. A consideration of all features of archaeological, architectural and historical importance is required to establish any archaeological receptors within the study area.

Southern New Street

Adjacent to the dispensary on the southern side is an alleyway, which is matched on the opposite side of the street. These possibly form, in conjunction with two further north, side streets for coach houses along New Street. These are presently occupied by Michael's Garden Centre and Fish Shack.

New Street, looking northwards



Large residential properties dominate this side of New Street. A number of these have their bottom floors presently in use as shop fronts. Their similarities include continuous slate roofing, rendered walls and arched entrance ways. A number have retained their historic doors, fan lights and door surrounds. A number of historic shop fronts have survived this side of New Street. Of particular note are two bow-shaped store fronts, approximately halfway along the street on the western side.

An outbuilding is located behind 13 New Street, where the stall ***Griolladh*** is located. The structure is of rubble stone with a gable front. It is similar in style to a separate structure on Townyard Street (McLoughlin 2009, 29). The structure dates to the nineteenth century, with later alterations made to the door and window that front the property (ibid.). An east/west running wall in an adjacent property to the north demonstrates a certain degree of antiquity. It exhibits a number of alterations in red brick, with a different fabric of stone across its surface. This is possibly one of the original property boundaries depicted on both editions of the ordnance survey maps.

Northern New Street

The northern portion of New Street is primarily occupied by twentieth century structures, with the northwestern side being made up of a 1950's shopping centre. A single home on the northeastern corner at the junction with Strand Street dates to the nineteenth century and would have stood in close proximity to the mud-flats that existed there prior to the reclamation of land at the marina. A plaque near the entrance of the property names 'Malahide Hardware Ltd, Regd Office', a company that was set up there in 1969 (solocheck.ie 2021).

A 19th century structure with historic storefront and bowed window





The northern of two historic storefronts with bowed windows

19th century house on the eastern side of New Street





19th century buildings near the centre of New Street, eastern side

The 19th century outbuilding behind 13 New Street





A wall in a property adjacent to the 19th century outbuilding

A 19th century home at the northeast corner of New Street

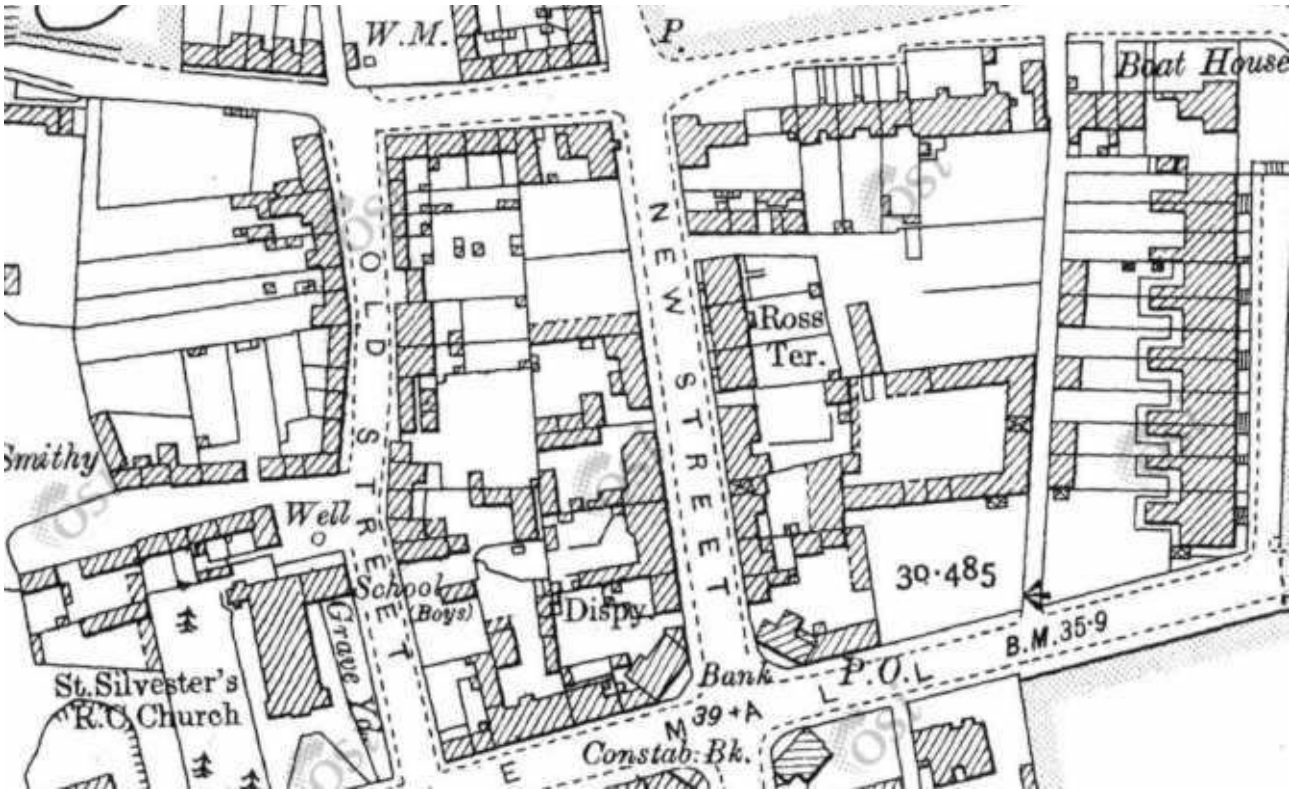




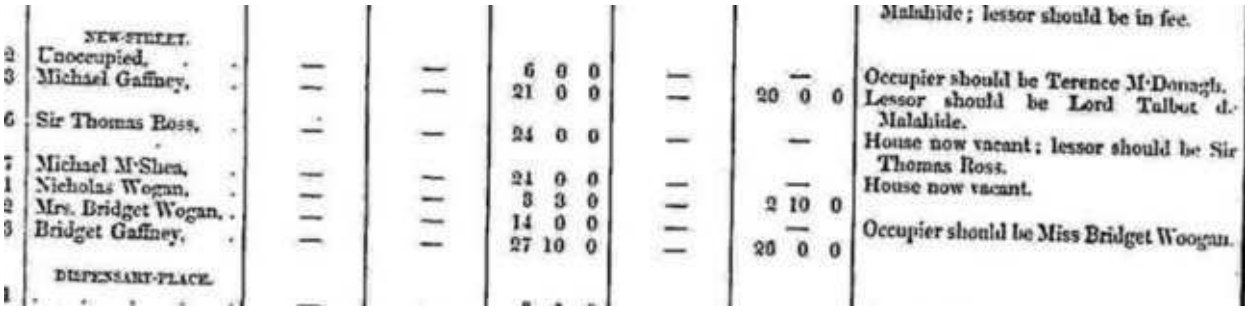
The Old Coach House at Ross Cottages

The stone structures west of the Old Couch House at Ross Cottages





Ross Terrace depicted on the 25-inch OS map, part of a number of 'terraces' constructed during this period



	NEW-STREET.							Malahide; lessor should be in fee.
2	Unoccupied,	—	—	6 0 0	—	—		
3	Michael Gaffney,	—	—	21 0 0	—	20 0 0		Occupier should be Terence M'Donagh. Lessor should be Lord Talbot d. Malahide.
6	Sir Thomas Ross,	—	—	24 0 0	—	—		House now vacant; lessor should be Sir Thomas Ross.
7	Michael M'Shea,	—	—	21 0 0	—	—		House now vacant.
1	Nicholas Wogan,	—	—	3 3 0	—	2 10 0		
2	Mrs. Bridget Wogan,	—	—	14 0 0	—	—		Occupier should be Miss Bridget Woogan.
3	Bridget Gaffney,	—	—	27 10 0	—	20 0 0		
	DISPENSARY-PLACE.							

An excerpt from Griffiths Valuation, showing the occupants of Ross Cottages

Ross Cottages

The area known as 'Ross Cottages' forms a panhandle running easterwards, perpendicular to New Street. The area was likely named after Sir Thomas Ross, named as an occupant of New Street in Griffith's Valuations. As noted above, at least one structure within the area of the cottages was used as a dispensary prior to the construction of the later one on New Street. A dispensary is depicted on the first edition OS map, in a rectangular E/W running structure which may be extant in the present day. The homes within the grounds likely post-date Griffith's Valuation, as the homes are not included within its contents. Furthermore, the cottages do not appear on the 6-inch or 25-inch OS maps. Consequently it can be assumed that the structures date sometime after 1913, likely in the first half of the 20th century. A standalone structure named 'The Old Coach House' may have once acted as a coach house for Ross's home on New Street, as it appears on the 1913 OS map. Additionally, an east/west running structure behind the coach house exhibits a number of alterations to its fabric across its surface. These are depicted from the 1913 OS map onwards, further suggesting that the structures in the area date to the twentieth century.

Section 5 Archaeological Impact Assessment

Archaeological potential

Discussion of archaeological heritage

There are no recorded archaeological sites and monuments within the study area. The Malahide Historic Core Architectural Conservation Area conducted by Fingal County Council lists a number of features scheduled as protected structures and recorded monuments. These fall within the conservation area outlined in the report and include the following:

RPS No. 387 Station Master's House
RPS No. 388 Railway Station
RPS No. 389 St Sylvester's RC Church
RPS No. 390 St Sylvester's Well
RPS No. 398-401 Killeen Terrace
RPS No. 391-397 Castle Terrace
RPS No. 408 Carnegie Library
RPS No. 409-419 1-12 James' Terrace

No topographical files exist within the study area. However, this assessment has demonstrated that a number of archaeological finds uncovered in the surrounding landscape offer a detailed narrative of the history of north County Dublin's coastal areas. The majority of these files comprise prehistoric flint scatters gathered and presented to the museum during the second half of the twentieth century. The substantial quantity of lithic artefacts uncovered across Fingal's coasts suggests a vibrant prehistoric presence. In addition, archaeological works at Seamount, Feltrim and Paddy's Hill have offered a glimpse into the strong historical continuity of Malahide's landscape.

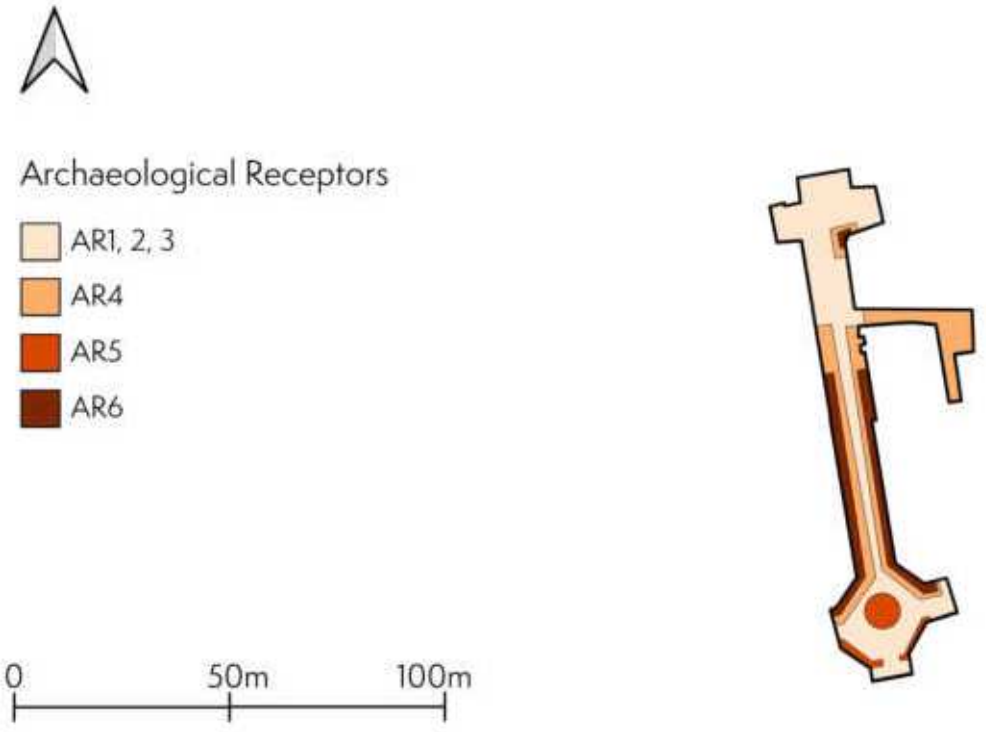
The cartographic sources outlined in this report have shown that a number of subsurface structural remains are likely to exist below New Street's modern road surface. These relate to the occupation of the town which would have been centred around the junction at Old Street and Railway Avenue, with a focus on the holy well at its centre. Coal cellars are probably not present, based on the absence of any basements along the New Street properties.

Discussion of built heritage

New Street contains a number of structures that are of cultural heritage significance. Spacious nineteenth century homes dominate the streetscape just south of the Diamond. These define much of the fabric of the street as they are presently used as retail outlets, with some still in use domestically. These are generally linked by their continuous slate roofing, rendered walls, arched door frames and fanlights. Two structures with bowed window frames further add to the historic appearance of

The archaeological receptors within the study area

Ref	Type	Significance	Presence Chance?	Survival Chance?
AR1	Pre-early medieval occupation layers	High	Moderate	Low
AR2	400-1550AD occupation layers	High	Moderate	Low
AR3	1550-1800AD structural foundations	High	High	High
AR4	19th century streetscape	High	High	High
AR5	Subsurface fountain foundation	High	High	High
AR6	Coal cellars	Moderate	Very low	High



Zone map of the study area showing archaeological receptors

the street. In addition, a substantial red-brick on the western side of the street near the Diamond strikingly stands out when compared to the other built heritage on New Street. This was constructed for uses as a dispensary in 1817 and is tied in with the stylistically similar Carnegie Library, constructed in 1909 (McLoughlin 2008, 12).

Toward the north, a four-bay corner house at the junction of New Street and The Strand has timber sashes and an elliptical headed door opening. The home is simply decorated with eave brackets and corner quoins (FCC 2009, 28). This is the only structure in the south of the study area of significance.

Archaeological receptors

Pre-early medieval occupation layers

Previous excavations and topographical files within the wider landscape of Malahide have demonstrated that the northern coast of County Dublin has a rich history dating as far back as the Mesolithic. A concentration of prehistoric activity in the area directly surrounding Malahide suggests the possible existance of occupation layers dating to these periods. Furthermore, the finds of an excavation Seamount portray a continuous stream of occupation in the area throughout prehistory, with evidence for planning around pre-existing monuments.

400-1550AD occupation layers

St Sylvester's Well at the junction of Old Street and Railway Avenue has been used as a water source since at least 430AD (malahideheritage.ie 2020). The excavations at St Sylvester's Church (10E0426 & 11E0326) provided evidence for stone structural remains dating to the medieval period. A number of artefacts ranging from prehistoric to post-medieval were uncovered during these excavations. This may suggest that the existence of layers within the study area relating to these periods of occupation.

1550-1800AD structural foundations

In section 3 of this report Rocque's 1760 map was analysed in order to establish the presence of structures in the area of New Street prior to its construction. The study area was overlaid

onto the map which suggested that a number of structures predating New Street may exist as subsurface structural foundations beneath the modern street. In addition, toward the end of the period the focal point of the town was shifted eastward to the present location of the Diamond. Structures and other features relating to the alteration of the street layout may also be present.

19th century streetscape

The ninteenth century structures still present on New Street give the area a distinctive historic appearance. The built heritage of New Street resides primarily on its southern side, near the junction with the Diamond. These include a number of nineteenth century homes, the two extant structures at the Diamond, the dispensary and an outbuilding.

Street furniture is a common feature at several locations in Malahide town. These include two post-boxes at the Mall, a gas lamp standard and water hydrant on Old Street, and a gas lamp standard, decorative bootscraper and balcony on James' Terrace.

At several points along New Street the historic kerbing survives in situ. The kerbstones form part of Malahide's historic paving and are also found on Old Street, Church Street and at the Diamond. The Malahide Historic Core Architectural Conservation Area document outlines that if 'works require temporary lifting or removal of paving material, paving units must be properly recorded, carefully removed & stored and reset following best conservation practice'. Historic photography depicts footpaths with limestone kerbs and cobbled drains (p. 39).

Two areas with nineteenth century garden layers may exist across the study area. The four structures at the Diamond are shown as once

The footpaths along Carlisle Terrace, c. 1900 - from Malahide Historic Society Facebook page



owning gated gardens at their entrances. The area of Ross Cottages is also shown to have once been occupied with gardens associated with the nineteenth century homes on New Street. There is a possibility that both these areas retain their garden layers at a subsurface level.

Subsurface fountain foundation

The fountain that once existed at the centre of the Diamond formed part of the fabric of the 19th century streetscape of Malahide. It is present in Rocque's map in addition to the first edition OS map (1837). It was removed at some point in the late 19th century as it does not appear on photography or maps dating past 1900.

Coal cellars

As part of this assessment the possibility for the presence of coal cellars was examined. This is considered unlikely due to the absence of basements in the suriving New Street properties.

A photo of Malahide dating from 1865-1914, depicting the coal yard adjacent to the estuary





Plan courtesy of DFLA, Fc. 03-DR-2001

Impact assessment

The New Street Public Realm Landscape Plan by DFLA has been examined. The proposed engineering drawings by Punch Consulting Enginneers and Axiseng Consulting Engineers have also been incoporated into the impact assessment.

Repaving of the street and realignment of historic kerbs is likely to require some level of excavation to create a sub-base of hardcore and concrete, which will have a moderate impact. Similarly, while planting areas for grass and flowers, foundations for dining tables, public seating, bins, cycle stands, and similar infrastructure are designed to require a depth of 250mm to 300mm, in practise a sub-base will probably require a deeper excavation.

The design intent for the new lighting scheme is based on placing lights on existing buildings, rather than the erection of new lighting poles, which significantly reduces the archaeological impact of the proposals, though ducting will still be required and this is likely to have a moderate impact. These proposed public lighting shall be controlled via PECUs through a 7-pin NEMA socket as per Fingal County Council Public Lighting Specifications. The locations of these are outlined in the plan presented on the following page.

Two levels of subsurface impact are set out below.

Moderate impact

Moderate impacts involve excavation works of c. 400-600mm below the existing ground level. This will go through the modern street surface and modern sub base, and in same cases may impact on underlying archaeological deposits if these are present.

Moderate impact areas include repaving and realignment of existing paving, planting areas for grass, flowers, hedges and shrubs, and foundations for dining tables, public seating, bins, cycle stands, and similar infrastructure. The proposed new water feature and water services upgrade, which comprises a central drain running underground down the centre of New Street, is also categorised as a moderate impact, thought the depth subsurface work required has not been defined at this stage. Rerouted ESB, telecom and gas services will also require trenches of between 450mm and 600mm depth, but the locations of these is currently undefined. Any ducting for street lighting will also have a moderate impact.

Deep impact

Deep impacts involve excavation works of 1m to 1.5m below the existing ground level. This covers planting areas for trees and the foundations of six proposed telescopic vehicle bollards.

Mitigation measures

Areas that have a moderate or deep sub-surface impact, which effectively covers the entirety of the New Street proposal groundworks, should be archaeologically monitored under license from the NMS. In the event that archaeological material is identified, the archaeologist should halt the groundworks in that zone, assess the archaeological deposits, and revert to the NMS and Fingal County Council regarding the next step.



Plan courtesy of Axiseng Consulting Engineers, NSM-X-X-DR-AXE-EE-60103

Bibliography

Byrne, F.J. 1973. Irish Kings and High Kings, London.

Cooney. G. 2000. Landscapes of Neolithic Ireland, London.

D'Alton, E.A. History of Ireland: from the earliest times to present day, 6 volumes, The Gresham Publishing Company: Dublin.

Bradley, J., Fletcher, A.J. & Simms, A. (2009) Dublin in the Medieval World: Studies in Honour of Howard E. Clarke, Four Courts Press: Dublin.

Greene, R. (2012) Old Malahide, Fingal County Libraries: Dublin.

Halliday, S. 2005. 'Preliminary Excavation Report for Montgorry Site A, County Dublin', Unpublished report, Arch-Tech Ltd.

Hartnett, P.J., Eogan, G. & Jackson, J.S. (1964) 'Feltrim Hill, Co. Dublin; a Neolithic and Early Christian Site', The Journal of the Royal Society of Antiquaries of Ireland, 94(1), pp. 1-37.

Hurley, L. & McLoughlin, R. (2008) Slane Village Architectural Conservation Area Character Appraisal, Meath County Council.

Keeling, D., Keeley, V., Cooney, G. & Farley, E. (1994) 'Excavation of a Flint Scatter on Paddy's Hill (Robswalls), Malahide, County Dublin, Proceedings of the Royal Irish Academy: Archaeology, Culture, History Literature, 94C (1), pp. 1-23.

Lewis, S. 1837. A topographical dictionary of Ireland comprising the several counties, cities. New York, 1970 facsimile reprint of 1837 edition.

Little, G.A. (1948) 'About Malahide', Dublin Historical Record, 10 (1), pp. 1-16.

Macartney, J. & Crawford, A. (1817) Letter for the opening of the dispensary in Malahide.

McMahon, M. (2011) Fingal Industrial Heritage Survey: Phase 1 - Desktop Survey, Fingal County Council.

McQuade, M. (2012) Excavations at Malahide Parish Centre, St Sylvester's Church, Malahide, Co. Dublin, Archaeological Report.

Moryson, F. The Description of Ireland, translated by Hughes, C. (2014), University College Cork: Ireland.

Ó Danachair, C. (1958) 'The holy wells of county Dublin', Reportorium Novum, 2, pp. 68-87.

O'Donnell, E.E. (2008) The Annals of Dublin: Photographs from the Father Browne Collection, Currach Press: Dublin.

O' Reilly, P.J. (1910) 'The Dedications of the Well and Church at Malahide', The Journal of the Royal Society of Antiquaries of Ireland, 40 (2), pp. 147-165.

Railscot (2007) 'Malahide Station', Railscot - Irish Railways.

Simms, A. & Fagan, P. (1992) 'Villages in County Dublin', In: Aalen, F.H.A. & Whelan, K. (eds.) Dublin City and County: From Prehistory to Present, Dublin.

Swift, C. (2004) 'St Patrick and the earliest evidence for local church organisation in Ireland', In: MacShamhráin, A. (ed.) The Island of St Patrick, pp. 61-78, Four Courts Press: Dublin.

Veach, C. (2010) 'King and magnate in medieval Ireland: Walter de Lacy, King Richard and King John, Irish Historical Studies, 34 (179), pp. 179-202.

Websites

Dublin Coal Holes - https://www.thelocals.ie/features/dublin-coal-holes

St Sylvester's Holy Well - https://pilgrimagemedievalireland.com/2015/12/31/st-sylvesters-holy-well-at-malahide/

Old Yellow Walls - https://oldyellowwalls.org/why-yellow-walls/

Malahide Heritage - https://www.malahideheritage.ie/The-Village.php

Malahide Name - https://www.logainm.ie/en/865

Malahide Castle - https://en.wikipedia.org/wiki/Malahide_Castle#/media/File:Malahide_Castle,_March_2011_(2).jpg

Malahide Hardware Stores Ltd - https://www.solocheck.ie/Irish-Company/Malahide-Hardware-Stores-Limited-29286

Gallica chart of the Bay of Dublin and sea coast - https://gallica.bnf.fr/ark:/12148/btv1b53010900x/f3.item.r=dublin.zoom

NIAH

Lamp Stardard - https://www.buildingsofireland.ie/buildings-search/building/11344035/new-street-malahide-malahide

Malahide Castle - https://www.buildingsofireland.ie/buildings-search/building/11344019/malahide-castle-fingal

Malahide Railway Station - https://www.buildingsofireland.ie/buildings-search/building/11344008/malahide-railway-station-dublin-road-malahide-malahide

Malahide Railway Station Master's House - https://www.buildingsofireland.ie/buildings-search/building/11344007/malahide-railway-dublin-road-malahide-malahide

Post box - https://www.buildingsofireland.ie/buildings-search/building/11344036/the-mall-malahide-malahide

Railway Bridge - https://www.buildingsofireland.ie/buildings-search/building/11344015/malahide-railway-station-the-strand-malahide-malahide

Signal Box - https://www.buildingsofireland.ie/buildings-search/building/11344009/malahide-railway-station-dublin-road-malahide-malahide

Excavations

01E0421 - http://excavations.ie/report/2001/Dublin/0006390/

02E1719 - https://excavations.ie/report/2002/Dublin/0007945/

02E0298 - https://excavations.ie/report/2002/Dublin/0007811/

04E1066 - https://excavations.ie/report/2004/Dublin/0011630/

10E0426 - http://excavations.ie/report/2010/Dublin/0021491/

11E0326 - http://excavations.ie/report/2012/Dublin/0023182/

E4381 - http://excavations.ie/report/2011/Dublin/0022306/

Topographical files

Bronze lid 1984:146 - https://heritagemaps.ie/documents/NMI_TopographicalFiles/IA-153-1984_1984-146.pdf

Flint scraper 1966:42 - https://heritagemaps.ie/documents/NMI_TopographicalFiles/IA-93-1966_1966-42.pdf

Stone assemblage - 1968:84 https://heritagemaps.ie/documents/NMI_TopographicalFiles/1968-151-171.pdf

Appendix B6 - Arboricultural Drawings and Report

Document	ID No.	Size	Produced by
Tree Constraints Plan	-	A1	The Tree File
Tree Impacts Plan	-	A1	The Tree File
Arboricultural Report	-	A4	The Tree File

For Planning Purposes Only - Do Not Scale

Background Imagery - Google Earth 2022



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New Street Tree Constraints Plan 1/1 _ Scale 1:400 @ A1

This is a colour coded drawing that will be difficult or impossible to interpret if reproduced in black and white

Ashgrove House
26 Foxrock Court
Dublin 18
D18 R2K1

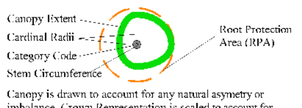
Mob. 086-3819011
e-mail - thetreefile@eircom.net

The Tree File
Consulting Arborists

Colour Coding of Tree Categories

- Category "A" Trees (Green Button) Excellent Quality Trees
- Category "B" Trees (Blue Button) Good Quality Trees
- Category "C" Trees (Gray Button) Mediocre to Poor Quality Trees
- Category "U" Trees (Red Button) Dead, Dying or Otherwise Compromised Trees that are Unsustainable.

Graphic Representation of Tree Form, Balance and Protection Zone



Canopy is drawn to account for any natural asymetry or imbalance. Crown Representation is scaled to account for north, east, west and south radii.

Root Protection Area (RPA)
This area relates the "RPA" radius as defined in the Tree Survey Table and is measured from the tree centre.
This area defines the preliminary Construction Exclusion Zone (CEZ) that must be protected by fencing from the potentially damaging affects of construction activity.

Client: Fingal County Council

Scale: 1:400 @ A1 Date: April 2023

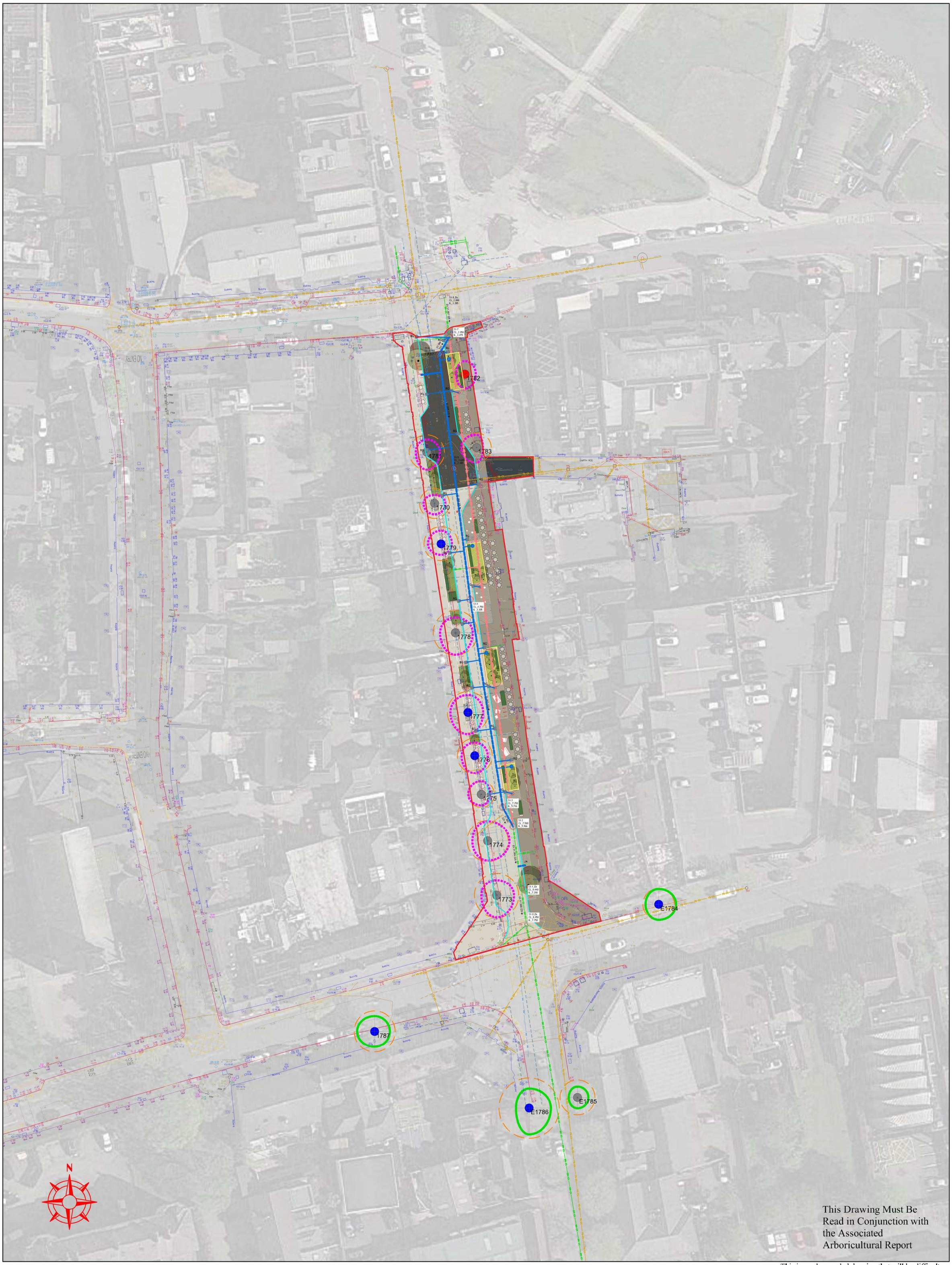
Project: Tree Survey - Public Realm Improvements for a Pedestrianised New Street

Description: Tree Constraints Plan

Drawing Title: New Street Tree Constraints Plan

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Background Imagery - Google Earth 2022



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New Street Tree Impacts Plan 1/1 _ Scale 1:400 @ A1

This is a colour coded drawing that will be difficult or impossible to interpret if reproduced in black and white

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e-mail - thetreefile@eircom.net

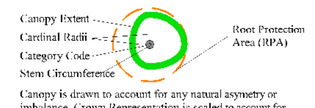
Colour Coding of Tree Retention or Removal

- Trees Intended for Retention - Solid Green Crown Outline
- Trees Intended for Replacement within Context of Public Realm Works - Broken Pink Crown Outline

Colour Coding of Tree Categories

- Category "A" Trees (Green Button) Excellent Quality Trees
- Category "B" Trees (Blue Button) Good Quality Trees
- Category "C" Trees (Gray Button) Mediocre to Poor Quality Trees
- Category "U" Trees (Red Button) Dead, Dying or Otherwise Compromised Trees that are Unsustainable.

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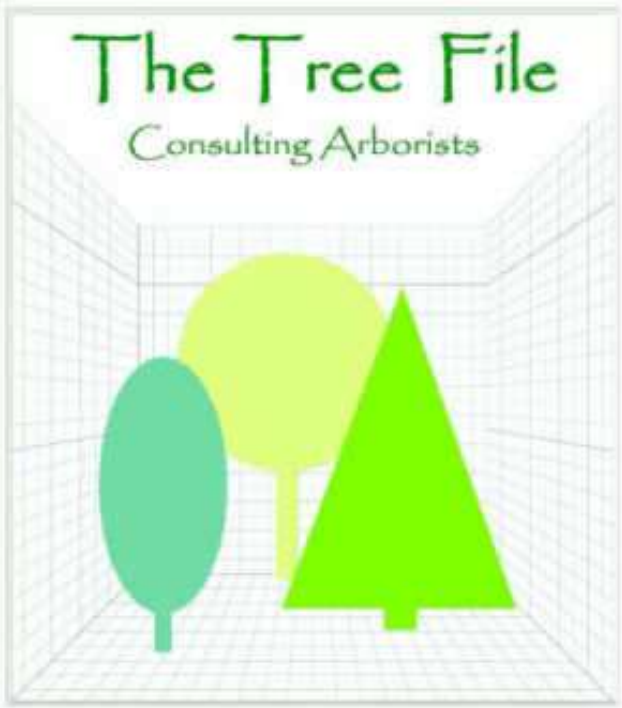
Client: Fingal County Council

Scale: 1:400 @ A1 Date: April 2023

Project: Tree Survey - Public Realm Improvements for a Pedestrianised New Street

Description: Tree Impacts Plan

Drawing Title: New Street Tree Impacts Plan



Arboricultural Report

Proposed Public Realm Improvements for a Pedestrianised New Street Malahide Co Dublin

April 2023

The Tree File Ltd
Consulting Arborists
Ashgrove House
26 Foxrock Court
Dublin 18
D18 R2K1
086-3819011

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3	Introduction
4	Site Description
5	Pre-Development Arboricultural Scenario
6	Planning Scenario in Respect of Tree
7	Other Legislative and Legal Constraints
8	Construction Activities and their Effect on Trees
9	Nature of Project Works
10	Development Related Impacts and Concerns
11	Design Iteration and Arboricultural Considerations
12	Identification of Arboricultural Impacts on Trees
13	Tree Retention and Loss
14	Bibliography
A1	Appendix A1 - Tree Survey Table 1 – Tree Survey Data

Associated Drawings

This report is for reading in conjunction with the drawings noted below:

	Drawing Title	Drawing Subject
1)	New Street Tree Constraints Plan	Tree Constraints Plan A plan depicting the predevelopment location, size, calculated constraints, and simplified tree quality category system
2)	New Street Tree Impacts Plan	Tree Impacts Plan This plan represents the effects of the proposed improvement works on the above tree population and depicts trees to be retained and removed.

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1.0 Executive Summary

1.1 As outlined below and expanded on within this report, substantial sustainability issues relate to the trees within the current New Street context. Existing and ongoing damage cannot be mitigated or sustainably repaired and these issues, together with continued growth over time, will result in an unavoidable and inevitable need to remove these trees in the future. The trees on New Street are generally young and still small specimens, having attained much less than 20% of their ultimate species mass. As they are existing within a constrained environment, it is advised that they are replaced with new trees. This would allow for species choices better suited to the constrained context and positioning at better ranges from buildings. These trees would benefit from purpose designed planting scenarios, that would better guarantee sustainability without encroachment or growth-related damage issues over time.

2.0 Arboricultural Scenario

2.1 Though inarguably urban, much of the current New Street visual context relates to its population of eleven Norway Maple. While the tree survey notes many trees remaining vigorous, some have suffered some mechanical damage. This might suggest the trees potentially offer sustainability. However, due consideration must be given to what tree retention might entail and result in over time. Particularly, attention must be drawn to the fact that the predominant species, Norway Maple, has the potential to become a large tree over time. Many authorities cite heights between 25.00 and 30.00 metres (Mitchell et al.) with potentially similar crown spread. Such trees will stand on immense stems, arguably diameters more than 1.00 m (W.J. Bean, 1980).

2.2 Such trees only exist at the sufferance of the ground environment in which they grow. The development of these trees, and particularly their stem bases, buttress regions and zone of structural roots, can only exist within soil, either by its compression or its displacement. The results of this issue are plain to be seen across the site area. Examples are well illustrated by the ground surfaces directly adjoining the tree stems, that are becoming uplifted and by both lateral and rotational displacement of surface structures, most notably the kerb edges and paved surfaces.

2.3 Currently, the street functions predominantly as a pedestrian zone, with vehicle access restricted to 7am - 11am daily and two-way vehicular access available to Ross Cottages on the east side at all times. A footpath of varying widths runs the full length of the street between the kerb and buildings lines, with mature trees growing at intervals in the footpath. Notwithstanding this, the context remains one of an urban streetscape. The central road corridor is of typical tarmacadam, exhibiting evidence of numerous intrusions over time, as depicted by the patchwork of various surface repairs and excavation areas. The pavement context is equally hostile, comprising the existing granite kerb stone, but with block pavers as a pedestrian surface together with retained areas of reconstituted rubber carpet near trees. Much of the pedestrian context exhibits evidence of extensive underground infrastructure including what appears to be gas, water, and telecoms. For the much of the western side, the pedestrian surface maintains circa 2.50 to 2.80 m widths, however, the eastern side is often reduced to circa 1.75 m at its northern end, with a limited area, north of the street centre, extending to circa 3.30 m.

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2.4 In Arboricultural terms, the streetscape would be regarded as a hostile environment. Historical thoroughfares tend to be based on hard, compacted soils resulting from long-term historical use. This issue is often compounded by modern construction requirements for minimum "California Bearing Ratios" (CBR's) required to provide stability, avoid subsidence, and maximise durability of surface structures. In practice, this often results in ground environment that can be inaccessible to tree roots.

2.5 Tree root morphology within such urban contexts is difficult to estimate in either depth, range, or form. In practice, streetscape tree rooting systems rarely develop symmetrically or conform to the typical root protection area as might be estimated under the auspices of BS 5837-2012. Most likely, tree roots will proliferate where they can and where they can maintain optimum root function given the poor ground environments. Invariably, this relates to areas of ground where gas exchange and water infiltration can occur notwithstanding the typical covering of ground surfaced by impermeable, watersheds and materials. Therefore, we commonly see tree roots proliferating and following channels of prior disturbance, i.e., trenches created during the installation of infrastructure or at the interfaces between various materials such as buildings and pavements, roads and kerbs or paths and kerbs. Additionally, and only confirmable by additional, exploratory excavations, it is quite likely that a high proportion of tree roots will be shallow. It is often the case that tree roots proliferate directly beneath artificial surfaces, because of moisture build-up. This water tends to relate to daily temperature changes and the condensation of soil moisture about the lower face of the constructed surface.

2.6 Appreciating the trees currently reviewed are all relatively young and arguably substantially less than 20% of their ultimate size, then an issue of future growth and unavoidable ground disturbance must be considered. The current scenario provides no capacity to accommodate future growth. Furthermore and otherwise hostile environment within which they are growing then, any future growth is unlikely to be accommodated by way of downward compression and distinctly more likely to be accommodated by upward movement and uplifting of lightly laden surfaces (table A1 – “BS 5837, Trees in Relation to Design, Demolition and Construction – Recommendations”) and structures located above any tree roots.

2.7 Considering the degree of uplifting and distortion existing at present and relating to still small trees, then the potential to retrofit a new surface without causing substantial damage becomes highly questionable. This issue is compounded by existing threshold levels to adjoining properties and the maintenance of universal access and sustainable, nonintrusive drainage.

2.8 Most trees within the west of New Street exist at a range of circa 2.20 – 2.30 m from the adjoining buildings, with trees to the east of the roadway being as little as 1.50 and 1.60 m from the adjoining buildings. These minimal ranges require the consideration of "lightly laden structures", such as paved surfaces, that may be subject to growth-related disturbance over time, in line with "Table A1" of BS 5837-2012. Additionally, and considering the ultimate potential of these trees to grow much larger, there is the potential for maximum stem growth to provide a distinct impingement existing on pedestrian space, and a far greater extent of the existing pavement will be subject to uplifting and distortion. The ultimate size of the trees, considering their small size to date, will be such that the already existing overhanging encroachment on buildings will increase greatly.

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2.9 Considering the above, and particularly the ultimate size of the trees, the almost inevitable likelihood of ongoing damage disturbance and encroachment, combined with limited potential for retrofitting sustainable new surfaces and what will prove to be an inevitable and costly ongoing management regime over time would combine to suggest that the best course of action would be, rather than retaining the existing trees, to consider the replacement of the trees with new trees, of more contextually compatible species, within a sustainable, purpose designed underground planting environment and potentially at ranges better selected from the fronts of adjoining buildings.

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3.0 Introduction

3.1 **Dermot Foley Landscape Architects**
Argus House,
Malpas Street,
Blackpitts,
D08 DD56

3.2 The survey has been prepared by:
Andy Worsnop B.Sc Env Mngt, Tech Arbor A, NCH Arb (PTI LANTRA)
The Tree File Ltd
Brookfield House
Carysfort Avenue
Blackrock
Co Dublin

Report Brief

3.3 In line with the requirement for Arboricultural information in respect of the proposed New Street project, the intention of the tree survey is to register, describe and evaluate the trees regarding their current health status and current condition within their current context. The survey is based upon and has been compiled considering the recommendations of BS5837: 2012 Trees in Relation to Design, Demolition and Construction – Recommendations.

Report Context

3.4 In line with the recommendations of "BS5837: 2012 Trees in Relation to Design, Demolition and Construction – Recommendations", this assessment has been advised by the results and findings of a tree survey, the findings of which are included as "Appendix 1" to this report. This comprises a simple qualitative tree survey describing the material of Arboricultural interest, upon and adjoining the subject site. The survey provided the basic information that assisted in the compilation of the broader report.

3.5 This tree report should be read in conjunction with the Tree Constraints Plan "New Street Tree Constraints Plan". This drawing provides a graphic representation of the tree survey depicting the nominally calculated constraints and the spatial retention requirements of the trees, as well as colour-coded categorisation of their condition and potential value.

3.6 In line with the recommendations of “BS5837:2012 Trees in Relation to Design, Demolition and Construction – Recommendations”, this report provides an accurate understanding of the Arboricultural implications of the proposed improvement works and to explain the issues at hand.

3.7 As the recommended outcome of this report is to replace the existing trees with new trees, within specifically designed and constructed contexts, and that no trees will be retained within the proposed works zone, then this report does not include a Tree Protection Plan or Arboricultural Method Statement,

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Report Limitations

3.8 This report is based on the Arborists interpretation of information provided to them prior to report compilation and gathered from the site during the undertaking of the site review. The site review data is subject to the limitation as set out under "Inspection and Evaluation Limitations and Disclaimers" in "Appendix 1" to this report. The findings and recommendations made within this report are based upon the knowledge and expertise of the inspecting Arborist.

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4 Site Description

4.1 Currently, the street functions predominantly as a pedestrian zone, with vehicle access restricted to 7am - 11am daily and two-way vehicular access available to Ross Cottages on the east side at all times. A footpath of varying widths runs the full length of the street between the kerb and buildings lines, with mature trees growing at intervals in the footpath.

4.2 The streetscape consists of a central, tarmacadam and roadway currently designed for one-way traffic only. The roadway is adjoined to both the east and west by pedestrian footpaths of varying widths. It is from these footpaths that the review of tree population arises. The footpath configuration typically comprises a block paver scenario with, for the most part, granite kerb edge stones. A clear majority of the trees reviewed arise from position immediately adjoining the kerb edge or within 200 – 300 mm thereof. Note is made that in many instances, the paving surface directly adjoining the tree stems has been swapped from hard block pavers to the use of reconstituted rubber matting.

4.3 In many instances, trees exist at ranges in or about 2.00 m from the fronts of buildings including residential and commercial premises. Accordingly, and in line with the age of trees encountered, the streetscape includes a substantial overhang of adjoining properties.

5 Pre-Development Arboricultural Scenario

5.1 The species encountered on New Street, Norway Maple, is originally from eastern and central Europe was introduced in the 17th century. Most authorities regard the species as large and fast growing, capable of attaining 20 to 25 metres height and developing stem girths can exceed 3 metres (more than 1 metre diameter) (WJ Bean, 1980). Considering that such tree stems will have (and will continue to develop) significantly greater buttress flairs near ground level, illustrates that their potential to disturb and uplift ground in the New Street contexts is immense.

5.2 This report acknowledges that a majority of the subject trees are of fair health and might, under other circumstances, offer substantial sustainability. However, within the context in which the trees exist, any expectation of sustainable retention is undermined. Limited available space and already visible, growth-related disturbance, relating to trees that are still small (see Appendix 2), illustrates a fundamental lack of sustainability. The lack of foresight, poor species selection, poor planting contexts, and the provision of no capacity for future growth, mean that these trees will inevitably cause damage and will raise insurmountable management issues over time.

5.3 Future tree growth is inevitable. Tree root development is unlikely to be accommodated by downward compression of soil. However, it is more likely to be accommodated by upward movement and uplifting of lightly laden surfaces and structures located above any tree roots. This issue is highlighted and cautioned against in “Table A1” of “BS 5837, Trees in Relation to Design, Demolition and Construction – Recommendations”.

5.4 The retrospective installation of engineered tree pits or suspended pavement is impossible. Equally, issues of future growth space provision and raising pavement levels are complicated by the fixed threshold levels of existing homes and businesses. Equally, tree retention and protection during any redevelopment and construction phase

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will prove particularly onerous to works and particularly any necessary excavation, construction or changing of levels near the trees.

5.5 Despite the reasonable health of the trees inspected and the benefits of incorporating trees into future landscapes, it is difficult to see how the existing trees can be kept. The young age of the trees, their proximity to existing buildings, and the constraints that tree retention would place on the nature and extent of any work would be highly restrictive on what can be achieved, its durability and how regularly it would be subject to ongoing repair. This suggests that a future "tree-scape" should consist of new, context-appropriate trees, planted in conjunction with a properly designed and engineered ground context. This option offers the best chance of attaining long-term and sustainable arboricultural outcomes.

5.6 Some concern relates to the fact that these trees are growing from a highly artificial and restrictive environment, they will not have developed a naturally symmetrical root system. It is more likely that the developed root systems are highly asymmetrical, their patterns being influenced and governed by the availability and location of “hospitable ground” and deflected by many underground obstacles. It is likely that these tees have developed elongated connective root systems, proliferating for absorptive purposes at what may be limited and distant locations. Such physically influenced root systems cannot realistically be “lifted” without extensive works and bespoke engineering. Equally and if replanting is attempted, they will require bespoke stabilisation which, because of s lack of a symmetrical and consolidated root system would likely require aerial guying, thereby diminishing their value within a new landscape. Fundamentally, the lifting and relocation of these trees cannot be justified on the grounds of enormous expense and minimal likelihood of success. Appreciating this and the availability of purpose-produced trees at heights of 10 metres and more, then the more sustainable option would be to buy in new trees and to plant them in a sustainable manner, by providing engineered tree pits at suitable locations.

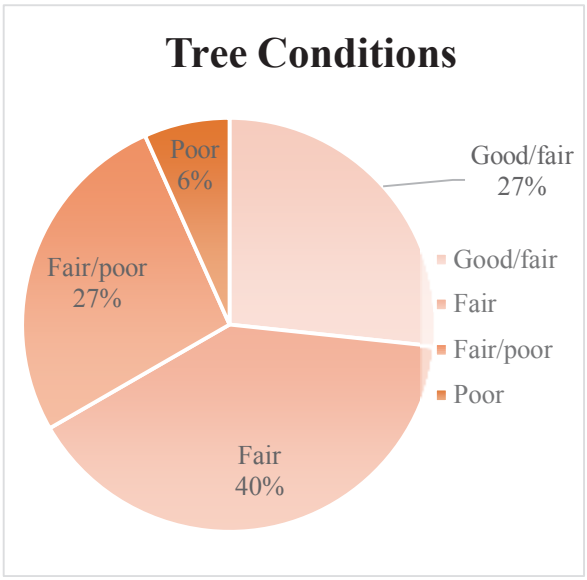


Fig 1

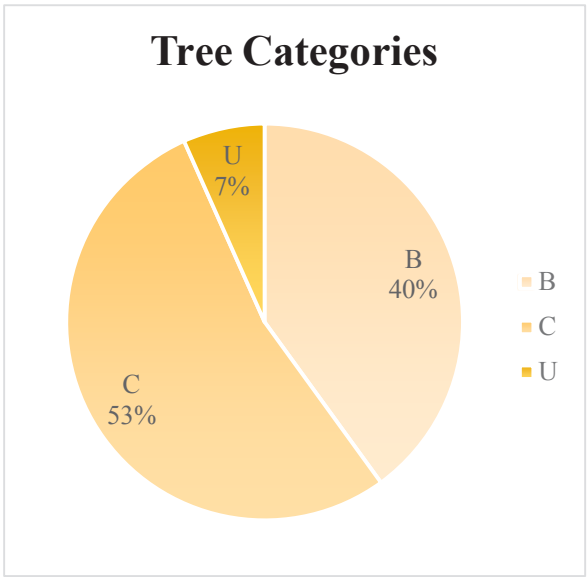


Fig 2

5.7 The tree-by-tree review, as illustrated in figures 1 to 4, would appear to illustrate a tree population that offers notable sustainability. The typically younger age profile appears to correlate well with the high proportion of “good-fair” and “fair” quality trees, which

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in turn is mirrored in the high proportion of category "B" and "C" trees. An issue is illustrated in respect of "useful life expectancy" in that when reviewed in respect of age, health and condition, they appear to offer substantial sustainability. However, such sustainability must be qualified and in this instance, such sustainability comes with issues and risks of damage and disturbance to adjoining infrastructure.

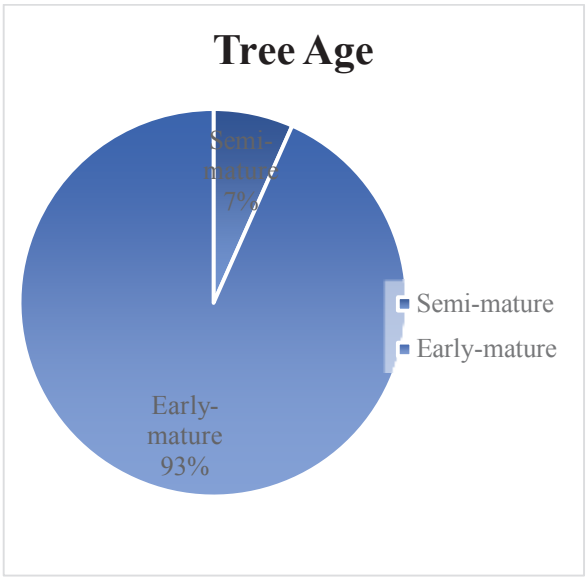


Fig 3

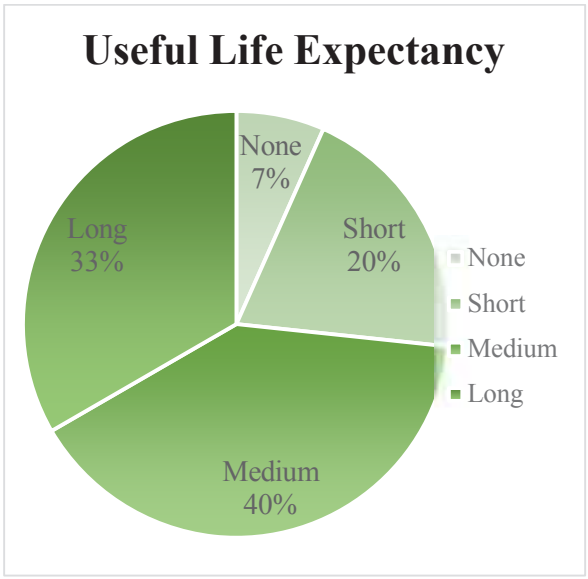


Fig 4

6 Pre-Planning Scenario in Respect of Tree

6.1 Planning guidance has been gained from two principal documents including "Fingal Development Plan 2023-2029" and "The Forest of Fingal - A Tree Strategy for Fingal"

6.2 Trees, hedges, and woodlands are often included in development plans as important elements of green infrastructure, which provide a range of environmental, social, and economic benefits. Trees, for instance, help improve air and water quality, mitigate climate change, and provide habitat for wildlife. Hedges also provide a habitat for wildlife and help prevent soil erosion. Woodlands, on the other hand, provide recreational opportunities, help maintain biodiversity, and contribute to carbon sequestration. In the context of development plans, the protection, preservation, and enhancement of trees, hedges, and woodlands are often addressed through specific policies and guidelines.

6.3 Trees beautify and shelter wildlife. They improve air quality in cities and provide wildlife homes while beautifying a region. "The Forest of Fingal - A Tree Strategy for Fingal" outlines the Council's street tree planting, management, and maintenance policies. Trees are increasingly valued as green infrastructure as well as aesthetics and placemaking. Trees improve air quality and surface water management in metropolitan areas by up to 60%. Trees mitigate climate change and decarbonise cities. The Tree Strategy aims to "protect and enhance Fingal's trees to maximise both the benefits they offer and the character they bring to the County to ensure a greener, healthier Fingal for

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now and future generations". The strategy outlines policies, goals, and activities to achieve this vision.

6.4 Within the "Tree Strategy" document, particular protection is drawn to section 4.8 which discusses tree protection and, with particular regard to planning applications for new construction projects, to section 4.9, planning and design guidelines for trees and woodlands. Within this section, particular note is made of section 4.9.2, protection of existing trees on development site which stipulates the application of "BS 5837 – 2012, Trees in Relation to Design, Demolition and Construction – Recommendations" for the effective preservation of trees within the development context. Also, section 4.9.3 goes on to stipulate that a "Tree bond" may be placed on trees intended for protection to act as a guarantee of successful and ongoing protection throughout the development process. The above issues are highlighted again in "Section 5" and particularly under section 5.2, which describes an objective of – "protection and retention of existing trees".

6.5 While trees are mentioned widely throughout the development plan, the emphasis is particularly broad in respect of Sections 9 "Green Infrastructure and Natural Heritage" and Section 14, "Development Management Standards"

6.6 Within Section 9, "Green Infrastructure and Natural Heritage", trees, hedges and woodlands gain extensive mentioned in this particular section. Objective GI N/A H023 – policies relates the objective to implement the Forest of Fingal – a tree's strategy for Fingal, keeping it green – and open space strategy for Fingal and space for play – a play policy for Fingal during the lifetime of the development plan corrections/scratch that previous one and limited to the Forest of Fingal – A Tree Strategy for Fingal.

6.7 Throughout this section, great emphasis is placed on the value of trees, woodlands and hedgerows both in their individual right but also in respect of the provision of green corridors correction green and ecological corridors.

6.8 Section 9.6.9, protection of trees and hedgerows in this section, a number of specific policies and objectives are outlined including policies GINHP 21 protection of trees and hedgerows, GINHP 22 – tree planting and objectives GINH045 hedgerow categorisation, objective GI NHO46 tree removal, Objective GI NHO47 woodland development schemes, objective GI NH048 – wildlife act and roads act

6.9 Section 9.6.10, protected trees (Tree Preservation Orders) stipulates the ability to apply as well as existing tree preservation orders within the county area. Specific objectives include GINH049 – tree preservation order review outlining the desire to review existing tree preservation orders within the county. GINH050 – tree preservation orders outlines the possible future use of tree preservation orders to protect other important trees or groups of trees or woodlands.

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6.10 Within Section 14, “Development Management Standards”. This section deals with the protection of trees during construction, attention is drawn to section 14.9.7, bonds relating to the correction relating to the provision of a bond or cash lodgement to be used by way of guarantee of the satisfactory completion and protection of trees during construction.

6.11 Objective DMS031 – infill development also specifically mention trees and landscaping with regard to the retention of the physical character within such developments. In respect of private open space (14.13.3.3) note is made of objective DMS070 – replacement of trees outlining the requirement for replacing trees removed from residential areas where appropriate and as soon as resources allow.

6.12 Section 14.18.1, “Tree Policy” acknowledges the importance and value of trees to the landscape. Section references the Forest of Fingal – Tree strategy for Fingal which sets out the councils policies in respect of trees and woodlands. The section supports a number of tree related objectives including DMSO125 – management of trees and hedgerows, DMSO126 – protection of trees and hedgerows during development, DMSO128 – demarcation of town land boundaries, DMSO129 – tree selection, DMSO130 – planting of large canopy trees, DMSO131 – street tree planting plans, DMSO132 – planting along distributor roads, DMSO133 location of new trees, DMSO134 – site summary of specimen removal retention and planting, DMSO135 tree planting and subsurface archaeology, DMSO136 tree selection within developments and DMSO137 – replacement and removal of trees. Of the above, particular attention is made of DMSO126 – protection of trees and hedgerows during development that stipulates tree protection in accordance with BS 5837 – 2012, trees in relation to design, Demolition and Construction – Recommendations.

6.13 In respect of natural heritage and particularly biodiversity, note is made of objective DMSO140 – protection of existing landscape that includes the retention of large trees and hedgerows. Section 14.18.2.4 ecological corridors and steppingstones including trees and hedgerows also makes specific mention of trees hedges and woodlands the importance of trees is also noted with regard to any proposals relating to designed landscapes – historic gardens, domains knees and country stage as defined under section 14.19.4.

6.14 Elsewhere in the development plan, various mentions are made of trees, woodlands and hedges. Examples of these include:-

- Under section 2, planning for growth, core strategy, settlement strategy, note is made of numerous references to trees, hedges and woodlands. These include core strategies CS 010, CS 054 and CS 061 orientated toward the conservation of boundary feature hedges and tree lines, including the effect of new entrances. There are also numerous objectives orientated toward the retention and conservation of trees and hedges including objectives GI 9, GI 18, GI 19, GI 20, GI 21, SW 6, GI 3, GI 4, and GI 29.

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- In Section 3 -Sustainable Place Making and Quality Homes, note is made of Objective SPQH039 notes the retention of features within infill development including landscape features such as trees. Objective SPQH055 requires that the design of new house access be such as to avoid the need for the removal of longer significant stretches of roadside hedging and trees. Similar relates to objective SPQH069 that stipulates the new vehicular entrances must limit the loss of hedgerows and trees and that such losses must be replaced with the same type of boundary, specifically using native species for replacement.
- In Section 4, "Community Infrastructure and Open Space", particular attention is drawn to Objective CI OS 052 – Trees to protect and preserve and ensure the effective management of trees in groups of trees.
- Under section 5, "Climate Action", sub-section 5.5.8, "Nature-based Solutions and Green Infrastructure", trees, the planting of trees and the value of trees with regard to carbon capture are specifically noted.
- In Section 6, "Connectivity and Movement", Objective CMO48 – roads and streets and green infrastructure outlines a desire for the planting of native trees hedgerows and pollinator species in medians and on roadside verges where appropriate.
- In Section 10, "Heritage, Culture and Arts", trees, groups of trees and woodlands are mentioned concerning their value in respect of historic designed landscapes as well as how climate change may affect the retention of older, mature planting schemes.
- Trees get minor mention in Section 11, Infrastructure and Utilities, normally concerning design detail for new plantings in respect of sustainable urban drainage systems.

6.15 Notwithstanding the notes above, the current development plan shows no specific objectives to protect and preserve trees and woodland on or near the New Street site. Equally, the site area supports no Tree Preservation Orders.

7 Other Legislative and Legal Constraints

7.1 Under the Forestry Act 2014, the felling of a tree standing in a county area requires a felling license unless the trees are exempted under Section 19 of the Act. An exemption applies where trees are being felled in line with a specific detail of a grant of planning permission. This derogation may apply should the proposals be granted permission.

7.2 Some "Section 19" exemptions are not applicable to the development scenario, for example, those applying to fire control, forest survey or gene pool protection relating to horticultural use or Christmas tree production.

7.3 Some exemptions are pertinent to the development scenario, particularly Section 19(1)(M)(ii), where "the removal of which is specified in a grant of planning permission".

7.4 Additionally, other non-specific exemptions may apply, including-

- Trees standing in an urban area.
- Trees within 30 metres of a building (other than a wall or temporary structure), but excluding any building built after the trees were planted.

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- Trees removed by a public authority in the performance of its statutory functions.
- A tree within 10 metres of a public road and which, in the opinion of the owner (being an opinion formed on reasonable grounds), is dangerous to persons using the public road on account of its age or condition.

7.5 The above derogations may not apply where-

- The tree is within the curtilage or attendant grounds of a protected structure under Chapter 1 of Part IV of the Act of 2000.
- The tree is within an area subject to a special amenity area order
- The tree is within a landscape conservation area under section 204 of the Act of 2000.
- The tree is within a monument or place recorded under section 12 of the National Monuments (Amendment) Act 1994, a historic monument or archaeological area entered in the Register of Historic Monuments under section 5 of the National Monuments (Amendment) Act 1987, or a national monument in the ownership or guardianship of the Minister for the Arts, Heritage and the Gaeltacht under the National Monuments Acts 1930 to 1994 or is within a European Site or a natural heritage area within the meaning of Regulation 2(1) of the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No. 477 of 2011)

7.6 For further clarification, contact should be made with Forest Service (Department of Agriculture, Fisheries and Food). The Felling Section of the Forest Service is based in Johnstown Castle, Co. Wexford

7.7 Other legislation may affect tree cutting and felling. Particular note should be made of the "Wildlife Act 1976 (as amended), as well as the EU Habitats Directive. These offer protection to animals, including Bats that often root or even breed in trees. The protection afforded by the above legislation means that particular care must be taken in the pruning of felling of trees that may contain Bats. For this reason, specific specialist advice should be sought.

8 Construction Activities and their Effect on Trees

8.1 Retaining trees requires space. There is a big difference between physically preserving a tree and ensuring its future survival. Sustainable tree retention often depends on the extent and nature of construction protection.

8.2 Like all living things, trees are highly dependent on the environment in which the exist, and particularly on a continuity in supplies of water and nutrients from the soil. Any long-term change in ground conditions can easily affect a tree's metabolism, health, and sustainability.

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8.3 Particularly, development and construction activities can easily damage the soil environment. Removing, disturbing or denaturing soil can irreparably damage tree roots and can render the soil incapable of supporting plant root function. Most modern construction requires large plants, equipment, and vehicles. Such machinery causes soil profile destruction and compaction that denatures the soil.

8.4 The sustainability of a tree's health and safety can be compromised where the above issues occur within the minimum "root protection area" defined by "BS5837-2012", then the affected tree is likely to be regarded as unsustainable and unsuitable for retention.

8.5 Sustainable tree retention must accept changing contexts and increased management in the future. Where rates of occupation and use increase, then any retained trees have the potential to cause harm or damage. This issue may be exacerbated where shelter loss and exposure occur regarding the retention of individual trees.

8.6 Retained trees should be considered in respect of shadow-cast, light admission, and view-blocking. Wind patterns can affect leaf shedding, causing drifts and accumulations, creating management issues around drains and gullies, or creating slippery surfaces.

9 Nature of Project Works

9.1 The proposed works include Public Realm Improvements for a Pedestrianised New Street, Malahide. The development extends to the full length of New Street from Main Street/ The Mall (also known as The Diamond) in the south to Strand Street to the north and including parts of Main Street/ The Mall, Ross Terrace and Strand Street all at Malahide, Co. Dublin. The site is located within Malahide Architectural Conservation Area.

9.2 The proposed public realm improvements will comprise: -

(i) Widening of footpaths and provision of new kerb edges with existing kerbstones retained, realigned and protected within the widened footpaths and public spaces.

(ii) Realignment and narrowing of the trafficable section of New Street (c.150m in length, 0.22ha) and insertion of control measures and all necessary signage to provide for a pedestrianised street with associated traffic flow routes and restrictions allowing for time limited one-way access from 7am to 11am each day for deliveries and emergency vehicles from Main Street/ The Mall to New Street and a two-way access from Strand Street to Ross's Terrace via New Street.

(iii) Upgrade of all street surfaces.

(iv) Provision of 2no. loading bays at the southern and northern ends of New Street and an accessible parking space in front of the HSE building.

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(v) Installation of cycle stands at 6no. locations on New Street with capacity for 23no. cycle parking spaces.

(vi) Removal and replacement of 11no. existing trees with 37no. trees of species appropriate to the location and environment and provision of soft landscaping and green infrastructure with planting zones for seeded, planted and hedging areas and associated bioretention and tree pit areas.

(vii) Provision of outdoor dining zones including tables and chairs and other ancillary moveable structures.

(viii) Provision of street furniture including seating, benches and litter and recycling bins and a water feature.

(ix) New public lighting.

(x) Upgrade of the watermain and foul drainage networks and upgrade and relocation of the surface water drainage network including provision of sustainable urban drainage systems (SUDs) features as part of hard and soft landscaping.

(xi) Provision of ducting for existing and future utilities and piped infrastructure.

9.2.1 Fingal County Council will be providing regulatory traffic signs in accordance with Section 95 of the Road Traffic Act 1961 (as amended).

9.3 Many of the issues dealt with at "Construction Works and Trees" above could apply, including-

a) Direct conflict with proposed structures, thus requiring tree removal.

b) A partial conflict where the "Root Protection Area" is encroached upon by works or ground amendments and cannot be preserved/protected in full.

c) Environmental damage e.g. compaction, capping, sealing – changing the existing ground environment to one that can no longer support tree root function.

d) Construction activity and the use of large plant and machinery that can denature the ground.

e) A change in site context or a change in occupation or use which makes a tree unsuitable for retention.

10 Development Related Issues and Arboricultural Concerns

10.1 The greatest issues affecting trees relates to the need to repair and replace existing surfaces, particularly pedestrian surfaces when they have already been distorted and uplifted by tree growth. The levels of these new surfaces are fixed and relates to the existing thresholds of adjoining homes and businesses. This requires that the uplifted pavements must be lowered to original levels, a process that will conflict with existing tree roots, and will be affected by any future tree and tree root growth in the future. Additionally, the form and extent of existing pavements will be changed. This includes the realignment of existing kerbs and gullies for drainage purposes. Such work cannot be achieved without damaging the trees.

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10.2 The trees found within the New Street context are all Norway Maple. The trees are still young and small compared with their species potential but have nonetheless begun to cause damage to pavements. The extent of damage noted to date must be considered as a small fraction of the potential damage as would relate to fully grown specimens. This issue relates both to tree size and the incremental reduction of pedestrian passage space, ongoing encroachment onto the existing building, and most importantly, the substantial uplifting, breakage, and distortion of the existing pavements over time.

10.3 It is considered that the existing tree population is contextually incompatible with its existing context and is unsustainable. Attempted retention must accept what will eventually become irreparable damage and issues such as trip hazards.

10 Design Iterations and Arboricultural Considerations

11.1 The sustainability issues outlined in this report were brought to the design team's attention at an early stage of the design process. Accordingly, and appreciating that tree sustainability could not be improved within the existing scenario, a design intent was adopted that incorporated the replacement of the existing trees with new tree specimens, in line with the new street layouts.

12 Identification of Development Impacts to Trees

12.1 The expected tree impacts have been represented graphically on the tree impacts drawing "**New Street Tree Impacts Plan"** and within the narrative of this report. This drawing combines the tree constraints plan information with the current stage development details, including the architectural and services layouts below, thereby allowing for simple direct comparisons between the existing site context and the development proposals regarding new structures.

12.2 In this drawing, trees denoted with "Broken Pink" crown outlines are to be removed, and those denoted with "Continuous Green" crown outlines are to be retained.

12.3 Detail of the development proposals where gained from drawings provided by-

- Punch - Consulting Engineers – Drainage and Engineering information overlaid on Masterplan
- Dermot Foley Landscape Architects – Proposed Landscape Masterplan

12.4 The evaluation is primarily based on the likelihood of the proposed works to damage or otherwise interfere with trees within or adjoining the works zone. Any structure, action or apparent need to enter or otherwise disturb/convert the "root protection area" of a site tree has been considered likely to have a negative impact, with the potential to render a tree wholly unsuitable for retention, unsafe or unsustainable. Particularly pertinent to this project is the fact that tree growth uplifting and disturbance of existing ground surfaces means that repairs and replacement surfaces called up in the proposed works

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cannot be achieved without substantially damaging tree, and furthermore cannot be completed without risk of damage from future tree growth.

12.5 Where applicable, this assessment attempts to consider both direct and indirect implications. The assessment is based on perceived construction requirements and how a tree will likely interact with the development. The assessment appreciates issues including growth, hazard development, light blockage and other social concerns regarding the changing context, including its effect on tree amenity value.

13 Tree Retention and Loss

13.1 The drawing "New Street Tree Impacts Plan" comprises the tree survey drawings overlaid by the development drawings, thus providing a graphic representation of the relationship between tree constraints and the proposed works extents. In this drawing, the trees that will be removed, are highlighted in "pink dashed" outlines.

13.2 In line with the findings of this report, all trees located within the works area of New Street will be removed and replaced in line with the new landscape proposals.

13.3 In line with the above, tree numbers 1773, 1774, 1775, 1776, 1777, 1778, 1779, 1780, 1781, 1782 and 1783 will be removed as part of the proposed works.

14 Bibliography

14.1 British Standards Institution (2010) BS 3998:2010: Tree Work - Recommendations. London: British Standards Institution.

14.2 British Standards Institution (2012) BS 5837:2012: Trees in Relation to Design, Demolition and Construction - Recommendations. London: British Standards Institution.

14.3 Jackson, R.B et al (1996) A Global Analysis for Root Distribution in Terrestrial Biomes Oecologica, 108 (1996) pp389-411, Springer Verlag

14.4 Lonsdale, D. (2005) Principals of Tree Hazard Assessment and Management, London, TSO

14.5 Mattheck, C. and Breloer, H. (1994) The Body Language of Trees, London, TSO

14.6 Roberts, J. and Jackson, N. and Smith, M. (2006) Tree Roots in the Built Environment, London, TSO

14.7 Strouts, R.G. and Winter, T.G. (1994) Diagnosis of Ill-Health in Trees, London, HMSO

14.8 WJ Bean (1980) Trees and Shrubs Hardy in the British Isles (eighth edition), London, John Murray

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A1 Appendix 1 - Tree Survey
Nature of Survey

A1.1 The criteria put forward in "BS5837:2012 – Trees in Relation to Design, Demolition and Construction – Recommendations" have provided a basis for this report.

A1.2 The data collected has been represented in table form as "Table 1" within "Appendix 1" to this report. This appendix includes a Survey Methodology, Survey Key, Survey Abbreviations, Condition Category Definitions and a brief resume of the typical application of Tree Protection measures as defined within the above standard and as relates to the "RPA" zones defined both within the survey table and on the "TCP" drawing.

A1.3 The survey, its findings and management recommendations relate to the site and the conditions thereon at the time of the survey. It relates to a "do nothing" or "as is" scenario and intends to provide an impartial representation of the site's tree population, regardless of any possible works. It is likely that changes in site usage, development or other environmental changes will require an amendment of any tree's potential retention status and its preliminary management recommendations, and in some instances, may require the re-classification of a tree's suitability for retention.

Drawing References

A1.4 The survey must be read with the "Tree Constraints Plan" drawing "New Street Tree Constraints Plan" regarding the representation of tree positions, crown forms, "RPA" extents and colour reference to category systems. Trees omitted from the supplied drawing may be "sketched in" to "New Street Tree Constraints Plan". Any such trees should be located and plotted by professional means to identify the constraints such trees have upon the site.

A1.5 A green coloured outline represents each tree crown. It is scaled to represent the north, east, south, and west crown radii as denoted in the survey table. Each tree (categories A-green, B-blue, and C-grey only) have been apportioned a "Root Protection Area" (RPA see below) denoted as a dashed orange circle.

A1.6 The development of a Tree Constraints Plan (TCP) provides a design tool regarding tree retention. Such a plan combines the topographical land survey drawing with additional information as provided by the tree survey. The aspects of the tree's existence recorded on the "TCP" are, firstly, the tree canopies, represented by the four cardinal compass point radii (Sp: R in survey Table 1). Secondly, and following paragraphs 4.6.1, 4.6.2 and 4.6.3 of BS5837: 2012, we represent each tree's "Root Protection Area" (RPA). For design purposes, it approximates the position of the tree protection fencing to be erected before the commencement of any site works, thus excluding all site activities other than those dealt with by way of the "Arboricultural Implication Assessment" and "Arboricultural Method Statement".

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A1.7 The "Tree Constraints Plan" (TCP) depicts the extent and location of constraints, placed upon the site by the trees. The "TCP" represents both the true canopy form (north, east, south, and west radii) but also the "RPA" as defined above. These constraints are provided to advise regarding the design and layout of a proposed development.

Survey Intent and Context

A1.8 This document intends to highlight the extent and nature of the material of Arboricultural interest on the site in question.

Survey Data Collection and Methodology

The Survey

A1.9 This survey was compiled in October of 2022. This survey portion of the overall report is not an Implication Assessment though but provided some of the basic information regarding its compilation. The compilation of this survey was guided by the recommendations of BS 5837: 2012. This survey typically includes trees of stem diameters exceeding 150mm at approximately 1.50 metres from ground level. The survey relates to current site conditions, setting and context.

A1.10 Each tree in the survey has a consecutive number that relates directly to the survey text. Measurements are metric and defined in metres and millimetres. All trees referred to in the survey text have been measured to provide information regarding canopy height and canopy spread (north, east, south, and west radii), level of canopy base and stem diameter at 1.50 meters from ground level. The dimensions provided are intended to provide a reasonable representation of a tree's size and form. While efforts are made to maintain accuracy, visual obstruction, especially regarding trees in groups, requires that some tree dimensions be estimated only.

Inspection and Evaluation Limitations and Disclaimers

A1.11 The information set out in this report relates to the review of a tree population on the site in question. As such, the information provided is based on a general review of trees and does not constitute a detailed review of any one of the individual specimens. Such an evaluation (tree report) would require the gathering of substantially more information than that dealt with in this survey.

A1.12 The survey is not a safety assessment and the parameters reviewed within this survey context would be substantially deficient in extent to provide for a reliable safety assessment. The survey is intended to provide a general and qualitative review to assist in gauging the suitability of an individual tree for retention within a development context. All trees are subject to impromptu failure and damage. The assessment of risk as may be presented by a tree requires the review of numerous factors more than those

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noted herein and as such, remains outside the scope of this document and any attempt to use the information herein for such proposes will render the information invalid.

A1.13 A competent and experienced Arborist has completed all inspection and tree assessment. The inspection involves visual tree assessment (Mattheck and Breloer 1994) only, which has been carried out from ground level. No below ground, internal, invasive, or aerial (climbing) inspection has been carried out.

A1.14 Trees are living organisms whose health, condition and safety can change rapidly. All trees should be re-evaluated regarding their condition on an annual basis or after substantial trauma such a storm event, other damage, or injury. The results and recommendations of this survey will require review and reassessment after one year from the date of execution. This survey does not constitute a review of tree or site safety. Attempts to use the contents herein for such purposes will render the contents invalid.

A1.15 Several factors acted against the tree inspector, contriving to reduce the accuracy of the survey. Particularly, the survey have been completed during specific seasons. Some of the signs, typically symptomatic of ill-health or defect within a tree, may not have been available to view at the time of the survey or may have been obscured by seasonality related factors. Some of the fruiting bodies of various fungi, parasitic upon or causing decay or disease in trees, may have been out of season and unavailable to view. This survey can only comment upon symptoms of ill-health or defects visible at the time of the inspection.

Survey Key

Species	Refers to the specific tree species
Age	Referred to in generalised categories including: -
Y - Young	A young and typically small tree specimen.
S/M - Semi-Mature	A young tree, having attained dimensions that allow it to be regarded independently of its neighbours but typically, would be less than 50% of its ultimate size.
E/M - Early-Mature	A specimen, typically 50% - 100% of ultimate dimensions but with substantial capacity for mass and dimensional increase remaining.
M - Mature	A specimen of dimensions typical of a full-grown specimen of its species. Future growth would tend to be extremely slow with little if any dimensional increase.
O/M - Over-Mature	An old specimen of a species having already attained or exceeded its naturally expected longevity.
V - Veteran	An extremely old, veteran specimen of a species, usually of low vigour and typically subject to rapid decline and deterioration or of very limited future longevity.
Tree Dimensions	All dimensions are in meters. See notes regarding limitation of accuracy.

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Ht.	Tree Height
CH	Lowest canopy height
N, E, S, W	Tree Canopy Spread measured by radii at north, east, south, and west
Dia.	Stem diameter at approx. 1.50m from ground level.
RPA	Root Protection Area, as a radius measured from the tree's stem centre.
Con	Physical Condition
G Good	A specimen of generally good form and health
G/F Good/Fair	
F Fair	A specimen with defects or ill health that can be either rectified or managed typically allowing for retention
F/P Fair/Poor	
P Poor	A specimen whom through defect, disease attack or reduced vigour has limited longevity or maybe un-safe
D Dead	A dead tree
Structural Condition	Information on structural form, defects, damage, injury, or disease supported by the tree
PMR – Preliminary Management Recommendations	Recommendation for Arboricultural actions or works considered necessary at the time of the inspection and relating to the existing site context and tree condition. Works considered as urgent will be noted.
Retention Period	
S – Short	Typically, 0 -10 years
M – Medium	Typically, 10 -20 years
L – Long	Typically, 20 – 40 years
L+	Typically, more than 40 years
Category System	The Category System is intended to quantify a tree regarding its Arboricultural value as well as a combination of its structural and physical health.
Category U	Particularly poor quality, dangerous or diseased trees that offer no realistic sustainability
Category A	A typically a good quality specimen, which is considered to make a substantial Arboricultural contribution
Category B	Typically including trees regarded as being of moderate quality
Category C	Typically including generally poor-quality trees that may be of only limited value. The above categories are further subdivided regarding the nature of their values or qualities.
Sub-Category 1	Values such as species interest, species context, landscape design or prominent aspect.
Sub-Category 2	Mainly cumulative landscape values such as woods, groups, avenues, lines.
Sub-Category 3	Mainly cultural values such as conservation, commemorative or historical links.

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Table 1 – Tree Data Table

No.	Species	Age	Con	Ht	CH	N	E	S	W	Stm	Dia	RPA	Structural Condition	PMR	Yrs	Cat
1773	Norway Maple *(Acer platanoides)*	E/M	F	14.00	3.50	3.50	4.00	5.00	3.50	1	423	5.08	Young and vigorous, arises from area tarmacadam patch within block-paved area. Adjoining kerb edge is distorted and exhibits evidence of prior works and repair. Nonetheless, current kerb alignment is distorted having been pushed to east. Vigour and vitality are good. Lower middle crown has suffered repeated mechanical collisions with wounds at 2.50 and 3.00 m.		L	C2
1774	Norway Maple *(Acer platanoides)*	M	G/F	12.00	2.50	4.50	5.00	4.50	3.50	1	392	4.70	Young and vigorous, arising from reconstituted rubber mats section within block-paved area. General vigour and vitality are good. Tree stem has suffered extensive wounding at circa 2.50 m. Kerb edge in vicinity of tree shows evidence of minor uplifting and rotation to east. Western crown already over sales and is in contact with adjoining rooms.		M	C2

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No.	Species	Age	Con	Ht	CH	N	E	S	W	Stm	Dia	RPA	Structural Condition	PMR	Yrs	Cat
1775	Norway Maple *(Acer platanoides)*	S/M	F	11.00	3.00	3.00	2.00	2.50	3.00	1	248	2.98	A relatively small specimen suggesting installation at date after many of its peers. Vigour and vitality remain good. Tree arises from reconstituted rubber matting area within area of block-paved. Tree stem in contact with and has shifted in easterly direction, adjoining kerb edge. Tree over sales roof of adjoining property.		M	C2
1776	Norway Maple *(Acer platanoides)*	E/M	F	12.00	3.25	3.00	3.00	4.00	3.00	1	334	4.01	Young and still vigorous. Arises from area of rubber matting within broader block-paved area. Proximity to kerb edge has seen notable uplifting and shifting to east. Tree greatly over sales adjoining roof to west. Tree stems have suffered damage on eastern side presumably in relation to vehicular damage. Exposed buttress region shows evidence of early life root girdling.		M	B2
1777	Norway Maple *(Acer platanoides)*	E/M	G/F	13.00	4.00	4.00	3.50	5.00	4.00	1	395	4.74	A young and vigorous specimen stem has suffered mechanical damage on eastern side at circa 2.25 m. Tree arises from area of rubber matting within broader block-paved area. Trees growth has resulted in substantial lifting of rubber mat as well as uplifting rotate action and shifting of kerb edge in easterly direction.		L	B2

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No.	Species	Age	Con	Ht	CH	N	E	S	W	Stm	Dia	RPA	Structural Condition	PMR	Yrs	Cat
1778	Norway Maple *(Acer platanoides)*	E/M	F/P	14.00	4.00	3.50	4.00	5.00	3.50	1	423	5.08	Large specimen of apparently good vigour and vitality. Tree arises from area of hard tarmacadam infill within broader area of block-paving. Evidence exists to suggest prior repair including cement infill of granite kerb edge. Nonetheless, uplifting and rotation of kerb edge is evident. Tree greatly overhangs roof of adjoining Malahide antiques stems have suffered damage at circa 2.50 – 3.00 m in respect of vehicular collision. Higher crown vigour and vitality is impaired with some twiggy deadwood though because of same is not evident at present.	Review regularly.	M	C2
1779	Norway Maple *(Acer platanoides)*	E/M	G/F	11.00	4.00	3.00	2.50	2.50	3.00	1	328	3.93	Young and vigorous arising from area of rubber matting within broader block-paving context. Vitality appears fair with no major damage to tree stem. Kerb edge misalignment is limited to area south-east of stem.		L	B2

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No.	Species	Age	Con	Ht	CH	N	E	S	W	Stm	Dia	RPA	Structural Condition	PMR	Yrs	Cat
1780	Norway Maple *(Acer platanoides)*	E/M	F/P	12.00	4.00	2.00	2.50	2.50	2.50	1	286	3.44	Arises from area of reconstituted rubber matting within broader area of block-paving. Evidence exists to show uplifting of kerb edge immediately to east of stem. General vigour by cavity is particularly poor with crown vigour being heavily variable. Crown exhibit evidence of sectional dieback and deadwood development remaining crown appears to be of good vigour and vitality.	Retention might be afforded by cleaning out works, subject to regular review.	S	C2
1781	Norway Maple *(Acer platanoides)*	E/M	F	12.00	4.00	3.00	3.00	4.00	2.50	1	337	4.05	Young and still vigorous. Tree arises from combined area of tarmacadam and rubberised matting. Large section of kerb edge has been replaced immediately east of tree by cement. Large buttress root is in contact with this and adjoining matting resulting in exacerbated fracture and uplifting.		M	C2
1782	Norway Maple *(Acer platanoides)*	E/M	P	10.00	4.00	3.00	2.50	3.25	2.00	1	296	3.55	Tree has suffered extensive damage at circa 2.00 – 3.50 m on eastern side of stem with repeated bark wounding together with decay and fracture of underlying timber. Tree is regarded as unsuitable for retention.	Remove.	N/A	U

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No.	Species	Age	Con	Ht	CH	N	E	S	W	Stm	Dia	RPA	Structural Condition	PMR	Yrs	Cat
1783	Norway Maple *(Acer platanoides)*	E/M	F/P	10.00	4.00	3.00	1.50	3.50	3.50	1	283	3.40	Tree has suffered extensive wounding at circa 2.50 m including area of developing decay at 3.00 m. Tree supports notable imbalance to north-west. Vigour and vitality are fair but variable. Tree arises from area of reconstituted rubber matting adjoining cement kerbing. Cement kerb is fractured and dislodged. Tree is of questionable sustainability.		S	C2
1784	Norway Maple *(Acer platanoides)*	E/M	F	9.00	2.50	3.50	4.00	3.50	3.00	1	302	3.63	Young and vigorous. Arises from area of rubber matting within block-paved area. Granite kerb edge has been both uplifted and rotated to west. Stem has suffered minor damage at circa 3.00 m. Tree greatly oversales adjoining shop.		M	B2
1785	Norway Maple *(Acer platanoides)*	E/M	F/P	11.00	3.00	2.50	2.50	2.50	2.00	1	334	4.01	Tree arises from small area of which mastic tarmacadam within broader block-paved area. Proximate matting has been heavily uplifted with adjoining kerb stones both uplifted and shifted to west. Tree has suffered extensive wounding between circa 2.00 m and 3.00 m exposing underlying timber to decay and longitudinal fracture. Tree appears to offer limited sustainability.		S	C2

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No.	Species	Age	Con	Ht	CH	N	E	S	W	Stm	Dia	RPA	Structural Condition	PMR	Yrs	Cat
1786	London Plane *(Platanus x hispanica)*	E/M	G/F	15.00	3.25	4.50	5.00	6.00	3.00	1	576	6.91	Relatively young and vigorous. Tree arises from area of rubberised matting within broader area of block-paved. Granite kerb edges to east exhibit classic signs of shifting and uplifting to east. Tree becomes notably multi stemmed at 2.50 m. Stem has suffered collision damage with circa 1 m long wound to east. Vigour and vitality are good. Tree greatly overhangs adjoining buildings.		L	B2
1787	Norway Maple *(Acer platanoides)*	E/M	G/F	12.50	3.00	3.50	3.50	3.50	4.00	1	392	4.70	Young and still vigorous. Arises from area of reconstituted rubber matting within broader area of block-paving. Kerb edge immediately north of stem has been amended and cut to fit. Buttress area real signs of physical root damage. Principal stem shows evidence of vehicular collision and bark damage at circa 2.50 m. Tree partially overhangs adjoining commercial properties.		L	B2

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Appendix 2 – Photographic Information



Photo 1
This image illustrates the overall context of the streetscape within which the subject trees exist. Note should be made of the limited range between trees and buildings, as well as the current extent of the crown overhang of the buildings



Photo 2
Tree No. 1773
The ongoing growth of this relatively young tree has already required the adaptation of kerb stones, but still shows evidence of ongoing uplifting and kerb rotation.

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Photo 3
Tree No. 1774
While the "rubber mat" surface about the tree has absorbed some surface distortion, mat fracturing and uplifting is already apparent.



Photo 4
Tree No. 1775
As with 1774, the "rubber mat" surface about the tree has absorbed some surface distortion, mat fracturing and uplifting as well as kerb stone distortion is already apparent.

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Photo 5
Tree No. 1776
As with 1774 and 1775, the "rubber mat" surface about the tree has absorbed some surface distortion, mat fracturing as well as causing substantial uplifting and distortion of the kerb edge.



Photo 6
Tree No. 1777
As with 1774 to 1776, the "rubber mat" surface about the tree has absorbed some surface distortion, mat fracturing and uplifting as well as kerb stone distortion is already apparent.

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Photo 7
Tree No. 1778
As with 1774 to 1777, the "rubber mat" surface about the tree has absorbed some surface distortion, mat fracturing, and uplifting. The kerb stone has suffered distortion and partial replacement.



Photo 8
Tree No. 1781
As with 1774 to 1778, the "rubber mat" surface about the tree has absorbed some surface distortion, mat fracturing and uplifting as well as kerb stone distortion is already apparent. Additionally, much of the original kerb edge has required replacement.

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Photo 9
Tree No. 1782
As with previous trees, the "rubber mat" surface around the tree has absorbed some surface distortion. The adjoining kerb edge has suffered uplifting and shifting towards the road centre.



Photo 10
Tree No. 1783
As with previous trees, the "rubber mat" surface about the tree has absorbed some surface distortion. Additionally, the adjoining kerb edge is showing signs of uplifting and rotation distortion.

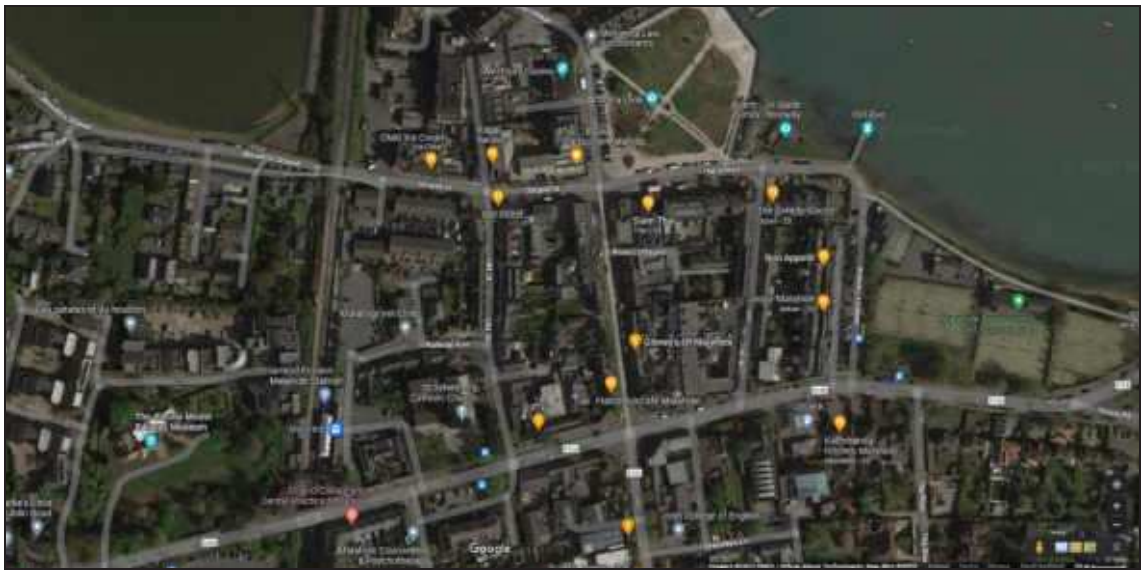
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Appendix B7 - Bat Survey

Document	ID No.	Size	Produced by
Bat Survey	-	A4	Faith Wilson

Public Realm Improvements for a Pedestrianised New Street, Malahide, Co. Dublin

Bat Survey



Final Report

12th April 2023

Faith Wilson
ECOLOGICAL CONSULTANT

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Kestrel Ridge, Tigroney West, Avoca, Co. Wicklow

Public Realm Improvements for a Pedestrianised New Street, Malahide, Co. Dublin

Bat Survey

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Public Realm Improvements for a Pedestrianised New Street, Malahide, Co. Dublin

Bat Survey

1. INTRODUCTION

1.1. Introduction

Fingal County Council (Environment, Climate Action & Active Travel Department) are proposing public realm improvements for a pedestrianised New Street in Malahide Village, Co. Dublin. The development extends to the full length of New Street (being approximately 150m, with an area of 0.22ha) from Main Street/ The Mall (also known as The Diamond) in the south to Strand Street to the north at Malahide, Co. Dublin as shown on **Figure 1.1**.

Dermot Foley Landscape Architects (DFLA) were appointed by Fingal County Council (FCC) to lead an Integrated Design Team (IDT) for the design of public realm improvements for a pedestrianised New Street in Malahide. The IDT were engaged to develop the project from Stage 1 (Preliminary) through to Stage 2A (Developed Design & Planning).

Faith Wilson Ecological Consultant was commissioned by DFLA to prepare an assessment of the potential impacts on bats arising from the proposed public realm improvements for a pedestrianised New Street in Malahide, Co. Dublin on behalf of Fingal County Council (FCC). The project design is shown on **Figure 1.2** and described in **Section 2.2**.

This survey and report has been completed by Faith Wilson BSc CEnv MCIEEM. Faith is a highly experienced and qualified ecologist, with over twenty five years of experience in ecological and environmental surveys and consultancy, across a wide range of sectors. Faith is a Chartered Environmentalist (CEnv) and a full member of the Chartered Institute of Ecology and Environmental Management (CIEEM). Faith is a licensed bat specialist who has conducted bat surveys for over twenty years and has previously served on the board of Bat Conservation Ireland.

This report details the findings of a desktop review, a bat detector survey of New Street, an inspection of the trees scheduled for removal and an assessment of the general environs of New Street in Malahide to assess their potential importance for bats.

The report includes measures to ensure that impacts on bats were considered by the public realm improvements proposed for New Street and that the project has the potential to improve the streetscape for both humans and bats.

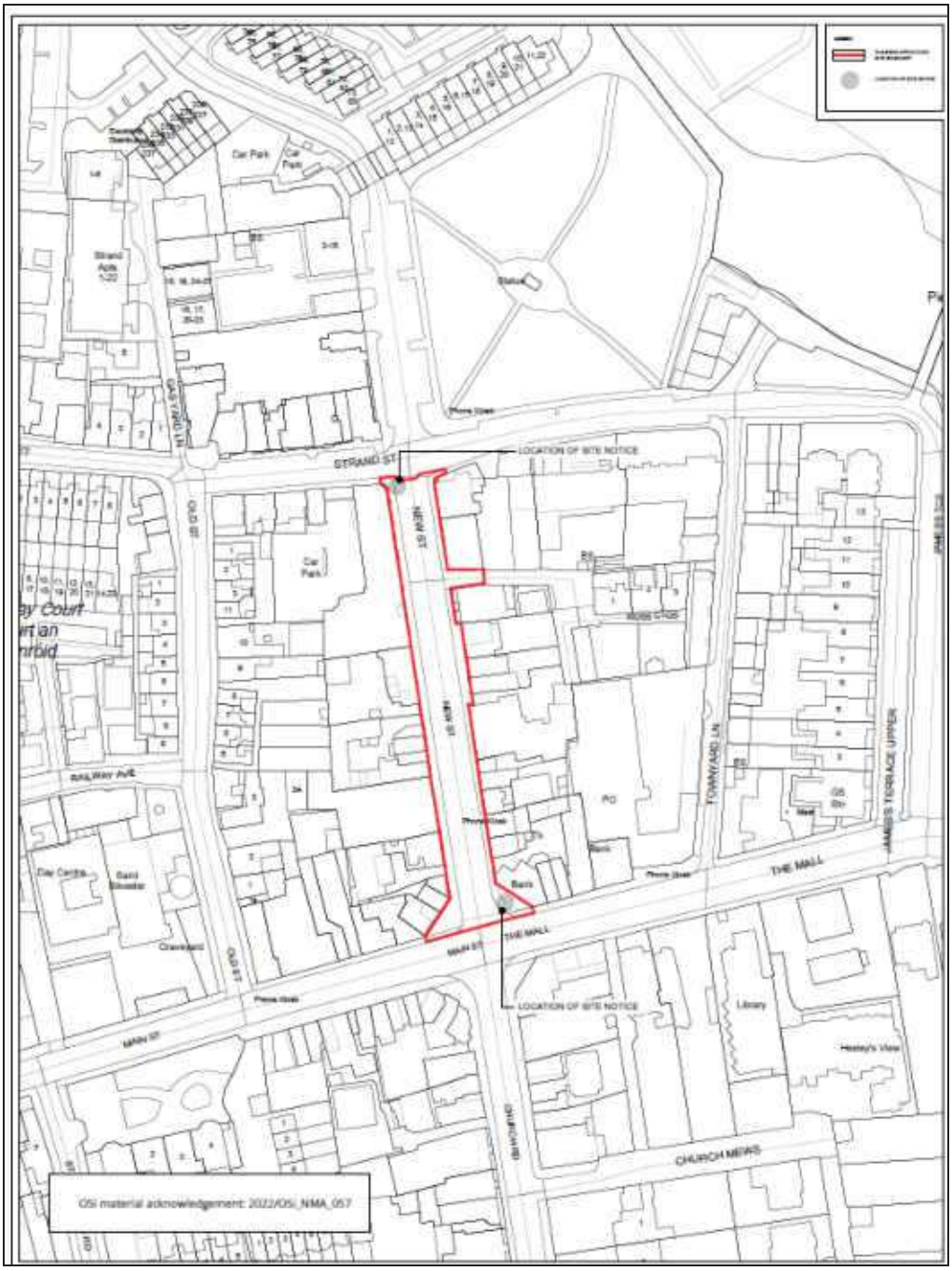


Figure 1.1 Site Location – outlined in red.



Figure 1.2 Proposed Public Realm Improvements at New Street, Malahide, Co. Dublin (Source: DFLA).

1.2. Relevant Legislation - Bat

Eleven species of bats occur in Ireland (of which nine are resident) and all are protected under both national and international law.

1.2.1 Wildlife Act 1976

In the Republic, under Schedule 5 of the Wildlife Act 1976, all bats and their roosts are protected by law. It is unlawful to disturb either without the appropriate licence. The Act was amended in 2000.

1.2.2 Bern and Bonn Convention

Ireland has also ratified two international conventions, which afford protection to bats amongst other fauna. These are known as the 'Bern' and 'Bonn' Conventions. The Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention 1982), exists to conserve all species and their habitats, including bats. The Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention 1979, enacted 1983) was instigated to protect migrant species across all European boundaries, which covers certain species of bat.

1.2.3 EU Habitats Directive

All bat species are given strict protection under Annex IV of the EU Habitats Directive, whilst the lesser horseshoe bat (*Rhinolophus hipposideros*) and greater horseshoe bat (*Rhinolophus ferrumequinum*) are given further protection under Annex II of the EU Habitats Directive. Both are listed as a species of community interest that is in need of strict protection and for which E.U. nations must designate Special Areas of Conservation (SACs). The latter is only known from two records and no breeding populations have been recorded to date. The former are a species of the western seaboard of Ireland and have not yet been recorded on the east coast.

1.2.4 Eurobats

This is a Europe-wide (and neighbouring jurisdictions including North Africa and the Middle East) agreement that originates from efforts to apply the Bonn Convention to the protection of bats within areas to which they may migrate from their European summer or winter sites. There are 33 parties (including Ireland) that have entered into a UN forum to protect the 52 species of bat (based on current knowledge) of Europe.

1.2.5 Irish Bats

Eleven species of bats occur in Ireland and all are protected under both national and international law. Nine species are resident and have confirmed breeding populations while two species are deemed to be vagrants as set out in **Table 1** below.

Table 1. Legal protection and status of the Irish bat fauna.

Common and scientific name	**Wildlife Act 1976 & Wildlife (Amendment) Acts 2000 & 2010**	**Irish Red List status**	**Habitats Directive**	**Bern & Bonn Conventions**
Common pipistrelle *Pipistrellus pipistrellus*	Yes	Least Concern	Annex IV	Appendix II
Soprano pipistrelle *P. pygmaeus*	Yes	Least Concern	Annex IV	Appendix II
Nathusius' pipistrelle *P. nathusii*	Yes	Not referenced	Annex IV	Appendix II
Leisler's bat *Nyctalus leisleri*	Yes	Near Threatened	Annex IV	Appendix II
Brown long-eared bat *Plecotus auritus*	Yes	Least Concern	Annex IV	Appendix II
Lesser horseshoe bat *Rhinolophus hipposideros*	Yes	Least Concern	Annex II Annex IV	Appendix II
Greater horseshoe bat *Rhinolophus ferruginous*		Data Deficient	Annex II Annex IV	Appendix II
Daubenton's bat *Myotis daubentonii*	Yes	Least Concern	Annex IV	Appendix II
Natterer's bat *Myotis nattereri*	Yes	Least Concern	Annex IV	Appendix II
Whiskered bat *Myotis mystacinus*	Yes	Least Concern	Annex IV	Appendix II
Brandt's bat *Myotis brandtii*	Yes	Data Deficient	Annex IV	Appendix II

The principal pressures on Irish bat species have been identified as follows:

- urbanized areas (e.g. light pollution);
- bridge/viaduct repairs;
- pesticides usage;
- removal of hedges, scrub, forestry;
- water pollution;
- other pollution and human impacts (e.g. renovation of dwellings with roosts);
- infillings of ditches, dykes, ponds, pools and marshes;
- management of aquatic and bank vegetation for drainage purposes;
- abandonment of pastoral systems;
- speleology and vandalism;
- communication routes: roads; and
- inappropriate forestry management.

2. METHODOLOGY

2.1 Desk Study & Field Surveys

The bat survey consisted of several elements – a desktop review and consultation with Bat Conservation Ireland, an inspection of trees on New Street for their potential to support roosting bats, and a bat detector activity survey of New Street and general environs.

The aims of the surveys were to:

- Determine the suitability of trees within New Street for potential roosting sites for bats.
- Identify if any species of bats are utilising New Street for foraging or commuting purposes and to determine if any mitigation measures are required to ensure they continue to do so.

2.1.1 Desktop Research

The Bat Conservation Ireland database was examined for records of bats from the Malahide Village area. Records of bats held by the National Biodiversity Data Centre were also examined.

2.1.2 Tree Survey

Trees within New Street were assessed for their potential use by bats by completing a preliminary ground level roost assessment using the following standard criteria, which were created by bat specialists from Bat Conservation Ireland for use in the assessments of tree roosts on large infrastructural projects and are summarised in NRA (2006):

- Presence or absence of bat droppings (these can be hard to find amongst leaf litter or may be washed away following periods of wet weather),
- Bat droppings may also be seen as a black streak beneath holes, cracks, branches, etc.,
- Presence or absence of smooth edges with dark marks at potential entrances to roosts,
- Presence or absence of urine stains at potential entrances to roosts,
- Presence of natural cracks and rot holes in the trunk or boughs of the tree,
- Hollow trees,
- Presence or absence of creepers such as ivy or honeysuckle on trees (ivy clad trees are often used by bat species such as pipistrelles as roosts),
- Presence or absence of loose bark such as that of sycamore, or flaky bark on coniferous species such as cedars, cypress and Scot's pine,
- Presence or absence of bracket fungi which may indicate a rotten or potentially hollow centre to the tree,
- Known bat roosts previously identified,
- Trees with storm or machinery damage or broken boughs,
- Clutter level - where the branches and trunk are easily accessible, this is considered a better tree for bat roosts,
- Adjoining habitat - if there are a variety of feeding opportunities for bats, this increases the potential of a tree as a bat roost,

- Adjoining potential roosts / known roosts. This raises the likelihood of a tree being of benefit as bats may move roosts if the roost becomes too hot or cold during roosting and a nearby alternative roost is highly desirable.

A review of the tree survey and arboricultural impact assessment conducted by The Tree File Ltd (2023) was also completed. The arboricultural features described in the Bat Tree Habitat Key (Andrews, 2018) also informed the survey.

Any suitable features which were accessible from the ground were inspected for signs and evidence of bats using an endoscope and other features higher on the tree were identified using binoculars.

2.1.3 Detector Survey

In accordance with best practice as described in the 'Guidelines for the Treatment of Bats During the Construction of National Road Schemes' (NRA 2006) and 'Bat Mitigation Guidelines for Ireland' (Kelleher 2006), a bat activity survey of the general environs of New Street was conducted. This survey assisted in determining what bat species (if any) occur within New Street and if bats are using the site for foraging or commuting purposes.

A bat detector survey was carried out at dusk on the 28th March 2023 using several types of bat detectors - two Batbox Duet Heterodyne/Frequency Division detectors, a Pettersson D100 Heterodyne detector and an Echometer Touch Pro 2.

Any emergence of bats in the general vicinity of New Street at dusk was monitored when a walkover survey of the street was conducted. Adjoining lands such as the grounds around St. Sylvester's Church, Railway Avenue, Old Street, Ross Cottages and the green space near the marina were also walked listening for bats. Lands at the southern boundary of Malahide Castle at the Bridgefield Car Park were then visited.

Bat activity is predominantly bi-modal, with bats taking advantage of increased insect numbers on the wing during the periods after dusk and before dawn, (there is usually a lull in activity in the middle of the night). While this holds true for 'hawking' species (bats that capture prey in the open air), 'gleaning' species such as brown long-eared (*Plecotus auritus*), Natterer's (*Myotis nattereri*) and Whiskered/Brandt's bats (*Myotis mystacinus/brandtii*) remain active throughout the night, as prey is available on foliage for longer periods.

2.1.4 Survey Constraints

The bat survey was completed in March 2023, when bats are becoming active as can be seen on **Figure 2.1** below (Source: NPWS Bat Mitigation Guidelines). Although this is outside the optimum time period for bat activity surveys (April – September inclusive) bats are active at this time as they emerge from hibernation and activity depends on weather conditions.

Weather conditions were suitable for bat activity and bats were active at other locations surveyed where more suitable bat habitat occurred (Malahide Castle).

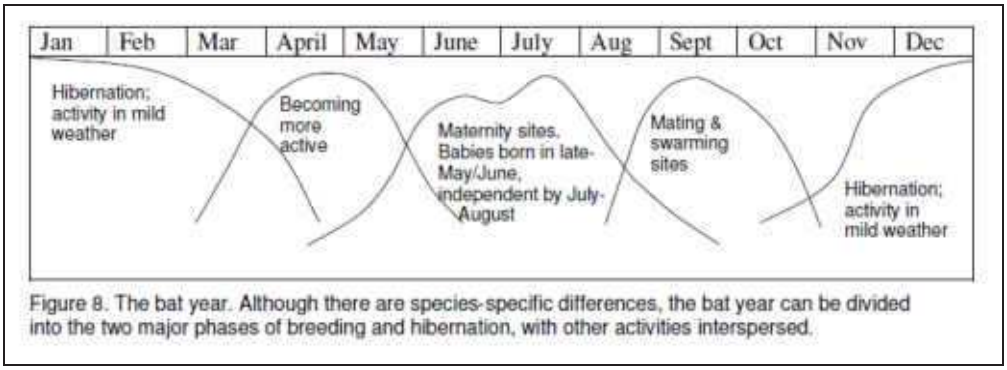


Figure 8. The bat year. Although there are species-specific differences, the bat year can be divided into the two major phases of breeding and hibernation, with other activities interspersed.

Figure 2.1. The Bat Year (Source: NPWS Bat Mitigation Guidelines).

Table 2, from within that same document, is also presented below, which outlines the appropriate months for bat surveys.

Table 2. The applicability of survey methods. (Source: NPWS Bat Mitigation Guidelines).

Season	Roost Type	Inspection	Bat detectors and emergence counts
Spring (Mar–May)	Building	Suitable (signs, perhaps bats)	Limited, weather dependent
	Trees	Difficult (best for signs before leaves appear)	Very limited, weather dependent
	Underground	Suitable (signs only)	Static detectors may be useful
Summer (June-August	Building	Suitable (signs and bats)	Suitable
	Trees	Difficult	Limited; use sunrise survey
	Underground	Suitable (signs only)	Rarely useful
Autumn (September–November)	Building	Suitable (signs and bats)	Limited, weather dependent
	Trees	Difficult	Rather limited, weather dependent; use sunrise survey?
	Underground	Suitable (signs, perhaps bats)	Static detectors may be useful
Winter (December-February)	Building	Suitable (signs, perhaps bats))	Rarely useful
	Trees	Difficult (best for signs after leaves have gone)	Rarely useful
	Underground	Suitable (signs and bats)	Static detectors may be useful

2.2 Description of the Works

The proposed public realm improvements involve the widening of footpaths and provision of new kerb edges to the widened footpaths and public spaces on New Street, Malahide (c.150m in length, 0.22ha). The trafficable section of New Street will be realigned and narrowed and control measures will be inserted to provide for revised traffic flow routes, restrictions, car parking and loading arrangements.

All street surfaces will be upgraded and existing street trees replaced with new trees and additional soft landscaping. Outdoor dining zones will be identified and new street furniture installed. New public lighting will be provided and the water services and utilities networks within the street will be upgraded.

The proposed public realm improvement works will comprise: -

i. Widening of footpaths and provision of new kerb edges with existing kerbstones retained, realigned and protected within the widened footpaths and public spaces.
ii. Realignment and narrowing of the trafficable section of New Street (c.150m in length) and insertion of control measures and all necessary signage to provide for a pedestrianised street with associated traffic flow routes and restrictions allowing for time limited one-way access from 7am to 11am each day for deliveries and emergency vehicles from Main Street/ The Mall to New Street and a two-way access from Strand Street to Ross's Terrace via New Street.
iii. Upgrade of all street surfaces.
iv. Provision of 2no. loading bays at the southern and northern ends of New Street and an accessible parking space in front of the HSE building.
v. Installation of cycle stands at 6no. locations on New Street with capacity for 23no. cycle parking spaces.
vi. Removal and replacement of 11no. existing trees with 37no. trees of species appropriate to the location and environment and provision of soft landscaping and green infrastructure with planting zones for seeded, planted and hedging areas and associated bioretention and tree pit areas.
vii. Provision of outdoor dining zones including tables and chairs and other ancillary moveable structures.
viii. Provision of street furniture including seating, benches and litter and recycling bins and a water feature.
ix. New public lighting comprising 12no. fixtures.
x. Upgrade of the watermain and foul drainage networks and upgrade and relocation of the surface water drainage network including provision of sustainable urban drainage systems (SUDs) features as part of hard and soft landscaping.
xi. Provision of ducting for utilities and piped infrastructure.
xii. All associated site and development works.

Fingal County Council will be providing regulatory traffic signs (including regulatory signs which give effect to a pedestrianisation of New Street) in accordance with Section 95 of the Road Traffic Act 1961 (as amended).

3. RESULTS

3.1 General Description of the Study Area

The existing public realm at New Street is that of the built environment, which is urban, hard-standing and impervious in nature as is clear from the Google Maps Imagery presented in **Figure 3.1** below.

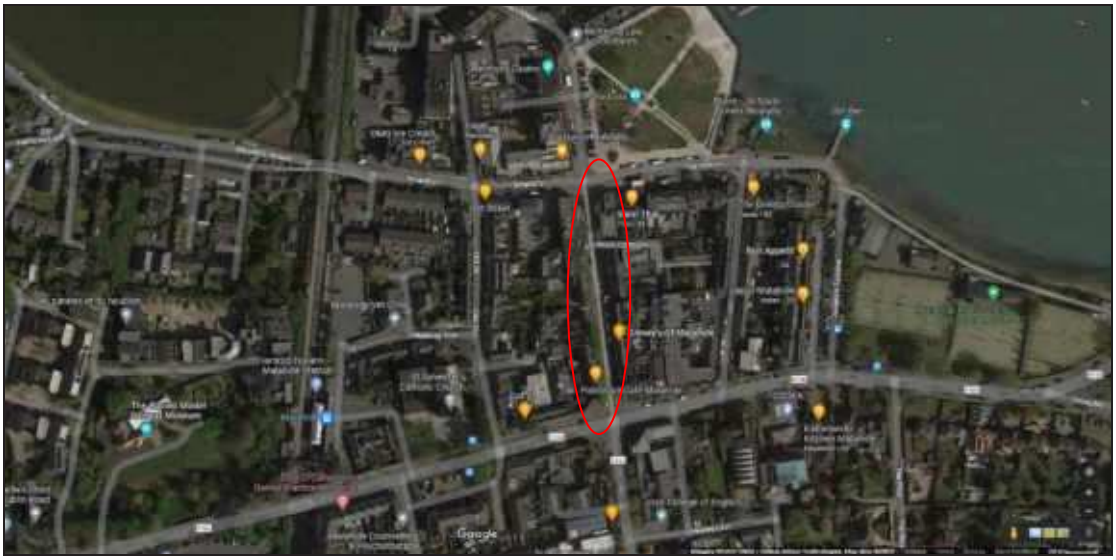


Figure 3.1. New Street, Malahide (Google Maps).

Since 2020 the street has been pedestrianised with the removal of two-way traffic movement and time limited one-way access from 7am to 11am each day for deliveries and emergency vehicles from Main Street/ The Diamond to New Street and two-way access from Strand Street to Ross's Terrace via New Street.

There are no areas of natural habitat present within New Street. There is a treeline of large Norway Maple (*Acer platanoides*), which are of planted origin. These street trees, which are not native to Ireland, run along the western footpath of the street as shown on the tree survey drawings and arboricultural impact assessment prepared by The Tree File Ltd (2023). An additional smaller alignment is situated at the eastern side, close to the junction with Strand Street. There are 11 no. trees in total within New Street. 3 trees have been identified by the project arborist as '*Category B2*' which are of moderate quality and 7 trees are noted as '*Category C2*', of generally poor-quality and of limited value. Tree no. 1782, to the north, has been classed as '*Category U*'. This tree has been identified as unsuitable for retention due to extensive damage and decay/fracture of underlying timber observed. A series of window boxes, planters, etc. containing ornamental planting are found throughout the streetscape.

The lands at New Street, Malahide are not currently designated for any nature conservation purposes. A number of European designated sites occur in the vicinity of Malahide. These are the Malahide Estuary SAC (Site Code: 000205) and Malahide Estuary SPA (Site Code: 004025), the boundaries of which are shown on **Figure 3.2** below. They are located within 200m of New Street. Bats are not a qualifying interest for either of these European designated sites.



Plate 1. Photo taken from the centre of New Street, looking south, towards the Diamond.



Plate 2. Photo taken from New Street, looking east, towards the laneway to the Ross Cottages.



Plate 3. Photo taken at the entrance to Malahide Green, looking towards the Marina.

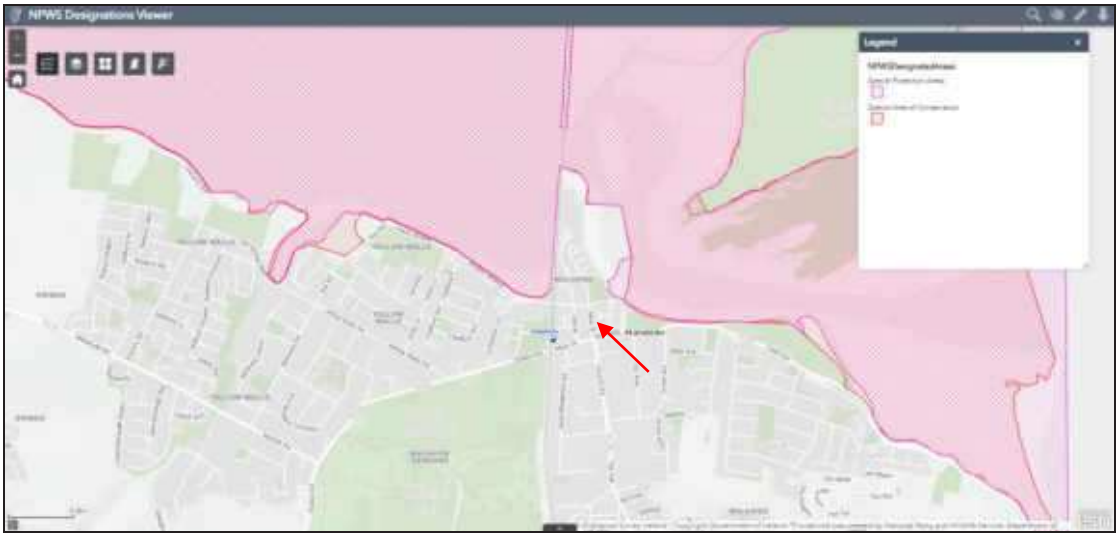


Figure 3.2. Malahide Estuary SAC (Site Code: 000205) (shown in red hatching) and Malahide Estuary SPA (Site Code: 004025) (shown in pink hatching) are in close proximity to and downslope of New Street (indicated by the red arrow). (Source: National Parks and Wildlife Service).

3.2 Records held by Bat Conservation Ireland and NBDC

The Bat Conservation Ireland Database of bat records was searched for records of bats from the Malahide area. The database contains records of roosts, ad hoc observations and the results of surveys such as the BATLAS 2010 and 2020 projects and the All Ireland Daubenton's Monitoring Project. Bat species recorded from within a 10km radius of Malahide Village include:

- Common pipistrelle (*Pipistrellus pipistrellus*),
- Soprano pipistrelle (*Pipistrellus pygmaeus*),
- Daubenton's bat (*Myotis daubentonii*),
- Leisler's bat (*Nyctalus leisleri*),
- Brown long-eared bat (*Plecotus auritus*),
- Several unidentified *Myotis* species, and
- an unidentified pipistrelle species (*Pipistrellus* sp.).

The National Biodiversity Data Centre (NBDC) has records of Leisler's bat, Common pipistrelle and Soprano pipistrelle from Malahide as shown on **Figures 3.3** to **3.5** below.

Bat surveys conducted by Faith Wilson of Caves Marsh Stream in 2019, which is located to the west of Malahide Village, recorded three species of bats there (Common Pipistrelle, Soprano Pipistrelle and Leisler's bat) (Wilson, 2019).

Lands to the south of Malahide Demesne at Ashwood Hall/Broomfield (which have been developed with residential housing - Fingal County Council Planning Reg Ref: F13A/04 and An Bord Pleanála Reference Number: PL 06F.243863) have been the subject of several bat surveys over a number of years (2014 – 2022) conducted by Faith Wilson. Four species of bats have been recorded there as follows:

- Leisler's bat (*Nyctalus leisleri*)
- Common Pipistrelle (*Pipistrellus pipistrellus*)
- Soprano Pipistrelle (*Pipistrellus pygmaeus*)
- Brown long-eared bat (*Plecotus auritus*)

Surveys of Malahide Demesne conducted by Donna Mullen and Brian Keeley in 2019 as part of a wider ecological survey of the demesne (Wilson, 2020) recorded four species of bats from the demesne. These are:

- Common pipistrelle (*Pipistrellus pipistrellus*),
- Soprano pipistrelle (*Pipistrellus pygmaeus*),
- Leisler's bat (*Nyctalus leisleri*), and
- Brown long-eared bat (*Plecotus auritus*).

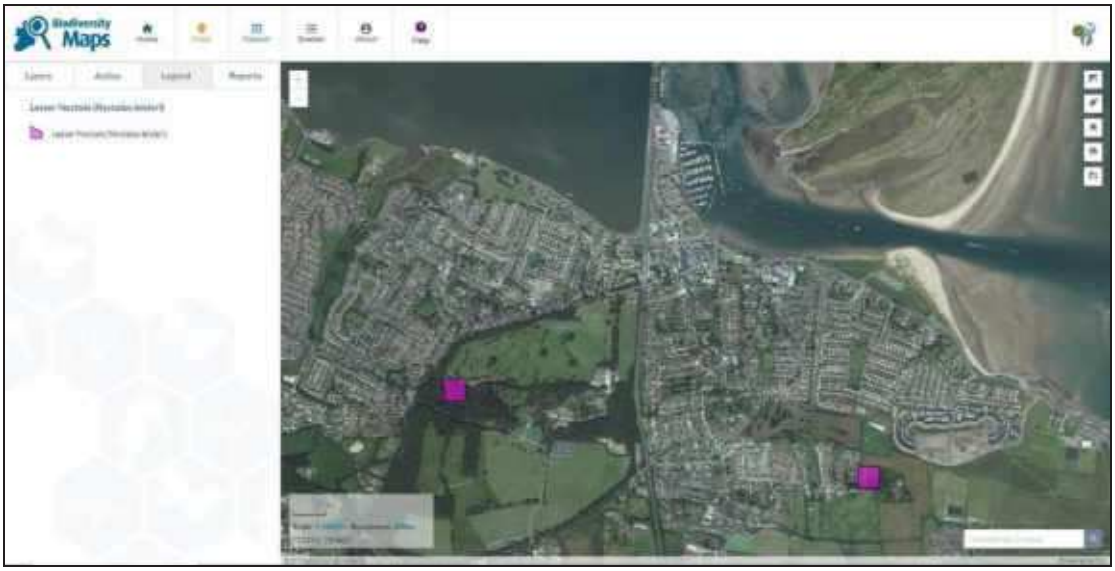


Figure 3.3. Leisler's bat recorded from Malahide Village (Source: NBDC).

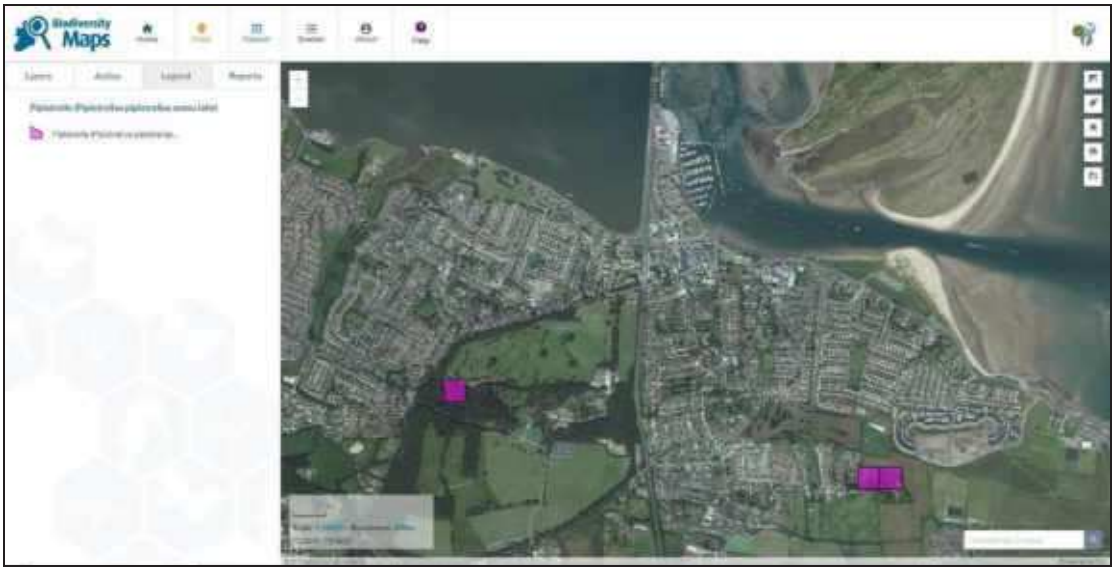


Figure 3.4. Common pipistrelle bat recorded from Malahide Village (Source: NBDC).

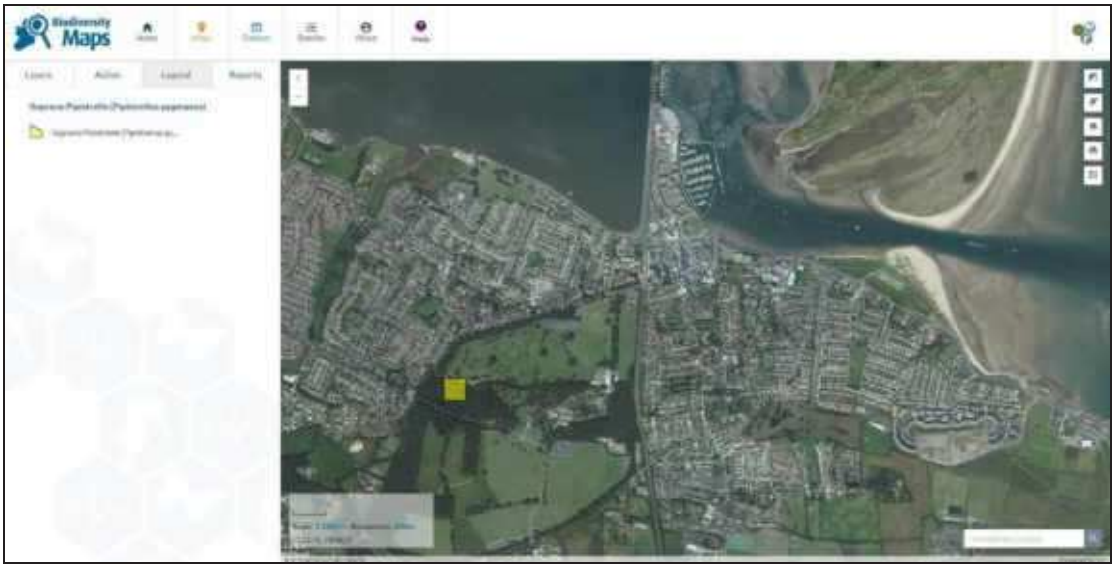


Figure 3.5. Soprano pipistrelle bat recorded from Malahide Village (Source: NBDC).

3.3 Survey Results

3.3.1 Tree Survey

The Norway maple trees on New Street offer very limited roosting potential for bats and are mostly classified as category 4. These are limited to a very small number of rot holes which may on occasion support a single bat (these are classified as Category 3) but there are no Category 1 or 2 trees as described by Collins (2016) – see **Table 3** below.

Table 3: Tree Bat Roost Category Classification System (Collins, 2016).

Tree Category	Description
1	Trees with multiple, highly suitable features (Potential Roosting Features = PRFs) capable of supporting larger roosts
2	Trees with definite bat potential but supporting features (PRFs) suitable for use by individual bats;
3	Trees have no obvious potential although the tree is of a size and age that elevated surveys may result in cracks or crevices being found or the tree supports some features (PRFs) which may have limited potential to support bats;
4	Trees have no potential.



Plate 4. Norway Maple trees on New Street.

3.3.2 Detector Survey

The detector survey was completed on the 28th March 2023 during suitable conditions. Sunset was at 19:54. Temperatures at the beginning of the study were

12°C decreasing to 10°C by the time the survey concluded at 22:41. There was some initial light drizzle but this had cleared within c.20 minutes. The weather was calm and overcast.

No bats were recorded utilizing New Street. A single Common pipistrelle bat was recorded on Old Street at 21:18 but no other bats were recorded in the other adjoining streets and immediate areas surveyed – the general survey route is shown on **Figure 3.6** below.

In comparison three species of bats were recorded in the environs of Malahide Castle foraging along a large mature treeline near the GAA Pitch south of Bridgefield Car Park.

Bats were recorded foraging and hunting along the mature treeline which bounds the back entrance to the castle and the demesne and forms the western boundary of the GAA pitch as shown on **Figure 3.7** below. These were the Common pipistrelle, Soprano pipistrelle and Leisler's bat. The sonograms recorded of each of these species are presented on **Figures 3.8, 3.9** and **3.10** below.

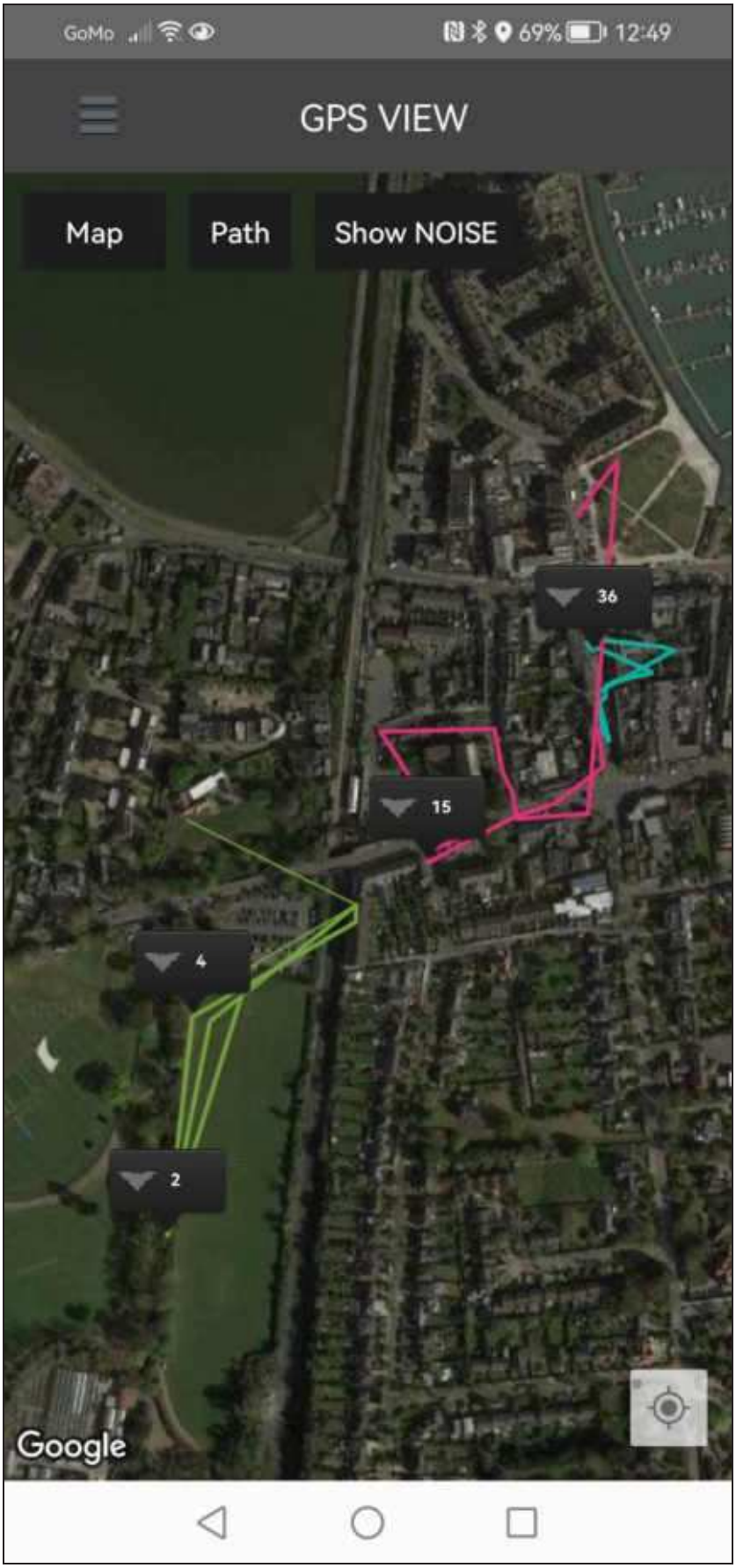


Figure 3.6. Routes walked during the bat activity survey.

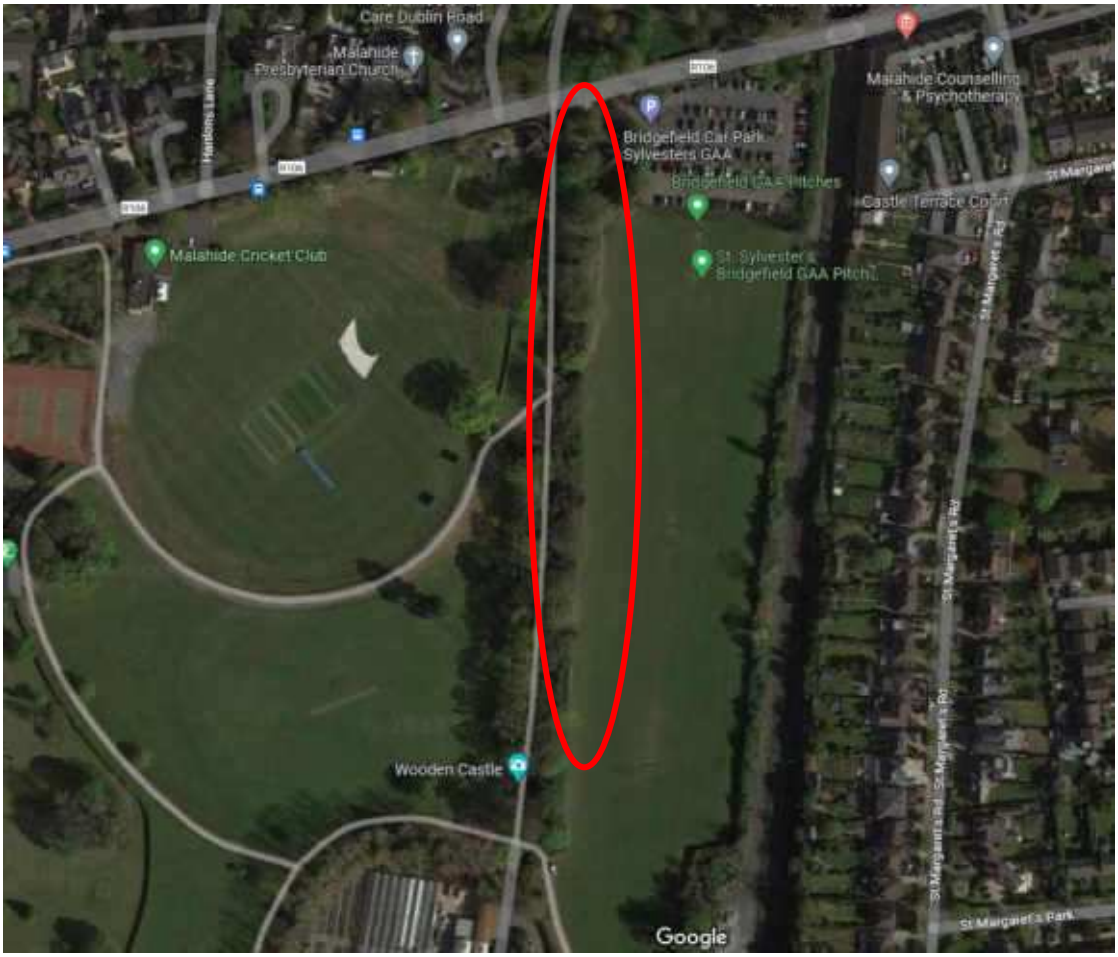


Figure 3.7. Bat activity was noted along the treeline indicated by the red circle in the grounds of Malahide Castle near the GAA Pitch south of Bridgefield Car Park.

The Bat Conservation Ireland Irish Landscape Model indicates that the Common pipistrelle and Soprano pipistrelle bats select areas with broadleaf woodland, riparian habitats and low density urbanization (<30%) (Roche *et al.*, 2014) so their presence in the general environs of the village is not unexpected.

The Bat Conservation Ireland Irish Landscape Model indicates that the Leisler's bat habitat preference has been more difficult to define in Ireland. Habitat modelling for Ireland shows an association with riparian habitats and woodlands (Roche *et al.*, 2014). The landscape model emphasised that this is a species that cannot be defined by habitats preference at a local scale compared to other Irish bat species but that it is a landscape species and has a habitat preference at a scale of 20.5km. In addition, of all Irish bat species, Leisler's bats have the most specific roosting requirements. It tends to select roosting habitat with areas of woodland and freshwater.

Areas such as Malahide Demesne and the Caves Stream Marsh offer rich habitat for these and other species of bats as substantiated by the results of the previous surveys of these areas as presented in **Section 3.2**.

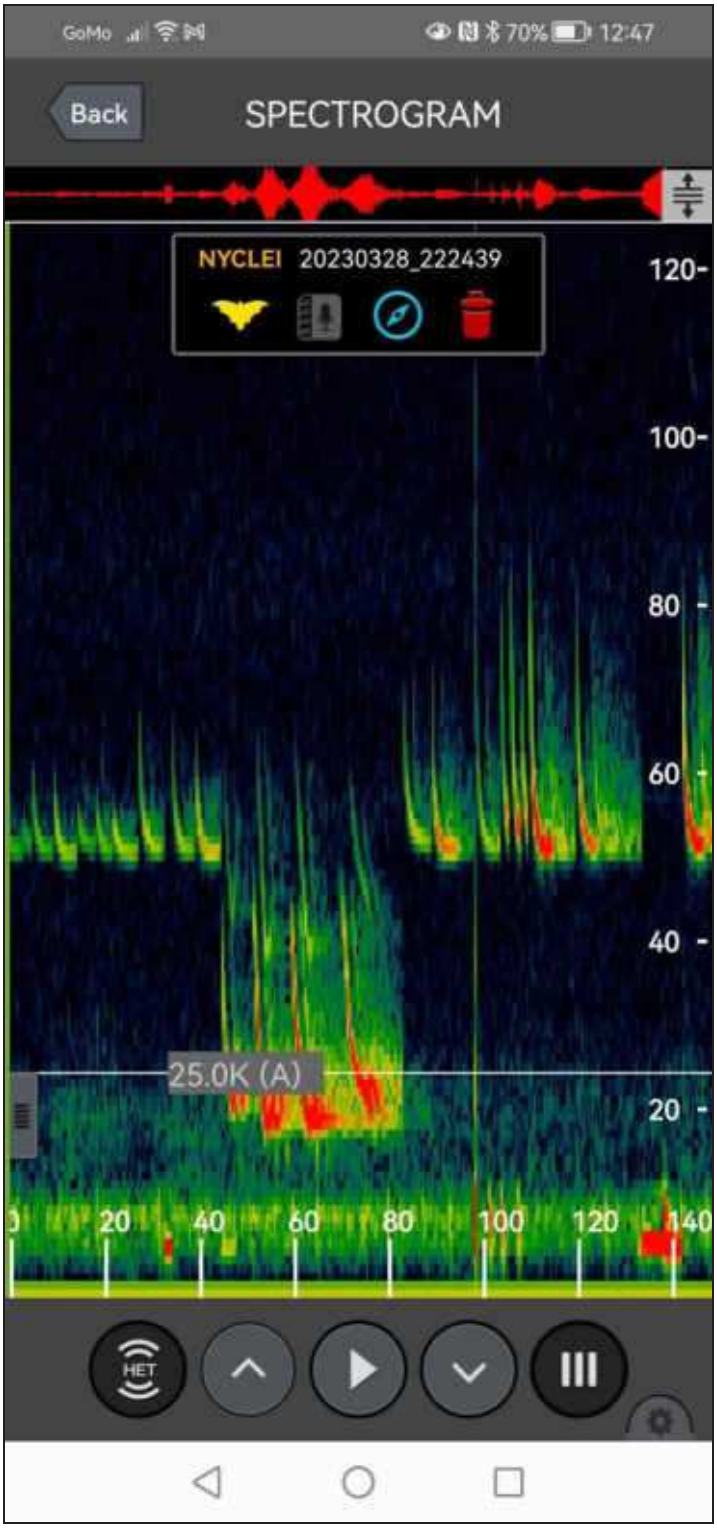


Figure 3.8. Spectrogram of Leisler's bat and a Soprano pipistrelle bat in the grounds of Malahide Castle near the GAA Pitch south of Bridgefield Car Park.

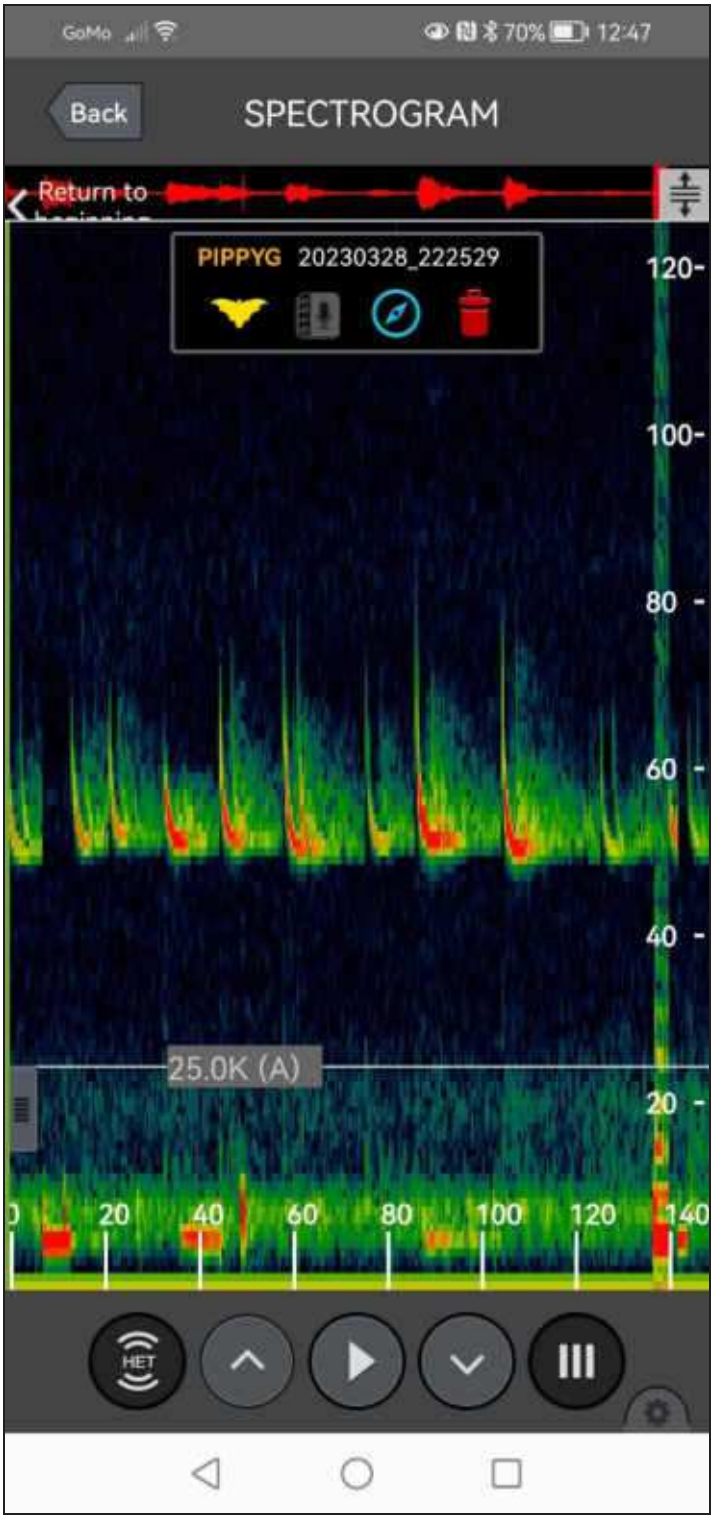


Figure 3.9. Spectrogram of a Soprano pipistrelle bat in the grounds of Malahide Castle near the GAA Pitch south of Bridgefield Car Park.

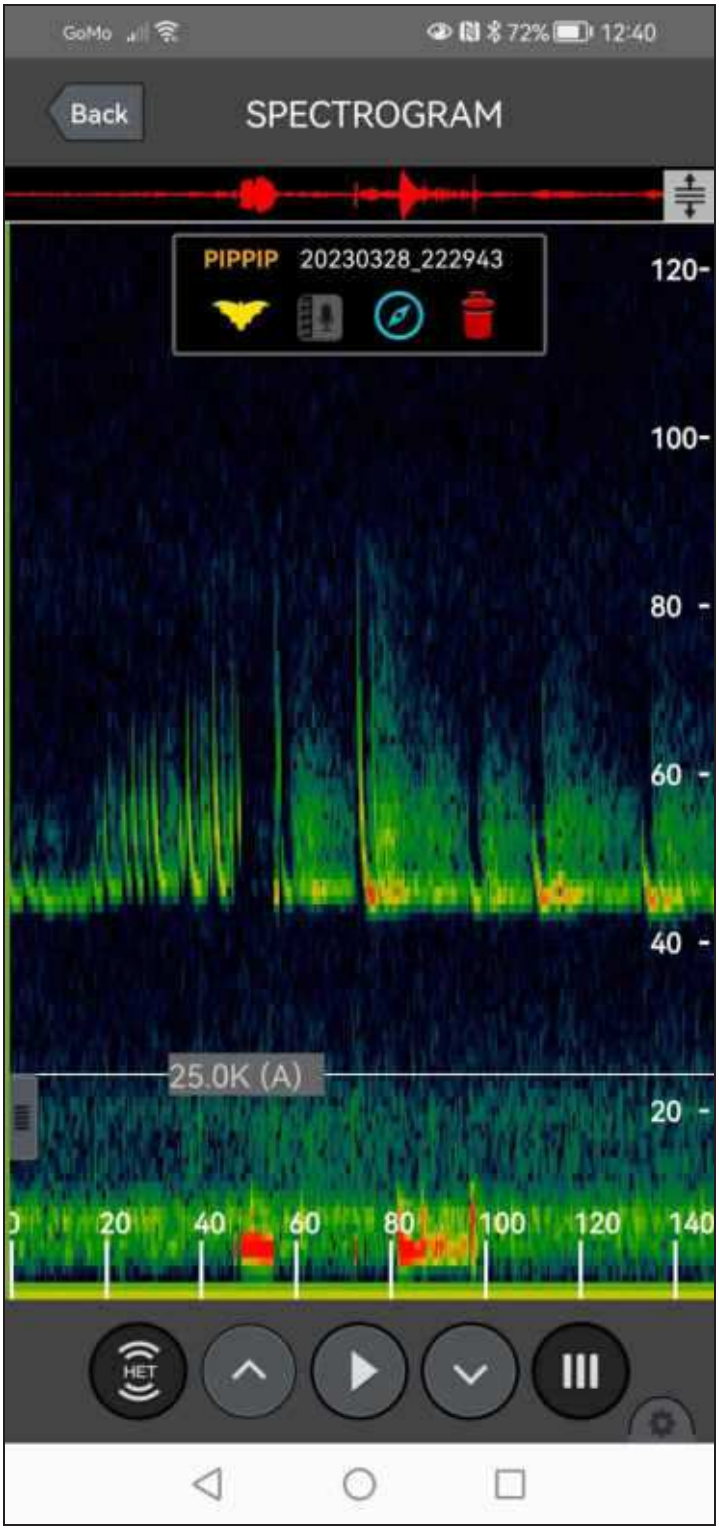


Figure 3.10. Spectrogram of a Common pipistrelle bat in the grounds of Malahide Castle near the GAA Pitch south of Bridgefield Car Park.

3.4 Lighting Assessment

The streetscape at New Street is a highly lit environment with light sources including street lanterns, lighting from business premises and ornamental lighting on trees as can be seen on **Plates 5** and **6** below.



Plate 5. Looking south up New Street.



Plate 6. Ornamental lighting on trees at Fowlers Bar and façade lighting.

The current levels of lighting on New Street were assessed by Axiseng (the project lighting consultants). They describe the existing lighting as follows:

The existing lighting is served via pole mounted lantern style fittings. This is supplemented by shop fronts, pub lighting and festoon lighting throughout the street infrastructure. The lighting levels from the existing fittings range from approx. 6.5 lux to 61.6 lux giving an overall average of approx. 17 lux which has been calculated by taking a total of 36 lux readings along the street as shown on **Figure 3.11** below.



Figure 3.11. Existing light levels on New Street vary from 6.5 lux to 61.6 lux, giving an overall average of approx. 17 lux in the streetscape.

3.5 Survey Conclusion

Given the urban nature of the streetscape with limited natural vegetation, the presence of non-native tree species and the highly lit environs of New Street, Malahide this part of the village does not provide habitats of high importance for bats for foraging or commuting purposes.

There are some dark areas in the immediate environs of New Street where private gardens/green spaces such as those at Ross Cottages and between New Street and Old Street or in the environs of the north side of St. Sylvester's Church and around Railway Avenue, which could offer suitable spaces for bats to hunt and forage in.

Given the age of many of the buildings present in Malahide Village some of them (such as the church) may also offer bats roosting opportunities within attics or roofs.

A bat derogation licence is not required for the proposed public realm improvements.

4. DESCRIPTION OF LIKELY SIGNIFICANT IMPACTS

4.1 Potential Impacts of the Proposed Public Realm Improvements on Bats

Given the urban nature of the streetscape with limited natural vegetation, the presence of non-native tree species and the highly lit environs of New Street, Malahide this part of the village does not provide habitats of high importance for bats for foraging or commuting purposes.

There are a number of potential measures that could be implemented to make New Street more bat friendly and these are set out below in **Section 5**.

5. BAT PROTECTION MEASURES

Measures to ensure that the public realm improvements for New Street create a more favourable habitat for local bat populations (as well as for the public) and ensure the protection of bats are detailed below.

5.1 Felling of Trees

Prior to any removal of trees on New Street they will be re-examined from the perspective of bats as new wounds/damage to trees can create new potential roosting locations. The assessment of trees according to their PBR value determines the methodology of felling.

Any trees identified following this survey as potential Category 3 bat roosts will be subject to appropriate felling measures as detailed in NRA Guidelines for the Treatment of Bats during the Construction of National Road Schemes (National Roads Authority 2006). The felling/clearance of trees will be scheduled for the autumn months of September/October which also avoids the bird breeding season. Using a hoist or similar any rot holes or potential crevices that could not be inspected from street level will be examined by a licensed bat specialist. If any evidence of bats are found the National Parks and Wildlife Service will be notified and a bat derogation licence sought.

The felling of those trees, which have been identified as potential bat roosts, must be supervised by a bat specialist holding a bat handling licence issued by the National Parks and Wildlife Service, (Department of Housing, Local Government and Heritage). If bats are encountered they should be removed by the licence holder to a bat box, to be sited on a nearby tree and the NPWS notified.

5.2 Planting of Native Species

The planting proposals at New Street have been prepared by the project landscape architects Dermot Foley Landscape Architects in collaboration with the project ecologist Faith Wilson and include many native trees, shrubs and wildflowers. These will be certified as being of native Irish provenance to ensure genetic provenance.

The recommendations of the Pollinator Friendly Planting Code All-Ireland Pollinator Plan 2015-2020 available on www.pollinators.ie have been included and considered in the landscaping proposals. These measures will potentially provide some foraging habitat in the general environs of New Street for local bat populations.

5.3 Lighting

Many species of bats and other mammals are sensitive to lighting and will avoid areas which are illuminated as was evident from the current survey of New Street where lux levels range from approx. 6.5 lux to 61.6 lux giving an overall average of approx. 17 lux. This is well in excess of the recommended lux levels of <1 lux for bat areas.

The design recommendations from the Bat Conservation Trust/Institution of Lighting Professionals 'Guidance Note 08/18 - Bats and artificial lighting in the UK - Bats and the Built Environment Series' BCT (2018) for wildlife-friendly lighting were incorporated into the lighting design for the scheme by the project lighting designers and should improve the current lighting situation in terms of upward light spill.

The proposed lighting design as shown on **Figure 3.12** below allows for wall mounted units (please refer to AxisEng drawing NSM-X-X-DR-AXE-EE-60101 and the Mechanical & Electrical Services Installation/Public Lighting Report for further information).

The proposed lighting has been calculated using Lighting Reality and designed using specific parameters as outlined within the Lighting Report section of the Mechanical & Electrical document.

With the new fittings the average lux level has been calculated at 16.5 lux (see **Figure 3.13**). The proposed lighting is in line with the existing lux levels on the street.

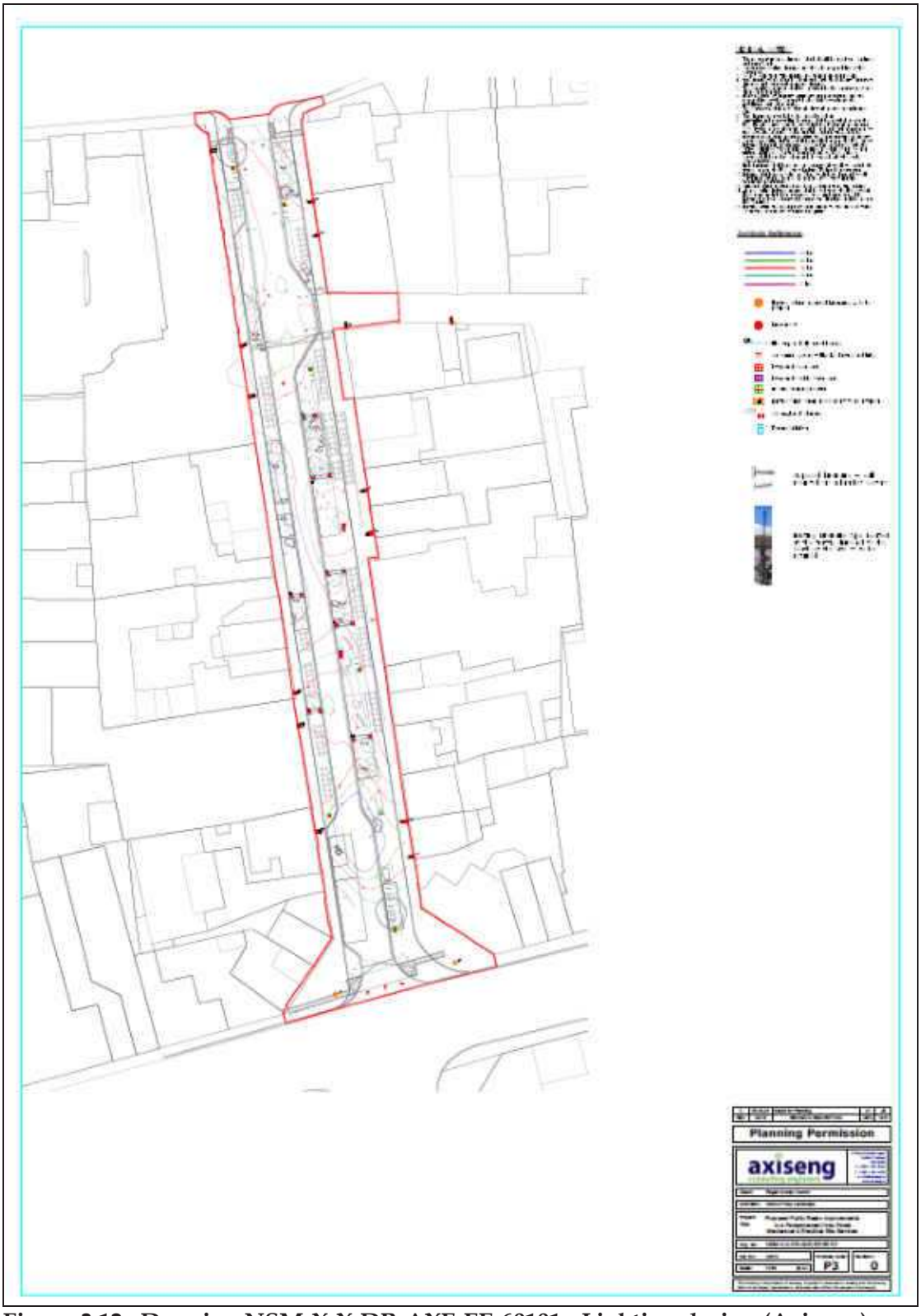


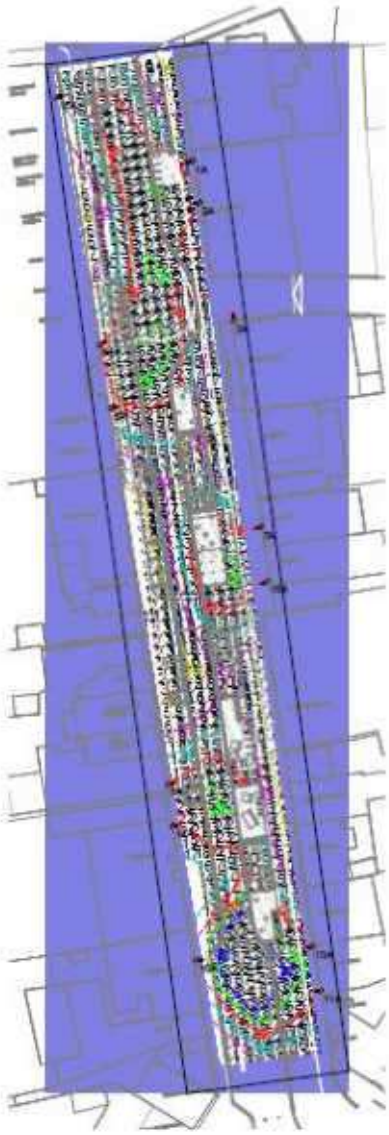
Figure 3.12. Drawing NSM-X-X-DR-AXE-EE-60101 - Lighting design (Axiseng).

DATE: 21 February 2023 DESIGNER: JC
PROJECT No: P22074 PROJECT NAME: New Street Malahide

LIGHTING REALITY

Horizontal Illuminance (lux)

Grid 1



Results

Eav	16.49
Emin	2.27
Emax	43.62
Emin/Emax	0.05
Emin/Eav	0.14

Figure 3.13. Lux levels.

6. CONCLUSIONS

A bat derogation licence is not currently required for the project.

No bat activity was recorded within the streetscape of New Street. New Street would not be deemed to be a landscape of high importance for foraging or commuting bats given the urban nature of the street which is highly lit at night and contains no native trees or areas of vegetation which would support invertebrates on which bats forage.

The non-native Norway Maple trees within the streetscape of New Street have been assessed as Category 3 trees from the perspective of roosting bats. They offer very limited potential to support roosting bats and will be re-examined prior to their removal by a bat specialist using a hoist to inspect the higher parts of the trees which could not be examined from ground level. This will ensure the safeguarding of bats and to determine if a bat derogation licence is required.

Measures to ensure that the public realm improvements for New Street also create a more favourable habitat for local bat populations as well as for the public have been included within the project design.

7. REFERENCES

Abbott, I. M., Butler, F. and S. Harrison. (2012). *When flyways meet highways – the relative permeability of different motorway crossing sites to functionality diverse bat species.* Landscape and Urban Planning 106 (4): 293-302.

Abbott, I. M., Berthinessen, A., Stone, E., Booman, M., Melber, M. and J. Altringham. (2015). *Bats and Roads.* Handbook of Road Ecology. Chapter 5, pp/ 290-299. Editors: R. Van der Ree., D. J. Smidt and C. Grilo. Wiley Blackwell.

Altringham, J. D. (1996). *Bats: Biology and Behaviour*. Oxford University Press.

Altringham, J. D. (2003). *British Bats*. HarperCollins Publishers.

Altringham, J. and G. Kerth. (2016). *Bats and Roads*. Bats in the Anthropocence: Conservation of Bats in a Changing World. Chapter 3. Editors: C. C. Voigt and T. Kingston. Springer Open.

Axis Consulting Engineers (2023). *Mechanical and Electrical Services Installations for the Public Realm at New Street, Malahide for Fingal County Council.* Unpublished report prepared for Fingal County Council.

Barratt, E. M., Deauville, R., Burland, T. M., Bruford, M. W., Jones, G., Racey, P. A., & Wayne, R. K. (1997). *DNA answers the call of pipistrelle bat species.* Nature 387: 138 - 139.

Bat Conservation Ireland (2010). *Bats in Buildings. Guidance Notes for: Planners, engineers, architects and developers.* December 2010. Available from <http://www.batconservationireland.org/>.

Bat Conservation Ireland (2010). *Bats and Lighting. Guidance Notes for: Planners, engineers, architects and developers.* December 2010. Available from <http://www.batconservationireland.org/>.

Bat Conservation Ireland. (2023). *Database containing records of Bat Roosts, Transects (Car Transect Monitoring Records) and Ad Hoc Observations.*

Bat Conservation Trust/Institution of Lighting Professionals (2018). *Guidance Note 08/18 - Bats and artificial lighting in the UK.* Bats and the Built Environment series.

BTHK (2018). Bat Roosts in Trees – A Guide to Identification and Assessment for Tree-Care and Ecology Professionals. Exeter: Pelagic Publishing.

CIEEM (2016). *Guidelines for Ecological impact Assessment in the UK and Ireland: Terrestrial, Freshwater and Coastal* (2nd Edition). CIEEM, Winchester.

Collins, J. (2016). *Bat Surveys for Professional Ecologists: Good Practice Guidelines* 3rd Edition. The Bat Conservation Trust. London.

Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) 1982.

Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention) 1979.

Council of the European Communities (1992). *Council Directive of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (92/43/EEC).* O.J. L 206/35, 22 July 1992.

Fairley, J. (2001) *A Basket of Weasels*. Published Privately, Belfast.

Fossitt, J. (2000). *A Guide to Habitats in Ireland.* Heritage Council, Kilkenny.

Gunnell, K., Grant, G. and C. Williams. (2012). *Landscape and urban design for bats and biodiversity*. The Bat Conservation Trust, London.

Hayden, T. and Harrington, R. (2000) *Exploring Irish Mammals*. Town House, Dublin.

Kelleher, C. 2005 *International Bat Fieldcraft Workshop, Killarney, Co. Kerry.* National Parks and Wildlife Service, Department of the Environment, Heritage and Local Government.

Kelleher, C. & F. Marnell. (2006). *Bat Mitigation Guidelines for Ireland*. Irish Wildlife Manuals, No. 25. National Parks and Wildlife Service, Department of the Environment, Heritage and Local Government, Dublin, Ireland.

Lundy, M.G., Montgomery, I.W., Roche, N. & T. Aughney. (2011). *Landscape Conservation for Irish Bats & Species Specific Roosting Characteristics* (Unpublished). Bat Conservation Ireland, Cavan, Ireland.

Lysaght, L. and F. Marnell (eds). (2016). *Atlas of Mammals in Ireland 2010-2015*. National Biodiversity Data Centre, Waterford.

Marnell, F., Looney, D. & C. Lawton. (2019). *Ireland Red List No. 12: Terrestrial Mammals.* National Parks and Wildlife Service, Department of the Culture, Heritage and the Gaeltacht, Dublin, Ireland.

Marnell, F., Kelleher, C. & E. Mullen. (2022). *Bat mitigation guidelines for Ireland v2.* Irish Wildlife Manuals, No. 134. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage, Ireland.

Mathews, F., Roche, N., Aughney, T., Jones, N, M Day, J., Baker, J. and S. Langton. (2015). *Barriers and benefits: implications of artificial night-lighting for the distribution of common bats in Britain and Ireland.* Philosphical Transactions of the Royal Society of London B 370 (1667), doi: 10.1098/rstb.2014.0124.

McAney, K. (2006). *A Conservation Plan for Irish Vesper Bats.* Irish Wildlife Manuals, No. 20. National Parks and Wildlife Service, Department of Environment, Heritage and Local Government, Dublin, Ireland.

Mitchell-Jones, A.J, & McLeish, A.P. Ed., (2004). *3rd Edition Bat Workers' Manual,* 178 pages b/w photos, softback, ISBN 1 86107 558 8.

Mullen, E. (2007). *Brandt's Bat Myotis brandtii in Co. Wicklow*. Irish Naturalists' Journal. 28: 343.

NRA (2006). *Best Practice Guidelines for the Conservation of Bats in the Planning of National Road Schemes.* National Roads Authority. www.nra.ie

NRA (2006). *Guidelines for the Treatment of Bats during the Construction of National Road Schemes.* National Roads Authority. www.nra.ie

O'Sullivan, P. 1994. *Bats in Ireland.* Special supplement to the Irish Naturalists' Journal.

Richardson, P. 2000. *Distribution atlas of bats in Britain and Ireland 1980 - 1999*. The Bat Conservation Trust, London, UK.

Roche, N., Aughney, T., Marnell, F. & M. Lundy. (2014). *Irish Bats in the 21st Century.* Bat Conservation Ireland, Cavan, Ireland.

The Tree File Ltd. (2023). *Arboricultural Report. Proposed Public Realm Improvements for a Pedestrianised New Street Malahide Co Dublin.* April 2023.

Whilde, A. (1993) *Threatened Mammals, Birds, Amphibians and Fish in Ireland, Irish Red Data Book 2: Vertebrates*. Belfast, HMSO.

Wildlife Act, 1976 including all other amendments 1976–2021 (Number 39 of 1976, Number 38 of 2000, Number 19 of 2010, Number 29 of 2012, Heritage Act 2018 (no. 15 of 2018), Part 3 and Planning, Heritage and Broadcasting (Amendment) Act 2021 (no.11 of 2021), Chapter 3). Dublin: Office of the Attorney General.

Wilson, F. (2019). *Ecological Survey of an enclosed river valley area at the Caves Marsh Stream study site, Malahide, Co. Dublin.* Unpublished report for Fingal County Council.

Wilson, F., Kelley, B. and D. Mullen. (2019). *Malahide Demesne - Ecological Study and Recommendations.* Unpublished report for Fingal County Council.

Appendix C – FCC Planning & Strategic Infrastructure Department Report

FINGAL COUNTY COUNCIL

PLANNING & STRATEGIC INFRASTRUCTURE DEPARTMENT PLANNING REPORT

Register Reference:	Part XI/002/23
Proposed Development:	Public Realm Improvements
Location:	New Street, Malahide.
Proposing Department:	Environment, Climate Action and Active Travel Department
Application Type:	Part XI/ Part 8
Date	14/12/23

Site Location

The subject site comprises New Street, Malahide, a street of c.150m in length with an area of 0.22ha. New Street extends from south to north from the junction of Main Street, The Mall and Church Road – also known as the Diamond, to Strand Street to the north.

New Street is generally characterised by two storey terraced buildings incorporating a mix of shops, restaurants, public houses and residential dwellings. The street slopes down from south to north and incorporates footpaths on both sides (east and west), street trees and a roadway. The street includes seating areas relating to commercial establishments being provided on the footpaths and roadway. Pedestrian crossings are provided at the northern and southern ends of the street.

The lands to the rear of the existing buildings on New Street comprise a mixture of rear gardens/ courtyards used for amenity and servicing purposes and accessed either directly through the buildings or via laneways. There is an additional side street off New Street known as Ross Terrace, providing access to Ross Cottages to the rear (east) of New Street. New Street Mall is located on the western edge of New Street and comprises a pedestrian mall space with retail and office units at ground and first floor levels. A car park is also located to the rear of New Street Mall and the vehicular entrance to this car park is provided from Strand Street.

The surrounding land uses comprises a mix of retail, commercial and residential uses accommodated within a series of streets including Old Street and Railway Avenue to the west, Townyard Lane and James Terrace Upper to the east and Main Street, The Mall and Church Road to the south.

New Street connects to The Green which is located north through the junction with Strand Street and links to Malahide Marina Village. The western side of The Green comprises a development of 3 to 4 storeys with ground floor units accommodating Starbucks and Tesco.

The eastern side of this street is the site of a large landscaped urban space completed in 2021, incorporating passive green spaces, seating and pathways leading to Malahide Estuary which is located further east.

The area is served by good public transport links both, bus and rail. It is close to many recreational and tourist amenities and commercial opportunities in Malahide. A number of planned cycle routes and strategic infrastructure interface with the site, including the Fingal Coastal Way and Sutton to Malahide Pedestrian and Cycle Scheme

Proposed Development

The proposed development consists of public realm improvements for a pedestrianised New Street totaling approximately 0.22ha in area. The proposed development includes:

Widening of footpaths and provision of new kerb edges with existing kerbstones retained, realigned, and protected within the widened footpaths and public spaces.

Realignment and narrowing of the trafficable section of New Street (c.150m in length, 0.22ha) and insertion of control measures and all necessary signage to provide for a pedestrianised street with associated traffic flow routes and restrictions allowing for time limited one-way access from 7am to 11am each day for deliveries and emergency vehicles from Main Street/ The Mall to New Street and two-way access from Strand Street to Ross's Terrace via New Street.

) Upgrade of all street surfaces.

) Provision of 2no. loading bays; one at the southern end and one at the northern end of New Street and an accessible parking space in front of the HSE building at the southern end of New St.

Installation of cycle stands at 6no. locations on New Street with capacity for 23no. cycle parking spaces.

) Removal and replacement of 11no. existing trees, with 37no. trees of species appropriate to the location and environment, and provision of soft landscaping and green infrastructure with planting zones for seeded, planted and hedging areas and associated bioretention and tree pit areas.

ii) Provision of outdoor dining zones including tables and chairs and other ancillary moveable structures.

iii) Provision of street furniture including seating, benches and litter and recycling bins and a water feature,

:) New public lighting.

) Upgrade of the watermain and foul drainage networks and upgrade and relocation of the surface water drainage network including provision of sustainable urban drainage systems (SUDs) features as part of hard and soft landscaping.

i) Provision of ducting for existing and future utilities and piped infrastructure.

ii) All associated site and development works.

Fingal County Council will be providing regulatory traffic signs (including regulatory signs which give effect to a pedestrianisation of New Street) in accordance with Section 95 of the Road Traffic Act 1961 (as amended).

Fingal County Development Plan 2023 – 2029

Zoning Objective

The application site is zoned under Objective 'TC- Town and District Centre', with an objective to "Protect and enhance the special physical and social character of town and district centres and provide and/ or improve urban facilities" within the Fingal Development Plan 2023-2029.

The Vision of the TC zoning is; "M*aintain and build on the accessibility, vitality and viability of the existing Urban Centres in the County. Develop and consolidate these Centres with an appropriate mix of commercial, recreational, cultural, leisure and residential uses, and to enhance and develop the urban fabric of these Centres in accordance with the principles of urban design, conservation and sustainable development. Retail provision will be in accordance with the County Retail Strategy, enhance and develop the existing urban fabric, emphasise urban conservation, and ensure priority for public transport, pedestrians and cyclists while minimising the impact of private car based traffic....."*

The site falls within Malahide Historic Core - Architectural Conservation Area (ACA) and the Core Retail Area. The site landscape is categorised under Highly Sensitive Landscape: Coast for the southern end of the street and the northern end of the street is within an Estuary Landscape which is categorised as of Exceptional Landscape Value.

The site also falls within Noise Zone D associated with the Dublin Airport.

Malahide is identified as a Self-Sustaining Town with a high level of population growth within the Fingal Settlement Strategy.

Introduction, Vision and Strategic Overview
1.4 Strategic Objectives
5. Protect the unique character of Fingal. Support and facilitate revitalisation and consolidation of our towns, urban and rural villages and neighbourhoods, through placemaking and public realm initiatives, which encompasses a multi-faceted approach to planning, design and management.

Chapter 2 Planning for Growth
Malahide is designated a Self-Sustaining Town within the RSES and benefits from a high quality built and natural environment. Integral to its character and its exceptional amenity offer is Malahide Castle and Demesne, its coastal environment, tourism offer, its strong built heritage including the presence of Architectural Conservation Areas as well as excellent public transport accessibility. It is envisaged that Malahide will develop as a self-sustaining centre through the provision of a range of facilities to support existing and new populations. For this to be achieved, it is vital that the urban role of Malahide is strengthened, and development consolidated within the town.

Policy CSP35 - Malahide
Promote the planned and sustainable consolidation of the existing urban form and protect the unique identity of Malahide. The need to upgrade and support the development of the town centre will be balanced with the need to conserve its appearance as an attractive, historic village settlement and to retain the existing amenities of the area, being cognisant of its proximity to the ecologically sensitive coastline including European Sites.

Objective CSO63 – Pedestrianised Core – Malahide
Continue to promote and facilitate the recently implemented pedestrianised core of New Street, Malahide.

Chapter 3 Sustainable Placemaking and Quality Homes
The County's identity and sense of place contribute directly to its economic success and its attractiveness as a place to live and work. For Fingal to maintain and enhance its competitive position, it must continue to put its sense of identity and place at the centre of its strategic activities. The public realm has a key role to play in this process and the Council is dedicated to enhancing and improving the unique built and natural heritage of the County and to providing well-designed, sustainable places.

Policy SPQHP3 – Successful Public Realms
Promote, develop, and implement policies and initiatives which shape and deliver quality accessible and sustainable public realms, which can facilitate a variety of uses, throughout Fingal including enhancement of existing and developing centres in accordance with the principles of good urban design.

Policy SPQHP4 – Town Centre First: A Policy Approach for Irish Towns
Promote a strategic approach to town centre regeneration through the Town Centre First: A Policy Approach for Irish Towns by utilising existing buildings and unused lands for new development, promote increased residential occupancy in rural towns and villages, support high quality design of the public realm and provide for a mix of uses within these areas, including arts, educational, cultural, community and residential uses as appropriate.

Policy SPQHPS -Quality Placemaking
Add quality to the places where we live, work, and recreate by integrating high quality design into every aspect of the Plan, ensuring good quality accessible public realms, promotion of adaptable residential

buildings, and by ensuring development contributes to a positive sense of place, local distinctiveness and character.

Policy SPQHP6 – Urban Design
Enhance and develop the fabric of existing and developing centres in accordance with the principles of good urban design.

Policy SPQHP7
Promote a clean air and noise reduction approach to public realm in town and village centres through pedestrianisation of streets and/or restriction of through traffic where possible and appropriate.

Objective SPQH04 – Public realm Strategies
Prepare Public Realm Strategies, where appropriate, liaising closely with residents and other relevant stakeholders

Objective SPQHO6 – Universal Design Approach
Promote and facilitate a Universal Design for all developments.

Objective SPQHO7 – Vibrant Town and Village Centres
Support measures required to create vibrant town and village centres with high quality public realms

(A Public Realm Strategy was prepared for Malahide and published in April 2014. It is a general guidance document, focused on what is considered to be the centre of Malahide Village. It is not a document which was published on foot of any statutory obligation.

The Malahide Public Realm Strategy 2014 was a conceptual document which identified certain projects which could be implemented with a view to improving the public realm in Malahide. It was prepared to demonstrate the potential improvements to the street and road layout of Malahide, with a focus on improvements to pedestrian and cycle movement and the public realm environment and envisages that priority will be given to projects which increase pedestrian movement and cycling in the village of Malahide.

The agreed Mission Statement from the Malahide Public Realm states: '*The Council wishes to engage with the citizens, businesses and visitors of Malahide through an informal, open and flexible process to develop a Public Realm Strategy for the town. The project aims to identify short, medium and long term actions for the town of Malahide and will inform Council proposals and works for the area, as well as identifying areas or actions where the local community or businesses can assist in delivering an enhanced public realm.*'

The proposed public realm improvements for a pedestrianised New Street are consistent with the Placemaking policies and objectives of the Fingal Development Plan and will significantly improve the public realm for those living, working and visiting the New Street area.)

<u>Chapter 7 – Employment and Economy</u>

Objective EEO11 – Economic Growth of Metropolitan Area
Ensure that towns, villages and other locations within the Metropolitan Area pursue development policies of consolidation, and maximise their economic strengths and competitive advantages such as tourism and marine sectoral activities in Malahide and Howth, while the lands within the southern part of the County maximise their economic potential through the strong functional linkages to the M50 and the lands to the north of the County maximise their economic potential through strong links to the M1 and the wider regional and national road network.

Section 7.5.5 Retail Hierarchy

Malahide is identified as a 'Level 3 : Town Centre' within the Fingal Retail Hierarchy and Objective ED42 of the Development Plan states:-

Objective EEO93 – Level 3 Centres
Ensure the development of Balbriggan, Malahide, Skerries and Charlestown, as sustainable, vibrant and prosperous Town Centres performing at a high retail level within the Fingal Retail Hierarchy to meet the retailing needs of and offer sufficient retail choice to their local populations and catchment populations.

New Street is located within the Core Retail area of Malahide.

14.20.3 Sustainable Urban Drainage Systems
Sustainable urban Drainage Systems (SuDS) can best be defined as offering a 'total' solution to rainwater management and must be included in all new developments. Ponds, artificial wetlands and water features can make a positive contribution to the provision of Sustainable Drainage Systems (SuDS) and to the amenity of an area. Properly designed and located SuDS features can be incorporated within and can complement the amenity and aesthetic value of open spaces.

Chapter 9- Natural Heritage

Our natural heritage comprises the variety of life around us every day often referred to as Biodiversity.

The County's natural heritage is a core component of Fingal's Green Infrastructure which seeks to conserve and enhance biodiversity and geological heritage and to promote the sustainable management of the landscape and coast. While New Street is not located within any Special Areas of Conservation (SACs) or Special Protection Areas (SPAs), Malahide Estuary SAC and SPA are located approximately 160m to the northeast of the site.

Chapter 10 Heritage Culture and Arts
The physical traces left in the landscape by previous generations in archaeological monuments and sites and in historic buildings, townscapes and vernacular structures embodies the tangible cultural heritage of Fingal linking the past and present, demonstrating building forms and materials that utilised and responded to the surrounding environment and traditions of the inhabitants.

Policy HCAP14 – Architectural Conservation Areas
Protect the special interest and character of all areas which have been designated as an Architectural Conservation Area (ACA). Development within or affecting an ACA must contribute positively to its character and distinctiveness and take opportunities to protect and enhance the character and appearance of the area and it's setting wherever possible. Development shall not harm buildings, spaces, original street patterns, archaeological sites, historic boundaries or features, which contribute positively to the ACA.

Objective HCAO24 – Alteration and Development of Protected Structures and ACAs
Require proposals for any development, modification, alteration, extension or energy retrofitting affecting a Protected Structure and/or its setting or a building that contributes to the character of an ACA are sensitively sited and designed, are compatible with the special character, and are appropriate in terms of the proposed scale, mass, height, density, architectural treatment, layout, materials, impact on architectural or historic features.

Policy HCAP21 – Built Heritage Assets
Protect and enhance the historic environment and built heritage assets, including elements of historic street furniture, paving and historic boundary treatments. Policy HCAP22 – Retention and Reuse of Existing Building Stock.

Policy HCAP25 – Retention of Historic Fabric
Encourage the retention of the original or historic fabric such as windows, doors, wall renders, roof coverings, shopfronts, pub fronts and other significant features of older or historic buildings, whether protected or not.

Policy HCAP26 – Historic Townscapes
Recognise the importance of historic townscapes or streetscapes in creating a sense of place when the urban fabric or groups of buildings are read together and how the gradual attrition of historic fabric or detailing, or the demolition and replacement of individual modest buildings can fundamentally alter the character of the place.

Objective HCAO40 – Public Realm Works
Require that public realm works, proposed infrastructural and public utility works do not remove historic street furniture such as limestone or granite kerbs, cobblestones, cast-iron post boxes, water pumps, milestones and historic street-lamp standards, except where an exceptional need has been clearly established.

Objective HCAO41 – Modern Street Furniture
Sensitively design, locate and rationalise modern street furniture and elements such as utility boxes, cables, bins, bike racks, poles, wires, antenna and signage. Defunct or obsolete telephone boxes/kiosks should be removed rather than replaced.

Objective HCAO42 – Undergrounding Cables
Underground cables and wires in historic urban environments or designated sites, such as SAAO's and ACAs, where appropriate, and where it does not detrimentally impact on other elements of heritage e.g. archaeology, natural heritage.

Malahide ACA:
'Malahide Historic Core' which include New Street is identified as an Architectural Conservation Area (ACA) in the Development Plan.
There are no Protected Structures within the New Street site area as part of this proposal.

There are two entries on the National Inventory of Architectural Heritage within New Street.

1. Lamp Standard (Reg No. 11344035):-

Freestanding cast-iron gas lamp standard, c.1900, comprising chamfered square pedestal with foliated shaft, decorative double lamp fitting above.

* This lamp standard has been removed from the streetscape due to corrosion of fixtures and the potential for a danger to pedestrians from falling debris.*

2. Shop/Retail Outlet (Reg No. 11344046):-

Corner-sited end-of-terrace five-bay two-storey former house, c.1835, retaining original fenestration to first floor. Single-bay single-storey extension to east c.1890. Ground floor remodelled c.1975 with pair of aluminium shopfronts. Now in use as retail outlet. ROOF: Double-pitched; slate;

concrete ridge tiles; nap rendered chimney stacks; yellow clay pots; cast-iron rainwater goods; half-pyramidal to end bay; slate; red clay ridge tiles; nap rendered chimney stack

WALLS: Roughcast; painted; raised nap rendered quoins; nap rendered to end bay and to gable end.

OPENINGS: Square-headed window openings to first floor; stone sills; 2/2 timber sash windows; square-headed door openings to centre ground floor; replacement glazed aluminium door; timber shopfront, c.1890, to end bay; panelled pilasters, decorative consoles, fascia and moulded cornice; replacement timber fixed-pane windows; pair of shopfronts to ground floor; aluminium fixed-pane display window; plastic fascia.

Chapter 14- Development Management Standards
Section 14.4.5 sets out design criteria for shopfront design and specifically notes guidance documents issued - *Guidelines for Malahide Public Realm Strategy for Shopfronts.*

All shopfront design, whether it be modern or traditional, should consider the streetscape, the building itself and the design detail of the shop unit. The Streetscape It is important to be aware of the street's character and to consider the effect the design might have on the streetscape. Shopfronts should reflect the historic urban grain, building widths and contribute to good design and traditional character of the village.

Table 12.11 - Direction for Proposed Development within Architectural Conservation Areas

Planning History
There is no planning history associated with the subject site.

Pre-Application Consultations
Pre-application discussions were undertaken with the Architects Department c. February/March 2023.

Departmental reports
Water Services Department: A report was received from Water Services which addresses Flooding, surface water drainage and water services infrastructure within the site. There is no objection raised to the proposed development subject to a number of conditions.

Parks and Green Infrastructure Department: This report states that there is no objection to the proposed development subject to a number of items being addressed.

Transportation Planning: Report received which covers a broad range of issues. The layout, sightline availability, parking arrangements, swept path analysis, road safety audit and preliminary construction traffic management plan are all acceptable and the Transportation Planning Section has no objection to the proposed development

Conservation Office; The Conservation Office report states that overall, the proposed design respects the architectural heritage of New Street, while adapting to the requirements of a modern public realm scheme. The proposed public realm improvements will enhance the character of the ACA by improving the setting of the existing nineteenth-century built heritage.

Heritage Officer/ Community Archaeologist Report: No objection. The Heritage Officer concurs with the proposed approach contained within the submitted report *'Archaeological Assessment at New Street, Malahide'* by Brandon Walsh and Antoine Glacometti

Department of Housing, Local Government and Heritage: No objection. Concurs with recommendations with respect to mitigation measures contained within Archaeological Assessment.

No reports received from: An Comhairle Ealaionn, An Taisce, Failte Ireland, Health and Safety Authority, Heritage Council, Inland Fisheries, Uisce Eireann, National Transport Authority, Public Lighting, Biodiversity Officer, Architect's Department, Local Principal Public Environmental Health Officer

Assessment

The proposed scheme has been considered in the context of the following issues:

- Zoning of site and principle of development;
- Layout and design;
- Integration with and impact on the amenity of area;
- Access;
- Surface water considerations;
- Archaeology;
- Conservation;
- Appropriate Assessment Screening;
- Environmental Impact Assessment Screening.

Zoning of Site & Principle of Development

The proposed scheme is located on lands zoned under Objective 'TC- Town and District Centre', with an objective to "Protect and enhance the special physical and social character of town and district centres and provide and/ or improve urban facilities" within the Fingal Development Plan 2023-2029.

The proposed public realm improvements for a pedestrianised New Street are considered acceptable and appropriate within this zoning.

Layout and Design

The proposed design emerged following consultation and an understanding of the wider context, recognising New Street as a key node within the overall urban and historic fabric of Malahide.

The public realm improvements increase the area provided for civic amenity along the thoroughfare and improve pedestrian priority and accessibility for the public. It creates new opportunities for visitors and passers-by to engage and enjoy the space by the proposed increase in the width of the footpath on either side of the street. The eastern side remains sunny for the majority of the day; therefore, an asymmetric layout is proposed, taking full advantage of the orientation. Large trees are proposed to 'book-end' the street and signify threshold, tying the public realm into its surrounding context.

Areas of planting are proposed incorporating sustainable urban drainage (SuDS) and increasing biodiversity on site.

Opportunities for seating, art and informal play installations are proposed to be located in between the areas of soft landscape.

Some areas of planting are also proposed to be introduced to act as buffer zones between public use and existing residential buildings. Clearly marked zones for outdoor dining are proposed to be organised in linear strips on both sides of the narrowed central carriageway.

Retractable bollards are proposed on the southern and northern end of the street with three proposed at the Diamond end and one at the other end.

A number of unique elements are proposed, such as art/play features and a dry plaza fountain. Detail of these elements is subject to a more detailed design process; however, the indicative locations are illustrated on the site plan submitted and they are generally located within the proposed north-south strip that accommodates sustainable urban drainage (SuDS), public seating and other street furniture.

A landscaping plan with the proposed schedule of planting has been submitted which involves the removal of 11 no. existing trees and the replacement planting of 37 mixed species trees. The Parks Department notes no objection to the proposal and have made recommendations in their report on several matters including landscaping and a maintenance plan.

Integration with and impact on the amenity of area

It is considered that the proposed development will not negatively impact on the amenities of the area.

The proposed public realm elements are considered to be in sympathy with the historic context. The space is proposed to be substantially open to allow a fuller appreciation of the existing buildings. The existing granite kerbs are proposed to be re-laid in their existing alignment. New high-quality materials, including Irish stone paving, channels and other details are also proposed as part of the public realm design to complement the existing character of the street, which will improve the visual amenity of the area.

it is not considered that the proposal will impact negatively on the visual amenity of the area and the proposed development will actually enhance and improve the visual amenity of the area.

The integration of SuDS and green infrastructure into the design and layout is a positive feature of the scheme and will ensure that the development of the lands contributes to the green infrastructure network in this area.

Access

The proposed development would reduce the 'carriageway' in width to allow for one-way use during certain times of the day (except at the north end of street where two-way is required locally for access to Ross Cottages at all times) and access for residents, emergency vehicles and deliveries. The proposed public realm improvements include a time limited one-way access from 7am to 11am each day for deliveries and emergency vehicles from Main Street/ The Mall to New Street and an unrestricted two-way access from Strand Street to Ross's Terrace via New Street. 2no. loading bays are proposed at the southern and northern ends of New Street and an accessible parking space in front of the HSE building.

Cyclists will be required to dismount on entering the street. Cycle parking stands are proposed throughout, particularly at the northern and southern ends of the street. Parking for 19 unusual or emerging bicycle formats and sizes such as cargo bikes and e-bikes is also catered for.

Overall, the Transportation Section has no objection to the proposal, however it does raise the issue of a road safety audit.

Surface Water

A drainage/suds strategy has been prepared by Punch Consulting Engineers, on behalf of the applicant. The strategy proposes to integrate proposed SuDS elements within the overall public realm proposals. The proposed system comprises a series of bio-retention areas which are located centrally in a north-south arrangement along the street. The bio-retention areas are proposed to help clean and slow down the rate of storm water run-off. They also provide an important opportunity to introduce planting onto the street.

As per the engineering report submitted, the existing 3" cast iron watermain (installed in 1925) running along New Street will be replaced/renewed with a modern 150mm diameter ductile iron watermain. The renewal of this watermain asset is provided to cater for possible increases in watermain loading demands in the future and to avoid the need to replace/upgrade the sewer following the establishment of the new public realm.

The report received from the Water Services Section has no objection to the proposed development.

A Site Specific Flood Risk Assessment was carried out by the Consulting Engineers in accordance with "The Planning System & Flood Risk Management Guidelines, 2009".
It was determined that the proposed public realm improvement for a pedestrianised New Street is currently located within Flood Zone A for fluvial flooding. The proposed public realm improvement for a pedestrianised New Street is classified as a Water Compatible Development under "The Planning Scheme and Flood Risk Management" Guidelines and as such is considered appropriate in this location. The proposed public realm improvements for a pedestrianised New Street will not increase the flood risk elsewhere.

Archaeology
A report - Archaeological Assessment at New Street, has been prepared by Archaeology Plan Heritage Solutions-

There are no recorded archaeological sites or monuments within the study area.
Two levels of subsurface impact are set out ; *Moderate and Deep Impact.*
Moderate impacts involve excavation works of c. 400-600mm below the existing ground level. Moderate impact areas include repaving and re-alignment of existing paving, planting areas for grass, flowers, hedges and shrubs, and foundations for dining tables, public seating, bins, cycle stands, and similar infrastructure. The proposed new water feature and water services upgrade, which comprises a central drain running underground down the centre of New Street, is also categorised as a moderate impact.
Deep impacts involve excavation works of 1m to 1.5m below the existing ground level. This covers planting areas for trees and the foundations of six proposed telescopic vehicle bollards.

A desktop assessment and site inspection was carried out and it was recommended that the entirety of groundworks for New Street should be archaeologically monitored under license from the NMS. In the event of archaeological material being identified, all groundworks should be halted by the archaeologist in that zone to assess the archaeological deposits and revert to the NMS and FCC.

Conservation
New Street is within Malahide Historic Core Architectural Conservation Area (ACA). There are no protected structures on New Street. An Architectural Heritage Assessment was submitted prepared by Coady Architects.
A conservation-led approach has been adopted in the design with a photographic survey of all the buildings on the street submitted and an inventory of all historical buildings on the street provided. A number of architecturally significant buildings on the street are identified in the Architectural Heritage Impact Assessment and the importance of the nineteenth-century buildings, the historic kerbstones and the terraced streetscape is recognised.
The overall design approach responds to the historic context of the street and aims to remove visual clutter and provide a cohesive design using a limited palette of appropriate materials. The pedestrianisation of the street and the improvements to the public realm will create an enhanced setting to appreciate the existing architectural heritage and streetscape. The careful retention of the historic kerbstones is welcomed by the Conservation Office and the proposed new paving design is simple with

a limited palette of materials of Leinster granite and blue-grey limestone. Where the new paving and introduction of plateau levels of planting are in proximity to historic stone entrance steps and door surrounds, detailed drawings should be provided to the Conservation Office and agreed to ensure no negative impact.
The Conservation Office note that the proposed street furniture shown in the examples have a limited palette of materials and are of simple contemporary design and final locations will be agreed to limit visual clutter. The details of the design of the outdoor seating and dining designated areas will be agreed with the Conservation Office and seating, tables, umbrellas and signage should be fully demountable.
The lighting strategy includes the retention of existing street lamps at The Diamond and the provision of wall mounted luminaires along New Street. The proposed wall mounted public lighting will minimise clutter in the street and enhance the setting.
Overall, the proposed design respects the architectural heritage of New Street, while adapting to the requirements of a modern public realm scheme. The Conservation Office has no specific requirements recommendations except from requesting that details of the paving materials, lighting and street furniture to be agreed with the Conservation Office and a re-examination of the existing street light fittings at The Diamond.

Appropriate Assessment

An Appropriate Assessment (Screening) Report has been prepared by Faith Wilson Ecological Consultant.

Following an examination , analysis and evaluation of all relevant information, on the basis of objective information and in light of best scientific knowledge and applying the precautionary principle, it can be concluded that the proposed works individually or in combination with another plan or project will not have a significant impact on any European sites, in view of the sites conservation objectives, and that there is no reasonable scientific doubt in relation to same. The assessment was reached without considering or taking into account mitigation measures or measures intended to avoid or reduce any impact on European sites.

The main reasons for this conclusion are as follows:

- The proposed public realm improvements are small, i.e. an area of 0.22ha in size and a distance of c.150m in length
- The site is not located within a European site
- There will be no increased loading, demands of the mains water supply and provision for same being provided
- There will be improved water quality in water leaving the street as a result of the proposed bio-retention areas
- Any of the proposed SUDS features will not produce any likely significant effects
- There will be no likely significant effects from disturbance of key species, habitat or species fragmentation.
- Considering the localised nature and scale of the proposed development, the overarching plans and policies of Fingal County Council and the nature of existing, permitted and proposed development in its environs, the proposed public realm improvements are not likely to have a significant effect on any European Site in-combination with other plans or projects.

The conclusions of the Appropriate Assessment Screening Report are considered reasonable, and the proposed development does not require a Stage 2 Appropriate Assessment. Moreover An Bord Pleanala has determined that a Stage 2 Appropriate Assessment is not required

Environmental Impact Assessment

An EIAR Screening Report has been prepared by BMA Planning. The report states that the proposed works do not trigger a requirement for a mandatory EIAR under the EIA direction nor the criteria set out under the Planning Development Regulations, as amended. It has been concluded that the development proposed is not likely to have significant effects on the environment due to nature, scale, size, or location of the proposed development relevant to any area of environmental sensitivity. The proposed public realm improvements will bring positive impacts in terms of enhancing the streetscape at New Street and promoting active travel modes with improved facilities for pedestrians and cyclists. On that basis, EIA is therefore not required for the proposed development. . Moreover An Bord Pleanala has determined that a Stage 2 EIA is not required

Review following public consultation

Plans and particulars of the proposed development were on public display **from the19th of April 2023 up to and including 17th of May 2023**. 204 submissions were received following the public display period. A number of submissions were positively disposed to the development with others raising concerns with a variety of issues. From a planning perspective the submissions received were considered and reviewed with respect to the proper planning and sustainable development of the area.

Planning Issues that arose can be summarised and commented on as follows:

Claim that Fingal Development Plan 2023-2029 was rejected by the Minister and has not been adopted. Claim that the Interim Publication has not been lawfully approved, assessed, or adopted

The Fingal Development Plan 2023 – 2029 was adopted on 24th February after an almost a two-year process. This Plan came into effect on 5th April 2023.

While a Draft Direction by the Minister for State for Local Government and Planning, in accordance with Section 31(7) of the Planning and Development Acts (as amended), had been received by Fingal County Council, with regard to the making of the Fingal Development Plan 2023-2029, this did not impact the proposed development.t

In accordance with Section 31(4)(c) and Section 31(6) of the Act, only those parts of the Fingal Development Plan 2023 – 2029 referred to in the draft Direction are taken not to have come into effect, been made or amended.

Claim that Fingal County Council should provide an LAP for Malahide before the proposals can be put on public display

The Planning Authority acknowledge submissions made in the relation to the provision of a Local Area Plan for Malahide. Submissions suggest the requirement for a LAP for Malahide and outline concerns that the proposed development is either premature or invalid pending the preparation of such a Plan. This is incorrect. The overarching principles of the Fingal Development Plan 2023 – 2029 provide the framework for all development across the County. All developments are assessed against the policies and objectives contained in the Development Plan. The Development Plan is the appropriate Plan against which to assess this proposal which clearly identifies and delineate the development boundaries of Malahide. The land use zoning along with specific map-based objectives, proposed connectivity and movement proposals and routes, architectural conservation areas, protected structures, national monuments, views, school sites, etc. are clearly shown.

The combination of highly detailed planning policy requirements for Malahide (and other settlements), as well as the overarching policies set out in Section 2.7 'Settlement Strategy' of the Development Plan means that a robust planning framework is in place. Fingal County Council are satisfied the proposal aligns with the policies and objectives of the Development Plan.

The Malahide Public Realm Strategy 2014 has not been adhered to

Since 2014, Government Policy has moved forward in the context of climate action and the prioritisation of the movement of people over privately owned vehicles, in line with the hierarchy of road users. Fingal County Council must also change our approach to public realm in order to apply government policy.

The Covid-19 pandemic has also impacted our approach to use of public and outdoor space as a society. There is a greater desire from the public to provide better access to high quality outdoor spaces within our towns and villages.

The Malahide Public Realm Strategy, which is a **non-statutory** document was published in April 2014. It is a conceptual document and was published as a general guidance which focused on what was considered to be the centre of Malahide Village. It identified certain projects which could be implemented with a view to improving the public realm in Malahide. It was prepared to demonstrate the potential improvements to the street and road layout of Malahide, with a focus on improvements to pedestrian and cycle movement and the public realm environment. The public realm improvements of New Street is consistent with the Malahide Public Realm Strategy, which envisages that priority will be given to measures which increase pedestrian movement and cycling in the village of Malahide. In particular, the public realm improvements are consistent with projects which focus on the permeability and connectivity across Malahide for pedestrians and cyclists.

The proposed development is contrary to the proper planning and sustainable development of the area.

The proposed development would be in accordance with the zoning objective 'TC' applicable to these lands in the Fingal County Development Plan 2023-2029, and the objectives of the Development Plan as they relate to place making, green infrastructure, built heritage and sustainable drainage and development management standards in respect of landscaping, public realm, management of trees, and the protection of the built environment and archaeology within this historic core of Malahide.

Following an examination , analysis and evaluation of all relevant information, on the basis of objective information and in light of best scientific knowledge and applying the precautionary principle, it can be concluded that the proposed works individually or in combination with another plan or project will not have a significant impact on any European sites, in view of the sites conservation objectives, and that there is no reasonable scientific doubt in relation to same. This has been accepted by An Bord Pleanala. In addition a submitted EIAR Screening Report has stated that the proposed works are not likely to have significant effects on the environment due to nature, scale, size, or location of the proposed development relevant to any area of environmental sensitivity. This has also been accepted by An Bord Pleanala.

Taking all the above into consideration the proposed development is consistent with the proper planning and sustainable development of the area.

Conclusion

The proposed development would be in accordance with the zoning objective 'TC' applicable to these lands in the Fingal County Development Plan 2017-2023, and the objectives of the Development Plan as

they relate to place making, green infrastructure, built heritage and sustainable drainage and development management standards in respect of landscaping, public realm, management of trees, and the protection of the built environment and archaeology within this historic core of Malahide. The proposed public realm improvements for a pedestrianised New Street will bring positive impacts in terms of enhancing the streetscape at New Street and promoting active travel modes with improved facilities for pedestrians and cyclists. Other significant improvements include minimising the use of steel poles and signage as well as the use of cowled and energy efficient light fittings to minimise light pollution and reduce carbon emissions, improvements and upgrades to the drainage network and provision of SUDs.

The proposed development is considered to accord with the proper planning and sustainable development of the area.

Recommendations

The Planning & Strategic Infrastructure Department has no objection to the principle of proposed development at this location subject to the implementation of the recommendations below.

1 The following requirements of the planning authority shall be strictly adhered to:

(i) The proposed hard surfacing to be in keeping with the materials used on The Green, Malahide.

(ii) The final details of the planting and hardscape proposals and specifications including structural soil to be agreed with the Parks and Green Infrastructure Division prior to the commencement of works on site. Emphasis to be given to the inclusion of larger growing trees.

(iii) A minimum of a three-year maintenance programme shall be put in place upon completion of this scheme. Full details of the maintenance programme shall be submitted and agreed with Parks and Green Infrastructure Division prior to the commencement of works on site.

(iv) All services both above and below ground (including public lighting and irrigation proposals if required shall be clearly shown on the landscape plan. Details of how services running through the constructed tree pits shall be dealt in terms of future access and maintenance shall be submitted and agreed with Parks and Green Infrastructure Division prior to the commencement of works on site.

2 (i) No surface water / rainwater is to discharge into the foul water system under any circumstances.

(ii) The surface water drainage must be in compliance with the "Greater Dublin Regional Code of Practice for Drainage Works, Version 6.0, FCC, April 2006.

3 Where the applicant proposes to connect directly or indirectly to a public water/wastewater network operated by Irish Water, the applicant must sign a connection agreement with Irish Water prior to the commencement of the development and adhere to the standards and conditions set out in that agreement.

APPENDIX 1- INTERNAL CONSULTEE REPORTS

FINGAL COUNTY COUNCIL INTERNAL CONSULTEE

PLANNING REPORT

Report of the Water Services Department

Register Reference: PARTXI/002/23

Registration Date: 19-Apr-2023

Development: Fingal County Council (Environment Climate Action and Active Travel) are proposing public realm improvements for pedestrianised New Street, Malahide. The proposed development extends to the full length of New Street from Main Street / the Mall (also knows as The Diamond) in the south to Strand Street to the north and including parts of main street / The Mall, Ross Terrace and Strand Street all at Malahide, Co. Dublin. The site is located within Malahide Historic Core Architectural Conservational area.

In accordance with Section 179 of the Planning and Development Act 2000 (as amended) and Part 8 of the Planning and Development Regulations 2001 (as amended), Fingal County Council hereby gives notice of the proposed development to be carried out at the above site.

The nature and extent of the proposed development is as follows:

(i) Widening of footpaths and provision of new kerb edges with existing kerbstones retained, realigned, and protected within the widened footpaths and public spaces.

(ii) Realignment and narrowing of the trafficable section of New Street (c.150m in length, 0.22ha) and insertion of control measures and all necessary signage to provide for a pedestrianised street with associated traffic flow routes and restrictions but allowing for emergency vehicles and time limited one-way access from 7am to 11am each day for deliveries from Main Street/ The Mall to New Street and two-way access from Strand Street to Ross's Terrace via New Street.

(iii) Upgrade of all street surfaces.

(iv) Provision of 2no. loading bays; at the southern and northern ends of New Street and an accessible parking space in front of the HSE building.

(v) Installation of cycle stands at 6no. locations on New Street with capacity for 23no. cycle parking spaces.

(vi) Removal and replacement of 11no. existing trees, with 37no. trees of species appropriate to the location and environment, and provision of soft landscaping and green infrastructure with planting zones for seeded, planted and hedging areas and associated bioretention and tree pit areas.

(vii) Provision of outdoor dining zones including tables and chairs and other ancillary moveable structures.

(viii) Provision of street furniture including seating, benches and litter and recycling bins and a water feature,

(ix) New public lighting.

(x) Upgrade of the watermain and foul drainage networks and upgrade and relocation of the surface water drainage network including provision of sustainable urban drainage systems (SUDs) features as part of hard and soft landscaping.

(xi) Provision of ducting for existing and future utilities and piped infrastructure.

(xii) All associated site and development works. Fingal County Council will be providing regulatory traffic signs (including regulatory signs which give effect to a pedestrianisation of New Street) in accordance with Section 95 of the Road Traffic Act 1961 (as amended).

Plans and particulars of the proposed development will be available for inspection at https://consult.fingal.ie/en/browse and inspection or purchase at a fee not exceeding the reasonable cost of making a copy from 19th of April 2023 up to and including 17th of May 2023 at the following:

The Offices of Final County Council, County Hall, Main Street, Swords, Co. Dublin, K67 X82 during normal opening hours (Monday to Thursday 9am to 5pm and Friday 9am to 4.30pm excluding Bank & Public Holidays)

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Submissions or observations with respect to the proposed development dealing with the proper planning and sustainable development of the area in which the development would be situated, may be made either online through our website https://consult.fingal.ie/en/browse or in writing to: Senior Engineer, Environment, Climate Action & Active Travel Department, Fingal County Council, County Hall, Swords, Co Dublin K67 X8Y2.

Submissions or observations with respect to the proposed development must arrive no later than 5pm on 02nd of June 2023.

The proposed development has undergone screening for Environmental Impact Assessment under the EIA Directive 2011/92/EU as amended by Directive 2014/52/EU (and the relevant provisions of the Planning and Development Act 2000 (as amended) and the Planning and Development Regulations 2001 (as amended and Final County Council has determined that there is no real likelihood of significant effects on the environment arising from the proposed development and that an Environmental Impact Assessment is not required.

Any person may, within 4 weeks from the date of this notice, apply in accordance with the provisions of article 120 of the Planning and Development Regulations 2001 (as amended to An Bord Pleanála for a screening determination as to whether the development would be likely to have significant effects on the environment.

In addition, the proposed development has undergone screening for Appropriate Assessment and Final County Council has determined that following an examination, analysis and evaluation of all relevant information, on the basis of the objective information and in view of best scientific knowledge and applying the precautionary principle, the proposed development either individually or in combination with other plans and projects, and in the absence of mitigation, is not likely to have a significant effect on any European Sites), in view of the sites conservation objectives, and that there is no reasonable doubt in relation to this conclusion.

Issues raised in submissions and observations to Fingal County Council in regard to this development, including the response of the Chief Executive thereto, will form part of the statutory report to be presented to the monthly meeting of Fingal County Council. The statutory report will also list the persons or bodies who made submissions or observations with respect to the proposed development in accordance with regulations made under Part XI of the Planning and Development Act as amended. The minutes of that meeting including the statutory report will appear on the Council's Website. Details including the names of those making submissions or observations may be shared with relevant Council Departments and agents working on their behalf.

Location: New Street, Malahide

Applicant: Architects Department

Application Type: Part XI (Dev by LAs)

Foul Sewer: ***NO OBJECTION SUBJECT TO:***

Note: Following the conclusion of the public consultation period, the public submissions have been reviewed and considered. There are no changes to the report in respect of wastewater commentary.

1. The foul sewer drainage proposal is acceptable in principle.
2. As per the report, a dedicated 300mm diameter foul sewer is proposed along New Street in parallel with the proposed stormwater drainage line. This section of foul sewer will connect via an existing manhole to the 300mm concrete dedicated foul sewer running eastwest along Strand Street. The introduction of this dedicated foul sewer will allow for foul connections directly from premises along New Street, thereby reducing the foul sewer effluent in the pre-existing stormwater system.
3. It is acknowledged that final design details have to be finalised with Irish Water. Therefore, the proposal is considered acceptable subject to the following conditions:
   (a) The wastewater infrastructure should comply with IW Water Infrastructure Standard Details (IW-CDS-5020-01) and IW Code of Practice (IW-CDS-5020-03).
   (b) The applicant shall sign a connection agreement with Irish Water prior to commencement.

Surface Water: ***NO OBJECTION SUBJECT TO:***

Note: Following the conclusion of the public consultation period, the public submissions have been reviewed and considered. There are no changes to the report in respect of surface water commentary.

1. As per the engineering services report, the existing surface water pipe running along New Street will be diverted clear of all bioretention areas. It is proposed to connect all new proposed road gullies and SuDS overflow gullies into the diverted surface water pipe on New Street.

2. The drainage/SuDS strategy for the proposal will involve stormwater being collected from the site via the drainage network cascading between a number of bioretention areas prior to being discharged. The bioretention areas are all proposed for the eastern side of the street.
3. No surface water / rainwater is to discharge into the foul water system under any circumstances.
4. The surface water drainage must be in compliance with the "Greater Dublin Regional Code of Practice for Drainage Works, Version 6.0, FCC, April 2006.

Flooding: No Objection

Note: Following the conclusion of the public consultation period, the public submissions have been reviewed and considered. There are no changes to the report in respect of Flood risk commentary.

A commensurate flood risk assessment has been prepared by Punch Consulting Engineers, on behalf of the applicant. In accordance with The Planning System and Flood Risk Management Guidelines for Planning Authorities, the proposed development is considered to be a Water-compatible development, located within Flood Zone A for fluvial flooding (ie 1% AEP).

The proposed development will not increase flood risk elsewhere & mitigation measures (SuDS) have been incorporated into the design for pluvial flows. Ground water flows are deemed negligible.

Water Supply: ***NO OBJECTION SUBJECT TO:***

Note: Following the conclusion of the public consultation period, the public submissions have been reviewed and considered. There are no changes to the report in respect of water supply commentary.

1. As per the engineering report submitted, the existing 3" cast iron watermain (installed in 1925) running along New Street will be replaced/renewed with a modern 150mm diameter ductile iron watermain. The renewal of this watermain asset is provided to cater for possible increases in watermain loading demands in the future and to avoid the need to replace/upgrade the sewer following the establishment of the new public realm.

2. It is acknowledged that final design details have to be finalised with Irish Water. Therefore, the proposal is considered acceptable subject to the following conditions:

   (a) The wastewater infrastructure should comply with IW Water Infrastructure Standard Details (IW-CDS-5020-01) and IW Code of Practice (IW-CDS-5020-03).

   (b) The applicant shall sign a connection agreement with Irish Water prior to commencement.

Officer: _____DC_____ Endorsed: _____DD

Date: _____14/12/2023_____ Date: _____14/12/2023

FINGAL COUNTY COUNCIL INTERNAL CONSULTEE

PLANNING REPORT

Report of Parks and Green Infrastructure Division

Register Reference: PARTXI/002/23

Registration Date: 19-Apr-2023

Development: Fingal County Council (Environment Climate Action and Active Travel) are proposing public realm improvements for pedestrianised New Street, Malahide. The proposed development extends to the full length of New Street from Main Street / the Mall (also knows as The Diamond) in the south to Strand Street to the north and including parts of main street / The Mall, Ross Terrace and Strand Street all at Malahide, Co. Dublin. The site is located within Malahide Historic Core Architectural Conservational area.

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(iii) Upgrade of all street surfaces.

(iv) Provision of 2no. loading bays; at the southern and northern ends of New Street and an accessible parking space in front of the HSE building.

(v) Installation of cycle stands at 6no. locations on New Street with capacity for 23no. cycle parking spaces.

(vi) Removal and replacement of 11no. existing trees, with 37no. trees of species appropriate to the location and environment, and provision of soft landscaping and green

infrastructure with planting zones for seeded, planted and hedging areas and associated bioretention and tree pit areas.

(vii) Provision of outdoor dining zones including tables and chairs and other ancillary moveable structures.

(viii) Provision of street furniture including seating, benches and litter and recycling bins and a water feature,

(ix) New public lighting.

(x) Upgrade of the watermain and foul drainage networks and upgrade and relocation of the surface water drainage network including provision of sustainable urban drainage systems (SUDs) features as part of hard and soft landscaping.

(xi) Provision of ducting for existing and future utilities and piped infrastructure.

(xii) All associated site and development works. Fingal County Council will be providing regulatory traffic signs (including regulatory signs which give effect to a pedestrianisation of New Street) in accordance with Section 95 of the Road Traffic Act 1961 (as amended).

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Submissions or observations with respect to the proposed development must arrive no later than 5pm on 02nd of June 2023.

The proposed development has undergone screening for Environmental Impact Assessment under the EIA Directive 2011/92/EU as amended by Directive 2014/52/EU (and the relevant provisions of the Planning and Development Act 2000 (as amended) and the Planning and Development Regulations 2001 (as amended and Final County Council has determined that there is no real likelihood of significant effects on the environment arising from the proposed development and that an Environmental Impact Assessment is not required.

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Issues raised in submissions and observations to Fingal County Council in regard to this development, including the response of the Chief Executive thereto, will form part of the statutory report to be presented to the monthly meeting of Fingal County Council. The statutory report will also list the persons or bodies who made submissions or observations with respect to the proposed development in accordance with regulations made under Part XI of the Planning and Development Act as amended. The minutes of that meeting including the statutory report will appear on the Council's Website. Details including the names of those making submissions or observations may be shared with relevant Council Departments and agents working on their behalf.

Location: New Street, Malahide

Applicant: Architects Department

Application Type: Part XI (Dev by LAs)

Report

The Parks and Green Infrastructure Division has no objection to the above development subject to the following:

The proposed hard surfacing to be in keeping with the materials used on The Green, Malahide.

The final details of the planting and hardscape proposals and specifications including structural soil to be agreed with the Parks and Green Infrastructure Division prior to the commencement of works on site. Emphasis to be given to the inclusion of larger growing trees.

A minimum of a three-year maintenance programme shall be put in place upon completion of this scheme. Full details of the maintenance programme shall be submitted and agreed with Parks and Green Infrastructure Division prior to the commencement of works on site.

All services both above and below ground (including public lighting and irrigation proposals if required shall be clearly shown on the landscape plan. Details of how services running through the constructed tree pits shall be dealt in terms of future access and maintenance shall be submitted and agreed with Parks and Green Infrastructure Division prior to the commencement of works on site.

Officer: Gemma Carr _____ Endorsed: _____

Date: 11/06/23 _____ Date: _____

FINGAL COUNTY COUNCIL INTERNAL CONSULTEE

PLANNING REPORT

Report of the Transportation Planning Section

Register Reference: PARTXI/002/23

Registration Date: 19-Apr-2023

Development: Fingal County Council (Environment Climate Action and Active Travel) are proposing public realm improvements for pedestrianised New Street, Malahide. The proposed development extends to the full length of New Street from Main Street / the Mall (also knows as The Diamond) in the south to Strand Street to the north and including parts of main street / The Mall, Ross Terrace and Strand Street all at Malahide, Co. Dublin. The site is located within Malahide Historic Core Architectural Conservational area.

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(iii) Upgrade of all street surfaces.

(iv) Provision of 2no. loading bays; at the southern and northern ends of New Street and an accessible parking space in front of the HSE building.

(v) Installation of cycle stands at 6no. locations on New Street with capacity for 23no. cycle parking spaces.

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Bord Pleanála for a screening determination as to whether the development would be likely to have significant effects on the environment.

In addition, the proposed development has undergone screening for Appropriate Assessment and Final County Council has determined that following an examination, analysis and evaluation of all relevant information, on the basis of the objective information and in view of best scientific knowledge and applying the precautionary principle, the proposed development either individually or in combination with other plans and projects, and in the absence of mitigation, is not likely to have a significant effect on any European Sites), in view of the sites conservation objectives, and that there is no reasonable doubt in relation to this conclusion.

Issues raised in submissions and observations to Fingal County Council in regard to this development, including the response of the Chief Executive thereto, will form part of the statutory report to be presented to the monthly meeting of Fingal County Council. The statutory report will also list the persons or bodies who made submissions or observations with respect to the proposed development in accordance with regulations made under Part XI of the Planning and Development Act as amended. The minutes of that meeting including the statutory report will appear on the Council's Website. Details including the names of those making submissions or observations may be shared with relevant Council Departments and agents working on their behalf.

Location: New Street, Malahide

Applicant: Architects Department

Application Type: Part XI (Dev by LAs)

General

The proposed development is located in a 50km/hr speed limit, in an area with a land zoning objective of 'MC-Major Town Centre'.

In summary, the proposed development would involve public realm works on a street that has been 'pedestrianised' since circa June 2021 and would not be considered by the Transportation Planning Section to be an intensification of use of the site.

As described in the submitted document titled 'Design Rationale'; prior to the outbreak of 'Covid-19' in March 2020, New Street, Malahide accommodated two-way traffic movement. Following a government mandate to review road networks in urban areas to identify areas that could prioritise pedestrian and cycle movements, New Street was pedestrianised from June 2020 to December 2020. This arrangement was modified to a one-way system for vehicular traffic from December 2020 to June 2021. In June 2021, Fingal County Council pedestrianised New Street. As a result, there is currently time limited one-way

access from 7am to 11am each day for deliveries and emergency vehicles from Main Street/ The Diamond to New Street and two-way access from Strand Street to Ross's Terrace via New Street.

The proposed development would involve, in summary, realignment and upgrade of street surfaces and narrowing of the trafficable section of New Street (c.150m in length, 0.22ha) and insertion of control measures and all necessary signage to provide for a pedestrianised street with associated traffic flow routes and restrictions, but allowing for emergency vehicles and time limited one-way access from 7am to 11am each day for deliveries from Main Street/ The Mall to New Street, and two-way access from Strand Street to Ross's Terrace via New Street. There are 2no. loading bays proposed at the southern and northern ends of New Street, and an accessible parking space in front of the HSE building.

As described in the 'feedback on quality audit report', the section of New Street between the Diamond and Ross Cottages will be designated as a Destination Street (a node), and not a cycling street. Cyclists utilising the pedestrianised section of New Street will need to dismount.

Layout

The proposed layout is generally acceptable to the Transportation Planning Section.
The proposed surface finish detail for the trafficked part of the street (access traffic only), north of the entrance to Ross Cottages, is called-up in the drawing titled 'public realm detail plan – 01' as 'proposed selected natural stone paving - type 3'; and it's noted by the Transportation Planning Section that the road detail should meet the Councils standards for taking-in-charge where appropriate.

Sightlines

A sightline drawing for all of the main junctions has been provided, which is acceptable to the Transportation Planning Section.

Parking

The proposed development has no additional car parking demand associated with it; and would provide no additional car parking other than 2no. loading bays proposed at the southern and northern ends of New Street and an accessible parking space in front of the HSE building.

Bicycle Parking

Bicycle parking facilities have been provided within the proposed public realm, particularly at the northern and southern ends of the street.

Traffic and Transport Assessment/Traffic Impact Assessment

The applicant has provided a Traffic and Transport Assessment, which is generally acceptable to the Transportation Planning Section.
The proposed development would be located on a street that has been 'pedestrianised' and would have minimal effect on the surrounding road network.

Swept Path Analysis

A swept path analysis has been provided for a fire tender, rigid truck, refuse collection vehicle and van. This is acceptable to the Transportation Planning Section.

Road Safety Audit

The applicant has included a Quality Audit Including a Stage 1 Road Safety Audit, Access Audit, Cycle Audit, Walking Audit & Non-Motorised User Audit; which is generally acceptable to the Transportation Planning Section.

Following on from the Stage 1 Road Safety Audit, a Stage 2 Road Safety Audit must be completed by the Applicant/Developer, at completion of detailed design stage and prior to commencement of construction.
Prior to opening of the scheme to the public, a Stage 3 Road Safety Audit must be completed and submitted by the Applicant/Developer, to the satisfaction of the Planning Authority.
Following 4-6 months post-opening to the public and live traffic, a Stage 3 Road Safety Audit must be completed and submitted by the Applicant/Developer, to the satisfaction of the Planning Authority.
The Road Safety Audits shall be carried out in compliance with the TII Publication 'Road Safety Audit GE-STY-01024'.

Taking in Charge

All works and materials used should meet the Councils standards for taking in charge, including all roads, footpaths, verges, public lighting, open space, sewers, watermains or drains forming part of the development.

Preliminary Construction Traffic Management Report

A preliminary construction management plan has been submitted and is generally acceptable to the Transportation planning Section.

Conclusion

The Transportation Planning Section has no objection the proposed development

Officer: _____ Endorsed: _____

Date: _____ Date: _____

FINGAL COUNTY COUNCIL INTERNAL CONSULTEE

PLANNING REPORT

Report of the Conservation Officer Section

Register Reference: PARTXI/002/23

Registration Date: 19-Apr-2023

Development: Fingal County Council (Environment Climate Action and Active Travel) are proposing public realm improvements for pedestrianised New Street, Malahide. The proposed development extends to the full length of New Street from Main Street / the Mall (also knows as The Diamond) in the south to Strand Street to the north and including parts of main street / The Mall, Ross Terrace and Strand Street all at Malahide, Co. Dublin. The site is located within Malahide Historic Core Architectural Conservational area.

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Location: New Street, Malahide

Applicant: Architects Department

Application Type: Part XI (Dev by LAs)

Report

The documentation was forwarded to the Conservation Officer for comment. The proposed public realm improvements will facilitate the pedestrianisation of New Street, Malahide. The proposed development extends to the full length of New Street from Main Street / the Mall (also knows as The Diamond) in the south to Strand Street to the north. New Street is located within Malahide Historic Core Architectural Conservation Area (ACA). There are no protected structures or recorded monuments within the development site. There are several recorded monuments to the west of New Street as outlined in the Archaeological Report.

In the eighteenth century the Talbot family played an influential role in the redevelopment of the town of Malahide. Richard Talbot, as a trustee of the turnpike at Malahide, was integral in the changes to the street layout. Main Street was extended to the west and the centre of the village moved east to The Diamond, set out by the Talbot family as the focal point of the town. New Street was laid out in c. 1800 as one of the early-nineteenth century planned roads that radiated from this central core. Large two-storey residences were built on New Street in the early nineteenth century. Many of these are extant in the southern half of New Street with the ground floor now in use as shop fronts. Their historic features include continuous slate roofing, rendered walls and arched entrance ways. A number have retained their historic doors, fan

lights and door surrounds and these features greatly contribute to the character of the ACA. Several historic shop fronts have survived on the west side of New Street including two bow-shaped store fronts, approximately halfway along the street. The red-brick dispensary built in 1817 on the western side also contributes to the architectural heritage of the street. The northern portion of New Street is primarily occupied by twentieth century structures, with a single house on the north-eastern corner at the junction with Strand Street dating from the nineteenth century. Four two-storey, five-bay houses were constructed in the early nineteenth century as upper-class homes forming the four sides of the Diamond. The houses on the north-east (now in use as a bank) and north-west (now in use as a pharmacy and jeweller) of the Diamond are extant. The layout and morphology of New Street and The Diamond are of architectural, historical and social interest as an exemplar early-nineteenth century planned town centre.

A conservation-led approach has been adopted in the design of the proposed public realm improvement works with a photographic survey of all the buildings on the street submitted. Several architecturally significant buildings on the street are identified in the Architectural Heritage Impact Assessment. The importance of the nineteenth-century terraced streetscape, including historic features such as doors, fanlights, arched entrance ways, shopfronts and kerbstones is recognised, and the design approach is sensitive to the established character of the ACA.

The overall design approach responds to the historic context of the street and removes visual clutter, providing a cohesive design using a limited palette of appropriate materials. The Conservation Office welcomes the pedestrianisation of the street and the improvements to the public realm which will create an enhanced setting to appreciate the existing architectural heritage and streetscape. The careful retention of the historic kerbstones is particularly welcome. The proposed new paving design is simple with a limited palette of materials of Leinster granite and blue-grey limestone. Where the new paving and introduction of plateau levels of planting could impact on historic stone entrance steps and door surrounds, detailed drawings will be provided to ensure no negative impacts, as set out in the conservation report.

The proposed planting scheme will have a positive visual impact on the ACA by replacing the existing trees with more suitably sized trees in appropriate locations. This will enhance the setting by allowing the historic streetscape to be read as a whole, rather than the existing trees along the western side impacting on views of the street.

The proposed street furniture shown in the examples have a limited palette of materials and are of simple contemporary design which is considered appropriate in this setting. Final locations of street furniture and details will be carefully considered to limit visual clutter. Seating, tables, umbrellas and signage will be fully demountable.

The lighting strategy includes the retention of the existing street lamps at The Diamond and the provision of new contemporary wall mounted luminaires along New Street. The proposed wall mounted public lighting will minimise clutter in the street and enhance the setting and character of the ACA. The two existing street lights at The Diamond are a hybrid of traditional lantern style light fittings that would have been used for historic gas lights but on excessively tall poles that are associated with modern light standards. The Conservation Office acknowledge that these street lights are part of an existing lighting scheme for the Diamond and Main Street and any replacement of these street lights would be outside of the scope of the proposed public realm works for New Street.

Overall, the proposed design respects the architectural heritage of New Street, while adapting to the requirements of a modern public realm scheme. The proposed public realm improvements

will enhance the character of the ACA by improving the setting of the existing nineteenth-century built heritage.

Signed: Laura Johnstone

Position: Executive Architectural Conservation Officer

Date: 03/05/2023

FINGAL COUNTY COUNCIL INTERNAL CONSULTEE

ADDENDUM

Addendum to Report of the Conservation Officer Section

Register Reference: PARTXI/002/23

Registration Date: 19-Apr-2023

Location: New Street, Malahide

Applicant: Architects Department

Application Type: Part XI (Dev by LAs)

The Conservation Office reviewed the submissions made as part of the public consultation process which closed on 2nd June 2023. The opinion of the Conservation Office on the proposed development remains as stated in the above report.

Officer	Laura Johnstone	Endorsed	Helena Bergin
Position	Executive Architectural Conservation Officer	Position	Senior Executive Architectural Conservation Officer
Date	14/12/2023	Date	14/12/2023

Register Reference: PARTXI/002/23

Proposed Development: Fingal County Council (Environment Climate Action and Active Travel are proposing public realm improvements for pedestrianised New Street, Malahide. The proposed development extends to the full length of New Street from Main Street / the Mall (also knows as The Diamond in the south to Strand Street to the north and including parts of main street / The Mall, Ross Terrace and Strand Street all at Malahide, Co Dublin. The site is located within Malahide Historic Core Architectural Conservational area. In accordance with Section 179 of the Planning and Development Act 2000 (as amended) and Part 8 of the Planning and Development Regulations 2001 (as amended), Fingal County Council hereby gives notice of the proposed development to be carried out at the above site. The nature and extent of the proposed development is as follows:

(i) Widening of footpaths and provision of new kerb edges with existing kerbstones retained, realigned, and protected within the widened footpaths and public spaces.

(ii) Realignment and narrowing of the trafficable section of New Street (c.150m in length, 0.22ha) and insertion of control measures and all necessary signage to provide for a pedestrianised street with associated traffic flow routes and restrictions but allowing for emergency vehicles and time limited one-way access from 7am to 11am each day for deliveries from Main Street/ The Mall to New Street and two-way access from Strand Street to Ross's Terrace via New Street.

(iii) Upgrade of all street surfaces.

(iv) Provision of 2no. loading bays; at the southern and northern end of New Street and an accessible parking space in front of the HSE building.

(v) Installation of cycle stands at 6no. locations on New Street with capacity for 23no. cycle parking spaces.

(vi) Removal and replacement of 11no. existing trees, with 37no. trees of species appropriate to the location and environment, and provision of soft landscaping and green infrastructure with planting zones for seeded, planted and hedging areas and associated bioretention and tree pit areas.

(vii) Provision of outdoor dining zones including tables and chairs and other ancillary moveable structures.

(viii) Provision of street furniture including seating, benches and litter and recycling bins and a water feature,

(ix) New public lighting.

(x) Upgrade of the watermain and foul drainage networks and upgrade and relocation of the surface water drainage network including provision of sustainable urban drainage systems (SUDs) features as part of hard and soft landscaping.

(xi) Provision of ducting for existing and future utilities and pipe infrastructure.
(xii) All associated site and development works. Fingal County Counc will be providing regulatory traffic signs (including regulatory sign which give effect to a pedestrianisation of New Street) in accordanc with Section 95 of the Road Traffic Act 1961 (as amended).

Location:	New Street, Malahide, Co. Dublin
Report Type:	Permission
Planning Officer:	Sean Walsh

A desktop report-*Archaeological Assessment at New Street, Malahide* by Brandon Walsh and Antoine Giacometti (dated 20/10/2022) was submitted. Mitigation measure recommended comprise the licensed archaeological monitoring of ground works which will have a moderate or deep sub-surface impact as defined in the Impact Assessment (Walsh & Giacometti 2022, 45).

The Heritage Officer concurs with this approach.

Signed: _____

Christine Baker

Position: **Heritage Officer/Archaeologist**

Date: **05/05/2023**

APPENDIX 2 Determinations An Bord Pleanala

Our Case Number: ABP-317131-23

21 NOV 2023

An Bord Pleanála

Fingal County Council
County Hall
Main Street
Swords
Co. Dublin
K67 X8Y2

Date: 20 NOV 2023

Re: Public realm improvements for a pedestrianised New Street, Malahide, County Dublin

Dear Sir / Madam,

An Order has been made by An Bord Pleanála determining the above-mentioned case. A copy of the Order is enclosed.

In accordance with section 146(3) of the Planning and Development Act, 2000, as amended, the Board will make available for inspection and purchase at its offices the documents relating to the decision within 3 working days following its decision. In addition, the Board will also make available the Inspector's Report and the Board Direction on the decision on its website (www.pleanala.ie). This information is normally made available on the list of decided cases on the website on the Wednesday following the week in which the decision is made.

Overleaf contains information in relation to challenges to the validity of a decision of An Bord Pleanála under the provisions of the Planning and Development Act, 2000, as amended.

If you have any queries in relation to the matter, please contact the undersigned officer of the Board at laps@pleanala.ie. Please quote the above-mentioned An Bord Pleanála reference number in any correspondence or telephone contact with the Board.

Yours faithfully,

pp Eimear Reilly
Executive Officer
Direct Line: 01-8737184

JN08

Teil	Tel	(01) 858 8100
Glao Áitiúil	LoCall	1800 275 175
Facs	Fax	(01) 872 2684
Láithreán Gréasáin	Website	www.pleanala.ie
Ríomhphost	Email	bord@pleanala.ie

64 Sráid Maoilbhríde
Baile Átha Cliath 1
D01 V902

64 Marlborough Street
Dublin 1
D01 V902

An Bord Pleanála

Board Order ABP-317131-23

Planning and Development Acts, 2000 to 2022

Planning Authority: Fingal County Council

Application by Malahide Old Village Residents Association, care of Majella Dunne, 4 New Street, Malahide, County Dublin requesting An Bord Pleanála to exercise its powers under article 250(3)(a) of the Planning and Development Regulations, 2001, as amended, whether Fingal County Council should be directed to prepare a Natura Impact Statement in respect of public realm improvements for a pedestrianised New Street, Malahide, County Dublin.

Decision

NOT TO DIRECT the local authority to prepare a Natura Impact Statement in respect of the proposed development, based on the reasons and considerations set out below.

EJK

Reasons and Considerations

Having regard to:

(a) the nature and scale of the proposed development,

(b) the location of the proposed development and the separation distance from the European Sites,

(c) the hydrological connection between the site and the European Sites via an adjacent watercourse,

(d) the ecological connection between the site and the European Sites via an adjacent watercourse and treelines and vegetation,

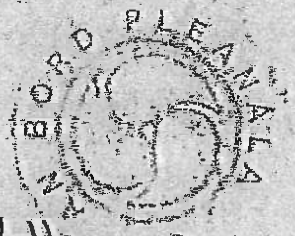
(e) the submission made by the local authority, including the Appropriate Assessment Screening Report,

(f) the submission made by the applicant requesting a determination, and

(g) the report and recommendation of the Inspector,

EJK

it is considered reasonable to conclude that on the basis of the information available, which is considered adequate to issue a screening determination, that the proposed development, either individually or in combination with other plans or projects, would not be likely to have a significant effect on the identified European Sites in view of the conservation objectives of these sites and that a Stage 2 appropriate assessment and the submission of a Natura Impact Statement for the proposed development is, therefore, not required.



Eamonn James Kelly

Eamonn James Kelly
Member of An Bord Pleanála
duly authorised to authenticate
the seal of the Board.

Dated this 17th day of November, 2023

Our Case Number: ABP-317130-23

An Bord Pleanála

FINGAL COUNTY COUNCIL
Pl...
21 NOV 2023
RECEIV...

Fingal County Council
County Hall
Main Street
Swords
Co. Dublin
K67 X8Y2

Date: 20 NOV 2023

Re: Public realm improvements for a pedestrianised New Street
Malahide, County Dublin

Dear Sir / Madam,

An order has been made by An Bord Pleanála determining the above mentioned case. A copy of the order is enclosed.

In accordance with section 146(5) of the Planning and Development Act, 2000 as amended, the Board will make available for inspection and purchase at its offices the documents relating to the decision within 3 working days following its decision. In addition, the Board will also make available the Inspector's Report and the Board Direction on the decision on its website (http://www.pleanala.ie).

This information is normally made available on the list of decided cases on the website on the Wednesday following the week in which the decision is made.

The attachment contains information in relation to challenges to the validity of a decision of An Bord Pleanála under the provisions of the Planning and Development Act, 2000, as amended.

If you have any queries in relation to the matter please contact the undersigned officer of the Board at laps@pleanala.ie

Please quote the above mentioned An Bord Pleanála reference number in any correspondence or telephone contact with the Board.

Yours faithfully,

pp Elmear Reilly
Executive Officer
Direct Line: 01-8737184

ED10

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An Bord Pleanála

Board Order
ABP-317130-22

Planning and Development Acts, 2000 to 2022

Planning Authority: Fingal County Council

Application by Malahide Old Village Residents Association, care of Majella Dunne, 4 New Street, Malahide, County Dublin and others, requesting An Bord Pleanála to consider and determine, in accordance with its powers under article 120(3)(cc) of the Planning and Development Regulations, 2001, as amended, whether Fingal County Council should be directed to prepare an Environmental Impact Assessment Report in respect of public realm improvements for a pedestrianised New Street, Malahide, County Dublin.

DECISION

NOT TO DIRECT the local authority to prepare an Environmental Impact Assessment Report in respect of the said proposed development based on the reasons and considerations set out below.

EJK

REASONS AND CONSIDERATIONS

Having regard to the following:

(a) the criteria set out in Schedule 7 and the information provided in Schedule 7A of the Planning and Development Regulations 2001, as amended,

(b) the limited nature and scale of the proposed development which is under the threshold in respect of Class 10b(iv) (Infrastructure – Urban Development) of the Planning and Development Regulations 2001, as amended,

(c) the location of the site on lands in a Town and District Centre location as described in the Fingal County Development Plan 2023-2029 and the results of the Strategic Environmental Assessment of this plan undertaken in accordance with the Strategic Environmental Assessment Directive (2001/42/EC),

(d) the location of the site in a built-up area served by public infrastructure and the existing pattern of development in the vicinity,

(e) the limited potential for significant impacts arising from the proposed development,

(f) the submission made by the local authority,

(g) the submissions made by the applicants requesting a determination, and

(h) the report and recommendation of the Inspector,

EJK

it is considered that the proposed development would not be likely to have significant effects on the environment and, accordingly, that the preparation and submission of an Environmental Impact Assessment Report is not, therefore, required.

Eamonn James Kelly

Eamonn James Kelly
Member of An Bord Pleanála
duly authorised to authenticate
the seal of the Board.

Dated this 17th day of November, 2023

An Bord Pleanála

Judicial Review Notice

Judicial review of An Bord Pleanála decisions under the provisions of the Planning and Development Acts (as amended).

A person wishing to challenge the validity of a Board decision may do so by way of judicial review only. Sections 50, 50A and 50B of the Planning and Development Act 2000, as amended, contain provisions in relation to challenges to the validity of a decision of the Board.

The validity of a decision taken by the Board may only be questioned by making an application for judicial review under Order 84 of The Rules of the Superior Courts (S.I. No. 15 of 1986). Sub-section 50(6) of the Planning and Development Act 2000 requires that any application for leave to apply for judicial review must be made within 8 weeks of the date of the decision of the Board, save for decisions made pursuant to a function transferred to the Board under Part XIV of the Planning and Development Act 2000, where any application for leave to apply for judicial review must, as set out in sub-section 50(7), be made within 8 weeks beginning on the date on which notice of the decision of the Board was first sent (or as may be the requirement under the relevant enactment, functions under which are transferred to the Board, was first published). These time periods are subject to any extension which may be allowed by the High Court in accordance with sub-section 50(8).

Section 50A(3) states that leave for judicial review shall not be granted unless the Court is satisfied that (a) there are substantial grounds for contending that the decision is invalid or ought to be quashed and (b) the applicant has a sufficient interest in the matter which is the subject of the application or in cases involving environmental impact assessment is a body complying with specified criteria.

Section 50B contains provisions in relation to the costs of certain judicial review proceedings in the High Court; pursuant to Section 50B(1), Section 50B applies to the following proceedings:

(a) proceedings in the High Court by way of judicial review, or of seeking leave to apply for judicial review, of—
(i) any decision or purported decision made or purportedly made,
(ii) any action taken or purportedly taken,
(iii) any failure to take any action, pursuant to a statutory provision that gives effect to
I. a provision of the EIA Directive 85/337/EEC as amended to which Article 10a (as inserted by Directive 2003/35/EC) of that Directive applies,
II. the SEA Directive 2001/42/EC, or
III. a provision of the IPPC Directive 2008/1/EC to which Article 16 of that Directive applies, or
IV. Article 6(3) or 6(4) of the Habitats Directive; or

(b) an appeal (including an appeal by way of case stated) to the Supreme Court from a decision of the High Court in a proceeding referred to in paragraph (a);

(c) proceedings in the High Court or the Supreme Court for interim or interlocutory relief in relation to a proceeding referred to in paragraph (a) or (b).

The general provision contained in section 50B(2) is that in proceedings to which the section applies each party shall bear its own costs. The Court however may award costs against any party in specified circumstances. There is also provision for the Court to award the costs of proceedings or a portion of such costs to an applicant, to the extent that the applicant succeeds in obtaining relief, against a respondent or notice party, or both, to the extent that the action or omission of the respondent or notice party contributed to the relief being obtained.

General information on judicial review procedures is contained on www.citizeninformation.ie

Disclaimer: The above is intended for information purposes. It does not purport to be a legally binding interpretation of the relevant provisions and it would be advisable for persons contemplating legal action to seek legal advice.

An Bord Pleanála

Fógra faoi Athbhreithniú Breithiúnach

Athbhreithniú breithiúnach ar chinntí an Bhoird Pleanála faoi fhorálacha na nAchtanna um Pleanáil agus Forbairt (arna leasú).

Ní fhéadfaidh duine ar mian leis nó léi agóid a dhéanamh in aghaidh bhailíocht chinneadh de chuid an Bhoird é sin a dhéanamh ach trí athbhreithniú breithiúnach. Tá forálacha in Alt 50, 50A agus 50B den Acht um Pleanáil agus Forbairt 2000, arna leasú, maidir le dúshláin i leith bhailíocht chinneadh an Bhoird.

Ní féidir bailíocht cinnidh arna ghlacadh ag an mBord a cheistiú ach amháin trí iarratas a dhéanamh ar athbhreithniú breithiúnach faoi Ordú 84 de Rialacha na nUaschúirteanna (S.I. Uimh. 15 de 1986). Ceanglaíonn fo-alt 50(6) den Acht um Pleanáil agus Forbairt 2000 go gcaithfear aon iarratas ar chead chun iarratas a dhéanamh ar athbhreithniú breithiúnach a dhéanamh laistigh de 8 seachtaine ó dháta chinneadh an Bhoird, seachas cinntí a dhéantar de bhun feidhme aistrithe chuig an mBord faoi Chuid XIV den Acht um Pleanáil agus Forbairt 2000, i gcás nach mór aon iarratas ar chead chun iarratas a dhéanamh ar athbhreithniú breithiúnach, mar atá leagtha amach i bhfo-alt 50(7), a dhéanamh laistigh de 8 seachtaine ag tosú ar an dáta ar ar tugadh fógra faoi chinneadh an Bhoird ar dtús (nó mar a cheanglófar faoin achtú ábhartha, ar aistriodh feidhmeanna faoi chuig an mBord, a foilsíodh den chéad uair). Tá na tréimhsí ama seo faoi réir aon síneadh a fhéadfaidh an Ard-Chúirt a cheadú de réir fho-alt 50(8).

Sonraítear in alt 50A(3) nach ndeonófar cead d'athbhreithniú breithiúnach mura bhfuil an Chúirt sásta (a) go bhfuil forais shubstaintiúla ann chun a áitiú go bhfuil an cinneadh neamhbhaill nó gur chóir é a chur ar neamhní agus (b) go bhfuil leas leordhóthanach ag an iarratasóir san ábhar is ábhar don iarratas nó i gcásanna a bhaineann le measúnú tionchair timpeallachta ar comhlacht é a chomhlíonann critéir shonraithe.

Tá forálacha in alt 50B maidir le costais imeachtaí athbhreithnithe bhreithiúnaigh áirithe san Ard-Chúirt; de bhun Alt 50B(1), tá feidhm ag alt 50B maidir leis na himeachtaí seo a leanas:

(a) imeachtaí san Ard-Chúirt mar athbhreithniú breithiúnach, nó trí chead a lorg chun iarratas a dhéanamh ar athbhreithniú breithiúnach, ar—
(i) aon chinneadh nó cinneadh airbheartaithe a rinneadh nó a airbheartaítear a rinneadh,
(ii) aon ghníomh a rinneadh nó a airbheartaítear a rinneadh,
(iii) aon mhainneachtain aon ghníomh a dhéanamh, de bhun forála reachtúla a thugann éifeacht
I. d'fhoráil de Threoir EIA 85/337/CEE arna leasú lena mbaineann Airteagal 10a (arna cur isteach le Treoir 2003/35/CE) den Treoir sin,
II. do Threoir SEA 2001/42/CE, nó
III. d'fhoráil de Threoir IPPC 2008/1/CE a bhfuil feidhm ag Airteagal 16 den Treoir sin maidir léi, nó
IV. d'Airteagal 6(3) nó 6(4) den Treoir maidir le Gnáthóga; nó

(b) achomharc (lena n-áirítear achomharc de chás ráite) chun na Cúirte Uachtaraí i gcoinne breithe ón Ard-Chúirt in imeacht dá dtagraítear i mír (a);

(c) imeachtaí san Ard-Chúirt nó sa Chúirt Uachtarach le haghaidh faoisimh eatramhach nó idirbhreitheach i ndáil le himeacht dá dtagraítear i mír (a) nó (b).

Is í an fhoráil ghinearálta atá in alt 50B(2) ná go n-íocfaidh gach páirtí in imeachtaí lena mbaineann an t-alt a chostais féin. Féadfaidh an Chúirt, áfach, costais a dhámhachtain in aghaidh aon pháirtí in imthosca sonraithe. Tá foráil ann freisin go ndéanfaidh an Chúirt costais imeachtaí nó cuid de chostais den sórt sin a dhámhachtain d'iarratasóir, a mhéid a éiríonn leis an iarratasóir faoiseamh a fháil, i gcoinne freagróra nó páirtí fógra, nó an dá cheann, a mhéid a chuir an chaingean nó an t-easnamh ar thaobh an fhreagróra nó an pháirtí fógra go páirteach leis an bhfaoiseamh atá á fháil.

Tá eolas ginearálta ar nósanna imeachta athbhreithnithe bhreithiúnaigh ar fáil anseo a leanas, www.citizensinformation.ie.

Séanadh: Mar eolas atá an méid thuas ceaptha. Ní airbheartaíonn sé a bheith ina léirmhíniú ceangailteach ó thaobh dlí ar na forálacha ábhartha agus bheadh sé inmholta do dhaoine atá ag smaoineamh ar chaingean dlí comhairle dlí a lorg.

Appendix D – CE Response to Submissions Raised during Observation Period

Appendix D to the Chief Executive's Report

Summary of the Issues Raised in Submissions of Observations made during the Statutory Consultation Period, and Chief Executive's Response

PUBLIC REALM IMPROVEMENTS FOR A PEDESTRIANISED NEW STREET

In accordance with the Section 179(3)(b)(iv) of the Planning and Development Act 2000 (as amended) (the 2000 Act), for the purposes of the Chief Executive's report (prepared in accordance with section 179(3)(a) of the 2000 Act), the issues raised in all submissions of observations received during the statutory public consultation period, before the closing date at 5pm on the 2nd of June 2023 (which have been published in full on Public Realm, New Street Malahide | Fingal County Council Online Consultation Portal), have been summarised below by reference to 6 broad categories, with themed headings identified in each overall category, and the Chief Executive's response to those submissions and observations is set out below.

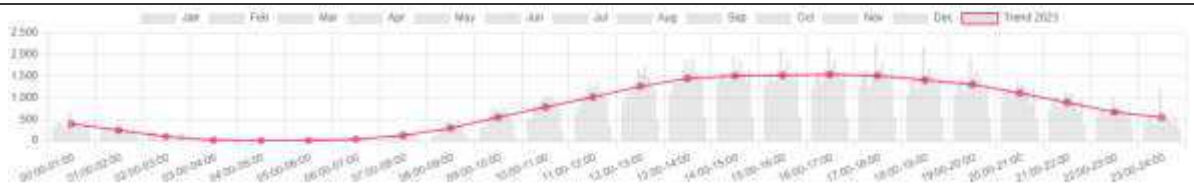
	ISSUES RAISED	CHIEF EXECUTIVE RESPONSE
PART 1	***PEDESTRIANISATION of NEW STREET***	
1a	***OBJECTIONS TO THE PEDESTRIANISATION OF NEW STREET***	
Submissions of observations received	FIN-C570-205; FIN-C570-12; FIN-C570-13; FIN-C570-14; FIN-C570-15; FIN-C570-16; FIN-C570-24; FIN-C570-25; FIN-C570-26; FIN-C570-28; FIN-C570-30; FIN-C570-31; FIN-C570-34; FIN-C570-34; FIN-C570-36; FIN-C570-40; FIN-C570-45; FIN-C570-47; FIN-C570-48; FIN-C570-51; FIN-C570-51;FIN-C570-55; FIN-C570-56; FIN-C570-59; FIN-C570-62; FIN-C570-64; FIN-C570-65; FIN-C570-66; FIN-C570-70; FIN-C570-75; FIN-C570-77; FIN-C570-78; FIN-C570-79; FIN-C570-80; FIN-C570-81; FIN-C570-82; FIN-C570-86; FIN-C570-87; FIN-C570-92; FIN-C570-93; FINC-570-95; FIN-C570-96; FIN-C570-97; FIN-C570-98; FIN-C570-99; FINC-570-101; FIN-C570-103; FIN-C570-104; FIN-C570-106; FIN-C570-107; FIN-C570-108; FIN-C570-110; FIN-C570-111; FIN-C570-113; FIN-C570-115; FIN-C570-119; FIN-C570-120; FIN-C570-122; FIN-C570-123; FIN-C570-125; FIN-C570-126; FIN-C570-127; FIN-C570-129; FIN-C570-133; FIN-C570-135; FIN-C570-136; FIN-C570-137; FIN-C570-138; FIN-C570-139; FIN-C570-140; FIN-C570-141; FIN-C570-142; FIN-C570-143; FIN-C570-144; FIN-C570-146; FIN-C570-147; FIN-C570-151; FIN-C570-152; FIN-C570-153; FIN-C570-155; FIN-C570-156; FIN-C570-157; FIN-C570-158; FIN-C570-158; FIN-C570-159; FIN-C570-160; FIN-C570-162; FIN-C570-163; FIN-C570-165; FIN-C570-167; FIN-C570-169; FIN-C570-171; FIN-C570-172; FIN-C570-173; FIN-C570-174; FIN-C570-175; FIN-C570-176; FIN-C570-179; FIN-C570-179; FIN-C570-181; FIN-C570-182; FIN-C570-183; FIN-C570-184; FIN-C570-186; FIN-C570-189; FIN-C570-197; FIN-C570-187; FIN-C570-188; FIN-C570-189; FIN-C570-190; FIN-C570-191;FIN-C570-192;FIN-C570-195; FIN-C570-196; FIN-C570-200; FIN-C570-201;FIN-C570-202; FIN-C570-205;	
	• ***There is no lawful pedestrianisation*** • ***Initial trial was to be temporary and New Street was to revert to a trafficable street*** • ***Unlawful temporary road closure*** • ***10-week trial turned into a 153 week 'take-over' of a public street***	Fingal County Council lawfully pedestrianised New Street in June 2021 under both section 38 of the Road Traffic Act 1994 (as amended) and Section 95 of the Road Traffic Act 1961 (as amended). The decision to pedestrianise New Street was reflected in the Chief Executive Order AT/008/2021, dated 4 June, 2021. This followed the pedestrianisation from June-November 2020, and the subsequent One-way system from November 2020 to June 2021. As part of its consideration of the pedestrianisation of New Street, Fingal engaged in a non-statutory public consultation process between 11 May 2021 and 21 May 2021. It placed a notice on its website which advised that Fingal had, in exercise of its powers pursuant to Section 38 of the 1994 Act and Section 95 of the Road Traffic Act 1961 (as amended) ("the 1961 Act"), prepared a proposal for the pedestrianisation of New Street Malahide from June 2021.

		In addition, Fingal consulted with the Commissioner of An Garda Síochána in relation to the provision of regulatory traffic signs at New Street, Malahide, (including, for example, standard pedestrianised street signs with time plates) as required under section 95(3)(b) of the Road Traffic Act 1994 (as amended). Fingal County Council is now proposing to progress public realm improvements for a pedestrianised New Street in line with the County Development Plan 2023-2029 - Objective CSO63 - Pedestrianised Core- Malahide; 'to promote and facilitate the recently implemented pedestrianised core of New Street Malahide'. Statutory Public Consultation in relation to those proposals took place between 19 April 2023 and 2 June 2023. Fingal County Council carried out a screening for environmental impact assessment in relation to the proposed public realm improvements for a pedestrianised New Street and determined that the proposed public realm improvements for a pedestrianised New Sheet, by itself or in combination with other projects, is not likely to have a significant effect on the environment and accordingly that an Environmental Impact Assessment is not required. Fingal also carried out a screening for appropriate assessment of the 2023 proposed public realm improvements for a pedestrianised New Street, and determined that the proposed public realm improvements for a pedestrianised New Sheet, individually or in combination with other plans or projects, without relying on any mitigation measures, will not have a significant effect on any European Sites, in view of the sites' conservation objectives, and that there is no scientific doubt in relation to that conclusion, and that the proposed public realm improvements do not require a Stage 2 Appropriate Assessment. Subsequently, applications were made to An Bord Pleanála by members of the public in relation to the proposed public realm improvements for a pedestrianised New Street under: i. Article 120(3)(b) of the Planning and Development Regulations 2001 (as amended), for a screening determination as to whether the proposed public realm improvements for a pedestrianised New Street would be likely to have significant effects on the environment; (i.e. EIA Screening Determination) and, ii. Article 250(3) of the Planning and Development Regulations 2001 (as amended), for a determination as to whether the proposed public realm improvements for a pedestrianised New Street would be likely to have a significant effect on a European site (i.e. an AA Screening Determination) An Bord Pleanála determined on 17 November 2023 that:- i. the proposed public realm improvements for a pedestrianised New Street would not be likely to have significant effects on the environment and, accordingly, that the preparation and submission of an Environmental Impact Assessment Report is not, required; and,

		ii. that a Stage 2 appropriate assessment and the submission of a Natura Impact Statement for the proposed public realm improvements for a pedestrianised New Street is not required. The proposed public realm improvements for a pedestrianised New Street, Malahide are a class of development identified in Part 8 of the Planning & Development Regulations 2001 (as amended) and as such are prescribed to be subject to the process outlined in Section 179 (Local Authority Development) of the Planning and Development Act 2000 (as amended) and Part 8 of the Planning and Development Regulations 2001 (as amended) (the "Part 8 Process"). Fingal County Council will also be providing regulatory traffic signs (including regulatory signs which give effect to a pedestrianisation of New Street) in accordance with Section 95 of the Road Traffic Act 1961 (as amended) (and have consulted with the Commissioner of An Garda Siochána in relation to the provision of such regulatory signs, as required under Section 95 of the Road Traffic Act 1961 (as amended)). The proposed public realm improvements for a pedestrianised New Street do not constitute an "unlawful temporary road closure" as asserted. As set out in the report of BMA Planning dated 04 July 2023, no change of land use is proposed, and New Street will continue to function as an urban street with an enhanced public realm.
	• ***No evidence supporting the need to pedestrianise the street*** • ***Pedestrianisation has a negative impact on the village, the surrounding streets and living on and in close proximity to the street.*** • ***Merits of proposal do not outweigh the harm of the pedestrianisation.*** • ***Pedestrianisation of the street caused major traffic throughout Malahide due to displaced traffic.*** • ***Pedestrianisation has a detrimental impact on the enjoyment of a family home and eroding of residential amenity.*** • ***'My Malahide'- Malahide should be preserved for the residents***	FCC acknowledges the reasons listed for objecting to the pedestrianisation and would like to address the concerns of the public in relation to these items. Fingal County Council notes that a reduction in car dependency and traffic, providing place-making and public realm initiatives are objectives of the Fingal Climate Action Plan and the Fingal Development Plan. The revitalisation and consolidation of our towns, urban and rural villages and neighbourhoods by creating spaces that are centred on the needs of people and contribute to a positive sense of place and local distinctiveness is an important aim of both plans. This initiative to pedestrianise and reallocate road space is rooted in National, Regional, and Local planning policies. At a national level, having regard to 'National Planning Framework 2040', 'National Development Plan 2021-2030', 'National Investment Framework for Transport in Ireland (2040)' and the 'Climate Action Plan 2023'. At a regional level, having regard to 'Regional Spatial and Economic Strategy for the Eastern and Midland Region 2019 to 2031, Metropolitan Area Strategic Plan (MASP)', and the 'Greater Dublin Area Transport Strategy 2022-2042'. At a local level, having regard to 'Fingal Development Plan 2023-2029' the 'Fingal County Council Climate Change Action Plan 2019-2024 and 'An Active Travel Strategy for Fingal (May 2023)'.

		The Government's Town Centre First Policy 'aims to create town centres that function as viable, vibrant and attractive locations for people to live, work and visit, while also functioning as the service, social, cultural and recreational hub for the local community.' The 'Town Centre First' policy recognises that successful places 'are characterised by an attractive public realm (streets, spaces and parks) that is designed to invite people to meet, mingle and dwell. It also recognises the need to 'manage traffic within central areas so that streets prioritise vulnerable users (such as pedestrians and cyclists), enabling them to move about safely and in comfort.' With regards to local policies, the scheme directly helps the council achieve Objective CSO63 of the Fingal Development Plan 2023-2029, which is to 'Continue to promote and facilitate the recently implemented pedestrianised core of New Street, Malahide.' It is also pursuant to T19 of the Fingal County Council Climate Change Action Plan 2019-2024, i.e. 'Re-organisation of allocation of space to pedestrians in the public realm.' Further, an Active Travel Strategy for Fingal (May 2023) commits to introducing 'Active Travel interventions to reduce car dependency in communities.' It lists 'pedestrianisation schemes' as a measure to achieve this. Furthermore, New Street Pedestrian Zone' is showcased in Section 5 of this document, the scheme has provided a safe and inclusive environment in the heart of Malahide village, supporting local businesses by providing space for safe outdoor dining and social interaction. The Planning Report prepared by BMA Planning and forming part of the Part 8 Process, clearly demonstrates that there is a wide-ranging policy support for the creation of vibrant and attractive urban spaces. The key benefits of pedestrianising New Street are set out under Category 3 (T3a) below. The implementation of the public realm Improvements for a pedestrianised New Street, will deliver key benefits and in addition, support the creation of vibrant and attractive urban spaces. These areas which act as alternatives to car-centric cities and individual convenience, will benefit society and communities and protect the liveable environment for future generations.
	• ***The pedestrianisation increased antisocial behaviour***	Fingal County Council takes incidence of anti-social behaviour seriously. The Council has been in regular contact with An Garda Siochána in relation to policing in the village and on New Street. There is no evidence to support the claim that the pedestrianisation of New Street is linked to an alleged increase in anti-social behaviour. All public environments, including parks, streets, housing estates and commercial centres, particularly in urban areas, can be places where anti-social behaviour may occur in the course of normal events. It should be noted that while a number of submissions referred to 'anti-social' behaviour, this is a subjective term. We must consider that behaviour such as the gathering of groups of people or the presence of loud voices can be interpreted as anti-social by some, and as social behaviour by others.

		A report from Rapid Transit Alliance stating that "…Pedestrianisation of a busy city centre street in Mexico City resulted in a 30% increase in commercial activity and 96% reduction in violent crime. The maintenance of appropriate public behaviour is a matter of public order which is managed by the Gardaí, the likelihood of undesirable behaviour happening is not evidently increased by pedestrianisation.
	• ***No access for older people***	The road user hierarchy applies whereby the most vulnerable road users are prioritised, ie pedestrians; people on bikes; public service vehicles; Taxis and shared transport; then private vehicles. The public realm improvements for a pedestrianised New Street follows this hierarchy, and the infrastructure has been designed as universally accessible, in accordance with the design standards, to be accessible for all people, across society. The design has been provided to make the street more accessible for people with disabilities, or those with mobility challenges, as it reduces barriers, that are the result of, or related to, vehicular traffic, and as such, provides a safer environment. The Fingal Age Friendly Strategy 2018-2023 includes actions to promote Active Travel amongst older residents. Current practice broadens the concept of Transport as identified by WHO (2007) to include the important health benefits of active mobility for older people; addressing areas of physical activity such as walking, alongside related areas of road safety and safe mobility, which are key factors influencing active and participative ageing. To enhance the facilities for older people, Age Friendly spaces have been provided on the perimeter of New St. and in other parts of Malahide village. Difficulties experienced by older people have been considered and provisions were made in the proposed universally accessible design, to improve the existing conditions whenever feasible. Accessibility for older people is not negatively impacted by the proposed public improvements.
	• ***Street is not used for majority of the year***	In order to consider the issue of utilisation of the street throughout the year, radar detectors were installed on the two junctions at either end of New Street in 2021, i.e. at the Diamond and at Strand Street junctions. These radar detectors show consistent use of the street through the peak hours of the day throughout the year. The results below, taken from January to 12th December 2023 show the following: ***(note: December results up to 12th and therefore is a partial result, and should be discounted from any averaging).*** The average number of people entering or leaving via the Diamond is just under 1,600 people from 17:00-18:00, with a low in April of just under 1,200 to a high in June of 2,267 for the same hour.



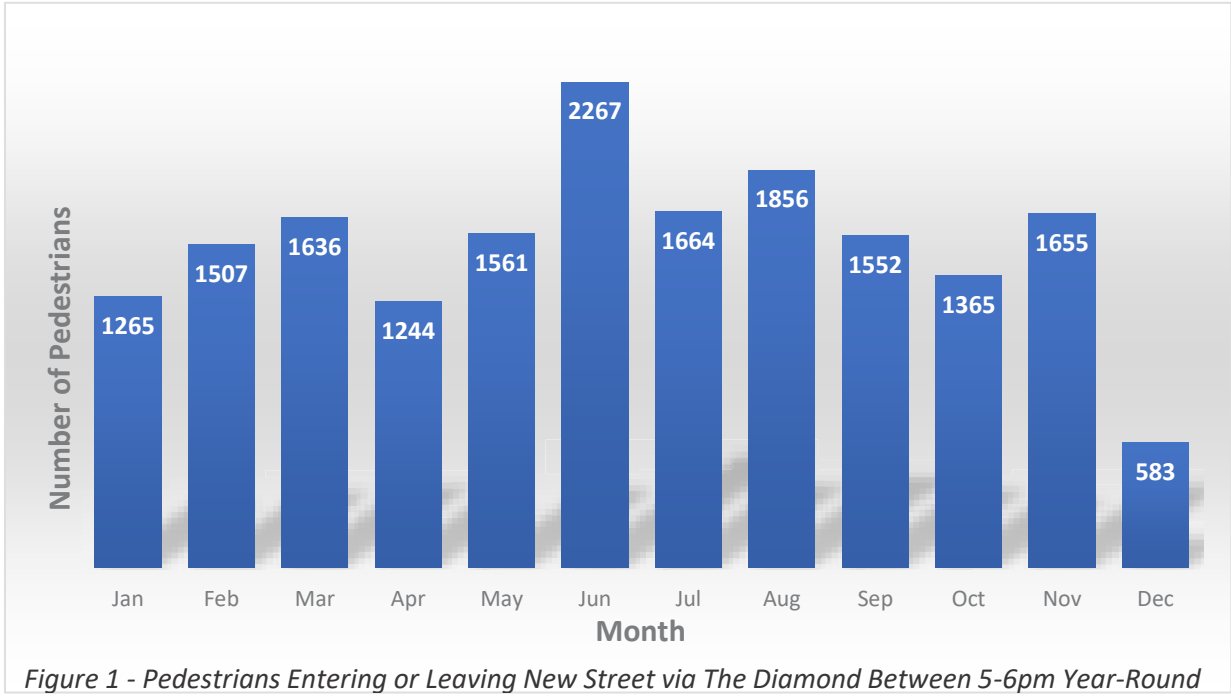


Figure 1 - Pedestrians Entering or Leaving New Street via The Diamond Between 5-6pm Year-Round

Figure 1 The Diamond from Smart Micro Detector

Similarly at the strand Street junction there is an average of 1471 people between 17:00-18:00, with a low in February of 1018 people passing through, with a high of 1973 people passing through in June at that same time:



Figure 2 – Strand Street Junction from Smart Micro Detector

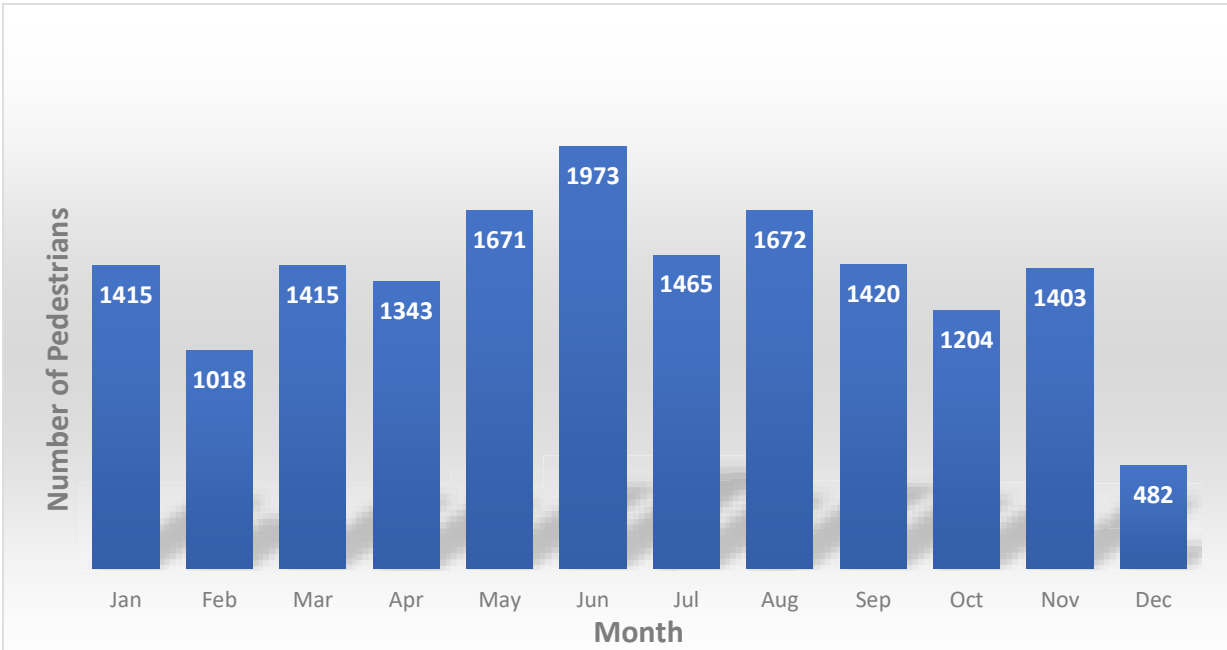


Figure 1 - Pedestrians Entering or Leaving New Street via Strand Street Between 5-6pm Year-Round

The diagrams, and particularly the column chart above, shows during the peak hour from 17:00-18:00, the average usage of the street for each month at that hour of the day, ranges from between 1000-2000 people per day across the year.

As such the claims that the street is "desolate" and not used are not substantiated. The proposed public realm improvements for a pedestrianised New Street will strengthen the street as a destination throughout the year.

• ***The current arrangement on New Street did not result in an increase in either walking or cycling***	The Traffic and Transport Assessment carried out compares directly the pedestrian counts in December 2019 to the pedestrian counts in January 2023.

		Pedestrian surveys taken in December 2019 on New Street pre-pedestrianisation indicate a total of 2988 pedestrians travelling along New Street over a 13-hour period between 7am and 8pm. The peak hour occurred between 1-2pm with a total of 385 pedestrians travelling along New Street in the hour. Pedestrian numbers taken in January 2023 show a 23% increase in the number of pedestrians travelling along New Street post pedestrianisation with a total of 3679 pedestrians recorded over the same time period. The peak hour remained 1-2pm with a total of 461 pedestrians travelling along New Street in the hour. Both surveys were taken during a weekday in winter months, December and January respectively, allowing for a direct comparison to be made. It is expected that the number of pedestrians would increase in the warmer/drier periods of the year, as indicated in the above graphs from the radar detector.
	• ***It is anti-competitive as it favours businesses located on New Street***	Malahide is home to a variety of business types including pubs, restaurants, retail, health, beauty, and other services. The positive impacts of the public realm improvements for a pedestrianised New Street as described under Category 3, will benefit the entire town and aim to strengthen the core of Malahide and attract more people to the town which will benefit all businesses. An Active Travel Strategy for Fingal (May 2023) lists Sustainable Economic Growth as a benefit of people being more likely to dwell longer in places with an enhanced public realm. An increase in foot traffic as detailed above, can benefit all local businesses. People are more likely to stop and explore shops, cafes, and restaurants when in the vicinity. Therefore, increased footfall in the area provides the opportunity to boost business around the village of Malahide generally in accordance with the objectives in the County Development Plan, and found in the study by the ESRI, Working Paper No. 745 (February 2023; Using Behavioural Science to Design and Implement Active Travel Infrastructure: A Narrative Review of Evidence) "*The environmental and health benefits of active travel schemes can lead to large returns on investment, with strong aggregate economic benefits. These economic benefits may be difficult for people at the local level to observe directly, but there is evidence that boosting active travel can boost sales for local retailers*." Since the implementation of the pedestrianisation in 2021, no decrease in trade in the surrounding streets was reported and the initiative is strongly supported by the Fingal Chamber which 'is the accredited Chamber for the entire Fingal region representing over 400 businesses that support 25,000 jobs in the area'. The number of vacant premises has reduced in the area both including and surrounding New Street including Townyard Lane, James's Terrace, Old Street, Main Street and the Marina, from 25 in 2020 to 15 in 2023. In addition, 5 of these 15 vacant units have been recently purchased and are expected to be occupied and indicates commercial/economic confidence in the area as a whole.

		The restoration of neighbourhood interactions created by pedestrianisation of streets increases dwell times and leads to increased feelings of safety in the area and strengthens feelings of community through improved public space and stimulates local economic activity.
	• ***It is a development for the Pubs and not the people of Malahide***	New Street is at the centre of Malahide, a village that comprises a variety of uses including retail, café, restaurant, bar, health and financial or other business outlets. The proposal aims to maximise the use of the space as a space for the community and become a destination for all.
	• ***The project creates a division between community and businesses***	The initiative and proposals aim to strike a balance between the interests of the community and business and the goal is to create vibrant and inclusive urban space that enhance the quality of life for community while supporting economic vitality. Throughout the non-statutory and the statutory consultation processes, both positive and negative submissions and opinions have been heard from both sides which ensured a balanced approach which is feasible and balances the needs and opinions of both sectors of the society. There are a number of studies which demonstrate that pedestrianisation increases feelings of community safety and strengthens a sense of community by restoring neighbourhood interactions in pedestrianised areas which increases dwell times, attracts new businesses and stimulates local economic activity. Pedestrianisation projects have demonstrated over time that they bring business and community together with benefits for both. The cities of Ljubljana, Slovenia and Pontevedra, Spain are examples where both citizens and businesses have benefited from a reduction in motor vehicles and a better quality of life for all.
	• ***Pedestrianisation contributed to loss of business particularly from older patrons***	The concerns expressed here about fewer patrons visiting local businesses after the reallocation of road space and parking bays to pedestrians and bikes are unfounded. The ESRI Working Paper No. 745 (February 2023; Using Behavioural Science to Design and Implement Active Travel Infrastructure: A Narrative Review of Evidence), provides empirical evidence that does not support that view and quotes that after the redesign of the main street in Blackrock in Dublin, '*the majority of local business owners reported that it had either been helpful for their business (citing increased footfall) or had not affected it (O'Connor & D'Arcy, 2021)'* The 2021 Pedestrianisation of New Street led to increased foot traffic, which can benefit local businesses as people are more likely to stop and explore shops, cafes, and restaurants when they can walk leisurely without the constant flow of traffic. The average number of people entering or leaving via the Diamond is just under 1600 from 17:00-18:00, with a low in April of just under 1200 to a high in June of 2267 for the same hour. Similarly at the strand Street junction there is an average of 1471 people between 17:00-18:00, with a low in February of 1018 people passing through, with a high of 1973 people passing through in June at that same time.

		The design makes the street more accessible for older people or people with disabilities, as the design reduces barriers related to vehicular traffic and provides a safer environment for those with mobility challenges and people of all ages. There are a number of studies which demonstrate that the pedestrianisation of streets improves feelings of safety in the community and increases dwell time as the place is an attractive place to spend time and therefore more likely to encourage older people to visit there as there are less fears about an unsafe environment from traffic or air/noise pollution which could exacerbate existing health conditions. Since the implementation of the pedestrianisation in 2021, no decrease in trade in the surrounding streets was reported and the initiative is strongly supported by the Fingal Chamber which 'is the accredited Chamber for the entire Fingal region representing over 400 businesses that support 25,000 jobs in the area'. The number of vacant premises has reduced in the area both including and surrounding New Street including Townyard Lane, James's Terrace, Old Street, Main Street and the Marina, from 25 in 2020 to 15 in 2023. In addition, 5 of these 15 vacant units have been recently purchased and are expected to be occupied. This increase in vibrancy improves the level of safety experienced by older patrons rather than an array of derelict or vacant properties. The Quality Audit by DFLA (accessible here: https://consult.fingal.ie/en/consultation/public-realm-new-street-malahide) included an 'Age-Friendly Audit' – designing for all ages and abilities is a key and integral deliverable of these proposals.
	• ***Deliveries before 11am is a disadvantage for late traders***	A variety of businesses operate throughout the day from New Street with an array of loading bays provided within a short distance from New St. on the Mall, Dublin St/Main St., Church Road, Strand Street, The Marina, Old Street, Townyard Lane and James Terrace which can be utilised outside hours of 7am to 11am when access is retained for deliveries daily. This is considered commonplace in similar locations. Cities and towns across Europe such as Pontevedra in Spain have pedestrianised entire city centres and found solutions to deliveries which are commonplace and easily deployed in other cities/towns.
	• ***Difficult to enter and exit Marina at times***	The Marina is an important hub for maritime activities and is a significant residential development and community gathering place. As such, all users can access the Marina, using the existing infrastructure, while prioritising sustainable means of travel in line with the Transport User Hierarchy. A priority access is therefore provided at all times while the Marina can be accessed by car from the south of Malahide, via Townyard Lane or Old Street, with access along Strand Street to the junction with the Marina Village. Local arrangements are accommodated for the Marina in the event of a large vehicle needing to gain access for boats/plant. The design of the public realm improvements for a pedestrianised New St has considered the needs of the Marina, in the Traffic and Transport Assessment, to accommodate such vehicles.

	• ***Air quality is negatively affected by the pedestrianisation*** • ***Reduction in carbon emissions from removal of cars is minimal.***	'Air Quality in Ireland' (EPA, 2020), states that the 'Key to reducing transport pollution and improving air quality in Ireland is decreasing traffic volumes on our roads. To achieve this, we must implement both a modal-shift to cycling and walking by upgrading infrastructure and the transport options.' There is no evidence to support the claim that there is a negative impact on air quality. In fact, the 'before and after' studies of the air quality on New St. in 2020 showed a reduction in emissions of Nitrogen Dioxide (NO2) by 46%. Particulate Matter (PM2.5) down by 64%. The EIA Screening Report prepared by a team of competent experts, with the necessary qualifications and expertise to prepare an EIA Screening Report also concludes that the '*impacts will likely cause a positive and long term effect on air quality and climate quality*'
	• ***Statistical analysis was not carried out on traffic and air quality levels on all affected streets pre and post-trial.***	As part of the 2020 pedestrianisation of New Street a suite of statistical data was collected and analysed which include the following: • Traffic, pedestrian & cycling surveys (surrounding Streets including New St) • Air quality monitoring (Old St & New St) • Bleeperbike Bike Sharing data analysis (Malahide) • MOVA junction data (Diamond Junction & Strand St Junction) • Dublin Bus timetables. • Local authority car parking occupancy data (All of Malahide) • Local authority traffic warden data (e.g. parking fines) (All of Malahide) • Pedestrian Sample survey • Healthy Streets Residents survey Further to the above surveys and analysis, as part of the Part 8 Process in relation to the Public Realm Improvements for A Pedestrianised New Street, additional surveys and analyses have been carried out to supplement the information gathered previously such as additional and up to date traffic and pedestrian counts, bat surveys, tree surveys, engineering services above and below ground. https://consult.fingal.ie/en/consultation/public-realm-new-street-malahide An example of this includes the traffic surveys of the existing junctions pre and post the 2021 pedestrianisation, Refer to Section 3.3 of the Traffic and Transport Assessment (TTA) for details. Traffic data was collated, reviewed, and analysed, from 2019, 2020 and 2023 as detailed in the TTA including Automatic Traffic counts, vehicle turning counts and pedestrian counts. Therefore, Fingal County Council is satisfied that there is sufficient data to make informed decisions on the Public Realm Improvements to a Pedestrianised New Street.

	• ***The street is attracting too large a number of people from outside town arriving on public transport***	Malahide, which is well served by public transport has long been a popular tourist destination for domestic and international visitors contributing to the vibrancy and the ongoing success of the Town. Fingal County Council's Vision is that Fingal is '*an attractive, vibrant and sustainable tourism destination delivering a distinctive experience for local residents, domestic and international visitors'. The continued success of Malahide as a destination for shopping, dining and tourism will be supported by the improvement of its public realm.* The public realm improvements for a pedestrianised New Street will provide the village with ample space for all people and optimise the flow of people in the village.
	• ***Village is now attracting young people and 'lycra clad' cyclists***	Fingal is amongst the most diverse and dynamically growing populations in Ireland. The profile of individuals visiting, living and working in Malahide village is diverse. It is important to dispel the notion that cycling is exclusively for cycling enthusiasts. While they may be a more distinctive segment of the cycling community, there is a wider spectrum of people on bikes, from commuters, families, seniors, students, delivery workers, tourists and so on. Cycling therefore is not limited to a specific group but is an inclusive and accessible mode of transportation with benefits that extend to the entire community. The aim of proposals for New Street is to embrace the diversity and create a safer and more welcoming urban space which meets the needs of the diverse populations and contributes to making Fingal a place where all are valued and welcome.
	• ***Entertainment can be provided elsewhere, i.e. The Green, Beaches, Malahide Castle***	New Street is not intended to compete or replace any of the other amenities in the area. With the public realm improvements for a pedestrianised New Street, the council is hoping to encourage and enhance social interaction and community engagement and provide opportunities and a unique destination for larger number of people while complementing the Green, Malahide Castle, the Marina and the beaches.
	• ***Increased pedestrian waiting times at the Diamond***	With the 2021 pedestrianisation of New Street there are now 3, rather than 4 roads contributing motor traffic to the Diamond, from 11am to 7am. As a result, pedestrian wait times have reduced at the junction. The Diamond uses an intelligent traffic control system called Mova to automatically sense and adjust wait times on each approaching road depending on the level of motor traffic. During peak times, pedestrians can cross at every cycle of the traffic lights. When motor traffic is at its heaviest on all approaches to the junction, pedestrians experience a maximum wait time of 2 minutes and 10 seconds. From 11am to 7am, crossing on the north side of the junction from east to west, is unhindered and therefore there is no wait time on this crossing. This in turn means that the pedestrian crossing button does not need to be pressed to call up the green man, which in turn means the junction is not shut down for this pedestrian movement, making the junction more efficient.

		Therefore, the pedestrian wait times at the junction have not increased, and there is no wait time on the northern arm for the east west movement from 11am-7am.
	• ***Taxis have nowhere to go, which is causing problem elsewhere***	Currently there are a number of taxi parking locations throughout Malahide. The unauthorised taxi manoeuvres observed at the Diamond and other areas of Malahide are caused by the individual driver and patron behaviour rather than the fact that they have 'nowhere to go' as suggested. The behaviour is not caused by the 2021 pedestrianisation. Fingal County Council however is proactive and engaging in discussions that are ongoing with taxi representatives, An Garda Siochána, Dublin Bus, and residents to find a suitable solution for a taxi rank, as there are a number of competing priorities for space in Malahide village.
	• ***Objection to the removal of car parking spaces and the anti-car agenda***	The planning policy context of these proposals are set out in 'New Street Malahide Planning Report.pdf', published as part of this consultation, and accessed here: https://consult.fingal.ie/en/consultation/public-realm-new-street-malahide. This proposal is rooted in National, Regional and local planning policy. At a national Level, having regard to 'National Planning Framework 2040', 'National Development Plan 2021-2030', 'National Investment Framework for Transport in Ireland (2040)' and the 'Climate Action Plan 2023'. At a regional level, having regard to 'Regional Spatial and Economic Strategy for the Eastern and Midland Region 2019 to 2031, Metropolitan Area Strategic Plan (MASP)', and the 'Greater Dublin Area Transport Strategy 2022-2042'. At a local level, having regard to 'Fingal Development Plan 2023-2029' the 'Fingal County Council Climate Change Action Plan 2019-2024 and 'An Active Travel Strategy for Fingal (May 2023)'. The Design Manual for Urban Roads and Streets comments that '*Placing private motor vehicles at the bottom of the user hierarchy should not be interpreted as an anti-car stance. People will always be attracted to cars where they are a convenient and flexible option and for many users it is currently their only viable option for medium to longer distance journeys. The key issue is one of balance, and the needs of the car should no longer take priority over the needs of other users or the value of place*.' Guila Vallone, Former Senior Architect in Cork County Council published Re-inhabiting the Street, (Jan. 2022). In it, she speaks about 'Car Society and Urban Design', and states that: "*The heritage streets of our towns, which were, only 100 years ago full of vibrant families and businesses, have slowly been turned from streets into roads, through the implementation of road engineering design principles to serve the motorist. Through this change, Ireland has brutalized our town centres and alienated public life with car focus design for the priority of drivers; the environmental quality and ambience of our towns have been further degenerated by heavy SUV cars and lorries that have forced road design standards to regulate our ACA public realm*.' By reallocating public spaces originally taken by cars and by providing a high-quality public realm, Fingal County Council is prioritising people and public life and the quality of the town environment and Fingal County Council is confident that sufficient carparking still exists in close proximity such as the Bridgefield Car Park, on-street

		Pay and Display parking, disabled bays, age friendly bays, bus stops, taxis and loading bays are all provided for, with the train station in close proximity, to ensure that those with mobility issue can access the same opportunities. In addition, there are a number of privately owned and operated car parks in the vicinity.
	• ***Removal of traffic removes natural security that the street offered***	There is no evidence that the removal of motor traffic from a street reduces security. There are however several studies that suggest a strong and positive correlation between increasing the overall flow of people through a street and improved security. Including studies of the pedestrianisation of a busy city centre street in Mexico City resulted in a 30% increase in commercial activity and 96% reduction in violent crime. "Passive surveillance is provided on the street when people are present and a clear view from businesses and homes into the street provides a further level of visual passive surveillance from those locations. This is evidenced in a study published in the Journal of the American Planning Association in 2015 which analysed data from various cities and found that streets with higher pedestrian volumes tend to have lower crime rates. The proposed public realm improvements for a pedestrianised New Street also incorporate public lighting that will support a sense of public safety and ensure the street is adequately lit at all times of day.
	• ***Residents can't access their homes by car***	Residents on New St and Ross Cottages have been facilitated through individual engagement to ensure they are accommodated with adequate access and parking.
	• ***Problems accessing the Health Centre***	Access to the Health Centre has been maintained, with specific arrangements for the Health Centre in the evenings in line with discussions with the HSE. A dedicated accessible parking facility is considered appropriate and necessary to best meet the needs of people attending the HSE facility. The design includes an improved junction arrangement between New Street and Strand Street in accordance with the Type (III) 'Junction Tightening with Dished Crossing' arrangement as defined in the NTA Active Travel Guidance Note on Junction Tightening Schemes. Refer to Drawing 222126-PUNCH-XX-XX-DR-C-0450 – PROPOSED LINE MARKINGS for illustration (Accessed here: https://consult.fingal.ie/en/consultation/public-realm-new-street-malahide). A dedicated accessible parking space is proposed at the southern end of New Street coinciding with the HSE facility. As stated in Section 13 of the 'Traffic and Transport Assessment' (Accessed here: https://consult.fingal.ie/en/consultation/public-realm-new-street-malahide), FCC have also provided disabled and age-friendly parking spaces on The Mall and The Green, thus improving facilities in the immediate vicinity of New Street.
	• ***Assertion that some businesses were afforded keys to bollards, while others were not***	FCC has consulted directly with all affected parties on the street, and local arrangements are in place to accommodate residents/businesses/facilities as required and agreed.
T1b	***ALTERNATIVES TO PEDESTRIANISATION OF NEW STREET***	
Submissions Received	FIN-C570-17, FIN-C570-56, FIN-C570-89; FIN-C570-95; FIN-C570-159; FIN-C570-163; FIN-C570-165; FIN-C570-174; FIN-C570-202;	
	• ***One way would be much more practical.***	Fingal County Council welcomes suggestions and has considered several options.

	• ***Suggestion to pedestrianise the street only at the weekend*** • ***Remove parking and widen footpaths to facilitate outdoor dining and keep vehicular traffic on New St.*** • ***Street could be open to traffic in winter months.*** • ***Provide a single lane of traffic with a taxi rank.*** • ***Close road once every two weeks, not 365, 24/7 or could closing apply to weekend or special occasions only.*** • ***Blue badge vehicles, taxis and buses as well as full local access should be afforded to New Street*** • ***Permits could be given to carers or disabled people***	As set out in the report of BMA Planning dated 04 July 2023, New Street will continue to function as an urban street with an enhanced public realm which facilitates deliveries to businesses via a one-way system for part of the day and maintaining two-way access for residents at the northern end to Ross Cottages. Arrangements for emergency access at all times, and access for larger vehicles has been assessed in the Traffic and Transport Assessment, ensuring any future requirements of the street are adequately catered for. Loading and disability bays have been incorporated into the design, whilst local arrangements are in place for residents. Access to local Pay and Display parking has not been affected and businesses can apply for a parking permit for their staff to park locally in Malahide. Fingal County Council considers the proposals best meet the Objective CSO63 of the Development Plan 2023-2029 which is to 'Continue to promote and facilitate the recently implemented pedestrianised core of New Street, Malahide.'(https://www.gov.ie/en/publication/1026c-development-plans/?referrer=http%3A//www.housing.gov.ie/local-government/development-management/development-plans/development-plans , while meeting the project objectives. Other configurations have been considered in the early stages of the project. These included: • the pre-existing two-way vehicular road, with on street parking • one-way vehicular traffic with contra flow cycle lane • seasonal changes to the traffic regime The pre-existing two-way system became a car dominated environment with two-way traffic, on street parking, bus route, taxi rank, loading bays, pay and display parking, which left little room for people to use the street. The all-day one-way system was in place from November 2020-June 2021 and was found to be less advantageous to the amenity of the street and the overall safety of the people using the street with no significant benefits. Further to this, changing access arrangements (such as times or direction) to a street for different users at different times of the day, week or season, leads to confusion, which impacts the safe and effective operation of the street and approach roads, (e.g. logistical issues such as deliveries, access, movements on approach roads, traffic light sequencing, operational maintenance for opening closing of the street, confusing road signage etc). The design solution for the Public Realm Improvements for a pedestrianised New Street has been considered in the context of previous arrangements of the street. Proposed features such as sustainable drainage, planting in tree pits, hard wearing surfaces, heritage appropriate finishes and kerb treatments will provide a high-quality durable finish to the street.

CAT 2	ISSUES RELATING to FCC PROCEDURES, POLICIES & CONSULTATION	
T2a	FINGAL DEVELOPMENT PLAN	
Submissions Received	FIN-C570-36; FIN-C570-173; FIN-C570-188;	
	• ***Claim that Fingal Development Plan 2023-2029 was rejected by the Minister and has not been adopted. Claim that the Interim Publication has not been lawfully approved, assessed, or adopted***	The Fingal County Development Plan 2023 – 2029 was adopted on 24th February after an almost two-year process. This Plan came into effect on 5th April 2023. As required by the Planning & Development Acts (as amended), the Plan has been accompanied by environmental reports at all stages of the process as discussed below. The SEA Environmental Report was finalised, and an SEA Statement prepared following the Plan adoption, which details the SEA process undertaken for the Plan. The Natura Impact Report (NIR) of the draft Plan was updated to document the accepted amendments to the Plan and a final AA Determination of the Plan was undertaken by the Planning Authority at the adoption stage. While a Draft Direction by the Minister for State for Local Government and Planning, in accordance with Section 31(7) of the Planning and Development Acts (as amended), has been received by Fingal County Council, with regard to the making of the Fingal Development Plan 2023-2029, none of the issues in the Draft Direction in any way affected the proposed public realm improvements for a pedestrianised New Street . The Draft Ministerial Direction directed the Planning Authority to take the following steps with regard to the Development Plan: (a) Delete the following zoning objectives from the adopted Plan i.e. the subject land is unzoned: (i) Land zoned General Employment in the adopted Plan to the east of Junction 2 on the M2 at St Margaret's which was zoned Greenbelt in the Fingal County Development Plan 2017-2023. (ii) Land zoned Food Park in the adopted Plan south of Coolquay village. (iii) Land zoned Rural Business in the adopted Plan to the south of Coolquay village. (iv) Land zoned General Employment in the adopted Plan to the southeast of Junction 5 on the M1 at Hedgestown, Courtlough which was zoned Rural in the Fingal County Development Plan 2017-2023. (b) Reinstate the Greenbelt zoning objective for lands PA SH 12.4 Newtown i.e., the subject lands revert to Greenbelt from General Employment consistent with the recommendation of the Chief Executive's report dated 15th January 2023. (c) Delete the amended and additional text inserted under PA CH 8.1 as modified, consistent with the recommendation of the Chief Executive's report dated 15 January 2023. In accordance with Section 31(4)(c) and Section 31(6) of the Act, only those parts of the Fingal Development Plan 2023 – 2029 referred to in this draft Direction were taken not to have come into effect, been made or amended.

		The entire remainder of the Development Plan came into effect on 5 April 2023, which is provided for in section 31 of the Planning and Development Act 2000 (as amended). The draft Ministerial Direction did not contain any elements which in any way affected the proposed public realm improvements for a pedestrianised New Street. The Ministerial Direction was issued on 28th July 2023 and no new elements were included. Consequently, none of the elements in the Direction in any way affected the proposed public realm improvements for a pedestrianised New Street.
	• ***The proposed development is invalid and contrary to the proper planning & sustainable development of the area , it fails to implement CPD policies*** • ***Proposals result in loss of residential amenity*** • ***The proposals represent intensification and change of use which are greater than those permitted***	The Planning & Strategic Infrastructure Department evaluated the proposals and concluded in the Planning Report that the proposed development would be in accordance with the zoning objective 'TC' applicable to these lands in the Fingal County Development Plan 2023-2029, and the objectives, and the objectives of the Development Plan as they relate to place making, green infrastructure, built heritage and sustainable drainage and development management standards in respect of landscaping, public real, management of trees and the protection of the built environment and archaeology within this historic core of Malahide. The proposed public realm improvements for a pedestrianised New Street will bring positive impacts in terms of enhancing the streetscape at New and promoting active travel modes with improved facilities for pedestrians and cyclists. Other significant improvements include minimising the use of steel poles and signage as well as the use of cowled and energy efficient light fittings to minimise light pollution and reduce carbon emissions, improvements and upgrades to the drainage network and provision of SUDs/. The proposed development is considered to accord with the proper planning and sustainable development of the area.
2b	***LOCAL AREA PLAN for MALAHIDE***	
Submissions Received	FIN-C570-16; FIN-C570-36; FIN-C570-55; FIN-C570-77; FIN-C570-137; FIN-C570-160; FIN-C570-169; FIN-C570-173; FIN-C570-183; FIN-C570-188;	
	• ***Claim that Fingal County Council should provide LAP for Malahide before the proposals can be put on public display***	The overarching principles of the Fingal Development Plan 2023 – 2029 provide the framework for all development across the County. All developments are assessed against the policies and objectives contained in the Development Plan. The Development Plan is the appropriate Plan against which to assess this proposal. The provision of a Local Area Plan for Malahide formed part of a recommendation of the Office of the Planning Regulator received in May 2022 to the Draft Fingal Development Plan 2023 – 2029. As outlined the Chief Executive's Report on Submissions Received to the Draft Development Plan, the Draft Development Plan (& now the adopted Plan) Map Sheets (sheet 9 refers to Malahide), clearly identify and delineate the development boundaries of Malahide. The land use zoning along with specific map-based objectives, proposed connectivity and movement proposals and routes, architectural conservation areas, protected structures, national monuments, views, school sites, etc. are clearly shown.

		The combination of highly detailed planning policy requirements for Malahide (and other settlements), as well as the overarching policies set out in Section 2.7 'Settlement Strategy' of the Development Plan means that a robust planning framework is in place. The provision of a Local Area Plan for Malahide did not form part of the OPR proposed draft direction on the Fingal Development Plan issued to the Minister of State for Local Government and Planning in March 2023 or part of the final Direction issued by the Minister in July 2023. The absence of a Local Area Plan for Malahide does not preclude Fingal County Council from progressing the proposed public realm improvements for a pedestrianised New Street.
T2c	***MALAHIDE PUBLIC REALM STRATEGY***	
Submissions Received	FIN-C570-13; FIN-C570-14; FIN-C570-27; FIN-C570-56; FIN-C570-77; FIN-C570-93; FIN-C570-96; FIN-C570-108; FIN-C570-110; FIN-C570-115; FIN-C570-125; FIN-C570-141; FIN-C570-142; FIN-C570-157; FIN-C570-171; FIN-C570-172; FIN-C570-176; FIN-C570-184; FIN-C570-188; FIN-C570-189;	
	• ***The Malahide Public Realm Strategy 2014 has not been adhered to*** • ***The original proposals contained in the Malahide Public Strategy were more acceptable to the Community*** • ***The aim of residents is to secure the originally adopted Public Realm Strategy for Malahide – as set out in the 2016 – 2023 FCC CDP***	The Malahide Public Realm Strategy, which is a non-statutory document was published in April 2014. It is a conceptual document and was published as general guidance which focused on what was considered to be the centre of Malahide Village. It identified certain projects which could be implemented with a view to improving the public realm in Malahide. It was prepared to demonstrate the potential improvements to the street and road layout of Malahide, with a focus on improvements to pedestrian and cycle movement and the public realm environment. It contains a list of 'Movement (M)' proposals in section 5. That is a list of conceptual and indicative projects. It was not intended as, nor was it, a definitive or closed list of projects which could be implemented in Malahide in order to improve the public realm. Since 2014, Government Policy has moved forward in the context of climate action and the prioritisation of the movement of people over privately owned vehicles, in line with the hierarchy of road users. Fingal County Council must also change our approach to public realm in order to apply government policy. The Covid-19 pandemic has also impacted our approach to use of public and outdoor space as a society. There is a greater desire from the public to provide better access to high quality outdoor spaces within our towns and villages and the public expect a higher standard of design following many years of enjoying outdoor spaces as the new normal. The public realm improvements for a pedestrianised New Street are consistent with the Malahide Public Realm Strategy, which envisages that priority will be given to measures which increase pedestrian movement and cycling in the village of Malahide. In particular, the public realm improvements for a pedestrianised New Street are consistent with projects which focus on the permeability and connectivity across Malahide for pedestrians and cyclists.

T2d	CONSULTATION	
Submissions Received	FIN-C570-13; FIN-C570-29; FIN-C570-34; FIN-C570-40; FIN-C570-48; FIN-C570-49; FIN-C570-55; FIN-C570-56; FIN-C570-64; FIN-C570-68; FIN-C570-70; FIN-C570-77; FIN-C570-80; FIN-C570-87; FIN-C570-96; FIN-C570-108; FIN-C570-110; FIN-C570-111; FIN-C570-120; FIN-C570-126; FIN-C570-133; FIN-C570-135; FIN-C570-141; FIN-C570-143; FIN-C570-151; FIN-C570-155; FIN-C570-157; FIN-C570-158; FIN-C570-160; FIN-C570-162; FIN-C570-169; FIN-C570-171; FIN-C570-172; FIN-C570-174; FIN-C570-179; FIN-C570-183; FIN-C570-184; FIN-C570-188; FIN-C570-189;FIN-C570-190;FIN-C570-197; FIN-C570-199; FIN-C570-202; FIN-C570-205;	
	• ***Proper and transparent public process required prior to changes being made to New Street*** • ***Top-down decisions made/forced by county council.*** • ***Alternatives to the plan should be available for consultation.*** • ***Autocracy run by civil servants.*** • ***FCC ignored due democratic process and public opinion of Malahide residents.*** • ***Claim that majority against the pedestrianisation during non-statutory consultation 2021.*** • ***Making submissions is futile - the decision has been made.*** • ***Too much consultation - start implementation***	Fingal County Council is committed to fostering transparent communication channels between individuals, the public, it's Elected Members and relevant stakeholders based on the engagement commitments of the Council's Corporate Plan 2019-2024 which prioritises citizen and stakeholder engagement through both statutory and non-statutory processes. As part of its consideration of the 2021 pedestrianisation of New Street, Fingal engaged in a non- statutory public consultation process between 11 May 2021 and 21 May 2021. It placed a notice on its website which advised that Fingal had, in exercise of its powers pursuant to Section 38 of the 1994 Act and Section 95 of the Road Traffic Act 1961 (as amended), prepared a proposal for the pedestrianisation of New Street Malahide from June 2021. Submissions were invited by completing a survey. As well as providing a link to the plans and particulars for New Street, the notice also provided a link in Irish and English to an information document entitled "Summer 2021 Update", which was also distributed to residents in Malahide, and which invited people to take part in the consultation process. This document set out the measures proposed as part of the 2021 pedestrianisation of New Street, and further indicated that Fingal was committed to the permanent pedestrianisation of New Street and explained that plans to give effect to that proposal would be subject to the statutory planning process, which would include public consultation, which Fingal County Council has since progressed. Fingal held stakeholder meetings with local residents, business owners, and other stakeholders, and received over 1,000 submissions from members of the public as part of the non-statutory consultation, which were discussed at a meeting with the elected members of the Malahide/Howth area committee. In addition, Fingal consulted with the Commissioner of An Garda Siochana in relation to the provision of regulatory traffic signs at New Sheet. The 2021 pedestrianisation of New Street was then implemented pursuant to Section 38 of the 1994 Act and Section 95 of the Road Traffic Act 1961 (as amended). In line with public consultation processes common to Fingal County Council, in 2022 and 2023 the Team undertook a series of non-statutory public consultation activities planned and designed by communication specialists. These consultations included stakeholder and public workshops and a public survey. The activities were promoted to the public using social media, local newspapers, letters and in person outreach to key

		stakeholders by letter and in person visits where feasible. This consultation process was informed by 'Consultation Principles & Guidance' (Dept. of Public Expenditure and Reform, Nov. 2016). The outcome of this non statutory consultation informed the design approach and final design solutions for the Public Realm Improvements for a pedestrianised New Street as outlined in Design Rationale Report. The reports on the consultations were made available https://www.fingal.ie/newstreet. Fingal has progressed its plans for public realm improvements for a pedestrianised New Street under section 179 of the Planning and Development Act 2000 (as amended) and Part 8 of the Planning and Development Regulations 2001 (as amended), and a statutory public consultation in relation to those proposals took place between 19 April 2023 and 2 June 2023. As part of this statutory public consultation, Fingal invited members of the public to contribute their submissions and observations via Fingal's public consultation portal at https://consult.fingal.ie/en/consultation/public-realm-new-street-malahide. This statutory public consultation was advertised using print media, social media, PR and outreach to elected representatives, in addition to the publication of statutory notices, including a site notice, as required under Part 8 of the Planning and Development Regulations 2001 (as amended). It is important to emphasize that our actions throughout this process have been in strict accordance with government legislation and established procedures. The ESRI Working Paper No. 745 (February 2023; Using Behavioural Science to Design and Implement Active Travel Infrastructure: A Narrative Review of Evidence), discusses the issue of perceived unfairness in consultation processes regarding Active Travel Initiatives, however this perception is not supported by evidence, and Fingal County Council are satisfied that they have engaged in an appropriate level of consultation required for the project. The opinions, concerns and observations of the residents and stakeholders of Fingal County Council is important to the development of New Street and any other projects in our community. Fingal County Council remains committed to upholding the principles of democracy and fostering transparent communication throughout this project's lifecycle, which it has done throughout this process.
	• ***Assertion that photomontages don't show every part of the street***	The photomontages were provided during the statutory consultation process in addition to the planning drawing and documentation. Photomontages and videos are considered an artist's impression and it is standard practice to show selected views of any project. Fingal County Council is satisfied that the photomontages and the video montage show sufficient information to provide an understanding of the

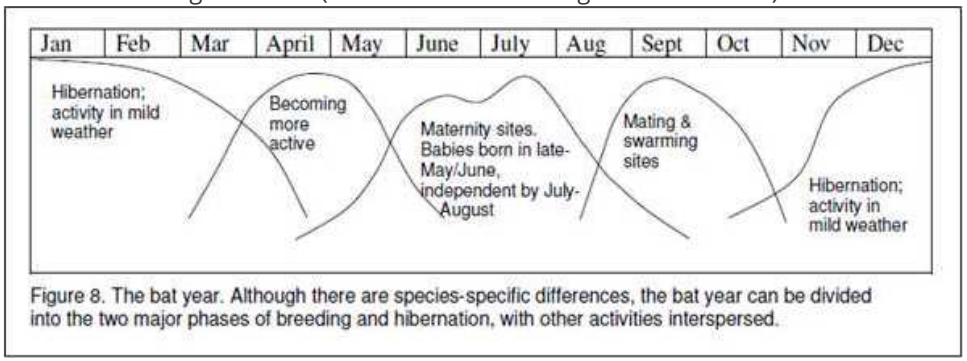
		proposed layout, to show the growth through its life cycle and to view the street from various perspectives and through different lighting conditions (i.e. day dusk and night).
	• ***The information supplied to the Elected Members is both misleading and incomplete and does not provide the basis for an informed or lawful decision.***	The information supplied as part of the Part 8 Process is in accordance with the requirements of Part 8 of the Planning & Development Regulations 2001 (as amended) and section 179 of the Planning and Development Act 2000 (as amended).
T2e	***CONSULTATION WITH PEOPLE WITH DISABILITIES***	
Submissions Received	FIN-C570-202;	
	• ***Disabled persons are overlooked in the planning process and FCC did not meet its obligations to DPOs; lack of consultation with VVI.*** • ***Fingal should be giving detailed feedback on how the views of the DPO' have been considered.*** • ***Safe wayfinding can only be provided if the VVI are involved, and they haven't been to date.***	Fingal County Council recognises and values the provision of information and consultation with all individuals, regardless of ability or disability. An online consultation took place with VVI and NCBI. Other disabled persons organisations were also invited to give input on the proposals. Information gathered in this part of the consultation has been used to inform design decisions. Observations made during the consultation with the DPO's were incorporated into the design that was on public display for the consultation period.
T2f	***MALAHIDE HISTORIC CORE & ARCHITECTURAL CONSERVATION AREA***	
Submissions Received	FIN-C570-23; FIN-C570-26; FIN-C570-51; FIN-C570-55; FIN-C570-118; FIN-C570-188;	
	• ***Malahide requires sensitively planned urban design to preserve and protect the ACA.*** • ***Exemption from ACA should not be allowed.*** • ***Proposed changes present a great danger to the preservation of Malahide's Historic Core ACA.*** • ***The new configuration represents a distinct visual deterioration to Malahide village and disregards the Architectural Conservation Area in Malahide.*** • ***Retain the services of a suitably qualified archaeologist to coordinate and implement the proposed mitigation measures outlined in Section 5 of the Archaeological Assessment Report.***	New Street is within Malahide's Historic Core Architectural Conservation Area (ACA). There are no protected structures on New Street. An Architectural Heritage Assessment was submitted prepared by Coady Architects, and is available online here: https://consult.fingal.ie/en/consultation/public-realm-new-street-malahide. New Street evolved and changed over time and will continue to do so. Conservation seeks to manage that change in a sensitive and appropriate manner. Fingal Development Plan 2023-2029 includes policies and provides guidance in relation to development within Architectural Conservation Areas. Guidance in relation to Public Realm Works is provided in Section 14.19.3.3 of the Plan. The overall design approach of the public realm improvement responds to the historic context of the street and aims to remove visual clutter and provide a cohesive design using a limited palette of appropriate materials. The public realm improvements for a pedestrianised New Street will create an enhanced setting to appreciate the existing architectural heritage and streetscape. The historic kerbstones have been carefully retained in the proposal, and the proposed new paving design is simple with a limited palette of materials of natural stone paving. The proposed design endeavours to respect the architectural heritage of New Street, while adapting to the requirements of a modern public realm scheme.

	• ***Assertion that turning street over to the licencing trade is not the way to go about preserving Malahide's Historic Core Architectural Conservation Area.*** • ***Changes present a great danger to the preservation of the Conservation Area.***	The services of a suitably qualified archaeologist were employed to coordinate and implement the proposed measures outlined in Section 5 of the Archaeological Assessment Report, which was prepared by Coady Architects as part of the Part 8 Process (Accessed here: https://consult.fingal.ie/en/consultation/public-realm-new-street-malahide. The scheme was also considered by the Fingal County Council Conservation Officer Section who concluded in the Internal Consultee Planning report that '*the proposed design respects the architectural heritage of New Street, while adapting to the requirements of a modern public realm scheme. The proposed public realm improvements will enhance the character of the ACA by improving the setting of the existing nineteenth-century built heritage.*' The team will continue to liaise closely with Fingal County Councils Conservation Officer throughout the stages of the project.
T2g	***ACTIVE TRAVEL INITIATIVES***	
Submissions Received	FIN-C570-55; FIN-C570-108; FIN-C570-144; FIN-C570-156; FIN-C570-183;	
	• ***This is not an Active Travel Initiative.*** • ***Assertion that there is no link between promotion of Active Travel and pedestrianisation.***	Fingal County Council's Active Travel Strategy (May 2023) sets out the council's ambitions to increase the number of people choosing to walk and cycle for everyday short journeys, and as part of longer journeys by public transport. Under 'Towns and Villages', one of the six pillars of the Active Travel Strategy, the Council outlines the measures it will take to reduce car dependency in communities and increase/enhance public space. Pedestrianisation is one of the listed measures which will contribute to the achievement of this objective. The pedestrian is afforded the highest priority within the Transport Users Hierarchy, a key element of consideration in all active travel projects.
	• ***Assertion that Active Travel initiatives are pushing people away from Malahide towards Swords***	Active Travel initiatives are being implemented across the county and not only Malahide. There is wide ranging support for Active Travel initiatives which are being rolled out countywide and countrywide. For example, Swords is due to receive several Active Travel measures within the Swords Cultural Quarter and Sustainable Swords projects in the near future. Major Active Travel improvements are also underway as part of the Our Balbriggan project.

T2h	***CONTENT OF THE CE REPORT***	
Submissions Received	FIN-C570-55;	
	• ***The CE Report should take into account any submissions raised during the '152-week trial period' not just those raised in formal consultation periods.*** • ***Submissions should be presented in their entirety to Councillors, not as summaries***	The form and content of the Chief Executive Report to be submitted to the Elected Members is in accordance with the Section 179(3) of the Planning and Development Act 2000 (as amended) (the 2000 Act). For the purposes of the Chief Executive's report (prepared in accordance with section 179(3)(a) of the 2000 Act), the issues raised in all submissions of observations received during the statutory public consultation period from 19 April 2023 to 2 June 2023, before the closing date at 5pm on the 2nd of June 2023, have been summarised in this appendix which gives the response of the Chief Executive to the issues raised, in accordance with section 179(3)(b)(iv) of the 2000 Act. In the interest of transparency, all submissions are published and available on Fingal's consultation portal, to which the elected members and members of the general public have access at all times.
T2i	***AA & EIA SCREENING***	
Submissions Received	FIN-C570-188;	
	• ***Invalid Appropriate Assessment Screening Report*** • ***Project requires Stage 2 Appropriate Assessment***	A robust AA Screening Report was prepared by competent experts (Faith Wilson Ecological Consultants), which concluded that on the basis of objective information and in view of best scientific knowledge and applying the precautionary principle, the proposed public realm improvements for a pedestrianised New Street, either individually or in combination with other plans or projects, and without relying on any mitigation measures, is not likely to have significant effect on any European Site(s), in view of the sites conservation objectives, and that there is no reasonable scientific doubt in relation to this conclusion. Following its examination and evaluation of that AA Screening Report, Fingal County Council determined that the proposed public realm improvements for a pedestrianised New Street, individually or in combination with other plans or projects, without relying on any mitigation measures, will not have a significant effect on any European sites, in view of the sites' conservation objectives, and that there is no reasonable scientific doubt in relation to this conclusion, and that the proposed public realm improvements for a pedestrianised New Street does not require a Stage 2 Appropriate Assessment . Subsequently, an application was made to An Bord Pleanála by members of the public under Article 250(3) of the Planning and Development Regulations 2001 (as amended), for a determination as to whether the proposed public realm improvements for a pedestrianised New Street would be likely to have a significant effect on a European site (i.e., an AA Screening Determination). On 17.11.2023, An Bord Pleanála determined:

		NOT TO DIRECT the local authority to prepare a Natura Impact Statement in respect of the proposed development, based on the reasons and considerations set out below. Having regard to: (a) the nature and scale of the proposed development, (b) the location of the proposed development and the separation distance from the European Sites, (c) the hydrological connection between the site and the European Sites via an adjacent watercourse, (d) the ecological connection between the site and the European Sites via an adjacent watercourse and treelines and vegetation, (e) the submission made by the local authority, including the Appropriate Assessment Screening Report, (f) the submission made by the applicant requesting a determination, and (g) the report and recommendation of the Inspector, it is considered reasonable to conclude that on the basis of the information available, which is considered adequate to issue a screening determination, that the proposed development, either individually or in combination with other plans or projects, would not be likely to have a significant effect on the identified European Sites in view of the conservation objectives of these sites and that a Stage 2 appropriate assessment and the submission of a Natura Impact Statement for the proposed development is, therefore, not required.
	• ***Invalid Environmental Screening Report*** • ***Project requires EIAR***	A comprehensive Environmental Impact Assessment Screening Report was also prepared by competent experts (BMA Planning) and following its examination and evaluation of that EIA Screening Report, Fingal County Council determined that the proposed public realm improvements for a pedestrianised New Street, by itself or in combination with other projects, are not likely to have a significant effect on the environment and accordingly that an 'Environmental Impact Assessment' is not required. Subsequently, an application was made to An Bord Pleanála by members of the public under Article 120(3)(b) of the Planning and Development Regulations 2001 (as amended), for a screening determination as to whether the proposed public realm improvements for a pedestrianised New Street would be likely to have significant effects on the environment; (i.e., EIA Screening Determination). On 17.11.2023, An Bord Pleanála determined: NOT TO DIRECT the local authority to prepare an Environmental Impact Assessment Report in respect of the said proposed development based on the reasons and considerations set out below. Having regard to the following:

		(a) the criteria set out in Schedule 7 and the information provided in Schedule 7A of the Planning and Development Regulations 2001, as amended, (b) the limited nature and scale of the proposed development which is under the threshold in respect of Class 10b(iv) (Infrastructure – Urban Development) of the Planning and Development Regulations 2001, as amended, (c) the location of the site on lands in a Town and District Centre location as described in the Fingal County Development Plan 2023-2029 and the results of the Strategic Environmental Assessment of this plan undertaken in accordance with the Strategic Environmental Assessment Directive (2001/42/EC), (d) the location of the site in a built-up area served by public infrastructure and the existing pattern of development in the vicinity, (e) the limited potential for significant impacts arising from the proposed development, (f) the submission made by the local authority, (g) the submissions made by the applicants requesting a determination, and (h) the report and recommendation of the Inspector, It is considered that the proposed development would not be likely to have significant effects on the environment and, accordingly, that the preparation and submission of an Environmental Impact Assessment Report is not, therefore, required."
12j	***USE OF PUBLIC FUNDS***	
Submissions Received	FIN-C570-15; FIN-C570-55; FIN-C570-99; FIN-C570-108; FIN-C570-138; FIN-C570-156; FIN-C570-182; FIN-C570-183; FIN-C570-186; FIN-C570-200;	
	• ***Money to deliver this part 8 would be better spent on other initiatives.*** • ***Justification for spending money on pedestrianising a street while there is public space elsewhere in Malahide***	This is a scheme which is supported and funded by the National Transport Authority (NTA) who have deemed this project to be in line with their objectives. The work of the NTA's Active Travel Programme is underpinned by the aims and objectives set out in an array of policy documents such as, the Programme for Government, The Road Safety Strategy (Vision Zero), the Climate Action Plan 2023, The Fingal County Development Plan, Active Travel Strategy, Town and Village renewal Scheme etc. One of the key aims cited is to increase the number of walking and cycling networks so that walking, cycling and public transport will account for 50% of all journeys made by 2030 (https://www.nationaltransport.ie/planning-and-investment/transport-investment/active-travel-investment-programme/). This proposal is rooted in National, Regional and local planning policy. Projects are funded by the Department of Transport through the National Transport Authority's Active Travel Programme and are managed and delivered by the Local Authorities.

T2k	STUDIES & SURVEYS SUBMITTED WITH PROPOSALS	
Submissions Received	FIN-C570-66; FIN-C570-74; FIN-C570-77; FIN-C570-140; FIN-C570-159; FIN-C570-188; FIN-C570-192;	
	• ***Study for ecology [bats] have been carried out at suboptimal and unrepresentative times of the year***	A Bat Survey Report was prepared by Faith Wilson Ecologist (Accessed at: https://consult.fingal.ie/en/consultation/public-realm-new-street-malahide). As stated within the under Section 2.1.4 Survey Constraints the bat survey was completed in March 2023, when bats are becoming active as can be seen on the figure below (Source: NPWS Bat Mitigation Guidelines).  Figure 8. The bat year. Although there are species-specific differences, the bat year can be divided into the two major phases of breeding and hibernation, with other activities interspersed. Figure: The Bat Year (Source: NPWS Bat Mitigation Guidelines). Although this is outside the optimum period for bat activity surveys (April – September inclusive) bats are active at this time as they emerge from hibernation and activity depends on weather conditions. Weather conditions were suitable for bat activity and bats were active at other locations surveyed where more suitable bat habitat occurred (Malahide Castle). In the opinion of a professional and experienced Consultant the conditions and timelines for carrying out the survey were appropriate for the purpose and provided the information and data required.
	• ***Flood risk assessment it deficient as it does not address the obstructions on the street and the interactions with pluvial flooding events***	Currently, New Street consists of effectively 100% impermeable surface. The steep incline of New Street means all stormwater currently sheds to the gutter lines either side of the carriageway and flows north/downhill toward Strand Road. There are, in existence, only 4 stormwater gullies (2 either side of the carriageway) that intercept this runoff. By comparison, and as outlined in the supplied Engineering Planning Report proposals and can be viewed at the following link: https://consult.fingal.ie/en/consultation/public-realm-new-street-malahide, dramatically improve the stormwater drainage arrangements on New Street, and thus represent a significant improvement in pluvial flood risk (i.e., 23 gullies are proposed compared to the existing 4 gullies). Gullies will be connected to bioretention areas (rain gardens). The bioretention areas will store stormwater until it overflows into SuDS (sustainable urban drainage) overflow gullies which then connect back into the diverted existing stormwater pipe running south to north on New Street. The stormwater drainage proposals are illustrated in PUNCH Drawings 222126-PUNCH-XX-XX-DR-C-0100 and 222126-PUNCH-XX-XX-DR-C-0200.

		Therefore, the proposed arrangement for the surface water drainage will provide a significant improvement to the current drainage arrangement.
	• ***Traffic study undertaken is not representative of the volumes throughout the year***	Traffic surveys of the existing junctions were completed by Idaso on Tuesday 10th January 2023 on behalf of FCC at various sites. Furthermore, a number of traffic surveys were also completed by ITS across a number of the same sites on Wednesday 9th October 2019 (AM only), Tuesday 12th December 2019, as well as on Wednesday 15th July 2020. Section 7 of the Traffic & Transport Assessment, and can be viewed at the following link: https://consult.fingal.ie/en/consultation/public-realm-new-street-malahide, outlines in detail the approach and use of traffic survey in the traffic modelling process. The following scenarios were analysed for all junctions: 1. Survey year: 2023 2. Survey year: 2020 (Where data was available) 3. Survey year: 2019 (Where data was available) 4. Estimated Pre-Pedestrianisation: 2019 (Where no 2019 data was available) The use of survey for the post-pedestrianisation scenario, i.e. the 2023 scenario, is considered conservative given the 10th January 2023 survey date. This period therefore is representative in terms of return to school and work following the Christmas period. The January timing also is deemed conservative given the higher use of private vehicle use during the winter period. In addition, please also refer to response under T1a.
	• ***Request that the Architects Study of the historical development of Malahide Village Centre be retained as a reference book in Malahide Library together with documentation showing the planned development, when the consultation period ends***	Fingal County Council Libraries confirmed that it will be possible to register and include the 'Architectural Heritage Assessment Report' on the library inventory and make it available to the public.
	• ***Cannot find tree survey in the suite of documents***	The Tree Constraints Plan, Tree Impacts Plan and Arboricultural Report were included in the public display and can be viewed at the following link: https://consult.fingal.ie/en/consultation/public-realm-new-street-malahide These documents were available to view during the consultation period both at the link above and in Malahide Library and County Hall, Swords. They continue to be available at the link above.
	• ***No survey done to see the impact of all these changes to the affected residents of New Street, Rosses Cottages and Old Street***	The EIA Screening Report considered and assessed whether the proposed public realm improvements for a pedestrianised New Street are likely to have significant effects on population, human health, biodiversity, land, soil, water, air, climate, material assets, cultural heritage and the landscape and interaction of the above factors. A comprehensive EIA Screening Report, based on information and surveys contained in the published consultation documentation (such as the Traffic and Transportation Assessment (TTA)), prepared by experts, provided information to the Competent Authority, which concluded that there is no likelihood of likely significant effects or impacts on the environment. Furthermore, An Bord Pleanála determined "that the proposed development would not be likely to have significant effects on the environment." All documents are available to view at: https://consult.fingal.ie/en/consultation/public-realm-new-street-malahide

CAT 3	SUPPORT for the PUBLIC REALM IMPROVEMENTS FOR A PEDESTRIANISED NEW STREET	
T3a	IMPROVED PEDESTRIAN & COMMUNITY EXPERIENCE	
Submissions Received	FIN-C570-3; FIN-C570-6; FIN-C570-9; FIN-C570-10; FIN-C570-11; FIN-C570-18; FIN-C570-21; FIN-C570-22; FIN-C570-32; FIN-C570-35; FIN-C570-39; FIN-C570-41; FIN-C570-43; FIN-C570-44; FIN-C570-46; FIN-C570-50; FIN-C570-52; FIN-C570-53; FIN-C570-54; FIN-C570-57; FIN-C570-58; FIN-C570-58; FIN-C570-60; FIN-C570-62; FIN-C570-63; FIN-C570-67; FIN-C570-72; FIN-C570-74; FIN-C570-76; FIN-C570-85; FIN-C570-88; FIN-C570-90; FIN-C570-91; FIN-C570-97; FIN-C570-100; FIN-C570-102; FIN-C570-105; FIN-C570-109; FIN-C570-117; FIN-C570-121; FIN-C570-128; FIN-C570-130; FIN-C570-132; FIN-C570-134; FIN-C570-145; FIN-C570-148; FIN-C570-150; FIN-C570-160; FIN-C570-161; FIN-C570-166; FIN-C570-168; FIN-C570-170; FIN-C570-177; FIN-C570-180; FIN-C570-204;	
	• ***Great improvements to town's liveability and an improved amenity;*** • ***Providing a stronger character to the village centre which was 'crossroad' lacking public space;*** • ***The pedestrianised street allows pedestrians to wander without the worry of cars;*** • ***Street facilitates a more relaxed, slower paced atmosphere; space for users to dwell and enjoy shopping;*** • ***The space is safer for families and children who can use the whole space;*** • ***The proposals successfully declutter and unify the street within the wider context;*** • ***The pedestrianised street will become the focal point for the village;*** • ***The provision of another safe and accessible public space in the heart of the village is welcomed;*** • ***The benefits of the scheme for the fast-growing community are acknowledged;*** • ***It will provide a space for people of all ages;*** • ***The design is attractive and pragmatic, balancing the many needs of stakeholders and visitors in the village***	Fingal County Council welcomes the significant number of people showing a strong support for the proposals and illustrating a keen understanding and appreciation of the role of a well-designed public realm in our towns. Successful communities thrive where their town centres are welcoming and where people's needs, including social needs, are met. In this regard, Fingal County Council is confident that the implementation of this initiative will result in significant benefits as summarised below: – Modal Shift - Encouraging a modal shift from car dependency to more sustainable modes of travel. – Improved Air Quality: With fewer cars and reduced exhaust emissions, contributing to better air quality. This has a positive impact on public health, particularly for pedestrians, cyclists, and people living or working in the area. Air quality analysis undertaken on New St show a decrease in Nitrogen Dioxide levels by 46% and a decrease in Particulate Matter (PM 2.5) of 64%. – Reduced Noise Pollution: Generally pedestrianised streets are quieter compared to busy roads with constant vehicular traffic, this can be observed on New St when compared to standing at the Mall/Main Street. This creates a more pleasant environment for residents, visitors, and businesses, and is considered to contribute to a decrease in stress levels. – Enhanced Safety: streets that have less or no vehicular traffic are inherently safer for pedestrians and cyclists since it eliminates the risk of collisions with cars, making the area more attractive and accessible for people of all ages. Records show that there were 6 accidents on New Street from 2015-2018. No collisions have been reported through the Pavement Management System from 2019 onwards, and there are no records of any collisions being reported to Fingal County Council or An Garda Siochana since. – Boosted Local Economy: Improvements to public realm and reduction in vehicular traffic often lead to increased foot traffic, which can benefit local businesses. People are more likely to stop and explore shops, cafes, and restaurants when they can walk leisurely without the constant flow of traffic. Radar detection from New Street shows that there are an average of 1619 people passing through the Diamond from 16:00-17:00, and 1521 passing through Strand Street junction at the northern end of New St for the same time period. Which indicates a high use of the street with the removal of vehicular traffic during this time period.

	• ***Excellent balance of what the village needs now and in the future*** • ***Incorporates almost all of the relevant requirements and constraints of the County Development Plan, ACA and especially the legacy Public Realm Strategy*** • ***Street should be for the benefit of the people and not cars- the beautiful village is destroyed by cars*** • ***Widening of footpaths is welcomed in the context of significant increase in the demand from the public for outdoor dining facilities*** • ***Warm, welcoming place for people to socialize*** • ***Significant enhancement of the street environment*** • ***Outdoor dining locations away from the building allows for browsing and shopping without encroaching on diners*** • ***Step towards pedestrian and cycle friendly future*** • ***Pedestrianisation has benefited many other European Cities*** • ***It will be a benchmark for other towns and villages in the Country*** • ***Place for enhanced human and social interaction*** • ***Those with disabilities can move about freely without cars*** • ***Economic benefit – Businesses have flourished***	– Social Interaction: Improvements to public realm and reduction in vehicular traffic encourage social interaction and community engagement. People are more likely to stop and chat with neighbours or fellow pedestrians, contributing to a sense of belonging and community. – Health and Well-being: Encouraging walking and cycling can contribute to improved public health. Regular physical activity reduces the risk of chronic diseases and promotes overall well-being. – Promotion of Sustainable Transportation: Improved public realm with pedestrian priority, encourages the use of sustainable transportation modes like walking, cycling, and use of public transport. This can help reduce congestion, decrease reliance on fossil fuels, and lower greenhouse gas emissions, which helps to achieve Climate Action targets set out and committed to by the Government. – Aesthetics and Urban Design: The street has provided the opportunity for creative urban design and landscaping. With the absence of cars, more space is dedicated to public spaces, greenery, bioretention areas, art installations, and outdoor seating, making the area more visually appealing. – Cultural and Recreational Opportunities: The public realm improvements on New Street provides the opportunity for it to be at the heart of Malahide Village for cultural events, markets, and performances. These activities can attract visitors, enhance the cultural vibrancy of the area, and contribute to a sense of community identity. – Traffic Reduction: The changes implemented on New Street have shown that this street can help alleviate traffic congestion and encourage people to use alternative routes or modes of travel in surrounding areas by reducing the demand at the Diamond. – Accessibility and Inclusivity: It is widely accepted that improvements to public realm and prioritisation of pedestrians, makes the street more accessible for people with disabilities, as they reduce barriers related to vehicular traffic and provide a safer environment for those with mobility challenges. – Reduced Street Clutter: with the improvements to public realm and reduction in vehicular traffic there is an overall benefit in terms of footpath space and street space that is available, through the removal of unnecessary signage and poles, road markings, pay and display machines and other paraphernalia that is associated with a trafficable street. – Promotes a sense of place: Surfaces that are suitable for pedestrians are an effective way of promoting place and providing people with a more enjoyable experience, particularly in areas of historical significance. These streets operate as linear 'squares' or corridors of public open space (DMURS, Section 4.3.4). – Sustainable urban drainage is incorporated in the design of the public realm. Overall improving the public realm on New Street will lead to a more vibrant, sustainable, and people-friendly urban environment that prioritises health, well-being, and community interaction.

	• ***Removal of car pollution from New Street is positive.*** • ***Less noise*** • ***Antisocial behaviour was not caused by pedestrianisation*** • ***Request for similar schemes to be rolled out across other towns and villages in rural Fingal*** • ***Scheme is reflective of other successful schemes in Capel Street, College Green, Grafton Street, Capel Street*** • ***The proposal compliments The Green*** • ***The use of Sustainable Urban Drainage Systems and emphasis on Greenery is commendable;***	
T3b	***INCLUSION OF FACILITIES FOR CYCLISTS***	
Submissions Received	FIN-C570-38; FIN-C570-41; FIN-C570-46; FIN-C570-52; FIN-C570-53; FIN-C570-54;	
	• ***Provision of facilities for cyclists to dismount is welcome.*** • ***Additional bicycle racks are an incentive in encouraging people to use environmentally friendly alternatives to car.***	The proposed designs incorporate dedicated cycling amenities including provisions for adapted cycles, e-bikes and cargo bikes, thereby reinforcing the objective of transforming New Street into an inclusive destination that prioritises safety and convenience. This approach aligns seamlessly with the goals outlined in the Active Travel Strategy and the Transportation Hierarchy, fostering an environment that encourages individuals to opt for cycling as their preferred mode of transportation.
T3c	***OPPORTUNITY TO ATTRACT PEOPLE INTO THE AREA***	
Submissions Received	FIN-C570-32; FIN-C570-39; FIN-C570-46; FIN-C570-116; FIN-C570-128;	
	• ***An important tourist attraction/hub*** • ***Opportunity for new enterprise*** • ***Bringing people into the area brings significant benefits to the local economy***	Walking and cycling are particularly important to the local economy, as people are more likely to spend in their local shops and neighbourhoods. This helps create local jobs and investment in local facilities, supporting a sustainable local economy (An Active Travel Strategy for Fingal, May 2023). Making the economic case for Active Travel toolkit (Sustrans 2019) (Available at: https://www.sustrans.org.uk/media/4472/4472.pdf) also deals with the benefit of increased trade through pedestrianisation, noting that 'People in pedestrianised areas have more time to stop, look, and spend without the hassle of navigating busy roads and worrying about traffic.'

		The ESRI Working Paper No. 745 February 2023 states that "Increased pedestrianisation can boost local sales (Bertolini, 2020; Howarth & Polyviou, 2012), adding bicycle and pedestrian facilities to an area typically increases cyclist and pedestrian use of that area, with visitors spending more in local stores (Castillo-Manzano et al., 2014; Volker & Handy, 2021)."
CAT 4	***GENERAL OBSERVATIONS RAISED REGARDING the PUBLIC REALM IMPROVEMENTS FOR A PEDESTRIANISED NEW STREET***	
T4a	***ACCESS FOR EMERGENCY & DELIVERY VEHICLES***	
Submissions Received	FIN-C570-7; FIN-C570-15; FIN-C570-51; FIN-C570-55; FIN-C570-81; FIN-C570-93; FIN-C570-106; FIN-C570-125; FIN-C570-142; FIN-C570-143; FIN-C570-144; FIN-C570-151; FIN-C570-157; FIN-C570-163; FIN-C570-169; FIN-C570-171; FIN-C570-178; FIN-C570-181; FIN-C570-184; FIN-C570-204;	
	• ***Concern about the narrowing of the road and access for a number of emergency vehicles if required***	The public realm improvements for a pedestrianised New Street accommodate the movements of large delivery lorries, boats for the marina and emergency vehicles. This has been fully designed by Punch Consulting Engineers and demonstrated in a series of vehicle movements shown on drawings supplied as part of the planning submission: these can be viewed on https://consult.fingal.ie/en/consultation/public-realm-new-street-malahide on drawings 222126-PUNCH-XX-XX-DR-C-0600 - VEHICLE SWEPT PATH SHEET 1 222126-PUNCH-XX-XX-DR-C-0601 - VEHICLE SWEPT PATH SHEET 2 222126-PUNCH-XX-XX-DR-C-0602 - VEHICLE SWEPT PATH - 18m LOW LADDER 222126-PUNCH-XX-XX-DR-C-0603 - VEHICLE SWEPT PATH - MAX LEGAL LENGTH ARTICULATED VEHCILE 222126-PUNCH-XX-XX-DR-C-0604 - VEHICLE SWEPT PATH - FIRE TENDER & REFUSE VEHICLE The above drawings clearly demonstrate the means of access by emergency vehicles. In addition to the above, Fingal County Council have engaged with the emergency services and have carried out trials on the street using the largest fire tender in the fleet. As a result, the design for public realm improvements takes into account the needs of the fire services and emergency access.
	• ***People unable to access the health centre and those with mobility issues have nowhere close to park***	The proposals as described in the Statutory consent documentation have been discussed with the representatives of the HSE prior to finalisation of the designs. The proposals improve the current arrangements for access to the public health centre, such as by providing a dedicated accessible parking space at the southern end of New Street coinciding with the HSE facility, quality and surface finishes for universal access and mobility improvements to the landscaping, such as the removal of inappropriate trees blocking footpaths and causing undulations in the paths resulting in broken pathways and trip hazards, replacing them with appropriately chosen tree species in suitable areas, provision of landscaping and bin collections areas have been incorporated in the design removing the unregulated arrangement of bins on the path outside of the HSE building which block access to the disabled space or the footpath. As stated in Section 13 of the 'Traffic and Transport Assessment' FCC have also provided disabled and age-friendly parking spaces on The Mall and The Green, thus improving facilities in the immediate vicinity of New Street.

	• ***Modified locations of delivery bays may have a negative impact on the safe management of businesses and may result in the delivery trucks parking in the trafficable lane*** • ***Volumes of daily deliveries to individual businesses are very significant*** • ***Loading bay should be maintained to the front of the Gibney's premises at Nos. 5, 6 & 7 New Street***	Following detailed analysis and design development, together with the non-statutory public consultations carried out, the layout and strategy for the street shown in the application drawings was considered the optimum layout with an appropriate balance achieved between all users of the street. The locations of the loading bays to the northern & southern ends of New Street will require consideration by individual business. The design allows for a certain flexibility and multiple purposes (e.g. loading/unloading), such that the street is not blocked for access during these operations. These areas will be developed during the detailed design stage, in consultation with the relevant premises.
	• ***Planted areas hinder emergency access and hinder access to front of houses for works***	The public realm design for the pedestrianised New St has taken into account the vehicle movements (swept path analysis) to ensure emergency vehicles can be accommodated. Access to all premises is maintained via the public footpath, with interrupted access provided between features and planted areas.
	• ***Ensure that all delivery bays and roadway giving access are as per the proposed plans thus giving access to Ross' Cottages***	The two-way access will be maintained at the northern end of the street for residents and businesses.
T4b	***ACCESSIBIITY***	
Submissions Received	FIN-C570-60; FIN-C570-61; FIN-C570-73; FIN-C570-86; FIN-C570-87; FIN-C570-112; FIN-C570-117; FIN-C570-119; FIN-C570-134; FIN-C570-166; FIN-C570-202;	
	• ***Equal and safe access by vulnerable pedestrians to their essential services, environment, and community, are supposed to outweigh the wants or likes of others*** • ***Ensure footpaths are wide enough for buggies and wheelchairs*** • ***186 000 people in Ireland have difficulty walking more than 15 minutes*** • ***The restrictions of four-wheeled traffic in New Street effectively denies many visually impaired people equal access to New Street*** • ***Bicycles are more hazardous than cars for visually impaired people.***	The principles of Universal Design were integral to developing this proposed scheme. A 'Design Rationale' available online as part of the consultation documentation explicitly lists 'accessibility and safety for people of all ages and abilities' as a key objective. Furthermore, the design underwent an Accessibility Quality Audit, which was also published as part of the public consultation documentation. Acknowledging the unique challenge of balancing the needs of those with various disabilities within the context of public realms, Fingal County Council has diligently considered the requirements of vulnerable pedestrians in shaping the design proposals for New Street. The proposal features several design elements and tools, including: - A rational organisation of elements on the street thus introducing legibility and removal of clutter thus minimising obstacles. - Retention of existing building fronts, keeping them clear of furniture. - Use of access control mechanisms to limit traffic. - Signage for cyclists to dismount. - Differential surfacing. - Dropped kerbs at appropriate crossings.

	• ***Disabled persons are not able to visit residents or premises on New Street independently as car cannot drop them outside the door.*** • ***The gradient of the street is too steep to push a wheelchair.*** • ***Make the street wholly universally accessible by removing kerbs and ensuring a level grade finish.*** • ***Minimise obstacles for the visually impaired.*** • ***Replace the accessible car parking space outside the medical centre with a set-down area.*** • ***Pedestrian & motorist interaction at Bisset's corner potentially creates dangerous situation.*** • ***Assertion that the current accessible parking bay is too discreet.***	- Wall-mounted public lighting to minimize the number of poles. - Pull-in areas for loading at certain times only, removing a hazard caused by delivery vehicles for a majority of the day. - Seating for resting and pausing helping vulnerable pedestrians on their journey through the street. - Two primary circulation zones, following the building line and existing gradient of the street, have been proposed to ensure they remain unobstructed and accessible for impaired users. - The design includes the retention of existing building fronts, providing clear pathways for visually impaired individuals using long canes which was considered important during the consultation with the members of National Disability Authority (NDA). The proposed minimum footpath width of 1800mm complies with DMURS, and in many areas, it exceeds 2000mm. This design allows the public to move freely, encompassing the full width of the street's central aisle. While it is noted that the existing levels are quite steep and may pose challenges for individuals using wheelchairs, it's important to recognise that altering the existing gradient of the street would be constrained by the presence of existing thresholds and access points. Cyclists will be required to dismount upon entering the street, with cycle parking stands available along the footpaths, including spaces for cargo bikes and e-bikes. The elimination of vehicular traffic outside the 7 am - 11 am period enhances safety for all Vulnerable Road Users, including the visually impaired. Accessible parking facilities are provided at the HSE facility within the proposed public realm improvements. Additionally, a dedicated accessible parking space is provided at the southern end of New Street, coinciding with the HSE facility. Fingal County Council has also improved facilities in the immediate vicinity of New Street by providing disabled and age-friendly parking spaces on The Mall and The Green, as outlined in Section 13 of the 'Traffic and Transport Assessment.' These comprehensive measures ensure that accessibility and safety for individuals of all abilities remain at the forefront of the design for New Street, aligning with the principles of Universal Design and actively addressing public concerns.

T4c	FEATURES of PROPOSED PUBLIC REALM SCHEME	
Submissions Received	FIN-C570-2; FIN-C570-7; FIN-C570-16; FIN-C570-54; FIN-C570-55; FIN-C570-62; FIN-C570-73; FIN-C570-86; FIN-C570-87; FIN-C570-108; FIN-C570-115; FIN-C570-121; FIN-C570-141; FIN-C570-162; FIN-C570-173; FIN-C570-184; FIN-C570-195; FIN-C570-198; FIN-C570-199; FIN-C570-204;	
	• ***Currently there is no public seating, forcing public to sit on windowsills of shops.*** • ***Teenagers feel that it is important to be able to enjoy the New Street with friends without having to purchase food or drink on the street.*** • ***Seating not associated with commercial premises should be prioritised.*** • ***The amount of the public seating on the south/east side of the street should be increased to compensate for reduction in outdoor dining associated with businesses.***	The public realm improvements are centred on civic amenity and public seating. As noted in the Design Rationale Report 'the public realm improvements increase the area provided for civic amenity along the thoroughfare and improve pedestrian priority and accessibility for the public. Public seating is proposed at key locations along the street to provide opportunities for rest. 'Outside' the original kerb alignment differential surfacing is used to demarcate areas for planting, public seating, cycle stands and other street furniture. The proposed provision of public seating as provided for in the design, that is not associated with individual business, will address this issue. The design rational provides seating that will achieve the maximum amount of sun light throughout the day. The configuration of the public seating on the street was carefully considered in the design.
	• ***Accessible parking spaces are removed***	There has been no reduction in the accessible car parking spaces on New Street. A dedicated accessible parking facility is considered appropriate and necessary to best meet the needs of people attending the HSE facility. The design includes an improved junction arrangement between New Street and Strand Street in accordance with the Type (III) 'Junction Tightening with Dished Crossing' arrangement as defined in the NTA Active Travel Guidance Note on Junction Tightening Schemes. Refer to Drawing 222126-PUNCH-XX-XX-DR-C-0450 – PROPOSED LINE MARKINGS for illustration. A dedicated accessible parking space is provided at the southern end of New Street coinciding with the HSE facility. As stated in Section 13 of the 'Traffic and Transport Assessment. FCC have also provided disabled and age-friendly parking spaces on The Mall and The Green, thus improving facilities in the immediate vicinity of New Street.
	• ***Concerns relating to drains and water flows, flooding, grease running from the top of the street along the west side***	Currently, New Street consists of effectively 100% impermeable surface. The steep incline of New Street means all stormwater currently sheds to the gutter lines either side of the carriageway and flows north/downhill toward Strand Road. There are, in existence, only 4 stormwater gullies (2 either side of the carriageway) that intercept this runoff. By comparison, and as outlined in the supplied Engineering Planning Report proposals and can be viewed at the following link: https://consult.fingal.ie/en/consultation/public-realm-new-street-malahide, dramatically improve the stormwater drainage arrangements on New Street, and thus represent a significant improvement in pluvial flood risk (i.e., 23 gullies are proposed compared to the existing 4 gullies). Gullies will be connected to bioretention areas (rain gardens). The stormwater drainage proposals are illustrated in PUNCH Drawings 222126-PUNCH-XX-XX-DR-C-0100 and 222126-PUNCH-XX-XX-DR-C-0200.

		Therefore, the proposed arrangement for the surface water drainage will provide a significant improvement to the current drainage arrangement. The public realm improvements will not contribute to a risk of increased runoff of any type. This comprehensive stormwater management system is designed to significantly improve the capacity to handle and control stormwater, thereby reducing the risk of pluvial flooding reflect our commitment to enhancing the safety and functionality of New Street while also prioritising environmental sustainability by effectively managing stormwater and existing flood risk.
	• ***No formal crossings on New Street in the proposed plan***	The formal crossings are illustrated and described in Drawing 222126-PUNCH-XX-XX-DR-C-0450 (Available here: https://consult.fingal.ie/en/consultation/public-realm-new-street-malahide). The formal crossing point at the Diamond is a Type II 'Continuous footpath (Crossover)' arrangement as defined in the NTA Active Travel Guidance Note on Junction Tightening Schemes. The formal crossing point at the Strand is a Type III 'Junction Tightening with Dished Crossing' arrangement as defined in the NTA Active Travel Guidance Note on Junction Tightening Schemes.
	• ***No dished kerbs at crossings in plan***	The formal crossings are illustrated and described in Drawing 222126-PUNCH-XX-XX-DR-C-0450. The street is at a continuous level in cross section for the majority of the street. The formal crossing point at the Diamond is a Type II 'Continuous footpath (Crossover)' arrangement as defined in the NTA Active Travel Guidance Note on Junction Tightening Schemes. The formal crossing point at the Strand is a Type III 'Junction Tightening with Dished Crossing' arrangement as defined in the NTA Active Travel Guidance Note on Junction Tightening Schemes. This type of crossing incorporates dished kerbs.
	• ***Planted areas will be used for antisocial behaviour and as a toilet*** • ***Large planting of trees outside residential homes may block light and hinder residential security*** • ***Fixed public furniture or opportunities for sitting and planting will increase antisocial behaviour*** • ***Smoking on public seating results in a loss of residential amenity due to proximity of public seating to residential homes***	There is empirical evidence to support the positive impact of trees and green vegetation in urban areas on reducing crime and antisocial behaviour. For instance, in the 'Forest of Fingal' study (Available here: https://www.fingal.ie/sites/default/files/2022-03/forest-of-fingal_-a-tree-strategy-for-fingal_2022-2032.pdf), Section 2.9 highlights research suggesting that areas with more vegetation tend to experience fewer reported crimes. This indicates that the presence of trees is often associated with a better-maintained and safer environment. Additionally, another study cited in the same section suggests that trees can enhance security by promoting better utilisation of the space, leading to increased surveillance. The proposed planting areas outside residential homes serve a dual purpose. They not only contribute to the aesthetics of the street but also act as a buffer between the residential properties and the central street area. This approach is highlighted in the Design Rationale report, which emphasizes that these planted areas incorporate sustainable urban drainage (SuDS) and enhance biodiversity. Moreover, opportunities for seating, art, and informal play installations are strategically placed between these green spaces. The proposed design will not encourage antisocial behaviour. On the contrary, the public realm improvements are specifically designed to create a positive, inviting social environment that accommodates people of all ages.

		This is achieved through the provision of attractive and comfortable seating areas. While instances of antisocial behaviour can occur in any public space, Fingal County Council is committed to collaborating with the Gardaí to minimize such occurrences and ensure the safety and enjoyment of residents and visitors alike. By incorporating greenery and thoughtful urban design, the proposed scheme aims to strike a balance between aesthetics, security, and the well-being of the community. The empirical evidence and design rationale support the idea that well-planned green spaces can enhance the overall quality of life particularly in urban areas. Regarding concerns about trees potentially blocking light to residential homes, it's essential to consider that the perception of light obstruction can be subjective and variable. While trees may affect the amount of light received by nearby properties, there is currently no legal entitlement to direct sunlight, as noted in Section 4.10.6 of the 'Forest of Fingal' report. Consequently, there is no expectation for existing buildings or structures to necessitate the removal of the proposed context appropriate trees from the proposals solely for this reason. However, the species of trees being incorporated will have dappled shade as opposed to the heavy shade caused by other species.
T4d	***OUTDOOR DINING AREAS***	
Submissions Received	FIN-C570-121; FIN-C570-179; FIN-C570-194; FIN-C570-202; FIN-C570-204	
	• ***Street furniture licenced area should be directly outside the building so that servers are not crossing footpaths with food and drinks and the space can be covered and heated.*** • ***Safety concern of crossing the footpath with drink and hot food.*** • ***People could collide with a hospitality staff member.*** • ***Outdoor dining should be totally segregated from the pedestrian footway.***	As noted in the Design Rationale Report the design incorporates 'the retention of the existing building fronts, or 'shoreline', clear of furniture' which 'provides two north-south zones for pedestrian circulation which follow the building line at its existing gradient'. This was noted at an online meeting with Disability Stakeholder Groups held on 18.10.2022 and summarised in Section 4.1 of the Public Consultation Feedback Stage Two Report by Connect the Dots, dated April 2023: 'Participants appreciated that the footpath will remain at building line rather than outside the seating, allowing the visually impaired to follow the building line down with a long cane.' Maintaining the footpath along the buildings accommodates other shops and business and not only businesses serving food. Placing structures/ covering and furniture against the building would also block the architectural features affecting the character of the elevations and the street and contribute to a negative impact on the conservation area. The setback from the building allows for more flexibility in the use of the outdoor spaces which can be adapted for various activities and events and changing requirements. The safety concerns are valid and have been considered. While the risk cannot be completely eliminated, a risk analysis, management and training from each of the businesses benefiting from outdoor dining will be essential to ensure a safe operation.

		It should also be noted that regardless of the location of the outdoor dining areas, that nearly all premises in urban environments operate a takeaway service which means that members of the public carry hot drinks and food while navigating public footpaths. In summary, keeping the outdoor dining areas away from the building on the street helps to strike a better balance. By recognising this common practice and promoting responsible behaviour, the urban experience will be enhanced while ensuring the safety and enjoyment of pedestrians.
	• ***It is noted that licenced outdoor dining areas are reduced to allow for more free public use of space.*** • ***Concern about the reduction on the outdoor dining areas allocated to individual businesses*** • ***Request for further outdoor dining areas***	As noted in the Design Rationale Report the proposals aim to ' increase the area provided for civic amenity along the thoroughfare and improve pedestrian priority and accessibility for the public' thus enhancing the civic and public amenity and extend beyond catering solely for those interested in dining at the street's vendors. Following detailed analysis and design development, together with the non-statutory public consultations carried out, the layout and strategy for the street shown in the application drawings was considered the optimum layout with an appropriate balance achieved between all users of the street. While the design allows for some degree of flexibility, a careful decision was made regarding the balance between public and private and allowing more commercial space is not considered appropriate.
4e	***REMOVAL OF TREES***	
Submissions received	FIN-C570-1; FIN-C570-8; FIN-C570-12; FIN-C570-16; FIN-C570-18; FIN-C570-19; FIN-C570-21; FIN-C570-23; FIN-C570-27; FIN-C570-28; FIN-C570-35; FIN-C570-40; FIN-C570-45; FIN-C570-49; FIN-C570-62; FIN-C570-63; FIN-C570-69; FIN-C570-70; FIN-C570-73; FIN-C570-77; FIN-C570-79; FIN-C570-81; FIN-C570-84; FIN-C570-99; FIN-C570-100; FIN-C570-102; FIN-C570-104; FIN-C570-107; FIN-C570-108; FIN-C570-109; FIN-C570-110; FIN-C570-111; FIN-C570-115; FIN-C570-117; FIN-C570-124; FIN-C570-125; FIN-C570-127; FIN-C570-132; FIN-C570-133; FIN-C570-134; FIN-C570-138; FIN-C570-147; FIN-C570-151; FIN-C570-155; FIN-C570-156; FIN-C570-157; FIN-C570-158; FIN-C570-159; FIN-C570-169; FIN-C570-170; FIN-C570-172; FIN-C570-177; FIN-C570-178; FIN-C570-180; FIN-C570-187; FIN-C570-188; FIN-C570-196; FIN-C570-203;	
	• ***Disappointment about the removal of the trees*** • ***Assertion that trees will be removed to facilitate the pedestrianisation and/or public realm*** • ***Removal of trees will have a visual impact*** • ***Lack of rationale behind the decision to remove trees which add character and colour*** • ***Suggestion to remove trees incrementally, when and if they become unsafe***	As noted in the Design Rationale Report 'as part of the public realm improvements at New Street it is proposed that the existing trees are replaced with new trees which will increase the number of trees on the street, broaden the diversity of tree species, and therefore the resilience of the street, increase the potential for biodiversity, facilitate sustainable urban drainage (SuDS), planted in more extensive green areas with larger soil volumes. The new trees will be less deleterious to existing building fabric, requiring less maintenance in the form of pruning, cleaning gutters and repairs to pavements, and will improve pedestrian safety. The proposal for tree planting has taken the ACA into consideration, in that it opens up the street spatially, allowing a better appreciation of the historic buildings and shop fronts. It is also considered in an integrated fashion with the proposed provision of improved below ground services and drainage infrastructure. '...the existing trees have been surveyed by The Tree File arborists in accordance with BS 5837:2012. The British Standard has been used to rigorously assess the stock of existing trees and to make recommendations which

	• ***What tree species have been proposed- lack of detail regarding dimensions of replacement trees*** • ***Alternative solution to removal of trees should be considered***	are realistic and represent a fair assessment of the quality and long-term viability of the trees on site. In addition to the arboricultural assessment, the existing trees were also visually assessed by DFLA and by representatives of Fingal County Council (FCC), including The FCC Tree Officer and landscape architects from FCC Parks & Landscape. As part of the assessment of trees, an on-site meeting and site walk was carried out in September 2022 with FCC Tree Officer, FCC Parks and Landscape, FCC Architects, FCC Environment Climate Action and Active Travel, and DFLA, during which the trees were inspected and the wider area, micro-climate and ground conditions were noted and discussed, with a view to understanding which species could be used to replace the existing trees. Collectively, the existing trees are recognised by The Tree File as being relatively young trees, of fair health, which have achieved less than 20% of their ultimate species mass. Due to the fact that they have yet to grow significantly, thereby exacerbating the issue of lifting, cracked paving and associated safety, operations and maintenance requirements, as well as the context within which they are planted with unsuitable ground conditions, The Tree File has recommended that they should be replaced with new trees of more contextually compatible species with sustainable, purposely designed underground conditions.' 'The proposals for tree planting are integrated with the overall proposals in the sense that the narrowing of the carriageway provides space for new trees to be planted in a more central location, somewhat removed from the buildings. In addition to the proposed new trees on New Street, FCC Parks & Landscape shall organise the planting of new trees at Malahide Green, which is outside the subject site, but which complements the proposals for New Street, by increasing the canopy cover overall and specifically at Malahide Green, while at the same time allowing for a spatial proposal which is sympathetic to the ACA and the architectural heritage of New Street. Furthermore, it is proposed to upcycle and reuse the trunks of the tree to be removed, as timber beams as part of a unique climbable sculpture at Malahide Green. Generally, the proposal for tree replacement is driven by, or assists FCC in achieving, the objectives of policies 3, 4, 5, 6, 8, 9 of The Forest of Fingal.' The Forest of Fingal document is available here: https://www.fingal.ie/sites/default/files/2022-03/forest-of-fingal_-a-tree-strategy-for-fingal_2022-2032.pdf. Fingal County Council has carefully considered the removal of trees and intends only to remove where strictly necessary. By providing a context appropriate and biodiverse new planting scheme for New Street the green character of the street will be retained and indeed improved over time with species which will not have a detrimental effect on the historic buildings of New St.

T4f	***PARKING AND TAXIS***	
Submissions Received	FIN-C570-5; FIN-C570-12; FIN-C570-14; FIN-C570-15; FIN-C570-25; FIN-C570-31; FIN-C570-36; FIN-C570-37; FIN-C570-45; FIN-C570-48; FIN-C570-49; FIN-C570-55; FIN-C570-59; FIN-C570-65; FIN-C570-75; FIN-C570-80; FIN-C570-92; FIN-C570-98; FIN-C570-103; FIN-C570-104; FIN-C570-115; FIN-C570-124; FIN-C570-139; FIN-C570-143; FIN-C570-157; FIN-C570-160; FIN-C570-182;	
	• ***Benefits of pedestrianisation diminished by taxis blocking the street*** • ***Hazards created by taxis doing a u-turn at the diamond***	The unauthorised taxi manoeuvres observed at the Diamond and other areas of Malahide are caused by the individual driver and patron behaviour. The design response is cognisant of the issue. Telescopic bollards have been incorporated reducing the pull in space in The Diamond as illustrated on Drawing 222126-PUNCH-XX-XX-DR-C-0450 to prevent taxis utilising the top (south end) of New Street as a drop-off. Discussions are also ongoing with taxi representatives, An Garda Siochána, Dublin Bus and residents to find a suitable solution for a taxi rank(s) in Malahide village.
	• ***More emphasis is needed on restricting access for private cars***	There is no access of private cars from the south of the street apart from the 7am-11am delivery access. While discouraged, private cars also sometimes use the route. It is envisaged that after implementation of the proposed public realm improvements, that behaviour will diminish. Car access is retained from Strand Road to Ross's Cottages
T4g	***USE OF THE STREET***	
Submissions Received	FIN-C570-12; FIN-C570-14; FIN-C570-17; FIN-C570-27; FIN-C570-28; FIN-C570-30; FIN-C570-31; FIN-C570-34; FIN-C570-37; FIN-C570-40; FIN-C570-49; FIN-C570-51; FIN-C570-55; FIN-C570-56; FIN-C570-59; FIN-C570-65; FIN-C570-66; FIN-C570-70; FIN-C570-73; FIN-C570-75; FIN-C570-77; FIN-C570-79; FIN-C570-80; FIN-C570-89; FIN-C570-93; FIN-C570-98; FIN-C570-103; FIN-C570-106; FIN-C570-107; FIN-C570-108; FIN-C570-110; FIN-C570-113; FIN-C570-115; FIN-C570-115; FIN-C570-122; FIN-C570-123; FIN-C570-126; FIN-C570-136; FIN-C570-138; FIN-C570-139; FIN-C570-140; FIN-C570-141; FIN-C570-142; FIN-C570-146; FIN-C570-147; FIN-C570-149; FIN-C570-151; FIN-C570-152; FIN-C570-155; FIN-C570-156; FIN-C570-157; FIN-C570-158; FIN-C570-162; FIN-C570-167; FIN-C570-173; FIN-C570-174; FIN-C570-176; FIN-C570-179; FIN-C570-181; FIN-C570-182; FIN-C570-183; FIN-C570-184; FIN-C570-186; FIN-C570-192; FIN-C570-199;	
	• ***The proposals only serve the pubs with little consideration to other businesses.*** • ***Publicans and restaurants assume property rights over pedestrianised area.*** • ***Street transformed into a 'food & drink court'.*** • ***Intrusive hospitality.*** • ***Poor use of the Street.***	The outdoor dining and the various hospitality venues are a prominent feature of New Street. It is important to note that they co-exist with a diverse range of businesses and activities with a mix of retail shops, service providers and other premises. As stated in the Design Rationale Report and demonstrated on the drawings, the proposals aim to strike a carefully considered balance between public and commercial interests. The goal was to create a vibrant and inclusive public space that caters for a variety of needs throughout the year, including more formal outdoor dining, informal dining, opportunities for socialising, leisure, and civic amenities. The proposals clearly illustrate a range of spaces and the inclusion of green spaces, seating areas, art installations and other public amenities aimed at promoting diversification of use and create a sense of place and a distinct character. It is also worth noting that outdoor dining and the hospitality venues can and have a very positive economic impact on the area and contribute to the vitality of Malahide. It is therefore important to recognise that the transformation of the street into people-friendly public space will bring about a range of benefits catering beyond the hospitality sector which are consistent with the Objective CSO63 of the Fingal Development Plan 2023-2029, which is to 'Continue to promote and facilitate the recently implemented pedestrianised core of New Street, Malahide.'

		Where street furniture is provided on New Street by local businesses, such as for outdoor dining, this is done pursuant to licences granted by Fingal County Council on application by the businesses under section 254 of the Planning and Development 2000 (as amended). Such licences are subject to general and specific conditions, and are time limited, and permit the businesses to place the particular street furniture specified in the licence on a particular area of the public road during certain times. There is no question of these businesses assuming any property rights over these areas.
	• ***The proposals change the character, and village atmosphere of Malahide***	Preserving the unique identity and character of the town was a key consideration for the council and the design aims to enhance and adapt the historic street for the evolving needs of our society. The proposals clearly illustrate that the essence of the village is retained while improvements are proposed to enhance the vitality and functionality and to meet the objectives of Fingal Development Plan, Fingal Climate Action Plan and Active Travel Strategies. Change is a welcome and unavoidable component of a healthy society and Fingal will actively continue to engage with residents, visitors and businesses to effect the changes.
	• ***Gathering place for youths is problematic and unfair for residents***	The congregation of people of all ages to linger and enjoy New Street is not considered undesirable by the Council. Guila Vallone (Former Senior Architect in Cork County Council) in her publication: Re-inhabiting the Streets, (Jan. 2022): 'People need People…People are attracted to People-friendly places.' The vision set out is an alternative to 'out of town retail, fuel station plazas and residential suburbia' as one 'that proposes the best use of existing resources, addresses climate change and supports social cohesion is where the architectural heritage and built environment of town centres with the spirit of community is regarded as the starting point of the conversation'. It is suggested that streets 'should be linear routes that provide a multi-functional, flexible and diversity of spaces for people centred design, enhanced by basic social facilities such as seats, tables, quality lighting and all that will facilitate people to linger longer.' There is a vision of 'The design of Public Space as "a Stage Set" where the town's square becomes the town's living room. Where innovative street furniture invites people to stop, shop and linger longer, attracting people to move in, live work and visit.' The enjoyment of the public realm in accordance with laws, bye-laws and regard to the licenced areas is welcomed by the Council.
	• ***Assertion that there is a lack of maintenance of the street.*** • ***Litter on the street***	Maintenance of the street is carried out on a routine basis by the Operations Department in Fingal County Council. Premises licenced under the street furniture licences are required to maintain the area they are licenced to operate within. Further to this, the Tidy Town are also active in Malahide and do great work to support the area through their activities. As part of the construction contract, Fingal County Council will require a contractor to establish and administer a maintenance plan to ensure the successful establishment of the planting scheme with specific details on watering of trees and short, medium, and long-term maintenance of the bio-retention areas.
	• ***Grafton Street and Henry Street have no public seating on these streets***	New Street is of a different character to the streets referred to in the submission. New Street comprises a variety of uses including retail, café, restaurant, bar, health and financial or other business outlets. The proposal aims to maximise the use of the space for all people of all ages and abilities.

		Fingal Age Friendly Policy 2018-2023 states that '55% [of older citizens] were dissatisfied with adequate seating.' And as such the provision of public seating offers the public of all ages to rest, socialise and linger longer on the Street, without the need to be seated at a private business. Guila Vallones, Senior Architect in Cork County Council published Re-inhabiting the Streets, (Jan. 2022) , states that "....innovative street furniture invite people to stop, shop and linger longer, attracting people to move in, live, work and visit.' Public seating is a vital component to achieving this.
T4h	***SAFETY & POTENTIAL FOR ANTISOCIAL BEHAVIOR***	
Submissions Received	FIN-C570-12; FIN-C570-14; FIN-C570-15; FIN-C570-16; FIN-C570-24; FIN-C570-31; FIN-C570-32; FIN-C570-34; FIN-C570-36; FIN-C570-48; FIN-C570-49; FIN-C570-51; FIN-C570-51; FIN-C570-55; FIN-C570-62; FIN-C570-64; FIN-C570-65; FIN-C570-66; FIN-C570-70; FIN-C570-71; FIN-C570-73; FIN-C570-73; FIN-C570-75; FIN-C570-77; FIN-C570-79; FIN-C570-81; FIN-C570-82; FIN-C570-86; FINC-C570-87; FIN-C570-98; FIN-C570-104; FIN-C570-109; FIN-C570-110; FIN-C570-111; FIN-C570-115; FIN-C570-122; FIN-C570-124; FIN-C570-125; FIN-C570-126; FIN-C570-127; FIN-C570-133; FIN-C570-136; FIN-C570-137; FIN-C570-138; FIN-C570-140; FIN-C570-141; FIN-C570-142; FIN-C570-143; FIN-C570-144; FIN-C570-147; FIN-C570-149; FIN-C570-152; FIN-C570-156; FIN-C570-157; FIN-C570-158; FIN-C570-163; FIN-C570-167; FIN-C570-171; FIN-C570-172; FIN-C570-173; FIN-C570-176; FIN-C570-182; FIN-C570-184; FIN-C570-185; FIN-C570-186; FIN-C570-187; FIN-C570-192; FIN-C570-197;	
	• ***Concern over drinking on the street*** • ***Concern over noise nuisance from people & piped music*** • ***'Design with the worst common denominator in mind' - Fear of antisocial behaviour should not restrict normal social behaviour*** • ***Provision of seating and public realm feature creates harm and antisocial behaviour***	The relevant laws and bye-laws in relation to licenced areas, public alcohol consumption, advertising and noise will remain unchanged by the proposals. The current Dublin Agglomeration Noise Action Plan (2018-2023) cites the ongoing sustainable policies being implemented at a regional or local level that aim to increase the mode share of sustainable travel modes in the Dublin region with a resultant reduction in noise and air pollution levels arising from less private vehicular traffic on roads. Removing vehicles from roads reduces noise. The proposed design features green areas adjacent residential homes on New Street, which will result in a distance between pedestrians/cyclists and residential properties, thus reducing noise. New Street contains a mix of development uses, the number and distribution of which will not be altered by the proposals. Anti-social behaviour is not caused or created by the provision of social space. A well-designed public realm, combined with passive surveillance from surrounding homes and businesses, will provide a welcoming and inclusive environment for all people and the inclusion of everyone on an equal basis will contribute to a positive community experience. Fingal County Council will continue to liaise with An Garda Siochána in relation to anti-social behaviour.
	• ***Pedestrian Safety from Bicycles/Speeding Cyclists***	Cyclists will be required to dismount on entering the street. Cycle parking stands are proposed throughout the site, particularly at the northern and southern thresholds, along the footpaths. Parking for cargo bikes and e-bikes will also be accommodated. This measure, along with the elimination of vehicular traffic outside the 7am - 11am period, will result in a much safer environment for all vulnerable Road Users including the visually impaired. In 2004, The Dutch Centre of Expertise on Cycling Policy (Fietsberaad), commissioned a study on 182 locations in 15 cities and concluded that there is a self-regulating aspect to the interaction between pedestrians and cyclists stating that "pedestrians generally experience little discomfort from cyclists. In pedestrian areas, the cyclist adapts to the surrounding pedestrians. Cyclists give way, or dismount their bike and continue to walk, guiding the bike by the hand."

		"When the number of pedestrians in a certain area is (too) high, cyclists tend to choose other, more attractive routes." the research also showed that bans are ineffective, whereas providing bike parking at either end of the street was found to be an effective measure to regulate the use of the street. Therefore, while it is not permitted by law for a person to cycle on a pedestrianised street with the sign RUS 021, the research shows that it is a self-regulating environment, and that signage and bans are ineffective.
T4i	***MATERIALS, FIXTURES & FITTINGS***	
Submissions Received	FIN-C570-7; FIN-C570-23; FIN-C570-26; FIN-C570-54;	
	• ***Choice of materials should reflect the character and architectural conservation area status of Malahide.*** • ***The proposed finishes and materials should be high quality and durable and, adopt a consistent design and reflect the character and the architectural status of the area***	As noted in the Design Rationale Report 'the materials palette has been developed to build on the existing character of Malahide. In keeping with the principles established in FCC's Malahide Historic Core Architectural Conservation Area Statement of Character, the public realm has been designed in way that is sympathetic to the character of the street, minimising clutter and establishing a palette of high-quality materials with a low-key, consistent design, colour and style. In addition, durability, robustness and the specific nature of how the materials are proposed to be detailed is of critical importance to the success of the proposals. The selection of both surfacing and furniture is also proposed to provide cohesion and contrast throughout the public realm. Irish limestone and Leinster granite, in a variety of formats and finishes as differential surfacing are proposed for the pedestrian and vehicular areas.'
	• ***Concern that the proposed materials will deteriorate and create a tripping hazard and create difficulties for those with mobility issues over time***	As noted in the Design Rationale Report 'the selection of hard landscape materials is determined by function but also to provide a cohesive palette of materials across the site. The materials palette has been developed to build on the existing character of Malahide. In keeping with the principles established in FCC's Malahide Historic Core Architectural Conservation Area Statement of Character, the public realm has been designed in way that is sympathetic to the character of the street, minimising clutter and establishing a palette of high-quality materials with a low-key, consistent design, colour and style. In addition, durability, robustness and the specific nature of how the materials are proposed to be detailed is of critical importance to the success of the proposals. The selection of both surfacing and furniture is also proposed to provide cohesion and contrast throughout the public realm. Irish limestone and Leinster granite, in a variety of formats and finishes as differential surfacing are proposed for the pedestrian and vehicular areas.' The proposed materials will be subject to regular maintenance by FCC.

T4j	***TOURISM***	
Submissions Received	FIN-C570-93; FIN-C570-98; FIN-C570-110; FIN-C570-115; FIN-C570-119; FIN-C570-122; FIN-C570-126; FIN-C570-127; FIN-C570-169;	
	• ***Area will become more popular for tourists*** • ***Attracting tourist will have a negative impact on the village*** • ***Promotion of Malahide as a tourist destination is against the wishes of residents***	Strategic Objective No. 13 of the Fingal Development Plan 2023-2029 (hereafter, the 'Development Plan') is to 'Continue to support the development of the tourism industry in the County and work to sustain Fingal as a high quality and competitive tourism destination.' The key town objective for Malahide under the Development Plan includes Malahide's 'tourism offer' as 'Integral to its character and its exceptional amenity offer'. Objective CSO51 of the Development Plan seeks to 'Proactively support and promote [the] tourism offer' of Fingal's 'Self-Sustaining Towns' such as Malahide. Clause 7.2.5 of the Development Plan addresses Fingal's growing tourism sector and describes tourism as 'one of Fingal's most important economic drivers which is fully embraced by the Council.' . In addition to the above the street has a wide array of businesses and facilities operating on it and therefore provides a wide variety of use and amenity, where residents, employment and tourism are welcome.
CAT 5	***SPECIFIC SUGGESTIONS REGARDING THE DESIGN AND OPERATION OF PROPOSAL***	
T5a	***SPECIFIC SUGGESTIONS***	
Submissions Received	FIN-C570-9; FIN-C570-20; FIN-C570-33; FIN-C570-49; FIN-C570-50; FIN-C570-54; FIN-C570-58; FIN-C570-61; FIN-C570-63; FIN-C570-74; FIN-C570-75; FIN-C570-77; FIN-C570-82; FIN-C570-83; FIN-C570-112; FIN-C570-117; FIN-C570-121; FIN-C570-128; FIN-C570-130; FIN-C570-131; FIN-C570-134; FIN-C570-151; FIN-C570-166; FIN-C570-177; FIN-C570-202;	
	• ***Introduce more colour in the selection of finishes & materials***	As noted in The Heritage Impact Assessment by Coady Architects 'Where new paving stones are proposed, these shall comprise local (Irish) stone. The paving design, as shown on the proposed drawings, adopts an unfussy, orthogonal coursing, using a limited palette of materials. The avoidance of unnecessary pattern or embellishment will be essential to ensure that the new hard landscaping is appropriate to the scale and width of the street, and the sensitive receiving environment of the predominantly early-nineteenth century buildings that front onto New Street.' Furthermore, as noted in the Design Rationale Report 'the selection of hard landscape materials is determined by function but also to provide a cohesive palette of materials across the site. The materials palette has been developed to build on the existing character of Malahide. In keeping with the principles established in FCC's Malahide Historic Core Architectural Conservation Area Statement of Character, the public realm has been designed in way that is sympathetic to the character of the street, minimising clutter and establishing a palette of high-quality materials with a low-key, consistent design, colour and style. In addition, durability, robustness and the specific nature of how the materials are proposed to be detailed is of critical importance to the success of the proposals.' The design is proposed as a counterpoint to the otherwise very colourful streetscape of shopfronts, floral displays, etc. However, the design will benefit from colour through planting design also. This was recognised by

		the Fingal County Council Conservation office who considered the proposals and considered the *limited palette of materials and are of simple contemporary design which is considered appropriate in this setting.*
	• ***Provide high quality street furniture such as bins, public lighting & seating to be provided with consistency and uniformity.*** • ***Furniture to be designed to discourage loitering in evening and night-time including restricting access to it.***	High quality street furniture will be provided. As noted in the Design Rationale Report 'the selection of hard landscape materials is determined by function but also to provide a cohesive palette of materials across the site. The materials palette has been developed to build on the existing character of Malahide. In keeping with the principles established in FCC's Malahide Historic Core Architectural Conservation Area Statement of Character, the public realm has been designed in way that is sympathetic to the character of the street, minimising clutter and establishing a palette of high-quality materials with a low-key, consistent design, colour and style. New Street is a public street and therefore access is not restricted for pedestrians in the evening. Seating areas will be designed at detailed design stage in accordance with best practice guidelines.
	• ***Provide water filling stations***	Water filling stations can certainly improve the amenity of the space and will be considered at the detailed design stage.
	• ***Provide drinking facilities for dogs***	This is an interesting suggestion and will be considered at detailed design stage.
	• ***More curved seating and planting***	The Design currently shows an array of seating including curved seating. However, this suggestion will be considered more fully at detailed design stage.
	• ***Request to consider the hill when designing street furniture***	The gradient of the street has been considered and is embedded in the design proposals.
	• ***Suggestion that street furniture should not obstruct access to the street, as a flow of pedestrians across the street will slow cyclists.***	New Street is not proposed as a cycling street. Cyclists utilising the pedestrianised section of New Street between the Diamond and Ross Cottages will need to dismount. It is intended that members of the public will be able to traverse the public realm freely, including the full width of the street's central aisle. Refer to DFLA layout drawings for illustration.
	• ***V-shape or seats facing each other to facilitate better social interaction***	The benefits of providing seating to facilitate social interaction are acknowledged and will be considered at detailed design stage.
	• ***Provide table or shelf for wheelchair users***	Provision of dedicated facilities for wheelchair users in line with Council objectives and this will be considered at detailed design stage where appropriate.
	• ***Suggestion to avoid public seating with no back***	A range of public seating types will be provided, including those with backrests and armrests, in accordance with best practice. The advantages of providing backrests are acknowledged and will be incorporated. There may be instances where additional informal seating without backrest is provided if considered appropriate. The final design of seating will be considered in detail at detail design stage.
	• ***Move out barriers to prevent taxis parking on top of the street***	This has been incorporated within the design as shown on the drawings submitted.
	• ***Suggestion to omit the disabled bay signage pole which will hamper door opening***	The disabled bay signage pole is omitted as illustrated in Drawing 222126-PUNCH-XX-XX-DR-C-0450. Only Disabled bay line marking (RRM015) is utilised to denote this disabled parking bay.
	• ***Controls to prevent inappropriate business identification signage on the street***	Premises licenced under the Street Furniture Licences are required to maintain the area they are licenced to operate within.

		The street furniture licences contain specific conditions in relation to signage and advertisement.
	• ***Preserve the dark green livery and Malahide motif used in the Castle***	The appropriateness and practicality of this suggestion within the context of New Street will be considered at detailed design stage.
	• ***Provide continental style dining booths to cater for changing weather***	As noted in the Design Rationale 'In keeping with the principles established in FCC's Malahide Historic Core Architectural Conservation Area Statement of Character, the public realm has been designed in way that is sympathetic to the character of the street, minimising clutter and establishing a palette of high-quality materials with a low-key, consistent design, colour and style'. It is therefore not considered appropriate to provide continental style dining booths to cater for changing weather as this would mean additional structures and visual clutter on the street.
	• ***Some bike stands could be enclosed***	As noted in the Design Rationale 'In keeping with the principles established in FCC's Malahide Historic Core Architectural Conservation Area Statement of Character, the public realm has been designed in way that is sympathetic to the character of the street, minimising clutter and establishing a palette of high-quality materials with a low-key, consistent design, colour and style'. It is therefore not considered appropriate to include an enclosure to cycle stands as this would mean additional visual clutter on the street.
	• ***More bike parking spots both for standard bikes and cargo bikes***	The extent of cycle parking proposed has been reviewed in detail and is considered appropriate for the scale of the street. Bike parking locations are provided primarily at the north and south ends of the street, but there are also bike parking stands provided through the length of the street also, please refer to the general arrangement drawings that are contained on the Public Consultation portal (Available here: https://consult.fingal.ie/en/consultation/public-realm-new-street-malahide).
	• ***Where bike stands are provided, they should allow for adequate protection to allow visually impaired people to detect them***	Consideration of the visually impaired has been a key objective and deliverable from the project inception and will be a key objective and deliverable during the detailed design of all street furniture, including bicycle stands.
	• ***Provide segregation of dining areas from pedestrians***	Dining areas are proposed to be segregated from pedestrians utilising the detailing and the finishes on the surfaces. Appropriate level of segregation including some vertical segregation if appropriate will be considered at the detail design stage.
	• ***Request for feature to acknowledge the maritime heritage of Malahide***	With suitable maritime features incorporated into The Green redevelopment adajacent to New Street and the Marina, this did not form part of the brief for the public realm on New Street
	• ***Request not to erect signage pole at the accessible parking bay such that it hampers opening the door of the car***	The disabled bay signage pole is omitted as illustrated in Drawing 222126-PUNCH-XX-XX-DR-C-0450. Only Disabled Bay line marking (RRM015) is utilised to denote this disabled parking bay.
	• ***Suggestion that paving should be designed as a plaza, with paving laid uniformly, similar to the paving laid on the green.***	Hardscape materials and / paving pattern similar to that used on The Green, Malahide forms part of the brief be used in order to unify these urban schemes. Details of the paving materials shall be agreed with the Conservation Office, prior to being finalised.

	• ***Bicycle parking should be kept for bicycle owners exclusively and not rental bikes***	Cycle parking is a public facility for all users, and as such it is not feasible to regulate where people park their bike, however, for the redistribution of the bike share bikes, Fingal will discuss with the operators about the use of the stands on New St,
	• ***Bicycle parking should be visible to reduce risk of theft***	Areas for cycle parking are provided at regular intervals along the length of the street in close proximity and generally within sight of the outdoor dining areas.
	• ***Provide large recycling units for outdoor use close to takeaways***	As noted in the Design Rationale 'In keeping with the principles established in FCC's Malahide Historic Core Architectural Conservation Area Statement of Character, the public realm has been designed in way that is sympathetic to the character of the street, minimising clutter and establishing a palette of high-quality materials with a low-key, consistent design, colour and style'. Therefore, litter bins and recycling bins will be provided in accordance with this approach and will be included at regular intervals along the street.
	• ***Specific request for more public seating along the building line of a named premises*** • ***Consider giving the footpath to businesses and leaving the street for pedestrians***	These issues have been addressed under T4d above.
T5b	***PLANTING FOR NEW STREET***	
Submissions Received	FIN-C570-74; FIN-C570-75; FIN-C570-85; FIN-C570-112; FIN-C570-130; FIN-C570-134; FIN-C570-196; FIN-C570-204;	
	• ***Include more mature tree planning and greater variety of tree species in the design***	As noted in the Design Rationale, 'the design proposals include significant new tree planting throughout the site area. Trees are proposed to replace the existing trees, but also generally improve the species mix on site. The proposed tree species are selected for suitability to local conditions and microclimate, biodiversity and where required suitability for close proximity to buildings. The proposed tree planting, of varying species and size, has been carefully considered in three distinct arrangements: trees on the west side of the street, trees and shrubs in bioretention areas on the east side of the street and specimen trees at each end of the street.' Trees are proposed at a range of sizes in accordance with best practice and to improve their chance of survival at time of planting. It is noted that the tree sizes included on the Public Realm Plan, in the planning application are the sizes at time of planting (Available here: https://consult.fingal.ie/en/consultation/public-realm-new-street-malahide). The proposed tree species have been chosen (a) to facilitate sustainable urban drainage (SuDS), (b) be less deleterious to existing building fabric, (c) to open up the street spatially, allowing a better appreciation of the historic buildings and shop fronts, taking into account the Architectural Conservation Area and (d) to bookend the street spatially. It is therefore not considered that more mature tree planting and a greater variety of tree species can be provided.
	• ***Provide more soft landscaping/planting to compensate for the removal of the existing trees***	Following detailed analysis and design development, together with the non-statutory public consultations carried out, the layout and strategy for the street shown in the application drawings was considered the optimum layout with an appropriate balance achieved between all users of the street. The extent of soft landscaping and planting will be considered further at detail design stage however it is not expected that it will be able to be increased, given the constraints on the street, access, public seating areas and outdoor dining areas and other facilities or functions.

	• ***Plant native hardy hawthorn hedging (more suited to maritime coastal conditions) as opposed to Himalayan White Birch shown on planting scheme***	Himilayan White Birch is not proposed in the planting list.
	• ***Suggestion that planting in front of residences should not cast a shadow***	Planted areas are proposed outside residential homes in order to provide a pleasant garden setting to act as a buffer between the residential homes and the centre of the street. The trees will be carefully selected in conjunction with our Parks and Green Infrastructure Division and will be apt for the setting. As noted in the Design Rationale by DFLA 'as part of the public realm improvements on New Street, it is proposed that the existing trees are replaced with new trees which will increase the number of trees on the street, broaden the diversity of tree species, and therefore the resilience of the street, increase the potential for biodiversity, facilitate sustainable urban drainage (SuDS), planted in more extensive green areas with larger soil volumes. The new trees will be less deleterious to existing building fabric, requiring less maintenance in the form of pruning, cleaning gutters and repairs to pavements, and will improve pedestrian safety. The proposal for tree planting has taken the ACA into consideration, in that it opens the street spatially, allowing a better appreciation of the historic buildings and shop fronts. It is also considered in an integrated fashion with the proposed provision of improved below ground services and drainage infrastructure.' The tree plan will be finalised during detailed design in conjunction with our Parks and Green Infrastructure Division and will be cognisant of the residential properties on the street and allowing a better appreciation of the historic buildings and shopfronts on the street.
	• ***Proposed trees adjacent to on-street dining areas be replaced with low-level shrubbery, such as Hebe, Mahonia, Hydrangea, Senecio & Ceanothus, all of which could be managed and kept to an acceptable height***	This suggestion will be considered during the detailed design process and the planting schedule will take this into consideration, which will be reviewed and agreed with the and the Council's 'Parks and Green Infrastructure' division and the Heritage Officer in the next stage of the project.
	• ***Planted areas could be reduced to maximise public space***	Following detailed analysis and design development, together with the non-statutory public consultations carried out, the layout and strategy for the street shown in the application drawings was considered the optimum layout with an appropriate balance achieved between all users of the street. The planted areas facilitate important replacement tree planting as noted in the Design Rationale 'which will increase the number of trees on the street, broaden the diversity of tree species, and therefore the resilience of the street, increase the potential for biodiversity, facilitate sustainable urban drainage (SuDS), planted in more extensive green areas with larger soil volumes. The new trees will be less deleterious to existing building fabric, requiring less maintenance in the form of pruning, cleaning gutters and repairs to pavements, and will improve pedestrian safety. The proposal for tree planting has taken the ACA into consideration, in that it opens the street spatially, allowing a better appreciation of the historic buildings and shop fronts. It is also considered in an integrated fashion with the proposed provision of improved below ground services and drainage infrastructure.'

	• ***Detailed suggestions regarding the appropriate plant species***	This suggestion will be considered at detailed design stage.
T5c	***MANAGEMENT OF THE STREET & ENFORCEMENT OF BYLAWS***	
Submissions Received	FIN-C570-54; FIN-C570-63; FIN-C570-71; FIN-C570-73; FIN-C570-74; FIN-C570-75; FIN-C570-77; FIN-C570-86; FIN-C570-94; FIN-C570-102; FIN-C570-108; FIN-C570-109; FIN-C570-116; FIN-C570-117; FIN-C570-177;	
	• ***Ensure the 'cyclist dismount' will be enforced***	Cyclists will be required to dismount on entering the street, which is enforceable by An Garda Siochana under the legislation, without the need for further signage. Cycle parking stands are proposed throughout the street, particularly at the northern and southern thresholds, along the footpaths. Parking for cargo bikes and e-bikes will also be accommodated. This measure, along with the elimination of vehicular traffic outside the 7am - 11am period, will result in a much safer environment for all vulnerable road users including the visually impaired.
	• ***A representation committee should be established to ensure the smooth running of the street during and after development***	There are several community groups operating in Malahide which include the Chamber of Commerce, Shop Malahide, Malahide Forum and the Tidy Towns, coupled with a number of residents associations in the area. Such groups can register with the Public Participation Network (PPN) in Fingal County Council. A community liaison officer(s) will be appointed during construction, to be the point of contact for residents, businesses and other directly affected stakeholders on New Street.
	• ***Pubs/restaurants on New Street make a financial contribution and ongoing maintenance fees***	Businesses throughout Fingal are required to pay commercial rates and as such businesses on New Street are already paying the required rates. This scheme is funded by the National Transport Authority therefore, businesses on New Street will not be required to make any special, extra financial contributions or ongoing maintenance fees as a result of their location on New Street as a result of this planning process. In addition to the above, businesses that apply for, and receive a Street Furniture Licence are obliged to adhere to the conditions of that licence.
	• ***Ban requested on alcohol consumption, alcohol advertising and outdoor music speakers***	The relevant laws and bye-laws in relation to licenced areas, public alcohol consumption, advertising and noise will remain unchanged by the proposals.
	• ***Regulate trucks reversing up the street***	A one-way system is proposed which permits one-way access for deliveries and the likes from 7:00am to 11am daily. Two-way access is maintained at the northern end of the street for residents and businesses. A bollard is proposed to be placed on New St at the interface point with Ross Cottages to prevent vehicles gaining access to New St south of Ross Cottages from 11am – 7am, whether reversing or driving directly between these times.
	• ***Pubs need to take responsibility/action for excessive drinking***	Outdoor Licences are provided with a set of conditions that include regulation of alcohol consumption. Licenced premises a required to adhere to the legislation and bye laws.
	• ***Limit use of Street to privately-owned bikes, rented bikes should be prohibited***	The National Sustainable Mobility Policy (2022) and An Active Travel Strategy for Fingal (May 2023) set out the policy context, which develop a structured network of coordinated bike share schemes, support the provision of electric and standard bike sharing schemes, and put in place interoperability between schemes. There is also a commitment to monitor 'emerging mobility trends and respond accordingly (for example, the use of e-Scooters).' It would therefore be against National and Local policy to preclude rented bikes from using the street.

	• ***Suggestion that environmental officers should be on patrol***	Litter bins will be provided at regular intervals on the street. Litter will be managed in accordance with Fingal County Council's Litter Management Plan 2019-2021, which includes the provision of dedicated litter wardens for the county of Fingal.
	• ***Suggestion to enforce type of furniture with Bylaws***	The proposed street furniture shown in the examples have a limited palette of materials and are of simple contemporary design. The proposed design endeavours to respect the architectural heritage of New Street, while adapting to the requirements of a modern public realm scheme. Details of the street furniture shall be agreed with the Conservation Office, prior to being finalised.
	• ***Suggestion that street should be monitored after dark to prevent antisocial behaviour*** • ***FCC should develop measures with local Garda to reduce potential for public disorder***	It is not within the Council's gift to regulate this. However, there is no evidence that pedestrianisation has resulted in an increase in anti-social behaviour to date (see response to T1a above) and it is not envisaged that the proposed Public Realm Improvements will result in an increase in anti-social behaviour for the reasons outlined in our response to Theme T4(h) above. Anti-social behaviour is a matter for An Garda Siochana, who have been consulted in relation to the public realm improvements.
	• ***Suggestion that music should be turned off after 8:30pm***	The laws and bye-laws in relation to music and noise will remain unchanged by these proposals.
T5d	***IMPLEMENTATION***	
Submissions Received	FIN-C570-55; FIN-C570-58; FIN-C570-66; FIN-C570-77;	
	• ***Encouragement to implement the scheme as soon as possible***	Objective CSO63 of the Development Plan 2023-2029 is to 'Continue to promote and facilitate the recently implemented pedestrianised core of New Street, Malahide.' Therefore, it is incumbent on the Council to 'consider the provisions of the Plan, and try to secure its objectives' (Development Plans, Dept of Housing, Local Government & Heritage, Nov. 21). The Council will try to secure objective CSO63 in this regard and will do so as soon as possible whilst observing the proper processes.
	• ***Gantt chart, illustrating the projected timetable for the works, should be developed and published, prior to any decision being made by Councillors***	An outline 'Construction Management Plan' (Available here: https://consult.fingal.ie/en/consultation/public-realm-new-street-malahide) was uploaded as a supporting document to this consultation. This incorporates a level of detail relating to the programme which is appropriate for this stage of the project. Once the detail design stage commences this document will be considered in light of the submissions, detail specifications, liaison with the utility providers, current market conditions, project risks and discussions with the trades to ensure that the project is delivered in the most efficient way while minimising the disruptions. Presenting a Gantt chart too early in the process without detailed consideration may result in the creation of unrealistic expectations among stakeholders. While Fingal County Council acknowledges that Gantt charts are a valuable tool to inform decisions, they are most effective when developed at a later stage when project details are developed and well defined.
	• ***Potential for disruption to Local Businesses during Construction***	Fingal County Council is cognisant of the potential for disruption during the construction stages of this project but is confident that based on the many examples of successful delivery of projects of similar nature and context (such as the Luas cross city) it can be delivered in a way that minimises that disruption. Strategies such as phased construction, close collaboration with key stakeholders and local businesses, local access, flexibility in construction schedule including possible stoppage during key trading periods will all be considered and

		analysed. It is proposed to have a dedicated Liaison Officer engaged to act as a point of contact between project team, businesses, and other stakeholders. Regular consultation and information sessions to allow for adjustments based on local input will be facilitated. By employing these strategies and maintaining a strong focus on engagement and collaboration while employing the most advanced and suitable construction methodologies, the disruption will be minimised, and the long-term benefits will be balanced with the short term needs and concerns of residents and local business
T5e	***OPPORTUNITES AFTER IMPLEMENTATION***	
Submissions Received	FIN-C570-116; FIN-C570-142;	
	• ***Street could be used to facilitate opportunities for new businesses and entrepreneurs in the area to showcase their products.*** • ***Suggestion to maximise the potential of the street, by introducing themed weeks throughout the year supporting different more diverse groups***	This are interesting suggestions, and will be referred to the Council's Economic Development, Tourism and Local Enterprise Office.
	• ***Suggestion to provide public toilet facilities, or pubs allow their toilets to be used***	The provision of a public toilet is not within the scope of these proposed enhancements, and it is not within the gift of the Council to require that pubs allow their toilet facilities to be used by the general public. However, there are public toilets located at the corner of James' Terrace and the Mall, which is less than 150m from the Diamond.
CAT 6	***OTHER SUBMISSIONS & OBSERVATIONS***	
T6a	***TAXI RANK***	
Submissions Received	FIN-C570-35; FIN-C570-45; FIN-C570-66; FIN-C570-75; FIN-C570-77; FIN-C570-119; FIN-C570-122; FIN-C570-125; FIN-C570-139; FIN-C570-141; FIN-C570-147; FIN-C570-148; FIN-C570-152; FIN-C570-154; FIN-C570-158; FIN-C570-166; FIN-C570-170; FIN-C570-171; FIN-C570-180; FIN-C570-181;	
	• ***Proposals for Taxi Rank should be provided***	As stated in the response to T1a & T4f above, Fingal County Council are actively considering different options for taxi rank locations. Proposals and agreement will be sought for implementation as soon as possible. There are several competing constraints in relation to the provision of a taxi rank at a suitable location, where it will be used, is visible, and practical, such as bus stops, disabled parking spaces, age friendly spaces, loading bays, Pay and Display parking, sightlines, cueing facility etc.
T6b	***CYCLING INFRASTRUCTURE***	
Submissions Received	FIN-C570-153; FIN-C570-166; FIN-C570-177; FIN-C570-180;	
	• ***Provide cycle lanes and cycle access in wider Malahide***	There are currently two other projects ongoing in Malahide: the Sutton to Malahide Pedestrian and Cycle Scheme and the Broadmeadow Greenway linking Malahide and Donabate.

		The Greater Dublin Area cycle Network Plan includes a number of other proposed future schemes, that will be considered by Fingal County Council in due course. As such it is considered that Malahide will be very well served by cycling infrastructure.
T6c	***PUBLIC LIGHTING***	
Submissions Received	FIN-C570-168;	
	• ***Inauthentic Victorian lamp standards along the Main Street should be replaced.*** • ***Consider designing a pilot lamp standard to be rolled out in other historic cores across the County***	This matter will be raised our Operations, Public Lighting and Conservation sections for future consideration. However, the Conservation Office acknowledge that these street lights are part of an existing lighting scheme for the Diamond and Main Street and any replacement of these street lights would be outside of the scope of the proposed public realm works for New Street. As stated in the "Design Rational" document included in the Planning documentation, "In order to minimise clutter and reduce the number of poles on the street, light fittings are proposed to be wall-mounted where possible. The proposals for public lighting allow for an uninterrupted space in the centre of the street which will benefit from the character of the planted bio-retention areas as well as the civic spaces with public seating, modest incidental play or art pieces and parking facilities for cyclists.
T6d	***BUS ROUTE***	
Submissions Received	FIN-C570-18; FIN-C570-24; FIN-C570-25; FIN-C570-32; FIN-C570-35; FIN-C570-42; FIN-C570-49; FIN-C570-66; FIN-C570-74; FIN-C570-77; FIN-C570-84; FIN-C570-93; FIN-C570-95; FIN-C570-97; FIN-C570-99; FIN-C570-100; FIN-C570-105; FIN-C570-117 FIN-C570-122; FIN-C570-123; FIN-C570-138; FIN-C570-155; FIN-C570-180; FIN-C570-181;	
	• ***Find alternative bus route especially for the H2 bus*** • ***Better alternatives than using Old Street or New Street as a bus route*** • ***Improve turning circle for buses*** • ***Suggestion to provide a ring-road/bypass*** • ***Bus Terminus should be moved away from Junction at James' Tce.*** • ***Suggestion to provide a local shuttle bus service***	This matter has been investigated by Dublin Bus and the NTA to establish if a viable alternative is possible for the bus route to reach its terminus point on James' Terrace. All alternative options have been found to have a negative impact on the frequency and reliability of the service provided by Dublin Bus or resulting in the bus terminating in unsuitable locations. It should also be noted that the H2 bus route which access Old Street, is one bus every half hour typically. Further to the above, the bus as it goes down Old St. and Strand St is empty of passengers as it has passed its final stop prior to accessing Old St and terminating on James' Terrace. James' Terrace has operated effectively for Dublin Bus, as it is near the centre of Malahide Village, in close proximity to a variety of facilities for drivers and passengers. There is currently no plan to move the terminus point. The first stop on the route has been moved such that it is further east from its current location, as a more practical point for the first stop on the route, in line with the requirements of Dublin Bus. The Bus Connects Website shows the proposed routes that are to operate in and around Malahide which includes the H2 spine route, X77, X78 Peak Time Routes, L81 Local Route and the 20 City Bound route.

		There is no provision in the County Development plan to provide a ring road/bypass around Malahide. In conclusion, the bus route will not be affected nor changed from its current operations because of the public realm improvements on a pedestrianised New St.
T6e	***WIDER MALAHIDE***	
Submissions Received	FIN-C570-22; FIN-C570-45; FIN-C570-59; FIN-C570-103; FIN-C570-110; FIN-C570-153; FIN-C570-165; FIN-C570-166; FIN-C570-177; FIN-C570-183; FIN-C570-190; FIN-C570-196;	
	• ***Scheme needs to be viewed in the wider context of the village and not in isolation***	The public realm improvements of New Street are consistent with the Malahide Public Realm Strategy, which looked at Malahide in the wider context with recommendations locally envisaging that priority will be given to measures which improve the public realm, increase pedestrian movement and cycling in the village of Malahide. In particular, the public realm improvements are consistent with projects which focus on the permeability and connectivity across Malahide for pedestrians and cyclists. Since 2014 Government Policy has moved forward in the context of climate action and the prioritisation of the movement of people over privately owned vehicles, in line with the hierarchy of road users. In the context outlined above, the public realm improvements have been considered in accordance with the Fingal Development Plan 2023 –2029 along with other projects in the area such as the Malahide Green (complete), Broadmeadow Greenway (commenced), and the Sutton to Malahide Pedestrian and Cycle Scheme (Non Statutory Public Consultation complete), all of which will promote and facilitate Active Travel within Malahide and the wider county.

		Therefore, it can be stated that the improvements to the public realm on New Street have been considered in the context of the wider village and not in isolation.
	• ***Pedestrian crossings on adjacent streets should be upgraded to make them safer***	This will be referred to relevant departments for future consideration.
	• ***Public transport generally needs to improve before pedestrianisation can happen***	Extensive public transport networks serve Malahide, with the Dart, northern commuter line train service, multiple bus services, and taxis. In addition, local school buses also serve the schools in the area. Bus Connects and Dart+ Services are ongoing projects at present outside the scope of this project. The Bus Connects Website shows the proposed routes that are to operate in and around Malahide which includes the H2 spine route, X77, X78 Peak Time Routes, L81 Local Route and the 20 City Bound route.
	• ***Parklets in Malahide are unappealing and should be removed***	This is a matter that is managed through the outdoor licencing section in Fingal County Council's Operations Section.
	• ***Proposals are needed for security presence on the street***	Currently there is no security presence on the street, and security is successfully provided by passive surveillance. Any anti-social instances are dealt with by An Garda Siochana, as appropriate. An Garda Siochana has responsibility for carrying out all policing duties in the Irish State. It provides state security services and carries out all criminal and traffic law enforcements and are tasked with maintaining public order on streets. New Street will continue to operate as a public urban street, and the current arrangements are appropriate. The proposed public realm improvements will provide a sense of place on this street and improving the public realm has been shown to lead to a more vibrant, sustainable, and people-friendly urban environment that prioritises health, well-being, and community interaction, and thereby providing a sense of place, and passive security, without the need for a dedicated security presence.
	• ***Crowd management on New Street during concerts should be considered***	While not a matter for this project, any planning permission granted for the concert events includes a policing plan and has conditions that require a Garda presence on New St.
	• ***Request that if New Street is fully pedestrianised, that a full traffic management plan is implemented to speed up traffic flow throughout Malahide***	In accordance with the road user hierarchy, i.e. the priority is to provide safe space and priority for pedestrians, followed by people on bikes, then public transport, utility vehicles, then the private car. In addition, it can be observed that much of the traffic movements through the village of Malahide are a result of people choosing to drive short distances to local amenities, where walking, cycling or public transport is an alternative, and would support the guiding principles of sustainable travel. This would improve the traffic movements through the reduction of single occupancy vehicle journeys, thereby reducing congestion. Studies of the junctions at the Diamond and on approach to the Diamond, particularly from the east, show that there are many contributing factors to the flow of traffic into this junction, generally referred to as "turbulence" and is a contributory factor to the journey time through the Main Street.

		PUNCH consulting engineers prepared a Traffic and Transportation Assessment for the proposed public realm improvements for a pedestrianised New Street dated February 2023, for which an assessment was carried out in accordance with Transport Infrastructure Ireland's Traffic and Transport Assessment Guidelines PE-PDV-02045 (May 2014) and made reference to the Government of Ireland's Design Manual for Urban Roads & Streets (DMURS) (May 2019 Version 1.1). This Traffic and Transportation Assessment (available here: https://consult.fingal.ie/en/consultation/public-realm-new-street-malahide) confirms that that the pedestrianisation of New Street has had little impact on the operational capacity of the surrounding network of roads and junctions. When comparing the 2023 post-pedestrianisation with the 2019 pre-pedestrianisation scenarios, there are minimal effects on the capacity for surrounding road network and junctions, and the existing traffic arrangements relating to New Street do not give rise to any likely significant effects. These traffic arrangements will be the same when the pedestrianisation with public realm improvements is implemented and therefore will not give rise to any likely significant effects.
	• ***Suggestion to widen the footpaths leading to New Street***	This this will be referred the relevant departments in Fingal County Council for their consideration of future projects in Malahide.
	• ***Additional traffic lights to allow safe access to Main Street from adjoining streets***	Currently there are 5 No. pedestrian crossings over a 500m stretch of Main St and the Mall. These crossings are located at the entrance to Malahide Demesne, near the Church/Malahide Dart Station, at the Diamond (x2) and at the bottom of the Rise. There are no further pedestrian crossings envisioned for this area, however this will be referred to other departments for their consideration in future projects.
T6f	***CURRENT ARRANGEMENT***	
Submissions Received	FIN-C570-97; FIN-C570-124; FIN-C570-158; FIN-C570-193;	
	• ***Comment that the historic houses on the street are neglected and dilapidated***	New Street is located within the Architectural Conservation Area of Malahide (ACA). In general, the building stock on the street is in private ownership but it is in a good condition generally. Where works are needed, the individual property owners can seek to apply for various grant funding under a number of schemes currently available.
	• ***Current situation has a very temporary feel about it***	The proposed public realm improvements for a pedestrianised New Street, Malahide will enhance the village's public realm for visitors and residents, creating a more inviting urban centre that can be accessed in a safe and efficient manner. The proposed development fully complies with the objectives of the Fingal Development Plan 2023 –2029, which seeks to promote the consolidation of Malahide's urban core and protection of the unique identity of the village.
	• ***Nuisance caused by dogs on leads blocking footpaths***	This is not associated with the provision of Public Ream Improvements for a Pedestrianised New Street.

COMHAIRLE CONTAE FHINE GALL
FINGAL COUNTY COUNCIL

COUNTY COUNCIL MEETING

TUESDAY 16TH JANUARY 2024

ITEM NO. 22

LADP/010/23 - Proposed development of 14 dwellings and associated site works at Mourne View, Skerries, Co. Dublin. Notice of Intention to undertake development by a Local Authority (Fingal County Council) under Section 179A Of the Planning and Development Act, 2000 (as amended)

Presentation at the Meeting

COMHAIRLE CONTAE FHINE GALL

FINGAL COUNTY COUNCIL

COUNTY COUNCIL MEETING

TUESDAY, 16TH JANUARY 2024

ITEM NO. 23

BALBRIGGAN HARBOUR BYE-LAWS 2024

A process took place during 2023 to review the Harbour Bye-Laws for Balbriggan and Skerries Harbours 2010. Both Harbours are under the control of Fingal County Council. These Bye-Laws were adopted at the Council Meeting on 13th December 2010.

Draft Harbour Bye-Laws were presented to the relevant SPCs (Strategic Policy Committees) and to the Balbriggan/Rush-Lusk/Swords Area Committee prior to initiating a period of public consultation in July 2023. Forty-three submissions were received as a result of the consultation process and where considered appropriate, the submissions were reviewed by Legal Counsel, prior to proposing amendments to the Draft Bye-Laws. The amended Bye-Laws were presented to the November meeting of the Transportation & Infrastructure for recommendation to the CPG. The Draft Bye-Laws were also presented to the Maritime & Coastal SPC for noting. The Bye-Laws were recommended to the CPG by the Transportation & Strategic Infrastructure at its meeting on the 27th of November 2023. The CPG at its meeting on 8th January accepted the recommendation of the SPC and recommended that the Balbriggan Harbour Bye-Laws 2024 be adopted by resolution of Fingal County Council.

It is now recommended that the Members make the Fingal County Council's Balbriggan Harbour Bye-Laws 2024. Harbour Bye-laws for Balbriggan & Skerries Harbours 2010 are hereby revoked and that the following resolution be passed:

Fingal County Council, in exercise of the powers vested in it by Section 199 of the Local Government Act 2001 (as amended) hereby makes the Fingal County Council Balbriggan Harbour Bye-Laws 2024 . Harbour Bye-laws for Balbriggan & Skerries Harbours 2010 are hereby revoked.

Fingal County Council
Comhairle Contae Fhine Gall

DRAFT BALBRIGGAN HARBOUR BYE-LAWS 2024

PRESENTED AT COUNCIL MEETING ON

16TH JANUARY 2024

TITLE

Fingal County Council pursuant to the provisions of the Local Government Act 2001(as amended) and as extended by Section 89 of the Harbours Act 1996 hereby makes the following Byelaws in relation to the regulation of Balbriggan Harbour.

PURPOSE

Regulating the Admission of Vessels into the Harbour or the vicinity thereof and their removal therefrom, and providing for the good order and government of vessels while within the Harbour; for preventing and removing obstructions or impediments in or on docks, quays, works and roadways within the Harbour; and for enabling the Council to impose charges in like circumstances to those which may be imposed under the Harbours Act 1996 and, in particular, charges for keeping a vessel in the Harbour and charges for the use of the Harbour by visiting vessels.

CITATION

These Bye-Laws may be cited as **Balbriggan Harbour Bye-Laws 2024**

COMMENCEMENT

These Bye-Laws shall come into effect on 1st March 2024.

REVOCATION

Balbriggan and Skerries Bye-Laws 2010 are hereby revoked.

INTERPRETATION

In these Bye-laws, unless the context otherwise requires:

The Council	Means Fingal County Council.
The Harbourmaster	Means a person appointed by the Council to be the Harbourmaster of the harbours under its control or management and any other person authorised in writing by the Council to discharge the functions of harbourmaster.
Authorised Person	Means a person, including the Harbourmaster, authorised in writing by the Council for the purposes of Section 204 of the Local Government Act 2001 to exercise the powers in that section, which powers relate to ensuring compliance with these byelaws.

The Harbour	Means the roadways, slipways, steps, piers, quays and other harbour works connected thereto and the waters enclosed by the same of Balbriggan Harbour which area is outlined in red verge lines on the Ordnance Survey map annexed to these bye-laws.
Berth	Means any place or mooring at the quays or piers at which a vessel might lie in the Harbour.
Vessel	Means any description of floating craft and includes any ship, boat, canoe, jetski, and personal watercraft whether used in carriage of passengers or of goods, in fishing or in recreation.
Power driven vessel	Means a vessel propelled by machinery.
Length of a vessel	The length of a vessel shall be measured from the foremost part of the vessel or any protrusion thereon to an imaginary line perpendicular to the waterline drawn through the aftermost part of the vessel or any protrusion therefrom. The measurement is to be made parallel to the waterline.
Vehicle	Means any mechanically propelled vehicle or any other form of land transport or conveyance, including any machinery on wheels or caterpillar track, motorcycles, trailers, caravans, and mobile homes, and includes items which are towed, such as a boat trailer, and items which can be detached from a vehicle, such as a skip or a container.
Goods	Means all articles and merchandise of every description, including fish, livestock, animals, fishing nets, fishing pots, fish boxes, cargo of every description, break bulk, bulk solids and liquid goods.
Vicinity	Vicinity of the Harbour means the approaches to the Harbour and in relation to the seaward approaches means all the sea comprised within the area Westward of an imaginary line drawn Northwards through the navigational lantern on the end of the East Pier of the Harbour.

USE OF THE HARBOUR BY VESSELS

1. The use of the Harbour is restricted to vessels which are less than 18 metres in length.
   Vessels of 18 metres or over may only enter and remain in the Harbour when specifically licensed by the Council and then only subject to the conditions in the licence.
   The owner, skipper or person in charge of a vessel which enters or remains in the Harbour in breach of this byelaw shall be guilty of an offence and shall be liable on summary conviction to a fine not exceeding
   €1,500.
   If the contravention of this byelaw is continued after conviction the person so convicted shall be guilty of an offence on each day that the contravention continues and shall be liable on summary conviction for each such offence to a fine not exceeding €100.

2. The owner, skipper or person in charge of any vessel other than vessels of any length licensed by the Council shall leave the Harbour or any specifed berth at the Harbour, as the case may be, if and when directed to do so by the Harbourmaster for reason of congestion in the Harbour or at any specified berth or to facilitate the working of the Harbour for other vessels.
   The owner, skipper or person in charge of a vessel which remains in the Harbour or at a specified berth in the Harbour, as the case may be, in breach of this byelaw shall be guilty of an offence and shall be liable on summary conviction to a fine not exceeding €1,500.
   If the contravention of this byelaw is continued after conviction the person so convicted shall be guilty of an offence on each day that the contravention continues and shall be liable on summary conviction for each such offence to a fine not exceeding €100.

3. The owner, skipper or person in charge of a vessel shall not cause or permit the engine of a vessel to be worked in such a manner as to cause a wash or wake in the water which might cause injury or damage to any person, other vessel or property in the the Harbour, including such damage by undermining the face of the Harbour walls.
   The owner, skipper or person in charge of a vessel who causes or permits the engines of a vessel to be worked in breach of this byelaw shall be guilty of an offence and shall be liable on summary conviction to a fine not exceeding €1,500.
   Before instituting a prosecution for breach of this byelaw, the Harbourmaster shall serve a fixed payment notice in the amount of €75 on the alleged offender and the provisions of section 206 of the Local Government Act 2001 shall apply to such fixed payment notice and subsequent prosecution, if any.

4. A power driven vessel shall not proceed or navigate in the Harbour or in the vicnity of the Harbour at a speed in excess of 4 knots (approximately 7.4 kilometers per hour).

The owner, skipper or person in charge of a vessel who causes or permits a vessel to proceed or navigate in the Harbour or in the vicinity of the Harbour at a speed in excess of 4 knots and the helmsman or other person conducting such vessel in breach of this byelaw shall each be guilty of an offence and shall be liable on summary conviction to a fine not exceeding €1,500.
Before instituting a prosecution for breach of this byelaw, the Harbourmaster shall serve a fixed payment notice in the amount of €75 on the alleged offender and the provisions of section 206 of the Local Government Act 2001 shall apply to such fixed payment notice and subsequent prosecution, if any.

5. No vessel is permitted to lay fishing pots or nets, or to block the fairway in the Harbour or the vicinity of the Harbour, or to anchor, without the permission of the Harbourmaster, in the Harbour or the vicinity of the Harbour.
The owner, skipper or person in charge of a vessel which lays fishing pots or nets, or blocks the fairway in the Harbour or the vicinity of the Harbour in breach of this byelaw, or anchors in the Harbour or the vicinity of the Harbour in breach of this byelaw, shall each be guilty of an offence and shall be liable on summary conviction to a fine not exceeding €1,500.
If the contravention of this byelaw is continued after conviction the person so convicted shall be guilty of an offence on each day that the contravention continues and shall be liable on summary conviction for each such offence to a fine not exceeding €100.

6. No vessel of any length shall be kept in the Harbour unless expressly licensed by the Council by a licence in writing and then only when in compliance with the terms and conditions of such licence, and the payment in advance for the term of the licence of the harbour charges for keeping a vessel in the Harbour which the Council is hereby enabled to impose by virtue of the provisions of Section 89 paragraph (3) (a) (ii) of the Harbours Act 1996.
The owner of a vessel which is kept in the Harbour in breach of this byelaw shall be guilty of an offence and shall be liable on summary conviction to a fine not exceeding €1,500.
If the contravention of this byelaw is continued after conviction the person so convicted shall be guilty of an offence on each day that the contravention continues and shall be liable on summary conviction for each such offence to a fine not exceeding €100.

7. Visiting vessels are only permitted to remain in the Harbour, with the express permission of the Harbourmaster and must leave the Harbour and its vicinity when directed to do so by the Harbourmaster for reason of congestion at the Harbour or to facilitate the use of the Harbour by
other vessels.
The owner, skipper or person in charge of a vessel which remains in the Harbour in breach of this byelaw shall be guilty of an offence and shall be liable on summary conviction to a fine not exceeding €1,500.
If the contravention of this byelaw is continued after conviction the person so convicted shall be guilty of an offence on each day that the contravention continues and shall be liable on summary conviction for each such offence to a fine not exceeding €100.

8. The Council is hereby enabled by this byelaw and the provisions of Section 89 paragraph (3) (a) (ii) of the Harbours Act 1996 to impose harbour charges on the owner, skipper or person in charge of a visiting vessel for the use of the Harbour.
   Such charges as the Council shall fix from time to time shall be displayed in the Harbour and may be recovered as a simple contract debt from the owner, skipper or person in charge of the vessel at the time of the visit.

9. USE OF THE HARBOUR ROADWAYS, SLIPWAYS, QUAYS OR PIERS FOR PLACING OR KEEPING GOODS.

No goods may be placed or kept at any time on the roadways, slipways, quays or piers of the Harbour without the permission of the Harbourmaster and the owner or person who has custody of such goods so placed or kept, with or without the permission of the Harbourmaster, must remove them when directed to do so by the Harbourmaster.
The owner and the person who has custody of such goods and who fails to remove them when one or both of them are directed by the Harbourmaster to do so shall each be guilty of a offence and shall be liable on summary conviction to a fine not exceeding €1,500.
If the contravention of this byelaw is continued after conviction the person so convicted shall be guilty of an offence on each day that the contravention continues and shall be liable on summary conviction for each such offence to a fine not exceeding €100.

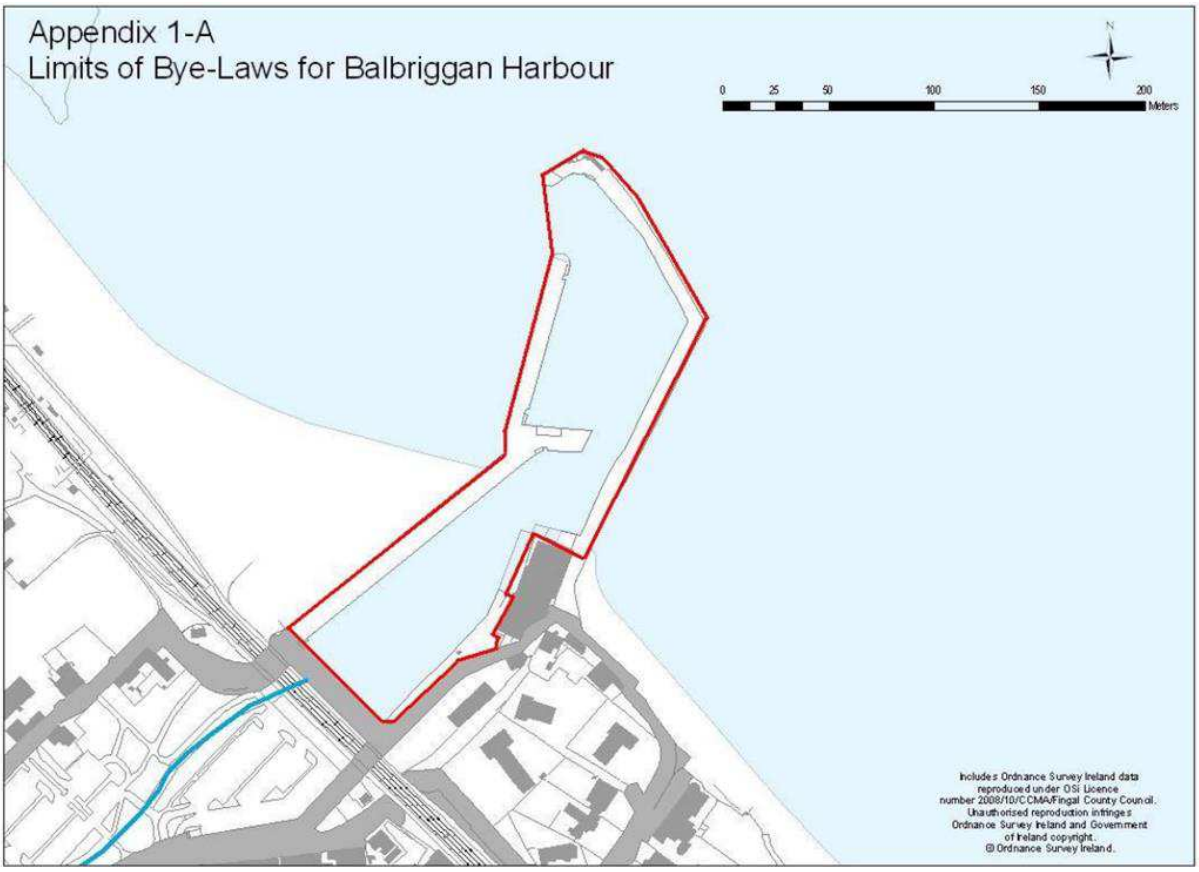
10. PROHIBITION OF BRINGING VEHICLES ON TO THE ROADWAYS, SLIPWAYS, QUAYS OR PIERS.

With the exception of Fire Brigade vehicles, ambulances, Garda vehicles and Coastguard vehicles, no vehicle may be brought on to the roadways, slipways, quays or piers of the Harbour without the express permission of the Harbourmaster.
The owner and the driver or other person who has custody of such vehicle which has been brought on to a roadway, slipway, quay or pier of the Harbour in breach of this byelaw shall each be guilty of a offence and shall be liable on summary conviction to a fine not exceeding €1,500.
If the contravention of this byelaw is continued after conviction the person so convicted shall be guilty of an offence on each day that the contravention continues and shall be liable on summary conviction for each such offence to a fine not exceeding €100.

11. PROHIBITION OF PLACING VESSELS, VESSEL'S APPARE, BOAT CRADLES OR TRAILERS ON THE ROADWAYS, SLIPWAYS, CAMPSHIRES OR HORIZONTAL SURFACE OF THE QUAYS OR PIERS.

No vessel, vessel's apparel boat cradle or trailer shall be kept on the roadways, slipways, campshires or horizontal surfaces of the quays or piers of the Harbour without the express permission of the Harbourmaster; this Byelaw shall not apply to launching trollies or boat trailers whilst the owner thereof is using his craft afloat.
The owner and any other person who has custody of such vessel, vessel's apparel boat cradle or trailer which has been placed on a roadway, slipway, campshire or horizontal

surface of a quay or pier in the Harbour in breach of this byelaw shall each be guilty of a offence and shall be liable on summary conviction to a fine not exceeding €1,500. If the contravention of this byelaw is continued after conviction the person so convicted shall be guilty of an offence on each day that the contravention continues and shall be liable on summary conviction for each such offence to a fine not exceeding €100.


Appendix 1-A
Limits of Bye-Laws for Balbriggan Harbour
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0 25 50 100 150 200
Meters
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COMHAIRLE CONTAE FHINE GALL

FINGAL COUNTY COUNCIL

COUNTY COUNCIL MEETING

TUESDAY, 16TH JANUARY 2024

ITEM NO. 24

RUSH HARBOUR BYE-LAWS 2024

A process took place during 2023 to review the Harbour Bye-Laws for Rush and Loughshinny Harbours 2010. Both Harbours are under the control of Fingal County Council. These Bye-Laws were adopted at the Council Meeting on 13th December 2010.

Draft Harbour Bye-Laws were presented to the relevant SPCs (Strategic Policy Committees) and to the Balbriggan/Rush-Lusk/Swords Area Committee prior to initiating a period of public consultation in July 2023. Forty-three submissions were received as a result of the consultation process and where considered appropriate, the submissions were reviewed by Legal Counsel, prior to proposing amendments to the Draft Bye-Laws. The amended Bye-Laws were presented to the November meeting of the Transportation & Infrastructure for recommendation to the CPG. The Draft Bye-Laws were also presented to the Maritime & Coastal SPC for noting. The Bye-Laws were recommended to the CPG by the Transportation & Strategic Infrastructure at its meeting on the 27th of November 2023. The CPG at its meeting on 8th January accepted the recommendation of the SPC and recommended that the Rush Harbour Bye-Laws 2024 be adopted by resolution of Fingal County Council.

It is now recommended that the Members make the Fingal County Council's Rush Harbour Bye-Laws 2024. Harbour Bye-laws for Rush & Loughshinny Harbours 2010 are hereby revoked and that the following resolution be passed:

Fingal County Council, in exercise of the powers vested in it by Section 199 of the Local Government Act 2001 (as amended) hereby makes the Fingal County Council Rush Harbour Bye-Laws 2024. Harbour Bye-laws for Rush & Loughshinny Harbours 2010 are hereby revoked.

Fingal County Council
Comhairle Contae Fhine Gall

DRAFT RUSH HARBOUR BYE-LAWS 2024

PRESENTED AT COUNCIL MEETING ON
16th January 2024

TITLE

Fingal County Council pursuant to the provisions of the Local Government Act 2001(as amended) and as extended by Section 89 of the Harbours Act 1996 hereby makes the following Byelaws in relation to the regulation of Rush Harbour.

PURPOSE

Regulating the Admission of Vessels into the Harbour or the vicinity thereof and their removal therefrom, and providing for the good order and government of vessels while within the Harbour; for preventing and removing obstructions or impediments in or on docks, quays, works and roadways within the Harbour; and for enabling the Council to impose charges in like circumstances to those which may be imposed under the Harbours Act 1996 and, in particular, charges for keeping a vessel in the Harbour and charges for the use of the Harbour by visiting vessels.

CITATION

These Bye-Laws may be cited as **Rush Harbour Bye-Laws 2024.**

COMMENCEMENT

These Bye-Laws shall come into effect on 1st March 2024.

REVOCATION

Rush and Loughshinny Bye-Laws 2010 are hereby revoked.

INTERPRETATION

In these Bye-laws, unless the context otherwise requires:

The Council	Means Fingal County Council.
The Harbourmaster	Means a person appointed by the Council to be the Harbourmaster of the harbours under its control or management and any other person authorised in writing by the Council to discharge the functions of harbourmaster.

Authorised Person	Means a person, including the Harbourmaster, authorised in writing by the Council for the purposes of Section 204 of the Local Government Act 2001 to exercise the powers in that section, which powers relate to ensuring compliance with these byelaws.
The Harbour	Means the roadway, slipway, steps, piers and other harbour works connected thereto at Rush which works are within the area outlined in red verge lines on the Ordnance Survey map annexed to these bye-laws.
Berth	Means any place or mooring at the pier at which a vessel might lie in waters at the Harbour.
Vessel	Means any description of floating craft and includes any ship, boat, canoe, jetski, and personal watercraft whether used in carriage of passengers or of goods, in fishing or in recreation.
Power driven vessel	Means a vessel propelled by machinery.
Length of a vessel	The length of a vessel shall be measured from the foremost part of the vessel or any protrusion thereon to an imaginary line perpendicular to the waterline drawn through the aftermost part of the vessel or any protrusion therefrom. The measurement is to be made parallel to the waterline.
Vehicle	Means any mechanically propelled vehicle or any other form of land transport or conveyance, including any machinery on wheels or caterpillar track, motorcycles, trailers, caravans, and mobile homes, and includes items which are towed, such as a boat trailer, and items which can be detached from a vehicle, such as a skip or a container.
Goods	Means all articles and merchandise of every description, including fish, livestock, animals, fishing nets, fishing pots, fish boxes, cargo of every description, break bulk, bulk solids and liquid goods.
Vicinity	Vicinity of the Harbour means the area encompassing the roadway, slipway, piers and other harbour works and the area of sea to the West of the piers together with the area of sea to the North of the piers which areas are more particularly delineated in red verge lines on the Ordnance Survey map annexed hereto.

USE OF THE HARBOUR BY VESSELS

1. The use of the Harbour is restricted to vessels which are not more than 12 metres in length. Vessels of more than 12 metres may only berth at the Harbour when specifically licensed by the Council and then only subject to the conditions in the licence.
   The owner, skipper or person in charge of a vessel which berths at the harbour in breach of this byelaw shall be guilty of an offence and shall be liable on summary conviction to a fine not exceeding €1,500.
   If the contravention of this byelaw is continued after conviction the person so convicted shall be guilty of an offence on each day that the contravention continues and shall be liable on summary conviction for each such offence to a fine not exceeding €100.

2. The owner, skipper or person in charge of any vessel other than vessels of any length licensed by the Council shall leave the vicinity of the Harbour or any specifed berth at the Harbour, as the case may be, if and when directed to do so by the Harbourmaster for reason of congestion in the vicinity of Harbour or at any specified berth or to facilitate the working of the Harbour for other vessels.
   The owner, skipper or person in charge of a vessel which remains in the vicinity Harbour or at a specified berth at the Harbour, as the case may be, in breach of this byelaw shall be guilty of an offence and shall be liable on summary conviction to a fine not exceeding €1,500.
   If the contravention of this byelaw is continued after conviction the person so convicted shall be guilty of an offence on each day that the contravention continues and shall be liable on summary conviction for each such offence to a fine not exceeding €100.

3. The owner, skipper or person in charge of a vessel shall not cause or permit the engine of a vessel to be worked in such a manner as to cause a wash or wake in the water which might cause injury or damage to any person, other vessel or property in the vicinity of the Harbour, including such damage by undermining the face of the Harbour walls.
   The owner, skipper or person in charge of a vessel who causes or permits the engines of a vessel to be worked in breach of this byelaw shall be guilty of an offence and shall be liable on summary conviction to a fine not exceeding €1,500.
   Before instituting a prosecution for breach of this byelaw, the Harbourmaster shall serve a fixed payment notice in the amount of €75 on the alleged offender and the provisions of section 206 of the Local Government Act 2001 shall apply to such fixed payment notice and subsequent prosecution, if any.

4. A power driven vessel shall not proceed or navigate in the vicinity of the Harbour at a speed in excess of 4 knots (approximately 7.4 kilometers per hour).
   The owner, skipper or person in charge of a vessel who causes or permits a vessel to proceed or navigate in the vicinity of Harbour at a speed in excess of 4 knots and the helmsman or other person conducting such vessel in breach of

this byelaw shall each be guilty of an offence and shall be liable on summary conviction to a fine not exceeding €1,500.
Before instituting a prosecution for breach of this byelaw, the Harbourmaster shall serve a fixed payment notice in the amount of €75 on the alleged offender and the provisions of section 206 of the Local Government Act 2001 shall apply to such fixed payment notice and subsequent prosecution, if any.

5. No vessel is permitted to lay fishing pots or nets, or to block the fairway in the vicinity of the Harbour, or to anchor, without the permission of the Harbourmaster, in the vicinity of the Harbour.
The owner, skipper or person in charge of a vessel which lays fishing pots or nets, or blocks the fairway in the vicinity of the Harbour in breach of this byelaw, or anchors in the vicinity of the Harbour in breach of this byelaw, shall each be guilty of an offence and shall be liable on summary conviction to a fine not exceeding €1,500.
If the contravention of this byelaw is continued after conviction the person so convicted shall be guilty of an offence on each day that the contravention continues and shall be liable on summary conviction for each such to a fine not exceeding €100.

6. No vessel of any length shall be kept at the Harbour or in its vicinity unless expressly licensed by the Council by a licence in writing and then only when in compliance with the terms and conditions of such licence, and the payment in advance for the term of the licence of the harbour charges for keeping the vessel at the Harbour or in its vicinity which the Council is hereby enabled to impose by virtue of the provisions of Section 89 paragraph (3) (a) (ii) of the Harbours Act 1996.
The owner of a vessel which is kept at the Harbour or in its vicinity in breach of this byelaw shall be guilty of an offence and shall be liable on summary conviction to a fine not exceeding €1,500.
If the contravention of this byelaw is continued after conviction the person so convicted shall be guilty of an offence on each day that the contravention continues and shall be liable on summary conviction for each such offence to a fine not exceeding €100.

7. Visiting vessels are only permitted to remain at the Harbour or in the vicinity of the Harbour, with the express permission of the Harbourmaster and must leave the Harbour and its vicinity when directed to do so by the Harbourmaster for reason of congestion at the Harbour or to facilitate the use of the Harbour by other vessels.
The owner, skipper or person in charge of a vessel which remains at the Harbour or in the vicinity of the Harbour in breach of this byelaw shall be guilty of an offence and shall be liable on summary conviction to a fine not exceeding €1,500.
If the contravention of this byelaw is continued after conviction the person so convicted shall be guilty of an offence on each day that the contravention continues and shall be liable on summary conviction for each such offence to a fine not exceeding €100.

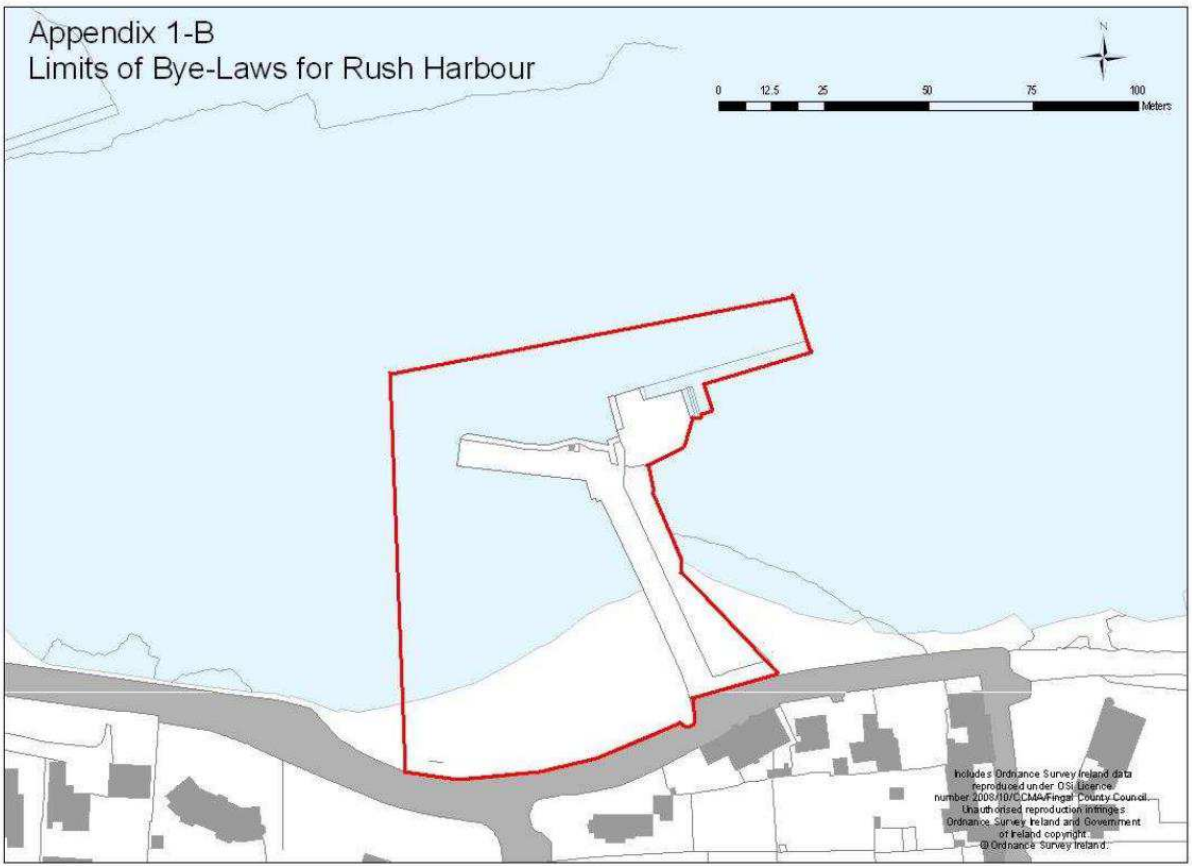
8. The Council is hereby enabled by this byelaw and the provisions of Section 89 paragraph (3) (a) (ii) of the Harbours Act 1996 to impose harbour charges on the owner, skipper or person in charge of a visiting vessel for the use of the Harbour.
Such charges as the Council shall fix from time to time shall be displayed in the Harbour

and may be recovered as a simple contract debt from the owner, skipper or person in charge of the vessel at the time of the visit.

9. **USE OF THE HARBOUR ROADWAY OR PIERS FOR PLACING OR KEEPING GOODS.**
No goods may be placed or kept at any time on the roadway or piers of the Harbour without the permission of the Harbourmaster and the owner or person who has custody of such goods so placed or kept, with or without the permission of the Harbourmaster, must remove them when directed to do so by the Harbourmaster.
The owner and the person who has custody of such goods and who fails to remove them when one or both of them are directed by the Harbourmaster to do so shall each be guilty of a offence and shall be liable on summary conviction to a fine not exceeding €1,500.
If the contravention of this byelaw is continued after conviction the person so convicted shall be guilty of an offence on each day that the contravention continues and shall be liable on summary conviction for each such offence to a fine not exceeding €100.

10. **PROHIBITION OF BRINGING VEHICLES ON TO THE ROADWAY OR PIERS.**
With the exception of Fire Brigade vehicles, ambulances, Garda vehicles and Coastguard vehicles, no vehicle may be brought on to the roadway or piers of the Harbour without the express permission of the Harbourmaster.
The owner and the driver or other person who has custody of such vehicle which has been brought on to the roadway or piers of the Harbour in breach of this byelaw shall each be guilty of a offence and shall be liable on summary conviction to a fine not exceeding €1,500.
If the contravention of this byelaw is continued after conviction the person so convicted shall be guilty of an offence on each day that the contravention continues and shall be liable on summary conviction for each such offence to a fine not exceeding €100.

11. **PROHIBITION OF PLACING VESSELS, VESSEL'S APPAREL BOAT CRADLES OR TRAILERS ON THE ROADWAY, SLIPWAY, CAMPSHIRES OR HORIZONTAL SURFACE OF THE PIERS.**
No vessel, vessel's apparel, boat cradle or trailer shall be kept on the roadway, slipway, campshires or horizontal surfaces of the piers of the Harbour without the express permission of the Harbourmaster; this Byelaw shall not apply to launching trollies or boat trailers whilst the owner thereof is using his craft afloat on the water.
The owner and any other person who has custody of such vessel, vessel's apparel, boat cradle or trailer which has been placed on the roadway, slipway, campshires or horizontal surface of a pier in the Harbour in breach of this byelaw shall each be guilty of an offence and shall be liable on summary conviction to a fine not exceeding €1,500.
If the contravention of this byelaw is continued after conviction the person so convicted shall be guilty of an offence on each day that the contravention continues and shall be liable on summary conviction for each such offence to a fine not exceeding €100.


Appendix 1-B
Limits of Bye-Laws for Rush Harbour
N
0
12.5
25
50
75
100
Meters
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COMHAIRLE CONTAE FHINE GALL

FINGAL COUNTY COUNCIL

COUNTY COUNCIL MEETING

TUESDAY, 16TH JANUARY 2024

ITEM NO. 25

LOUGHSHINNY HARBOUR BYE-LAWS 2024

A process took place during 2023 to review the Harbour Bye-Laws for Rush & Loughshinny Harbours 2010. Both Harbours are under the control of Fingal County Council. These Bye-Laws were adopted at the Council Meeting on 13th December 2010.

Draft Harbour Bye-Laws were presented to the relevant SPCs (Strategic Policy Committees) and to the Balbriggan/Rush-Lusk/Swords Area Committee prior to initiating a period of public consultation in July 2023. Forty-three submissions were received as a result of the consultation process and where considered appropriate, the submissions were reviewed by Legal Counsel, prior to proposing amendments to the Draft Bye-Laws. The amended Bye-Laws were presented to the November meeting of the Transportation & Infrastructure for recommendation to the CPG. The Draft Bye-Laws were also presented to the Maritime & Coastal SPC for noting. The Bye-Laws were recommended to the CPG by the Transportation & Strategic Infrastructure at its meeting on the 27th of November 2023. The CPG at its meeting on 8th January accepted the recommendation of the SPC and recommended that the Loughshinny Harbour Bye-Laws 2024 be adopted by resolution of Fingal County Council.

It is now recommended that the Members make the Fingal County Council's Loughshinny Harbour Bye-Laws 2024. Harbour Bye-laws for Rush & Loughshinny Harbours 2010 are hereby revoked and that the following resolution be passed:

Fingal County Council, in exercise of the powers vested in it by Section 199 of the Local Government Act 2001 (as amended) hereby makes the Fingal County Council Loughshinny Harbour Bye-Laws 2024. Harbour Bye-laws for Rush & Loughshinny Harbours 2010 are hereby revoked.

Fingal County Council
Comhairle Contae Fhine Gall

DRAFT LOUGHSHINNY HARBOUR BYE-LAWS 2024

PRESENTED AT COUNCIL MEETING ON

16th January 2024

TITLE

Fingal County Council pursuant to the provisions of the Local Government Act 2001(as amended) and as extended by Section 89 of the Harbours Act 1996 hereby makes the following Byelaws in relation to the regulation of Loughshinny Harbour.

PURPOSE

Regulating the Admission of Vessels into the Harbour or the vicinity thereof and their removal therefrom, and providing for the good order and government of vessels while within the Harbour; for preventing and removing obstructions or impediments in or on docks, quays, works and roadways within the Harbour; and for enabling the Council to impose charges in like circumstances to those which may be imposed under the Harbours Act 1996 and, in particular, charges for keeping a vessel in the Harbour and charges for the use of the Harbour by visiting vessels.

CITATION

These Bye-Laws may be cited as **Loughshinny Harbour Bye-Laws 2024.**

COMMENCEMENT

These Bye-Laws shall come into effect on 1st March 2024.

REVOCATION

Rush and Loughshinny Bye-Laws 2010 are hereby revoked.

INTERPRETATION

In these Bye-laws, unless the context otherwise requires:

The Council	Means Fingal County Council.
The Harbourmaster	Means a person appointed by the Council to be the Harbourmaster of the harbours under its control or management and any other person authorised in writing by the Council to discharge the functions of harbourmaster.
Authorised	Means a person, including the Harbourmaster, authorised in writing by

Person	the Council for the purposes of Section 204 of the Local Government Act 2001 to exercise the powers in that section, which powers relate to ensuring compliance with these byelaws.
The Harbour	Means the roadway, slipway, steps, piers and other harbour works connected thereto at Loughshinny which works are within the area outlined in red verge lines on the Ordnance Survey map annexed to these bye-laws.
Berth	Means any place or mooring at the pier at which a vessel might lie in waters at the Harbour.
Vessel	Means any description of floating craft and includes any ship, boat, canoe, jetski, and personal watercraft whether used in carriage of passengers or of goods, in fishing or in recreation.
Power driven vessel	Means a vessel propelled by machinery.
Length of a vessel	The length of a vessel shall be measured from the foremost part of the vessel or any protrusion thereon to an imaginary line perpendicular to the waterline drawn through the aftermost part of the vessel or any protrusion therefrom. The measurement is to be made parallel to the waterline.
Vehicle	Means any mechanically propelled vehicle or any other form of land transport or conveyance, including any machinery on wheels or caterpillar track, motorcycles, trailers, caravans, and mobile homes, and includes items which are towed, such as a boat trailer, and items which can be detached from a vehicle, such as a skip or a container.
Goods	Means all articles and merchandise of every description, including fish, livestock, animals, fishing nets, fishing pots, fish boxes, cargo of every description, break bulk, bulk solids and liquid goods.
Vicinity	Vicinity of the Harbour means the rectangular area encompassing the pier and defined by an imaginary East-West line 28 metres due South of the end of the pier and an imaginary North-South 75 metres due West of the end of the pier shown in red verge lines on the Ordnance Survey map annexed hereto.

USE OF THE HARBOUR BY VESSELS

1. The use of the Harbour is restricted to vessels which are not more than 12 metres in length. Vessels of more than 12 metres in length may only berth at the Harbour when specifically licensed by the Council and then only subject to the conditions in the licence.
   The owner, skipper or person in charge of a vessel which berths at the Harbour in breach of this byelaw shall be guilty of an offence and shall be liable on summary conviction to a fine not exceeding €1,500.
   If the contravention of this byelaw is continued after conviction the person so convicted shall be guilty of an offence on each day that the contravention continues and shall be liable on summary conviction for each such offence to a fine not exceeding €100.

2. The owner, skipper or person in charge of any vessel other than vessels of any length licensed by the Council shall leave the vicinity of the Harbour or any specifed berth at the Harbour, as the case may be, if and when directed to do so by the Harbourmaster for reason of congestion in the vicinity of Harbour or at any specified berth or to facilitate the working of the Harbour for other vessels.
   The owner, skipper or person in charge of a vessel which remains in the vicinity Harbour or at a specified berth at the Harbour, as the case may be, in breach of this byelaw shall be guilty of an offence and shall be liable on summary conviction to a fine not exceeding €1,500.
   If the contravention of this byelaw is continued after conviction the person so convicted shall be guilty of an offence on each day that the contravention continues and shall be liable on summary conviction for each such offence to a fine not exceeding €100.

3. The owner, skipper or person in charge of a vessel shall not cause or permit the engine of a vessel to be worked in such a manner as to cause a wash or wake in the water which might cause injury or damage to any person, other vessel or property in the vicinity of the Harbour, including such damage by undermining the face of the Harbour walls.
   The owner, skipper or person in charge of a vessel who causes or permits the engines of a vessel to be worked in breach of this byelaw shall be guilty of an offence and shall be liable on summary conviction to a fine not exceeding €1,500.
   Before instituting a prosecution for breach of this byelaw, the Harbourmaster shall serve a fixed payment notice in the amount of €75 on the alleged offender and the provisions of section 206 of the Local Government Act 2001 shall apply to such fixed payment notice and subsequent prosecution, if any.

4. A power driven vessel shall not proceed or navigate in the vicnity of the Harbour at a speed in excess of 4 knots (approximately 7.4 kilometers per hour).
   The owner, skipper or person in charge of a vessel who causes or permits a vessel to proceed or navigate in the vicinity of Harbour at a speed in excess of 4

knots and the helmsman or other person conducting such vessel in breach of this byelaw shall each be guilty of an offence and shall be liable on summary conviction to a fine not exceeding €1,500.
Before instituting a prosecution for breach of this byelaw, the Harbourmaster shall serve a fixed payment notice in the amount of €75 on the alleged offender and the provisions of section 206 of the Local Government Act 2001 shall apply to such fixed payment notice and subsequent prosecution, if any.

5. No vessel is permitted to lay fishing pots or nets, or to block the fairway in the vicinity of the Harbour, or to anchor, without the permission of the Harbourmaster, in the vicinity of the Harbour. The owner, skipper or person in charge of a vessel which lays fishing pots or nets, or blocks the fairway in the vicinity of the Harbour in breach of this byelaw, or anchors in the vicinity of the Harbour in breach of this byelaw, shall each be guilty of an offence and shall be liable on summary conviction to a fine not exceeding €1,500.
If the contravention of this byelaw is continued after conviction the person so convicted shall be guilty of an offence on each day that the contravention continues and shall be liable on summary conviction for each such offence to a fine not exceeding €100.

6. No vessel of any length shall be kept at the Harbour or in its vicinity unless expressly licensed by the Council by a licence in writing and then only when in compliance with the terms and conditions of such licence, and the payment in advance for the term of the licence of the harbour charges for keeping the vessel at the Harbour or in its vicinity which the Council is hereby enabled to impose by virtue of the provisions of Section 89 paragraph (3) (a) (ii) of the Harbours Act 1996.
The owner of a vessel which is kept at the Harbour or in its vicinity in breach of this byelaw shall be guilty of an offence and shall be liable on summary conviction to a fine not exceeding €1,500.
If the contravention of this byelaw is continued after conviction the person so convicted shall be guilty of an offence on each day that the contravention continues and shall be liable on summary conviction for each such offence to a fine not exceeding €100.

7. Visiting vessels are only permitted to remain at the Harbour or in the vicinity of the Harbour, with the express permission of the Harbourmaster and must leave the Harbour and its vicinity when directed to do so by the Harbourmaster for reason of congestion at the Harbour or to facilitate the use of the Harbour by other vessels.
The owner, skipper or person in charge of a vessel which remains at the Harbour or in the vicinity of the Harbour in breach of this byelaw shall be guilty of an offence and shall be liable on summary conviction to a fine not exceeding €1,500.
If the contravention of this byelaw is continued after conviction the person so convicted shall be guilty of an offence on each day that the contravention continues and shall be liable on summary conviction for each such offence to a fine not exceeding €100.

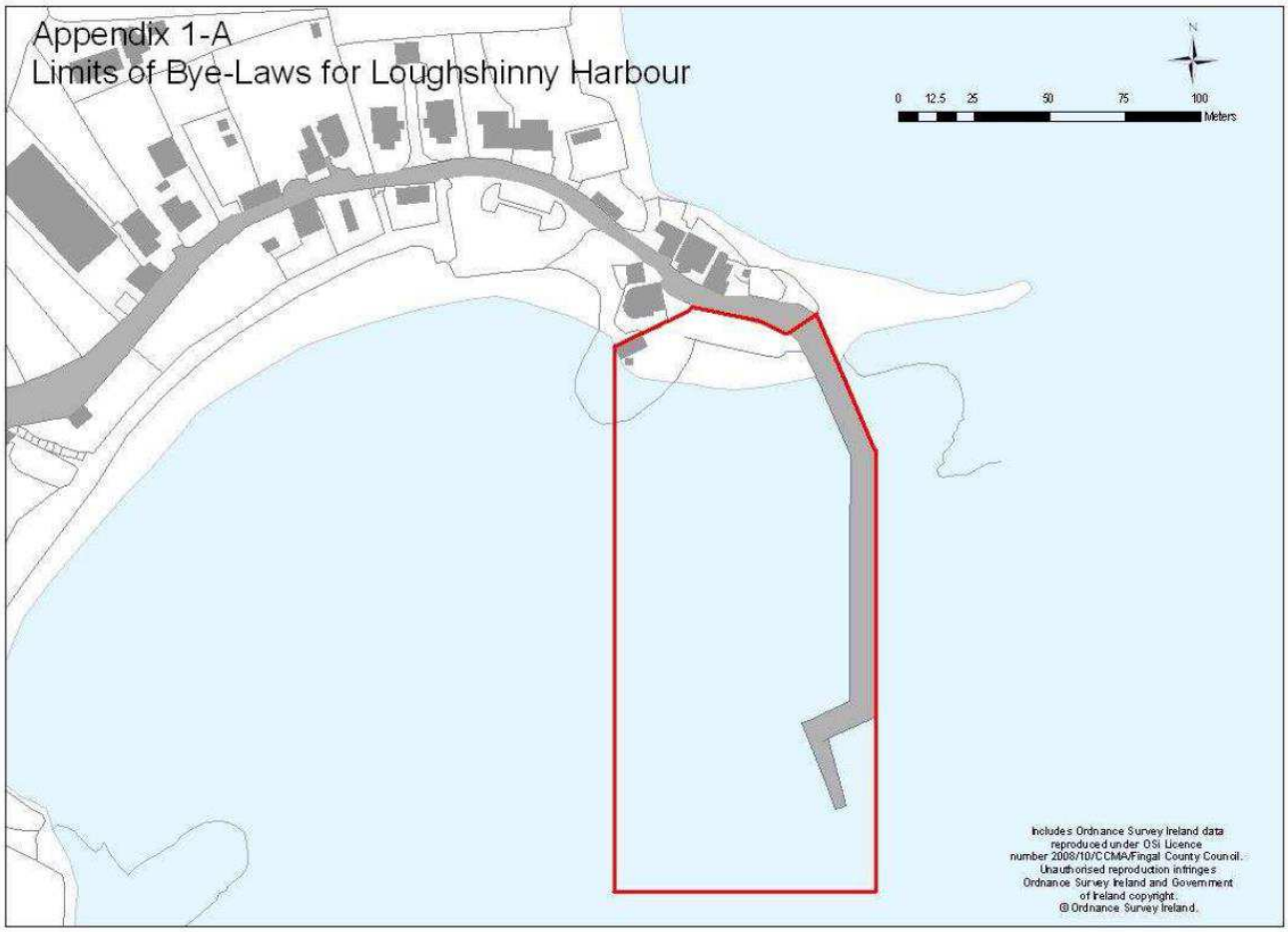
8. The Council is hereby enabled by this byelaw and the provisions of Section 89 paragraph (3) (a) (ii) of the Harbours Act 1996 to impose harbour charges on the owner, skipper or person in charge of a visiting vessel for the use of the Harbour.
Such charges as the Council shall fix from time to time shall be displayed in the Harbour

and may be recovered as a simple contract debt from the owner, skipper or person in charge of the vessel at the time of the visit.

9. **USE OF THE HARBOUR ROADWAY OR PIERS FOR PLACING OR KEEPING GOODS.**
No goods may be placed or kept at any time on the roadway or piers of the Harbour without the permission of the Harbourmaster and the owner or person who has custody of such goods so placed or kept, with or without the permission of the Harbourmaster, must remove them when directed to do so by the Harbourmaster.
The owner and the person who has custody of such goods and who fails to remove them when one or both of them are directed by the Harbourmaster to do so shall each be guilty of a offence and shall be liable on summary conviction to a fine not exceeding €1,500.
If the contravention of this byelaw is continued after conviction the person so convicted shall be guilty of an offence on each day that the contravention continues and shall be liable on summary conviction for each such offence to a fine not exceeding €100.

10. **PROHIBITION OF BRINGING VEHICLES ON TO THE ROADWAY OR PIERS.**
With the exception of Fire Brigade vehicles, ambulances, Garda vehicles and Coastguard vehicles, no vehicle may be brought on to the roadway or piers of the Harbour without the express permission of the Harbourmaster.
The owner and the driver or other person who has custody of such vehicle which has been brought on to the roadway or piers of the Harbour in breach of this byelaw shall each be guilty of an offence and shall be liable on summary conviction to a fine not exceeding €1,500.
If the contravention of this byelaw is continued after conviction the person so convicted shall be guilty of an offence on each day that the contravention continues and shall be liable on summary conviction for each such offence to a fine not exceeding €100.

11. **PROHIBITION OF PLACING VESSELS, VESSEL'S APPAREL, BOAT CRADLES OR TRAILERS ON THE ROADWAY, SLIPWAY, CAMPSHIRES OR HORIZONTAL SURFACE OF THE PIERS.**
No vessel, vessel's apparel or boat cradle shall be kept on the roadway, slipway, campshires or horizontal surfaces of the piers of the Harbour without the express permission of the Harbourmaster; this Bye-Law shall not apply to launching trollies or boat trailers whilst the owner thereof is using his craft afloat on the water.
The owner and any other person who has custody of such vessel, vessel's apparel, boat cradle or trailer which has been placed on the roadway, slipway, campshires or horizontal surface of a pier in the Harbour in breach of this byelaw shall each be guilty of a offence and shall be liable on summary conviction to a fine not exceeding €1,500.
If the contravention of this byelaw is continued after conviction the person so convicted shall be guilty of an offence on each day that the contravention continues and shall be liable on summary conviction for each such offence to a fine not exceeding €100.


Appendix 1-A
Limits of Bye-Laws for Loughshinny Harbour
N
0 12.5 25 50 75 100
Meters
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COMHAIRLE CONTAE FHINE GALL

FINGAL COUNTY COUNCIL

COUNTY COUNCIL MEETING

TUESDAY, 16TH JANUARY 2024

ITEM NO. 26

SKERRIES HARBOUR BYE-LAWS 2024

A process took place during 2023 to review the Harbour Bye-Laws for Balbriggan & Skerries Harbours 2010. Both Harbours are under the control of Fingal County Council. These Bye-Laws were adopted at the Council Meeting on 13th December 2010.

Draft Harbour Bye-Laws were presented to the relevant SPCs (Strategic Policy Committees) and to the Balbriggan/Rush-Lusk/Swords Area Committee prior to initiating a period of public consultation in July 2023. Forty-three submissions were received as a result of the consultation process and where considered appropriate, the submissions were reviewed by Legal Counsel, prior to proposing amendments to the Draft Bye-Laws. The amended Bye-Laws were presented to the November meeting of the Transportation & Infrastructure for recommendation to the CPG. The Draft Bye-Laws were also presented to the Maritime & Coastal SPC for noting. The Bye-Laws were recommended to the CPG by the Transportation & Strategic Infrastructure at its meeting on the 27th of November, 2023. The CPG at its meeting on 8th January accepted the recommendation of the SPC and recommended that the Skerries Harbour Bye-Laws 2024 be adopted by resolution of Fingal County Council.

It is now recommended that the Members make the Fingal County Council's Skerries Harbour Bye-Laws 2024. Harbour Bye-laws for Balbriggan & Skerries Harbours 2010 are hereby revoked and that the following resolution be passed:

Fingal County Council, in exercise of the powers vested in it by Section 199 of the Local Government Act 2001 (as amended) hereby makes the Fingal County Council Skerries Harbour Bye-Laws 2024. Harbour Bye-laws for Balbriggan & Skerries Harbours 2010 are hereby revoked.

Source of Report: Mary T Daly, Director of Operations.

Fingal County Council
Comhairle Contae Fhine Gall

DRAFT SKERRIES HARBOUR BYE-LAWS 2024

PRESENTED AT COUNCIL MEETING ON
16th January 2024

TITLE

Fingal County Council pursuant to the provisions of the Local Government Act 2001(as amended) and as extended by Section 89 of the Harbours Act 1996 hereby makes the following Byelaws in relation to the regulation of Skerries Harbour.

PURPOSE

Regulating the Admission of Vessels into the Harbour or the vicinity thereof and their removal therefrom, and providing for the good order and government of vessels while within the Harbour; for preventing and removing obstructions or impediments in or on docks, quays, works and roadways within the Harbour; and for enabling the Council to impose charges in like circumstances to those which may be imposed under the Harbours Act 1996 and, in particular, charges for keeping a vessel in the Harbour and charges for the use of the Harbour by visiting vessels.

CITATION

These Bye-Laws may be cited as **Skerries Harbour Bye-Laws 2024.**

COMMENCEMENT

These Bye-Laws shall come into effect on 1st March 2024.

REVOCATION

Balbriggan and Skerries Bye-Laws 2010 are hereby revoked.

INTERPRETATION

In these Bye-laws, unless the context otherwise requires:

The Council	Means Fingal County Council.
The Harbourmaster	Means a person appointed by the Council to be the Harbourmaster of the harbours under its control or management and any other person authorised in writing by the Council to discharge the functions of harbourmaster.

Authorised Person	Means a person, including the Harbourmaster, authorised in writing by the Council for the purposes of Section 204 of the Local Government Act 2001 to exercise the powers in that section, which powers relate to ensuring compliance with these byelaws.
The Harbour	Means the Harbour of Skerries comprising the pier and slipways and other harbour works connected therewith, and the water area comprised within the distance of 500 yards (457.2 metres) seaward of the pier being the limits of the Harbour of Skerries formerly within the jurisdiction of Dublin Port and Docks Board as shown on the map annexed to these bye-laws.
Inner Harbour	Means that part of the Harbour which lies to the South of an imaginary line drawn due West from the navigational light and lanteren on the end of the pier to the periphery of the Harbour.
Berth	Means any place, mooring or anchorage at the pier or in the waters of the Inner Harbour.
Vessel	Means any description of floating craft and includes any ship, boat, canoe, jetski, and personal watercraft whether used in carriage of passengers or of goods, in fishing or in recreation.
Power driven vessel	Means a vessel propelled by machinery.
Length of a vessel	The length of a vessel shall be measured from the foremost part of the vessel or any protrusion thereon to an imaginary line perpendicular to the waterline drawn through the aftermost part of the vessel or any protrusion therefrom. The measurement is to be made parallel to the waterline.
Vehicle	Means any mechanically propelled vehicle or any other form of land transport or conveyance, including any machinery on wheels or caterpillar track, motorcycles, trailers, caravans, and mobile homes, and includes items which are towed, such as a boat trailer, and items which can be detached from a vehicle, such as a skip or a container.
Goods	Means all articles and merchandise of every description, including fish, livestock, animals, fishing nets, fishing pots, fish boxes, cargo of every description, break bulk, bulk solids and liquid goods.

USE OF THE HARBOUR BY VESSELS

1. The use of the Inner Harbour is restricted to vessels which are less than 18 metres in length. Vessels of 18 metres or over may only berth at the Harbour when specifically licensed by the Council and then only subject to the conditions in the licence.
   The owner, skipper or person in charge of a vessel which berths in or at the Inner Harbour in breach of this byelaw shall be guilty of an offence and shall be liable on summary conviction to a fine not exceeding €1,500.
   If the contravention of this byelaw is continued after conviction the person so convicted shall be guilty of an offence on each day that the contravention continues and shall be liable on summary conviction for each such offence to a fine not exceeding €100.

2. The owner, skipper or person in charge of any vessel other than vessels of any length licensed by the Council shall leave the limits of the Inner Harbour or any specifed berth in the Inner Harbour, as the case may be, if and when directed to do so by the Harbourmaster for reason of congestion in the Inner Harbour or at any specified berth or to facilitate the working of the Harbour for other vessels.
   The owner, skipper or person in charge of a vessel which remains within the limits of the Harbour or at a specified berth at the Harbour, as the case may be, in breach of this byelaw shall be guilty of an offence and shall be liable on summary conviction to a fine not exceeding €1,500.
   If the contravention of this byelaw is continued after conviction the person so convicted shall be guilty of an offence on each day that the contravention continues and shall be liable on summary conviction for each such offence to a fine not exceeding €100.

3. The owner, skipper or person in charge of a vessel shall not cause or permit the engine of a vessel to be worked in such a manner as to cause a wash or wake in the water which might cause injury or damage to any person, other vessel or property within the limits of the Harbour, including such damage by undermining the face of the Harbour walls.
   The owner, skipper or person in charge of a vessel who causes or permits the engines of a vessel to be worked in breach of this byelaw shall be guilty of an offence and shall be liable on summary conviction to a fine not exceeding €1,500.
   Before instituting a prosecution for breach of this byelaw, the Harbourmaster shall serve a fixed payment notice in the amount of €75 on the alleged offender and the provisions of section 206 of the Local Government Act 2001 shall apply to such fixed payment notice and subsequent prosecution, if any.

4. A power driven vessel shall not proceed or navigate within the limits of the Inner Harbour at a speed in excess of 4 knots (approximately 7.4 kilometers per hour).
   The owner, skipper or person in charge of a vessel who causes or permits a vessel to proceed or navigate within the limits of the Inner Harbour at a speed in excess of 4 knots and the helmsman or other person conducting such vessel in

breach of this byelaw shall each be guilty of an offence and shall be liable on summary conviction to a fine not exceeding €1,500.
Before instituting a prosecution for breach of this byelaw, the Harbourmaster shall serve a fixed payment notice in the amount of €75 on the alleged offender and the provisions of section 206 of the Local Government Act 2001 shall apply to such fixed payment notice and subsequent prosecution, if any.

5. No vessel is permitted to lay fishing pots or nets, or to anchor in the Harbour without the permission of the Harbourmaster, which permission shall only be refused if, in the opinion of the Harbourmaster, the pots, nets or anchored vessel concerned would interfare with the fairway of vessels navigating in or through the Harbour.
The owner, skipper or person in charge of a vessel which lays fishing pots or nets, or anchors in the Harbour in breach of this byelaw, shall each be guilty of an offence and shall be liable on summary conviction to a fine not exceeding €1,500.
If the contravention of this byelaw is continued after conviction the person so convicted shall be guilty of an offence on each day that the contravention continues and shall be liable on summary conviction for each such to a fine not exceeding €100.

6. No vessel of any length shall be kept in or at the Inner Harbour unless expressly licensed by the Council by a licence in writing and then only when in compliance with the terms and conditions of such licence, and the payment in advance for the term of the licence of the harbour charges for keeping the vessel in or at the Inner Harbour which the Council is hereby enabled to impose by virtue of the provisions of Section 89 paragraph (3) (a) (ii) of the Harbours Act 1996.
The owner of a vessel which is kept in or at the Inner Harbour in breach of this byelaw shall be guilty of an offence and shall be liable on summary conviction to a fine not exceeding €1,500.
If the contravention of this byelaw is continued after conviction the person so convicted shall be guilty of an offence on each day that the contravention continues and shall be liable on summary conviction for each such offence to a fine not exceeding €100.

7. Visiting vessels are only permitted to remain berthed in or at the Inner Harbour, or remain anchored in the Inner Harbour, with the express permission of the Harbourmaster and must leave the Inner Harbour when directed to do so by the Harbourmaster for reason of congestion in or at the Inner Harbour or to facilitate the use of the Inner Harbour by other vessels.
The owner, skipper or person in charge of a vessel which remains in or at the Inner Harbour or anchored in the Inner Harbour in breach of this byelaw shall each be guilty of an offence and shall be liable on summary conviction to a fine not exceeding €1,500.
If the contravention of this byelaw is continued after conviction the person so convicted shall be guilty of an offence on each day that the contravention continues and shall be liable on summary conviction for each such offence to a fine not exceeding €100.

8. The Council is hereby enabled by this byelaw and the provisions of Section 89 paragraph (3) (a) (ii) of the Harbours Act 1996 to impose harbour charges on the owner, skipper

or person in charge of a visiting vessel for the use of the Inner Harbour.
Such charges as the Council shall fix from time to time shall be displayed in the Harbour and may be recovered as a simple contract debt from the owner, skipper or person in charge of the vessel at the time of the visit.

9. USE OF THE HARBOUR ROADWAY, SLIPWAY OR PIER FOR PLACING OR KEEPING GOODS.

No goods may be placed or kept at any time on the roadway, slipway or pier of the Harbour without the permission of the Harbourmaster and the owner or person who has custody of such goods so placed or kept, with or without the permission of the Harbourmaster, must remove them when directed to do so by the Harbourmaster.
The owner and the person who has custody of such goods and who fails to remove them when one or both of them are directed by the Harbourmaster to do so shall each be guilty of a offence and shall be liable on summary conviction to a fine not exceeding €1,500.
If the contravention of this byelaw is continued after conviction the person so convicted shall be guilty of an offence on each day that the contravention continues and shall be liable on summary conviction for each such offence to a fine not exceeding €100.

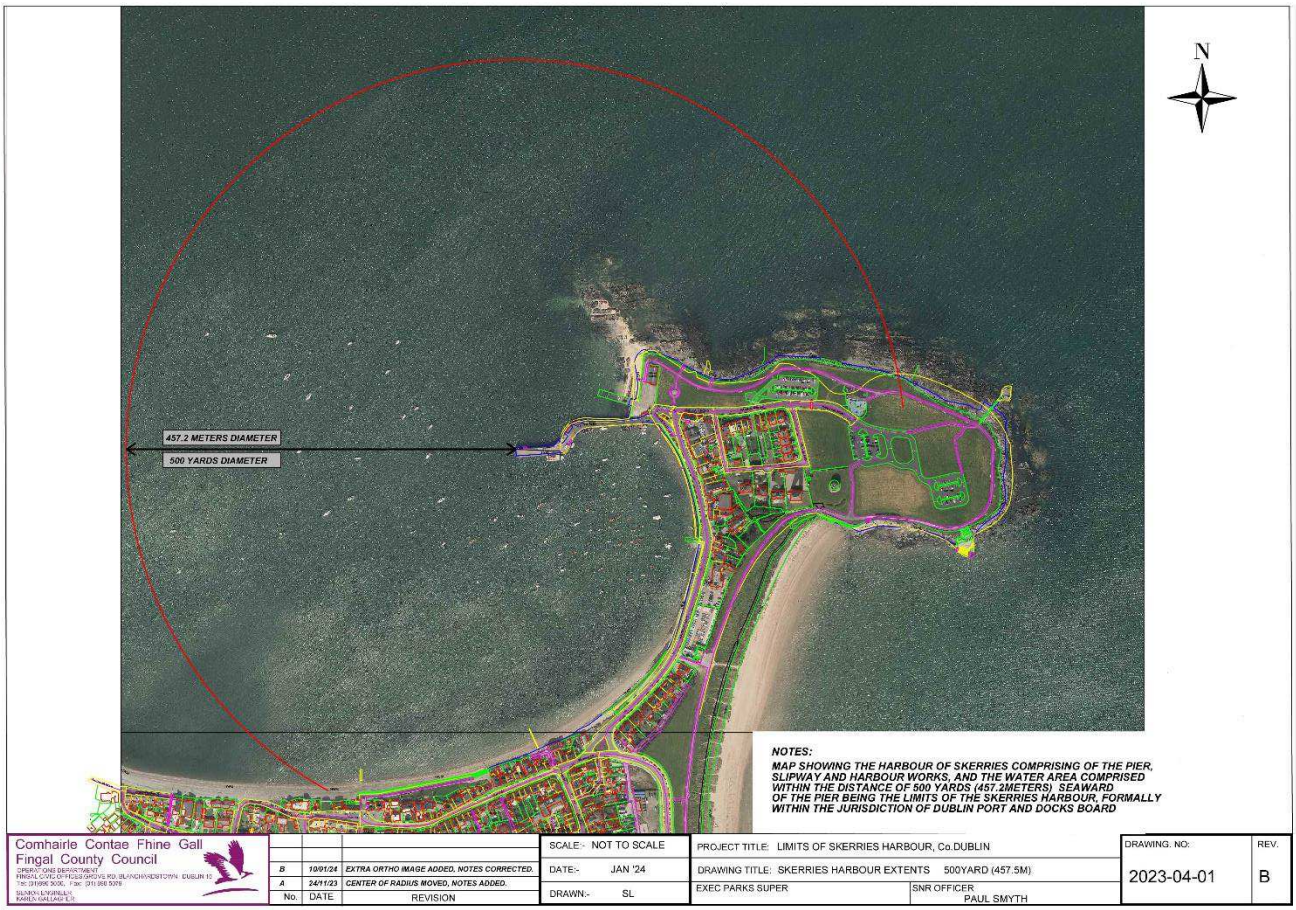
10. PROHIBITION OF BRINGING VEHICLES ON TO THE ROADWAY, SLIPWAY OR PIER.

With the exception of Fire Brigade vehicles, ambulances, Garda vehicles and Coastguard vehicles, no vehicle may be brought on to the roadway, slipway or pier of the Harbour without the express permission of the Harbourmaster.
The owner and the driver or other person who has custody of such vehicle which has been brought on to the roadway, slipway or pier of the Harbour in breach of this byelaw shall each be guilty of a offence and shall be liable on summary conviction to a fine not exceeding €1,500.
If the contravention of this byelaw is continued after conviction the person so convicted shall be guilty of an offence on each day that the contravention continues and shall be liable on summary conviction for each such offence to a fine not exceeding €100.

11. PROHIBITION OF PLACING VESSELS, VESSEL'S APPAREL BOAT CRADLES OR TRAILERS ON THE ROADWAY, SLIPWAYS, CAMPSHIRES OR HORIZONTAL SURFACES OF THE PIER.

No vessel, vessel's apparel, boat cradle or trailer shall be placed on the roadway, slipways, campshires or horizontal surfaces of the pier of the Harbour without the express permission of the Harbourmaster; this Byelaw shall not apply to launching trollies or boat or boat trailers whilst the owner thereof is using his craft afloat on the water. The owner and any other person who has custody of such vessel, vessel's apparel, boat cradle or trailer which has been placed on the roadway, a slipway, a campshire or a horizontal surface of the pier in the Harbour in breach of this byelaw shall each be guilty of a offence and shall be liable on summary conviction to a fine not exceeding €1,500.
If the contravention of this byelaw is continued after conviction the person so convicted shall be guilty of an offence on each day that the contravention continues and shall be liable on summary conviction for each such offence to a fine not exceeding €100.

Appendix 1-A: Limits of Bye-Laws for Skerries Harbour



Council Meeting 16/01/24 Item 27

Fingal Library Service Development Plan (Draft)

2024 -2029













libraries.
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Foreword

AnnMarie Farrelly, Chief Executive

Betty Boardman, County Librarian

Councillor Adrian Henchy, Mayor of Fingal

Executive Summary

Under the Local Government Act 2001, the Council has a statutory obligation to produce a Library Development Programme to be adopted by the Council. The Fingal Library Service Development Plan 2024-2029, which is the second library plan for the County, will build on the progress achieved through implementation of the strategy for the period 2018-2023. We will continue to strive to provide a dynamic and inclusive space supporting inclusion, culture, recreation, literacy, education, and lifelong learning in the County in the context of the Council's vision for Fingal as a great place in which to live, work, do business and visit.

Over the period of the first strategy significant progress has been made in enhancing library buildings and facilities with the refurbishment of Malahide, Balbriggan, Baldoyle and Blanchardstown Libraries. The extension and refurbishment of Skerries Library is nearing completion and the My Open Library service, which offers extended opening hours was launched at Baldoyle Library in July 2022. In November 2023, the Council went to tender for the construction of the Swords Cultural Centre, which will house a County Library, theatre, gallery, events spaces, and a makerspace. The Centre will be a hub for reading, literature, literacy, knowledge, arts and culture for Swords and Fingal.

A Makerspace has been opened at Blanchardstown Library and a Maker in Residence appointed. The space enables the community to access and learn about innovative technologies in a unique setting, where creativity is encouraged and protected, and entrepreneurship, inquiry-based learning, digital literacy. and creative approaches to problem solving are encouraged.

Fingal Library Service has continued to respond to the evolving needs of the whole community by offering services to Ukrainians coming to Ireland and providing a range of online and in person services during COVID. A range of new e-services including music streaming, genealogy, and coding are now available. Sensory resources and quiet times have been introduced, and all branches are signed up to the Age Friendly charter.

Libraries have been co-ordinating the Creative Ireland Programme in Fingal since January 2022. An eclectic range of creative and cultural programming has been

delivered including story trails at Ardgillan Demesne and Kenure Park, Writers,' History and Children's Literature Festivals and exhibitions and talks to mark the Decade of Centenaries Commemorations Programme.

This new Plan reflects the direction set for libraries by the National Public Library Strategy 2023-2027, The Library is the Place[1], which seeks to improve access, use and visibility of public libraries as an essential community service. The Strategy recognises the role of libraries in the development of sustainable, inclusive, and empowered communities that make an explicit contribution to meeting the challenges of climate change. The government's National Implementation Plan for the Sustainable Development Goals 2022[2] also recognises public libraries as sustainable institutions which play a big part in helping to provide knowledge, understanding, and resources in our communities.

Looking ahead we will continue to innovate and collaborate to deliver library services underpinned by the core values of intellectual freedom, accountability, integrity, adaptability, diversity, inclusion, and accessibility for everyone in our community.

[1] Source National Public Library Strategy 2023-2027 (librariesireland.ie)
[2] Source gov.ie - National Implementation Plan for the Sustainable Development Goals 2022-2024 (www.gov.ie)

About Fingal

(Designer to insert infographic based on information below)

Fingal is a rapidly growing county with a young and ethnically diverse population. Fingal is rich in natural, cultural, and built heritage and has a diverse landscape with rural, urban, and suburban dimensions. The County's economic assets include Dublin Airport, proximity to Dublin City, road and rail infrastructure and a prime location on the Dublin-Belfast Economic corridor.

Place

- 450 square kilometres
- 88 kilometres of coastline
- Largest towns; Blanchardstown, Swords, and Balbriggan with populations of 79,769 40,776 and 24,322 respectively

People

- Population of 330,506 in 2022 (6.4% of total Irish population)
- 11.6% growth (34,000+ additional people) between 2016-2022
- Between 2006 and 2022, Fingal's population grew by more than a third
- Expected to grow by 73,000 people between 2016 and 2031
- Youngest average age of any county in 2022 at 36.2 years
- 63% of population below 44, compared to 58.3% nationally
- Over 27% of residents in the county in 2022 were born outside Ireland

Arts, culture, and heritage

- 1,262 Archaeological Sites and Monuments
- 127 Historic Demesnes
- 32 Architectural Conservation Areas (ACAs)

Fingal County Council Arts Office is responsible for the Draíocht Arts Centre and the Séamus Ennis Arts Centre and funds the Lark in Balbriggan and the Millbank Theatre in Rush. The Arts Office partners with organisations across all art forms to provide twelve residency programmes and also looks after a residential studio in Malahide and a day studio in Loughshinny (two more are planned).

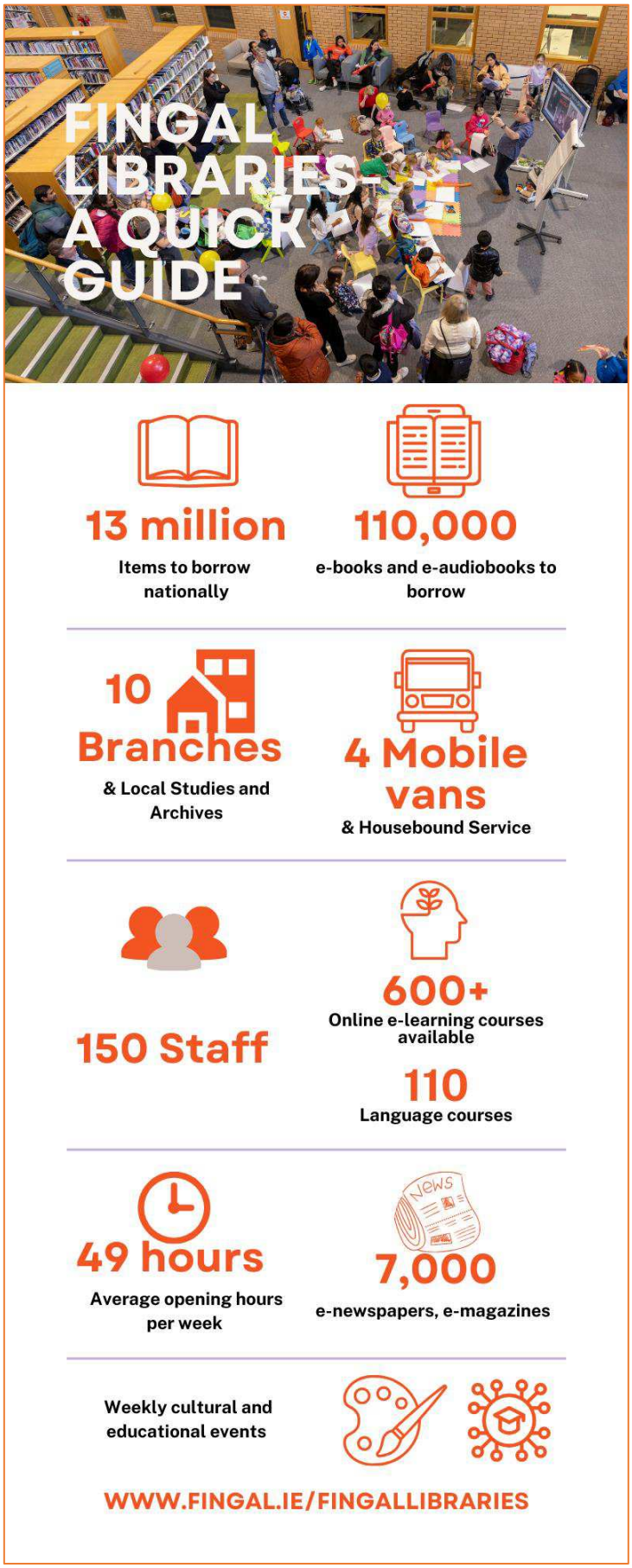
Business

- Highest labour force participation rate in Ireland at 65.6% in 2022

Key economic clusters in Fingal include:

- Agri-food and beverages
- ICT
- Pharmaceuticals
- Aviation
- Further strengths in tourism, retail, hospitality, financial services, healthcare

Sources: Fingal County Council Local Economic and Community Plan 2023-2028, Draft Framework, December 2023, Fingal Development Plan 2023-2029 (Draft Plan), and Fingal Arts Office.



Fingal Library Services

Collections and Resources

Fingal Libraries' collections have expanded over the past five years, and offer enhanced physical and digital collections, designed to appeal to a wide range of interests, ages and needs.

To increase access to very high demand titles our branch stock now includes a short loan system, so users can borrow popular items for a limit of 10 days (multiple copies are available).

New additions to our physical stock include energy kits that can be used to measure how your home uses energy. We've also added sensory toys for use in-branch and greatly increased our stock of class sets of books for teachers to borrow.

As well as our key digital services, we now offer a wide range of literacy-enhancing services. LOTE4Kids, offers digital picture books in over 50 LOTE (Languages Other Than English). Touch Type Read and Spell teaches touch-typing to help children and adults to improve their reading and spelling skills.

The TumbleBook and TumbleMath databases have over 1,100 children's e-books and Maths books including animated talking books, read-along chapter books, graphic novels, puzzles, and games.

"I value the sense of losing myself in a calm environment where I can explore and learn."

- *Respondent to consultation survey*

Creative Ireland, Fingal



Baby and Toddler Doodle, with author and illustrator Niamh Sharkey

"...a very friendly, welcoming place to encourage a love of books in my children. It's not stoic and silent and in serious. It is warm and inviting and my children love going. It's a credit to the team there." - *Respondent to consultation survey*

The Creative Ireland Programme is an all-of-government initiative committed to enhancing access to, engagement with, and enjoyment of Ireland's culture and creativity.

During the lifetime of the first Fingal Culture and Creativity Strategy, 2018-2022, Fingal initiated many projects that fostered creativity in the community. Some of the highlights included Cruinniú, the national day of creativity for children and young people, and the Festival of History, which builds on local and national expertise in the area of history. The community funding stream of Creative Fingal has supported a wide range of projects and organisations from pipe bands, and photography clubs, to exhibitions, publication of recipe books, and creative play initiatives.



Blanchardstown Brass Band at Culture Night

Building on the success of the previous strategy, the new Fingal Culture and Creativity Strategy 2023-2027 embraces the mission for Fingal to become a great place in which to live, work, do business and visit, and focuses on the following strategic priorities:

- Changing population and demographics.
- Making cities and counties great places to live.
- Climate action.
- Town centre first and the rural economy.
- Digitisation and ongoing transformation.

Fingal Library Events

Through its event programming, Fingal Libraries aims to meet the needs of a diverse community in the areas of information, learning, culture, literacy, life skills, enterprise, and leisure. Workshops and events include story time, board games, toddler time, mindfulness, genealogy, and literature and events for people with additional sensory needs.



Dublin Gospel Choir at Culture Night in Blanchardstown Library

Events are offered across all ten library branches and the mobile library service facilitates events offsite to extend the reach of programming to a wider audience. Three brochures are produced annually in Spring, Summer, and Autumn/Winter to promote both themed and one-off events.



Finding My Voice, Aoife Dooley at Swords Castle

Specialist festivals are also programmed including the Fingal Festival of History, the Children's Literature Festival and the Write Time, the annual Fingal writer's festival. Each of these events aim to connect expert creative practitioners including writers, illustrators, and historians to our citizens and to provide access to events and activities for free.



Children's Festival of Literature 2023, Swords Castle



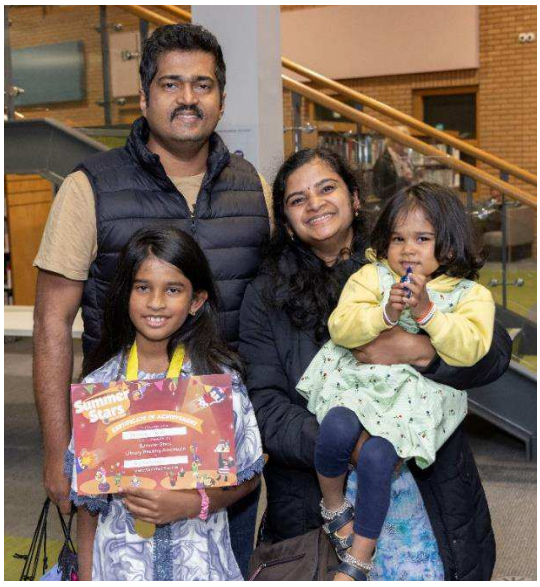
Virtual Reality headsets in Donabate Library

Europe Direct, Blanchardstown

Europe Direct, Blanchardstown provides a link between Fingal's citizens and the institutions of the European Union. The dedicated Europe Direct centre is a welcoming, comfortable space, which provides access to EU publications and a variety of workshops, citizens dialogues, classes, podcasts, and opportunities to become informed active EU citizens.

EUROPE DIRECT
Blanchardstown

Library staff are on hand to assist with queries ranging from how to obtain an EU passport to setting up a business in the EU, as well as consumer rights information. The Europe Direct Centre also promotes and supports the roll out of EU initiatives such as The European Green Deal, A Europe Fit for the Digital Age and EU Action on Mental Health.



The Summer Stars programme promotes children's literacy and reading development.

Fingal Makerspace, Blanchardstown



Maker workshop

The Fingal Makerspace was established in 2021 and became fully operational in 2022. The space itself houses a range of modern equipment including, 3D printers, a vinyl cutter, laser cutter, hand tools and software programmes. This accessible, dynamic, and inclusive space is at the heart of Fingal County Council's commitments to sustainability, community building and inclusion.



3-D printer projects at Fingal Makerspace

"It's a fabulous public place where all members, of all ages can enjoy and grow the community, interests & skills."

"...It has been a real game changer to be able to access hi-tech 3D printers, laser engravers and vinyl cutters. However, the key ingredient has been the incredible support from staff who have taught us how to use these machines." – Respondents to consultation survey

The Makerspace which offers a range of free programming and events including an introduction to 3D printing, electronic buggy building, and music production workshops, provides the public with access to equipment and technology.



Fingal Makerspace, Blanchardstown Library

Initiatives such as regular design meet-ups and the Repair Café also provide the opportunity for the public to experiment and forge connections with the wider maker community. All users can benefit from staff and volunteer expertise free of charge, and the practical nature of STEAM activities fosters young people's creativity and problem-solving skills outside of the school setting.

My Open Library, Baldoyle

Fingal's first My Open Library service opened in Baldoyle in July 2022 and was officially launched by the Mayor of Fingal, Cllr. Howard Mahony. This service offers extended opening hours and provides library access to members from 8am to 10pm, 365 days a year.



Launch of My Open Library, Baldoyle

The service has expanded rapidly increasing from 77 members, and 691 visits at the end of 2022 to its current membership of 340, with 2,954 visits made between 1st January and 8th December 2023. Study spaces remain the most popular aspect of My Open Library. May 2023 saw the highest recorded visits to date at 729 with the service being widely used by exam students.

Members also issue and return books, collect reserved items, and use the printing services. The busiest day of the week is Sunday when numerous families as well as students visit the library.

Feedback from My Open Library members has been extremely positive with increased accessibility cited as one of the main benefits.

Local Studies and Archives

Fingal Local Studies and Archives are based at 46 North Street, Swords. The service collects, preserves and makes available historic records relating to Fingal and Dublin by transfer, donation, and purchase. Outreach includes exhibitions, publications, talks, the Fingal Festival of History and participation in Heritage Week and Culture Night.

The Local Studies collections include photographs, postcards, maps, artwork and an extensive printed collection of local history books and periodicals, reference works, directories, and general genealogical and historical books. The Archive contains records of local government in County Dublin from 1775 to the present day, including the Turnpike Trusts, County of Dublin Grand Jury, Poor Law Unions, Rural District Councils, Howth Urban District Council, Balbriggan Town Commissioners, Dublin County Council and a variety of private collections including the Hely-Hutchinson Papers, Holmpatrick Papers and Hone Papers.

Skerries Library

Dating from 1910, Skerries Library is a protected structure and considered to be a fine example of the series of Carnegie Libraries built in Ireland. It is a two-storey structure with a cut stone front façade and is flanked by St. Patrick's Church on one side and by Floraville Park on the other.



Artist's impression of the refurbished and extended Skerries Library

In March 2022, work commenced on site to refurbish the Library and to construct a substantial extension to the rear of the building, with associated siteworks and the upgrading of the public realm area.

The refurbishment of the library is being carried out in line with best conservation practice. The refurbished and extended library will re-open to the public in early 2024 and will be a much-enhanced building with reading and study facilities, and meeting rooms. There will also be an events area and an opening directly into Floraville Park, to accommodate outdoor storytelling and other library activities.

Swords Cultural Quarter



Swords Cultural Quarter

In November 2023, the Council went to tender for the construction of the Swords Cultural Centre. This iconic building will include a county library, theatre, gallery, arts spaces, a makerspace, and a café. It is planned to begin construction in 2024, with the new building due to open in 2026.

The Centre will be a hub for reading, literature, literacy, knowledge, arts and culture for Swords and Fingal. It will have a strong focus on people and experiences, and through the delivery of a modern, dynamic, inspirational. and educational programme of events and activities, will become a destination and a focal point for the local community and visitors.

"A place to bring my family to switch off from technology."

"Time with my child. I love how her, as well as other kids, feel at home here. We love sitting down in a corner and reading books."

"A welcoming and inclusive place with helpful, friendly and knowledgeable staff, where I can spend time without feeling under pressure to do or buy anything!"

- *Comments from the consultation survey on the value of libraries.*

Fingal Libraries 2023

Footfall: 948,223 visits (est.)

825,364 items issued (est.)

5055 events with attendance of 49,972

Fingal Libraries Achievements 2018 - 2023

(Designer to present this information in a graphic format)

During the lifetime of our Development Plan 2018 – 2023 Fingal Library service has:

- Attracted 4.1m visitors
- Issued 4.7m items
- Refurbished Malahide, Balbriggan, Baldoyle and Blanchardstown Libraries
- Completed the brief for the new County Library
- Initiated the refurbishment and extension of Skerries Library
- Established a My Open Library service at Baldoyle Library
- Increased opening hours at Baldoyle, Balbriggan, Rush, and Skerries Libraries
- Relocated Local Studies and Archives to the Swords Cultural Quarter
- Introduced four new mobile library vans
- Developed a Makerspace at Blanchardstown Library
- Appointed a Maker in Residence
- Created story trails at Ardgillan Demesne and Kenure Park
- Provided services for Ukrainians coming to Ireland
- Provided a range of online and in person services during COVID
- Co-ordinated the Creative Ireland Programme (since January 2022)
- Introduced sensory resources and quiet times
- Signed up to the Age Friendly charter
- Programmed Writers,' History and Children's Literature Festivals
- Produced exhibitions as part of the Decade of Centenaries Commemorations Programme
- Introduced new e-services including music streaming, genealogy, and coding
- Delivered community education in sustainability and climate action
- Delivered repair cafés in the Makerspace to facilitate reuse and reduce waste
- Delivered programming in line with the Government's national plan for the Sustainable Development Goals (e.g., health and wellbeing, quality education, reduced inequality)

Context

The Fingal LDP 2024-2029 will align with and support delivery of the strategic objectives of the following policies (or subsequent updated plans and policies):

- Fingal Development Plan 2023-2029
- Fingal Corporate Plan 2019-2024
- Fingal Local Economic Community Plan 2016-2020
- Fingal County Council 2019-2025 Arts Plan
- Fingal Heritage Plan 2024-2029
- Fingal Culture and Creativity Strategy 2023-2027
- Fingal Age Friendly Strategy 2018-2023
- Migrant Integration and Social Cohesion Strategy 2019-2024
- Fingal County Council Climate Action Plan 2019-2024
- Healthy Fingal Strategic Plan 2021-2025
- Fingal Digital Strategy 2020-2023
- Fingal Irish Language Scheme 2021-2024
- Tourism Statement of Strategy and Work Programme 2017-2022

- National Public Library Strategy 2023-2027
- Public Library Standards and Benchmarks
- International standards: e.g., IFLA, UNESCO

Vision, Mission, Values, Principles

Vision

Fingal Libraries will be a dynamic and inclusive community space supporting culture, recreation, literacy, education, and lifelong learning in the County.

Mission

Our mission is to respond, preserve, and anticipate. We will respond to the needs of our diverse communities. We will preserve and make accessible Fingal's unique historical identity. We will anticipate future service needs.

Values

We value: Innovation • Collaboration • Intellectual Freedom • Accountability • Integrity • Adaptability • Diversity • Inclusion • Accessibility.

Looking Forward to 2024-2029

Strategic themes and areas of focus



Community

The overarching theme of this strategy is community. Libraries have a key role to play in building cohesive and sustainable communities, and in supporting healthy place-making, by providing inclusive community space, collections and programming that engage people and support culture, recreation, literacy, education, and lifelong learning in the County.



"A comfortable space where there is no interruptions or distractions to study. no one places any time limits on length of stay. it has been a god sent in helping me with my thesis."

– Respondent to consultation survey

Theme 1: Space and Place

Fingal Libraries will provide welcoming, democratic, safe, and sustainable hubs at the heart of our communities. We will work in partnership with other departments, to develop and maintain library buildings and services that meet the highest standard of construction, energy efficiency and service delivery.

Actions	**Outcomes**
Deliver the new County Library in the Swords Cultural Quarter.	✓ *A County Library for all Fingal citizens to enjoy, co-located with a theatre and gallery.* ✓ *Increased availability of and access to library services.* ✓ *Enhanced, library spaces and new buildings that support Fingal County Council's Climate Action Plan.* ✓ *Well trained and skilled staff who are informed and customer focused.*
Open the newly refurbished and extended Skerries Library.	
Relocate Donabate Library to Ballisk House.	
Undertake improvement works at Baldoyle Library.	
Plan for future development of library buildings and services in the County.	
Develop library buildings in line with Fingal County Council's Climate Action Plan.	
Provide training, continuing professional development and educational opportunities for staff.	
Continue to use data on demographics and community to inform user-centred service design at local level.	



"Very nice library, well set up, comfortable attractive space, helpful and engaged staff, inter library loan system is great, very child friendly, a great service to the community."

– Respondent to consultation survey

Theme 2: Engagement and Collaboration

Fingal Libraries will engage and collaborate with local, national and community groups, to provide inclusive, diverse, and relevant services and programming. We will communicate our plans and programmes through all mediums and look to engage with various models of delivery.

Actions	**Outcomes**
Engage and collaborate across council and government departments, local and national organisations, community groups, creative practitioners, and facilitators of library events.	✓ *Full range of programming reflective of the diverse community in Fingal.* ✓ *Strengthening of our reach to all communities.* ✓ *A clear strategy message is communicated to stakeholders.*
Communicate Fingal Libraries' message across all communication channels including print, broadcast, digital and social media.	
Explore models of community engagement with the makerspace initiative across the branch network.	
Develop collaborative programming with the expertise of local and national groups e.g., youth, disability, literacy, age friendly, arts and culture.	
Deliver through the Creative Ireland programme a diverse range of community led and inclusive, creative, and cultural events.	



"It's a place where one can self-improve (learn, study, work) regardless of economic status."

"The fact that it's there. It's very accessible. It's easy to get a card and you're free to stay."

"Ability to reserve any book. The Open Library extended access hours."

"Kids events and supportive, positive staff who constantly encourage reading with the kids."

Comments from the consultation survey on the value of libraries.

Tovertafel, play tool for people with cognitive challenges

Theme 3: Access and Inclusion

Fingal Libraries will provide accessible and inclusive places for all to visit. We will improve opening hours through the My Open Library system and continue to develop collections, including special collections, digital and other resources that meet the needs of the County's diverse population.

Actions	**Outcomes**
Provide greater access with longer opening hours through the provision of 'My Open Library.'	✓ *Extended opening hours and access to Libraries.* ✓ *More events and services for marginalised groups.* ✓ *Stronger connection with communities and schools.*
Ensure all our libraries are fully accessible and maintain their status as age-friendly buildings.	
Continue to review the reach of the Mobile Libraries and Housebound Services.	
Leverage Creative Ireland funding and the expertise of Fingal's community of creative practitioners to ensure that everyone has access to creative activities and learning opportunities.	
Continue to provide access to new technologies and services which support people in navigating the digital world.	
Continue to improve specialist collections and resources that support literacy, life skills and life-long learning, including sensory collections and inclusive technology.	



"The temple of collective knowledge. What's not to love about libraries."

– Respondent to Consultation Survey

Theme 4: Culture and Knowledge

Fingal Libraries will provide citizens with access to cultural, creative, and learning opportunities to reflect the lifelong learning needs of a changing society. We will reflect national programmes across themes of creativity, literacy, sustainability, and age friendly initiatives.

Actions	Outcomes
Enhance book collections, both physical and electronic, with increased book fund spend.	✓ *Access for all to high quality learning and creative opportunities in a democratic and informal space.* ✓ *Dynamic library programming that reflects the current needs of the community and is responsive to change.* ✓ *Increased public awareness and use of the Local Studies and Archives Service.*
Continue to programme in line with national programmes including Right to Read, Summer Stars, and Little Library Bags to encourage childhood literacy.	
Provide high quality informal educational and life-long learning programming across all ages and socio-economic groups.	
Continue to comply with Irish language legislation and expand stock and programming of events in Irish.	
Continue the digitisation programme at Local Studies and Archives including in-house digitisation and the uploading of digitised collections to the Digital Repository of Ireland.	

How the plan was developed

The County Librarian convened a Library Services Development Plan Working Group in March 2023 and the process of developing the plan began. An analysis was undertaken to ensure that the Fingal Library Service Development Plan 2024-2029 would align with and support the delivery of strategic objectives of both national and Council plans and policies where appropriate.

As part of the process of developing the strategy a workshop was conducted with the management team to identify external factors that may influence the operating context for the development and implementation of the plan over the period of its implementation. Staff from across Fingal Libraries took part in online workshops (in April 2023) to assist in identifying strengths, weaknesses, opportunities, and threats in relation to the library service in Fingal.

Public consultation

A key part of the process of developing this Plan was the public consultation process, which invited the community, schools, groups, and organisations to give their views on the future of the public library service in Fingal. Two online surveys were developed (for individual members of the public and organisations and schools in Fingal) and made available on the Consult Fingal website consult.fingal.ie over the period from May to November 2023. The surveys explored if and how respondents use the library, how well their needs are met currently, what they value most about the library service and if they have encountered any barriers to availing of services. Suggestions for the future of library services were also sought.

The survey for the public was promoted extensively by staff in branch libraries, the mobile and housebound services, at library and Makerspace events, through posters and digital signage in branches, on the Council's website, and on social media. Staff also promoted the survey to members of the public in the Swords Pavilion Shopping Centre (October 2023). Foróige kindly assisted in circulating the survey link to youth workers to share with young people engaged with the organisation in Fingal. A total of 1108 responses were received from users across all branches and service points. The survey

for schools and organisations was shared with schools in Fingal, the Fingal Public Participation Network, and the Fingal Ethnic Network. In total twenty-eight organisations including ten primary schools responded to the survey.

In addition to the surveys a series of consultation meetings were conducted with Fingal Comhairle na nÓg, Foróige LEAD (League for Equality and Against Discrimination) and YAD (Youth Against Discrimination) groups, and Fingal Older People's Council.

The findings of the public consultation reflect a high level of satisfaction with services, with the majority of respondents feeling their needs are being met. Users value the friendly and helpful customer service from staff; free access to books and other resources and collections; and safe, pleasant, community spaces in which to read, relax, study, work, learn, connect with other people, or spend time with family or friends. Having access to technology and opportunities to attend events are also appreciated.

The findings of the consultation in relation to issues raised by users and suggestions for improving service both generally, and at branch level, will be very useful in planning for the delivery of services in the future. Issues most frequently raised include lack of library services in some areas, lack of space, issues with noise or conflicting user needs, and the need for differentiated study or quite space, issues with facilities or maintenance (e.g., toilets, seating, lifts, or ICT), limited book stock, long waits on reserved items and restricted opening hours at weekends, evening, and bank holidays.

Some non-users of the library (both individuals and groups) indicated that they would be encouraged to use the library by some of the existing services including the availability of online resources, access to events, Makerspace and creative activities, and access to Wi-Fi and computers. This suggests that increased promotion of these aspects of services could further extend the reach of libraries.

Schools, organisations, and community groups that took part in consultation (surveys or meetings)

Primary Schools	**Organisations**
• Scoil Cheonain Senior National School, Swords • Holy Family Senior National School, Swords • Rolestown National School, Swords • Powerstown Educate Together National School, Dublin 15 • Pelletstown National School, Dublin 15 • Holmpatrick National School, Skerries • Skerries Educate Together National School, Skerries • St. Patrick's Junior School, Skerries • St. Mary's National School, Garristown • Scoil Réalt na Mara National School, Balbriggan	• Fingal Older People's Council • Fingal Comhairle na nÓg • Foróige LEAD and YAD Groups • Foróige, North Dublin • Foróige, Castlemill Education Centre • Dublin and Dún Laoghaire Education and Training Board (DDLETB) • Sketchbound, Balbriggan • Baldoyle Men's Shed • Naul Community Council • Blanchardstown Brass Band • Al-Awal Quranic and Islamic Centre • St. Joseph's Intellectual Disabilities Family and Friends Association • Castleknock Toastmasters • Lusk ICA • 92.5 Phoenix FM • Glen Ellan and Sandford Wood Residents' Association, Swords • Castleview Residents' Group • Glasmore Park and Windmill Lands Residents' Association • Miller's Glen Residents' Association • Swords Meals on Wheels • Bath Road Tenants' Association

COMHAIRLE CONTAE FHINE GALL
FINGAL COUNTY COUNCIL

COUNTY COUNCIL MEETING

TUESDAY 16TH JANUARY 2024

ITEM NO. 28

LOCAL ECONOMIC & COMMUNITY PLAN 2023 - 2028

Report:

The Fingal Local Community Development Committee (LCDC) is responsible for coordinating, planning and overseeing local development initiatives including the preparation and implementation of the Fingal Local Economic & Community Plan (LECP). The purpose of the Fingal Local Economic and Community Plan (LECP) is to set out, for a six-year period, the objectives and actions needed to promote and support the economic development and the local and community development of Fingal, both by itself directly and in partnership with other economic and community development stakeholders.

The existing LECP has come to an end and the Council has been engaging with local stakeholders since June 2023 to get their input into the new LECP through a variety of mechanisms including: sub-committees which focus on community; economy and the environment; public consultations, in-person and online; the Council's consultation portal; and consultations and briefings with the Elected Members. Feedback has been incorporated into the new LECP Vision, 6 no. Themes, 15 no. High-Level Goals, 31 Supporting Objectives and a series of actions set out in an Implementation Plan which covers a two year period, at which time there is a review to allow for the reorientation of the Implementation Plan, if required.

The LECP has been prepared in accordance with the Local Government Reform Act 2014 and the Local Economic & Community Plans Guidelines 2021. The preparation of the LECP includes a review of LECP 2016 – 2021, a review of key national and local policies, a socio-economic profile of the Fingal area, which has been prepared with the latest data available from the CSO from the Census and an SEA/AA Screening.

The Draft LECP has been considered by the Economic, Enterprise & Tourism Development SPC, the Fingal LCDC and the CPG, each of which has recommended the adoption of the Draft LECP, subject to the Statement of Consistency being received from the Easter & Midlands Regional Assembly (EMRA).

As required, the Draft LECP was submitted to the Eastern & Midlands Regional Assembly and, following consideration at their meeting on 12th January 2024, the Assembly has issued its Statement of Consistency which confirms that the Draft LECP is consistent with the Regional Spatial and Economic Strategy (RSES) and the Fingal County Development Plan 2023 – 2029, subject to the 5 no. recommendations in the Statement of Consistency being addressed. EMRA's 5 no. recommendations are set out below along with a statement as to how these will be addressed, either in the LECP Framework Document or as part of the LECP Implementation Plan. The EMRA recommendations have been incorporated into the Draft LECP circulated to the Elected Members for consideration.

1. EMRA Recommendation: The final LECP should include an outline of the Sustainable Fingal initiative (the focus of SCO 1) as it relates to the Fingal LECP. Related to this, the final LECP should review Section 4.1 of the Framework document to ensure that objectives included for Theme 1 are suitably selected to support High-Level Goals and categorised as SCOs or SEDOs in accordance with the recommendations of the LECP Guidelines 2021.

CE Response: The LECP Framework document has been amended to include a definition of the Sustainable Fingal Initiative. Section 4.1 of the Framework document has been reviewed and the SCO objective has amended to an SEDO objective to support the High-Level Goal, as per the EMRA recommendation. The objective seeks to further develop the existing Sustainable Fingal Initiative which is focused solely on business, to broaden and strengthen engagement with business, raise awareness and collaborate on initiatives with businesses on sustainable business practices and the circular economy and to extend the Sustainable Fingal Initiative to engage with local communities to encourage the implementation of sustainable and circularity principles across Fingal and support communities to access funding for sustainable/environmental community schemes administered by organisations such as LEADER and SEAI.

2. EMRA Recommendation: The final LECP should include an outline or definition of the concept of 'Doughnut Economics' as referred to under Section 4.1 of the Draft Framework document.

CE Response: The LECP Framework document has not included a definition of the concept of 'Doughnut Economics' in Section 4.1, as recommendation by EMRA in its Statement of Consistency as the Council plans to explore the concept of 'Doughnut Economics' as part of its work to broaden the scope of the Sustainable Fingal Initiative. The Council plans to outline a definition of 'Doughnut Economics' as it relates to Fingal as part of its further engagement with stakeholders on the Sustainable Fingal Initiative in order to reach a shared understanding of term as part of its awareness campaign for both business and the community, aligning with the Fingal Climate Action Plan.

3. EMRA Recommendation: Appendix 2 in the Framework document should be expanded upon to comprehensively reference named Strategic Development Areas and Strategic Employment Development Areas in the administrative area of Fingal County Council as set out in Tables 5.1 and 5.2 of the RSES.

CE Response: Appendix 2, Page 50 of the Draft LECP Framework document has been amended to reference the named Strategic Development Areas and Strategic Employment Development Areas in Fingal as set out in Tables 5.1 and 5.2 of the RSES, as per the EMRA recommendation.

4. EMRA Recommendation: The final LECP should include a specific Implementation Plan that is prepared and presented in accordance with the requirements of Section B of the LECP Guidelines 2021. This may be included as an appendix of the LECP.

CE Response: A specific Implementation Plan for the first two operational years of the LECP has been prepared. The Implementation Plan sets out actions, inputs and outputs for each objective in the LECP and has been circulated to the Elected Members along with the LECP Framework document, as per the EMRA recommendation.

5. EMRA Recommendation: The appendices of the final LECP should be amended to include full details of the public consultation information, a list of written submissions and the membership of relevant 14 structures (LCDC, SPC) as detailed in Appendix 2 of the LECP Guidelines 2021.

CE Response: The LECP Framework document has been amended to included Appendix 3 which outlines the public consultation process, a list of the written submissions received, and the membership details of the relevant structures detailed in the LECP Guidelines 2021 Appendix 2, as per the EMRA recommendation.

In light of the above, the recommendations of the Economic, Enterprise & Tourism Development SPC, the Fingal LCDC, the CPG and the recommendations set out in the Statement of Consistency issued by EMRA which have been incorporated into the LECP, it is recommended that the LECP be adopted and that the following resolution be made to adopt same -

That in accordance with Section 66 of the Local Government Act 2001 (as amended), Section 44 of the Local Government Reform Act 2014 and Chapter 2 Section 128 of the Local Government Reform Act 2014 the Local Economic & Community Plan 2023 – 2028 be adopted as proposed.

Fingal County Council Local Economic & Community Plan 2023-2028

Draft Framework

January 2024

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1. Executive Summary

1. Executive Summary

1.1 Background & Approach

The 2023-2028 Fingal Local Economic & Community Plan (LECP) is the second LECP which has been developed for Fingal and seeks to build on the progress made under the 2016-2021 Plan.

This LECP has been prepared in accordance with the *Local Government Reform Act 2014* and the *Local Economic and Community Plans Guidelines 2021*. The *Guidelines* set out six phases for the development of LECPs, namely:

1. Preparation;
2. Public consultation;
3. Development of High-Level Goals, objectives and outcomes; and
4. Finalisation of the LECP;
5. Implementation, which includes the development of an Implementation Plan; and
6. Monitoring, evaluation and review of the plan over the six years of its existence.

This Framework LECP has been developed in accordance with Phases 1-3 of the *Guidelines*. A separate Implementation Plan, covering the first two operational years of this LECP (2024 and 2025) is being developed in alignment with Phase 5, while progress will be tracked on an ongoing basis per Phase 6. The Implementation Plan is nearing completion and will form part of Fingal County Council's LECP Framework document. The Implementation Plan will examine the High Level Goals/Sustainable Objectives and Outcomes as set out in the Framework LECP, and determine the actions to be pursued to contribute to the achievement of the Goals and Objectives.

Each of the initial four Phases outlined above consisted of multiple facets. As depicted below, the process commenced with a review of the previous LECP to gauge progress and take lessons, while a review of relevant policies and strategies from the local (Fingal) to the supranational levels (European Union and United Nations) was conducted to develop a framework and guide the subsequent phases.

A draft socio-economic statement (or 'Vision') and High-Level Goals were hence devised and brought to Public Consultation (Phase 2). Based on feedback received, this Vision and the High-Level Goals were revised.

In Phase 3, underlying objectives and outcomes were developed to support the objectives.

Phase 1: Preparation	• Review of LECP 2016 – 2021. • Review of key policies at the supranational, national and local levels. • Data assessment, inclusive of Census 2022 releases, to prepare a detailed socio-economic analysis of Fingal. • Development of draft vision & goals.
Phase 2: Public Consultation	• Open invite, in-person and online consultation meetings. • Engagements with Fingal County Council Sub-Committees. • Engagements with other local stakeholder groups. • Engagements with Elected Representatives. • Written submissions via the Fingal County Council consultation portal.

Phase 3: Development of High-Level Goals, Objectives and Outcomes	• Revision of vision & high level goals. • Co-creation of SMART objectives. • Development of an interim report.
Phase 4: Finalisation of the LECP	• Adoption of the final draft LECP Framework by Fingal SPC and LCDC reflecting MD and RA input. • Fingal Council County approval of final draft. • Submission to Minister and publication by Fingal County Council.

1.2 Values and Principles

A series of Values and Principles underpin the *Guidelines*, and were central to the LECP development process. They are as follows.

Values
Social Justice
Sustainable Development
Social Inclusion
Human Rights, Equality and Anti-Discrimination
Empowering Communities
Active Participation

Principles
Respect
Subsidiarity
Collaboration
Value for Money
Implementation
Harmonisation

These Values and Principles were used as guides through the development of this LECP.

1.3 LECP 2023-2028 Structure

The 2023-2028 Fingal LECP Framework report comprises the Vision and an integrated framework of six overarching 'themes', 15 High-Level Goals, and 31 supporting objectives. A series of actions have also been developed and are included in the 2024-2025 Implementation Plan which accompanies this LECP Framework.



The LECP Vision for the coming six years describes the economy and community which Fingal seeks to build. By 2028 – and aided by collaboration amongst multiple stakeholder groups, headed by Fingal County Council – the ambition is to further improve economic, social and environmental conditions in the county, in line with the LECP Vision:

"Fingal will be a vibrant, sustainable, progressive and climate resilient county, underpinned by inclusive, healthy, empowered communities and a dynamic economy."

The six 'themes' devised incorporate the overarching economic and community elements which govern this LECP. They are:

Theme	Theme Description
Sustainability & Climate Action	Pursue climate resilience and embed sustainability in all we do.
Prosperous Economy	A dynamic, outward looking and innovative economy with sustainability at its core.
Skills for Life & Work	A county that provides a supportive and diverse skills ecosystem, nurtures talent, and provides life-long learning opportunities for all.
Healthy, Inclusive, Connected Communities	A healthy, inclusive and connected county where communities are empowered and supported to thrive.
Rich Arts, Culture & Heritage	Promote and protect our arts and heritage, and embrace cultural diversity in the county.
Safe, Accessible, Vibrant Places	A county of vibrant communities and places, accessible for all, where people want to live, work and socialise.

Under each 'theme' a series of High-Level Goals have been derived, each of which is underpinned by Sustainable Economic Development Objectives (SEDOs) and Sustainable Community Objectives (SCOs).

Theme	Goal	Goal Description	Objective(s)
Sustainability & Climate Action	**G1.1**	To support communities and the economy in the transition to Net Zero and climate resilience.	**SEDO 1:** To develop and broaden the scope of the Sustainable Fingal initiative.
Prosperous Economy	**G2.1**	Support the development of sustainable and strategic infrastructure.	**SEDO 2:** To promote, support and input into the development of sustainable and strategic infrastructure. **SEDO 3:** To facilitate incubation and business growth.

	G2.2	Provide a supportive business environment that encourages innovation and attracts, retains and grows businesses sustainably.	**SEDO 4:** To develop clusters and strategies to leverage sectoral growth opportunities. **SEDO 5:** To enhance strategic engagement across the business ecosystem. **SEDO 6:** To provide greater clarity on and access to business supports. **SEDO 7:** To develop Fingal's brand as a business location.
	G2.3	Remove barriers to labour market participation.	**SCO 1:** To understand and address key barriers to work and identify and support affected population cohorts. **SCO 2:** To provide supports to enable under-represented groups to (re) enter the workforce.
Skills for Life & Work	**G3.1**	Stimulate a culture of life-long learning.	**SCO 3:** To update the *Fingal Skills Strategy* and support implementation of its recommendations. **SCO 4:** To provide all Fingal residents with basic English language, literacy and numeracy skills. **SCO 5:** To develop greater opportunities for up- and re-skilling.
	G3.2	Support skills development to meet the diverse needs of communities and businesses.	**SEDO 8:** To equip Fingal's labour force with the skills to meet businesses' current and future needs. **SCO 6:** To broaden pathways to education. **SCO 7:** To ensure communities have the skills to take effective voluntary and participative action.
Healthy, Inclusive, Connected Communities	**G4.1**	Increase participation in initiatives that promote active living, positive mental wellbeing, and physical activity to achieve improved health and wellbeing for all.	**SCO 8:** To provide facilities and support services which enable a healthier lifestyle. **SCO 9:** To increase participation in health-related activities, particularly amongst young people and senior citizens. **SCO 10:** To support community based initiatives to address mental health issues.
	G4.2	Promote citizen participation.	**SCO 11:** To provide more opportunities and access points for citizens to participate in local decision making.

	G4.3	Encourage inclusion and connection within and between communities.	**SCO 12:** To support implementation of the *Fingal Migrant Integration and Social Cohesion Strategy.* **SCO 13:** To encourage inclusion and integration through support for services, outreach and events.
	G4.4	Target improvements in areas of disadvantage.	**SCO 14:** To reduce absolute and relative disadvantage in specific areas of Fingal.
Rich Arts, Culture & Heritage	**G5.1**	Promote, protect, and grow the heritage of Fingal and ensure quality amenities for all.	**SCO 15:** To enhance the promotion & brand of Fingal's heritage. **SCO 16:** To improve access to key heritage assets. **SCO 17:** To preserve and protect Fingal's heritage assets.
	G5.2	Support new and existing cultures to thrive.	**SCO 18:** To promote inclusivity by providing supports for new and existing cultures.
	G5.3	Champion the arts and cultural life of the county.	**SCO 19:** To enhance the promotion & brand of Fingal's arts and cultural life.
Safe, Accessible, Vibrant Places	**G6.1**	Support the development of areas for a high quality of life.	**SEDO 9:** To revitalise the centres of key towns and villages. **SEDO 10:** To support enhancements to transport and infrastructure.
	G6.2	Promote safety in the community through collaboration and inclusivity.	**SCO 20:** To develop areas which are safe for all. **SCO 21:** To develop and implement measures to reduce anti-social behaviour.



2. Introduction

2. Introduction

2.1 Local Economic & Community Plan 2023-2028

The Fingal Local Economic and Community Plan (LECP) Framework sets out the Vision, High-Level Goals and Objectives needed to promote and support the economic, local and community development of the county over a six year period. This iteration, covering the period 2023-2028, is the second LECP which has been developed for Fingal and seeks to build on the progress made under the 2016-2021 Plan.

This LECP has been prepared in accordance with the *Local Government Reform Act 2014* and the *Local Economic and Community Plans Guidelines 2021*. The *Guidelines* set out four initial phases for the development of LECPs, namely:

1. Preparation;
2. Public consultation;
3. Development of High-Level Goals, objectives and outcomes; and
4. Finalisation of the LECP.

Subsequent phases cover:

5. Implementation, which includes the development of an Implementation Plan; and
6. Monitoring, evaluation and review of the plan over the six years of its existence.

Each of the initial three Phases outlined above consisted of multiple facets. As depicted below, the process commenced with a review of the previous LECP to gauge progress and take lessons, while a review of relevant policies and strategies from the local (Fingal) to the supranational levels (European Union and United Nations) was conducted to develop a framework and guide the subsequent phases. The results of this analysis are contained in the Appendix to this Framework.

A draft socio-economic statement (or 'Vision') and High-Level Goals were hence devised and brought to Public Consultation (Phase 2), which consisted of:

A. Open invite, in-person consultation meetings at three venues in Fingal (Balbriggan, Blanchardstown and Swords) in June 2023;
B. An open invite, online consultation meeting in July 2023;
C. Engagements with the following Fingal County Council Sub-Committees:
    - Community Sub-Committee
    - Economic Sub-Committee
    - Environment Sub-Committee
D. Engagements with other local stakeholder groups which focus on specific aspects of community and economic development;
E. Engagements with Elected Representatives on Local Area Committees for Blanchardstown-Mulhuddart/Castleknock/Ongar, Howth/Malahide, and Balbriggan/Rush-Lusk/Swords in September 2023; and
F. Written submissions via the Fingal County Council consultation portal.

Phase 1: Preparation	• Review of LECP 2016 – 2021. • Review of key policies at the supranational, national and local levels. • Data assessment, inclusive of Census 2022 releases, to prepare a detailed socio-economic analysis of Fingal. • Development of draft vision & goals.
Phase 2: Public Consultation	• Open invite, in-person and online consultation meetings. • Engagements with Fingal County Council Sub-Committees. • Engagements with other local stakeholder groups. • Engagements with Elected Representatives. • Written submissions via the Fingal County Council consultation portal.
Phase 3: Development of High-Level Goals, Objectives and Outcomes	• Revision of vision & high level goals. • Co-creation of SMART objectives. • Development of an interim report.

Based on feedback received, the Vision and the High-Level Goals were revised. In Phase 3, underlying objectives (covering both Sustainable Community Objectives and Sustainable Economic Development Objectives) were formulated. Associated outcomes and impacts were hence developed to support the objectives.

In the sections which follow, the Vision, High-Level Goals, Objectives, Outcomes and Impacts for the 2023-2028 LECP are laid out.

The results of the socio-economic profiling and policy analysis sections are contained in the Appendices.

Note: The 2023-2025 LECP Implementation Plan is nearing completion and will form part of Fingal County Council's LECP Framework document. The Implementation Plan will examine the High Level Goals/Sustainable Objectives and Outcomes as set out in the Framework LECP, and determine the actions to be pursued to contribute to the achievement of the Goals and Objectives.



3. Vision & High-Level Goals

3. Vision & High Level Goals

3.1 Introduction

While the contents of this LECP primarily centre on areas in which further economic and community development in Fingal could be spurred, it must be recognised that the county is already to the fore in terms of prosperity and quality of life in Ireland. High employment and labour market participation rates, a population which is growing and increasingly educated, and access to quality natural spaces and public amenities are prime examples of this.

Despite this, and as outlined below, there are areas for further improvement for residents, communities and the economy overall. Housing, the availability of infrastructure and services for a growing county, and strengthening the pipeline of indigenous businesses are just three examples in this sphere. As is made clear in this document, removing barriers of all types for people and businesses will be important – whether in the context of language and other skills for life, transport, or access to employment.

3.2 Fingal LECP Vision

The LECP Vision for the coming six years describes the economy and community which Fingal seeks to build. By 2028 – and aided by collaboration amongst multiple stakeholder groups, headed by Fingal County Council – the ambition is to further improve economic, social and environmental conditions in the county. Climate change is central with the biodiversity and climate emergency influencing all aspects of future development. Creating places where vibrancy, sustainability and strong communities are fostered is seen as a critical factor in attracting and retaining residents and businesses and is a core component – along with a dynamic economy which can:

- ✓ Support the enterprise base;
- ✓ Provide jobs within Fingal;
- ✓ Tackle disadvantage; and
- ✓ Position the county to exploit growth opportunities over the years to 2028.

The existing communities and assets of Fingal are strong and can be the basis for delivering on the components of the Vision, which is that:

"Fingal will be a vibrant, sustainable, progressive and climate resilient county, underpinned by inclusive, healthy, empowered communities and a dynamic economy."

3.3 Fingal LECP High-Level Goals



High-Level Goals set the direction of the LECP, and were devised based on:

1. A review of the previous LECP;
2. Consideration of key policies and strategies of relevance from the supranational to local levels;
3. An assessment of the Socio-Economic Profile of Fingal; and
4. Feedback from the public consultation phase.

In order to frame the development of High-Level Goals, the following broad 'themes' were formed. The themes encapsulate the main areas of focus for this LECP.

Themes	
Sustainability & Climate Action	Pursue climate resilience and embed sustainability in all we do.
Prosperous Economy	A dynamic, outward looking and innovative economy with sustainability at its core.
Skills for Life & Work	A county that provides a supportive and diverse skills ecosystem, nurtures talent, and provides life-long learning opportunities for all.
Healthy, Inclusive, Connected Communities	A healthy, inclusive and connected county where communities are empowered and supported to thrive.
Rich Arts, Culture & Heritage	Promote and protect our arts and heritage, and embrace cultural diversity in the county.
Safe, Accessible, Vibrant Places	A county of vibrant communities and places, accessible for all, where people want to live, work and socialise.

The High-Level Goals, outlined below, which support these themes are ambitious, yet achievable and realistic.

Theme	Goal	Goal Description
Sustainability & Climate Action	**G1.1**	To support communities and the economy in the transition to Net Zero and climate resilience.
Prosperous Economy	**G2.1**	Support the development of sustainable and strategic infrastructure.
	G2.2	Provide a supportive business environment that encourages innovation and attracts, retains and grows businesses sustainably.
	G2.3	Remove barriers to labour market participation.

Skills for Life & Work	**G3.1**	Stimulate a culture of life-long learning.
	G3.2	Support skills development to meet the diverse needs of communities and businesses.
Healthy, Inclusive, Connected Communities	**G4.1**	Increase participation in initiatives that promote active living, positive mental wellbeing, and physical activity to achieve improved health and wellbeing for all.
	G4.2	Promote citizen participation.
	G4.3	Encourage inclusion and connection within and between communities.
	G4.4	Target improvements in areas of disadvantage.
Rich Arts, Culture & Heritage	**G5.1**	Promote, protect, and grow the heritage of Fingal and ensure quality amenities for all.
	G5.2	Support new and existing cultures to thrive.
	G5.3	Champion the arts and cultural life of the county.
Safe, Accessible, Vibrant Places	**G6.1**	Support the development of areas for a high quality of life.
	G6.2	Promote safety in the community through collaboration and inclusivity.



4. LECP Objectives, Outcomes and Impacts

4. LECP Objectives, Outcomes and Impacts

The 2023-2028 Fingal LECP Framework has been designed to be consistent with a broad range of policies, including the *Fingal Development Plan 2023-2029*, to ensure consistency with the statutory planning framework of the Council. Furthermore, the LECP has been formulated to take account of the Environmental Protection Agency's Strategic Environmental Assessment process, and Article 6 European Habitats Directive (Council Directive 92/43/EEC on the conservation of wild habitats and of wild fauna and flora).

Per the *2021 LECP Guidelines*, underlying objectives have been developed to support the Vision and High-Level Goals. These objectives, which are accompanied by outcomes and impacts, cover the economic and community elements of the Plan – as outlined below.

Sustainable Economic Development Objectives (SEDOs)

Sustainable Economic Development Objectives (SEDOs) have been compiled which target specific means by which significant contributions can be made towards achieving economic development in the years to 2023. The SEDOs have been developed to be specific, measurable and achievable within the 6-year timeframe – and are in accordance with Fingal's *Economic Development Strategy*.

Sustainable Community Objectives (SCOs)

On the basis of the research and consultations undertaken, Sustainable Community Objectives (SCOs) have been developed to guide the community elements of the LECP. The SCOs were designed to enhance:

- Health and quality of life;
- Well-being and inclusivity of communities;
- Fingal's environment;
- Place-making; and
- Arts, heritage and culture.

A set of underlying actions, inputs and outputs for each SEDO and SCO have been devised, covering the first two operational years of this LECP (2024 and 2025), and are incorporated in to the Implementation Plan which accompanies this Framework.

4.1 Theme 1: Sustainability & Climate Action

Theme	Goal	Goal Description
Sustainability & Climate Action Pursue climate resilience and embed sustainability in all we do.	**G1.1**	To support communities and the economy in the transition to Net Zero and climate resilience.

Sustainability & Climate Action: Priority Areas

The world is currently in a biodiversity and climate emergency and immediate action is needed at the global and local levels. While the previous Fingal LECP contained initiatives related to sustainability and climate action, the issues have since risen to significant prominence and were key features in the desk research and consultations undertaken for this LECP. The SEDO outlined below revolves around the need for the LECP to:

1. Be reflective of the emergency which the planet is now in.

2. Align with the Fingal County Council *Climate Action Plan*, targeting specific aspects of the Plan which relate to and can be affected by the economy and communities of Fingal, so as to ensure goal congruence and avoid duplication of efforts.

3. Focus on education and supports for residents, and to embed environmentally conscious behaviours.

4. Promote connectivity in the forms of improved sustainable mobility infrastructure (walking and cycling infrastructure, and greenways) to support active travel with an emphasis on journeys of 5 kilometres and under, and public transport linkages to reduce car dependency.

5. Engage rural communities, especially as many habitats and green initiatives will be undertaken in these areas.

6. Provide business supports to aid the transition to more sustainable practices, and develop the economy on the broad basis of 'Doughnut Economics'.

7. Support trials of new energy concepts, and the further adoption of renewable energy production.

On the basis of the above considerations, one SEDO has been developed which will centre on the development and broadening of the *Sustainable Fingal* initiative. *Sustainable Fingal* is an initiative which arose as an objective from the Fingal Climate Action Plan 2019 - 2024. The initiative aims to encourage businesses across Fingal to embrace sustainable measures, become more resource efficient by using less raw materials, less energy and less water, help business produce less waste and effectively manage the waste they produce and promote the principles of the circular economy.

As part of the new LECP the Council aims to broaden the scope of the Sustainable Fingal Initiative and strengthen engagement, raise awareness and collaborate on initiatives with businesses on sustainable business practices and the circular economy. The Council plans to extend the Sustainable Fingal Initiative to engage with local communities to encourage the implementation of sustainable and circularity principles across Fingal and support communities to access funding for

sustainable/environmental community schemes administered by organisations such as LEADER and SEAI.

Goal	Goal Description	Objective(s)	Outcomes	Impact
G1.1	To support communities and the economy in the transition to Net Zero and climate resilience.	**SEDO 1:** To develop and broaden the scope of the *Sustainable Fingal* initiative.	Reduced carbon emissions. De-carbonised transport. Reduced landfill via circular economy. More sustainable energy production and built environment.	A better natural environment in which to live.

4.2 Theme 2: Prosperous Economy

Theme	Goal	Goal Description
Prosperous Economy A dynamic, outward looking and innovative economy with sustainability at its core.	**G2.1**	Support the development of sustainable and strategic infrastructure.
	G2.2	Provide a supportive business environment that encourages innovation and attracts, retains and grows businesses sustainably.
	G2.3	Remove barriers to labour market participation.

Prosperous Economy: Priority Areas

A prosperous economy which provides opportunity for all is essential for local economic and community development. This encompasses the fostering of an economic environment which allows businesses to thrive, and the enablement of residents to enter or re-enter the workforce.

With regards to strategic infrastructure, the need for further development in Fingal over the coming six years is clear. Promoting, supporting and inputting in to the development of such infrastructure – which includes housing, roads, water, and public transport (notably MetroLink and improved bus connectivity) – is hence an objective which can ultimately benefit both businesses and communities in the county. Supporting the sustainable development of Dublin Airport in a accordance with the applicable Local Area Plan, legislation and permissions also falls within this objective.

Supporting businesses, including via the provision of more incubation spaces for startups and micro enterprises, and providing clarity on exactly what supports are available, are further primary objectives which can support sustainable economic development.

In order to further strengthen the Fingal business ecosystem, additional objectives are proposed which relate to:

1. Providing fora for strategic engagement between businesses with a view to developing supply chains and overall cohesion in the business community;
2. Establishing formalised clusters for specific sectors which enhance their profile and impact; and
3. Developing Fingal's brand as a business location, especially for investors, so that the unique assets and advantages of the county are broadly promoted.

In relation to the labour market, breaking down barriers to participation and providing supports to under-represented groups to (re-) enter employment are central. While the Fingal economy is close to 'full employment' and has high participation rates, there are geographic areas and population cohorts where joblessness is more common. Understanding and breaking down barriers in such areas and cohorts is hence a means to facilitate greater labour market participation – for the benefit of both communities and businesses. This may include factors such as job application preparation, and the provision of greater childcare options to enable workforce participation.

Goal	Goal Description	Objective(s)	Outcomes	Impact
G2.1	Support the development of sustainable and strategic infrastructure.	**SEDO 2:** To promote, support and input into the development of sustainable and strategic infrastructure. **SEDO 3:** To facilitate incubation and business growth.	Better public transport connectivity. Improved housing provision. Specific road infrastructure improvements. More innovation/ enterprise/ industrial space.	A better built environment in which to live and work
G2.2	Provide a supportive business environment that encourages innovation and attracts, retains and grows businesses sustainably.	**SEDO 4:** To develop clusters and strategies to leverage sectoral growth opportunities. **SEDO 5:** To enhance strategic engagement across the business ecosystem. **SEDO 6:** To provide greater clarity on and access to business supports. **SEDO 7:** To develop Fingal's brand as a business location.	Growing numbers of SMEs. Cluster development. A strong Fingal brand. Networking fora to strengthen the Fingal business ecosystem. Establish an Economic Forum for the County.	A stronger, connected and supported business ecosystem
G2.3	Remove barriers to labour market participation.	**SCO 1:** To understand and address key barriers to work and identify and support affected population cohorts. **SCO 2:** To provide supports to enable under-represented groups to (re-) enter the workforce.	Better understanding of barriers to work. Wider labour pool. Reduced barriers to work. Maintained high labour market participation rates.	Increased labour market participation amongst under-represented groups

4.3 Theme 3: Skills for Life & Work

Theme	Goal	Goal Description
Skills for Life & Work A county that provides a supportive and diverse skills ecosystem, nurtures talent, and provides life-long learning opportunities for all.	**G3.1**	Stimulate a culture of life-long learning.
	G3.2	Support skills development to meet the diverse needs of communities and businesses.

Skills for Life & Work: Priority Areas

Fingal's residents are increasingly educated, as demonstrated in the Socio-Economic Profile, with growing proportions of the population completing post-secondary education. This is an undoubted strength for the economy and community, yet the further development of the skills base is seen as essential for the future success of the county.

For residents and communities, stakeholders viewed education and skills development as avenues via which to:

1. Provide 'skills for life' – such as basic language, literacy and numeracy skills – particularly for migrants and minority groups who may not have benefitted from full exposure to the Irish school system.

2. Enable all age groups to develop new skills, including those which are not related to (re-) entering the workforce. This can bring many benefits for individuals and wider society, especially in terms of older-age cohorts[1] – and the removal of upper age limits (where applicable) was put forward.

3. Tackle disadvantage by providing accessible routes to employment and/or academia. Accessibility via broad pathways and the provision of second level and grassroots interventions were referenced as specifically relevant in this sphere.

Skills development is also important in terms of providing for the future development of the Fingal economy, where there is a pressing need to attract and develop more skilled staff. A range of skillsets are needed in Fingal's economy. This not only applies to third level graduates but to people with skills developed via apprenticeships, traineeships, and upskilling initiatives which can be tapped into by a wider variety of businesses.

Skills development needs to be fully aligned with the *Fingal Skills Strategy,* and also incorporates equipping communities with the right skillsets to take effective voluntary and participative action.

[1] For instance: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8205990/

Goal	Goal Description	Objective(s)	Outcomes	Impact
G3.1	Stimulate a culture of life-long learning.	**SCO 3:** To update the *Fingal Skills Strategy* and support implementation of its recommendations. **SCO 4:** To provide all Fingal residents with basic English language, literacy and numeracy skills. **SCO 5:** To develop greater opportunities for up- and re-skilling.	A refreshed *Fingal Skills Strategy* with updated recommendations. Broader literacy, numeracy and English language skills in the community. More workers facilitated to transition between occupations. Greater lifelong learning opportunities.	All people are provided with the opportunity to learn and develop their skillsets.
G3.2	Support skills development to meet the diverse needs of communities and businesses.	**SEDO 8:** To equip Fingal's labour force with the skills to meet businesses' current and future needs. **SCO 6:** To broaden pathways to education. **SCO 7:** To ensure communities have the skills to take effective voluntary and participative action.	*Fingal Skills Strategy* Sectoral fora, including educational stakeholders, to develop a strong future talent pipeline in Fingal. More workers with 'skills for the future'. Broader education pathways Better equipped and more empowered community groups.	Communities and businesses have access to training and education to address both current and future skills needs.

4.4 Theme 4: Healthy, Inclusive, Connected Communities

Theme	Goal	Goal Description
Healthy, Inclusive, Connected Communities A healthy, inclusive and connected county where communities are empowered and supported to thrive.	**G4.1**	Increase participation in initiatives that promote active living, positive mental wellbeing, and physical activity to achieve improved health and wellbeing for all.
	G4.2	Promote citizen participation.
	G4.3	Encourage inclusion and connection within and between communities.
	G4.4	Target improvements in areas of disadvantage.

Fostering healthy, inclusive and connected communities is integral to the social fabric of Fingal. This is especially the case in the current climate where net inward migration poses significant opportunities and challenges for the county. Fingal's population is diverse by Irish standards, as shown in the Socio-Economic Profile, and migration to the county – spurred by events including the onset of the war in Ukraine – mean that facilitating inclusion and connection between existing and new communities is an objective in this LECP. Such factors are vital for deepening understanding between community groups and ensuring that all residents of Fingal feel included, and are provided with the means to integrate into society in the county.

In a related context, enabling residents' participation in local decision making and democracy is a means to stimulate economic and community development. By providing means for greater access and greater involvement, 'buy-in' to community development amongst residents can be achieved. This is targeted under Goal 4.2, along with increasing rates of volunteerism which are relatively low in Fingal compared to national averages.

This theme also covers health and wellbeing for all residents. Health issues, including mental health, have risen in prominence and action is needed to ensure that communities in Fingal have the means to lead healthier lifestyles. This is specifically targeted under Goal 4.1 which aims to increase participation in active living and physical and mental activities so as to prevent adverse health outcomes, and improve overall wellbeing in the Fingal community.

As demonstrated by Pobal's *Deprivation Index* statistics in the Socio-Economic Profile, certain geographic areas of Fingal are classified as being disadvantaged – in both absolute and relative terms. Such classifications arise for a multitude of reasons including unemployment, education levels, and income. The reduction of absolute and relative disadvantage in specific areas is hence a goal for this LECP and will be targeted under Goal 4.4, specifically with a view to achieving greater education participation rates, reduced joblessness, and providing further supports for outreach programmes in localities.

Goal	Goal Description	Objective(s)	Outcomes	Impact
G4.1	Increase participation in initiatives that promote active living, positive mental	**SCO 8:** To provide facilities and support services which enable a healthier lifestyle. **SCO 9:** To increase participation in health-related activities, particularly	Greater wellbeing for all ages Improved mental health support provision	Improved wellbeing, and physical and mental health for all.

	wellbeing, and physical activity to achieve improved health and wellbeing for all.	amongst young people and senior citizens. **SCO 10:** To support community based initiatives to address mental health issues.		
G4.2	Promote citizen participation.	**SCO 11:** To provide more opportunities and access points for citizens to participate in local decision making.	Greater opportunity for citizen engagement Improved access and participation in local authority decisions	Economic and community development which involves more input from Fingal's residents.
G4.3	Encourage inclusion and connection within and between communities.	**SCO 12:** To support implementation of the *Fingal Migrant Integration and Social Cohesion Strategy.* **SCO 13:** To encourage inclusion and integration through support for services, outreach and events.	Achievement of Fingal's MICS aims Greater outreach to all groups, particularly minority and disadvantaged groups	Integration and inclusivity for all communities, new and existing, and a greater sense of belonging.
G4.4	Target improvements in areas of disadvantage.	**SCO 14:** To reduce absolute and relative disadvantage in specific areas of Fingal.	Greater education participation rates Reduced unemployment, particularly among young people Further supports for outreach programmes	Reduced relative and absolute deprivation in disadvantaged areas.

4.5 Theme 5: Rich Arts, Culture & Heritage

Theme	Goal	Goal Description
Rich Arts, Culture & Heritage Promote and protect our arts and heritage, and embrace cultural diversity in the county.	**G5.1**	Promote, protect, and grow the heritage of Fingal and ensure quality amenities for all.
	G5.2	Support new and existing cultures to thrive.
	G5.3	Champion the arts and cultural life of the county.

Rich Arts, Culture & Heritage: Priority Areas

Fingal is renowned for its rich blend of arts, culture and heritage which are differentiators for both the economy and community of the county. Assets such as the Seamus Ennis Centre and Draíocht have been massively successful, yet further progress can be made to promote, protect, and grow key aspects of the sectors in Fingal.

For heritage sites, this relates to firstly boosting promotion and the overall brand of Fingal. It also relates to enabling access – in a number of forms including transport connectivity – so that visitors and residents to the county are able to fully experience the heritage assets which are available. Finally, preservation and protection are key goals in order to provide future generations with heritage assets which have been properly managed and maintained.

In terms of culture and the arts, further promotion is a core goal so as to improve the reach and recognition of these important sectors – in line with the *2019 – 2025 Arts Plan*. This covers branding where the profile of Fingal's assets can be further strengthened and broadened, and the events space where the county has developed strong programmes for arts and culture.

Culture also extends to supporting new and existing cultures to thrive. Net inward migration has added to the diverse social fabric in Fingal, and more social cohesion can be fostered via initiatives to promote community awareness and engagement – especially amongst minorities. This overlaps with other aspects of this LECP in ultimately targeting greater inclusivity and integration.

Goal	Goal Description	Objective(s)	Outcomes	Impact
G5.1	Promote, protect, and grow the heritage of Fingal and ensure quality amenities for all.	**SCO 15:** To enhance the promotion & brand of Fingal's heritage. **SCO 16:** To improve access to key heritage assets. **SCO 17:** To preserve and protect Fingal's heritage assets.	Better branding and promotion Improved access to heritage sites	Greater profile and accessibility of Fingal's heritage assets.
G5.2	Support new and existing cultures to thrive.	**SCO 18:** To promote inclusivity by providing supports for new and existing cultures.	Stronger social cohesion	Integration and inclusivity for all cultures, new and existing.
G5.3	Champion the arts and cultural life of the county.	**SCO 19:** To enhance the promotion & brand of Fingal's arts and cultural life.	Improved reach and recognition of Fingal's arts and culture	Greater profile and accessibility of Fingal's arts and culture.

4.6 Theme 6: Safe, Accessible, Vibrant Places

Theme	Goal	Goal Description
Safe, Accessible, Vibrant Places A county of vibrant communities and places, accessible for all, where people want to live, work and socialise.	**G6.1**	Support the development of areas for a high quality of life.
	G6.2	Promote safety in the community through collaboration and inclusivity.

Safe, Accessible, Vibrant Places: Priority Areas

Further developing Fingal as an attractive place to live, work, invest and visit is an important consideration in terms of economic and community development. Place and place-making are key topics in this regard, and this extends to:

- Defining what the Fingal 'proposition' is for visitors and investors, providing a swift summary of what Fingal represents;
- Strengthening the 'sense of place' and 'identity' in the county;
- Differentiating the county from other Local Authority areas (especially on the Dublin Belfast Economic Corridor); and
- Simultaneously rowing in with other Local Authorities in the region to promote Dublin.

Providing greater connectivity and infrastructure (including transport options) is important from both economic and social standpoints. This includes – but is not limited to – making broadband available for all, improving roads, investing in transport options (including active transport/greenways), and upgrading the public realm in towns, villages, coastal and rural areas of the county.

This also encompasses revitalising economic activity in Fingal – from stimulating agri-food and tourism, to targeting Town Centre First policies and improving the prospects of towns.

Safety is an important theme for Fingal residents and is also reflected in the objectives, outcomes and impacts outlined below. This relates to retaining high levels of safety in all areas, mainly in collaboration with An Garda Síochána. It also extends to engagement on safety and inclusion with all cohorts of Fingal's community, especially young people and minorities.

Goal	Goal Description	Objective(s)	Outcomes	Impact
G6.1	Support the development of areas for a high quality of life.	**SEDO 9:** To revitalise the centres of key towns and villages. **SEDO 10:** To support enhancements to transport and infrastructure.	High quality urban/town/village centres Greater economic activity and opportunity	Better economic opportunities for businesses and higher quality of life for local residents.
G6.2	Promote safety in the community through collaboration and inclusivity.	**SCO 20:** To develop areas which are safe for all. **SCO 21:** To develop and implement measures to reduce anti-social behaviour.	Safer urban and rural areas Broader engagement with all cohorts, especially young people and minorities	Low levels of crime.



Appendices

Appendix 1

Socio-Economic Profile

Fingal County spans over 450 square kilometres – from the Meath boundary in the north and west, stretching south to the Dublin City boundary, and to the Irish Sea in the east. The area is characterised by a diverse landscape of rural, urban and suburban dimensions – extending inland to Blanchardstown in the west, and including 88 kilometres of coastline from Howth to Balbriggan.

Fingal has a strong infrastructure network – including Dublin Airport, harbours, rail and road linkages with both Dublin Port and Dublin City in close proximity. Fingal also sits along the Dublin-Belfast Economic Corridor which, alongside Dublin Airport, represents a significant economic asset and opportunity for the county.

Following the amalgamation of the Institute of Technology Blanchardstown with Dublin Institute of Technology (DIT) and Institute of Technology Tallaght, Fingal is now home to a campus of Technology University Dublin (TUD). In 2022, a planned €50 million third level institution was announced for Swords, thus positioning the county as a future educational hub for its young and growing population.

As demonstrated in this profile, the population of Fingal reached 330,506 in 2022, making it the third largest local authority area in Ireland. The county's population is characterised by its diversity and youthfulness relative to other local authority areas across the country.

Figure 1: Map of Fingal Electoral Divisions



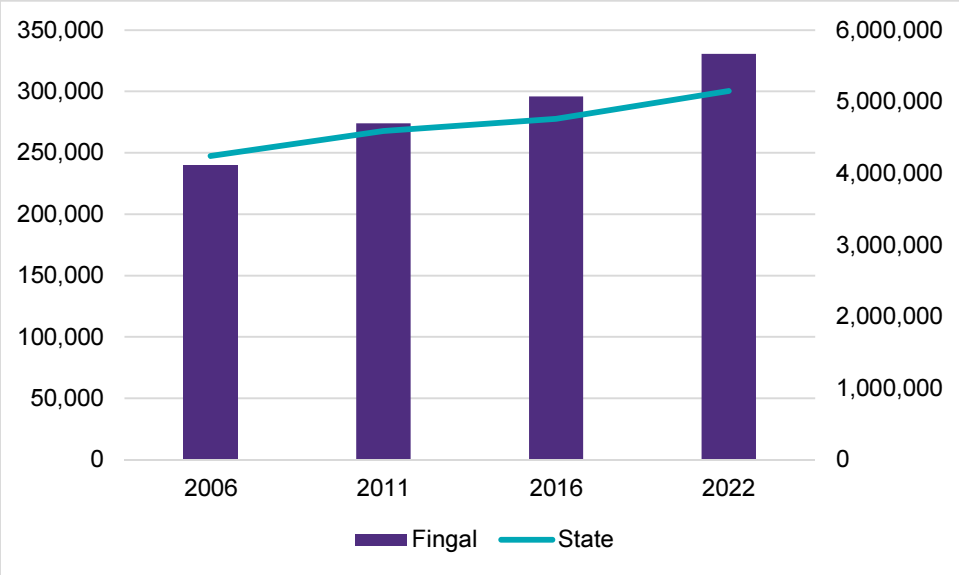
Source: Fingal County Council

Population

According to the 2022 Census, Ireland's population reached 5,149,139 in April 2022 – representing growth of 8.1% from the previous Census in 2016. Fingal's population stood at 330,506 at the time, an increase from 2016 of 11.6%, or just over 34,000 people. The county hence accounts for 6.4% of Ireland's population, with only Dublin City and Cork City and County accounting for greater proportions. Fingal's population is expected to continue to grow with the *Fingal Development Plan*

2023 – 2029 forecasting that the county's population will increase by approximately 73,000 people between 2016 and 2031.

Figure 2: Population Growth, Fingal County and Ireland, 2006 - 2022



Source: CSO.

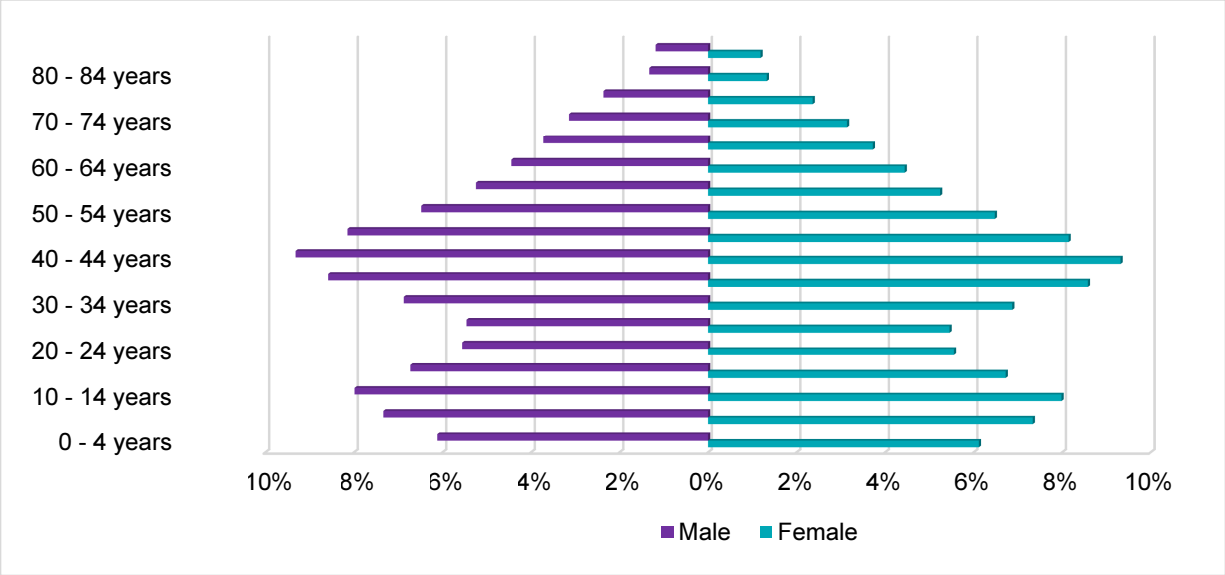
Between 2016 and 2022, Fingal was the third fastest growing county in Ireland, with only Longford (+14.4%) and Meath (+13.2%) growing at faster paces. Between 2006 and 2022, Fingal's population grew by more than a third (+37.7%), the fastest of any county in Ireland. This compares to growth of 21.4% nationally.

Blanchardstown-Blakestown was the largest ED in 2022 with a population of 43,905. Castleknock-Knockmaroon was the second largest ED with a population of 20,967, followed by Balbriggan Rural at 19,347. The smallest EDs were Balscadden and Clonmethan with populations of 743 and 933 respectively.

Based on 2022 Census findings, the fastest growing EDs within Fingal were Hollywood where the population increased by 92.7% from 766 people in 2016 to 1,476 people in 2022, and Balgriffin, where the population grew by 78.1% over the six year period (from 3,113 to 5,144 people). The largest towns in Fingal were Blanchardstown, Swords and Balbriggan with populations of 79,769, 40,776 and 24,322 respectively.

In Ireland, the average age of the population increased from 37.4 years in 2016 to 38.8 years in 2022. Fingal had the youngest average age of any county in 2022 at 36.2 years, with some 63% of its population below the age of 44, compared to 58.3% nationally.

Figure 3: Percentage of Population by Age and Sex in Fingal, 2022



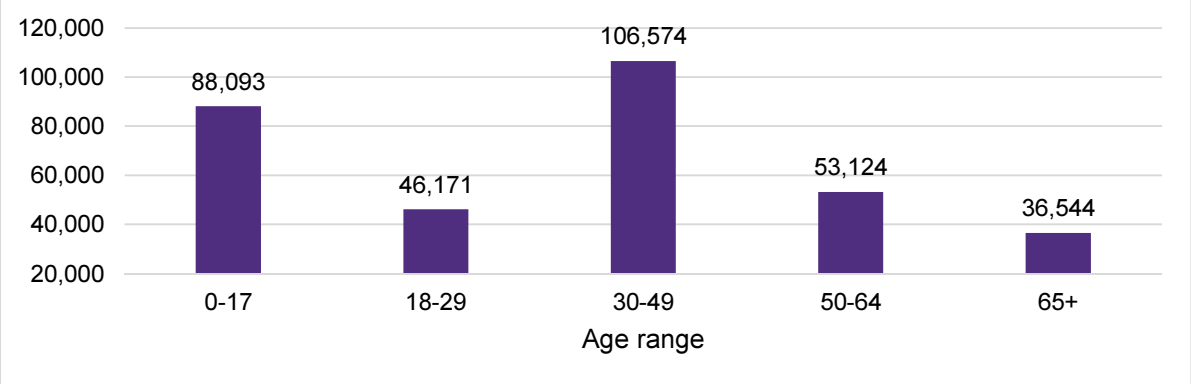
Source: CSO.

Further breakdowns show that 26.7% of the Fingal population was under 18 years of age in 2022, while 134,264 people (40.6%) were under 30. This compares to 28.3% of the population under 18 years old and 42.2% under 30 years old in 2016. The proportion of under 30s in Fingal was higher than at the national level, where 38% of the population was under 30. The number of people under the age of 30 increased by 7.5% from 124,960 people in 2016.

Other notable aspects of the 2022 Census with regards to the age profile of the Fingal population included:

- The number of persons aged 18 years or over was 242,413, of which 36,544 people were aged 65 and over.
- The population of pre-school age (0-4) was 21,017, of primary school going age (5-12) was 42,248, and of secondary school going age (13-18) was 29,301.

Figure 4: Population of Fingal by Age Group, 2022



Source: CSO.

At 50.3% in 2022, Fingal had a lower than average age dependency rate (the proportion of the population under 15 years of age or over 64 years of age relative to the total population). The rate had dropped slightly compared to 2016, and was favourable compared to the 2022 national average (53.2%).

Table 1: Fingal and State Age Dependency Rates, 2016-2022

		Age 15-64	Age Under 15 and 65+	Age Dependency Rate
Fingal	**2016**	196,372	99,648	**50.7%**
	2022	327,584	165,454	**50.5%**
State	**2016**	3,117,746	1,644,119	**52.7%**
	2022	3,360,537	1,788,602	**53.2%**

Source: CSO.

Population changes by county show that Fingal had the largest natural increase in the inter-censal period (+19,183), followed by Cork (county and city combined, +17,218). At 11 people per 1,000 of the population, Fingal recorded the highest annual average natural increase (the difference between births and deaths) in Ireland between 2016 and 2022.

At ED level, Portmarnock North had the highest age dependency rate at 101% with 2,033 people falling into a dependant age category (those aged between 0-14 and 65+) and 2,015 people falling into the non-dependant category (those aged 15-64), equating to near-parity of dependants and non-dependants in the ED. Blanchardstown-Roselawn (94.5%), Sutton (76.1%) and Howth (74.2%) also had high dependency rates. At the other end of the scale, Turnapin and Airport both had exceptionally low age dependency rates of 35.8% and 35.9% respectively.

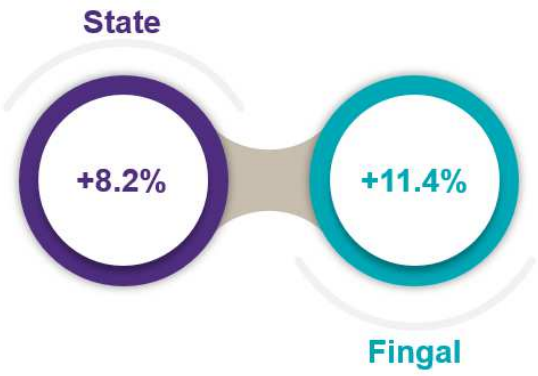
Of the 42 EDs in Fingal, 17 had an age dependency rate lower than 50%. At ED level, based on the 2022 Census, Balgriffin had the lowest average age in the county at 29.9, followed by The Ward, with an average age of 30.2. At the other end of the scale, Blanchardstown-Roselawn had the highest average age at 47.8. The EDs of Portmarnock and Howth also had relatively high age profiles with over a quarter of the populations in both areas aged over 65. Average ages in the EDs stood at 45.7 and 45.3 years respectively. Notably, of the towns with a population of 10,000 or more nationally, Balbriggan was the youngest, with an average age of 33.6 years.

Of the 42 EDs in Fingal, only seven had populations in which more than 20% were aged 65 and over. In 15 of Fingal's EDs, less than 10% of the population fell into the category – thus underlying the youthful profile of the county.

Housing and Households

According to the 2022 Census, the number of private households in Fingal stood at 107,846, an increase of 11.4% from 2016. Growth was higher than the national average rate over the period (+8.2%).

Figure 5: Increase in Number of Private Households in Fingal and the State, 2016-2022

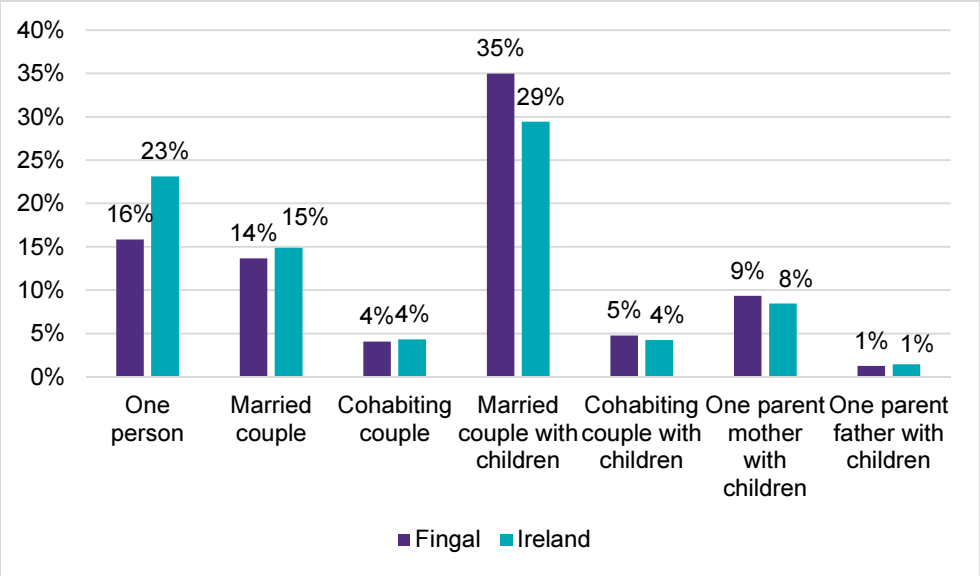


Source: CSO.

Of the private households in Fingal, 17,099 (15.9%) were single person households, compared to 15,257 in 2016. Such households account for a larger proportion of all households nationally, at

23.1%. Married couples with children accounted for the largest proportion of households (35%) in Fingal – considerably higher than the national average of 29.4%. A further 13.7% consisted of married couples with no children, marginally below the national equivalent (14.9%).

Figure 6: Breakdown of Private Households in Fingal and Ireland, 2022



Source: CSO.

Average household size in Fingal in 2022 was 3.02 persons. This was stable in the period from 2016, having increased from 2.9 in 2011. By comparison, Dublin City had an average household size of 2.48 in 2022, while the national average was 2.74. In general, higher average sizes were recorded in the east of the country with lower sizes in the west.

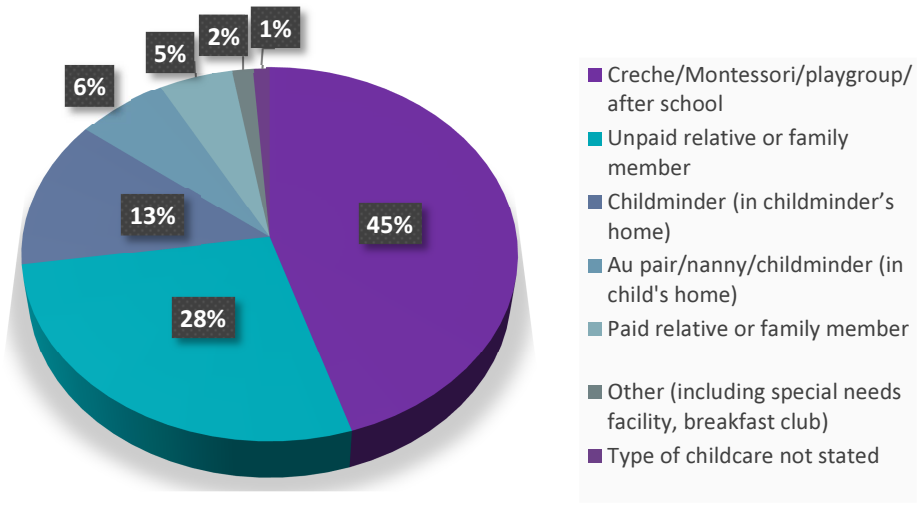
Fingal had the lowest percentage of people aged 65 and over living alone in Ireland in 2022, at only 5.3%, compared to the national average of 8.4%.

The average number of children per family in Fingal in 2022 was 1.4, which was slightly higher than the state average of 1.3.

In 2022, the proportion of the population aged 18 years and over living with their parents in Fingal was 14.1%, an increase of 1 percentage point from 2016. At the national level, 13.3% of the population aged 18 years and over lived with their parents.

There was a total of 21,911 children under the age of 15 in childcare in Fingal in 2022. Almost half (45.2%) were minded in a creche/Montessori/playgroup/after school setting. At the national level, such settings were also the most common, accounting for 42.2% of children under the age of 15 in childcare. A further 27.6% of children in Fingal were cared for by an unpaid relative or family member and 12.9% were minded by a childminder (in the childminder's home). The equivalent rates nationally were 27.8% and 15.9% respectively.

Figure 7: Breakdown of Childcare Provision in Fingal, 2022



Source: CSO.

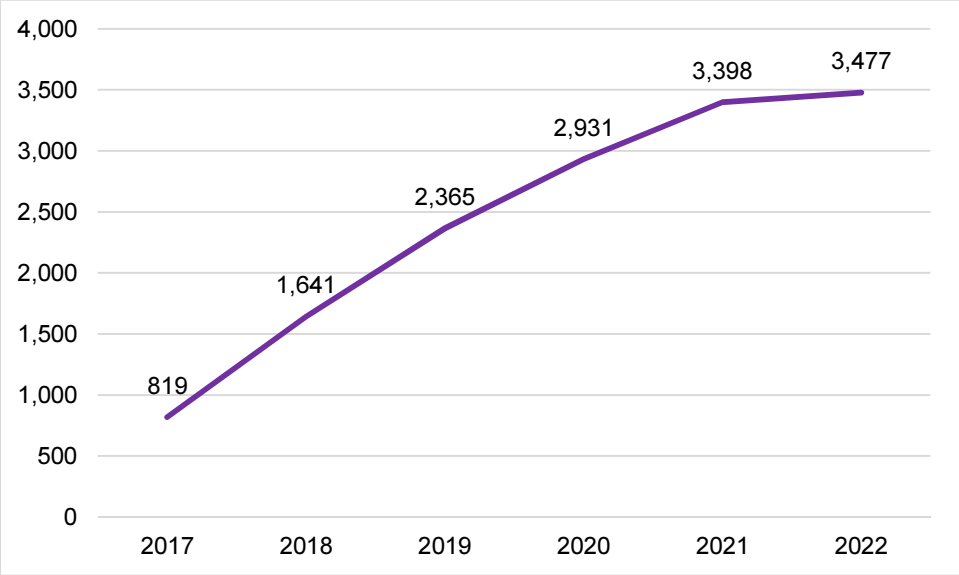
With regards to housing, there were 116,135 residential units in Fingal in 2022. This represented 5.5% of the total Irish housing stock, with only Dublin City having a higher proportion (11.8%). Of Fingal's housing stock, 4,974 dwellings (4.3%) were vacant – considerably lower than the national average (7.7%). A further 434 dwellings (0.3%) were classed as unoccupied. It should be noted that other sources of vacancy data are available. For instance, GeoDirectory produces residential vacancy rates by county[2], and has indicated that as of Q2 2023 the overall Dublin residential vacancy rate was considerably lower at 1%. This further underlines the challenges facing the Capital's housing stock.

Census 2022 data for EDs highlighted Blanchardstown-Tyrrelstown (9%) and Swords Village (8.2%) as having the highest proportions of vacant dwellings.

In 2022, the number of housing association properties in Fingal had grown by 325% since 2017, rising from 819 to 3,477.

[2] https://www.geodirectory.ie/knowledge-centre/reports-blogs/geodirectory-residential-buildings-report-q4-2022

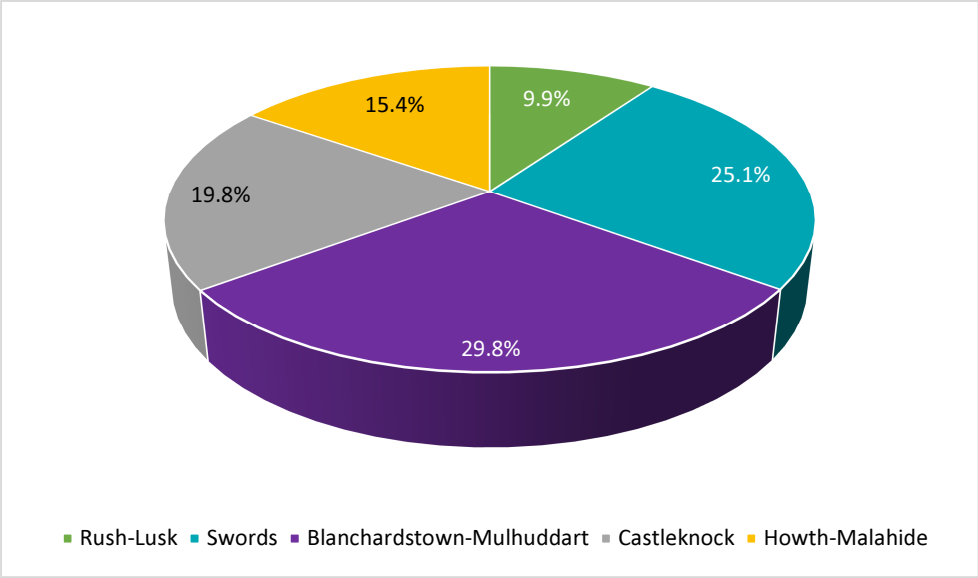
Figure 8: Number of Housing Association Properties in Fingal, 2017 – 2022



Source: CSO.

At Electoral Area level, Blanchardstown-Mulhuddart had the largest proportion of housing association properties (29.8%) in 2022, with 1,035 properties located in the area. Swords accounted for 25.1% (874 properties).

Figure 9: Percentage of Housing Association Properties in Fingal by Local Electoral Area, 2022



Source: CSO.

In 2022, 67% of households in Fingal lived in owner-occupied accommodation, with a further 28.1% in rental properties. These broadly matched the respective national rates of 65.9% and 28%. The number of households which owned their own home in Fingal had declined, however, falling from 67.6% in 2016 and 70.2% in 2011. In contrast, the proportion of households in rental properties remained broadly stable relative to 27.6% in 2011 and 28% in 2016. Despite this, rental rates for properties had increased by almost a quarter (24.8%) compared to 2016.

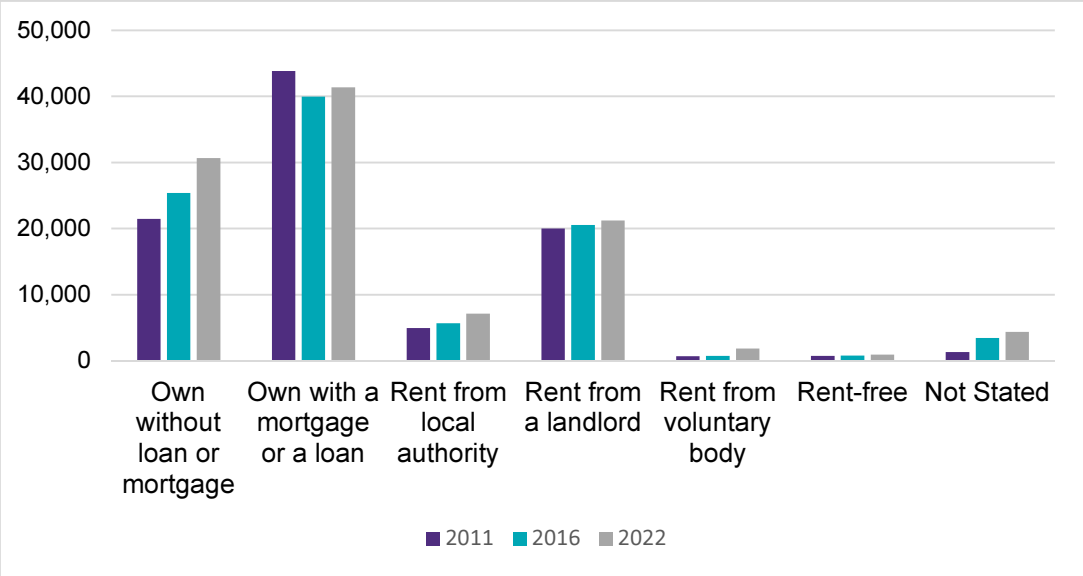
The number of households living in properties owned with a mortgage/loan increased from 39,986 in 2016 to 41,377 in 2022, reflecting a 3.5% increase. However, households owned with a mortgage/loan as a proportion of total households fell from 41% in 2016 to 38% in 2022.

The number of houses rented from the local authority increased by 25.2% between 2016 and 2022, while nationally the number increased by 7%.

Those owning their own home outright and households which were rent free in Fingal increased by 20.9% and 21.7% respectively.

The 2022 Census further indicated that 82.7% of private households in permanent housing units in Fingal lived in houses, with the balance of 17.3% living in apartments, flats or bedsits.

Figure 10: Breakdown of Housing Tenure in Fingal, 2011-2022

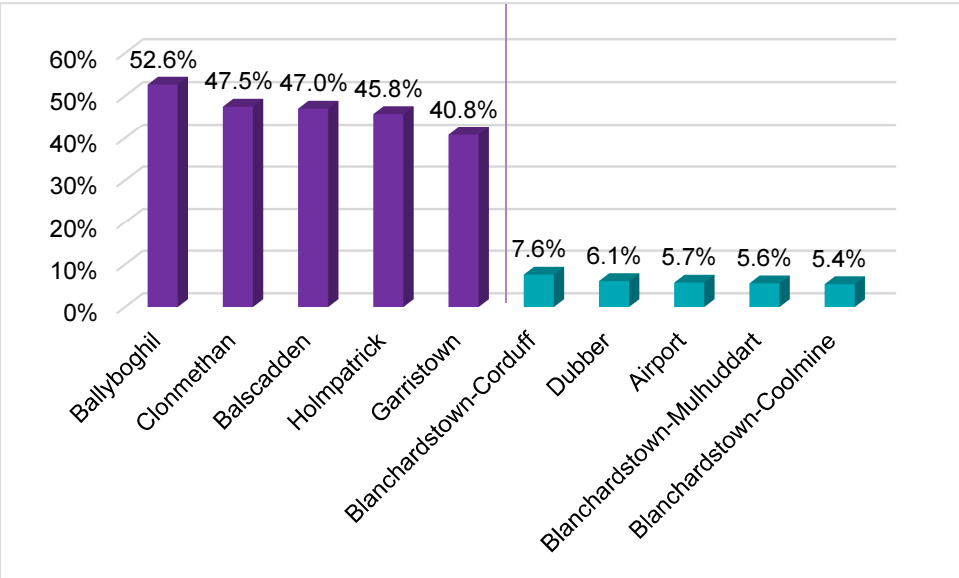


Source: CSO.

The number of people living in apartments has been increasing at a faster rate than the number living in houses. In the 11 years between 2011 and 2022, the number of people living in apartments in Fingal increased by 20.3%, compared to a 17.5% increase in the number of people living in houses in the same period.

Regarding energy, 17.3% of houses in the county had at least one renewable energy source of any type in 2022, compared to 22.9% at the national level. At ED level, houses in Ballyboghil had the largest proportion of renewable energy sources, with 52.6% of houses having at least one renewable energy source. At the lower end of the scale, less than 6% of houses in Blanchardstown-Coolmine (5.4%), Blanchardstown-Mulhuddart (5.6%) and Airport (5.7%) had at least one such source.

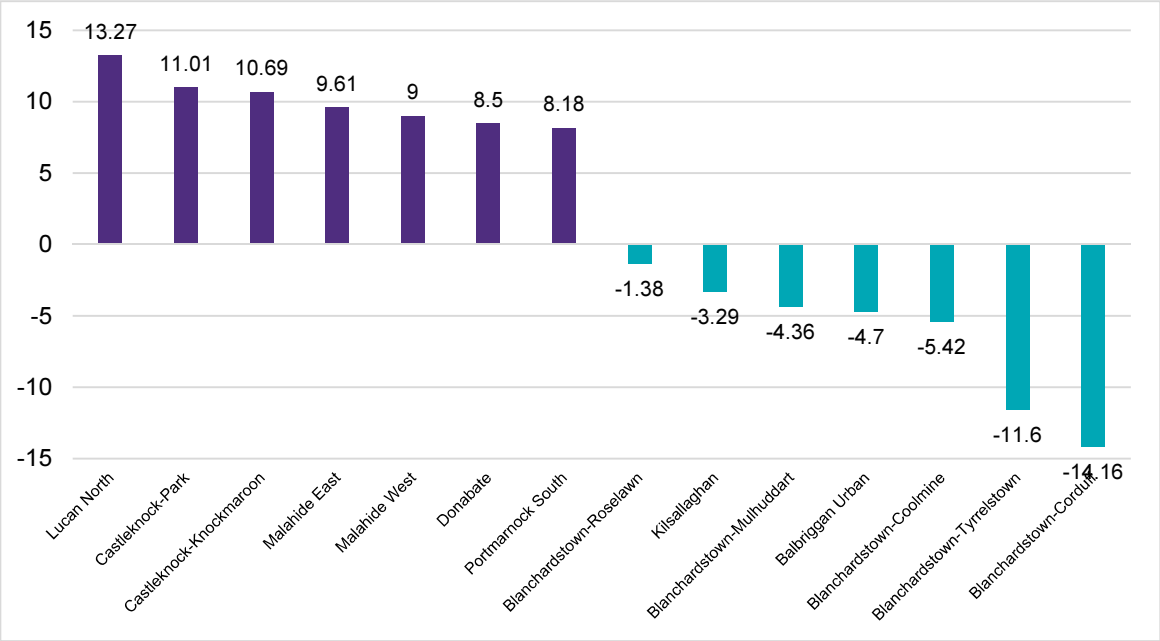
Figure 11: Houses with at least one renewable energy source in Fingal, 2022



Source: CSO.

Affluence and Deprivation

Figure 11: Relative HP Index Scores of Fingal EDs, 2022



Source: Pobal HP Deprivation Index.

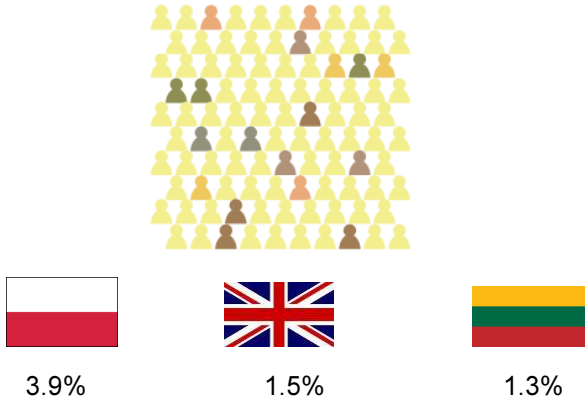
Fingal is one of the most affluent[3] local authority areas in Ireland per the Pobal HP Deprivation Index, though there were considerable differences in the relative affluence and deprivation between various parts of the county in 2022. Of the total of 42 EDs in Fingal, 32 were classed as 'above average' or 'affluent' in 2022. Lucan North, Castleknock-Park and Castleknock-Knockmaroon were classed as 'affluent' with scores above 10. A further 29 EDs were classed as 'marginally above average' with scores of between 0 and 10. A total of eight Fingal EDs were classed as marginally below average with scores of between -0.01 and -6. The most disadvantaged areas were more urban areas of Blanchardstown-Corduff and Blanchardstown-Tyrrelstown with scores below of -10.

Ethnicity and Education

Fingal is ethnically diverse with non-Irish nationals accounting for 18% of the population in 2016 (latest available data). Polish nationals were the largest grouping, accounting for 3.9% of the population (11,405 people). UK nationals made up 1.5% (4,469) with Lithuanian nationals accounting for a marginally smaller proportion (3,815).

The Pobal HP Deprivation Index is a series of indicators measuring the relative affluence or disadvantage of a particular geographical area in Ireland, using data compiled from various censuses. Relative scores are based on an average of 0. Scores above 0 indicate levels of affluence and scores below 0 indicate levels of deprivation. While the index provides a guide, there are some areas of weakness to this indicator. The index doesn't highlight that there may be areas of deprivation within affluent areas, or vice versa, and therefore the overall outcomes may be misleading for some ED's.

Figure 12: Ethnicity in Fingal, 2016

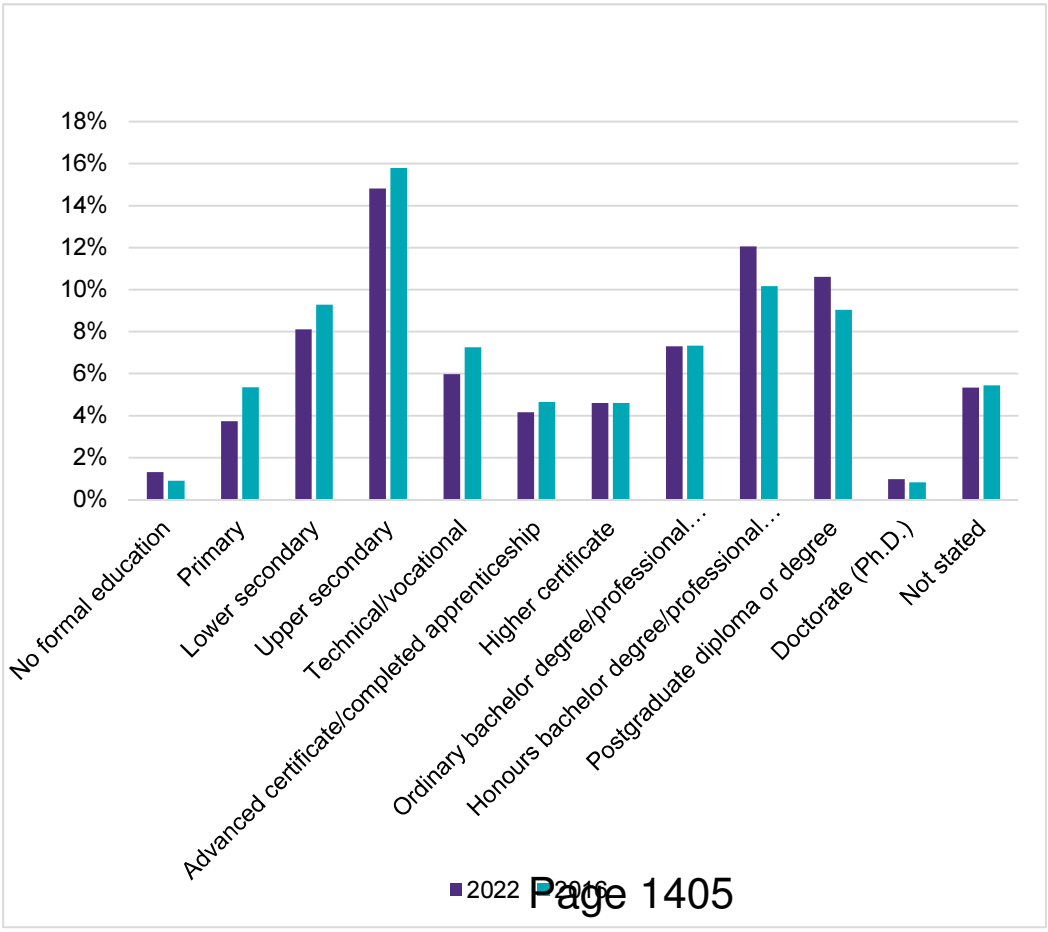


Source: CSO

According to the 2016 Census, 100,989 persons could speak the Irish language – and of those, 40,975 spoke the language daily. 66,625 persons spoke a language other than Irish or English at home, and of those 9,081 could not speak English well or at all. Polish was the most common foreign language with 12,730 speakers in the county.

This diversity is further reflected in the birthplaces of Fingal residents. Over 27% of residents in the county in 2022 were born outside of Ireland. This was considerably higher than the national average of 20.7%. At ED level, the areas around the Airport were the most ethnically diverse according to the Census, with over half (51.2%) of the population born outside the state. Some 45.3% of the population in Balgriffin was born outside of Ireland, with 43.7% of residents in the Ward in this category. The least diverse ED was Balscadden with 8.3% of the population born outside the country, followed by Hollywood (9.6%).

Figure 13: Level of Education as a Percentage of Total Persons Educated in Fingal, 2016-2022



Source: CSO.

The levels of educational attainment in Fingal and across Ireland have been improving over recent years. According to the 2022 Census, 256,458 persons in Fingal had completed their education. Of this total, 3.7% were educated to primary level only, compared to 5.4% in 2016 and 6.5% in 2011.

Some 26.7% of Fingal's population were educated to primary/secondary level, with this standing below the state average (31.7%), thus highlighting Fingal's relatively high educational attainment levels.

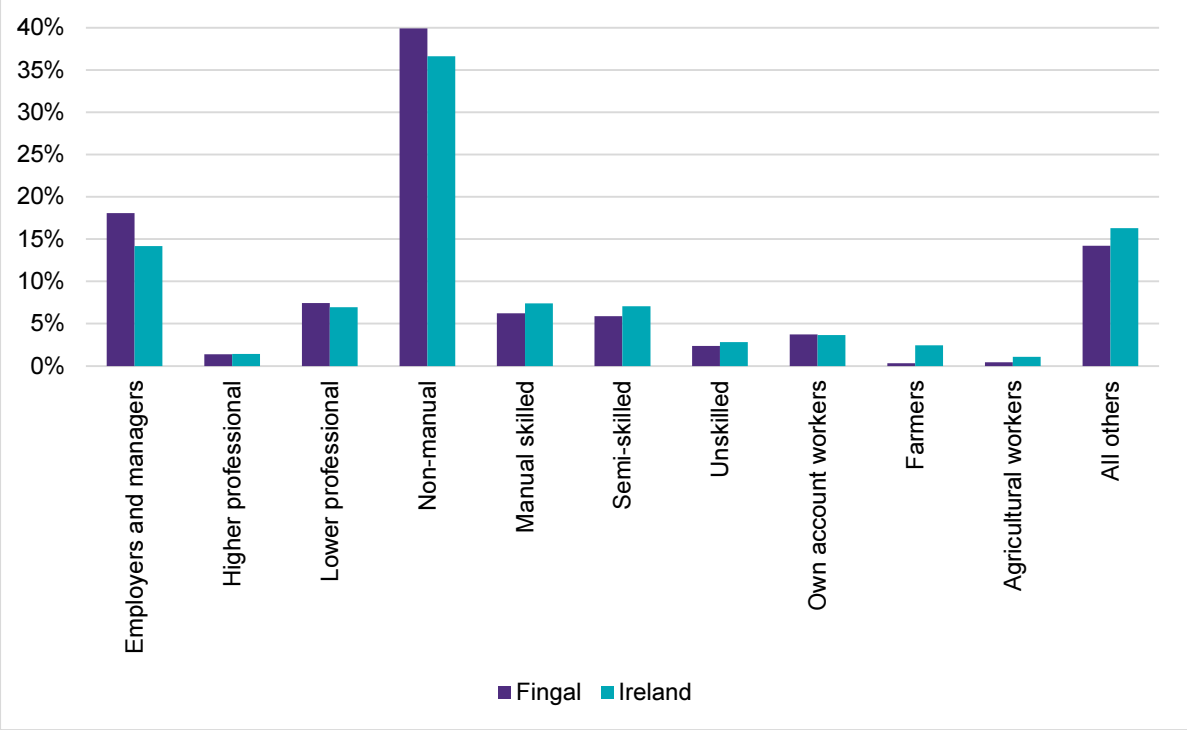
Of those educated to degree level and further in Fingal, 31% had a degree – compared to 28% nationally.

When compared to 2016, the number of people educated further than degree level had increased by over a third in Fingal. Those with an honours bachelor degree, postgraduate degree or doctorate increased by 36.1%, 34.8% and 36.3% respectively from 2016. The number of people educated to ordinary degree level increased by 14.3% in the same period.

Socio-Economic Classes

In Fingal, 27% of the population were within the socio-economic group of 'professional workers' in 2022 (employers, higher professional and lower professional). This was amongst the highest in the country with only Dún Laoghaire-Rathdown and Kildare featuring higher proportions of such workers. Nationally, 22.6% of the population were professional workers.

Figure 14: Fingal & Irish Socio-Economic Groups by Percentage of Total, 2022



Source: CSO.

Non-manual workers made up 40% of Fingal's workforce. This is the largest proportion of non-manual workers in Ireland. Nationally, non-manual workers accounted for 36.6%.

Employers and managers accounted for 18.1% of Fingal's socio-economic breakdown, highlighting the county's entrepreneurial status. Only Cork County and Dublin City had more persons in this category.

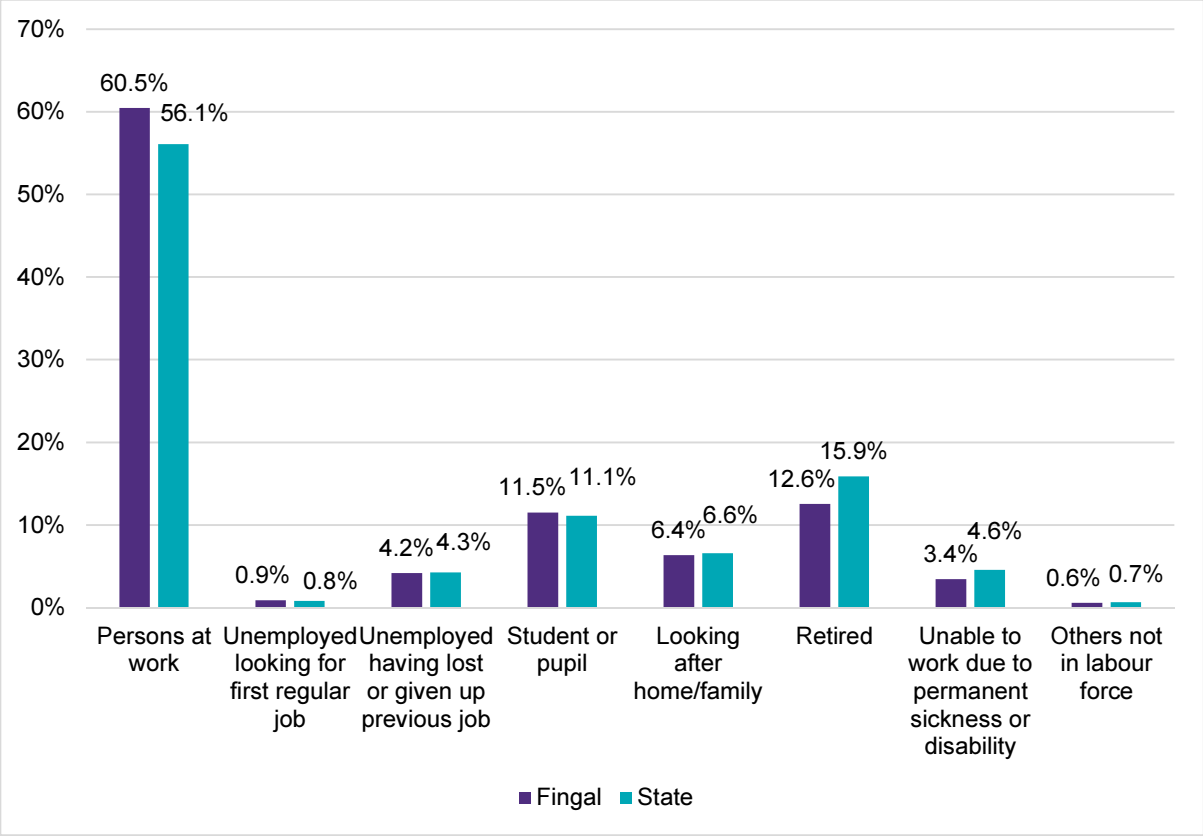
Latest data available for EDs (2016) shows that Castleknock-Knockmaroon, Blanchardstown-Blakestown and Howth combined accounted for 27% of professional workers in Fingal. Areas in north and west Fingal had lower proportions of professional workers, with Blanchardstown-Tyrrelstown, Blanchardstown-Corduff and Balscadden combined accounting for only 0.7% of professional workers.

Non-manual workers are spread across the county with 14% located in Blanchardstown-Blakestown and a further 6.3% located in Swords-Forrest. Blanchardstown-Blakestown also makes up the largest proportion of skilled manual workers, accounting for 16.1%, followed by Balbriggan Rural and Swords-Forrest, which each accounted for 6.1%.

Labour Force

In 2022, Fingal had a working-age population (those aged 15 and over) of 256,458. Of these, 60.5% or 155,063 were in employment, which compares favourably to the national average of 56.1%. Fingal had the highest proportion of residents in employment in Ireland, with Dublin City ranking second at 59.6%. This is a reflection of the strengthening labour market across the Capital and nationally, where unemployment has fallen to historic lows.

Figure 15: Fingal Labour Force Breakdown, 2022

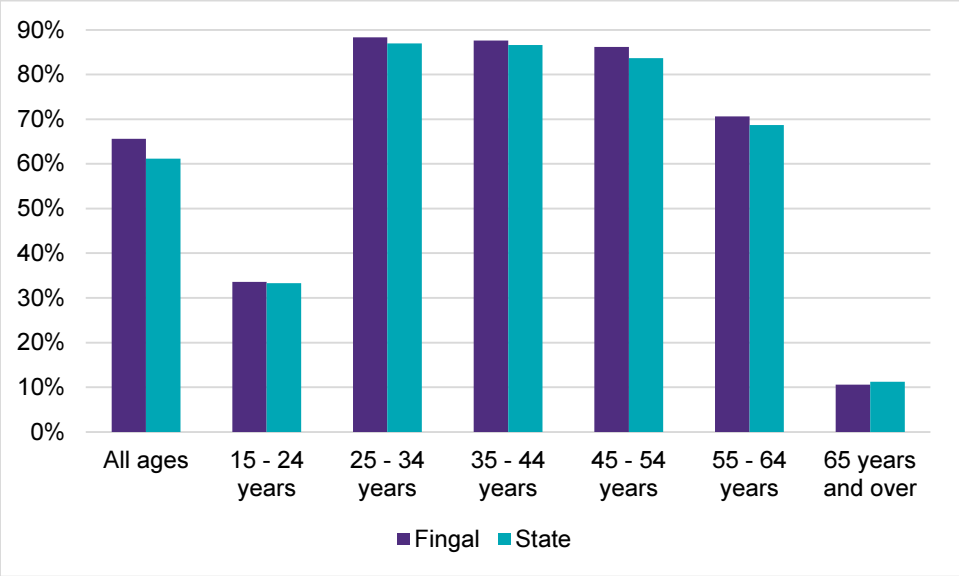


Source: CSO.

The number of people in employment in Fingal has changed dramatically over the years from the 2011 Census, with the number at work having grown by 30%. This was marginally stronger than the national average (28.4%).

Fingal had the strongest labour force participation rate in Ireland at 65.6% in 2022, considerably higher than the national average of 61.2%. When examining labour market participation across age groups, it is evident that those aged 25 to 34 years had the highest level of engagement, with 88.3% of this cohort being in the labour force. Such high levels of participation potentially reflect the greater opportunities and access to employment in the Dublin region, as well as the current labour market interventions being employed – including the *Pathways to Work 2021-2025* strategy.

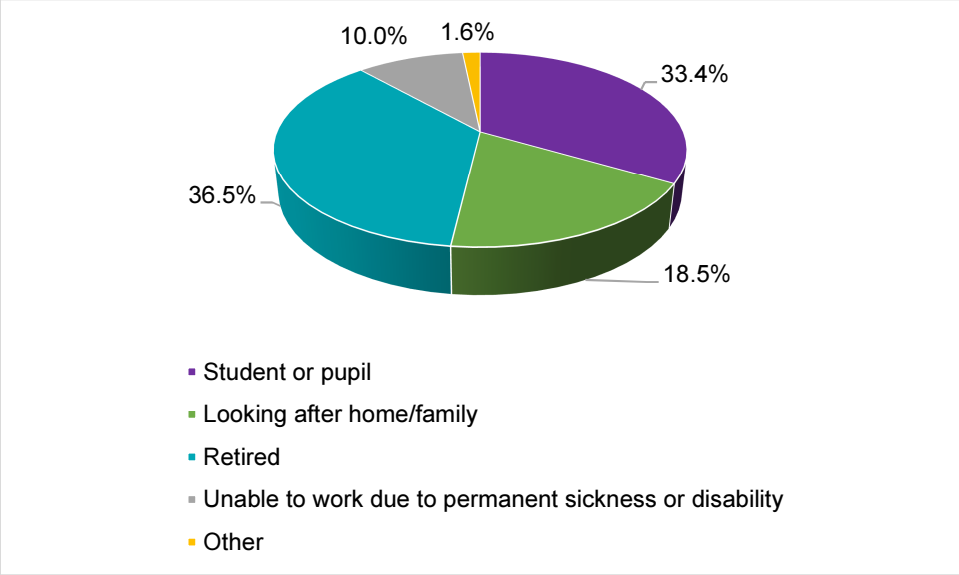
Figure 16: Labour Force Participation, 2022



Source: CSO.

Of the 88,345 persons aged 15 years and over who were outside the labour force in 2022, 36.5% were retired, 33.4% were students and almost 18.5% were looking after the home/ family.

Figure 17: Breakdown of Persons Outside the Labour Force, 2022



Source: CSO.

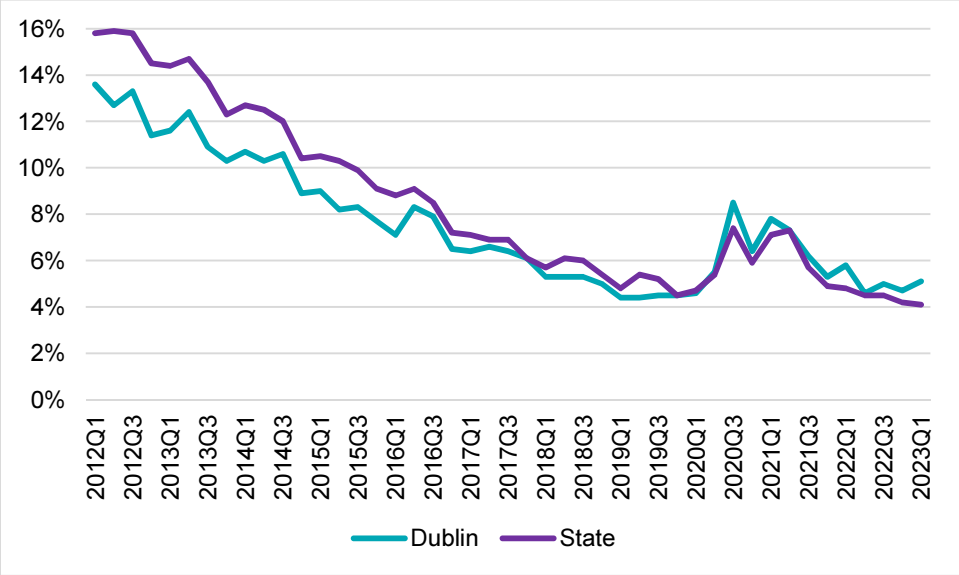
Unemployment

The unemployment rate in Fingal equalled the national average of 5.1% in 2022, having declined from 7.9% in 2016.

The female unemployment was slightly below the male rate, with 4.8% of females classed as unemployed, compared to 5.4% of males.

Recent data from the CSO's Labour Force Survey showed that across Dublin – which includes the Fingal, Dublin City, Dún Laoghaire–Rathdown and South Dublin local authority areas – 41,800 people (SA) were unemployed inQ2 2023. This equated to an unemployment rate of 5% (SA).

Figure 18: Dublin and State Unemployment Rates, Q1 2012 – Q1 2023



Source: CSO

Volunteering

According to the 2022 Census, Fingal had one of the lowest rates of volunteerism in Ireland with 12.6% of the county's population involved in one or more voluntary activity. As shown in Table 2, this

compared favourably to Dublin City (10.8%) and South Dublin (11%), but was below the national average of 13.8% – and Leitrim, which had the highest rate in the country (17.5%). Fingal ranked fourth lowest in Ireland in this particular category.

Table 2: Percentage of Population Involved in Volunteering

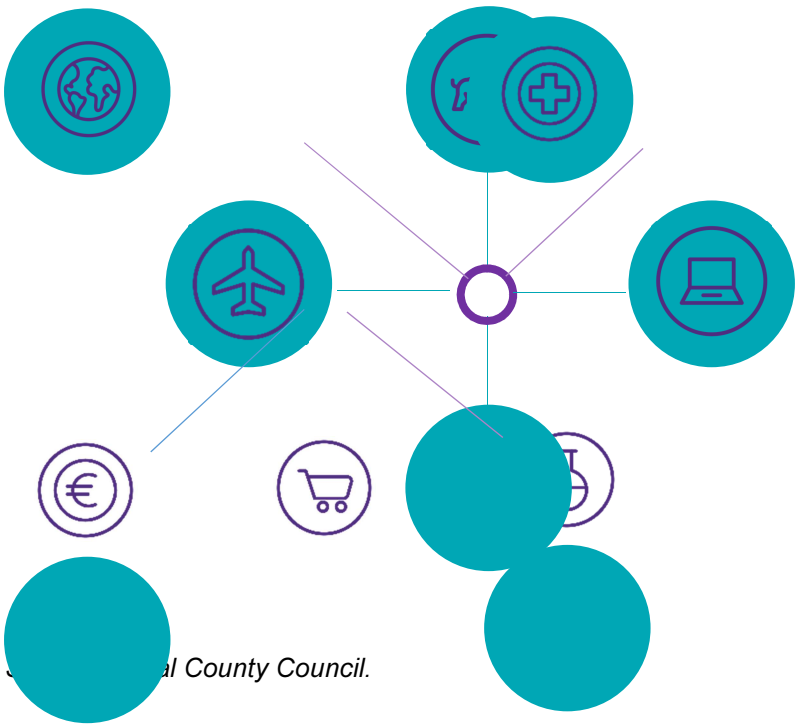
Location	Percentage of Population Involved in Volunteering
Dublin City	10.8%
Dún Laoghaire-Rathdown	14.6%
Fingal	12.6%
South Dublin	11.0%
National	**13.8%**

Source: CSO.

Enterprise Base

Fingal, supported by a strong supply of zoned land, is home to a number of key economic clusters. This incorporates the agri-food and beverage sector, where Fingal produces 14.5% of national potato output, 47% of field vegetable output and 37% of protected fruits, vegetables and nursery plants – making it one of the most important Irish counties for food production.[4] Further key sectors include Information and Communication Technology (ICT), aviation, healthcare, pharmaceuticals, financial services, tourism, retail and hospitality – each of which makes significant contributions towards economic activity and employment in the Dublin region each year.

Figure 19: Key Sectors in Fingal



Source: Fingal County Council.

[4] https://www.farmersjournal.ie/news/news/seven-food-firms-feature-in-dcu-report-on-fingal-family-businesses-209188

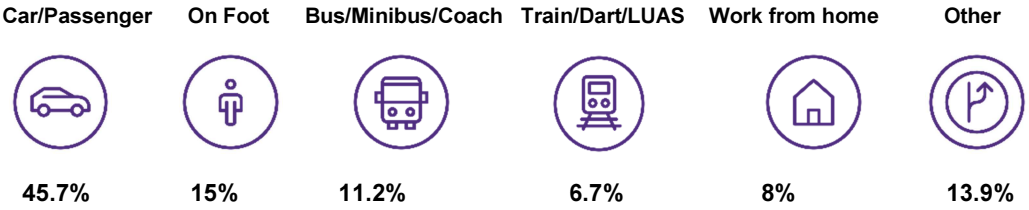
Clustering has been a key concept in Fingal with many successful informal clusters already in place including the ICT sector in Blanchardstown, the Pharmaceutical sector in both the Swords area and in Blanchardstown/ Mulhuddart, the Aviation sector in proximity to Dublin Airport, and the Agri-Food sector in rural locations principally in the north of the county.

Further clustering is evident in the Dublin Enterprise Zone which consists of 1,571 hectares of industrial land in the Dublin 15 area. The zone supports 34,600 jobs and contributes €14.4 billion to national economic output each year (Ireland Gateway to Europe[5]). It is home to many large IT companies including IBM, PayPal, eBay and Symantec. World-leading pharmaceutical companies are also located in the Zone including Helsinn-Birex, Mallinckrodt, Bristol-Myers Squibb, the Tech Group and Alexion Pharma. There is, according to Ireland Gateway to Europe, potential to create an additional 20,000 jobs on 716 hectares of undeveloped, zoned and serviced land which is available in the Zone.

The *Fingal Development Plan 2023 – 2029* outlines policies and objectives to encourage existing economic clusters and develop new clustering opportunities. It also contains policies and objectives which seek to attract new foreign direct investment (FDI) to the county along with other indigenous investment. FDI is a key component of Ireland's economy, with 20% of all private sector employment directly or indirectly attributable to it. (*Pinset Mason*[6]).

Commuting & Remote Working

Figure 20: Methods of Transport for Commuting in Fingal, 2022



Source: CSO.

In2022, the most common method of transport for commuting (to work and school) in Fingal was by car, accounting for 45.7%. Public transport accounted for 17.4%, with a further 15% of commuters walking.

In 2016 (latest available), of the 182,612 commuters who resided in Fingal, 50% (91,167) worked within the county. A further 31.2% (56,998) commuted to Dublin City. Conversely, some 52,332 people who resided elsewhere in Ireland commuted into Fingal, with 43.3% coming from Dublin City.

Some 37.6% of persons at work stated that they worked from home in 2022, compared to 32.3% nationally. Only Dublin City and Dún Laoghaire-Rathdown had higher proportions of people working from home.

Connectivity

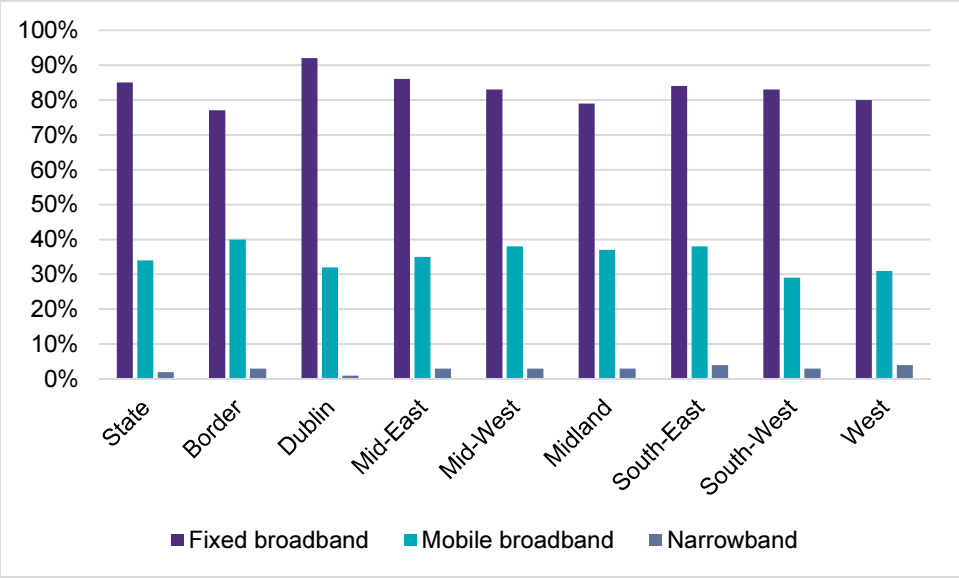
[5] https://www.gatewaytoeurope.org/dublin-enterprise-zone#:~:text=The%20Dublin%20Enterprise%20Zone%20(DEZ,billion%20to%20national%20economic%20output.

[6] https://www.pinsentmasons.com/out-law/guides/irelands-foreign-investment-regime#:~:text=Foreign%20direct%20investment%20(FDI)%20is,or%20indirectly%20attributable%20to%20it.

Ireland's internet connectivity in 2022 stood at 94% coverage, an increase of one percentage point from 2021. Dublin (97%) and the Mid-East region (95%) held the highest levels of internet access in the year.

Fixed broadband connection was the most common, accounting for 85% of household internet in Ireland. Households in Dublin and the Mid-East continue to outpace the rest of the country for access to fixed broadband (with 92% and 86% connectivity respectively).

Figure 21: Internet Connectivity by Type and Region, 2022



Source: CSO.

With an average download speed of just over 76Mbps in 2023, up from 72 Mbps in 2022, Ireland ranks 43rd out of 220 countries and territories globally in the Worldwide Broadband Speed League 2023.[7]

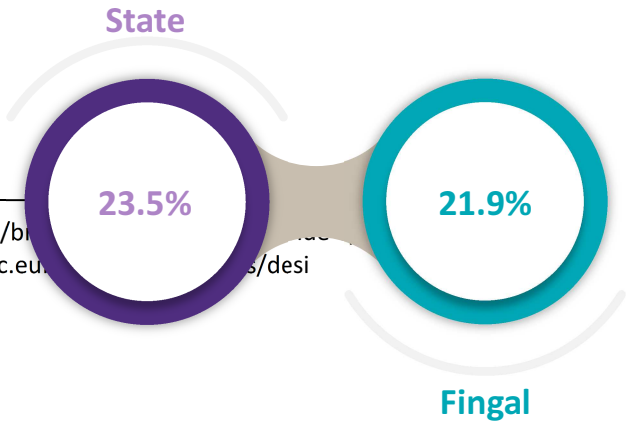
The *National Broadband Plan* aims to deliver reliable high speed broadband throughout Ireland via a combination of State and commercial investment. By the end of 2022 (latest data available), it had connected 27,600 premises to high speed broadband in Ireland and had already achieved its target of 100,000 premises by the end of January 2023.

The country ranked 5th in the *EU Digital Economy and Society Index* (DESI)[8] in 2022. The Index monitors Europe's overall digital performance and tracks the progress of EU countries in their digital competitiveness. Between 2017 and 2022, Ireland's average yearly growth of its DESI score was approximately 8.5%, one of the highest in the EU.

Lone Parents

The proportion of Lone Parents (as a proportion of all households with dependent children) in Ireland has remained steady at between 23% and 24% in each of the last three Censuses (2011, 2016 and 2022). Fingal's proportion of Lone Parents is slightly lower than the national rate at 21.9% in 2022.

Figure 22: Proportion of Lone Parents in Ireland and Fingal, 2022



[7] https://www.cable.co.uk/b
[8] https://digital-strategy.ec.eu /desi

Source: CSO

Health

In Fingal, 61,412 people were classified as having 'any disability' in the 2022 Census. Of this cohort, 28% (17,407) were aged 45 to 64 years old, representing the largest proportion of those in Fingal with a disability.

Figure 23: Age Ranges of People in Fingal with a Disability, 2022



Source: CSO

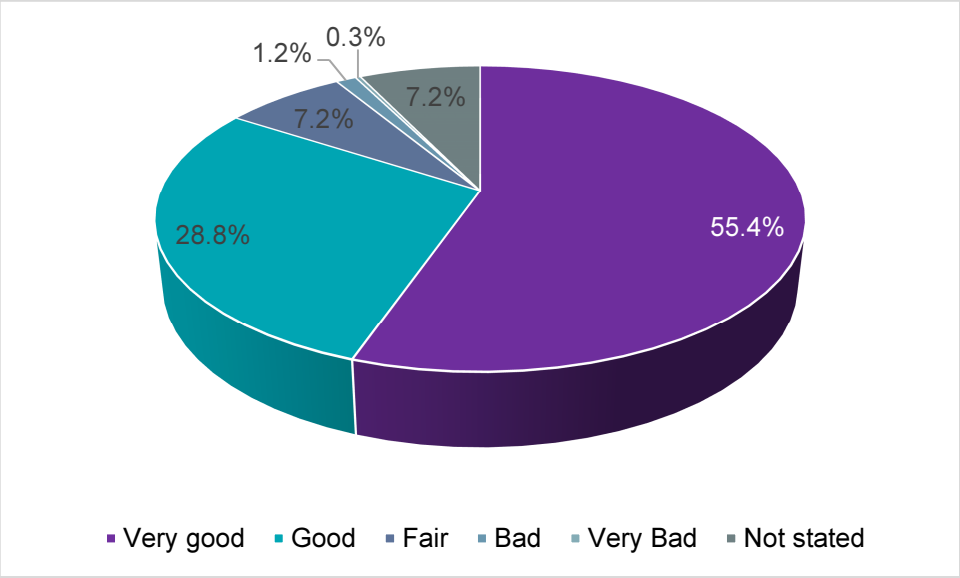
Based on 2022 Census data, Fingal's population with a disability to any extent was the lowest in Ireland, at 18.6%. The national average was 21.6%. Despite this, Fingal accounted for 6% of Ireland's population with a disability to 'any extent', ranking the fourth highest across the Local Authority areas.

In 2022, 17,112 persons in Fingal stated they were carers, of which 43.6% stated that they provide more than 14 hours of unpaid care per week.

Over 278,000 people in Fingal stated they were in 'very good' or 'good' health in 2022, representing 84.2% of total persons. This compares to 82.9% nationally. Some 4,957 persons stated they were in 'bad' or 'very bad' health, representing 1.5% of total persons in Fingal. This compares with 1.7% nationally.

The majority of Fingal residents (80.3% or 265,299 people) did not smoke at the time of the Census and had either 'given up' smoking completely or had never smoked.

Figure 24: General Health in Fingal, 2022



Source: CSO

Appendix 2

Policy Context

Both the economic and community dimensions of the Fingal LECP were constructed having regard to the policies and strategies that relate to the county. This process was followed so as to ensure that the actions proposed in this Plan would be congruent and complementary to those of other, largely governmental bodies – at the following levels:

- Supranational;
- European;
- National;
- Regional and local.

Over the following sub-sections, a selection of policies and strategies are outlined.

Supranational Policies & Strategies

UN - The 2030 Agenda for Sustainable Development

The *2030 Agenda for Sustainable Development*, adopted by all United Nations (UN) Member States in 2015, provides a shared blueprint for peace and prosperity for people and the planet, now and into the future. At its heart are 17 Sustainable Development Goals (SDGs), which are an urgent call for

action by all countries – developed and developing – in a global partnership. They recognise that ending poverty and other deprivations must go hand-in-hand with strategies that improve health and education, reduce inequality, and spur economic growth – all while tackling climate change and working to preserve our oceans and forests.

The SDGs, outlined below, build on decades of work by individual countries and the UN – and are a broad guide for the development of this LECP.

Sustainable Development Goals and targets:

- **Goal 1:** End poverty in all its forms everywhere.
- **Goal 2:** End hunger, achieve food security and improved nutrition and promote sustainable agriculture.
- **Goal 3:** Ensure healthy lives and promote well-being for all at all ages.
- **Goal 4:** Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.
- **Goal 5:** Achieve gender equality and empower all women and girls.
- **Goal 6:** Ensure availability and sustainable management of water and sanitation for all.
- **Goal 7:** Ensure access to affordable, reliable, sustainable and modern energy for all.
- **Goal 8:** Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.
- **Goal 9:** Build resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation.
- **Goal 10:** Reduce inequality within and among countries.
- **Goal 11:** Make cities and human settlements inclusive, safe, resilient and sustainable.
- **Goal 12:** Ensure sustainable consumption and production patterns.
- **Goal 13:** Take urgent action to combat climate change and its impacts.
- **Goal 14:** Conserve and sustainably use the oceans, seas and marine resources for sustainable development.
- **Goal 15:** Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, stop and reverse land degradation, and halt biodiversity loss.
- **Goal 16:** Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels.
- **Goal 17:** Strengthen the means of implementation and revitalise the Global Partnership for Sustainable Development.

European Policies & Strategies

Horizon Europe

Horizon Europe (2021-2027) is the European Union's (EU) key funding programme for research and innovation, with a budget of more than €95 billion. Ireland enjoys a strong track record in European Framework Programmes, winning €1.2 billion in funding through the previous programme, *Horizon 2020* (2014-2020). *Horizon Europe* is built around three main pillars:

1. Excellent science;
2. Global challenges and European industrial competitiveness; and
3. Innovative Europe.

There are varying aspects to each of these pillars, as highlighted below:

Pillar 1: Excellent Science
Activities under this pillar promote scientific excellence and maintain a bottom-up approach, funding a broad range of areas. Funding supports excellent basic and frontier research, reinforcing the link between research, innovation, and where appropriate, education and other policies.

- European Research Council: The ERC aims to encourage the highest quality research in Europe through competitive funding and to support investigator-driven frontier research across all fields.

- Marie Sklodowska-Curie Actions (MSCA): The MSCA is a European Commission Funding programme which supports researchers across all research disciplines and employment sectors.
- Research Infrastructures: Research infrastructures are facilities, resources and services that are used by research communities to conduct research and foster innovation in their fields.

Pillar 2: Global Challenges & European Industrial Competitiveness
This pillar promotes interdisciplinary, cross-sectoral, cross-policy, cross-border and international cooperation. Actions are clustered as follows, and are structured to contribute towards SDGs:

- Cluster 1: Health
- Cluster 2: Culture, Creativity and Inclusive Society
- Cluster 3: Civil Security for Society
- Cluster 4: Digital, Industry and Space
- Cluster 5: Climate, Energy and Mobility
- Cluster 6: Food, Bio-economy, Natural Resources, Agriculture and Environment

Pillar 3: Innovative Europe
Pillar 3 addresses innovation performance, transfer and scale-up in Europe. It aims to stimulate and support the creation and diffusion of breakthrough innovations, developing Europe to be a world leader in transferring science into innovative companies.

Five missions form an integral part of the *Horizon Europe* research programme. These research and innovation missions, outlined below, are designed to drive systemic change and transformation to 2030, and will increase the effectiveness of funding by establishing clearly defined targets.

Horizon Europe's Five Missions

Conquering Cancer: Mission Possible
The Cancer mission aims to save more than 3 million lives by 2030, with people living longer and better.

A Climate Resilient Europe
This mission is focussed on preparing Europe to deal with climate disruptions, accelerate the transition to a healthy and prosperous future within safe planetary boundaries, and scale up solutions for resilience that will trigger transformations in society.

Mission Starfish 2030: Restore our Ocean and Waters
This mission centres on healthy oceans, seas, coastal and inland waters. It will involve cleaning marine and fresh waters, restoring degraded ecosystems and habitats, and decarbonising the blue economy in order to sustainably harness the essential goods and services they provide.

100 Climate-Neutral Cities by 2030 – by and for the citizens
This mission will focus on achieving climate neutrality and the development of smart cities. The mission will support, promote and showcase 100 European cities in their systemic transformation towards climate neutrality by 2030 and turn these cities into innovation hubs.

Caring for Soil is Caring for Life
This mission targets soil health and food, with an aim to have at least 75% of all soils in the EU healthy for food, people, nature and climate. It combines research and innovation, education and training, investments and the demonstration of good practices using "Living labs" (experiments and innovation in a laboratory on the ground) and "Lighthouses" (places to showcase good practices).

European Green Deal

Climate change and environmental degradation are an existential threat to Europe and the world. To overcome these challenges, the *European Green Deal* is focussed on transforming the EU into a modern, resource-efficient and competitive economy, ensuring:

- No net emissions of greenhouse gases by 2050,
- Economic growth decoupled from resource use,
- No person and no place are left behind.

The European Commission has adopted a set of proposals to make the EU's climate, energy, transport and taxation policies fit for reducing net greenhouse gas emissions by at least 55% by 2030 (compared to 1990 levels). Delivery of the *Green Deal* will be underpinned by a target of becoming the first climate neutral continent by 2050. It will improve the well-being and health of citizens and future generations by providing:

1. Fresh air, clean water, healthy soil and biodiversity
2. Renovated, energy efficient buildings
3. Healthy and affordable food
4. More public transport
5. Cleaner energy and cutting-edge clean technological innovation
6. Longer lasting products that can be repaired, recycled and re-used
7. Future-proofed jobs, and skills training for the transition
8. Globally competitive and resilient industry.

National Policies & Strategies

Project Ireland 2040

Project Ireland 2040 is the Irish Government's overarching framework for an improved Ireland – covering social, economic and cultural development. The framework was devised on the basis that an estimated one million additional people will live in Ireland by 2040, and aims to support the associated growth of businesses and communities, alongside improved physical infrastructure. *Project Ireland 2040* is a combination of two documents; the *National Planning Framework (NPF)* and the *National Development Plan (NDP) 2021-2030.*

The NPF is a public and private investment guide, creating and promoting opportunities for local people, and protecting and enhancing Ireland's urban and rural environments. Its objectives include:

- The creation of 660,000 additional jobs (to achieve full employment) by 2040;
- Construction of 550,000 more homes;
- The growth of Dublin, Cork, Limerick, Galway and Waterford to become cities of greater scale, increasing population and jobs by 50-60%, alongside growth of key regional centres, towns, villages and rural areas – and the regeneration of rural Ireland.
- New and updated infrastructure and services to coincide with growth, helping address congestion and quality of life issues. This will include a new €1bn+ Metro line between Swords and Charlemont, connecting key destinations of Dublin Airport and the city centre.

The NDP is a 10 year strategy for public capital investment of €165 billion, supporting economic, social, environmental and cultural development across Ireland. It aims to ensure that investment strategy and spatial planning work cohesively, and covers issues including housing, health, climate action and population growth. The plan will guide initiatives and reforms to help public sector bodies effectively deliver public investment, including the development of 6,000 affordable homes each year, alongside urban regeneration and development, and the spending of €360 million annually on enhanced regional accessibility and connectivity. Further focus will be placed on strengthening the economy, including via innovation and skills.

Infrastructure development is key to the NDP. For instance, to ensure adequate waste water infrastructure is in place to support new homes and businesses for the region, including southern parts of Fingal, a new regional waste water treatment facility will be developed.

Housing for All

Housing for All is the Government's multi-billion euro housing plan for 2021 to 2030. It aims to address current and future housing shortages and challenges via the delivery of an average of 33,000 new homes each year.

The policy has four pathways to achieving housing for all:

- Supporting home ownership and increasing affordability
- Eradicating homelessness, increasing social housing delivery and supporting social inclusion
- Increasing new housing supply
- Addressing vacancy and efficient use of existing stock

Local Authorities will play a central role in the planning and provision of affordable homes, with an average of 6,000 affordable homes to be made available every year for purchase or for rent by Local Authorities, Approved Housing Bodies (AHBs), the Land Development Agency (LDA) and via a strategic partnership between the State and retail banks. Further, a Local Authority-led Affordable Purchase Scheme will see new homes delivered, including those in areas facing the most acute affordability constraints. As part of *Housing for All*, Fingal County Council's Housing Action Plan 2022 – 2026 has also been developed. It lays out current and projected social housing projects based on the distribution among the four primary housing areas of Blanchardstown, Balbriggan, Malahide/Howth and Swords.

In addition, *Housing for All* sets out plans to upgrade the existing housing stock, including the continuation of the Pyrite Remediation Scheme which residents in Fingal are eligible to apply for.

Climate Action Plan

The *Climate Action Plan 2023* (CAP23) is the second annual update to Ireland's *Climate Action Plan*. It lays out Ireland's goals to halve its emissions by 2030 and reach net zero no later than 2050.

Objectives to meet the 2030 target include:

- Deployment of large-scale renewable projects, including wind and solar, leading to the achievement of a 75% reduction in emissions
- Increasing the energy efficiency of buildings leading to a 40-45% reduction in emissions
- Adoption of an Avoid-Shift-Improve approach – reducing or avoiding the need for travel, shifting to public transport, walking and cycling and improving the energy efficiency of vehicles leading to a 50% reduction in emissions
- Sustainable farming leading to a 25% reduction in emissions
- Greener businesses leading to a 35% reduction in emissions
- Adaptation of land use to produce better, greener food and energy, and in turn reducing emissions

Regional and Local Policies & Strategies

Eastern and Midland Regional Assembly Regional Spatial & Economic Strategy

The Eastern and Midland Regional Assembly (EMRA) has prepared a Regional Spatial & Economic Strategy (RSES), setting out spatial and economic growth plans for 2019 to 2031.

Its vision is to *"create a sustainable and competitive region that supports the health and wellbeing of our people and places, from urban to rural, with access to quality housing, travel and employment opportunities for all".*

The strategy outlines a series of strategic goals that cover the development of infrastructure, education, housing, access, and balanced and sustainable growth, all of which align with 16 regional strategic outcomes:

1. Sustainable Settlement Patterns
2. Compact Growth and Urban Regeneration
3. Rural Communities

4. Healthy Communities
5. Creative Places
6. Integrated Transport and Land Use
7. Sustainable Management of Water, Waste and other Environmental Resources
8. Build Climate Resilience
9. Support the Transition to Low Carbon and Clean Energy
10. Enhanced Green Infrastructure
11. Biodiversity and Natural Heritage
12. A Strong Economy Supported by Enterprise and Innovation
13. Improve Education, Skills and Social Inclusion
14. Global City Region
15. Enhance Regional Connectivity
16. Collaboration Platform

The RSES also includes the following elements:

A. **Spatial Strategy** – to manage future growth and ensure the creation of healthy and attractive places to live, work, study, visit and invest in.
B. **Economic Strategy** – to build on existing strengths to sustain a strong economy and support the creation of quality jobs that ensure a good living standard for all.
C. **Metropolitan Plan** – to ensure a supply of strategic development areas for the sustainable growth and continued success and competitiveness of the Dublin Metropolitan Area. Strategic development areas within Fingal include Dunsink, Baldoyle-Stapolin, Donabate, Dublin 15 lands, Swords, and Swords-Lissenhall.
D. **Investment Framework** – to prioritise the delivery of key enabling infrastructure and services by government and state agencies.
E. **Climate Action Strategy** – to accelerate climate action, ensure a clean and healthy environment and to promote sustainable transport and strategic green infrastructure.

Throughout the strategy there are three cross-cutting key principles:

- **Healthy Placemaking** - To promote people's quality of life through the creation of healthy and attractive places to live, work, visit, invest and study in.
- **Climate Action** – To address the need to enhance climate resilience and to accelerate a transition to a low carbon society, recognising the role of natural capital and ecosystem services in achieving this.
- **Economic Opportunity** - To create the right conditions and opportunities for the region to realise sustainable economic growth and quality jobs which ensure a good living standard for all.

The RSES highlights Swords as a key town within the Dublin Metropolitan Area Strategic Plan (MASP), given its strategic location in proximity to Dublin City, the airport, the national road network and planned MetroLink. The RSES recognises Swords's young and growing population as providing a strong economic and service function. Key priorities arising from the RSES are to promote compact growth and enhanced public realm in the town centre along with the planned sequential development of Swords. The identity of the town centre will be enhanced through the development of Swords Civic Centre and Cultural Centre, and the delivery of an enhanced public realm in the town centre, in accordance with the *Sustainable Swords Strategy*. Further focus will also be placed on generating local employment, with airport related activities continuing to be of major importance, creating future employment districts in Swords and the Dublin Airport/South Fingal areas.

The RSES also includes a retail hierarchy for the region which is of relevance to Fingal. Swords and Blanchardstown are specifically referenced at Level 2 of the hierarchy – 'Major Town Centres & County (Principal) Town Centres'. Malahide, Balbriggan, Skerries and Charlestown are categorised under Level 3 – 'Town And/Or District Centres & Sub-County Town Centres (Key Service Centres)'.

Additional RSES plans include large scale urban expansions creating new communities at:

1. Baldoyle-Stapolin;

2. Donabate; and
3. Dunsink.

The further rollout of greenways and cycle networks in Fingal is also included.

With regards to strategic employment development areas in Dublin, the following specific areas of Fingal are highlighted:

- Dublin Enterprise Zone for large scale office, research and development, and high tech manufacturing; and
- Swords and Dublin Airport/South Fingal which are considered to be future employment locations, with scope for airport related and commercial facilities.

Dublin Regional Enterprise Plan

The Department of Enterprise, Trade and Employment's *Regional Enterprise Plans* are developed by regional stakeholders and aim to stimulate collaborative initiatives which can help deliver enterprise growth in each of the nine regions across Ireland. The Plans recognise that enterprise policy coherence and collaboration at the national level needs to be mirrored from the 'bottom up', to enable:

- A place-based perspective on needs, capabilities and opportunities to inform national enterprise and other policies
- Economies of scale through joined up actions and investment
- Effective targeting of national initiatives to areas of opportunity and greatest need
- Development and delivery of a programme of collaborative actions that can drive better outcomes in terms of regional job creation

Although the Plans are focused and timebound, a Steering Committee mechanism maintains a 'live agenda' at regional levels, responsive to emerging opportunities and challenges such as Brexit, the Covid-19 pandemic, remote working opportunities, climate action/just transition, and regional shocks which require joined-up responses.

The following high-level areas of focus were identified as part of the *Dublin Regional Enterprise Plan* to 2024:

1. Resilience and recovery
2. Transition to Low Carbon economy/digitalisation
3. Place making/ecosystem strengthening
4. Enterprise/innovation/smart specialisation

From these areas of focus, and following stakeholder consultation during 2021, the following six key objectives were identified:

- ✓ Strengthening resilience and the potential for scaling among Dublin's SMEs and Start-ups
- ✓ Placemaking
- ✓ Inclusion
- ✓ Low carbon transition
- ✓ Availability of skills
- ✓ Collaboration to meet regional enterprise needs

Fingal County Development Plan 2023 – 2029

The *Fingal County Development Plan 2023 – 2029* builds on Project Ireland 2040, the RSES, the UN SDGs, and the *Fingal Corporate Plan 2019–2024* and is underpinned by a strategic vision intended to guide the sustainable future growth of Fingal, ensuring that the county embraces healthy placemaking and economic prosperity through building cohesive and sustainable communities, where the cultural, natural and built environment is protected.

The Plan is underpinned by four key cross cutting themes:

- Climate action
- Healthy place-making and sustainable development
- Social inclusion
- High-quality design.

The *Development Plan* recognises that Fingal has major economic assets, including Dublin Airport, proximity to Dublin City and the Dublin Port Tunnel, road and rail infrastructure and a prime location on the Dublin–Belfast Economic Corridor which provide opportunities to attract investment, develop partnerships and create jobs. The provision of infrastructure, connectivity and utilities play key roles alongside the provision of housing, with approximately 16,000 residential units required in the county between 2023 and 2029 and other social and community infrastructures. The *Development Plan* ensures sufficient zoned land is available to satisfy housing, population and employment requirements for the county. The further development of Fingal's sectoral strengths – including its vibrant retail and growing tourism sectors – are also embedded in the *Development Plan*, together with sustaining and promoting heritage, culture and arts.

A 'Core Strategy' is a pivotal element of the *Development Plan* and specifically focusses on ensuring that future growth within Fingal is directed to appropriate locations and that a balance between social, economic and environmental factors is achieved – all in alignment
with national and regional policy.

The Strategy targets growth which is:

1. Cognisant of climate change impacts;
2. Underpinned by sustainable land management practices;
3. In adherence with a clearly focused settlement hierarchy, in line with a wider regional strategy; and
4. Aligned with key placemaking principles.

As depicted in Figure 25, the Core Strategy combines planned infrastructure and urban development via a Settlement Strategy. In the context of Fingal, the latter relates to:

- Key Towns (Swords)
- Self Sustaining Towns (Balbriggan, Lusk, Malahide, Rush, and Skerries); and
- Self Sustaining Growth Town (Donabate, including Portrane).

Figure 25: Fingal Core Strategy Map



Source: Fingal County Development Plan 2023 – 2029.

The *Development Plan* also references aspects of the *Fingal County Council Climate Action Plan 2019-2024* in relation to energy and buildings, transport, flood resilience, nature-based solutions and resource management. Four main targets are specifically referenced in this regard:

- A 33% improvement in the Council's energy efficiency by 2030
- A 40% reduction in the Council's greenhouse gas emissions by 2030
- To make Dublin a climate resilient region, by reducing the impacts of future climate change-related events
- To actively engage and inform citizens on climate change.

Other Policies & Strategies

In addition to the above documents, a series of other national and local policies and strategies were reviewed, including:

- Roadmap for Social Inclusion 2020 – 2025;
- Sustainable, Inclusive and Empowered Communities: A Five Year Strategy to Support the Community & Voluntary Sector in Ireland 2019 – 2024;
- Fingal County Council Community Development Office Vision Statement 2019 – 2022;

- Healthy Ireland Framework 2019 – 2025;
- National Strategy for Women & Girls 2017 – 2020;
- Youth Justice Strategy 2021 – 2027;
- National Traveller & Roma Inclusion Strategy 2017 – 2021
- National Recovery & Resilience Plan;
- National Economic Plan;
- Our Rural Future – Rural Development Policy 2021 – 2025; and
- Pathways to Work Strategy 2021 – 2025.

Appendix 3

Public Consultation Overview

Public consultation was a critical facet in the development of this Framework LECP, and was pursued through a combination of:

A. Open invite, in-person consultation meetings at three venues in Fingal (Balbriggan, Blanchardstown and Swords) in June 2023;

B. An open invite, online consultation meeting in July 2023;
C. Engagements with the Fingal County Council Economic, Enterprise & Tourism Development SPC, whose members are:

i. Chairperson – Darragh Butler
ii. Councillor – Tony Murphy
iii. Councillor – Ian Carey
iv. Councillor – Ted Leddy
v. Councillor – Siobhán Shovlin
vi. Councillor – Breda Hanaphy
vii. Councillor – Howard Mahony
viii. Councillor – Anthony Lavin
ix. CEO Fingal Chamber – Anthony Cooney
x. ICTU – Eric Fleming
xi. PPN – Yetunde Joyce
xii. PPN – Helen Keng Mobit

D. Engagements with Fingal County Council LCDC members:

i. John Quinlivan – Director of Economic, Enterprise, Tourism & Cultural Development (Chief Executive Nominee)
ii. Cllr Mary McCamley
iii. Cllr Cathal Boland
iv. Cllr Joan Hopkins
v. Oisin Geoghegan – Fingal Local Enterprise Office
vi. Pat O'Connor – Higher Education Institute
vii. Seamus Quigley – Department of Social Protection
viii. Ellen O'Dea – Head of Health & Wellbeing HSE
ix. Una Caffrey – Fingal Children & Young People Services Committee
x. Amaka Joyce Chuks – Public Participation Network (PPN)
xi. Ian Lennon PPN
xii. Raghu Nat PPN
xiii. Geraldine Rooney – PPN
xiv. Adeline O'Brien – Empower
xv. Eilish Harrington – Fingal LEADER Partnership
xvi. Laurence Ward – Irish Farmers Association
xvii. Anthony Cooney – CEO Fingal Chamber

E. Engagements with the following Fingal County Council LECP Sub-Groups:

- Community Sub-Group, consisting of:

i. Paul Carroll – Director of Service FCC
ii. Naomi Weir – FCC
iii. Linda Ennis – FCC
iv. Valerie McAllorum Byrne – FCC Integration Officer
v. Adeline O'Brien – Empower
vi. Felix Gallagher - Empower
vii. Eilish Harrington – Leader Partnership
viii. Niall McGuirk – FCC Healthy Ireland

ix. Una Caffrey – Tusla
x. Aoife Genocchi – Foroige
xi. Jean O'Gorman - Foroige
xii. Garda Superintendent Paul Franey
xiii. Geraldine Rooney – BCIL
xiv. Pat O'Connor – TU Dublin
xv. Cllr Cathal Boland
xvi. Cllr Joan Hopkins
xvii. Brid Smyth – North Dublin Drugs & Alcohol Task Force
xviii. Philip Jennings – Safer Blachardstown

- Economic Sub-Group, consisting of:

i. John Quinlivan – Director of Service EETCD FCC
ii. Aoife Sheridan – FCC Economic Development
iii. Declan Ryan – FCC Town Regeneration Officer
iv. Declan Power – FCC Tourism
v. Roisin Burke – FCC Planning
vi. Oisin Geoghegan – Head of Local Enterprise Office
vii. Anthony Cooney – Fingal Chamber
viii. Eilish Harrington – Fingal LEADER Partnership
ix. Deiric O'Broin – DCU
x. Liz Halpin – Fáilte Ireland
xi. Conor Simpson – IDA

- Environment Sub-Group, consisting of:

i. David Storey – Director of Service FCC
ii. Aoife Sheridan – FCC Economic Development
iii. Catherine O'Donovan – Environment
iv. Sinead Fox – FCC Community Climate Action Officer
v. Emma Court – FCC Active Travel
vi. Edward Stevenson – Fingal PPN
vii. Cllr David Healy – Climate Action SPC Chairperson
viii. Cllr Eoghan O'Brien
ix. Eilish Harrington – Fingal LEADER Partnership
x. Evelyn Pender – Castleknock Tidy Towns
xi. Grace Dunne – Swords Tidy Towns

F. Engagements with Elected Representatives on Local Area Committees for:

i. Blanchardstown-Mulhuddart/Castleknock/Ongar
ii. Howth/Malahide
iii. Balbriggan/Rush-Lusk/Swords

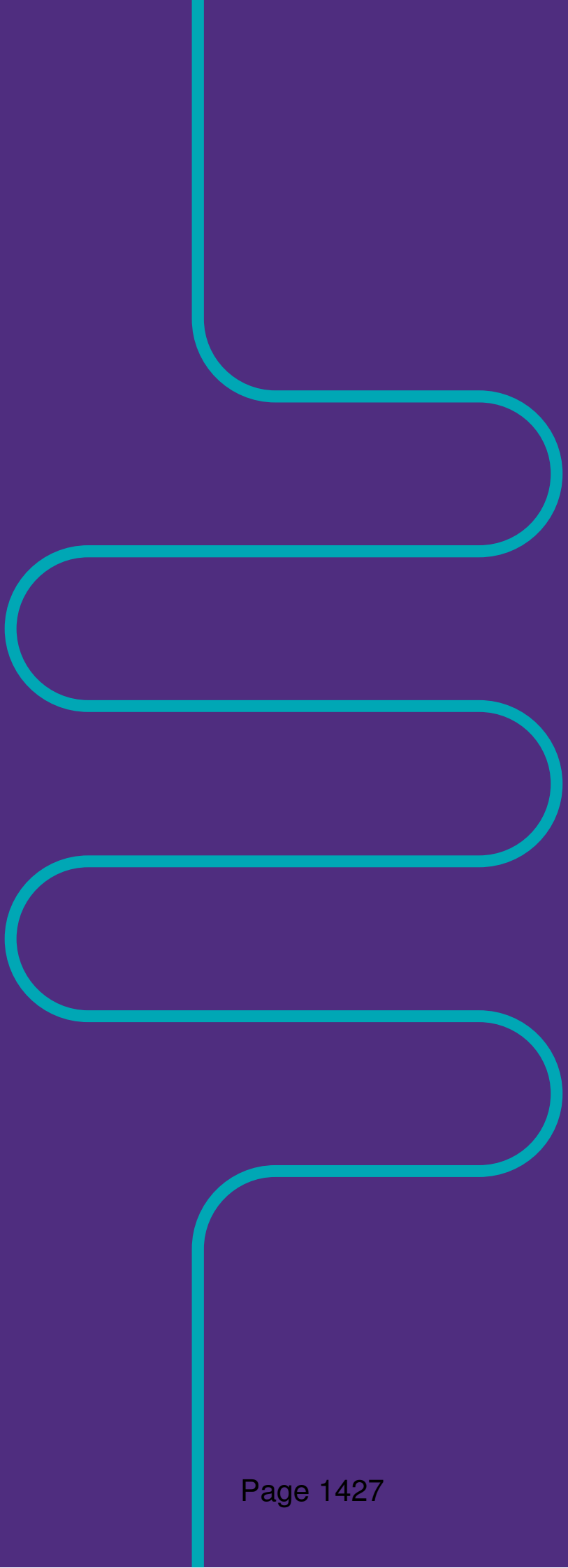
G. Engagements with other stakeholder groups which focus on specific aspects of community and economic development, including:

i. Safer Blanchardstown
ii. Foróige
iii. Balbriggan Traveller Project

iv. North Dublin Regional Drugs Task Force

Written submissions were received from:

- Balbriggan Community Council
- Councillor Karen Power
- Dublin Airport Authority
- EggHeadz CLG Youth (Mental Health and Wellbeing) Hub - Donabate & Portrane
- Fingal Chamber
- Green Party Councillors (collective)
- Heidi Bedell
- Mairead Fitzsimons
- Naul Community Council



Fingal County Council Local Economic & Community Plan 2023-2028

Draft 2023-2025 Implementation Plan

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1. Introduction

1. Introduction

1.1 Background & Approach

The 2023-2028 Fingal Local Economic & Community Plan (LECP) is the second LECP which has been developed for the county, and seeks to build on the progress made under the 2016-2020 Plan.

A new element of the LECP development process, as outlined in the *Local Economic and Community Plans Guidelines 2021,* is the requirement for Implementation Plans to be compiled. Each Implementation Plan is to cover a period of two years which provides agility and flexibility within the LECP to respond to emerging needs and opportunities on an ongoing basis. The LECP *Guidelines recommend that the Implementation Plan*:

"Should examine the High-Level Goals/Sustainable Objectives and outcomes as set out in the Framework LECP and determine the actions to be pursued in that particular planning period to contribute to the achievement of the goals and objectives. The Implementation Plan should include actions of all relevant stakeholders that can contribute to the achievement of the LECP High-Level Goals."

The *Guidelines* outline that the Implementation Plan process should include the following:

- Use of available data to identify and prioritise interventions in line with the High-Level Goals and objectives of the LECP.
- Determination of specific time bound actions under each LECP objective.
- Determination of outputs and indicators to support the ongoing monitoring of the Implementation Plan that also contribute to the realisation of the overall LECP goals and objectives.
- Consideration of the resources available to underpin the implementation of these actions.
- Appropriate participation of the LCDC and SPC in this planning process.

The Fingal LECP Framework has been prepared for the period 2023-2028, with an ambition to further improve economic, social and environmental conditions in the county, in line with the LECP Vision:

"Fingal will be a vibrant, sustainable, progressive and climate resilient county, underpinned by inclusive, healthy, empowered communities and a dynamic economy."

The 2023-2028 LECP Vision is supported by an integrated framework of six overarching 'themes', 15 High-Level Goals, and 31 supporting Sustainable Community Objectives (SCOs) and Sustainable Economic Development Objectives (SEDOs).



The contents of this 2023-2025 Implementation Plan set out measures to support the Vision and the six themes of:

Theme	Theme Description
Sustainability & Climate Action	Pursue climate resilience and embed sustainability in all we do.
Prosperous Economy	A dynamic, outward looking and innovative economy with sustainability at its core.
Skills for Life & Work	A county that provides a supportive and diverse skills ecosystem, nurtures talent, and provides life-long learning opportunities for all.
Healthy, Inclusive, Connected Communities	A healthy, inclusive and connected county where communities are empowered and supported to thrive.
Rich Arts, Culture & Heritage	Promote and protect our arts and heritage, and embrace cultural diversity in the county.
Safe, Accessible, Vibrant Places	A county of vibrant communities and places, accessible for all, where people want to live, work and socialise.

The contents of this Implementation Plan consist of:

1. Inputs (including Lead Agency and Partners);
2. Actions which are Specific, Measurable, Achievable, Relevant and Time Bound (SMART);
3. Outputs; and
4. Potential sources of funding.



2. Implementation

2. Implementation

2.1 Theme 1: Sustainability & Climate Action

Theme	Goal	Goal Description
Sustainability & Climate Action Pursue climate resilience and embed sustainability in all we do.	**G1.1**	To support communities and the economy in the transition to Net Zero and climate resilience.

Goal	Objective(s)	Inputs (Lead Agency in bold)	Actions (6)	Outputs
G1.1	**SEDO 1:** To support communities and the economy in the transition to Net Zero and climate resilience.	1. **Fingal County Council** 2. Local communities 3. Fingal PPN 4. Community and voluntary groups 5. LEADER Implementer 6. SICAP Implementer 7. SEAI 8. Businesses 9. Fingal Chamber 10. Balbriggan Chamber 11. Business representative groups 12. Fingal Local Enterprise Office	**Action 1.1.1:** Broaden the scope of the *Sustainable Fingal* initiative to include businesses, communities and organisations, explore the concept of the circular economy, and lead on a Just Transition to Net Zero and a climate-resilient economy.	An extended *Sustainable Fingal* initiative– including supports – for businesses, communities and organisations to transition towards climate resilience.

		13. Enterprise Ireland 14. IDA Ireland 15. Dublin-Belfast Economic Corridor (DBEC) Partnership		
		1. SEAI 2. Fingal County Council 3. Local communities 4. Fingal PPN 5. Community and voluntary groups 6. LEADER Implementer 7. SICAP Implementer 8. Businesses 9. Fingal Local Enterprise Office	**Action 1.1.2:** Engage with communities and organisations to scope current climate transition status and identify future need.	A comprehensive record of the climate transition status, and current and potential future needs of communities and organisations.
		1. Fingal County Council **2. Fingal Local Enterprise Office** 3. SEAI 4. Enterprise Ireland 5. Codema 6. IDA Ireland 7. Fingal PPN 8. LEADER Implementer 9. SICAP Implementer 10. Fingal Chamber 11. Balbriggan Chamber 12. Business representative groups	**Action 1.1.3:** Provide clear sign-posting of supports for the transition to a Net Zero, climate resilient county.	An updated portal, potentially linked to the 'one front door' solution of Action 2.2.3, to inform businesses, communities and organisations of available supports.
		1. **SEAI** 2. Education & training providers 3. Fingal County Council 4. Fingal Local Enterprise Office 5. Codema	**Action 1.1.4:** Support initiatives which inform, facilitate and enable behavioural changes towards more sustainable outcomes.	Greater awareness around the need to transition to Net Zero and climate resilience, and steps which can be taken to pursue same.

		1. **Fingal County Council** 2. SEAI 3. Codema 4. Businesses 5. Industry representative bodies 6. Education & training providers.	**Action 1.1.5:** Support the development of renewable and alternative energies, and sustainable construction materials and methods.	Supports for initiatives which further renewable energy development, R&D of alternative energy sources, and the development of sustainable construction practices and materials.
		1. **Fingal County Council** 2. Codema 3. SEAI 4. Community and voluntary groups 5. Local communities 6. Businesses 7. Enterprise Ireland 8. Fingal Chamber 9. Balbriggan Chamber	**Action 1.1.6:** Promote and Facilitate the implementation of the Fingal *Climate Action Plan 2024 - 2029*, *Biodiversity Action Plan 2022-2030*, the Fingal *Circular Cities Action Plan*, and climate positive initiatives being rolled out by other bodies and Agencies.	Ongoing support for policies, and engagement with associated stakeholder groups, related to climate positive initiatives.

Funding sources which may be accessed to support Sustainability & Climate Action objectives include:

- European Union Just Transition Fund
- European Regional Development Fund
- Horizon Europe and the EU Innovation Fund (R&D)
- COST (European Cooperation in Science and Technology): funding for climate-related research and action
- EU LIFE Programme: funding opportunities for environment and climate projects
- EU Innovation Fund: one of the world's largest funding programmes for the commercial demonstration of innovative low-carbon technologies.
- Green Transition Fund
- National Just Transition Fund
- Sustainable Energy Authority of Ireland
- The four Project Ireland 2040 funds: the Climate Action Fund, Disruptive Technologies Innovation Fund, the Urban Regeneration and Development Fund (URDF), and the Rural Regeneration and Development Fund (RRDF).

2.2 Theme 2: Prosperous Economy

Theme	Goal	Goal Description
Prosperous Economy A dynamic, outward looking and innovative economy with sustainability at its core.	**G2.1**	Support the development of sustainable and strategic infrastructure.
	G2.2	Provide a supportive business environment that encourages innovation and attracts, retains and grows businesses sustainably.
	G2.3	Remove barriers to labour market participation.

Goal	Objective(s)	Inputs (Lead Agency in bold)	Actions (10)	Outputs
G2.1	**SEDO 2:** To promote, support and input into the development of sustainable and strategic infrastructure.	**1. Fingal County Council** 2. Fingal Chamber 3. Balbriggan Chamber 4. Business representative groups 5. Businesses 6. Government Departments 7. Fingal Economic Forum 8. State Agencies ie. NTA 9. Transport Operators i.e. DAA, Irish Rail; Dublin Bus etc. 10. Third level institutions 11. Community Groups	**Action 2.1.1**: Support implementation of the *Fingal County Development Plan* and the Fingal *Economic Development Strategy* relating to economic lands and the development of sustainable and strategic infrastructure ie housing, power, water, wastewater, education facilities, digital connectivity, strategic physical infrastructure, sustainable/active travel infrastructure, public transport, and Dublin Airport.	Ongoing engagement with stakeholder groups to promote balanced infrastructural development and the delivery of sustainable and strategic infrastructure projects in the county.
	SEDO 3: To facilitate incubation and business growth.	**1. Fingal County Council** 2. Fingal Local Enterprise Office 3. Fingal Chamber 4. Balbriggan Chamber 5. Businesses 6. Existing Business Park management organisations (public and private) 7. Incubation space providers (including Drinan	**Action 2.1.2**: Support implementation of the Fingal *Economic Development Strategy* relating to low-cost start-up and scale-up spaces and business/industrial parks. **Action 2.1.3**: In collaboration with IDA Ireland, explore options to deliver more economic lands and facilities in Fingal which facilitate Foreign	More space for entrepreneurs and growing businesses. Greater engagement with businesses in business/industrial parks. Effective utilisation of business parks.

		and BASE) 8. DBEC Partnership 9. Enterprise Ireland 10. IDA Ireland	Direct Investment.	Delivery of more economic lands and facilities for Foreign Direct Investors. Supports and networking/collaboration opportunities for entrepreneurs and new businesses.
G2.2	**SEDO 4:** To develop clusters and strategies to leverage sectoral growth opportunities.	**1. Fingal County Council** 2. DETE 3. Fingal Local Enterprise Office 4. Fingal Chamber 5. Balbriggan Chamber 6. Businesses 7. Business and sectoral representative groups 8. IDA Ireland 9. Enterprise Ireland 10. DBEC Partnership	**Action 2.2.1**: Support implementation of the Fingal *Economic Development Strategy* relating to cluster development.	Supports for new and existing clusters for key sectors in Fingal – appropriately structured, promoted and resourced to boost impact.
	SEDO 5: To enhance strategic engagement across the business ecosystem.	**1. Fingal County Council** 2. Fingal Local Enterprise Office 3. Fingal Chamber 4. Balbriggan Chamber 5. Private sector companies 6. Business and sectoral representative bodies 7. Fingal Economic Forum	**Action 2.2.2**: Support implementation of the Fingal *Economic Development Strategy* relating to establishing an economic forum and adopting an 'anchor employer' account management approach to business engagement.	Networking fora to strengthen the Fingal business ecosystem. Frequent engagements between Fingal County Council and key local employers.
	SEDO 6: To provide greater clarity on and access to business supports.	**1. Fingal Local Enterprise Office** 2. Fingal County Council 3. Enterprise Ireland 4. SEAI 5. Fingal Chamber 6. Balbriggan Chamber	**Action 2.2.3**: Support implementation of the Fingal *Economic Development Strategy* relating to the creation of a 'one front door' solution to sign-post business supports.	A 'one front door' solution for Fingal businesses. Regular engagements/communications between Fingal Local Enterprise Office and entrepreneurs/businesses. Regular engagements/communications between Fingal County Council and Chamber bodies.
	SEDO 7: To develop Fingal's brand as a business location.	**1. Fingal County Council** 2. IDA Ireland 3. Businesses 4. Business and sectoral representative bodies 5. Fingal Economic Forum 6. Fingal Chamber	**Action 2.2.4**: Support implementation of the Fingal *Economic Development Strategy Marketing Plan*, specifically targeting investors.	A strong Fingal brand and delivery against a defined Marketing Plan.

		7. Balbriggan Chamber		
G2.3	**SCO 1:** To understand and address key barriers to work and identify and support affected population cohorts.	**1. Fingal County Council** **2. Department of Rural & Community Affairs** **3. SICAP Implementer** 4. Department of Social Protection 5. Migrant and minority representative groups 6. Fingal Children and Young People's Services Committee (CYPSC) 7. Businesses	**Action 2.3.1**: Identify under-represented groups and address reasons for under-representation in the Fingal labour market, such as childcare availability, transport options, and skills.	A stronger understanding of barriers to work and affected population cohorts. Regular engagement between key stakeholders to address identified barriers. Implementation of targeted interventions to affected population cohorts. Delivery of SICAP. Support delivery of Fingal Migrant Integration & Social Cohesion Strategy. Support delivery of Fingal CYPSC Plan.
		1. Education and training providers 2. SOLAS 3. SICAP Implementer 4. Third Level Institutions 5. Fingal Skillnet (Fingal Chamber) 6. Fingal County Council	**Action 2.3.2**: Delivery of employability programmes for economically inactive people.	Targeted interventions and person-centred guidance related to skills development, especially via upskilling and reskilling initiatives.
	SCO 2: To provide supports to enable under-represented groups to (re) enter the workforce.	**1. Education and training providers** 2. Migrant and minority representative groups 3. SOLAS 4. SICAP Implementer 5. Fingal County Council	**Action 2.3.3**: Provide job related training to unemployed people, such as CV preparation, interview skills, social media skills for job seeking, and transition to employment initiatives.	A set of targeted supports for (re) entering the workforce to address under-representation amongst specific groups.

Funding sources which may be accessed to support a Prosperous Economy objectives include:

- SOLAS
- European Regional Development Fund (ERDF)
- Urban Regeneration and Development Fund (URDF)
- Rural Regeneration and Development Fund (RRDF).
- Fingal Skillnet
- Department of Rural & Community Affairs funding streams (SICAP)

- European Agricultural Fund for Rural Development (EAFRD)
- European Maritime & Fisheries Fund (EMFF)
- Erasmus+
- LEADER

2.3 Theme 3: Skills for Life & Work

Theme	Goal	Goal Description
Skills for Life & Work A county that provides a supportive and diverse skills ecosystem, nurtures talent, and provides life-long learning opportunities for all.	**G3.1**	Stimulate a culture of life-long learning.
	G3.2	Support skills development to meet the diverse needs of communities and businesses.

Goal	Objective(s)	Inputs (Lead Agency in bold)	Actions (18)	Outputs
G3.1	**SCO 3:** To update the Fingal Skills Strategy and support implementation of its recommendations	1. **Fingal County Council.** 2. Education and training providers. 3. Public and private sector employers. 4. SOLAS. 5. Dublin Regional Skills Forum.	**Action 3.1.1**: Develop the next iteration of the *Fingal Skills Strategy*.	Development of the next iteration of the *Fingal Skills Strategy* and implementation of its recommendations. Broader participation in the Fingal Skills Strategy. Supports for Fingal Skills Strategy sectoral groups to identify and address skills gaps.
	SCO 4: To provide all Fingal residents with basic English language, literacy and numeracy skills.	1. **SICAP Implementer** 2. Education & training providers 3. SOLAS 4. Department of Social Protection 5. Community and voluntary groups 6. National Adult Literacy Agency	**Action 3.1.2**: Engage with community representative organisations and individuals in local target priority groups to identify and address skills needs **Action 3.1.3**: Ongoing monitoring and delivery of relevant education and training by providers in Fingal to address requirements of residents. **Action 3.1.4**: Promote and develop targeted skills development opportunities.	Delivery of SICAP programme with ongoing monitoring of relevant SICAP KPI's. Delivery of relevant education and training courses by providers. Regular engagement between Fingal County Council and education/training providers and key stakeholders to inform the implementation of recommendations of the *Fingal Skills Strategy.*

			Action 3.1.5: Align with the recommendations of the *Fingal Skills Strategy*.	
	SCO 5: To develop greater opportunities for up- and re-skilling.	**1. Education & training providers** 2. Fingal Chamber Skillnet 3. Fingal County Council 4. Fingal Local Enterprise Office 5. Dublin Regional Skills Forum (DRSF) 6. Business and sectoral representative bodies 7. SICAP Implementer 8. LEADER Implementer	**Action 3.1.6**: Work with employers and education & training providers to identify occupations in Fingal which have greatest exposure to technological change.	More education and training initiatives to 'future-proof' the skills base of Fingal.
			Action 3.1.7: Work with employers and education & training providers to identify up- and re-skilling opportunities to target future growth sectors.	
			Action 3.1.8: Support initiatives to provide up- and re-skilling opportunities.	
G3.2	**SEDO 8:** To equip Fingal's labour force with the skills to meet businesses' current and future needs.	**1. Education & training providers** 2. Fingal Chamber Skillnet 3. Third level institutions 4. Fingal Chamber Skillnet 5. Dublin Regional Skills Forum (DRSF) 6. Fingal County Council 7. Public and private sector employers 8. Business and sectoral representative bodies 9. Quality and Qualifications Ireland	**Action 3.2.1**: Support implementation of the Fingal *Economic Development Strategy* relating to skills development to meet businesses' needs and the recommendations of the Fingal Skills Strategy. **Action 3.2.2**: Promote options to support the recognition of occupational credentials from overseas. **Action 3.2.3**: Collaborate with education & training providers, businesses and key stakeholders to devise innovative skills development initiatives such, such as in digital/AI/green economy.	Development of skills needs forecasting to support future training pipeline planning. Greater access to employment for citizens with qualifications gained abroad. A broader and deeper skills base in Fingal. New skills development initiatives.
	SCO 6: To broaden pathways to education.	**1. Education & training providers** 2. Fingal Skillnet 3. Third level institutions 4. Dublin Regional Skills Forum (DRSF) 5. Department of Social Protection 6. Generation Apprenticeship (National Apprenticeship Alliance) 7. Fingal CYPSC	**Action 3.2.4**: Identify and address barriers to education, and sign-post available solutions. **Action 3.2.5**: In collaboration with education & training providers and employers, explore the further development and roll out of apprenticeship/ traineeship programmes – especially in economic sectors of pressing need. **Action 3.2.6**: Support and promote and life-long learning opportunities and promotion events.	Broader pathways to education for residents of all ages and backgrounds. Greater collaboration between stakeholders for the promotion of education opportunities available. Expanded apprenticeship/ traineeship opportunities. Expanded access to life-long learning opportunities.

	SCO 7: To ensure communities have the skills to take effective voluntary and participative action.	8. Fingal County Council		
		1. Fingal Volunteer Centre 2. Fingal Public Participation Network 3. Community-based and voluntary organisations 4. Education and training providers 5. Third level institutions 6. SICAP Implementer 7. LEADER Implementer 8. The Wheel 9. SEAI	**Action 3.2.7**: Engage with community, voluntary, social inclusion and environmental organisations in the Fingal Public Participation Network to identify and address skills gaps. **Action 3.2.8**: Engage with education & training providers to deliver relevant training. **Action 3.2.9**: Provide capacity-building training and support opportunities. **Action 3.2.10**: Develop the skills and capacity of Fingal Public Participation Network members to participate in decision-making structures and greater involvement in improving the design and delivery of community services.	Greater skills and capacity within communities to take effective voluntary and participative action. Greater skills and capacity within the Fingal PPN to participate in decision-making structures. Broad range of relevant education and training courses being delivered by providers.

Funding sources which may be accessed to support Skills for Life and Work objectives include:

- SOLAS
- LEADER
- Department of Social Protection Tús Programme.
- Higher Education Authority Programme for Access to Higher Education (PATH)
- Department of Rural and Community Development National Volunteering Strategy & SICAP
- Department of Social Protection funding streams
- Fingal Skillnet funding

2.4 Theme 4: Healthy, Inclusive, Connected Communities

Theme	Goal	Goal Description
Healthy, Inclusive, Connected Communities A healthy, inclusive and connected county where communities are empowered and supported to thrive.	**G4.1**	Increase participation in initiatives that promote active living, positive mental wellbeing, and physical activity to achieve improved health and wellbeing for all.
	G4.2	Promote citizen participation.
	G4.3	Encourage inclusion and connection within and between communities.
	G4.4	Target improvements in areas of disadvantage.

Goal	Objective(s)	Inputs (Lead Agency in bold)	Actions (25)	Outputs
G4.1	**SCO 8:** Provide facilities and support services which enable a healthier lifestyle.	1. **HSE** 2. Fingal County Council 3. National Ambulance Service (HSE) 4. Drug and Alcohol Task Forces 5. Sporting and voluntary organisations 6. Youth Services 7. Family Resource Centres 8. Jigsaw 9. SICAP Implementer 10. Fingal Children and Young People's Services Committee 11. Traveller Inter-agency Group	**Action 4.1.1**: Support implementation of Healthy Ireland and Healthy Fingal initiatives. **Action 4.1.2**: Improve the health and wellbeing of the community by promotion of access to new and existing recreational, physical and mental health support services, facilities and amenities in Fingal. **Action 4.1.4**: Devise plans to address gaps in support services and facilities in specific geographic areas. **Action 4.1.5**: Support and collaborate with Drug and Alcohol Task Forces and associated partners to implement prevention and early intervention initiatives to reduce the harm caused by the misuse of alcohol and drugs. **Action 4.1.6**: Continue to develop Community First Responders.	More health-related facilities, initiatives and support services. Reduced gaps in health-related support services provision. Provision of first responder skills in the community.

	SCO 9: Increase participation in health-related activities, particularly amongst young people and senior citizens.	**1. HSE** 2. Fingal County Council 3. TUSLA 4. Sporting and voluntary organisations 5. Youth services 6. Fingal Children and Young People's Services Committee 7. Family Resource Centres 8. SICAP Implementer 9. Older People's Council	**Action 4.1.7**: Promote information resources in community settings that reinforce positive health messages for improved health and well-being. **Action 4.1.8**: Facilitate community engagement in the design of outreach initiatives to increase participation and take up of activities and services which promote active living and good mental health. **Action 4.1.9**: Actively promote and increase the inclusion of traditionally under-represented populations in health and wellbeing activities. **Action 4.1.10**: Maintain and develop arts and sporting initiatives designed to support young people in reaching their full potential. **Action 4.1.11**: Collaborate with key agencies and community groups in assessing young (under 25 years of age) and older people's needs to develop and implement the Fingal CYSPC Strategy and the the Fingal *Age Friendly Strategy*.	Better information on available health-related activities. Improved and broader participation rates in health and wellbeing activities. Support delivery of objectives in the Fingal CYPSC Strategy.
	SCO 10: Support community based initiatives to address mental health issues.	**1. HSE** **2. TUSLA** 3. Fingal County Council 4. Jigsaw 5. Youth services 6. Traveller Inter-agency Group 7. Migrant and minority representative groups 8. SICAP Implementer 9. Fingal CYPSC	**Action 4.1.12**: Facilitate community engagement with the HSE and TUSLA to accelerate the development of early intervention and prevention programmes in line with National Suicide Reduction Strategy, *Connecting for Life* (2015-2024). **Action 4.1.13**: Support community based initiatives to address mental health and social inclusion based on the needs of specific communities of interest, such as young males, ethnic minorities and the Traveller Community. **Action 4.1.14**: Continue to develop Mental Health First Responder Schemes.	More support for suicide prevention programmes. More engagement with at-risk groups.
G4.2	**SCO 11:** To provide more opportunities and access points for citizens to participate in local decision making.	**1. Fingal PPN** 2. Fingal County Council 3. Fingal Volunteer Centre 4. Community and voluntary groups 5. Education & training providers	**Action 4.2.1**: Expand opportunities for residents and community groups to participate in community decision making and local democracy. **Action 4.2.2**: Improve access and engagement between community groups and Fingal County Council and other government/state agencies.	Greater community participation in local democracy and decision-making structures. Greater community group engagement with Fingal County Council and other government/state agencies.

G4.3	**SCO 12:** To support implementation of the *Fingal Migrant Integration and Social Cohesion Strategy.* **SCO 13:** To encourage inclusion and integration through support for services, outreach and events.	**1. Fingal County Council** 2. Migrant and minority representative groups 3. SICAP Implementer 4. Fingal Disability Network 5. Traveller Inter-Agency Group 6. Fingal Ethnic Network 7. Fingal CYPSC	**Action 4.3.1**: Support implementation of the *Fingal Migrant Integration and Social Cohesion Strategy*. **Action 4.3.2**: Periodically assess the needs of migrants to facilitate integration of children, young people and families both socially and economically. **Action 4.3.3**: Engage with minority and migrant groups through dedicated outreach programmes to highlight available amenities and services in Fingal. **Action 4.3.4**: Develop further initiatives to ensure newly arrived migrants and socially excluded groups are supported. **Action 4.3.5**: Document and share learning with a view to removing duplication and improving service integration and delivery of education, training and activation supports and services.	Greater engagement with communities to understand inclusion needs. Outreach programmes and initiatives to integrate new and existing communities. Shared learning initiatives.
G4.4	**SCO 14:** To reduce absolute and relative disadvantage in specific areas of Fingal.	**1. Pobal** 2. SICAP Implementer 3. Fingal County Council 4. Fingal CYPSC 5. SOLAS 6. TUSLA 7. Education and training providers 8. Department of Social Protection	**Action 4.4.1**: Ensure appropriate supports are provided to Fingal residents within socially excluded groups and designated disadvantaged areas. **Action 4.4.2**: Identify key drivers of disadvantage in main areas of disadvantage per Pobal's 2022 *HP Deprivation Index*. **Action 4.4.3**: Develop outreach programmes for disadvantaged areas, focussing on removing barriers to work, and promoting accessible education pathways. **Action 4.4.4**: Provide supports to children and young people from target groups at risk of early school leaving and/ or not in education, employment or training.	Delivery of SICAP. Support the delivery of objectives of the Fingal CYPSC Strategy. Collation of insights in to areas and drivers of disadvantage. Targeted interventions to reduce disadvantage.

Funding sources which may be accessed to support Healthy, Inclusive, Connected Communities objectives include:

- Communities Integration Fund
- Healthy Ireland Fund

- Other Government and EU funding administered and managed via Pobal
- Department of Rural & Community Affairs funding streams (SICAP)
- Department of Social Protection funding streams
- SOLAS

2.5 Theme 5: Rich Arts, Culture & Heritage

Theme	Goal	Goal Description
Rich Arts, Culture & Heritage Promote and protect our arts and heritage, and embrace cultural diversity in the county.	**G5.1**	Promote, protect, and grow the heritage of Fingal and ensure quality amenities for all.
	G5.2	Support new and existing cultures to thrive.
	G5.3	Champion the arts and cultural life of the county.

Goal	Objective(s)	Inputs	Actions (11)	Outputs
5.1	**SCO 15:** To enhance the promotion & brand of Fingal's heritage.	1. **Fingal County Council** 2. Fáilte Ireland 3. The Heritage Council 4. Operators of key heritage assets 5. OPW 6. National Transport Authority 7. BusConnects 8. Community and voluntary groups	**Action 5.1.1**: Support the implementation of Fingal County Council's *2019 – 2025 Arts Plan*. **Action 5.1.2**: Collaborate with operators of key heritage sites and transport operators to identify and address issues in access, specifically relating to transport options. **Action 5.1.3**: Support local communities to protect and develop local heritage and community cultural assets (including festivals and events) .	Improved promotion of and access to Fingal's heritage assets. Better access to key heritage sites. Protection and development of local heritage and community cultural assets. Improved supports and mentoring relating to heritage assets. Promotion of best practice in the protection, development and operation
	SCO 16: To improve access to key heritage assets.		**Action 5.1.4**: Facilitate collaboration between the NTA, BusConnects and other transport operators and Fingal County Council to explore options to improve transport and infrastructure for key heritage site access.	

	SCO 17: To preserve and protect Fingal's heritage assets.		**Action 5.1.5**: Support and mentor community heritage groups in the areas of group development, strategic planning, access to funding and project management. **Action 5.1.6**: Foster learning exchanges between heritage asset operators and local heritage and community groups so as to share best practices.	of heritage assets.
5.2	**SCO 18:** To promote inclusivity by providing supports for new and existing cultures.	1. **Fingal County Council** 2. Migrant and minority representative groups 3. SICAP Implementer 4. Fingal Disability Network 5. Traveller Inter-Agency Group 6. Fingal PPN 7. Fingal Ethnic Network 8. Community & voluntary groups	**Action 5.2.1**: Facilitate community awareness, community engagement and events to share knowledge and demonstrate diverse backgrounds and cultural beliefs. **Action 5.2.2**: Support the rollout of the Yellow Flag Initiative, promoting interculturalism, across Fingal schools. **Action 5.2.3**: Promote awareness regarding the availability of community facilities as places where inclusivity can be fostered. **Action 5.2.4**: Develop an integrated and readily understandable directory of all local services.	Targeted initiatives to promote inclusion for all. Greater adoption of the Yellow Flag initiative. Easily accessible directory of all local services available.
5.3	**SCO 19:** To enhance the promotion & brand of Fingal's arts and cultural life.	1. **Fáilte Ireland** 2. Fingal County Council 3. Other Dublin Local Authorities 4. Arts Council 5. Heritage Council	**Action 5.3.1**: Alignment of the *Marketing Plan* which accompanies the Fingal *Economic Development Strategy* to incorporate and better promote Fingal's arts, heritage and culture within the Dublin and Irish contexts – and maximise the reach of the county's brand.	Distinct and prominent positioning of Fingal's unique arts, heritage and cultural life.

Funding sources which may be accessed to support Rich Arts, Culture & Heritage objectives include:

- Arts Council funding
- Heritage Council funding
- Communities Integration Fund
- *Connecting Ireland* Rural Mobility Plan funding
- Department of Rural & Community Affairs Funding Streams
- Town & Village Renewal Scheme
- ORIS
- LEADER

- SICAP
- Fáilte Ireland funding streams
- NTA funding streams

2.6 Theme 6: Safe, Accessible, Vibrant Places

Theme	Goal	Goal Description
Safe, Accessible, Vibrant Places A county of vibrant communities and places, accessible for all, where people want to live, work and socialise.	**G6.1**	Support the development of areas for a high quality of life.
	G6.2	Promote safety in the community through collaboration and inclusivity.

Goal	Objective(s)	Inputs	Actions (9)	Outputs
G6.1	**SEDO 9:** To revitalise the centres of key towns and villages.	1. **Fingal County Council** 2. Department of Rural and Community Development 3. Department of Housing, Local Government and Heritage 4. LEADER Implementer 5. Tidy Towns Committees 6. Fingal PPN 7. Fingal businesses 8. Business representative groups 9. Community & voluntary groups	**Action 6.1.1**: Support implementation of the Fingal *Economic Development Strategy, the Fingal Tourism Strategy, the Fingal Food & Drink Policy and the LEADER Local Development Strategy* relating to the development of vibrant places and sectors across Fingal. **Action 6.1.2**: Implementation of *Town Centre First* policy and delivery of Town Centre First Plans including local economic & community development initiatives.	Development of *Town Centre First* Plans. Delivery of objectives in the Our Balbriggan Rejuvenation Plan. Targeted actions to develop towns and villages in Fingal. Measures to support rural-focussed economic and tourism development in specific sectors.

	SEDO 10: To support enhancements to transport and infrastructure.	1. **Fingal County Council** 2. National Transport Authority 3. BusConnects 4. Public and private sector employers 5. Community & voluntary groups 6. Businesses 7. Fingal Chamber 8. Balbriggan Chamber 9. LEADER Implementer	**Action 6.1.3**: Consult regularly with employers, employees and representative groups to identify and understand transport and infrastructural needs. **Action 6.1.4**: Facilitate collaboration between the NTA, BusConnects and other transport operators Fingal County Council to explore options to improve access and infrastructure – including the development of active travel options.	Regular engagement between Fingal County Council and key stakeholders to identify and understand transport and infrastructural needs. Prioritised measures to improve transport and infrastructure.
G6.2	**SCO 20:** To develop areas which are safe for all. **SCO 21:** To develop and implement measures to reduce anti-social behaviour.	1. **Fingal County Council** 2. Fingal PPN 3. Tenants and Residents' Associations 4. An Garda Síochána 5. Probation Service 6. Joint Policing Committees 7. Local Community Policing Forums 8. Youth Services 9. Community, and voluntary organisations 10. Fingal Children and Young Peoples Services Committee 11. Jigsaw 12. Comhairle Na nÓg	**Action 6.2.1**: Work with residents to ensure safe neighbourhoods. **Action 6.2.2**: Facilitate a collaborative approach to promoting safer neighbourhoods and reducing anti-social behaviour. **Action 6.2.3**: Promote Crime Prevention through Environmental Design (passive surveillance) as a feature in commercial and residential developments. **Action 6.2.4**: Work in partnership with An Garda Síochána and community organisations to deliver late night sporting and other programmes for young people in key targeted areas. **Action 6.2.5**: Work with An Garda Síochána to ensure community policing remains an integral element of security in Fingal.	Safer neighbourhoods in specific localities. Enhanced passive surveillance via local monitoring and better designed urban areas. Greater community Gardaí presence.

Funding sources which may be accessed to support Safe, Accessible, Vibrant Places objectives include:

- Rural Regeneration and Development Fund (RRDF)
- Urban Regeneration and Development Fund (URDF)
- Comhairle na nÓg Development Fund
- Rural Social Scheme
- Department of Rural & Community Affairs funding streams
- Town Centre First funding
- Town & Village Renewal Scheme

- Outdoor Recreation Infrastructure Scheme (ORIS)
- Fáilte Ireland funding streams
- Department of Justice funding streams
- LEADER
- SICAP
- Connecting Ireland Rural Mobility Plan
- Irish Youth Foundation Grants
- NTA and Road Safety Authority funding streams

Fingal County Council Local Economic & Community Plan 2023-2028

Strategic Environmental Assessment Screening Statement

January 2024

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1. Strategic Environmental Assessment

The requirements for a Strategic Environmental Assessment (SEA) in Ireland are set out in the national regulations; European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004 and S.I. No. 436 of 2004 as amended by European Communities (Environmental Assessment of Certain Plans and Programmes) (Amendment) Regulations, 2011 (S.I. No. 200 of 2011), and the Planning and Development (Strategic Environmental Assessment) Regulations 2004 (S.I. No. 436 of 2004) as amended by Planning and Development (Strategic Environmental Assessment) (Amendment) Regulations, 2011 (S.I. No. 201 of 2011) respectively.

The latter regulations (i.e. S.I. No. 436 of 2004 as amended by S.I. No. 201 of 2011) require case-by-case screening of individual plans and programmes based on the criteria in Schedule 2A to the Planning and Development Regulations 2001. These criteria must be taken into account in determining whether or not significant effects on the environment would be likely to arise.

1.1 SEA Conclusions and Recommendation

Following the screening process the Fingal Local Economic and Community Plan (LECP) 2023-2028 has been assessed against the environmental significance criteria as contained in Annex II (2) of the SEA Directive. It is concluded that a Strategic Environmental Assessment is not required for the Fingal LECP 2023-2028. Please refer to Appendix 1: SEA Screening Statement and Appendix 2: Screening for Appropriate Assessment.

1.2 Habitats Directive: Article 6 Assessment

The aim of the European Habitats Directive (Council Directive 92/43/ EEC on the conservation of wild habitats and of wild fauna and flora) is to create a network of protected wildlife sites in Europe maintained at a favourable conservation status[1]. Each member state must designate their most important natural areas as Special Areas of Conservation. The Directive specifies the scientific criteria on the basis of which SAC sites must be selected and very strictly curtails the grounds that can be used as justification for damaging a site. The network of sites is referred to as Natura 2000 and includes SACs (Special Areas of Conservation) for protected habitats and species and SPAs (Special Protection Areas) for protected birds.

The European Habitats Directive (Council of the European Communities 1992) was transposed into Irish legislation by the European Communities (Natural Habitats) Regulations 1997 and amended in 1998, 2005 and 2011. The Birds and Habitats Regulations 2011 and (Part XAB) of the Planning and Development Act 2000 (as amended), set out the obligations of planning authorities under the Birds and Habitats Directives. Article 6 of

[1] *The conservation status of a species can be taken as 'favourable' when population dynamics data on the species concerned indicate that it is maintaining itself on a long term basis as a viable component of its natural habitats, the natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future and there is and will continue to be a sufficiently large habitat to maintain its populations on a long-term basis. Article 1 (i) of the Habitats Directive 92/43/EEC*
The conservation status of a habitat can be taken as 'favourable' when its natural range and area it covers within that range is stable or increasing and the ecological factors that are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future.

the Habitats Directive provides an assessment procedure for any plan or project not directly connected with or necessary to the management of a designated European site but which has the potential to have implications for the site in view of the site's conservation objectives. The Fingal Local Economic and Community Plan 2023-2028, therefore, falls under the remit of Article 6.



Appendices

Appendix 1

SEA Screening Statement

Strategic Environmental Assessment Screening Statement

A1.1 Introduction

Table 1 – Key Facts

Name of Responsible Authority	**Fingal County Council**
Title of Plan	Fingal Local Economic and Community Plan 2023-2028
Purpose of Plan	The 2023-2028 Fingal Local Economic & Community Plan (LECP) is the second LECP which has been developed for Fingal County Council and seeks to build on the progress made under the 2016-2021 Plan. The purpose of the LECP, as provided for in the Local Government Reform Act 2014, is to set out, for a six-year period, the objectives and actions needed to promote and support the economic development and the local and community development of the relevant local authority area, both by itself directly and in partnership with other economic and community development stakeholders.
Subject of Plan	Local Economic and Community Activity within the administrative area of Co. Fingal.
Period covered	2023-2028
Frequency of updates	Every 6 years
Geographic Area of the Plan	Co. Fingal
Summary of nature and content of the Plan	As the framework for the economic development and local/community development of Co. Fingal.
Date Plan came into effect	December 2023

A1.2 Screening Statement

The Strategic Environmental Assessment (SEA) Directive is derived from the European Directive 2001/42/EC on the Assessment of the Effects of Certain Plans and Programmes on the Environment (also known as the 'SEA Directive'). The SEA Directive (2001/42/EC) was transposed into national legislation by the:

- European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004 (S.I. No. 435 of 2004) as amended by European Communities (Environmental Assessment of Certain Plans and Programmes) (Amendment) Regulations, 2011 (S.I. No. 200 of 2011); and
- Planning and Development (Strategic Environmental Assessment) Regulations 2004 (S.I. No. 436 of 2004) as amended by Planning and Development (Strategic Environmental Assessment) (Amendment) Regulations, 2011 (S.I. No. 201 of 2011).

The latter Regulations (i.e. S.I. No. 436 of 2004 as amended by S.I. No. 201 of 2011) require case-by-case screening of individual plans and programmes based on the criteria in Schedule 2A to the

Planning and Development Regulations 2001. These criteria must be taken into account in determining whether or not significant effects on the environment would be likely to arise.

Stage One: Pre-Screening

The first step in determining whether the proposed Local Economic and Community Plan would require an SEA involved a pre-screening check. Pre-screening allows rapid screening-out of actions and policies that are clearly not going to have any environmental impact and screening-in of those that definitely do require SEA.

Stage Two: Environmental Significance Screening

The application of environmental significance criteria is important in determining whether an SEA is required for small Plans/Policies or modifications to Plans/Policies. Annex II (2) of Directive 2001/42/EC sets out the "statutory" criteria that should be addressed when undertaking this stage.

Key Characteristics of the LECP

1. The degree to which the plan or programme sets a framework for projects and other activities, either with regard to the location, nature, size and operating conditions or by allocating resources:

The LECP Vision for the coming six years describes the economy and community which Fingal seeks to build. By 2028 – and aided by collaboration amongst multiple stakeholder groups, headed by Fingal County Council – the ambition is to further improve economic, social and environmental conditions in the county. Climate change is central with the biodiversity and climate emergency influencing all aspects of future development. Creating places where vibrancy, sustainability and strong communities are fostered is seen as a critical factor in attracting and retaining residents and businesses and is a core component – along with a dynamic economy which can:

- ✓ Support the enterprise base;
- ✓ Provide jobs within Fingal;
- ✓ Tackle disadvantage; and
- ✓ Position the county to leverage growth opportunities over the lifespan of the LECP to 2028.

The existing communities and assets of Fingal are strong and can be the basis for delivering on the components of the Vision, which is that: "Fingal will be a vibrant, sustainable, progressive and climate resilient county, underpinned by inclusive, healthy, empowered communities and a dynamic economy."

It is intended that the LECP will facilitate both the expanding economic development role and the emerging local development role of the Local Authority. It will bring about better alignment of the work of the Local Development Companies with that of the Local Authority and other providers of social, community and economic development, thereby achieving better returns for the communities they serve.

2. The degree to which the plan or programme influences other plans and programmes including those in a hierarchy:

The LECP is contained within the context of the policy document *Putting People First* and the Local Government Reform Act 2014. The LECP is part of a series of plans and strategies that have, and are being developed at national, regional local level. These include (but are not limited to):

- Fingal County Development Plan 2023-2029;
- Climate Change Action Plan 2024 – 2029

- Local Education and Training Strategy (to be prepared by Dublin and Dun Laoghaire Education and Training Board);
- Local Government Sectoral Strategy to Promote Employment and Support Local Enterprise;
- Making it Happen – Growing Enterprise in Ireland;
- Action Plan for Jobs 2018;
- Whole of Government Circular Economy Strategy 2022-2023
- National Anti-Poverty Strategy;
- National Development Plan;
- National Reform Programme;
- National Spatial Strategy (to be replaced by the National Planning Framework);
- Regional Planning Guidelines 2010-2022;
- Regional Spatial & Economic Strategy (RSES);
- Dublin Metropolitan Area Strategic Plan (MASP);
- Dublin Regional Enterprise Plan;
- Rural Development Strategy and Plan; and
- The Report of the Commission for the Economic Development of Rural Areas.

At local level, the LECP provides a framework for all organisation and agencies to link their own strategies and plans, and to combine investment and resources to achieve common agreed goals. It follows that those preparing the implementing these strategies and plans will need to be conscious of the agreed priorities for the area as set out in the Plan, and their roles in addressing these.

The purpose of the LECP, as provided for in the Local Government Reform Act 2014, is to set out, for a six-year period, the objectives and actions needed to promote and support the economic development and the local and community development of the relevant local authority area, both by itself directly and in partnership with other economic and community development stakeholders.

To achieve its stated purpose, the LECP will be about realising opportunities, solving problems, and collectively refocusing service provision. Thus, the LECP can only be effectively achieved by all local agencies and organisations working in partnership.

Whilst the LECP is a strong action focused plan, it is neither an operational plan nor a spatial land use plan. The priorities that will be implemented through operational plans have been identified based on an analysis of existing national, regional and local strategies, socio-economic data and public consultations.

3. The relevance of the plan for the integration of environmental considerations, in particular with a view to promoting sustainable development:

The LECP is being prepared under the Local Government Reform Act 2014 and represents an opportunity to implement the objectives of the Fingal Development Plan 2023-2029 in relation to sustainable development, particularly in respect of sustainable transport, public health, community, cultural heritage and tourism and the green economy. The LECP will be an important element of the Fingal County Development Plan 2023-2029 for ensuring the delivery of these objectives.

4. Environmental challenges relevant to the plan:

The 2023-2028 Fingal LECP Framework report comprises the Vision and an integrated framework of six overarching 'themes' which are described in Section 4 of the LECP Report. There are 15 High Level Goals of the Fingal LECP that come under these themes which are as follows:

- **Goal G1.1:** To support communities and the economy in the transition to Net Zero and climate resilience;
- **Goal G2.1:** Support the development of sustainable and strategic infrastructure;

- **Goal G2.2:** Provide a supportive business environment that encourages innovation and attracts, retains and grows businesses sustainably;
- **Goal G2.3:** Remove barriers to labour market participation;
- **Goal G3.1:** Stimulate a culture of life-long learning;
- **Goal G3.2:** Support skills development to meet the diverse needs of communities and businesses;
- **Goal G4.1:** Increase participation in initiatives that promote active living, positive mental wellbeing, and physical activity to achieve improved health and wellbeing for all;
- **Goal G4.2:** Promote citizen participation;
- **Goal G4.3:** Encourage inclusion and connection within and between communities;
- **Goal G4.4:** Target improvements in areas of disadvantage;
- **Goal G5.1:** Promote, protect, and grow the heritage of Fingal and ensure quality amenities for all;
- **Goal G5.2:** Support new and existing cultures to thrive;
- **Goal G5.3:** Champion the arts and cultural life of the county;
- **Goal G6.1:** Support the development of areas for a high quality of life; *and*
- **Goal G6.2:** Promote safety in the community through collaboration and inclusivity.

In the interest of consistency the goals within the framework of the Fingal LECP are aligned with the policies and objectives set out in the Fingal Development Plan 2023 – 2029 and the Climate Change Action Plan 2024 – 2029. The Fingal County Development Plan 2023-2029 has undergone a full SEA and Appropriate Assessment, effective April 2023, which have set out environmental protection measures to ensure that its implementation protects our environment and heritage. Ultimately, the cumulative effects of the LECP will be positive in terms of generating economic activity and required community development in Fingal.

5. **The relevance of the plan or programme for the implementation of Community legislation on the environment (for example, plans and programmes linked to waste-management or water protection):**

   The LECP is not a spatial land-use plan. It provides a framework for all organisations and agencies to reference and crosslink their own strategies and plans, and to combine investment and resources to achieve common agreed goals for the economy and community in Fingal. Where such plans provide a framework for development consent for projects, then these projects will be subject to EIA and AA screening at project inception stage.

Characteristics of the Effects

The following describes the characteristics of the effects, and of the area that is likely to be affected.

1. **The probability, duration, frequency and reversibility of the effects:**

   It is anticipated that the key objectives and principles to be adopted as part of the LECP will ensure that the effects of the resulting changes to existing operating environment will not be significant. The probability that these effects will be environmentally significant in negative terms is low.

2. **The cumulative nature of the effects:**

Cumulative negative environmental effects are not anticipated. A key objective of the LECP will be to attain a balance between community engagement, economic growth and the need to provide sustainable development. The effects will be of a positive nature, in particular regarding improvements in employment and community development, social and urban regeneration, public realm, sustainable transport and the green economy.

3. **The cross-boundary nature of the effects:**

   The plan is designed to have positive regional and inter-county cross-boundary effects.

4. **The risks to human health or the environment (for example, due to accidents):**

   No risks are anticipated. The effects will be of a positive nature, in particular regarding improvements in employment and community development, social and urban regeneration, public realm, sustainable transport and the green economy.

5. **The magnitude and spatial extent of the effects (geographical area and size of the population likely to be affected):**

   The area that will be affected is the entire area of Co. Fingal (448.1km squared). The population of the county was 330,506 in 2022 (CSO Census of Population).

6. **The value and vulnerability of the area likely to be affected due to:**

   Special natural characteristics or cultural heritage:

   Fingal County Development Plan 2023-2029 identifies the protected areas and elements of the natural and cultural heritage as follows:

   - Natura 2000 (Habitats Directive), comprising of Special Areas of Conservation (SAC) and Special Protection Areas (SPAs);
   - Protected Structures; and
   - Sites of Archaeological Significance.

   Exceeded environmental quality standards or limit values:

   - It is not anticipated that any environmental quality standards will be exceeded or that the value of vulnerable areas limited as a result of the LECP 2023-2028.

   Intensive land-use:

   - The Fingal LECP 2023-2028 is not a spatial land-use plan. Any projects arising from the LECP that require development consent under planning legislation will be required to comply with land use and environmental policy of the Fingal Development Plan.

7. **The effects on areas or landscapes that have a recognised national, community or international protection status:**

   - It is not anticipated that the actions within the LECP will have a significant environmental impact on sites, in conformity with policies protecting such sites in relevant Local Area Plans and the Fingal County Development Plan that have been subject to SEA and AA screening and full SEA and AA where appropriate.

Stage Three: Conclusions and Recommendation

Following the screening process the LECP has been assessed against the environmental significance criteria as contained in Annex II (2) of the SEA Directive. It is concluded that a Strategic Environmental Assessment is not required for the Fingal LECP 2023-2028.

Appendix 2

Screening for Appropriate Assessment

A2.1 Introduction: Habitats Directive: Article 6 Assessment

Table 2– Key Facts

Name of Responsible Authority	**Fingal County Council**
Title of Plan	Fingal Local Economic and Community Plan 2023-2028
Purpose of Plan	The 2023-2028 Fingal Local Economic & Community Plan (LECP) is the second LECP which has been developed for Fingal County Council and seeks to build on the progress made under the 2016-2021 Plan. The purpose of the LECP, as provided for in the Local Government Reform Act 2014, is to set out, for a six-year period, the objectives and actions needed to promote and support the economic development and the local and community development of the relevant local authority area, both by itself directly and in partnership with other economic and community development stakeholders.
Subject of Plan	Local Economic and Community Activity within the administrative area of Co. Fingal.
Period covered	2023-2028
Frequency of updates	Every 6 years
Geographic Area of the Plan	Co. Fingal
Summary of nature and content of the Plan	As the framework for the economic development and local/community development of Co. Fingal.
Date Plan came into effect	December 2023

Preamble

The Local Government Reform Act 2014 provides a stronger and clearer role for local government in economic development and community development. This is key element in achieving the vision set out in the *Action Programme for Effective Local Government, Putting People First* (DECLG, 2012) which states that *'local government will be the main vehicle of governance and public service at local level, leading economic, and social and community development'.*

The Plan does not replace the strategic and operational plans of other agencies and bodies, but it does work between and across these to ensure a greater coherence and integration of action. It is about identifying and implementing integrated actions that will help the social and economic development of the county by:

- Building stronger communities through strengthening economic performance; and
- Improving well-being through prosperity, job creation and financial stability.

The Local Economic and Community Plan (LECP) 2023-2028 is prepared in accordance Section 44 of the Local Government Reform Act 2014 and the Local Economic and Community Plans Guidelines 2021, and consists of two elements:

1. A local economic element (prepared and adopted by the local authority); and

2. A community development element (prepared and adopted by the Local Community Development

Committee (LCDC).

The purpose of the LECP is to identify objectives and implement actions to strengthen and develop the economic and community dimensions of Fingal over a six-year period. In this regard, the delivery of objectives and/or actions may be undertaken by Fingal County Council, or by public bodies and other organisations working in partnership with economic and community stakeholders.

Purpose of the Report

This is a Habitats Directive Assessment (or Appropriate Assessment) Screening Report of the Fingal Local Economic and Community Plan 2023-2028. The purpose of this report is to evaluate whether or not the LECP is likely to have significant effects on the integrity of Natura 2000 sites (i.e. Special Areas of Conservation (SAC) and the Special Protection Areas (SPA).

Special Areas of Conservation (SAC) are designated under the EU's Habitats Directive by statutory instrument under the Habitats Regulations 1997 and Special Protection Areas (SPA) are designated by statutory instrument under the EU Birds Directive (2009/147/EC).

Legislative Context

The Directive 92/43/EEC on the Conservation of Natural Habitats and Wild Flora and Fauna provides legal protection for habitats and species of European importance. The Directive was transposed into Irish law by the European Communities (Natural Habitats) Regulations, 1997 (S.I. No. 94 of 1997), with later amendment regulations (S.I. No. 233 of 1998; S.I. No. 378 of 2005) and the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No. 477 of 2011), as amended.

Articles 6(3) and 6(4) of the Habitats Directive sets out the decision-making tests for Plans or Projects affecting Natura 2000 sites.

Article 6(3) establishes the requirement for Appropriate Assessment thus:

'Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, *either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives. In the light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public'*.

Article 6(4) states:

If, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature, the Member State shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected.

In formulating the LECP, Fingal County Council (the Competent Authority) must comply with the EU Habitats and Birds Directives and the Planning and Development (Amendment) Act 2010, European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No. 477 of 2011) and the Environment (Miscellaneous Provisions) Act 2011.

A2.2 Fingal LECP

The purpose of the Fingal LECP is to set out, for a six-year period, the objectives and actions needed to promote and support the economic development and the local and community development of Fingal, both by itself directly and in partnership with other economic and community stakeholders.

The process for the preparation and development of the LECP was underpinned by a number of values and principles including:

- Social Justice
- Sustainable Development
- Social Inclusion
- Human Rights, Equality and Anti-Discrimination
- Empowering Communities
- Active Participation

Following an extensive public and key stakeholder consultation process, a framework of high-level economic and community goals was established. Each High-Level Goal is underpinned by Sustainable Economic Development Objectives (SEDOs) and Sustainable Community Objectives (SCOs). The high-level goals within the economic and community elements will be achieved through the implementation of specific, time-bound and measurable actions.

A2.3 Fingal LECP and Fingal County Development Plan

Fingal LECP does not sit directly within the hierarchy of spatial planning policy, but takes consideration of the spatial framework provided by Fingal County Development Plan 2023-2029, and other related strategies and plans including the Regional Spatial & Economic Strategy (RSES), the Dublin Metropolitan Area Strategic Plan (MASP) and the Dublin Regional Enterprise Plan.

In this context, the Fingal LECP has been designed to complement the Fingal County Development Plan 2023-2029, and is consistent with the core strategy and the objectives of the Development Plan.

Under Section 177V of the Planning and Development Act 2000, as amended, and Article 6(3) of the Habitats Directive, the Fingal County Development Plan 2023-2029 was subject to a full Appropriate Assessment, which determined that the Plan may, if unmitigated, have significant effects on 27 no. European sites. The Appropriate Assessment (*statement detail below sourced from Appropriate Assessment Determination under Section 177V of the Planning and Development Act 2000, as amended, for the Fingal Development Plan 2023 – 2029*) lists the following factors that could potentially affect the integrity of European sites:

- Provisions for sectors such as: climate action, urbanisation including residential and economic development, public realm works, social and community facilities, transport, green infrastructure, energy, environmental and recreational infrastructure; all introduce sources for effects through construction phase such as habitat destruction, reduction or fragmentation, light pollution, hydrological interactions and disturbance/displacement effects; and,
- Loading pressures from the operational phase of developments – these sources could result in habitat loss, disturbance/displacement effects, and interactions with water quality, air quality and habitat fragmentation.
- Increasing visitors to sensitive areas during the operational phase of, for example, recreational and tourism developments.

The reasoning and conclusions presented in the Natura Impact Report in support of the Competent Authority's Appropriate Assessment are as follows:

- Implementation of the Plan would have had the potential to result in adverse effects to the integrity of European sites, if unmitigated.
- The risks to the safeguarding and integrity of the Qualifying Interests, Special Conservation Interests and conservation objectives of the European sites have been addressed by the inclusion of mitigation measures that will prioritise the avoidance of effects in the first place and reliably mitigate effects where these cannot be avoided. In addition, any lower-level plans and projects arising through the implementation of the Plan, will themselves be subject to Appropriate Assessment when further details of design and location are known.
- In-combination effects from interactions with other plans and projects have been considered in this assessment and the mitigation measures have been incorporated into the Plan – these measures are robust and will ensure there will be no adverse effects on the integrity of

European sites as a result of the implementation of the Plan either alone or in-combination with other plans/ projects.
- Having incorporated mitigation measures, the Plan is not foreseen to give rise to any adverse effect on the integrity of European sites, alone or in combination with other plans and projects

In this respect, it should be noted that all plans, projects and programme arising from the LECP are consistent with objectives of the Fingal County Development Plan 2023-2029. Furthermore, individual plans and projects that may arise from the implementation of the LECP will be screened to determine if Appropriate Assessment is required and to ensure that such plans or projects would not have an adverse impact on the integrity of the Natura 2000 Network. The Natura 2000 network comprises Special Protection Areas under the Birds Directive, Special Areas of Conservation under the Habitats Directive and Ramsar sites designated under the Ramsar Convention.

A2.4 HDA Screening

Introduction

The Habitats Directive Assessment (HAD) Screening Report has been prepared taking cognisance of the following guideline documents:

- Appropriate Assessment Guidance for Planning Authorities (DEHLG, 2010); *and*
- Assessment of Plans and Projects in Relation to Natura 2000 sites: Methodological Guidance on Article 6(3) and (4) of the Habitats Directive 92/43/EEC (European Commission, 2021);

The Screening Process is designed to identify the likely impacts upon the Natura 2000 sites, either alone or in combination with other plans and projects and considers whether these impacts are likely to be significant. This Screening Assessment will:

- Determine whether the LECP is directly connected with or necessary to the management of the site;
- Describe the LECP and other plans and projects that, 'in combination' has the potential to have significant effects on a European site;
- Identify the potential effects on the European site; *and*
- Assess the significance of any effects on the European site.

Management of the Natura 2000 Sites

For a Plan to be 'directly connected with or necessary to the management of the site', the 'management' component must refer to management measures that are for conservation purposes, and the 'directly' element refers to measures that are solely conceived for the conservation management of a site.

Fingal LECP is a framework plan for the promotion and facilitation of economic, community and local development for the county, and is not directly connected to the management of any Natura 2000 sites. However, as was identified any project delivered as part of meeting the requirement of the action and where that project impacts on the Natura 2000 network a detailed Appropriate Assessment will be required.

Natura 2000 Sites and the LECP Area

The maps below illustrate the SACs and SPAs in Fingal and those within proximity to the county boundary that have been identified for consideration. Actions A1.2.3, A6.1.1 and A6.1.4 have the potential to deliver projects which could impact on some of these sites and where this occurs a detailed Appropriate Assessment will be required.

Figure 1 - Special Areas of Conservation (SACs) within the vicinity of the Plan:

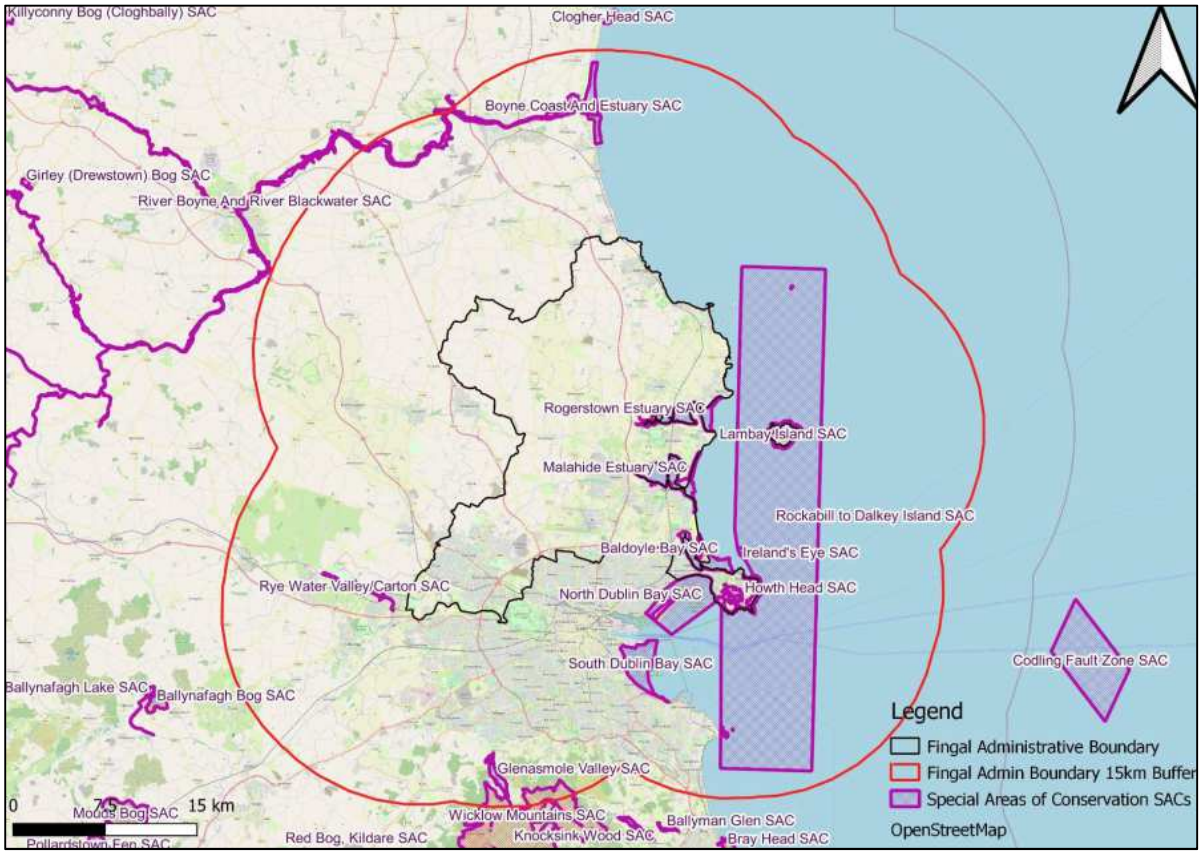
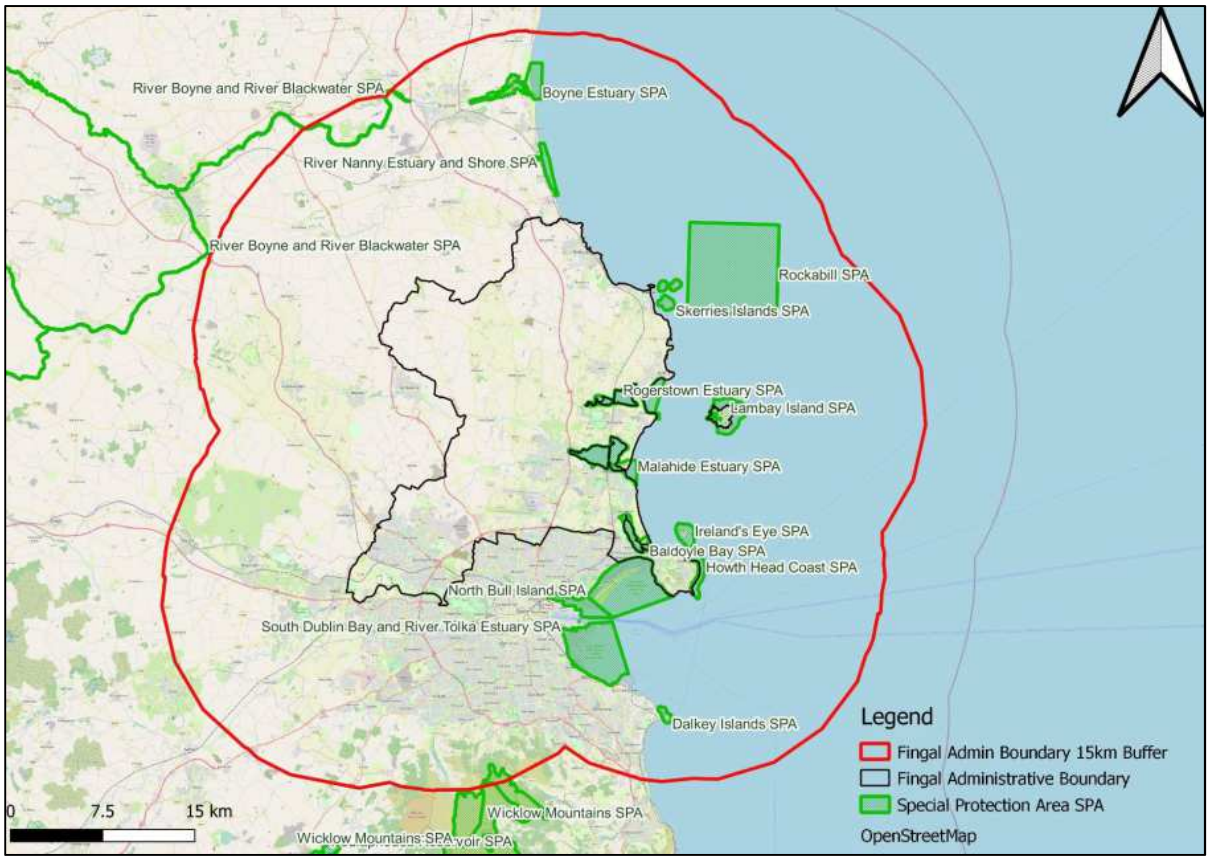


Figure 2 – Special Protection Areas (SPAs) within the vicinity of the Plan



The SACs and SPAs are listed below and a site description and outline of qualifying interests is provided. The information was sourced from www.npws.ie and the Natura Impact Reports prepared for the Fingal County Development Plan 2023-2029.

Assessment Criteria

Having regard to the European and national level guidance documents, as referenced above, a screening matrix has been developed to facilitate assessment. The LECP is assessed against the criteria as set out below.

Table 3 - LECP: Elements

Criteria	Assessment
Individual elements of the plan (either alone or in combination with other plans or projects) likely to give rise to impacts on the Natura 2000 site.	The Fingal County Development Plan 2023-2029 provides the overarching spatial framework for the county. The LECP will be consistent with the Fingal County Development Plan 2023-2029. Where plans or projects arise (directly or indirectly) from the LECP (consistent with the development plan objectives) that may impact upon sensitive or designated sites, because of their proximity or scale, screening for Appropriate Assessment and Environmental Impact Assessment (e.g. EIA,) will be undertaken, where deemed necessary. Therefore, no projects, which would give rise to significant adverse direct, indirect or secondary impacts on the integrity of the Natura 2000 sites, arising from the size or scale of the project, shall be permitted on the basis of this LECP (either individually or in combination with other plans or projects).

Table 4 – LECP: Impacts

Criteria	Assessment
Likely direct, indirect or secondary impacts of the project (either alone or in combination with other plans or projects) on the Natura 2000 site by virtue of the following criteria.	
Size and Scale	The LECP does not set a framework for projects or activities with regard, to specific size, scale and location. The Fingal County Development Plan 2023-2029 sets the spatial framework for location of development and land uses (with the appropriate consideration and respect given to ecologically important sites). Where plans or projects arise (directly or indirectly) from the LECP (consistent with the development plan objectives) that may impact upon sensitive or designated sites, because of their proximity or scale, screening for Appropriate Assessment and Environmental Impact Assessment (e.g. EIA,) will be undertaken, where deemed necessary.
Land-Take	Fingal LECP does not involve any land take within Natura 2000 sites.
Distance from the Natura 2000 site or key features of the site	The LECP will cover Fingal County as an entire plan area, and will not relate to specific locations. There will be no further encroachment upon Natura 2000 sites.
Resource Requirements (Water abstraction etc.)	The policies and objectives of the Fingal County Development Plan 2023-2029 ensures that resource requirements are identified to meet anticipated development over the plan period. No projects giving rise to significant adverse direct, indirect or secondary impacts upon the integrity of any Natura 2000 sites, arising from their resource requirements will be proposed, facilitated or permitted on the basis of the LECP.
Emissions (disposal to land, water or air)	The policies and objectives of the Fingal County Development Plan 2023-2029 and the Regional Waste Management Plan will ensure that emissions and waste issues will be appropriately mitigated with regard to any impacts on Natura 2000 sites.
Excavation Requirements	There will be no excavation requirements arising from actions proposed in the Fingal LECP.
Transportation Requirements	Fingal County Development 2023-2029 provides a sustainable framework for transportation and accessibility. Any individual transportation plans or projects that may arise from actions contained in the LECP will be screened for Appropriate Assessment as required.
Duration of construction, operation, decommissioning, etc.	Not applicable
Other	Not applicable

Table 5 – LECP: Likely Changes

Criteria	Assessment
Likely changes to the site arising as a result of the following criteria.	
Reduction of habitat area	Fingal LECP does not relate to a project specific location. The LECP does not provide, or include for any additional land for development and, therefore, does not involve any additional land take. Any project resulting from the LECP shall be required to be consistent with the Fingal County Development Plan 2023-2029 objectives, and shall be subject to Screening for Appropriate Assessment.
Disturbance to key species	Fingal LECP does not relate to a project specific location. The LECP does not provide, or include for any additional land for development and, therefore, does not involve any additional land take. Any project resulting from the LECP shall be required to be consistent with the Fingal County Development Plan 2023-2029 objectives, and shall be subject to Screening for Appropriate Assessment.
Habitat or species fragmentation	Fingal LECP does not relate to a project specific location. The LECP does not provide, or include for any additional land for development and, therefore, does not involve any additional land take. Any project resulting from the LECP shall be required to be consistent with the Fingal County Development Plan 2023-2029 objectives, and shall be subject to Screening for Appropriate Assessment.
Reduction in species density	Fingal LECP does not relate to a project specific location. The LECP does not provide, or include for any additional land for development and, therefore, does not involve any additional land take. Any project resulting from the LECP shall be required to be consistent with the Fingal County Development Plan 2023-2029 objectives, and shall be subject to Screening for Appropriate Assessment.
Changes in key indicators of conservation value (water quality etc.)	Fingal LECP does not relate to a project specific location. The LECP does not provide, or include for any additional land for development and, therefore, does not involve any additional land take. Any project resulting from the LECP shall be required to be consistent with the Fingal County Development Plan 2023-2029 objectives, and shall be subject to Screening for Appropriate Assessment.
Climate Change	No projects giving rise to significant adverse changes in climatologically conditions affecting the Natura 2000 sites shall be permitted on the basis of the provisions of Fingal LECP (either individually or in combination with other plans or projects).

Table 6 – LECP: Natura 2000 Impacts

Criteria	Assessment
Likely impacts on the Natura 2000 site as a whole in terms of the following criteria.	
Interference with the key relationships that define the structure of the site	The objectives of the LECP will not impact key relationships that define the structure of Natura 2000 sites.
Interference with key relationships that define the function of the site	The objectives of the LECP will not impact key relationships that define the structure of Natura 2000 sites.

Table 7 – LECP: Indicators of Significance

Criteria	Assessment
Indicators of significance as a result of the identification of effects set out above in terms of the following criteria.	
Loss	Not applicable
Fragmentation	Not applicable
Disruption	Not applicable

Disturbance	Not applicable
Change to key elements of the site	Not applicable

A2.5 Conclusions

Finding of No Significant Effects Matrix

Criteria	Assessment
Natura 2000 sites identified for Screening	Natura 2000 sites as illustrated on the attached Map and Appendix.
Description of Plan	Natura 2000 sites identified for Screening
Is the plan necessary for the management of Natura 2000 sites?	Fingal LECP is not directly connected with, or necessary for, the management of the Natura 2000 sites in Fingal.
Describe how the plan (alone or in combination) is likely to affect a Natura 2000 site.	In general, any development that may result from the implementation of the objectives of the Fingal LECP could lead to a number of impacts depending on where the development is sited, the scale of development and types and quantities of emissions. However, all objectives must be devised so as not to conflict with the policies and objectives of the Fingal County Development Plan 2023-2029, for which both an AA Screening and full SEA were completed. The LECP will not be in conflict with the policies or objectives of the Fingal County Development Plan 2023-2029 and will, therefore, avoid the need for development that would be likely to significantly and adversely affect the integrity of any Natura 2000 site within and outside the county boundary. In achieving consistency with the objectives of the Fingal County Development Plan 2023-2029, any action/objectives developed as part of the LECP shall be required to conform to National and European regulations and legislation for the prevention of environmental effects which would adversely impact on the integrity and conservation objectives of Natura 2000 sites. This, along with the acknowledgement of the county's Natural heritage policies contained within the county development plans, will ensure that no development objective will be created that will significantly adversely impact on Natura 2000 sites.
Screening Conclusion	It is concluded that the LECP in itself will not give rise to significant impact on the Natura 2000 network. Therefore, it is determined that Appropriate Assessment is not required at this time. Any project resulting from the LECP shall be required to be consistent with the Fingal County Development Plan 2023-2029 objectives, and shall be subject to Screening for Appropriate Assessment.
List of Agencies Consulted	External consultation was not deemed necessary.

A2.6 Fingal Natura 2000 Sites

Table 8 – Fingal Natura 2000 Sites: Profile

Site Code	Site Name	Quality	Characteristic
IE0000199	Baldoyle Bay SAC	A typical eastern estuarine system with fairly extensive intertidal sand and mud flats. Good diversity in sediment types. Has Zostera spp. Quality variable but generally good. Salt marshes are well represented and are at least of moderate quality. Has two Red Data Book plant species. Of importance for wintering waterfowl, with an internationally important population of Branta	Site comprises a relatively small estuarine and bay system in north County Dublin. Receives the flows of the Mayne and Sluice rivers, both of which drain an agricultural / suburban catchment. The inner part of the site is sheltered from the sea by a large sand dune peninsula, though most of the dunes are now used as a golf course. Sediments in the inner sheltered areas are mostly muds or muddy sands, often with a high organic

		bernicla horta and nationally important populations of a further six species, including Pluvialis apricaria and Limosa lapponica. Sterna albifrons formerly bred.	content. Part of the tidal section of the Mayne River and adjoining brackish marshes are included in the site. The outer part of the site is exposed to the open sea and the sediments here are predominantly well-aerated sands. In addition to the intertidal and salt marsh habitats, small areas of sand dunes and sandy beaches are included.
IE0004016	Baldoyle Bay SPA	Baldoyle Bay is a typical eastern estuarine system with fairly extensive intertidal sand and mud flats that have Zostera spp. It also has good salt marsh fringes where birds roost. The quality of habitats present is variable but generally good. The site supports a good diversity of wintering waterfowl and notably an internationally important population of Branta bernicla hrota. It has nationally important populations of Tadorna tadorna, Anas acuta, Charadrius hiaticula, Pluvialis apricaria, Pluvialis squatarola and Limosa lapponica. At high tide the shallow waters regularly attract species such as Podiceps cristatus and Mergus serrator. Sterna albifrons formerly bred at the site, but not since the early 1990s.	The site comprises a relatively small estuarine system in north County Dublin. It receives the flows of the Mayne and Sluice rivers, both of which drain an agricultural / suburban catchment. Much of the estuary is sheltered from the sea by a large sand dune peninsula (now mostly a golf course). Sediments in the inner sheltered areas are mostly muds or muddy sands, often with a high organic content. Towards Portmarnock Point, the sediments are predominantly well-aerated sands. In addition to the intertidal flats and salt marsh habitats, a small area of sand hills and sandy beach at Portmarnock Point is included in the site.
IE0004025	Malahide Estuary SPA	The site is of high importance for wintering waterfowl and supports a particularly good diversity of species. It has an internationally important population of Branta bernicla hrota (4.8% of national total), and nationally important populations of a further 12 species. Of particular note are the populations of Tadorna tadorna (3.0% of national total), Anas acuta (2.9% of national total), Mergus serrator (2.8% of national total), Pluvialis squatarola (2.7% of national total) and Calidris canutus (3.7% of national total). The site is one of the few in eastern Ireland where substantial numbers of Bucephala clangula occur. It has a regionally important population of Limosa lapponica. The site is an important and regular site for a range of autumn passage migrants, especially Calidris ferruginea and Philomachus pugnax. It supports a regular flock of non-breeding Cygnus olor.	The site is situated in north Co. Dublin, between the towns of Malahide and Swords. It comprises the estuary of the River Broadmeadow. A railway viaduct, built in the 1800s, crosses the site and has led to the inner estuary becoming lagoonal in character and only partly tidal. Much of the outer part of the estuary is well-sheltered from the sea by a large sand spit, known as *"the island"*. This spit is now mostly converted to a golf-course. The outer part empties almost completely at low tide and there are extensive intertidal flats. Salt marshes occur in parts of the outer estuary and in the extreme inner part of the inner estuary.
IE0000202	Howth Head SAC	The climate and landforms of Howth combined with proximity to Dublin have resulted in a site of great	Howth is a peninsula of cambrian quartzite and slate linked to the mainland by a raised beach.

		scientific and education interest. The flora is very diverse with several Red data book species and species of very restricted Irish distribution. The dry heath and sea cliff vegetation is extensive and well developed. A wide variety of seabirds nest on the marine cliffs. Many important scientific studies of the area have been published.	Most of the coast is sheer with many 30m or higher cliffs. Its climate is dry and warm by Irish standards and this is reflected in its flora and fauna. The SAC occupies the eastern portion and summit of Howth. Much of the remaining area is urbanised or used for amenity. The greater part of the site consists of heathland and cliff.
IE0004113	Howth Head Coast SPA	Howth Head has important colonies of breeding seabirds, with nationally important populations of Rissa tridactyla, Alca torda and Cepphus grylle, and a regionally important population of Uria aalge The colony has been monitored at intervals since the Operation Seafarer project in 1969/70 and most populations have increased since then. The cliffs also support a breeding pair of Falco peregrinus, a species listed on Annex I of the E.U. Birds Directive. The site is easily accessible and has important amenity and educational value due to its proximity to Dublin City.	Howth Head is a rocky headland situated on the northern side of Dublin Bay. The peninsula is composed of Cambrian rock of the Bray Group, the most conspicuous component being quartzite. The site comprises approximately 3 km of sea cliff, which vary between about 60m and 90m in height. A typical maritime cliff flora occurs. Where the gradient allows, shallow glacial drift supports a typical maritime flora and there is a fringe of coastal heath on the cliff tops. The marine area to a distance of 500 m from the cliff base, where seabirds bathe, socialise and feed, is included within the site.
IE000204	Lambay Island SAC	Designated for two Annex I habitats namely: reefs (1170) and vegetated sea cliffs of the Atlantic and Baltic coasts (1230) and two Annex II species: Grey Seal (*Halichoreus Grypus*) (1364) and the common seal (*Phoca Vitulina*) (1365). The SAC overlaps with an SPA of the same name owing to the avian diversity for which the island is known.	Lambay Island is a privately owned island of approximately 250ha. That is situated about 4km off the North Dublin Coast at Portrane. Underlying ground conditions vary owing to the geology. Relatively low lying along its western perimeter, it slopes gently upwards, to its highest point of 127m. A considerable part of Lambay Island occurs above the 50m contour line, with the results that the cliffs are an inherent feature of the site. Lambay Island is characterised variously by the presence of habitats including agricultural land, woodland – broadleaved and coniferous, parkland, scrub, walled gardens and building and unmanaged pasture and maritime grasslands and cliff vegetation.
IE004069	Lambay Island SPA	Lambay Island is known as an important sea bird colony and it supports internationally important populations for a number of breeding sea birds. The diversity of the site is recognised in the lengthy features of interest list for which the site is designated: Fulmar (*Fulmarus glacialis*) (A009); Cormorant (Phalacrocorax carbo) (A017); Shag (*Phalacrocorax aristotelis*) (A018); Greylag Goose (*Anser anser*) (A043); Lesser black backed gull (*Larus fuscus*) (A183); Herring gull	A privately owned island of moderate size; with a range of habitats from rocky shore to agricultural to scrub and woodland. The island is also designated an SAC although the SPA boundary extends beyond the SAC boundary.

		(*Larus argentatus*) (A184); Kittiwake (*Rissi tridactyla*) (A188); Guillemot (*Uria aalge*) (A199); Razorbill (*Alca torda*) (A200) and Puffin (*Fratercula arctica*) (A204). The site is also of conservation for the population of Grey Seal, a species that is listed on Annex II of the EU Habitats Directive and for which an overlapping SAC designation exists.	
IE0002193	Ireland's Eye SAC	The island has a small, though significant, example of vegetated stony or shingle habitat of the type which fringes sandy beaches. It also contains an example of vegetated sea cliffs and has two Red Data Book species, Crambe maritima and Hyoscyamus niger. Excellent diversity of breeding seabirds (up to 12 species), with four species in numbers of national importance and also a recently established gannet (Sula bassana) colony, the only one on the east coast. Traditional site for Falco peregrinus.	Situated c. 1.5 km north of Howth, Ireland's Eye is a small, uninhabited island. The underlying geology is Cambrian greywhackes and quartzites. These rocks form impressive cliffs along the northern and eastern sides of the island, reaching up to 69 m. Elsewhere the island is covered by glacial drift. A sandy beach, backed by shingle and low sand hills, occurs at Carrigeen Bay on the western shore. An extensive area of bedrock shore is exposed at low tide to the south of the island. The main habitat on the island is a mix of dry grassland and bracken. Owing to its proximity to the mainland, the island is popular with day-trippers and also has educational value.
IE0004117	Ireland's Eye SPA	Ireland's Eye is an important seabird colony, with 11 species breeding regularly. It has nationally important populations of Phalacrocorax carbo, Larus argentatus, Larus marinus, Rissa tridactyla, Uria aalge and Alca torda. In addition, the island has a recently established colony of Sula bassana, which is one of only five in the country and the only one on the East coast. It also has regionally important populations of Fulmarus glacialis, Phalacrocorax aristotelis, Cepphus grylle and a small colony of Fratercula arctica. It is a traditional site for Falco peregrinus, though this species only breeds in some years. It supports two Red Data Book plant species, Crambe maritima and Hyoscyamus niger. The seabird colony is monitored annually.	Situated c.1.5 km north of Howth, Ireland's Eye is a small, uninhabited island. The underlying geology is Cambrian greywackes and quartzites. These rocks form impressive cliffs along the northern and eastern sides of the island, reaching up to 69m. A tall stack, which is completely cut off from the main island at mid and high tide, occurs at the eastern side of the cliffs. Elsewhere the island is covered by glacial drift. A sandy beach, backed by shingle and low sand hills, occurs at Carrigeen Bay on the western shore. A low-lying, sparsely vegetated islet, known as Thulla, occurs a little south of the main island, and an extensive area of bedrock shore is exposed at low tide to the south of the island. The main habitat on the island is a mix of dry grassland and bracken. The seas to the north and east of the island (to a distance of 500 m), where seabirds feed, bathe and socialise, are included in the site. Owing to its proximity to the mainland, the island is popular with day-trippers and also has educational value.
IE0000205	Malahide Estuary SAC	The site has an important example of	The site is situated in north Co.

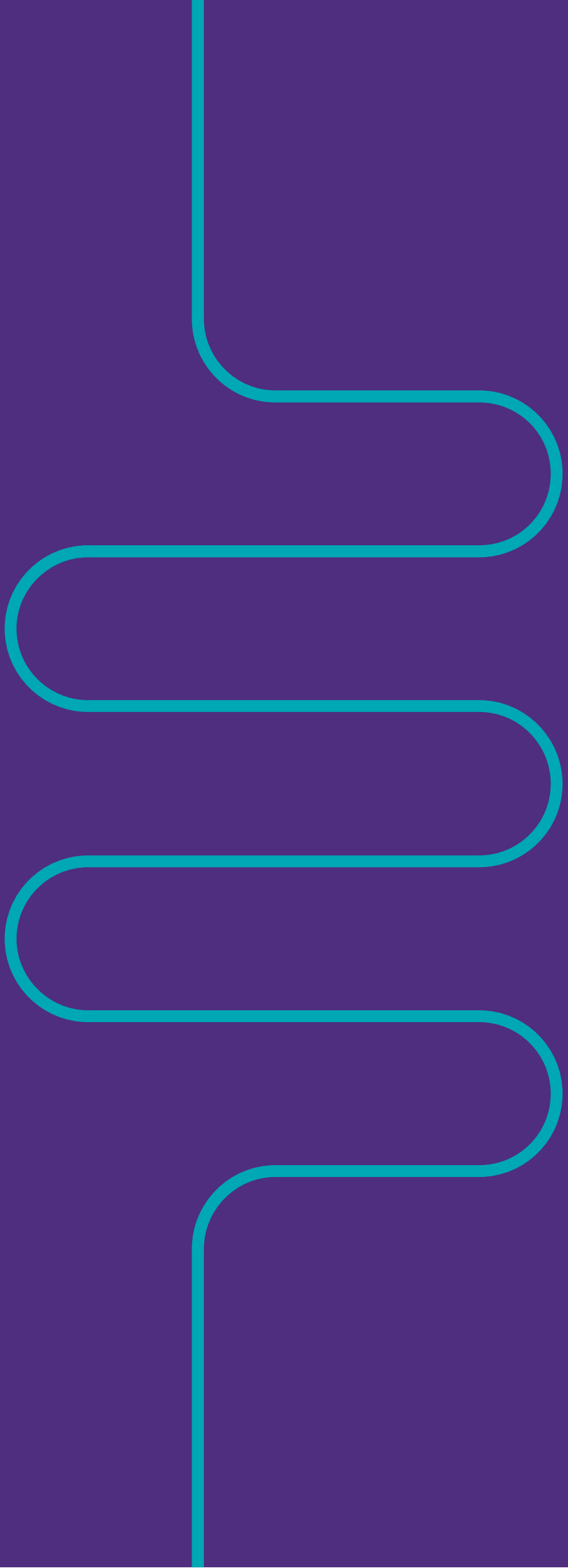
		intertidal sand and mud flats, with Zostera spp. Their quality is variable but generally good. Salt marshes are well- represented, particularly Atlantic salt meadows and Salicornia flats. Most of the sand dune system is managed for a golf course but significant areas of fixed dunes and shifting white dunes remain. The site has Viola hirta, a Red Data Book plant species. It is of high importance for wintering waterfowl, with an internationally important population of Branta bernicla horta and nationally important populations of a further 14 species, including Pluvialis apricaria. It also supports a regionally important population of Limosa lapponica. This site has educational value and has been the subject of a number of research projects.	Dublin, between the towns of Malahide and Swords. It comprises the estuary of the River Broadmeadow. A railway viaduct, built in the 1800s, crosses the site and has led to the inner estuary becoming lagoonal in character and only partly tidal. Much of the outer part of the estuary is well sheltered from the sea by a large sand spit, known as *'the island'*. This spit is now mostly converted to a golf course though some sand dunes and salt marshes remain. A section of bedrock shore extending towards Portmarnock is included as it represents the only continuous section through the fossiliferous Lower Carboniferous rocks in the Dublin Basin, and is the type locality for several species of fossil coral.
IE004016	North Bull Island SPA	The site is among the top ten sites for wintering waterfowl in the country. It supports internationally important populations of Branta bernicila hrota and Limosa lapponica and is the top site in the country for both of these species. A further 14 species have populations of national importance, with particular notable numbers of Tadorna tadorna (8.5% of national total), Anas acuta (11.6% of national total), Pluvialis squatarola (6.9% of national total), Calidris canutus (10.5% of national total). North Bull Island SPA is a regular site for passage waders such as Philomachus pugnax, Calidris ferruginea and Tringa erythropus. The site supports Asio flammeus in winter. Formerly the site had an important colony of Sterna albifrons, but breeding has not occurred in recent years. The site provides both feeding and roosting areas for the waterfowl species. Habitat quality for most of the estuarine habitats is very good. The site has a population of the rare Petalophyllum ralfsii, which is the only known station away from the western seaboard as well as five Red Data Book vascular plant species and four bryophyte species. It is nationally important for three insect species. Wintering bird populations have been monitored more or less continuously since the late 1960s, and the other scientific interests of the site have also been well documented. Future prospects are good owing to	The North Bull Island sand spit is a relatively recent depositional feature, formed as a result of improvements to Dublin Port during the 18th and 19th centuries. It is almost 5km long and 1km wide and runs parallel to the coast between Clontarf and Sutton. The sediment that forms the island is predominantly glacial in origin and siliceous in nature. A well-developed dune system runs the length of the island, with good examples of embryonic, shifting marram and fixed dunes, as well as excellent examples of humid dune slacks. Extensive salt marshes also occur. Between the island and the mainland occur two sheltered intertidal areas that are separated by a solid causeway constructed in 1964. The seaward side of the island has a fine sandy beach. A substantial area of shallow marine water is included in the site. Part of the interior of the island has been converted to golf courses. The proximity of the North Bull Island to Dublin City results in it being a very popular recreational area. It is also very important for educational and research purposes. Nature conservation is a main landuse within the site.

		various designations assigned to site.	
IE0000206	North Dublin Bay SAC	Site possesses an excellent diversity of coastal habitats. The North Bull Island dune system is one of the most important systems on the east coast and is one of the few in Ireland that is actively accreting. It possesses extensive and mostly good quality examples of embryonic, shifting marram and fixed dunes, as well as excellent examples of humid dune slacks. Both Atlantic and Mediterranean salt marshes are well represented and a particularly good marsh zonation is shown. The salt marshes grade into mudflats and sandflats, some of which are dominated by annual Salicornia species. Petalophyllum ralfsii occurs at its only known station away from the western seaboard. The site has five Red Data Book vascular plant species and four Red Data Book bryophyte species. This is one of the most important sites for wintering waterfowl in Ireland, with internationally important populations of Branta bernicla horta, Calidris canutus and Limosa lapponica, plus nationally important numbers of a further 14 species. 20% of the national total of Pluvialis squatarola occurs here. Formerly it had important colony of Sterna albifrons. North Dublin Bay is nationally important for three insect species. The scientific interests of the site have been well documented and future prospects are good owing to the various designations assigned to site.	The North Bull Island sand spit is a relatively recent depositional feature, formed as a result of improvements to Dublin Port during the 18th and 19th centuries. It is almost 5km long and 1km wide and runs parallel to the coast between Clontarf and Sutton. The sediment, which forms the island, is predominantly glacial in origin and siliceous in nature. Between the island and the mainland there occurs two sheltered intertidal areas that are separated by a solid causeway constructed in 1964. The seaward side of the island has a fine sandy beach. A substantial area of shallow marine water is included in the site. The interior of the island is excluded from the site as it has been converted to golf courses. The proximity of the North Bull Island to Dublin City results in it being a very popular recreational area. It is also very important for educational and research purposes. Nature conservation is a main landuse within the site.
IE0004014	Rockabill SPA	Rockabill is an internationally important tern colony and the most important in Ireland. It supports the largest colony of Sterna dougallii in Ireland (c.88% of national total) and in north-west Europe, plus the largest colony of Sterna hirundo in the country (c.35% of national total) and a significant colony of Sterna paradisaea. Since 1989, the site has been wardened each breeding season. With management for the benefit of the terns, numbers of all three species have steadily increased. Detailed research is carried out, including studies on breeding behaviour, productivity and feeding. A ringing programme has been in operation since the 1980s and this has produced important information on the movement of the birds in an international context. Rockabill also	The Site consists of two small, low-lying, granitic islets situated c.7 km off the Dublin coast. The islands are separated by a narrow channel though are connected at low spring tides. A lighthouse, manned until 1989, is situated on the main island. The main island, known as the Lighthouse Island, is vegetated by a scrubby sward of Lavatera arborea, with a range of other maritime species such as Matricaria maritima, Silene maritima, Rumex spp., Cochlearia officinalis, Atriplex spp. and Spergularia rupicola. Some exotic plants are present, notably Hebe speciosa and Carpobrotus edulis. The smaller island, known as the Bill, is very exposed and is sparsely vegetated. The site includes all of the

		supports a nationally important population of Cepphus grylle and a small colony of Rissa tridactyla. The site is a known location for the observation of bird migration. Owing to its importance, Rockabill is a designated Refuge for Fauna.	rocky shores to the low tide mark.
IE0003000	Rockabill to Dalkey Island SAC	The area selected for designation represents a key habitat for the Annex II species - harbour porpoise, within the Irish Sea. Population survey data show that porpoise occurrence within the site boundary meets suitable reference values for other designated sites in Ireland. The species occurs year-round within the site and comparatively high group sizes have been recorded. Porpoises with young (i.e. calves) are observed at favourable, typical reference values for the species. Casual and effort-related sighting rates from coastal observation stations are significant for the east coast of Ireland and the latter appear to be relatively stable across all seasons. The selected site contains a wide array of habitats believed to be important for harbour porpoise including inshore shallow sand and mud-banks and rocky reefs scoured by strong current flow. The site also contains two Annex II seal species, Harbour seal (Phoca vitulina vitulina), Grey seal (Halichoerus grypus) for which terrestrial haul-out sites occur in immediate proximity to the site. Bottlenose dolphin (Tursiops truncatus) has also occasionally been recorded in the area. Along the eastern seaboard the habitat type Reef is uncommon due to prevailing geology and hydrographical conditions.	The selected site forms a strip of dynamic inshore and coastal waters in the western Irish Sea, extending approximately 40 km in length and encompassing a range of comparatively shallow marine habitats, including diverse seabed structures, reefs, islets and islands. It borders existing designated sites for Annexed species and habitats and is adjacent to a wide array of coastal features, e.g., mudflats, lagoons, estuaries, coastal cliffs, sea caves, several of which are also designated. Extending east from Dublin Bay towards the offshore Kish Bank, the site contains the entire Burford Bank, a sedimentary seabed structure (i.e. fine sand) at the mouth of Dublin Bay that on its north side is flanked by gravel and coarse sand deposits. The site also contains the northern segment of the Frazer Bank (i.e. fine sand) off Dalkey Island and Killiney Bay. Reef habitats within the site occur at Dalkey Island, Maiden Rock and Muglins in the southern portion, off Howth Head, Ireland's Eye and Lambay Island in the central portion, and Rockabill in North Dublin. Expansive surveys of the Irish coast have indicated that the greatest resource of this habitat within the Irish Sea is found fringing offshore islands which are concentrated along the Dublin coast. A detailed survey of selected suitable islands has shown areas with typical biodiversity for this habitat both intertidally and subtidally. These Reefs are subject to strong tidal currents with an abundant supply of suspended matter resulting in good representation of filter feeding fauna such as sponges, anemones and echinoderms.
IE0000208	Rogerstown Estuary SAC	A typical eastern estuary with fairly extensive intertidal sand and mud flats. Quality is variable owing to pollution from a number of sources, especially a large landfill site that was built on the mudflats. The salt marshes that fringe the estuary are of moderate importance and quality and include both Atlantic	Site comprises a relatively small estuarine system in north County Dublin. Receives the Ballyboghil and Ballough rivers, both of which flow through an agricultural catchment. It is a funnel shaped estuary, extending for about 6 km from east to west and up to 2 km at its widest. Has a wide salinity range, from near

		and Mediterranean salt meadows, as well as Salicornia flats. The sand dune element at site is limited in its distribution and quality. Has three Red Data Book plant species. Of high importance for wintering waterfowl, with an internationally important population of Branta bernicla horta and nationally important populations of a further 16 species including Pluvialis apricaria. Sterna albifrons has bred.	full seawater to near full fresh water. Estuary is bisected by a causeway and bridge that carries the Dublin-Belfast railway line. A sandy peninsula stretches across the outer part of the estuary, restricting water flow to a channel of c.200 m. In addition to salt marsh and sand dune habitats, some agricultural fields that adjoin the estuary are included in site - some of these have botanical or ornithological interests.
IE0004015	Rogerstown Estuary SPA	Rogerstown Estuary is a typical eastern estuary with fairly extensive intertidal sand and mud flats. Of high importance for wintering waterfowl, with an internationally important population of Branta bernicla hrota that accounts for 5.9% of the national total. It supports nationally important populations of a further 15 species and notably Calidris canutus (8.6% of national total), Tadorna tadorna (5.3% of national total) and Pluvialis squatarola (4.5% of national total). It is an important and regular site for a range of autumn passage migrants, especially Calidris minuta, Calidris ferruginea, Philomachus pugnax and Tringa ochropus. Sterna albifrons has bred in the past but not recently. It includes populations of three Red Data Book plant species. Wintering birds are well monitored.	The site comprises a relatively small estuarine system in north County Dublin. It receives freshwater from the Ballyboghil and Ballough rivers, both of which flow through an intensive agricultural catchment. It is a funnel shaped estuary, extending for about 6 km from east to west and up to 2 km at its widest. It has a wide salinity range, from full seawater to near full fresh water. The estuary is bisected by a causeway and bridge that carries the Dublin-Belfast railway line. A sandy peninsula stretches across the outer part of the estuary, restricting water flow to a channel of c.200 m. In addition to salt marsh and sand dune habitats, some agricultural fields that adjoin the estuary are included in the site, as these have ornithological or botanical interests. A section of shallow marine water is included in the site.
IE0004122	Skerries Islands SPA	The site has a nationally important breeding colony of Phalacrocorax carbo which became established in the early 1990s. When taken together with the breeding populations on nearby Lambay and Ireland's Eye, (also SPAs) this concentration is of international importance. The site also has nationally important breeding populations of Phalacrocorax aristotelis, Larus argentatus and Larus marinus. In winter the site is visited by a good diversity of waterfowl. It has an internationally important population of Branta bernicla hrota and nationally important populations of Phalacrocorax carbo, Calidris maritima and Arenaria interpres. Pluvialis apricaria occurs regularly but in relatively small numbers. Asio flammeus occurs regularly in winter.	The Skerries Islands is a group of three small, uninhabited islands situated between 0.5 km and 1.5km off the north Dublin coastline. Shenick's Island and St. Patrick's Island are of similar size, with Colt Island being somewhat smaller. Shenick's Island is of most interest geologically, being composed of Ordovician volcanics, siltstones and shales on the boundary between the Carboniferous and the Silurian. All are low-lying islands, with maximum heights from 8m to 13m above sea level. St. Patrick's Island and Colt Island have low cliffs, while Shenick's Island has more extensive expanses of intertidal rocky shore and sand flats. Shenick's also has a shingle bar and is connected to the mainland at low tides. The vegetation of the islands is dominated by rank grasses and

		Bird populations have been well monitored in recent years.	Brambles (Rubus spp.). The seas surrounding the islands, to a distance of 200m, are included in the site. Shenick's Island is a Bird Reserve managed by BirdWatch Ireland.



Comhairle Contae Fhine Gall
Fingal County Council

Chief Executive's Management Report

16th January 2024
Item 31

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Chief Executive's Foreword

Happy New Year. I hope the Christmas period was an enjoyable one for you all and you are looking ahead with renewed vigour to the year ahead.

This year we will be called upon to exercise our democratic right to vote. On March 8th, voters will be going to the polls to have their say in 2 referendums on family and care. Later on in June, residents of the Fingal electoral areas will be asked to vote in the Local and European Elections. Residents are strongly encouraged to visit www.voter.ie to confirm their details and to ensure they still have a vote. Young people aged 16-17 can also pre-register to vote meaning that when they turn 18, they are automatically eligible to vote.

Fingal County Council's commitment to Biodiversity is an ongoing priority and I am very pleased that the Biodiversity Action Plan was published last month. Comprising of 100 specific actions to reverse the decline in biodiversity by 2030, the plan focuses on key themes like ecological network development, biodiversity in urban planning, climate change adaptation, and community engagement in biodiversity conservation to achieve objectives. A substantial investment of approximately €1m was spent in supporting biodiversity projects across Fingal last year which included restoration works at Turvey Nature Reserve and supporting Birdwatch Ireland volunteers with their Little Tern project in Portrane which has helped oversee the birth of 13 fledgelings last summer. Recognising the huge benefits of biodiversity in sustaining thriving environments, communities and economies that benefit the people of Fingal, we are recruiting a Biodiversity Officer, an Assistant Biodiversity Officer and a Marine Biodiversity Officer early this year.

It has been very encouraging over the last year to see the huge progress made in the transformation of Balbriggan as part of the €50m Our Balbriggan Rejuvenation Programme. More than 25% of the town's residents engaged with the initial consultation process and gave their views on the future direction of Balbriggan. This engagement was instrumental in formulating the plan for the coastal town's rejuvenation and the results are being widely welcomed. Significant improvement works to harbour facilities are nearing completion, including utility and waste services to protect and enhance fishing along with additional lighting, seating and other measures on the East Pier. This year, there are further works will commence such as the re-development of the Quay Street and Harbour area, including the RNLI Boathouse. Demolition of 14 Bridge Street has already been completed with annexes and outbuildings to the rear of 6a-12 Bridge Street, formerly De Bruins, now also being demolished. An Integrated Design Team will shortly be appointed to the project and continuing with consultation with the community, engagement will take place throughout the design process. Balbriggan is one of the fastest growing and most diverse towns in the country with a fascinating history, vibrant communities and picturesque views – this rejuvenation will further cement its reputation as an excellent place to visit and I look forward to bringing you further updates on the progress achieved throughout the year.

Finally, I am delighted to announce that 10 Fingal County Council initiatives have been shortlisted for awards in 9 categories in the 2024 All Ireland Community & Council (LAMA) Awards. The awards recognise communities and councils working together as well as providing the opportunity to highlight and celebrate the work done within our localities by volunteers and to recognise the phenomenal contribution they've made to our lives. The following initiatives have been nominated in the listed categories;

Best Irish Festival – ***Vintage Picnic***
Best Mental Health – ***Thrive Balbriggan***
Best Enterprise & Start-Up Hub - ***BASE***
Best Irish Language Initiative – ***Seachtain na Gaeilge Bilingual Walk Ardgillan Demesne***
Best Housing Regeneration & Urban Planning – ***Church Fields Masterplan and Sustainable Swords***
Best Communications – ***Inside Fingal Podcast***
Best Tourism – ***Fingal Culture & Tourism TV***
Best CSR Project in Community – ***VR for Fingal Libraries***
Local Authority Energy Decarbonisation Award – ***FCC***

Myself and the Executive Management Team are very pleased that Fingal County Council has also been nominated for 'Council of the Year'. To be recognised for such a prestigious award is a great honour for us all and is testament to the work carried out each day on behalf of the people of Fingal.

Best wishes,
AnnMarie Farrelly CE

PEOPLE, CORPORATE AND DIGITAL SERVICES

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People Services
Health & Safety Unit
Customer Services
CRM
Digital Services
Communications

People Services

Recruitment

People Services had a very successful year during 2023 for recruitment. There was a total amount of 93 recruitment campaigns ran during 2023 resulting in 447 Appointments. People Services will continue to run further recruitment campaigns during 2024.

Recruitment Programme 2023 YTD	
Total Recruitment Campaigns	93
Campaigns Completed	83
Current Active Campaigns	10
Interviews Held to date	2141
New Starters	194
Number of Current Job Offers	75

Gender Pay Gap Report

Fingal County Council has published its Gender Pay Gap Report for 2023. The gender pay gap is the difference in the average hourly wage of men and women across a workforce. Employers with more than 250 employees in Ireland are required to publish their gender pay gap data annually.

Our 2023 report shows the gender breakdown of all employees was 53% male and 47% female. The Mean Gender Pay Gap shows that on average, males are paid 1.65% more than females. The Median Gender Pay Gap shows that the median rate of pay for females is 9.31% higher than the median rate of pay for males. These figures highlight the headway we have made compared to 2022. However, it will require ongoing action to address the drivers of those gaps and we are always open to further improvements.

Blended Working

All employees were invited to submit applications for Blended Working arrangements for 2024 via the online Blended Working App. All applications have been received and arrangements are being put in place.

Learning and Development

The Learning and Development Team exceeded targets in the delivery of their corporate staff training programme for 2023. Demonstrating an unwavering commitment to professional and personal development of staff, the team showcased their proficiency in crafting and executing a program that not only met but surpassed corporate objectives. By fostering a culture of continuous learning and improvement, the team not only empowered employees with new skills but also contributed significantly to the overall success of the organisation.

Learning and Development Programme	2023	2022 Comparison
Number of Courses	448.5	↑ 6.5%
Number of Attendees	5,813	↑ 43.5%
Number of Training Days	4823.5	↑ 12%
Scheme of Assistance	63	↑ 34%

The number of staff who availed of scheme of assistance rose to 63 people in 2023, which was a 34% increase on the previous year. Over 25% of our training budget was approved to facilitate 63 staff to return to education covering a wide variety of courses such as BSc Hon in Civil Engineering, The MSc Information of Library Management, Master of Arts - Public Management, BA Public Management and many more. The scheme allows us to develop our staff and provide quality in our work making us an employer of choice.

A new dedicated webpage for Learning & Development was launched in January. It can be accessed through the staff intranet page and allows staff to view a full list of courses available, book a course and request a future course.

Throughout January the following courses will be delivered:

Personal Development
Grade 5 IPA Management Training
Grade 7 IPA Management Training
IGNITE Programme
Supervisory Skills for Outdoor Based Staff

Health and Safety
Managing Safely in Construction
Emergency Windblown Chainsaw
Manual Handling (indoor)
JCB Excavator 180
Driver CPC Module 2
Mini Digger
Signing Lighting Guarding New Entrant

Business Skills
Interviewer Skills Training (board members)
Presentation Skills
Interview Skills Competency Based
MS Teams Training
Basic IT Skills (outdoor)

Mandatory
Diversity and Interculturalism
Managing Aggressive Behaviour
Dignity and Equality

Wellbeing Update
Fingal County Council Digital Gym was launched to staff in November. Along with a wide range of training programmes, it also features a weekly schedule of free live and on-demand classes led by expert fitness trainers. Throughout November and December, the team visited all the depots and met with staff in County Hall and Blanchardstown to promote the digital gym and assist anyone who had queries about the app. The Digital Gym is available to staff through the Spectrum Life App and since its launch is has seen an increase in **156** staff registering with the Spectrum Life wellbeing app.
Mental Health Training Workshops will be provided for the senior management team and middle managers in 2024.

This training will cover the role and influence of leadership in creating a mentally healthy organisation and mental health and its impact on sustainability, cost-effectiveness, risk management and productivity.

In December we issued a festive wellbeing message to all staff including the 12 tips to mind your mental health over the festive season.



The Wellbeing Team are currently busy finalising the Wellbeing Pack 2024 which will be launched at the end of January 2024.

HSU – Health & Safety Unit

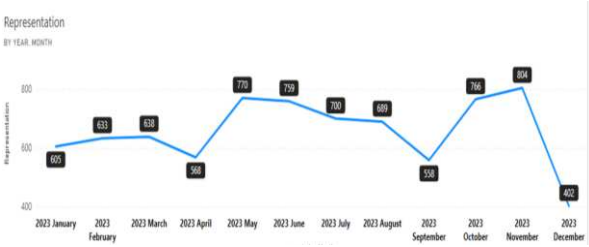
The HSU maintained a watching brief of covid related isolations during 2023 with 60 isolations reported to the unit during 2023. The unit carried out 346 site safety inspections and audits for the year, in addition to 269 VDU assessments for office and remote based staff along with completing 135 investigations into workplace incidents, accidents and dangerous occurrences that occurred during 2023. At the end of the year the global ancillary safety statements' risk register totalled 203 risk assessments with the standard operating procedure register coming to 150 SOPs. December saw a number of risk assessments pertaining to waste handling in litter control / recycling / depot storage being drafted and submitted to staff for consultation. Staff queries to the HSU continued through the month of December with the majority of queries pertaining to VDU assessments.

Customer Services

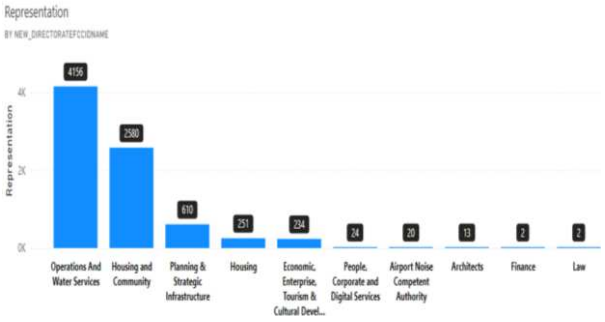
Month	Total No. of Calls	Total No. of Emails	Presenting in Person
December	10,769	162	1,742

CRM

Staff continue to work on the Customer Relationship Management System (CRM) and issue responses to representations from Elected Members (Councillors, TDs and Senators) and complaints submitted by the public. The total number of Elected Members' representations were as follows for December – 402



The table below shows the total number of Elected Members' representations assigned to each Department to date in 2023.



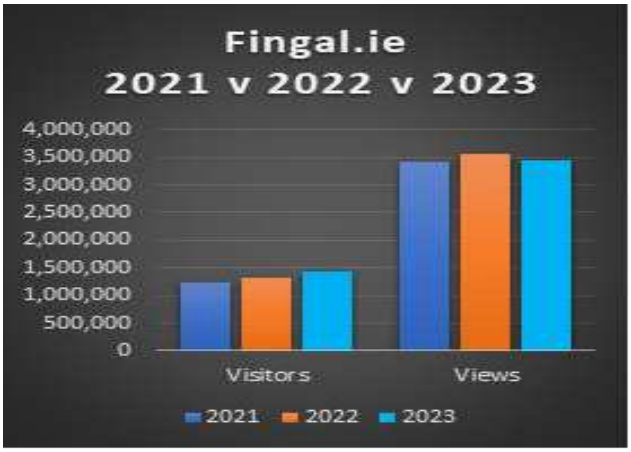
Communications

Website

The website, fingal.ie, continues to increase the number of visitors year on year. It attracted 1,442,103 visitors in 2023, which was an increase of 114,730 (8.6%) from 2022. The number of page views fell from 3,559,922 to 3,436,883 which was a reduction of 123,039 (3.5%) compared to 2022. The average amount of time spent on the site during each visit fell b 10 seconds from 2 minutes 3 seconds in 2022 to 1 minute 53 seconds.

After the home page, the most visited pages were Planning Applications, Contact Us, Recycling Centres, Jobs and the Libraries service page.

A majority of visitors, 64%, accessed the site through Google but 22% came in directly using a fingal.ie link.



Social Media

Facebook is the Council social media channel with the most followers and saw a 10% increase in the number of followers from 29,542 in 2022 to 32,513 in 2023. Women make up 71.6% of that total. Since 2017, the number of followers on Facebook has risen by 195%.

Instagram saw a 40% rise in the number of followers as it went from 6,055 at the end of 2022 to 8,500.

LinkedIn saw at 26% increase in the number of followers to 8,196 from 6,500 in 2022. The number of followers on this platform has risen by 255% over the past five years having stood at 2,308 in 2018.

Subscriber numbers on the You Tube channel also continued to grow in 2023 and saw a 37% rise from 881 to 1,210

The rate of increase in followers on X, which was formerly known as Twitter, continued to slow down in 2023. There was only a 4.62% rise in the number of followers to 23,117 compared to a 6.86% rise in 2022.

The five corporate social media channels now have a cumulative following of 73,536.

The Communications Unit is currently trialling new accounts on the TikTok and Threads social media platforms.

Videos



A video to mark the 30th anniversary of Fingal County Council was released on January 1. It highlights some of the services the Council has been delivering over the past 30 years.

The Mayor's annual Christmas Message was issued in December and was one of eight videos published that month. Others included the Community Development Office's review of 2023 and the award-winning Junior School Wardens at Rush National School. There were also videos on the launch of the Fingal Biodiversity Plan and the Irish Sign Language Service that is now available for interaction with Council staff.

All Videos can be viewed at https://www.youtube.com/@FingalCountyCouncilVideo/videos



Press Releases

Twelve press releases were issued during December including one acknowledging the receipt of a planning application from the daa for 11 infrastructure projects at Dublin Airport and an increase in the passenger capacity. Other press releases included the issuing of the Council's Gender Pay Gap Report and the launch of the Fingal Biodiversity Plan.

Media Queries

The Communications Unit received 12 media queries during December, eight of which related to planning.

Current Judicial Review Cases - October 2023

Jimmy Guerin -v- Fingal County Council High Court Record No 2022/116 JR
Kimpton Vale Limited -v- an Bord Pleanala and Fingal County Council High Court Record No. 2022/390JR
Fiacre Ó Cairbre -v- An Bord Pleanála, Garlandbrook Limited, Alcove Ireland Four Limited, and Uisce Éireann High Court No 2023/570 JR
Ciaran O'Kelly and Dorone Paris -v- an Board Pleanala and Jacko Investments Limited and Fingal County Council High Court Record Number 2023/581 JR
Graymount House Action Group, Darragh Richardson, and Aoife Grimes v An Bord Pleanála, Fingal County Council, the Minister for Housing, Ireland, and the AG High Court Record Number 2022/1107 JR
Christian Morris v. An Bord Pleanála, Fingal County Council and Trafalgar Capital Limited High Court Record No. 2022 1074 JR
Joan Reynolds and Edel McDonough -v- Fingal County Council High Court Record No 2023/372 JR
MKN Properties Limited and another -v- Fingal County Council High Court Record No. 2023/373JR
daa plc -v- Fingal County Council High Court Record No 2023/383 JR
Portmarnock Real Estate Developments Limited and St Marnocks II DAC -v- an Bord Pleanala and Fingal County Council High Court Record No 2023/901 JR
daa plc -v- Fingal County Council and the Irish Aviation Authority High Court Record No. 2023/916
Friends of the Irish Environment CLG and SMTW Environmental DAC-v- the Minister for Housing Local Government and Heritage, Ireland and the Attorney General and the Office of Planning Regulator and Fingal County Council High Court Record No 2023/1047 JR
Niall O'Connor and Geraldine Kiernan -v- An Bord Pleanala and Fingal County Council High Court Record No 2023/1122 JR
Erigo Limited and Joseph Flood -v- Fingal County Council and others High Court Record No 2023/1233 JR
Timothy Fitzgerald and James Fitzgerald -v- Fingal County Council Record No 2023/1236 JR
Martin Ryan and Mary Ryan -v- Fingal County Council High Court Record No 2021245 JR3
Kinwest Limited -v- An Bord Pleanala, Minister for Housing Local Government and Heritage, Ireland and the Attorney General and Fingal County Council High Court Record No. 2023/1206 JR G
Kinwest Limited -v- An Bord Pleanala, Minister for Housing Local Government and Heritage, Ireland and the Attorney General and Fingal County Council High Court Record No 2023/1207 JR
Kinwest Limited -v- an Bord Pleanala, Minister for Housing Local Government and Heritage, Ireland and the Attorney General and Fingal County Council High Court Record No. 2023.1208 JE

ECONOMIC, ENTERPRISE, TOURISM & CULTURAL DEVELOPMENT

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T&V Scheme
Local Enterprise Office

TOURISM DEVELOPMENT

Tourism and Food Strategies



The Fingal Tourism Strategy 2024-2029 will be formally launched at Ardgillan Castle on Wednesday 24th January. A 'Save The Date' notice was issued in December and full details will follow in early January.

The Fingal Food & Drink Policy launch will also follow later in Q1.

Malahide Heritage Trail



In conjunction with Malahide Historical Society a new Malahide Heritage Trail has been developed. The Malahide Village Heritage Trail gives the visitor an insight into what it was like to be a native of one of the Fingal's most historic small towns, one whose story has been heavily shaped since the 13th century by the Talbot family and their seat at Malahide Castle as well as the coming of the railway in the 1840s and, of course, the sea. The trail is available to download on the Apple and Android platforms and from the website https://malahideheritagetrail.stqry.app/

Fingal Food & Drink Network



In 2023 the network welcomed 40 members representing over 50 businesses, and had several events where people had the time to connect, share and learn. To that end the network issued a year end newsletter outlining the many events, promotions and familiarisation visits facilitated by both the network and the council.

The network committee have agreed its 2024 action plan; its main priorities are to continue to raise the profile of the network, to grow membership, plan a series of internal and external networking events (e.g. Boyne Valley and Belfast Food Trail) and optimise its marketing activity such as the website, social media, PR and promotional opportunities.

Tradfest Festival



Preparations including extensive media coverage are in full swing for the Tradfest in Fingal concerts that will take place in locations across the county from 24th to 28th January 2024. The flagship event will be the world premiere of 'Ocean Child', a new musical composition that commemorates the sinking of the RMS Tayleur off Lambay Island on 21st January 1854. This will take place in St. Patrick's Church, Donabate on Sunday 28th January.

Howth Tourism Development Group



In line with the launch of the Fingal Tourism Strategy Howth Tourism are forming a localised sub strategy. A subcommittee of the group is looking at transport and accessibility, sustainability, the increase of saleable experiences on the peninsula, and improving the visitor experience in Howth.

EVENTS

Festival & Event Funding 2024



The 2024 Festival & Event Funding Scheme is open until the end of January 2024. It was launched on the 29th of September. With over 100 funding awards given out this year covering an impressive array of events and festivals. So far 35 groups are in the process of submitting applications, we would encourage groups to apply as soon as possible.

St. Brigid's Day 2024



We are pleased to confirm that we have organised exciting daytime activities on a similar scale to last year, these will now be held in St Brigids Community Centre on Bank Holiday Sunday. Additionally, we are finalising the lineup for an evening concert featuring talented female artists to be held in St. Brigids Church on the Bank Holiday Monday. Due to the unpredictable weather in February these events will be indoors in local community facilities. We will communicate all the event details once they are confirmed.

Tradfest in Fingal 2024



An exciting line up of concerts and fringe events are being confirmed and will be promoted via social media, road signage and a digital marketing campaign.
Details can be found on
www.eventsinfingal.ie/tradfest
www.tradfest.com

HERITAGE PROPERTIES

Malahide Castle & Visitor Centre – Emergency and General Lighting upgrade







The Emergency and General Lighting upgrade of Malahide Castle & Visitor centre is now complete.

The Mechanical & Electrical consultants are currently working on snagging with contractor which is expected to be shortly.

Malahide Castle — Oak Room window

The conservation works on the Oak room window at Malahide Castle are now complete. The scope of these works included removing existing paint from exterior of window frame, sanding and cleaning of dirt to interior, removal of loose putty pointing to glazing, replacement of cracked glass, and traditional splice repairs of joinery where required. The window was re-glazed in linseed oil putty and both the interior and exterior was repainted. These works have resulted in the window being restored to its former glory.







Skerries Mills – Red Barn Development
The Red Barn project is now underway, with the tender awarded last month. The enabling works and demolition of the existing old structure have commenced on-site.



This phase will be completed before the erection of the new larger structure can proceed. In this phase the site will continue to operate as normal, and the demolition hoarding will display design details of the project and desired outcome.
The business case for the new building emphasises increasing the capacity of the site to have larger numbers of visitors, and to increase the variety of uses on the site, being a resource to locals and tourists year-round.

Heritage Council Museum Standards Programme for Ireland
On the 19th December the Heritage Council confirmed that Malahide Castle and Newbridge House were accepted to join the MSPI process. This accreditation process will lead eventually to both sites becoming recognised as having full museum status.

To achieve this the staff, tour interpretations, collection management and conservation capacity will all be subject to developmental interventions raising their quality.

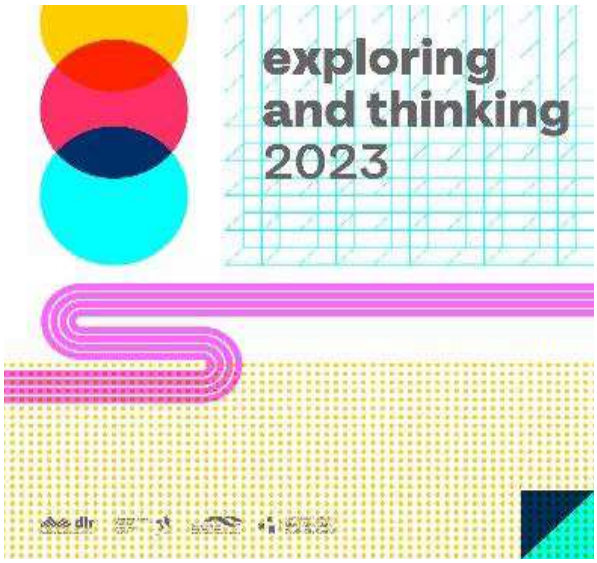
Taking these steps will strengthen the brands of both sites, increase the quality of the experience for tourists & locals, and ultimately lead to growing visitor numbers and income.

CULTURAL DEVELOPMENT

ARTS
Youth and Education

Announcing the Recipients of the Exploring & Thinking Bursary Award 2023/24.

The four Dublin Local Authorities – Fingal, Dublin City, South Dublin and Dún Laoghaire-Rathdown County Councils are delighted to announce this year's recipients of the Exploring & Thinking Bursary. The Awards will support individual professional artists to develop their artistic practice working with and/or producing work for early childhood arts. 'Early childhood arts' includes a wide range of different arts practices and creative experiences with or for children aged 0 –5 years in different contexts. Key objectives are to reach new early childhood audiences in under-served communities and to support the development of artistic collaborations, professional development and the research and creation of new work. Congratulations to the awarded artists Darren Yorke (Literature), Duffy Mooney Sheppard (Visual), Selma Daniel (Dance), Joanna Parkes (Drama), Bethan Parkes (Drama), Grainne O'Carroll (Visual).



Music Generation Fingal Announcing new Website and Swords Youth Hub

Since 2022 Music Generation Fingal has been advancing the availability of music education services for young people in the county with an investment of 400,000 per annum. Projects are being piloted in Balbriggan, Swords, D15, Oberstown Detention Centre, Youth Services, Special Needs settings, Schools and local Music Hubs. The launch of a new website will assist capacity building, youth participation and share the programme with a wide audience. The partnership are now enrolling for a new Youth Music Hub in Swords, information and registration details are available on the new website www.musicgenerationfingal.ie Music Generation Fingal is a partnership formed between Fingal Arts and Dublin & Dun Laoghaire Education & Training Board and Music Generation Ireland.

Music Generation Fingal Fhine Gall

Seanchaí Microforest

Seanchaí Microforest provides a space for young people to have a meaningful encounter with nature through the artistic lens of artist Gareth Kennedy's practice. The winter season workshops taught a new group of students how to identify the trees and their leaves, and to make drawings of them. Students met with visiting educator Maura Brennan to learn about her work with 'The Acorn Project' – an organisation delivering nature-based learning programmes that empower communities to take action in ecological restoration.



Public Art

Balbriggan

Renowned Irish Artist John Kindness visited Balbriggan and given an introduction to developments in the town by local tidy towns, historians, councillor representatives and strategic infrastructure project leads in preparation for a signature public art commission for the town.



Skerries St. Patrick's Way & Art Trail

A key feature of the St Patrick's & Art Trail Skerries is to highlight the significance of St. Patrick's legend in the town, specifically his foot, renowned artist Jackie McKenna will create a new artwork along the route which will encourage visitor engagement at a location near the famous footprint, this work will join the 5 sculptures on the trail and funded by Failte Ireland- Destination Towns.



Draíocht

2024's performance programme will begin with Coolmine Panto's production of 'Freezin'. Panto remains steadfast in its popularity, sells out and is often a child's first experience of theatre.

An autism friendly show is included to enable greater access. Draíocht is participating in TradFest for the first time.

Draíocht's ambitious project, NEST, has been in the planning over 2023 with delivery over Feb/March 2024. January will see the 4 commissioned artists, Una Sealy, Zsolt Basti, Sahoko Blake and Dorothy Smith complete portraits of our 48 hosts. A host is a person who lives in Dublin 15 and is between the ages of 20 days and 22 years old. The NEST portrait Exhibition will run for the period of the project.



The Séamus Ennis Arts Centre

Christmas Craft and Food Fair

We had 56 stall holders for the event on December 3rd with over 1000 visitors through the doors. The day was a great success, with the crafts complemented by live music from Blanchardstown Brass Band, the Skerries Ukelele band and the Naul Choir. There was also Christmas Storytelling by the fire in the Parlour.



Workshops

We had a series of festive themed workshops, from a season specific creative mindfulness workshop for adults, Madness to Gladness to Reindeer Yule Log and Christmas Wreath crafts.

Film

The films for this month's cinema were also themed on the Christmas season – with Allelujah complemented by the option of a turkey and ham dinner in the café and Miracle on 34th Street teamed with hot chocolate and Christmas cookies.

Comedy

David O Doherty on December 8th was a sell-out show.

Music

We wound down our music for 2023 with online and live hybrid Singing Session and Slow Sessions which were attended online by a wide geographic spread.



Art Gallery

New exhibition Vibrant Horizons by Clare O'Connor is a true splash of colour in the darkness of winter. The exhibition has its official opening on December 20th and will run until end of January.

LIBRARIES

The Santa Experience at Parslickstown House

Fingal Libraries events programme for 2023 ended with activities to mark the Christmas season, including storytelling sessions with Roisin Murphy and a visit from children's author and illustrator Alan Nolan at the Santa Experience, Parslickstown House on the 13th, 14th and 15th of December. Children's Books were donated by Libraries to the families attending the event.

Book Gifting to Fingal Community College

Transition year students in Fingal Community College, Swords, received a major contribution to their library and copies of books by award-winning author Dave Rudden on 12th December 2023 as part of Fingal Libraries book gifting programme under the Community Recognition Fund. The presentation also marked the culmination of the 'From TY To TV' screenwriting course, which Dave delivered to transition year students in the school. In the final workshop, students met film producer Ali Doyle to receive feedback on their work.



Spring 2024 Programme of Events at Fingal Libraries

Fingal Libraries is rolling out its Spring 2024 programme of events. The Spring in Fingal Libraries 2024 brochure, which gives details of events taking place in libraries over the first four months of the year, will be available in mid-January. The range of talks and workshops scheduled from January to April 2024 reflects national and library-led programmes such as Heathy Ireland and Right to Read. Themed programmes will offer events supporting literacy, culture, creativity, heritage, STEAM (Science, Technology, Engineering, Arts, Maths), healthy living, skills for life, digital skills, and environmental awareness. The diverse needs of the people of Fingal will be reflected in the programme, including age-friendly and sensory-friendly events. Events will take place across the Fingal Libraries branch network to celebrate St. Brigid's Day (1st February), World Book Day Ireland (7th March), Engineers' Week (2nd – 8th March) and Seachtain na Gaeilge (1st – 17th March).

Healthy Ireland at Your Library

There will be a full programme of Healthy Ireland at your Library events to motivate people to lead a healthier 2024. Beginning in January, a four-week chair yoga course and a four-week gentle exercise course will take place in a number of libraries. Beginning in February, a four-week Tai Chi course will introduce participants to this low impact, slow motion exercise. These courses are designed to promote active living to adults of all ages and abilities.

Another aspect of the Healthy Ireland at your Library programme is health information literacy. The Dementia Services Information and Development Centre (DSiDC) will give dementia awareness talks in a number of libraries. Bodywhys, the Eating Disorders Association of Ireland, will give talks on supporting people with an eating disorder. The Marie Keating Foundation's Mobile Information Unit will also visit libraries to raise awareness of common cancers.



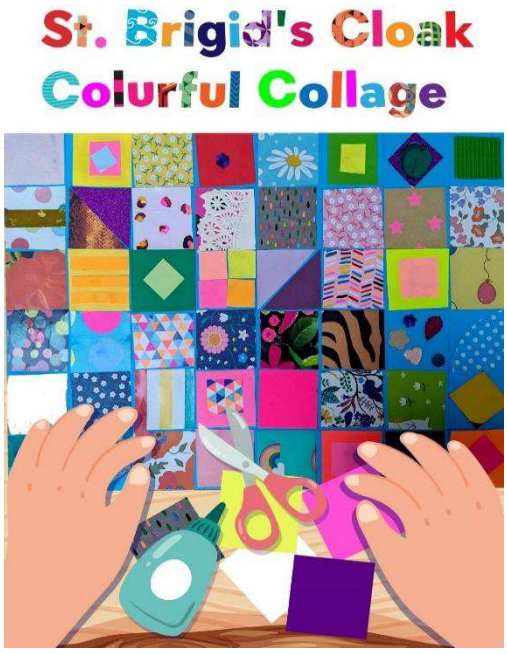
Wellbeing for Students

In partnership with the Sports Office, a six-week exercise programme will be rolled out for secondary school students in Blanchardstown Library, beginning in February. These half-hour 'Memorize and Move' sessions are aimed at students who need a short break from studying. The mental health of secondary school students who can experience stress and challenges, particularly in the lead up to exams, is the focus of a six-week student wellness programme with Creating Wellness. The programme will take place in Balbriggan, Blanchardstown and Malahide Libraries and will support secondary school students to maintain a personal self-care programme. Workshops include training to increase focus and calm, as well as improving self-confidence.

St. Brigid's Festival

Fingal Libraries will again celebrate St. Brigid's Day, which falls on Thursday 1st February 2024, with events for all ages celebrating women's creativity. This year's programme will include an 'In Conversation' event with best-selling authors Emer McLysaght and Sarah Breen of the Aisling series of books in Blanchardstown Library on St. Brigid's Day. There will also be literary themed events for children. Author Sarah Webb will speak to invited audiences of school children in Malahide Library and Donabate Library about her book Blazing a Trail, which celebrates remarkable Irish women who changed history. Acclaimed children's author Mary Murphy will launch her new book, The Minute Minders, in Blanchardstown Library on 27th January.

Older children and teens can look forward to a series of three workshops in the Fingal Makerspace, in which they will design their own St. Brigid's cloak in the form of a quilt. Each three-hour session will focus on different aspects of the design and practicalities of printmaking and quilt construction, culminating in the creation of a large St. Brigid's quilted cloak (Brat Bríde) for display on St Brigid's Day. Younger children can create their own St. Brigid's cloak using collage in library workshops with illustrator Úna Woods.



Skills for Life

Fingal Libraries Skills for Life programme starts in January with 'Getting to know your Smartphone or Tablet' classes in four libraries. This will be followed in February by a four-week computer course for adults who have some knowledge of computers but would like to develop their skills further. January also sees the beginning of a series of workshops on budgeting and household finance management. These workshops are funded by Europe Direct.

History and Heritage

Fingal Local Studies and Archives will host a talk on The Sinking of the Tayleur Sailing Ship in 1854 with Edward J. Bourke, author of Bound for Australia: The Loss of the Emigrant Ship Tayleur. The sailing ship Tayleur was wrecked on Lambay 170 years ago. Malahide, Skerries and Rush were involved in the rescue of the survivors. This talk takes place on 24th January at 46 North Street, Swords.

ECONOMIC DEVELOPMENT

Fingal Skills Strategy

Planning has commenced for the Xplore Your Future Expo for 2024 which will be held in The Helix in October 2024.



Tender documentation is being finalised to procure consultants for the next iteration of the Skills Strategy in Q1 2024. Workshops are planned for January 2024 for each of the Skills Strategy sectoral sub-groups to agree work programmes for 2024.



The SKYLA Project "Smart Specialisation Skills Ecosystems for the Twin Transition" is a 4-year project which focuses on enhancing the role of VET in smart specialisation sectors. Projects partners include Italy, Poland, Sweden, Lithuania, Bulgaria, Greece and Belgium. Reporting for Period 1 of the Project has been completed and work is commencing on the identification of good practices in Fingal and with the other project partners for dissemination through the network for Period 2.

Economic Development Strategy

Grant Thornton Consultants are finalising work on an Economic Development Strategy for Fingal and work has commenced on a Marketing Plan, with consultations in December with key stakeholders and further consultations scheduled in January 2024. It is anticipated that the draft Economic Development Strategy will be launched in Q1 2024.

URBACT – EcoCore

Fingal County Council is leading the URBACT EcoCore Project which comprises a network of 9 small cities/towns in Europe focussing on challenges and opportunities for green growth and sustainable economic development along transport corridors.

Balbriggan is the lead town and the other partners committed to the network are Albu Iulia, Romania; Dubrovnik, Croatia; Kekava, Latvia; Ormoz, Slovenia; Parnu, Estonia; Santo Tirso, Portugal; Tuusula, Finland; Villena, Spain.



The network partners finalised the project communications plan and a number of press releases and communications issued from project partners about the project and the first transnational city visit to Balbriggan in November. The baseline study and roadmap for the project for the next 2 years has been subjected to Urbact Secretariat for approval.

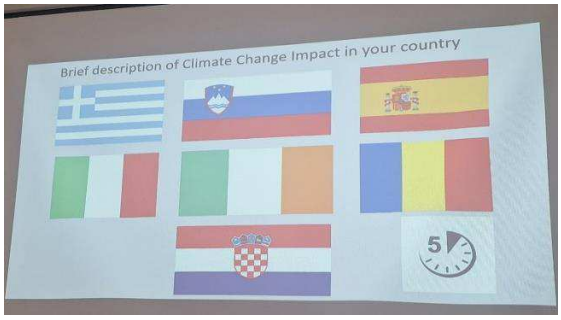
The project is entering the action planning stage for 2024 with planning commencing for a series of masterclasses on key topics for partners and a number of transnational meetings scheduled to be held in partner cities in 2024.

Citizen, Equality, Rights and Values Programme (Cerv)

CERV is an EU Funding Programme for citizens' engagement and the implementation of EU rights and values. Fingal County Council has been awarded CERV funding to participate in 2 separate projects, which commenced in January 2023 and will continue for 18 months.

Green It Your Work

The fourth Green IT Your Work meeting took place in the Larnaca, Cyprus in December 2023.
Representatives were present from Romania, Spain Greece, Cyprus, Slovenia, Croatia, Italy and Ireland.





Work is continuing on the objectives of 'Green IT Your Work' which are:

• Youth Debates about European Digital Age project highlighting the role of young people in the green transition.

• Promote green jobs with the aim of contributing to greener European cities



InclusEU

The InclusEU project aims to encourage volunteer action as a social response for an inclusive Europe.

Work continues on the project with partners from Italy, Poland, Hungary, Spain, Portugal, the Netherlands and Romania. The next project will take place in Romania in February 2024.

Alcohol Education

Healthy Fingal in collaboration with the North Dublin Drugs Task Force are piloting an alcohol education programme with Lusk Utd AFC in January 2024. The pre-crisis education programme targeting men over 35 will run for 8 weeks in tandem with an exercise programme to encourage men to evaluate their drinking levels and potentially reduce their consumption levels.

We Can Quit

Healthy Fingal have teamed up with Empower to deliver two pilot We Can Quit programmes with the Blanchardstown Training Centre and the Tolka River Project, Mulhuddart. The We Can Quit programme, was developed by the HSE and is aimed at encouraging people to quit tobacco/vaping. It will run for 10 weeks with participants enrolled in a physical activity pursuit as picked by the group

Sustainable Fingal

The Council collaborated with DCU and DAA to submit two funding applications on sustainable projects, however the applications were not successful, work has commenced to re-orient the projects into other funding streams.

Work continues on the development of an action plan to advance the objectives of Circular Cities in Fingal. Fingal's profile has been published on the Circular Cities website and the first annual report on Fingal's transition to the circular economy under the Circular Cities Declaration was submitted in October 2023.

CC Declaration | Fingal County (circularcitiesdeclaration.eu)

Dublin Belfast Economic Corridor

Fingal County Council was awarded €150,000 by the Department of Housing, Local Government & Heritage under the Shared Island Local Authority Development Funding Scheme for a Feasibility Study for the development of regional innovation/enterprise hubs along the Dublin Belfast Economic Corridor. DBEC's ambition is to use innovation hubs to encourage the development of new and existing high-growth businesses to stimulate sustainable and climate-conscious growth along the Corridor. The Council is leading on the project with the support of the eight local authorities and two universities of the DBEC partnership. The feasibility study has been completed and was submitted to the Department. Drawdown of the eligible funding has been completed.

Fingal County Council continues to liaise with DBEC on a series of potential projects for DBEC.

LOCAL AND RURAL DEVELOPMENT

Fingal Local Community Development Committee

The Fingal LCDC continues to oversee and administer the key areas of LEADER and SICAP and the various Local Development and Community Development funding programmes under its remit. The LCDC also manages the Healthy Ireland Initiative and the Social Enterprise Grants Scheme. The LCDC met on the 13th December 2023 to consider progress on the LECP and other matters.

Fingal Local Economic Community Plan 2023 – 2028

Consultants Grant Thornton have prepared the socio-economic profile of the county for the new LECP, reviewed the last LECP, drafted high-level objectives and facilitated the consultation process with the public and key stakeholders and incorporated feedback on the draft LECP. The draft LECP and the 2-year Implementation Plan of the LECP (2023-2028) have been circulated for final comments. The draft LECP has also been submitted to the Eastern Midlands Regional Assembly (EMRA) for their input. It is anticipated that the LECP will be brought to Council in January 2024.

Community Support Fund

The Community Support Fund (CSF) was launched in January 2023 and is funded by the Department of Rural and Community Development. Fingal was allocated €341,875 in funding for groups across the county. More than 270 applications were received from community and voluntary groups in Fingal for the current and capital funding streams by the submission deadline of 10th February 2023. The evaluation of the applications is completed, and payments of the grants to community groups/organisations is complete.

Local Enhancement Programme

The Local Enhancement Programme is funded by the Department of Rural and Community Development. Fingal was allocated €220,842.98 in funding for groups across the county. A call for applications will be issued in January 2024 for community groups/organisations.

Community Recognition Fund

The Community Recognition Fund (CRF), funded by the Department of Rural and Community Development, approved the Council's project proposals in March 2023. Fingal County Council has received an allocation of €1,748,912 for 26 projects across Fingal.

There is an allocation of €850,512 for eight projects in Swords and €435,000 has been provided for four projects in Dublin 15. Three projects in the Howth Malahide Local Electoral Area have received a total of €92,000 while €96,600 will be spent on four projects in Skerries, Rush and Lusk. Three projects in Balbriggan will be funded by grants amounting to €44,000 while two projects in Balseskin will receive a total of €30,200 and one in Santry will receive €20,000.

All projects are required to be complete by 18th October 2024 and work is progressing on the implementation of project with the Council submitting an initial drawdown on October 26th of €178,000 in respect of works completed during 2023.

SICAP

The resources and staff of the Fingal SICAP Programme continue to be leveraged to assist with the Ukrainian Refugee Crisis response. The SICAP Programme continues to help in the response to this crisis and is a central resource to the work of the Ukrainian Refugee Community Response Forum. Additional funding has been received from the DRCD to help with the delivery of services to Ukrainian Refugees in Fingal and additional staffing resources from the Ukrainian community have been employed on the ground to assist with this.

The Fingal SICAP Programme has been allocated €304,369 in 2023 specifically for Fingal's Ukrainian Refugee Response with an additional allocation of €65,000 recently granted.

Procurement for SICAP programme period 2024-2028 has been completed and the new contract has been awarded and executed.

Leader Programme

In December 2022, the Dublin Rural LEADER Local Action Group (LAG) approved in full the allocated LEADER 2021-22 Transition Programme for eligible projects in the administrative areas of Fingal, Dun Laoghaire Rathdown and South Dublin.

Fingal LCDC was successful in Stage 1 to run the next LEADER Programme 2023 – 2027 for the Dublin Rural LEADER LAG and submitted the new Leader Development Strategy for evaluation in Stage 2. The Dublin Rural LAG and the implementing partner Fingal LEADER Partnership CLG have been approved to deliver the new Programme from 2024 onwards.

ENTERPRISE CENTRES

Fingal's Enterprise Centres continue to participate in ConnectedHubs.ie.

ConnectedHubs.ie is a one-stop-shop for remote working hubs throughout Ireland.



All three Enterprise Centres have space available to start-up businesses and businesses/ individuals who wish to avail of remote working options and facilities. Bespoke options or generic office fitouts can be considered.

Occupancy rates at the Council's three enterprise centres are all over 90%. The three Enterprise Centres currently support 65 businesses and over 320 direct jobs.

Demand for the new Remote Working Hubs in BASE and Beat remain strong following the Connected Free Voucher Scheme run in 2022.

Fingal County Council was approved for €50,000 in new funding to promote Remote Working Hubs in the County under the Town and Village Renewal Scheme Marketing Measure. A cross-departmental team within the Council is implementing initiatives to promote Fingal as a Remote Working Hub base for remote workers with a marketing campaign commencing in January 2024.

Drinan Enterprise Centre is promoting the availability of a bespoke media studio facility available for immediate booking to all individuals, groups and business interests.



TOWN REGENERATION

Our Balbriggan 2019 – 2025 Rejuvenation Plan – A Socio-Economic Strategy



The Our Balbriggan Programme Office continues to support the Leadership Group and its five pillars, who meet regularly, to progress work across a range of economic and social measures including: Growing the Local Economy, Public Realm & Infrastructure, Education, Skills & Employment, Community Integration, Health & Well Being and Community Safety.

The Balbriggan Leadership Group, which is chaired by Professor Brian MacCraith, provides oversight and stewardship for the plan's implementation and are due to meet next in January 2024 where the review of the Our Balbriggan Programme will continue to progress. The Leadership group receive updates on workplan objectives from all five pillar Chairs at Leadership meetings and by monthly report.



The Quay Street, Harbour & Environs scheme is anticipated to be on site in 2024 to be completed on a phased basis in 2025. Irish Water are currently on site in the Quay Street Car Park to complete upgrade works on the pumping station located there, with alternative car parking currently available at Bath Road/Balbriggan FC & Bremore Castle. Communications to this effect have been issued on social media and other local channels in Balbriggan.



Part 8 Planning Permission for 2-4 Dublin Street was granted approval at full Council in October and the project has now progressed to detailed design phase. 2-4 Dublin Street is to be transformed into a new Creative Hub with 8 workspaces at 2 Dublin Street and an ancillary connected space at 4 Dublin Street which will support STEAM education, training and enterprise activities supported by SMART Balbriggan and the Fingal Arts Office.





Demolition works on 14 Bridge Street (house known locally as Keelings) have been completed and the installation of a temporary Pocket Park has been completed with landscaping, street furniture and fencing installed. The pocket park was officially opened on the 7th December to coincide with the turning on of the lights in Balbriggan by Deputy Mayor Cllr Grainne Maguire. Annexes at the rear of DeBruns buildings are in the process of being demolished. An Integrated Design Team will be appointed shortly to assist in determining the options for the long-term use and design of the site in line with site constraints.

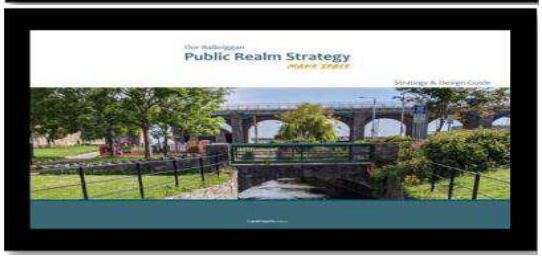
Donnelly Civil Engineering Ltd and MWP Engineering have delivered a package of improvement works at Balbriggan Harbour. The main Harbour upgrade works and shoreside services are complete, with some lighting improvements awaiting final completion further to new electricity connections.

The programme office are to engage Project Management Consultants to complete the phase 2 element of the Balbriggan Tidal Pool and Swimming Platform Feasibility Study in January 2024. Potential funding options and funding models will also be investigated and identified.



A comprehensive Balbriggan Public Realm Strategy - Masterplan & Design Guide and a Balbriggan Active Travel & Transportation plan are complete with both expected to be published shortly.





The Our Balbriggan Office continues to generate regular and unique content across all social media channels, Facebook, Twitter, Instagram, LinkedIn with over 5.1k followers on Facebook.



Lár Bailte ar dTús
Town Centre First

Town Centre First – Lusk

The structure, membership and Terms of Reference for the new Lusk Town Team were agreed earlier this year. Together with the Town Team there are three Pillar Groups representing the Community, Business and Economy and Public Realm / Climate Action & Sustainability (to include Vacant & Derelict Buildings).

Consultants to support the preparation of a new Town Plan were appointed to work with the Community, Businesses and Public Realm Pillars in Lusk to get their views for inclusion in the new town plan. Work on this has progressed well, with a draft of the new Town Centre First Plan for Lusk currently being reviewed.

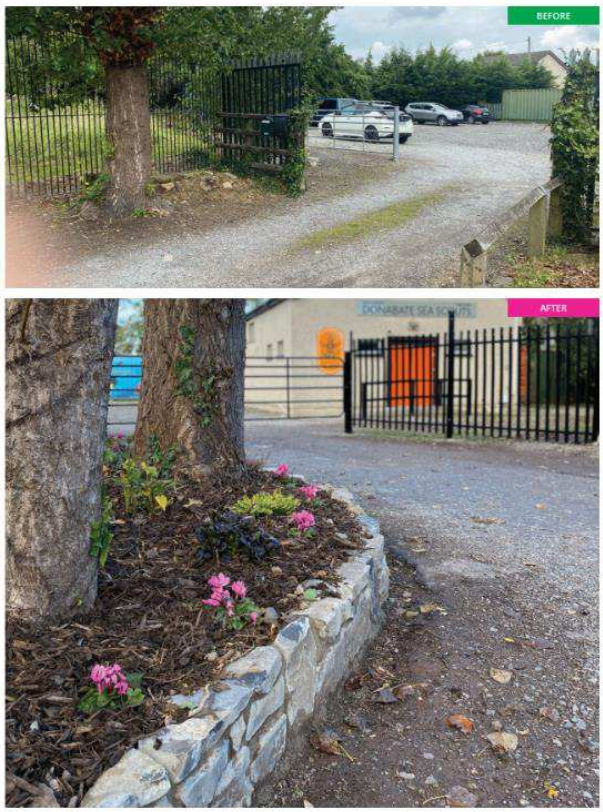


Town & Village Renewal Schemes

The 2023 Town and Village Renewal Scheme was launched during the Summer and the Town Regeneration Office submitted 5 applications to the Department of Rural and Community Development for consideration in November. Decisions on these applications are awaited.



In 2023, the Town Regeneration Office completed the implementation of the Rush Streetscape Scheme. The Council had been approved for €100,000 in funding from the Department of Rural and Community Development for the Rush Streetscape Scheme and 30 properties in the centre of Rush have been supported with funding.



In 2023 the Town Regeneration Office completed the Donabate Streetscape Scheme for properties in Donabate Town Centre. €36,000 in funding had been approved from the Department of Rural and Community Development for this Scheme under the last Town and Village Renewal Scheme 2022.



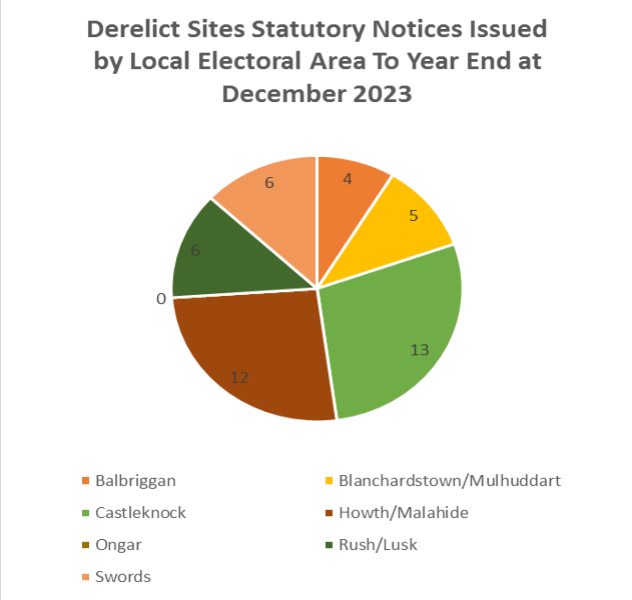
An application under the Outdoor Recreation Infrastructure Scheme for a feasibility study for facilities for sea swimmers in Skerries was successful in November. Work on this to begin shortly.

In 2023, the Town Regeneration Office was successful in securing €7 million for a new revolving fund that will acquire vacant or derelict properties to renovate, bring back into use and sell back into the market for housing purposes. An initial 19 properties under this fund have been approved for inclusion by the URDF Call 3 Fund / Department of Housing Heritage and Local Government.

Derelict Sites

Since taking over responsibility for the Derelict Sites function in September 2023, the Town Regeneration Office has been busy, with 29 new sites identified which are actively being progressed in line with the Derelict Sites Act 1990.

A total of 46 Statutory Notices were issued in 2023 throughout the electoral areas to site owners under the Derelict Sites Act, with 28 of these issuing since September.



Reporting of potential derelict sites can be made to **derelictsites@fingal.ie**

LOCAL ENTERPRISE OFFICE

LEO Fingal provides a broad suite of support services to stimulate enterprise and enable small businesses to succeed. Some of the LEO highlights for December 2023 are as follows:

Evaluations and Approvals Committee

The Evaluation and Approvals Committee (EVAC) met on 13th December and approved €212,500 in funding across Business Feasibility, Priming and Expansion Grants. Year to date €895,000 has been approved across forty-six applications from Fingal businesses. A further 2 Agile Innovation grants to the value of €101,000 have also been approved in 2023. The next EVAC meeting will be in Quarter 1 2024

Management Development Programme



The second Leadership for Growth programme concluded in December with graduation early in the New Year. As part of the programme, the owner manager participants will each produce Work Based Assessments which document their strategic plan and acts as a living document as well as a point in time reference for where their business is now and the actions they need to take to grow.

Fingal Business Network



Fingal Business Network hosted a Christmas Networking Lunch on December 1st with over 140 businesspeople in attendance as well as Mayor of Fingal Cllr Adrian Henchy and CE of Fingal County Council AnnMarie Farrelly. Guest speaker at the event was Aine Kerr, Technology & Digital Entrepreneur, who was named as one of "Ireland's rising stars: the 50 ones to watch in 2023". Aine discussed her business journey and "Top tips for Business Success." The session concluded with a festive lunch for the attendees, providing them with an opportunity to network and connect with each other. Fingal Business Network is looking forward to 2024 with quarterly networking events being added to the schedule.

Upcoming Fingal Business Briefing Sessions

Local Enterprise Office
FINGAL BUSINESS BRIEFING

The Fingal Business Briefing final information session for 2023 was hosted on 6th December for small businesses and entrepreneurs. The briefings outline the supports and services available to small businesses and individuals seeking to start their own business, through the LEO and other state agencies. Year to date, 204 individuals have attended a business briefing in 2023. The next business briefing is scheduled for 10th January 2024.

Food Supports

Food STARTER
- first Start in food -

After hosting several Food related initiatives and workshops in 2023 including the Food Starter Programme and How to Sell Food and Craft Products at Markets & Pop-Ups workshop, LEO Fingal is now in the process of organising a new training schedule for 2024. The next Food Starter Programme for the Dublin region will commence on 22nd January 2024 with another Fingal led Dublin Food Chain networking event planned for 17th January 2024 in the Clayton Hotel, Liffey Valley.

Energy Efficiency Grant Scheme



Applications are open for the Energy Efficiency Grant Scheme which is being rolled out throughout the 31 Local Enterprise Offices. The Scheme will enable small businesses to invest in technologies and equipment to make their businesses more energy efficient. The grant will cover up to 50% of the costs to a maximum amount of €5,000. The goal is to reduce the impact of small businesses on the environment and help them to reduce costs to enable them to become more competitive. As part of the process, applicants complete the Green for Business Programme, a customised initiative whereby the business develops a strategy to become sustainable.

Trading Online Voucher Scheme



An initiative under the Government's National Digital Strategy, the Trading Online Voucher (TOV) scheme supports small businesses by allowing them to enhance their online offering by providing a grant of up to €2,500 for ecommerce and digital marketing activities, as well as giving businesses a better understanding of how they can exploit E-Commerce opportunities for their business. In 2023, a total of 83 applications have been approved in the amount of €183,716. The next Trading Online Voucher seminar will be held online on Friday 30th January 2023

Business Advice Clinics and Mentoring



LEO Fingal provides one to one business support services through Business Advice Clinics and a Mentoring programme, online and in person. The Fingal mentor panel consists of a variety of skilled and experienced mentors from a range of business backgrounds. In 2023 the clinics offered one-to-one advice and guidance to 924 clients in Fingal. The Mentoring Programme was exceptionally busy with a total of 273 clients receiving expert mentoring throughout the year.

Microfinance Ireland Loans

LEO Fingal provides a loan scheme through its partnership with Microfinance Ireland, with loans of up to €25,000 per approved applicant. LEO Fingal is actively promoting the availability of loans from businesses that have difficulty raising finance from their bank. Applications are processed and assessed by LEO Fingal and submitted to MFI (Microfinance Ireland). Applications submitted through LEO Fingal are eligible for a reduced interest rate. LEO Fingal has processed and submitted 15 MFI loan applications in 2023.

Training and Events

The Start Your Own Business and Social Media and Digital Marketing courses will continue again in January and complete the courses which kicked off in 2023. LEO Fingal has also launched its training programme for 2024 with January training events published and already starting to fill up.

156 participants have embarked on one of 11 SYOB programmes year to date. There were a further 84 participants in the SYOB Bootcamp in Local Enterprise Week and 113 at the U-Start programme for Ukrainian nationals earlier in the year.

Internationalisation and Export Development

LEO Fingal is providing a further opportunity to small businesses that wish to explore export markets through its latest Export Development Programme which will commence in Q1 of 2024. The purpose of this programme is to provide clients with the skills and the confidence to identify, target and exploit new business opportunities. In addition, the Exporter grant enables small businesses to explore and develop new market opportunities by providing up to €2,500 to businesses investigating and researching export markets. Export Grants have been approved for 13 Fingal businesses for the year 2023.

Showcase Ireland 2024



Showcase Ireland 2024 will take place from 21st – 23rd January 2024 at the RDS, Dublin. Showcase is presented by Design & Crafts Council Ireland, Enterprise Ireland and Local Enterprise Offices and supported by the Department of Enterprise, Trade and Employment. This four-day trade show is recognised as one Ireland's largest international trade shows and offers manufacturers, designers and craft makers the opportunity to exhibit their new collections. LEO Fingal have been allocated 8 stands for this event. Following a selection process, the 8 successful applicants have been chosen to represent LEO Fingal: Stories by Ola (Skerries), Moss of the Isles (Swords), Nicola Weldon (Balbriggan), Clémence Prosen Art & Design (Balbriggan), Rob Stears Illustrations (Castleknock), Waylon & Flo (Skerries), Luxie Kids (Trading as BabyDub, Donabate). These craft & design businesses are also provided with training by LEO Fingal specifically on sales techniques for craft products who are displaying & selling their work at exhibitions.

Student Enterprise Programme



The 2023/24 Fingal Student Enterprise Programme is well underway. 26 Second level schools across Fingal are participating in this year's programme. The savvy students will develop their own actual businesses, researching, resourcing, trading services and products, with the guidance of business mentors. Fingal LEO boasts the largest enterprise programme for second level students in the country with prizes including an international educational trip to a European City for the senior category winning students and teachers.

OPERATIONS

Contents

Works Programmes
Car Parking Services
Burial Grounds Services
Traffic Operations County-wide
Fleet Management & Plant Hire Unit
Public Lighting
Recycling Centre Update
Licenses
Surface Water
Meetings / Briefings

Works Programme

Balbriggan Area Parks



Recent installation of new pedestrian entrance into Skerries Town Park. First tar surface in place and final resin surface to follow in early 2024.



New footpath construction along public open space in Chapel Farm, Lusk.

Swords Area Parks



Recently installed Timber Knee Rail Boundary around Rathbeale Archaeological Park.



Recently installed seating around open spaces in the Swords Area

Balscadden



Ditch cleaning works undertaken at Balscadden by the Roads Depot crew.

Loughshinny Harbour





Ongoing works on the Harbour Wall

Loughshinny



Footpath Sweeping and clearance of leave fall and hedge growth

Skerries Graveyard



Cleaning works carried out at Skerries Graveyard.



Cleaning works carried out at Skerries Graveyard.

Swords



Road relining at Batter Lane, Swords

Swords

Footpath works carried out at Seatown Terrace.





Brackenstown Road

Works completed on Brackenstown Road, which reopened on Friday 15th December.





Howth Malahide Area
Programme of Works

Concluding works on the 2023 Programme of Works in the Howth Malahide area were completed in December.

The team have been working on the draft 2024 Programme of Works which will be presented to Councillors at the January 2024 Area Committee Meeting

Roads Works & Footpath Works in Howth Malahide Area

- **Streamstown Lane Road Widening and Footpaths POW 2023**



Streamstown Lane at the Malahide Rd end prior to the road widening, drainage, and footpath works commencing.



Road Build Up & Formation, Drainage, and Kerbing installed on Streamstown Lane.



Footpaths being poured on Streamstown Lane



Streamstown Lane widened and resurfaced, and line marked at the Malahide Rd End. Footpaths have been completed and new road kerbing completed on both sides. All the ESB, Eir and Street Lighting Cables are being placed under ground and the street lighting columns are erected and waiting an ESB Connection to provide power.

➢ Sutton Cross Road Inlay POW 2023



Road surface planed off and awaiting Road Inlay. The wearing course had reached the end of life and was in very poor condition.



Sutton Cross Inlay from Baldoyle direction



Overlaying Sutton Cross Junction. The whole junction was inlayed over 4 nights to minimise traffic delays and minimise joints to extend the life span of the new road surface.

➢ Bayside Footpaths 2023 POW



Footpaths on the 2023 POW was completed in December 2023. Drop Kerbs were installed and tactiles along the main entrance to Bayside to facilitate those with impaired vision and mobility as part of the works.

➢ Roads Crew Repairing Potholes, Kinsealy Lane





Wearing course potholes planed out with JCB and planer to minimise waste to be disposed of and tonnage of tar required for the repair works.

Malahide Demesne

➢ Soil Decompaction and nutrient injection

The team carried out soil decompaction around some of the trees along Hogans avenue In Malahide Demesne, with more to do in the new year to relieve compaction. This is intended to revitalise and reinvigorate the trees
A probe which is connected to a mobile air compressor to penetrate the ground to a depth of approx. 650mm.

Once this depth is reached a large blast of air is released to fracture and de-compact the ground.

Once this has happened a dose of pressurised liquid nutrients released into the soil comprising of biochar activated with liquid seaweed. This is then further forced through the ground with a second blast of high-pressure air. Generally, one hole every square metre within the dripline of the tree is done.



➢ Road Repairs

Strengthening and Patching works being carried out in the Back Road car park and throughout the Malahide Demesne.











- **Christmas Pilot Community Stakeholder Event – 13th December 2023.**

This was a pilot event co-ordinated by An Garda Siochana with the aim of reaching out to the community and provided an opportunity for residents in the local area to interact and engage with all stakeholders which included the Garda, DFB, Civil Defense, HSE, Aramark, TFI and Fingal. The event was predominantly focused on young persons who engage with youth groups and projects in the area (Coolock / Swords / Malahide). Due to the interest in the event the organisers were in a position to extend the catchment to a number of schools, some charity organisations, special needs young persons, persons in care and a number of community groups in the area.
Fingal Joint Policing Committee was represented at the event alongside the NTA who transported some of the participants to and from the event.
The event was sponsored by a number of agencies including Fingal County Council, Department of Justice, Dublin City Council and Northside Partnership. Follow Fox Events "FFE" kindly facilitated this event in their spectacular facility, "Wonder Lights in Malahide Castle and Gardens".





- **Emergency road closure on the Dublin Road**

Fingal on call team had to implement a temporary road closure on the Dublin Road between the junction of Yellow Walls Road and St Margaret's Road on the request of the AGS after a vehicle struck a telegraph pole. The road closure remained for a number of hours until the ESB replaced pole and reinstated power connection.





- **Golf Pavillion**

Two Porta-cabins have been placed to facilitate the operation of the Malahide Recreational Facilities over the Christmas period and whilst the improvement works are being carried out.





Burial Ground Works

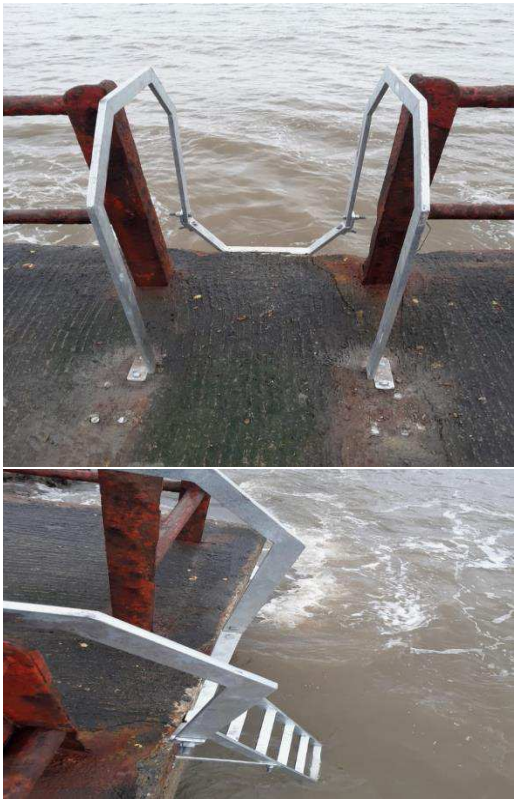
- **Balgriffin Cemetery**

Works are continuing on the upgrading of the boundary wall at Balgriffin Cemetery as seen below.



Laying of boundary wall foundations at Balgriffin Cemetery.

Beaches, Cleansing and Storm Support Works



Installation completed of the new ladder at High Rock, Coast Road, Malahide.



New glazing and doors at our saint St. Fintan's burial grounds completed office and canteen.



Placement of columbarium plaques at Saint Fintan's burial grounds.



Howth Malahide cycle way and footpath cleaning.



On call staff attending RTA Malahide Road village 16/12/23.



Inspection and service of our lifeguard defib for the 2024 summer season.

CASTLEKNOCK MULHUDDART AREA

Works at Porterstown Park





Before and after photos of footpath widening.



Hardstand installed to site coffee vendor.

Portersgate





New perennial border planted by the Operations Department at bottom of tree carving in Portersgate View.

Hazelbury Park

Drainage Works carried out in Hazelbury Park in December.



St. Catherine's Park

Playground improvements carried out.





Coolmine Train Station





Works carried out at wooded area near Coolmine Train Station.

Tree Works, Millennium Park





Tree Works have been carried out in Millennium Park.

Storm Ellen

Recent photos of fallen trees caused by Storm Ellen on the 9th of December.





Tree Removal, Castleknock





Tree removal works carried out by the Tree Crew on Diseased Trees in the Castleknock Area.
These trees were inspected earlier in the year By the Department of Agriculture, due to suspected Fire Blight Disease.

N3 Motorway

Grass cutting, weed eating, litter picking works by Operations Dept / Coolmine D15 on the N3 motorway for the final cut of the year 2023.





New Parkour Equipment, Millennium Park



Millennium Park took delivery of bespoke seating units for its new Parkour / teens pace area - Just in time for the Christmas holidays.

Car Parking Services

November 2023

There was a total of 1389 parking tickets issued during November 2023.

Breakdown of Parking Offences

Top 10 Offences

Offence	Main Ticketing Offences - November 2023
9A - A VEHICLE COMMITING AN OFFENCE CONTRARY TO PAY AND DISPLY/PERMIT PARKING	682
04G - PARKING A PRIVATE VEHICLE IN A LOADING BAY	173
08A - PARKING A VEHICLE ON A FOOTPATH	166
9A - A VEHICLE OUT OF TIME TICKET	125
9D - PARKING A VEHICLE ON A DOUBLE YELLOW LINE	96
9F - PARKING/STOPPING A VEHICLE IN A DISABLED PERSONS PARKING BAY	30
9C - VEHICLE OUTSIDE BAY	21
04C - PARKING A VEHICLE IN A TAXI BAY	17
07A - OBSTRUCTION TO OTHER ROAD USERS/PEDESTRIANS	17
04B - Vehicle Parking Opposite a Continuous White Line	9

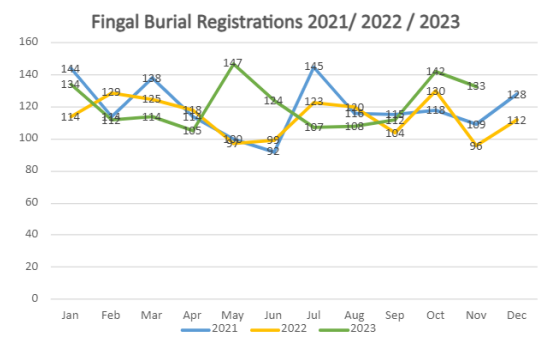
Main Ticketing Locations:

Top 10 Locations

Location	Main Ticket Locations November 2023
North Street - Swords	143
Bridgefield Car Park - Malahide	74
Church Road - Malahide	71
South Strand Skerries	67
Main Street - Swords	61
Strand Street - Skerries	56
Old Street - Malahide	56
Harbour Road - Skerries	53
Quay Street (short stay)Carpark - Balbriggan	47
The Green - Malahide	46

Burial Ground Services

The Operations Department are continuing to administer and monitor delivery to ensure business continuity for Fingal's Burial Ground Service. There were 133 Interments in November 2023.



Traffic Operations County-Wide

Final works were carried out in December completing the 2023 Program of Works in each Administrative Area.

The 2024 Programme of Works (POW) for Traffic was approved in two of the Administrative areas in December. The remaining draft POW for Howth/Malahide is to be presented on the 10th January 2024 at its Area Committee Meeting.

Castleknock/Mulhuddart 2023 POW

Works on the new Traffic Signals in Dublin 11 & 15 are progressing well.

The Zebra Crossings on the roundabout on Carpenterstown Avenue and Laurel Lodge Road were made operational on the 23rd of November. Each arm of the roundabout has a raised zebra crossing, which will enhance pedestrian safety at this location.







New four-arm raised zebra crossings on Carpenterstown Avenue/Laurel Lodge Road

- **Road Markings – Lining**



Double yellow lines added on Castleknock Avenue at the rear of the pedestrian crossing.



KEEP CLEAR road marking added at the entrance to Hazelbury Park.

Balbriggan/Swords Area 2023 POW

- **New Traffic Signals**



Swords – Junction of Mountgorry Way and Drynam Road – new signalised junction with two sets of controlled crossings and refuge island on Mountgorry Way. Awaiting ESB connection.





Swords – Bridge Street. New Toucan Crossing in Operation outside the Care Choice Home

- **New Traffic Calming**



Naul- New Traffic Calming Ramps in the proximity of Naul National School



Garristown- New Kerb Build Out Garristown Main Street

Howth/Malahide Area – Traffic

New Pedestrian warning signs for Stockhole Lane and new driver feedback sign for Chapel Road Kinsealy





- **Ramps Repair on POW 2023**



Reinstated Cushion Ramp in Abbey Park-Baldoyle following road works



Replacement of old red ramps with SMA Ramps-School Lane Baldoyle.



One of Four new ramps for Glencarraig-Sutton.





Conversion of existing Pedestrian Crossing to a Toucan Crossing on Warrenhouse Road-Baldoyle







Upgrade of pedestrian signals by Estuary Road/Old Yellow Walls Road Junction.

Fleet Management & Plant Hire Unit

91 vehicle and plant hires were put in place from 01/12/2023 to 22/12/2023, engaging 19 suppliers.

Street Lighting LED Programme

The Public Lighting Section will continue with the LED Programme in 2023 with 99.5% of all lights switched to LEDS.

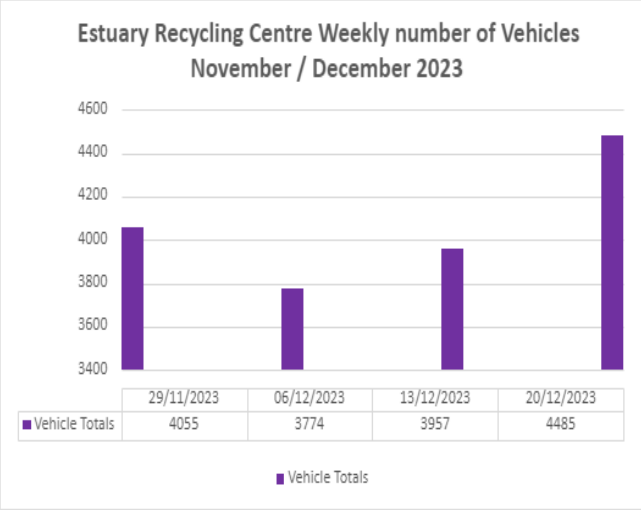
100% of new Decorative LED fittings have been installed in towns and villages across the county.

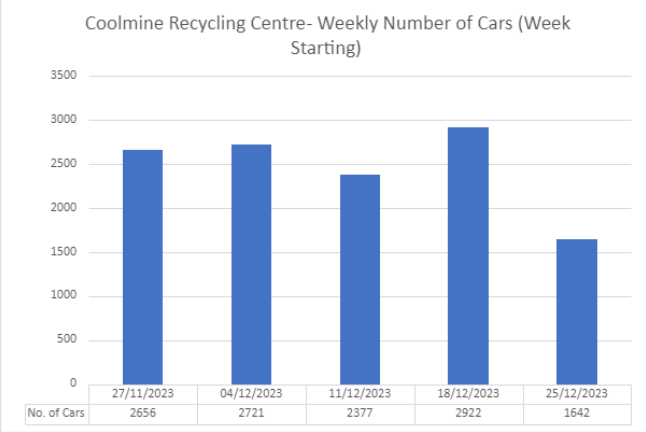




The 2023 Public Lighting Area Works Programme was completed across the county. Examples include (Mourneview Estate - Skerries,) (Red Arches – Car park, Baldoyle) (Manorfields Pedway, Ongar).

Recycling Centres Update



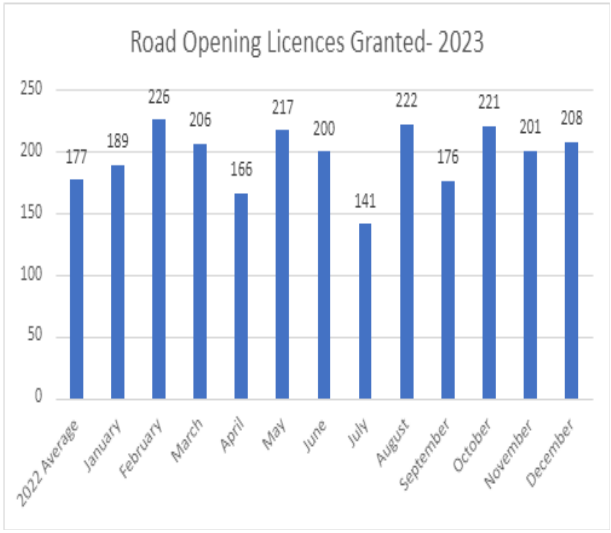


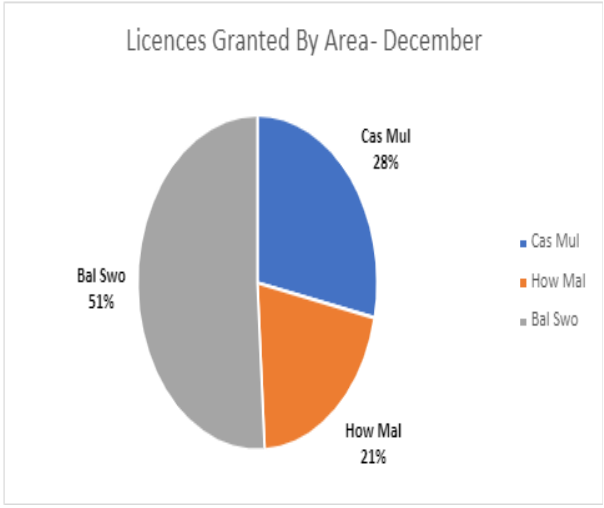
Licenses

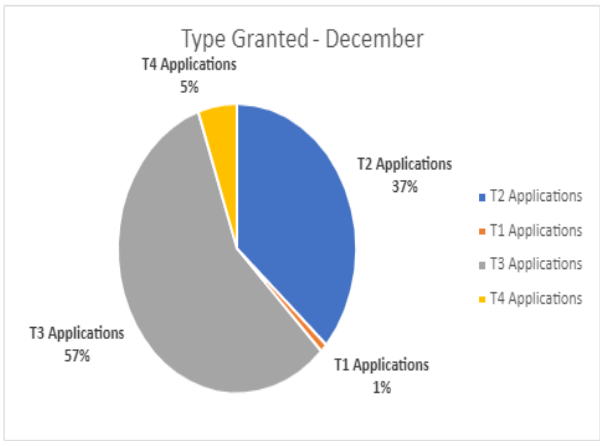
- **Road Opening License's**

The Licensing unit continues to process and manage the licensing system for the County. Applications are allocated by area for examination and conditioning which includes reviews of the existing carriageway, footpaths, cycleways, and grass verges. Applicants submit temporary traffic management plans for review to ensure all works are carried out safely within the public domain. Road Opening Licences are a cross functional process for the department and are essential for the asset management of Fingal County Council Road network.

208 Licences were granted in the month of **December, 62%** of which were granted by way of **automation**. Clerk of Works in each area continue to carry out regular inspections following road opening works by Utilities.







Casual Trading License

Fingal County Council currently have 30 Casual Trading Pitches occupied throughout the Administrative Area.

Covering Hot Food/Tea & Coffee/Ice Cream and Flowers.

Applications continue to come in from parties interested in taking up additional pitches throughout the county, these applications are being processed on an Ad – Hoc basis.

The Castleknock/Mulhuddart Operations Department is in regular communication with our traders and area inspectors to assist in delivery of quality service and ensure compliance.

Street Furniture Licences





Fingal County Council currently have 34 valid Street Furniture Licence's throughout the county: 1 in Castleknock/Mulhuddart, 6 in Balbriggan/Swords and 27 in Howth/Malahide, this is a significant increase on previous years.

We are currently in communication with several applicants regarding the issuing of new SFL licences, pending site inspections in the coming weeks.

The Castleknock/Mulhuddart Operations Department have carried out over fifteen site inspections this year with further planned before Christmas.

We have been in communication with all current Street Furniture Licence holders re the renewal process for 2024.

Storm Water

- **Stormwater Capital Programme 2023-2025**

Fingal County Council are progressing projects adopted in the 2024-2026 Stormwater Capital Program. The 3-year program includes 16 projects with a projected value of approximately €1.2 Million. Below is a brief update in relation to the status of some of the projects that have commenced and planned upcoming projects.

- **Howth Stormwater Culvert**

All Topographical, Manhole, Flow and CCTV Surveys are complete and satisfactory. Optioneering and Investigation Report for WPB has been completed and is to be submitted for FCC review. Preliminary design reports are being updated with survey information and updates of associated drawings. Additional fees to be approved.

- **Bath Avenue Storm Water Pipe**

This project involved the laying of a new Stormwater pipeline along Bath Ave in Malahide to alleviate localised flooding and allow for future capacity. Construction works were completed on schedule in November following a 10-week window road closure. In total 235m of pipe was laid, the existing network on Grove Road has been connected to the new network, 9 new gullies and 1 Nr pepper pot have been installed and 6 new manholes have been constructed. The new SW pipe is tied into an existing outfall on the Coast Rd. A final reinstatement tender has been posted. A contractor will be appointed in Jan of 2024 with works completed within Q1 of 2024.





- **Burrow Beach**

The proposed remediation of a surface water outfall pipe on Burrow Beach is scheduled to begin following the seabird wintering season around March 2024. Tenders for advanced materials purchasing are due for submission in early January 2024. Works will be executed by FCC Direct Labour with technical assistance to be provided by design consultants.

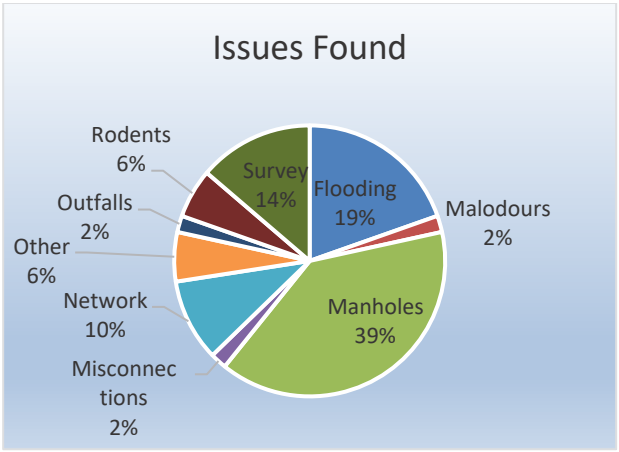


- **Ongar Development Stormwater Remedial Works**

Remediation works on the drainage network in **Ongar** following its Taking in charge are substantially complete. The works were undertaken by Formac Contractors with design and supervision by OCSC Consulting Engineers. The initial contract was for 5 months starting in April 2023. As-built drawings are being developed for issue in due course.

- **Storm Water Maintenance**

Maintenance of the network and much of the capital works programme is generated by inspections which are tabulated on a Works Planner. The types and volumes of issues reported are shown in the chart.



To support Storm Water Preventative maintenance, a contractor has been procured with a Jet Vac Recycler truck and CCTV camera van. Survey works are ongoing in the in the Lusk, Blanchardstown & Castleknock areas.
The manhole cover and frame replacement programme for replacing assets at the end of life is ongoing.

Additional CCTV surveys are being carried out in **Rusheeney and Manorfields** estates to determine the Storm Water network condition ahead of works planned in November. These works will include trenchless techniques and robotic cutting.



A contractor is being procured to undertake various remedial works including part-liner repairs on damaged sections of the storm water network along **Carpenterstown Rd** in Castleknock.

CCTV surveys took place in **Georgian Village** to determine the cause of road flooding. A contractor has been procured to carry out mapping, robotic root removal and condition reports.

Following recent reports of road flooding along **Treen Hill & Minister's Road**. CCTV surveys were carried out and restrictions in the network around Kilhedge Lane have been identified. Works have begun by Direct labour to lay 60m of 300mm dia pipe along Minster's Rd to replace collapsed and damaged sections.



A contractor has been procured to carry out a CCTV of the local network to determine the condition following reports road flooding at **Main St, Lusk**.

Quotations were sought to carry out maintenance work on the **Beaverstown stream** to remove restrictions and clear and overgrown ditch to create storage and to remove flow restrictions. A contractor has been appointed to carry out these works with mobilisation on site planned for February 2024.

Following a number of CCTV surveys in **Clonard Court** area of **Balbriggan** a collapsed section of pipe was found. This has since been excavated and replaced with a new section and all restrictions have been removed.





- **Biodiversity**

Assistance is being given by the Storm Water Unit to *Baldoyle Tidy Towns* who have secured funding for a Biodiversity project on the **Seagrange Park** stream, Baldoyle.

Recent inspections have focussed on a local culvert to determine the source of contamination to the surface water network and further sampling is being carried out to support this investigation



Storm Water Connections:

To date 18 new connection applications plus one diversion application have been processed in 2023.

Meetings/Briefings

- Programme of Works 2024 briefings to Area Committee were held in December

PLANNING AND STRATEGIC INFRASTRUCTURE (PSI)

Contents

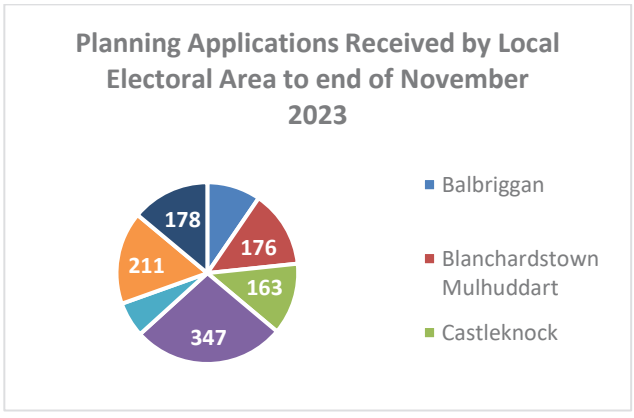
Planning Applications
Planning Decisions
Building Control Admin
Strategic Policy Unit
Built Environment Division
Transportation Planning
Parks and Green Infrastructure Division

Planning Applications

There have been 1,277 planning applications received from 1st January 2023 to 30th November 2023, of these 155 applications were invalid leaving a total of 1122 valid applications. The volume of applications received by Local Electoral Area (LEA) is detailed in the table below.

From 1st January 2023 to 30th November, 12 Large-scale Residential Development (LRD) full applications have been made to the Local Authority. From 1st January 2023 to 30th November 2023 Fifteen decisions have been made on Large Scale Residential Developments. Of these Fifteen decisions made, twelve have been to grant Permission (3,791 Units) two decisions have been made to request further information and one decision has been made to invalidate an application.

An Bord Pleanála have issued 17 decisions (4 Refusals & 13 Grants -5709 units) on SHD applications in the period from 1st January 2023 to 30th November. There are five SHD's (4,577 units) remaining with An Bord Pleanála for decision.



Planning Decisions

A total of 1,124 planning decisions have been issued to 30th November 2023. There have been 920 decisions to grant permission (82%) and 204 refusals of permission (18%). Included in the 920 grants there have been 68 grants of permissions in respect of single house construction, 514 grants of permission for domestic extensions/works, 75 commercial/retail grants of permission and 44 grants of permission in respect of housing developments of which 23 relate to development of 2 – 20 units, 6 relates to 20 – 50 units, 7 relate to 50 -100 units and 8 which relate to development of 100+ Units.

Building Control Admin

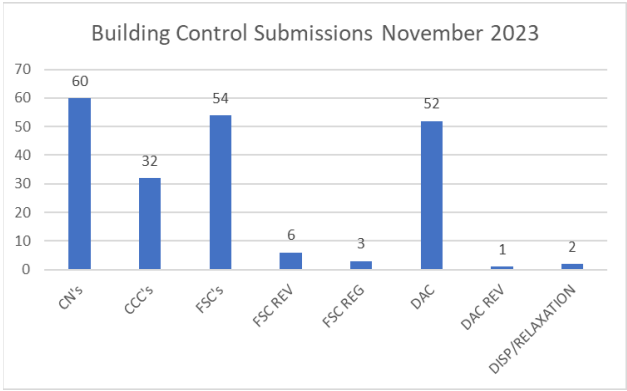
In November 2023, there were 210 building control submissions made via BCMS.

This was made up of 60 Commencement notices, 32 Compliance of Completion Certificates, 63 Fire Safety related Certificates and 55 Disability Access related Certificates.

Commencement notices and Compliance on Completion Certificates are submitted through the Projects module on BCMS.

Fire Safety, Disability Access, Regularisation and Dispensation/Relaxation Certificate applications can be submitted online via the Applications module on BCMS and the Council accepts hard copy applications directly into the office. Most applications are now being submitted via the online system.

The Building Control Admin team processed 152 decisions in November 2023 relating to Fire Safety and Disability Access Certificates. This was made up of 50 decisions to grant and 102 extensions of time.



Strategic Policy Unit

Local Area Plans, Masterplans and Framework Plans

In July, the first round of Plans falling out of the development plan was agreed. This comprises Swords and Flemington LAP's, the Dunsink Plan, Kilbarrack and the Old School House Masterplans and the Stephenstown, Folkstown and Clonsilla Framework Plans.

Work has begun on the Flemington Local Area Plan and the Clonsilla Framework Plan.

The Draft Donabate Framework Plan is almost complete and will be published this month, subject to the outcomes of the environmental assessment consultation which is ongoing.

Residential Zoned Land Tax

The Residential Zoned Land Tax (RZLT) is a tax aimed at activating serviced and residentially zoned land for housing. Local authorities are responsible for identifying the land that is subject to RZLT.

Fingal County Council's final RZLT map for 2024 is now available on our website and at our public office at County Hall, Main Street, Swords.

The map includes lands that meet the relevant criteria for inclusion on the map as set out in the current legislation.

In Scope Residential Lands in Fingal: 3,502 Hectares

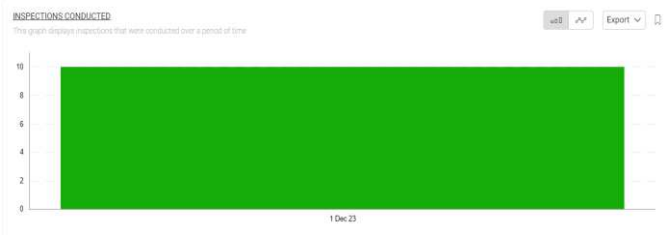
In Scope Mixed Use Lands in Fingal: 209 Hectares

Residential Zoned Land Tax will be charged annually from 1 February 2025 onwards (subject to the passing of Finance (No.2) Bill 2023). The tax will be administered by the Revenue Commissioners and landowners will have to register for the tax.

A draft revised final RZLT map for 2025 will be published by 1st February 2024. There will be a chance to make submissions in respect of land on this draft map at this time.

Built Environment Division

Building Control/Taking in Charge Section – 21/12/2023



- There were 10 building Control Inspections in December 2023 with 15 buildings inspected.
- There were 3 section 11 requests for further information following building control inspections, issued in December and there have been no enforcement notices issued.
- There was 1 road taken in charge in the council meeting of the 11th of December 2023 (Glen Ellan Road Extension in Swords).
- There is 1 development up for taking in charge in January 2024 (Bay Meadows Phase 2).

Dangerous Structures

There were 2 dangerous structures notified in December 2023. There are a total of 90 dangerous structures active in our database.

Pictures



Checking surfacing for compliance with Part M (disability access)



Checking window details in an apartment block in Dublin 15 (Part B)

Transportation Planning

Snugborough Interchange upgrade

The Snugborough Interchange is currently programmed to be completed in March/April 2024. The last element of the scheme to be completed will the shared active travel route through the underpasses. The scheme has been delayed mainly due to the complexity of the scheme and the number of utility diversions involved. During December additional improvements in traffic flow were made by opening some additional lanes, from the N3 and from Ballycoolin. On the 20th of December all traffic was diverted onto the new N3 overbridge to allow the old bridge over the N3 to be given new waterproofing and resurfacing. The works on the old bridge will continue into February. Following this new traffic signals and the new junction layouts/ pedestrian crossings will be put in operation. Works for completion of the retaining walls between the new cycle friendly underpasses near Waterville junction will continue. Updates will be posted on the scheme web site www.snugboroughinterchange.ie

Ongar Barnhill Link Road

Bam Civil Ltd. are completing the site compound and have carried out preliminary works in advance of the main works. Arrangements are being made with ESB and with Eir to divert existing services which are in the way of the route. Updates for the scheme will be posted on www.fingal.ie/ongar-barnhill

PSI-039 R132 Connectivity Project

Consultation with the National Transport Authority and with Transport Infrastructure Ireland regarding the connection with Metro Link is ongoing with Monthly meetings. Following a meeting with a developer on a new access onto the R132. Modelling the impact of this junction is currently being undertaken by consultants. Detailed design stage is underway and progressing as programmed.

PSI-005 Harry Reynolds Road Pedestrian and Cyclist Route

Construction works is progressing on the Harry Reynolds Road Pedestrian and Cyclist Route for this key infrastructure project for Balbriggan. The work is ongoing and progressing well at three locations on the project on Hamilton Road, Harry Reynolds Road just south of the R122 and at Moylaragh Road. Another meeting took place in December in relation to progressing the art installation piece with Fingal's Art Officer, Local Councillors, Tidy Town Committee members and Our Balbriggan to progress the process of developing a theme and guidance's on commissioning of the art installation. Additional meeting with the ESB in December onsite following the agreement of the new connect point at 12 Controlled crossing points along the project. Also, relocation of existing ESB cables has been agreed on Harry Reynolds Road.

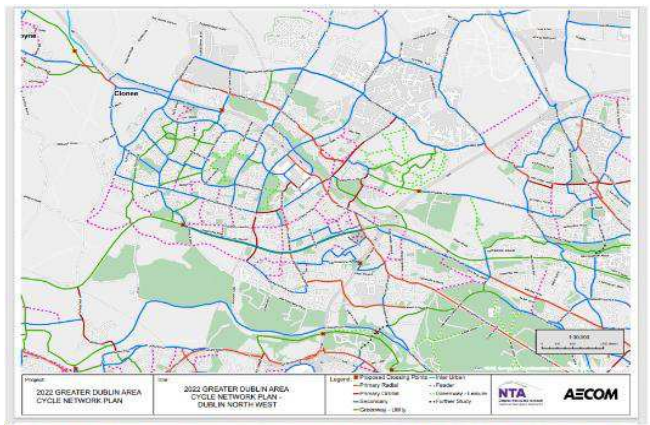


To assist with communication to the community a dedicated project website has been setup which will be updated throughout the project, highlighting the projects progression and key milestone stages; Harry Reynolds Road Pedestrian & Cycle Route | Fingal County Council



Consultancy Framework for Dublin 15 Walking and Cycling Projects

The Planning & Strategic Infrastructure Dept has commenced the procurement process for a Single Party Framework for Engineering Consultancy Services for Pedestrian and Cycling Route Projects in the Dublin 15 Area. The closure date for submission was late October. The assessment of the tender submissions for Stage 1 has taken place and the letters of intent will be issued in January 2024 moving the procurement process to Stage 2. Proposed projects will include the Clonsilla-Damastown Cycle Route and Pedestrian & Cycling Bridge at Granard Bridge Castleknock.



Cycle Network Plan for The Greater Dublin Area – Proposed Cycle Network Dublin North West - Sheet N8

PSI 063 Granard Bridge

A tender brief is currently being prepared for a Pedestrian and Cycling bridge over the Maynooth Rail line and Royal Canal at Granard Bridge on the Castleknock Road and will form an integral part of the walking and cycling route for Blanchardstown to Phoenix Park which is a proposed route in the NTA's Greater Dublin Area Cycle Network Plan.

The tendering for this project will form part of the initial project for the Engineering Consultancy Services Framework for Dublin 15 Pedestrian and Cycling Route Projects which is currently at stage 1 of the procurement process.



Figure 1 - View from Rail Bridge towards Granard Bridge and Blanchardstown

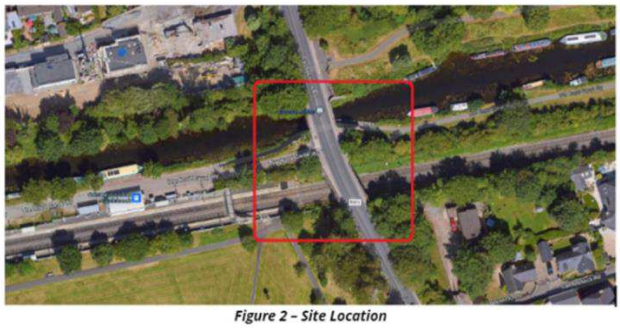


Figure 2 – Site Location

PSI – 004 Royal Canal Urban Greenway

Dialogue continues to be held with landowners and with key stakeholders the National Transport Authority and Waterways Ireland along the route of the greenway to ensure a coordinated, high quality final design is achieved at interfaces between existing facilities and the proposed scheme. Landowner searches and land referencing are ongoing also. Following this process, the required documents including the Environmental Impact Assessment Report will be prepared for a planning application to An Bord Pleanála in mid-2024.

S2M Pedestrian and Cycle Scheme

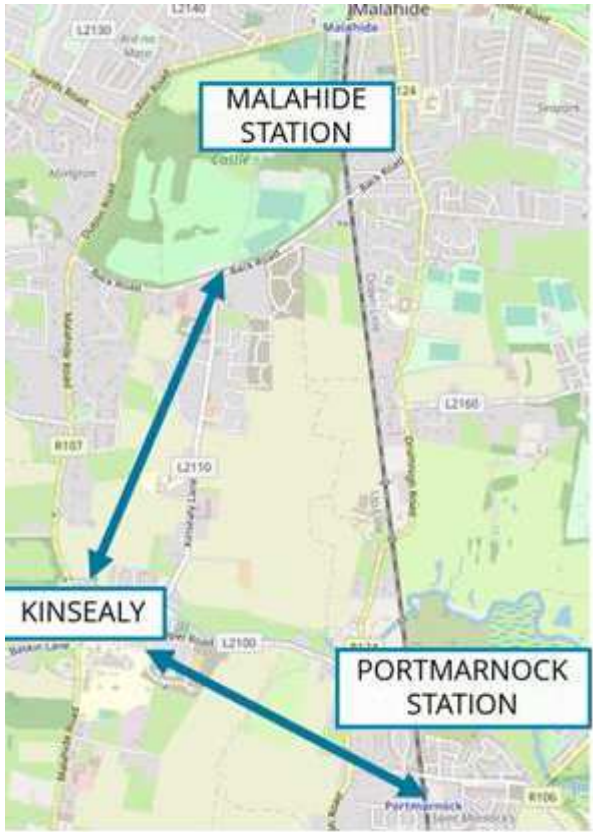
The preliminary design drawings are being finalised. The recently published Cycle Design Manual has led to some improvements being incorporated into the overall scheme design. The new manual draws on the experience of delivering cycling infrastructure across Ireland over the last decade, as well as learning from international best practice, and has been guided by the need to deliver safe cycle facilities for people of all ages and abilities. A surveyor has recently completed topographical surveys of public and private lands within the proposed scheme.

Ground Investigation Works will be required along the route at all locations where new structures are being proposed. These works have been procured and are scheduled for early 2024. A tree surveyor will be procured in the coming months and a survey of all trees along the proposed route will be carried out. Following this process, the preliminary design can be finalised and documents will be prepared for a planning application to An Bord Pleanála. Engagement with potentially impacted property owners, businesses and stakeholders is ongoing. A search of unregistered lands is ongoing for production of the deposit maps for the land acquisition.



Kinsealy Walking and Cycling Routes

The consultancy framework for various Swords & Kinsealy projects with the initial project being the Kinsealy Walking and Cycling Routes was recently awarded to Barry transportation. The appointed consultants are currently progressing the Kinsealy Walking and Cycling Routes Projects. The Options Selection phase is progressing on two routes, Kinsealy Lane and Chapel Road/Station Road to determine the draft preferred routes. Traffic surveys have been completed. In addition, a surveyor has been procured to carry out topographical surveys. Surveying work is scheduled for early 2024. Briefings will be undertaken with the local members at the next milestone stage. Non-statutory stakeholder consultation which will include road users will be targeted for 2024 whilst targeted stakeholder consultation, for example with potentially affected landowners, will be undertaken as needed.



Fingal Coastal Way

Liaison with landowners and residents' groups along the route of the Fingal Coastal Way continues. The topographical survey of public lands is programmed to be complete by the end of January. This survey will allow designs in the town and village centres to progress. A local consultation is planned for the Quay Street Area of Skerries and will run from mid January to March. The consultation will ask residents for their preferences on traffic management options to facilitate the Fingal Coastal Way. The responses will assist in the selection of designs to be developed further. Affected landowners with farming and horticultural businesses will be informed in January regarding the appointment of the scheme agronomist, at which point further liaison meetings will be held along the route. Searches continue for potentially affected landowners who have not been identified yet.

Broadmeadow Way Greenway

Design options for the northern causeway have been developed using recently acquired ground investigation data from the ground investigation (GI) contract conducted over the summer months.

These options will then be workshopped with the NTA and Irish Rail to seek approval to proceed with single preferred design option that meets the project objectives and ensure the safety and integrity of the railway causeway.
Tender competitions for a number of sub-elements of the project are advancing through the procurement process including;

- Tender competition for a precast concrete manufacturer for the 12-span 180m long precast bridge deck units has ended and tenders are now being assessed.
- Main estuary bridge Civil Engineering contractor - tender responses for this difficult and time constrained works package are currently being evaluated.
- OHLE strengthening works contractor, strengthening works to the foundations of the overhead electrical systems associated with the Dart which must be completed in advance of the bridge and ramp construction.
- The Underwater Archaeology Unit in the Department of Local Government and Heritage have requested that Fingal County Council undertake an underwater archaeology desktop assessment as part of planning and foreshore commitments, the tender pack for this piece of work has been issued to the market with the competition due to close in December.

We continue to work with and engage with the Department of Housing, Local Government & Heritage on the Foreshore application as we await a final outcome.

Church Fields Link Road

Works are continuing on phase 2 of the Church Fields Link Road and Cycle Network project, including the upgrade and reconfiguration of the existing Wellview Avenue and the installation of 670m of high quality pedestrian and cycling facilities through the eastern parklands linking up with existing networks and future proposed facilities in the vicinity.



Turvey Avenue & Portrane Road

Fingal County Council has lodged an application to An Bord Pleanála (ABP) for a Compulsory Purchase Order (CPO) for the Portrane Road Enhancement Project and two landowner objections have been lodged with ABP in this regard. Further consultation regarding landowner concerns was progressed with one of the landowners having withdrawn his objection. The project involves works to widen the existing narrow footpath on the northern side of Portrane Road in order to provide a suitably wide and safe footpath for pedestrians to use in the vicinity of two national schools (St. Patrick's Boys National School and Scoil Phádraic Cailíní). The project also involves works to provide safe pedestrian crossings and appropriate traffic calming facilities. Subject to approval from An Bord Pleanála, the CPO will allow Fingal County Council to purchase privately-owned land that is required to widen the path and deliver the project. A decision from An Bord Pleanála on the CPO application is expected February 2024.

Separately, Fingal County Council has completed a tender competition to procure a works contractor to build a Footpath Enhancement project on nearby Turvey Avenue, in Donabate. The project will see the construction of a new section of footpath to improve pedestrian safety and increase connectivity for people walking between Donabate Village and the residential areas along Turvey Avenue, west of Donabate Train Station. A works contractor has been appointed with construction work due to commence in January 2024.

Donabate Pedestrian Bridge

The detailed design for the construction of a new pedestrian and cycle bridge over the Dublin to Belfast Railway line at Corballis, Donabate has been approved by Iarnród Éireann and the Commission for Railway Regulation. The new bridge will cross over the railway line, facilitating a safe and segregated pedestrian and cycle route and will enhance connections between the development lands at Corballis, Donabate Village, the railway station and Newbridge Demesne. Heads of terms have been agreed and necessary licence agreements are being finalised with the developers of adjacent lands to facilitate access to, and construction of, the bridge. Procurement for a main contractor for the works is nearing completion. All necessary documents have been submitted to the NTA for approval to award the contract and for funding for 2024. Construction is expected to commence in Q1 2024.

Donabate Transport Projects

Fingal County Council has appointed Roughan and O'Donovan, a leading multi-disciplinary consultancy firm, to provide engineering, planning and environmental services for the Donabate Transport Projects, which comprise a number of major projects with the objective of improving transport and active travel infrastructure and road safety on the Donabate-Portrane peninsula.
The projects include:

- Phase 2 of the Donabate Distributor Road project, to improve access to Donabate and Portrane from the M1-Lissenhall Interchange for all road users, particularly vulnerable road users such as pedestrians and cyclists;
- Blakes Cross Junction Upgrade, to provide a safer junction layout that caters for both motorised traffic and active travel modes of transport such as walking and cycling;
- A study of the M1-Lissenhall Interchange, in collaboration with TII, to assess all technical and operational traffic issues associated with this strategic motorway junction;
- Donabate Active Travel Routes which encompass a number of related local projects which aim to increase local connectivity for pedestrians and cyclists.

Work on the initial data-gathering, concept development and option assessment stages of the Donabate Transport Projects is underway. Further stages of work, relating to environmental assessment, planning consent, etc. will follow on in subsequent years as appropriate.

Parks & Green Infrastructure Division

Fingal Biodiversity Action Plan 2023-2030

Fingal has launched and published its new Biodiversity Action Plan that aims to halt biodiversity loss over the next seven years and help ensure that future generations can enjoy the diverse range of habitats, plants and animals that we take for granted today. The extensive plan addresses biodiversity challenges such as habitat loss, degradation, and species decline, focusing on enhancing and protecting biodiversity in both urban and rural areas. Integrating international and national biodiversity strategies, it maps out an ambitious programme of 100 specific actions to reverse the decline in biodiversity by 2030, making Fingal the first local authority in Ireland to have made such a commitment.



Conservation Works Ward River Valley

Restoration of Historic Brick Arch in Ward River Regional Park nearing completion.
Following a programme of extensive and highly specialised works, the restoration of the historic brick arch in the Ward River Regional Park is nearing completion. It is planned to include the bridge in the park network provided in the park development project.





Part 8 Planning Projects

The Parks & Green Infrastructure Division of the Planning and Strategic Infrastructure Department are currently progressing a number of Part 8 planning projects as part of Fingal's Capital Programme. These projects include new playgrounds, sporting facilities and park up-grade works.

At Laurel Lodge, Castleknock a new woodland themed playground is proposed in the existing neighbourhood park as part of a Part 8 planning application. The period for public submissions closed on December 21st 2023.



Also within the Dublin 15 area an extensive upgrade is proposed for Corduff Park is proposed. The plan in the Part 8 application is to upgrade the park facilities including a new feature playground, enlarged all-weather pitch, grass pitch upgrade, new car park and associated landscaping. The period for the receipt of submissions for Corduff Park Part 8 closed on the 12th January 2024.



In Balbriggan a Part 8 application is currently underway for a car park at Bremore Castle, Drogheda Street to accommodate 125 no. cars close to the restored castle. The proposal includes 64 no. bicycle parking spaces, Electric Vehicle (EV) and universal accessible parking bays and extensive landscaping. The public consultation period for the Bremore Castle car park closes on the 26th January 2024.



HOUSING

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Housing Supply
Asset Management
Support
Tenancy Services
Housing Ukraine Response
Vacant Homes

Affordable Home Purchase Scheme



Fingal County Council are making homes available for sale under affordable dwelling purchase arrangements across the County.

Our pipeline for affordable housing over the coming years is below:

Affordable Housing Pipeline	Units
Dun Emer, Lusk - Completed	39
Hayestown, Rush – In Progress	52
Hampton Gardens Close, Balbriggan – In Progress	18
Kilmartin Grove Phase 1-Coming Soon	20
Ballymastone, Donabate – Coming Soon	286
Church Fields, Mulhuddart – Coming Soon	260

Fingal County Council is also actively engaging with Developers for opportunities to collaborate on Turnkey developments that are suitable for sale under Affordable Purchase arrangements.

The Affordable Team held an information breakfast briefing in December in the Crowne Plaza, Santry. The team invited Mortgage Brokers and Mortgage Advisors from across the County. The aim of the event was to provide an overview of the process of buying an Affordable Home and the role of Financial Institutions in the process. The Team received very positive feedback from those who attended.



Construction Programme

Summary of unit numbers in the pipeline	Units
Under Construction	302
Schemes with Planning Approval and Tender Stage	393
Planning and Design	1,110
Part V	292
TOTAL	2,097

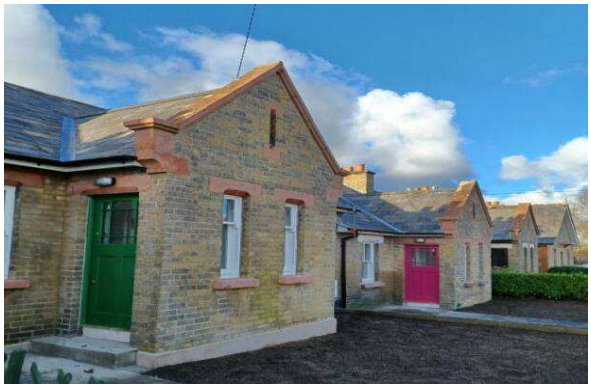
Progress of Projects on Site

14 homes delivered in Lusk Village, Lusk in partnership with Cluid Housing Association



Fingal County Council – Restoration of St Ita's Portrane - 14 units

Nine units have been completed and the restoration works commenced on the final 5 units and are due for completion in mid-2024.





Fingal County Council – Update on Affordable Housing Scheme at Hampton Gardens Close, Balbriggan
18 Affordable Units

18 homes have been made available for sale under an Affordable Housing Purchase Arrangement with Orchid Homes in Balbriggan, Co. Dublin. The development is progressing well with completion expected in early 2024. 5 of the 9 no. 1 bedroom apartments are sale agreed and 9 no. 2 bedroom duplex units are all sale agreed. The portal remains open to further applications for the no. 4 remaining 1-bedroom apartments. Applications can be made through - Affordable Housing Scheme | Fingal County Council

18 Affordable homes being delivered in Hampton Gardens Close, Ballbriggan, Co Dublin in partnership with Orchid Homes,









Fingal County Council - Affordable Housing Scheme at Hayestown, Rush
52 Affordable & 10 Social Units

Works are continuing with Phase 1 of the affordable units at Hayestown, Rush which is due for completion in early 2024. Phase 1 consists of a total of 26 units – 24 affordable private homes & 2 social homes.











Tuath Housing – Construction Scheme at Kilhedge Lane, Lusk, Co. Dublin – 31 dwellings

Works are continuing on the 31 units in Lusk being constructed by Tuath Housing. This development is due for completion in early 2024.







Fingal County Council – construction scheme at Bowden Court, Swords – 11 dwellings
Works are progressing at Bowden Court, Swords.



Fingal County Council - construction scheme at Ballough Place, Lusk – 10 dwellings
Works at Ballough Place, Lusk are progressing without significant delays.



Fingal County Council - construction scheme at Monastery Court, Lusk – 5 dwellings
Works are progressing at Monastery Court, Lusk and the scheme is on track for completion in Quarter 2, 2024.



Fingal County Council - infill scheme at Clonsilla Road – 1 unit
Delivered December 2023.



Fingal County Council - infill scheme at Sheepmoor Avenue – 1 unit
Delivered December 2023.

Housing Asset Management Report

Energy Efficiency/Retrofitting Programme

Fingal County Council's Energy Efficiency Retrofit programme is progressing well. Work has been completed on 103 properties to date in Strandmill Estate, Barnewall Estate, Rivermeade, and Glasmore Court. Works on a further 19 properties are currently underway in Strandmill Estate, Glasmore Park, and Whitestown Gardens.

Investigative works are ongoing in several other housing estates across the county to include them in this program.



Post-works – Strandmill Estate, Portmarnock (external wall insulation, new windows and doors)

Returning Dwellings to Productive Use

The number of casual voids within social housing stock which are currently in the re-let process is set out below:-

Voids for Re-letting	20th December 2023
In the letting process	51
Undergoing re-let repairs	19
With County Architect for procurement of pre-let repairs	8
TOTAL	**78**

Planned Maintenance Programmes

Cyclical Maintenance - Scheme Painting

The Scheme Painting Programme provides for external painting and joinery repairs to Council housing stock and currently operates on a 6/7-year cycle. Works are reaching completion in Corduff Close, Corduff Cottages, Corduff Crescent, Corduff Green, and Corduff Place. Works are continuing in Domville Woods.

Housing Assistance Payment (HAP)

HAP continues to be the primary source of rent support for those in private rented accommodation. Fingal County Council has set up over 338 new tenancies in 2023 to date with approximately 3927 tenancies set up since HAP began in 2017.

The HAP team is on hand to deal with any queries from applicants and landlords in person at the Housing Department in the Fingal County Council Blanchardstown Office, by phone at 01 8905000 via the CCU or through email at hap@fingal.ie.

Rents

The new rent review process continues, and tenants are required to return their Rent Assessment Form with the relevant documents so that an assessment can be carried out and the correct rent charge applied to the account.

The Rent Arrears team is working methodically through accounts in substantial arrears to encourage tenants to engage with the Council in reducing their arrears. In cases where there is no engagement, despite repeated efforts, proceedings will progress through the legal arena, and to date, the Rents Section has secured two Possession orders with 5 others currently before the courts. We have recently resolved one case to a satisfactory conclusion for both the tenant and the council. Regarding the two possession orders secured, both tenants are engaging with the team to address their areas.

The Rents team encourages any tenant who is having trouble paying their rent to engage with the Council to examine possible solutions. However, there are instances where tenants do not engage or make alternative payment arrangements, and, in those situations, the Council needs to take further action.

Housing Loans

2023 Local Authority Home Loan (LAHL) Review

LAHL Applications Received in 2023:	**265**
Number of Applications reviewed by the Credit Committee in 2023:	**191**
Number of Approval in Principle (AIP) issued in 2023:	**64**
2023 AIP Value	**14.8m**
Number of Loans Drawdown in 2023	**30**
2023 Loan Drawdown Value	**6.3m**

Further amendments to those properties eligible for the LAHL were announced in December allowing the local authority home loan to be available for the first time to people buying & renovating derelict properties. Up until now, only new, second-hand, or self-build properties were eligible. The same geographical restrictions regarding the property's market value (360k for properties in Dublin) at the end of the renovation will apply.

Further information on the Local Authority Home Loan and the eligibility criteria can be found at www.fingal.ie/localauthorityhomeloan & www.localauthorityhomeloan.ie



Private Rented Inspections

For 2023, following the rollout of annual registration by the RTB and a project to streamline registrations, the target for 2023 was set at 4,576, equating to just over a quarter of 18,000 registered tenancies within Fingal. The team successfully reached 100.42% of the 2023 target by the end of quarter three.
Over 6700 first and follow up inspections took place across the year, with approx. 25% of the inspected properties being brought into compliance in 2023.

The first batch of inspection letters were sent in December in preparation for the January 2024 inspections. The 2024 target will be sent by the DHLGH in the first quarter of 2024 and will inform the inspections programme for the year.

Housing Tenancy Services Report

Housing Support and Housing Position

Housing List positions have been issued to all applicants.

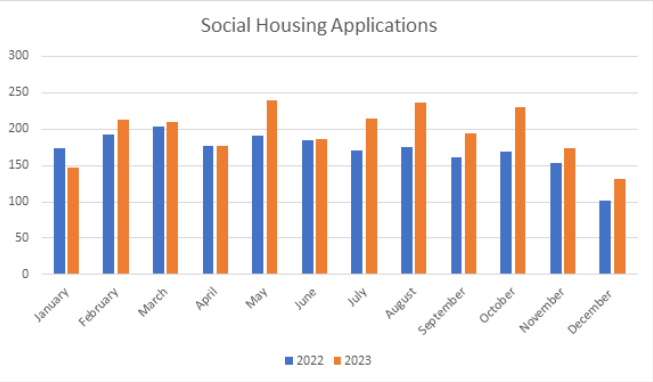
The list position is also available through the CBL portal on Fingal.ie. Applicants who do not have access to this portal should contact Choicebasedlettings@fingal.ie to request their unique username and password.

Changes to Income Eligibility Thresholds

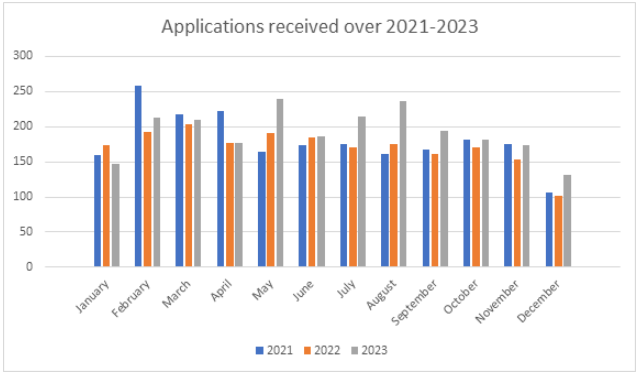
By Circular 48/2022 and changes being implemented via the Social Housing Assessment (Amendment) (No. 3) Regulations 2022, the Social Housing Eligibility Bands increased with effect from 1st January 2023.

Housing applications received year to date.

January- December 2023	2,354
January - December 2022	2,051



Housing applications received year on year 2021, 2022, 2023 date.



Housing Support Appeals

Applicants are reminded, that an appeal must be received within 28 days of a decision being communicated in writing to be eligible for review.

An email address has been established to facilitate the submission of appeals about housing support applications by applicants e.g., closure of social housing applications, transfer of tenancy, income limit queries, medical priority, and transfer applications. Applicants can email – Housing.Appeals@fingal.ie.

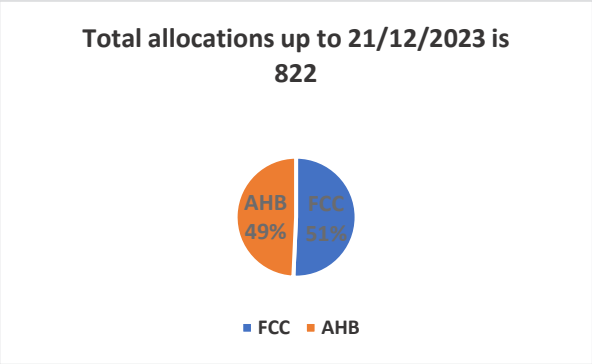
Housing Needs Assessment

Following Circular 26/2023 as released on 5th July 2023, the Summary of Social Housing Assessment (SSHA) is due for return to the Department of Housing Local Government and Heritage by 29th November 2023.

Letters Issued to applicants on 15th September to all applicants required to complete the SSHA. Following the successful launch of the Online HNA System in 2022, applicants have been advised to complete the assessment where possible online. This system went live on Monday 18th September 2023 with initial uptake positive and was closed on Wednesday 22nd November.

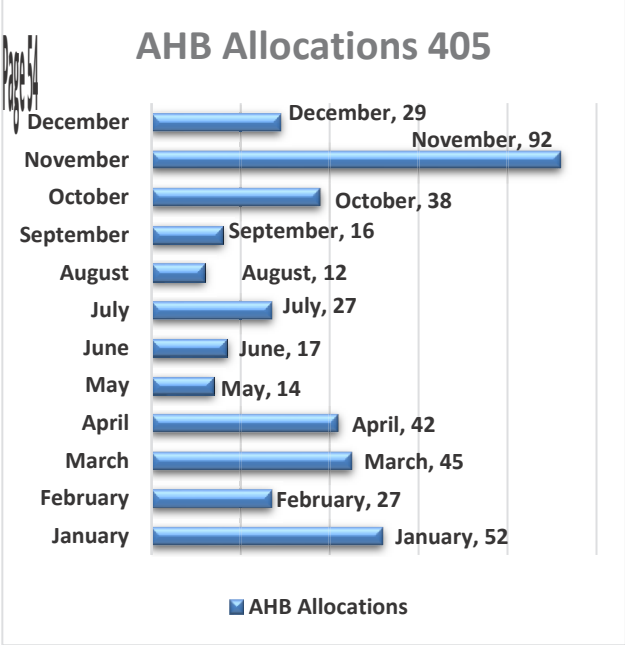
The assessment was complete with the Summary Return submitted to the Department on 28th November 2023.

Lettings



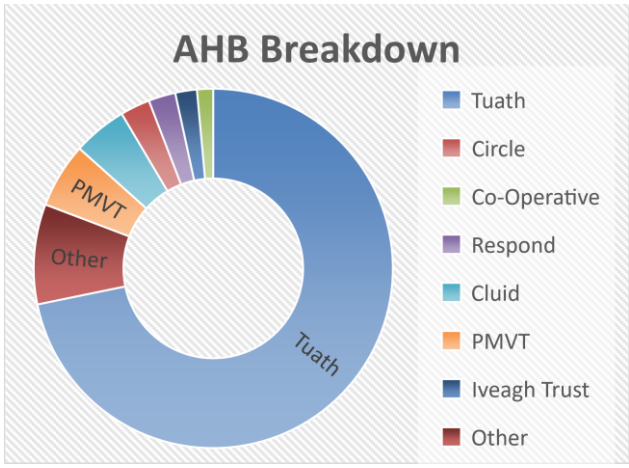
The above chart depicts the total number of properties allocated since the beginning of 2023 to the 21st December 2023. **405** of these allocations have been in collaboration with several Approved Housing bodies. The other **417** properties were allocated using Fingal County Councils own stock.

Total Allocations to date in collaboration with various Approved Housing Bodies (AHB's) was **405**, the below diagram portrays the monthly allocations.



405 allocations have been made in collaboration with various AHB's as of the 21/12/2023 – of the 822 allocations made to date, 390 were made via Choice Based Lettings.

There are an additional **116** nominations made on behalf of FCC applicants and lettings are awaiting confirmation of their tenancies from the AHB's.

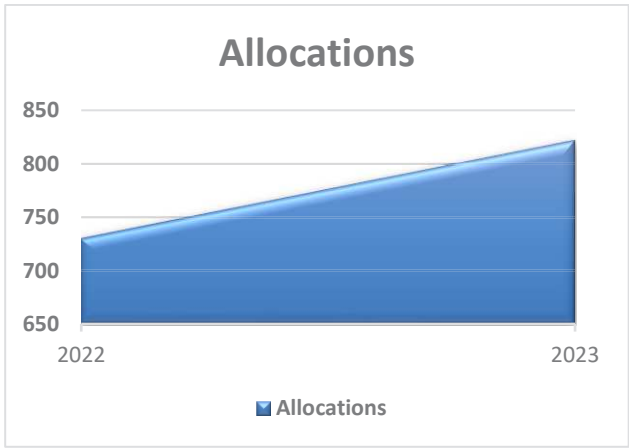


This chart shows the various AHB'S, reflecting the nominations sent to them during 2023 thus far. Tuath have received the most nominations from Fingal County Council in 2023.

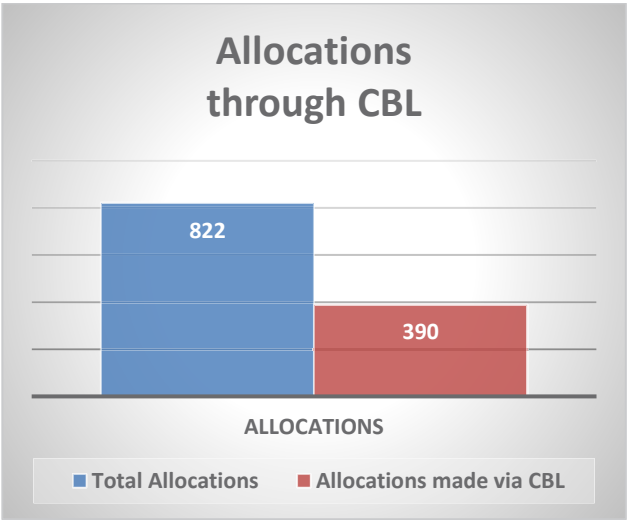
Of the **408** allocations in conjunction with the approved housing bodies, Tuath housing association received **295**.

The collaboration between Local Authorities and Approved Housing Bodies is continuing to have a positive impact on the delivery of social housing.

Allocations 2022 v Allocations 2023



Choice Based lettings (CBL)



Choice Based Lettings December Advertised Properties



Advertisement Period	Property	Bed	Type	Number of Views	Expressions of interest
29th Nov – 5th Dec	Dromheath Avenue, Mulhuddart, Dublin 15	3	House	893	133
29th Nov – 5th Dec	Charlestown Way, Finglas, Dublin 11	2	Apt	946	121
			Total	1839	254

Applicants who do not have access to this portal should contact Choicebasedlettings@fingal.ie to request their unique username and password.

2023 Highlights and Challenges

There has been an approximate **13%** increase in allocations in 2023.
Fingal County Council delivered four large social housing estates. Three of which are in Dublin 15 and one in Lusk North County Dublin. Some of these properties were fitted with medical adaptions which meant applicants with mobility and or medical needs could be housed sufficiently.
All estates are now 94% tenanted. 47 applicants with various medical/welfare needs were allocated properties throughout these schemes.
Fingal County Council are implementing the AHB code of Practice and have been working on building strong working relationships with AHB staff. We aim to continue to minimise time frames in which properties are void.
Refusal rates in 2023 are currently at 19%, whereas when using Choice Based lettings the refusal rate is significantly lower and is currently at 6%
Challenges
Delays with Garda anti-social behavioural checks
Medical allocations – lack of specially adapted properties
Delays on delivery of properties due to come in.
Wrap around / tenancy supports for applicant with high support needs.

Homeless Services.

Homeless Exits 2023

During December 2023, 33 households exited homeless circumstances into various forms of social housing support - including privately rented tenancies under the Homeless HAP Scheme.

Please see the table below for a breakdown of the figures:

Type of Exit	HHAP Tenancy	Allocation of Tenancy	Total
EA	7	3	10
Homeless Prevention	7	16	23
Total	14	19	33

There was a total of 23 homeless prevention cases and 10 who exited emergency accommodation comprising:

16 allocations of social housing support to homeless prevention cases.

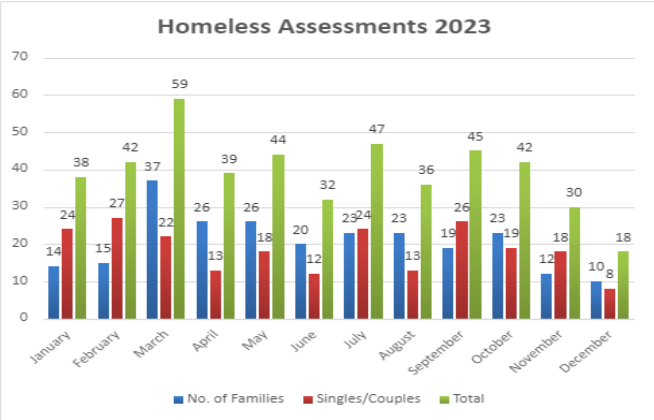
14 Homeless HAP tenancies, comprising 7 homeless preventions and 7 who exited emergency accommodation.

Homeless Assessments

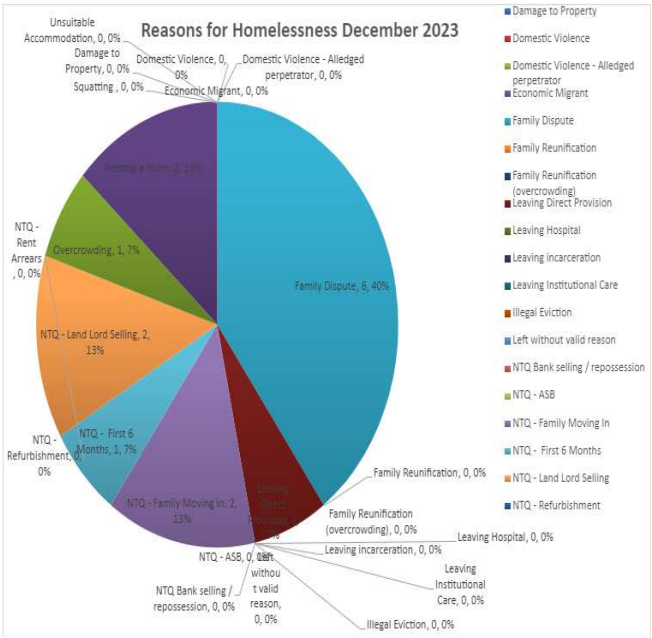
Fingal's Homeless Team continues to engage with those experiencing homelessness to offer advice and support. Homeless Assessments continued to be carried out.

In December 2023, there were a total of 18 full homeless assessments completed – comprising 10 families and 8 singles/couples.

To date in 2023 there have been a total of 472 full homeless assessments completed.



During December 2023, of the 18 Homeless Assessments carried out, 33% cases resulted from a Notice to Quit (NTQ) having been served. Most of the other presentations to the Homeless Section are from family/relationship breakdown (40%), living in overcrowded conditions (7%) and state that they cannot/will not return to the property. The remaining 20% comprise various reasons outlined in the chart below



2023 Overall

Throughout 2023, there were 315 homeless exits. In total 137 exited homelessness into a Homeless HAP tenancy whilst 169 exited via a social tenancy. Please see breakdown of homeless exits from circumstance in the table below:

Month	HHAP Tenancy	Social Tenancy	Total
EA	39	27	66
Homeless Prevention	107	142	249
29Overall Total	146	169	315

The number of full assessments carried out for 2023 totalled 472. Please see breakdown of full assessments carried out during 2023 below.

Month	No. of Families	Singles/Couples	Total
January	14	24	38
February	15	27	42
March	37	22	59
April	26	13	39
May	26	18	44
June	20	12	32
July	23	24	47
August	23	13	36
September	19	26	45
October	23	19	42
November	12	18	30
December	10	8	18

Emergency Accommodation (including Fingal County Council Family Hubs)

There continues to be a high demand for Emergency Accommodation across the region for both families and individuals.

Rough Sleepers

The Homeless Services Team continues to liaise with the DRHE Outreach Team regarding any reports of rough sleeping, to establish their names and circumstances and to offer support. Regrettably, some rough sleepers are reluctant to engage with service providers and may refuse offers to access emergency accommodation. Any rough sleeper who is willing to engage with the Outreach Team and/ or the Council will be assisted.

The Council will carry out homeless assessments and every effort is made to encourage them to avail of homeless services.

A weekly Rough Sleepers Coordination Group monitors the reports of rough sleepers. The reports come from various outlets, including the DRHE Outreach Team, Elected Representatives, the FCC Operations Department, and the general public.

The progress of these cases is monitored until the needs of the reported rough sleepers are met and the cases can be closed

Cold Weather Strategy 2023/24

In the event of cold weather or any emergency event in Dublin, the Dublin Region Homeless Executive (DRHE) coordinates the response to homelessness on behalf of the four Dublin Local Authorities. To meet the increase in demand for homeless services and have the appropriate contingency plans in place for cold weather conditions, the DRHE is activating the Cold Weather Strategy 2023/24 in the Dublin Region.
The Cold Weather Strategy focuses on expanding the current capacity to meet the increasing demand for emergency accommodation whilst also providing a targeted response for people who are long-term rough sleeping.

Increase in emergency accommodation for singles/couples

In partnership with DRHE service providers, capacity for singles and couples has been increased and these beds will be available on a phased basis throughout the winter months. As these beds come on stream, they will be made available as needed, depending on the demand for homeless services on any given night. Equally, they will provide vital capacity if an extreme weather event occurs. For all households assessed by an LA as requiring access to temporary accommodation, all residential services now operate on a 24-hour basis, with meals provided on-site and/or cooking facilities. The total additional capacity is 330 permanent beds and 40 extreme weather beds. The permanent beds are operated on a 24-hour basis with meals provided onsite.

Enhanced services operational during cold weather conditions

DRHE services operate throughout the year to support people who are sleeping rough. During the cold weather period, services are enhanced to mitigate the health risks that cold weather poses.

The cold weather provides opportunities for more assertive engagement with long-term, entrenched rough sleepers and hard-to-reach groups, aimed at placing them in appropriate and long-term accommodation. Enhanced services operating for this cold weather period include:

- Dublin Street Outreach service provided by the Dublin Simon Community. The team provides a service 7 am – 1 am Mon- Fri and 9 am – 1 am Saturday and Sunday.

- The Outreach Mobile Health Clinic, operated by SafetyNet and funded by the HSE, delivers services two nights a week (Tuesday & Thursday) and every second Friday morning with the Dublin Outreach teams, to support rough sleepers with complex medical needs. This Outreach clinic offers a comprehensive primary health care service targeted at people who are experiencing homelessness in Dublin.

- The DRHE, Dublin Simon Outreach Team, Housing First, the HSE and An Garda Síochána will continue to work closely together during the winter period with the same goal of improving outcomes for people who may be sleeping rough.

- The DRHE has 40+ emergency beds that can be activated during extreme weather conditions or adverse events.

Dublin Street Outreach Service Tel: 01 872 0185 from 7 am to 1 am

The DRHE in partnership with Dublin Simon Outreach and the PMVT Intake team are assertively working on the streets offering accommodation to all rough sleepers. The teams are very familiar with the locations of people sleeping rough across the Dublin Region and persistently work with individuals to support them into emergency accommodation. This process can take time and multiple contacts, as some people do not want to engage.

The teams persevere with every person working to achieve a successful outcome.

The service operates 365 days a year, until 1 am. The Outreach Teams also ensure that people sleeping rough are linked with other appropriate health services such as addiction and mental health services to prevent further rough sleeping. PMVT's Housing First Intake team links rough sleepers to permanent accommodation with long-term support.

All emergency accommodation is now 24-hour, with food and shower facilities provided.

Homeless Action Plan 2022- 2024

The DRHE, with the approval of all 4 local authorities in the Dublin region, has finalised the Homeless Action Plan Framework for Dublin 2022-2024. This Plan is the first plan to be put into operation since Ireland signed the Lisbon Declaration on combatting homelessness in June 2021, which aims to end homelessness by 2030.

It will follow on from the previous Homeless Action Plan for 2019- 2021 and continue with the three key themes of **Prevention, Protection and Progression.**

The Plan was developed based on a detailed consultative process including submissions from various Stakeholders, interested organisations, Service Providers, Members of SPCs of the four Local Authorities, the Dublin Joint Homelessness Consultative Forum, and the Statutory Management Group.

Preventing Homelessness, Notices to Quit and Tenant In-situ Acquisitions

Fingal County Council is aware that households in the Fingal area who may have received a notice to quit, which is also referred to as a notice of termination, from their landlord may be worried or unsure of what to do.

Fingal County Council and the Dublin Regional Homeless Executive (DRHE) would like to advise anyone affected of the services that are available to them in these circumstances.

We strongly encourage tenants residing in the Fingal area, who have been issued with a notice of termination, to contact Fingal County Council as soon as they receive a notice from their landlord. The contact details for Fingal County Council are provided at the bottom of this page.

When the tenants contact Fingal County Council, staff in the Housing Department will take note of the termination date.

The Council advises the tenant to refer the notice to Threshold, a service funded by the DRHE to provide a Tenancy Protection Service for private renters in the Dublin Region, including Fingal. Threshold can also be contacted directly on Freephone 1800 454 454 or via their website www.threshold.ie which contains more information and advice on the validity of your notice.

The Council's first response will be to try to prevent homelessness. This includes assessing the person's position on the social housing list, providing advice on applying for Choice Based Lettings, advising the person on the level of Housing Assistance Payment (HAP) they may be eligible to receive, and, in some cases, assessing if the Council can acquire the dwelling where the tenants reside if it is being offered for sale.

Placement in emergency accommodation will be a last resort if no other alternative can be identified.

The Council has been engaging with tenants who have been issued with a notice of termination, as well as their landlords, and following assessment, 211 tenant in-situ properties are at the sale closed stage. A total of 92 properties are at the sale agreed stage with a further 53 cases in the negotiation process. In addition, the Council is assessing a further 310 queries concerning notices of termination and tenant-in-situ acquisition.

The Council will continue to deal with notice of termination queries and cases as expeditiously as possible and progress tenant in-situ acquisitions while taking account of circulars and guidance issued by the Department of Housing, Local Government and Heritage.

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Fingal County Council continues to liaise with other Dublin and neighboring local authorities to deal with tenancy issues that may require an inter-authority approach. In particular, we are working closely with our colleagues in the other Dublin Local Authorities on the implementation of the Government policy and guidance, with a focus on the needs of tenants.

Whilst the Council will, in the context of current circumstances, adopt flexibility in dealing with potential acquisitions of properties with tenants in situ, any acquisition is subject to appropriate due diligence and checks before any commitment is made to acquire, including, for example, determining that a valid notice of termination is in place, the tenant has a social housing need, and the condition and valuation of the property.

The Government has put forward options to allow tenants who are not eligible for social housing to remain in their homes, including schemes to support the purchase of homes and a Cost Rental in-situ Scheme. The Cost Rental Tenant-in-Situ Scheme is available for tenants who are not eligible for social housing and are at risk of homelessness. The DHLGH has advised that local authorities are to be the first point of contact for this scheme, but it is managed by the Housing Agency. Under the scheme, the Housing Agency can purchase a property and rent it to the tenant. Fingal County Council will undertake an initial assessment of the tenant's circumstances and refer details to the Housing Agency for consideration, where the tenant is at risk of homelessness and the Cost Rental Tenant-in-Situ scheme applies. The Housing Agency will then contact the landlord about the purchase of the property.

Where a tenant wishes to purchase their home from the landlord, local authorities can provide advice about the Local Authority Home Loan scheme. The Government is examining implementing a 'right of first refusal' for tenants to purchase their homes, as well as expanding the First Home shared equity scheme. The Council will be able to provide more information on these when available.

Works around preventing homelessness, assessing notices of termination, and responding to tenant and landlord in-situ queries are being led on by the Council's Homelessness section, taking a tenant-centred approach, supported by staff dedicated to dealing with tenant in-situ housing acquisitions.

The contact details below, including a dedicated email address NTQEnquiries@fingal.ie, should be used by tenants who may have received a notice of termination or a landlord who has issued a notice of termination to their tenants and who may wish to sell their property to the Council.

The key contact details are:

Fingal County Council Housing Department

Monday to Thursday, 9 am to 5.00 pm,
Friday 9 am to 4.30 pm:
Tel. **01 890 5000 or homeless@fingal.ie**
Email: **NTQEnquiries@fingal.ie**

Dublin Region Homeless Executive, Central Placement Services:

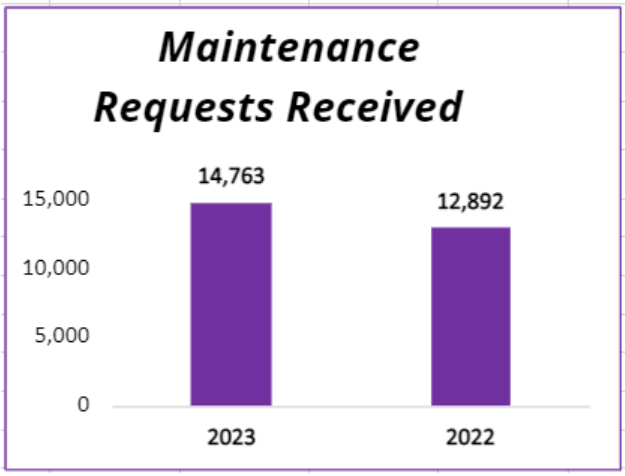
Freephone : 1800 707 707

TRAVELLER ACCOMMODATION PROGRAMME

Traveller Accommodation

Refurbishment works to the 5 Bay Halting Site at St Brigid's Lawns, Porterstown, Dublin 15 is ongoing. Works include replacing the existing welfare units with new modern units and upgrades to the on-site utilities. Regular site visits by Housing Inspectors continue all Fingal County Council Traveller specific sites while checking on vulnerable residents and advising on the continued support available. Council officials continue to liaise and engage with the Traveller Community, Traveller Advocacy Groups, Welfare Services, Child Services, Mental Health Services and other services and agencies to resolve issues when and where possible.

Housing Maintenance



Increase of 12.6% YTD

Boiler Servicing Programme

The 2023 Programme of work is 90% complete, with Contractors working across the County in areas such as Corduff, Drumheath, Fortlawn, Wellview, Dun Saithne, cardy Rock, St Paul's and Patrick's Grange.

Anti-Social Behaviour/Inspectorate Unit

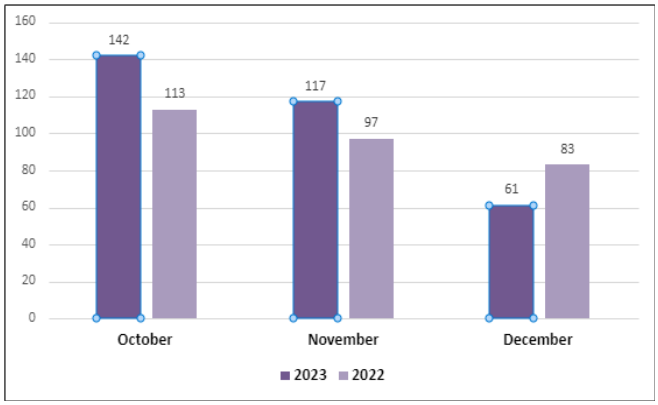
The Council is committed to investigating all reports of ASB and will take all preventative measures possible. All complaints are received in confidence by the ASB Unit

ASB Caseload Management

Complaints December 2023	Total	Active	Monitoring	Closed
Balbriggan	8	6	1	1
Rush / Lusk	1	1	0	0
Swords	10	6	1	3
Howth / Malahide	13	12	1	0
Blanchardstown / Mulhuddart	22	9	5	8
Ongar	3	0	1	2
Castleknock	4	4	0	0
Total	61	38	9	14

Surrenders on Estate Management Grounds 2023 – 2 (Jan), 3 (Feb), 2 (March), 2 (April), 1 (May), 1 (June), 2 (July), 4 (August), 3 (September), 1 (October), 2 (November), 1 (December).

Monthly Breakdown of ASB Complaints Received 2022-23



Anti-Social Behaviour Interventions

Interviews Held 2023	95
Interviews Held 2022	101
Tenancy Alerts 2023	23
Tenancy Alerts 2022	39
Tenancy Warnings 2023	6
Tenancy Warnings 2022	6

Inspectorate

Traveller Specific Site Inspections 2023	**1665**
Traveller Specific Site Inspections 2022	1673
Estate Inspections 2023	**1305**
Estate Inspections 2022	1086
Estate Management Inspections 2023	**1666**
Estate Management Inspections 2022	2109

Tenant Induction Courses 2023

Fingal County Council are currently delivering Tenant Induction Courses in the Mulhuddart Community Centre. This partnership has been hugely successful due to its central location and the great facilities the centre has to offer.

9 Tenant Induction Course have been completed in 2023 for the developments listed below.

- Kilhedge
- Wellview
- Liscappagh
- Churchfields

Housing Ukraine Response
Those Fleeing the Conflict in Ukraine

The Government is committed to delivering a humanitarian response to welcome people fleeing the conflict in Ukraine and seeking protection in Ireland.

Web resources with useful information on support and accommodation for Ukrainian Beneficiaries of Temporary Protection and the wider Fingal community are shown below:

www.gov.ie/ukraine

Ukraine україни Украина | Fingal County Council

The Council's Fingal Ukraine Response Forum chaired by the Mayor continues to meet regularly to co-ordinate the response of the various statutory agencies and voluntary groups in the county to assist the Ukraine community. The most recent meeting of the Ukraine Response Forum was held on the 23rd November 2023.

Liam Rodgers Rest Centre

The centre continues to provide accommodation and support to Ukrainian Beneficiaries of Temporary protection. In the main occupants are new arrivals to the country. The centre is presently operating at full capacity with various statutory agencies linked with the centre to provide support to the new arrivals.

A small modular unit has been recently provided on site to assist with the operational aspects of running the rest centre.

Supported by the Council and the Peter McVerry Trust (PMVT) over **402 persons** have moved from the Liam Rodgers centre to OfferAhome\pledge accommodation across the county and country with arrangements finalising concerning further moves to OfferAhome\pledge accommodation. An additional **210 persons** have moved along to varying other forms of accommodation in the main to state contracted accommodation.

OfferAhome\Pledge Accommodation

The monthly recognition payment is **€800** per month for vacant properties and **€800** to host a Ukraine person in your home. To pledge fully vacant accommodation, please visit the national portal at https://offerahome.ie or for enquiries, e-mail offerahome@fingal.ie.

To pledge a room in your home, this can be done through the Irish Red Cross via www.redcross.ie

Note **Helping Irish Hosts** can offer support and advice to both hosts and guests in pledge accommodation.

See website https://www.helpingirishhosts.com for further information.

Vacant Homes

Three dwellings advanced through the statutory CPO process in 2023, one of which has a large associated site. An Bord Pleanála has confirmed that the CPO is to operative concerning 2 of these properties and it expected that possession of the third property will be secured in Q1 2024

Sale closed in November on a property in the Dublin 15 area under the Buy and Renew Scheme with the property now in the pre-let repair programme for social housing stock. Another dwelling is at sale agreed stage under the Buy and Renew scheme.

The Croí Cónaithe Refurbishment Grant Scheme is also in utilisation to address vacancy and assist citizens in getting a home with increasing enquiries, applications, and grant approvals. The grant can also be used to bring a vacant property back into use for the private rented market.

Croí Cónaithe Vacant Homes Refurbishment Grant

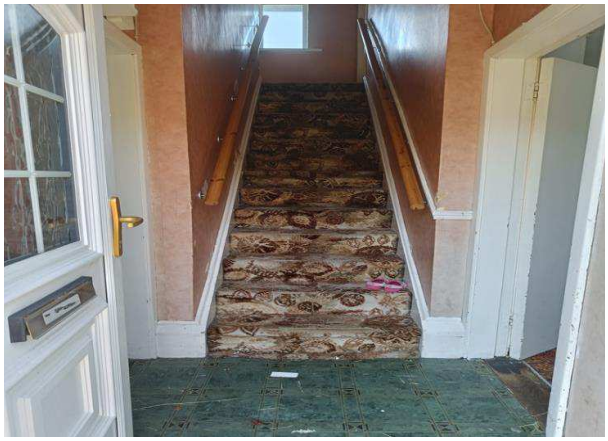
On the 1st May 2023, the scheme was further extended with the eligibility criteria now allowing for properties built pre-2008 to qualify and grants increasing to €50k (vacant) and €70k (vacant and derelict).

The scheme now also allows for a grant for approved properties to be rented on the private market when refurbishment is complete. Before this change, the grant-approved property had to be the principal private residence of the grant-approved owner.

To date, **85 applications** have been received under the scheme, **50 of** which have been approved with further applications moving to the approval stage. In addition, staff are engaging with numerous other expressions of interest which have the potential to lead to further applications.

Promotion of the scheme is ongoing by the Vacant Homes Team who have been present at various Housing Information Events most recently the event held in the Crown Plaza, Hotel, Santry on the 1st December 2023. For enquiries on the scheme and on vacant properties generally, please contact the Council's Vacant Homes Office via e-mail at vacant.homes@fingal.ie

Croi Connaithe Vacant Property Grant Photos



Before



After



Before



After



Before



After

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COMMUNITY DEVELOPMENT

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Community Development
Facilities Management
Interagency
Integration
Ukrainian Supports
Local Authority Integration Team (LAIT)
Age Friendly Fingal
Funding

Community Development Office

Community development is a process where community members come together to take collective action and generate solutions to common problems. Community wellbeing, economic, social, environmental and cultural challenges are often solved through collective action being taken at a grassroots level. Community development ranges from small initiatives within a local group to large initiatives that involve the broader community.

Building community capacity, strengthening community participation, and involving people in decisions that affect their lives is a complex process and can only be achieved by working with local communities and agencies who have responsibility to the people in those communities.

In December the Community Development Office worked in partnership with a number of community groups and partners to support many projects/Initiatives including;

Mountview Family Resource Centre 25th Anniversary

Community Development was delighted to attend the 25th Anniversary celebration Mountview Family Resource Centre 25th Anniversary celebration which took place in December. The night included a mulled wine reception, music from the Blanchardstown Brass Band and the premiere of a video which highlighted the work, success and impact of Mountview Family Resource Centre has had to the local area over the last 25 years.

The Board of Management and staff thanked Fingal County Council for providing the facility and especially thanked the Community Development Office and the Community Facility Management unit for their ongoing support. Joint funding from the Community Development Office and Fingal LCDC enabled the renovation of the kitchen space to allow the centre to deliver further services from this location.



St. Peregrines Senior Citizens Network Christmas Celebration

St. Peregrines Senior Citizen's Network wrapped up the year with a Christmas Celebration at Tyrrellspass Castle on the 2nd of December.

Over 50 senior citizens from across Dublin 15 attended this festive Christmas social event. The Community Development Office worked closely with the committee to secure funding for the bus and entertainment for this gathering. The attendees thoroughly enjoyed coming together for this celebration.



Castleknock Wellbeing Group

Castleknock Wellbeing Group, supported by Community Development Office have been running yoga for over 55s for the past 12 weeks.

The newly established group facilitates up to 50 individuals at each session and closed the year with an invigorating yoga for wellbeing

session and light refreshments in the Parish Hall. The Community Office attended the final session and was delighted to see so many older people practicing yoga and taking charge of their individual health, wellbeing and mobility.
The Castleknock Wellbeing Group have now made an application for Community Activity Funding to continue to run the 'Yoga for Wellbeing' programme in 2024. The participants spoke to the development officer about what the classes mean to them as individuals and as a group and how they hope they can continue them into 2024 and beyond.

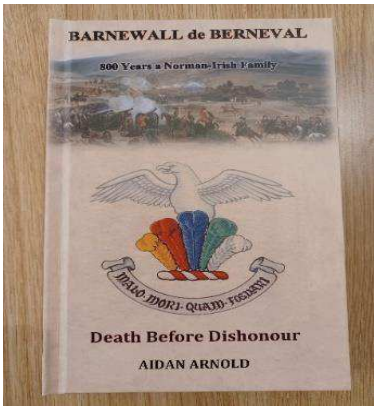


Blakestown Mountview Youth Initiative Celebrate their 25th Anniversary with a Christmas Celebration.

The community office was delighted to attend the Blakestown Mountview Youth Initiative as they celebrated their 25th anniversary with a day full of festivities. BMYI showcased their service to guests by giving a presentation on the work they have done over the past 25 years. They invited past participants to speak and give an account of the positive impact the service has had on their lives. The young people involved put on a drama piece for guests after which Minister for Children, Equality, Disability, Integration and Youth and Roderic O'Gorman was invited to speak.
Guests, family and friends and local councilors were then invited for refreshments.
BMYI secured activities funding through the community department to create a Santas Grotto which was enjoyed by all the younger family members of the services. The community office would like to wish BMYI a very happy 25th Anniversary and wish them every success for the next 25 years.

Lusk Heritage Group Book Launch

On 1st December Lusk Heritage Group proudly launched "Barnewall de Berneval – 800 Years a Norman-Irish Family" in Lusk Community Cultural Centre. Jim Monks opened the launch describing the research and work carried out by the author and fellow group member Aidan Arnold.



The book details the Barnewall family's historical links to Lusk and wider Fingal including Bremore Castle in Balbriggan and will be available in all Fingal County Libraries in 2024 and for purchase from local bookshops. The project was co-funded by the Community Development Office through Community Activities Funding.
The launch was well attended by the local community who were joined by Minister of State, Joe O'Brien and elected members of Fingal County Council.



Rolestown Community Council

The North County Community Development Team met with community members from Rolestown at the local Community Hall to support a drive to set up a representative group for the community. The meeting saw representatives of the local community, including elected Councillors, members of the local GAA club and drama group, and resident's association meeting with other residents who are new to the area with the purpose of discussing the establishment of a Community Council to run community events, improve and maximise local resources and infrastructure and enhance the local environment.

The North County Team will continue to engage with and support the group as its' formation develops into 2024.

Swords and Donabate Singers at The Atrium

Members of two Community Choirs supported by the Community Development Office sang festive songs in the Atrium, Swords, before Christmas. The Swords One voice Singers and the recently formed Donabate/Portrane Community Singers performed a medley of songs to an audience comprising of FCC staff, Swords Senior Citizens, Swords Men's Shed, Failte Isteach Donabate and several Councillors. The session was attended by the Mayor of Fingal, Cllr Adrian Henchy and the Chief Executive, AnnMarie Farrelly.

The choirs are supported by Fingal Age Friendly, Fingal Community Development Office, First Steps and Integration programmes and are part of a drive to establish community choirs and singing groups across the county to promote; positive mental health, community wellbeing and social inclusion.





Skerries Keen to be Green Group Development



As part of the Community Development Office's "Keen to be Green" project, a new Skerries integrated community group capacity building event was held in November/December 2023 which was grounded in the principles of Community Development and the merits of the circular economy while also keeping community integration and road safety to the forefront of this initiative.

This initiative involved facilitating a diverse, local group to take part in a 5km cycle alongside tutors to conclude a 5-week learn-to-cycle course undertaken by the group. The course, where the basics of cycling- for-beginners was taught, was co-funded by the Community Development Office working in partnership with the Councils Active Travel Section.

This initiative provided a great opportunity to enhance community cohesiveness as both new and existing Skerries residents, including several International Protection

applicants currently residing in Skerries, gathered to learn, develop and successfully complete the programme. This initiative is a notable example of combining the application of community development principles, environmental awareness and local integration principles through learning a current and valuable skill of safe cycling which will benefit participants and their community.
The culmination of the programme saw participants putting their new skills to use in a safe 5km cycle around Skerries town followed by a well-earned coffee at Skerries Mills and then moving to Floraville Park to take part in a musical Ukelele session.

Myrtle The Coast, Baldoyle 'Light Up for Christmas'



Myrtle the Coast Baldoyle, Resident's Association, established in 2023, has managed to pack in some incredible local events with support from the Community Department. Residents represented Fingal in the Climate Change Heroes Campaign, participated in community capacity building events during the year including organising local community cleanups in the area.

The final event for 2023 was the 'switching on' of the Christmas tree lights with mince pies and Christmas Carols. There was even a surprise visit from Santa much to the delight of the children.



Fingal Managing Volunteer Awards

In celebration of International Volunteer Day, Deputy Mayor Grainne McGuire joined the Community Development Office and Fingal Volunteer Centre in awarding local organisations the ***Fingal Managing Volunteers Awards*** on 14th December.

The Award recognises organisations and group that maintain good volunteer management practices that create a quality, safe and positive volunteering experience.

Three organisations including Children for World Children and Balbriggan Integration Forum Level 3 and Malahide Park Run Level 1 received awards.



Facilities Management

Fingal Community Facilities Network – Masterclass



42 members of FCC *Community Facilities Network* attended the end of year FCFN Masterclass. Finishing up 2023 on an appropriate note, Senan Turnbull's presentation on *How to Draft an Effective Annual Report* was very engaging.

The session aimed to help attendees understand how and annual report can facilitate transparency, promote good governance, and evidence the great work that is happening in our community centres across the County. Adding some festive cheer to the event, the group participated in a review of the years' work looking at the highs, lows, and challenges.

A lot of valuable information was shared which will form a great learning base for the network coming into the new year in 2024. A visit from Santa was warmly welcomed as he wished everyone luck in the team building exercise which became quite competitive on the day!

Providing opportunities for Community Centre Managers, Staff and the Boards of Directors to participate in cost- effective training, network or team building activities are just some of network's core aims and we look forward developing all of the learnings from 2023 and improving our targeted service delivery in 2024.

Interagency

The Community Development office actively seek to work in collaboration with agencies to maximise service delivery and resources to communities In December/January the CDO supported the delivery of the following:

Thrive Balbriggan

Thrive Balbriggan emerged as the winners in the Medium Group category at the National Volunteer Ireland Awards recently held in Limerick. This is a fantastic accomplishment, underscoring the significant strides the group has made in garnering national recognition for their impactful work at the local level. It's a testament to the dedication and effectiveness of the entire team which is supported by the community office. Thrive Balbriggan delivered motivational training before Christmas to group members and others from the local community who may be interested in getting involved with

Thrive Balbriggan in the New Year. The community office is working with the Thrive steering committee to expand into the Swords area in 2024.

Fingal Comhairle Na nÓg

The Fingal Comhairle na nOg completed 2023 with a team-building trip to Wild Lights at Dublin Zoo and an online meeting in December.

The group is very excited about visiting the County Hall in Swords in February 2024 to meet with the Mayor Cllr. Adrian Henchy and CE AnnMarie Farrelly to present their work and have an opportunity to engage in a Q&A session.

The promotional video produced at the 2023 Youth Conference has been added to the FCNN page of the FCC website. https://www.fingal.ie/council/service/comhairle-na-nog-co-ordination

The steering committee had their last meeting of the year in December. Organisations represented on the committee include DDLETB, Fingal County Council, Foróige, FCNN, Crosscare, FCYPSC & the Balbriggan Traveller Development Project.

Integration

Fingal County Council's Migrant Integration and Social Cohesion Strategy 2019- 2024 main goals are to make sure Fingal County Council's services meet the needs of the diverse population and contribute to making Fingal a place where: all who live, work and visit are valued, and everyone can play a full part in community life, regardless of their nationality, ethnicity, religious or cultural background. The following actions have been taking place during December.

Fingal Migrant Integration and Social Cohesion Strategy 2019-2024 Pillar Action Plan 22-23

The Pillar Chairs held their final meeting of the year on the 14th December to discuss and update their departmental actions for each element of the strategy. 25 Actions were identified in the action plan which is now completed for 2023.



Ukrainian Supports



Fingal was delighted to invite over 850 Ukrainian guests, over 4 weeks to the Fingal Christmas Markets in both Swords and Bremore Castle.

Transport and Santa vouchers were arranged and provided for our guests, and the Community Department also secured two stalls at the Swords market for members of the Fingal Ukrainian Information Network, meaning our Ukrainian guests could feel more represented and included in the magic that is Christmas time in Fingal County.

Local Authority Integration Team (LAIT)

The interview process for the new LAIT team is now complete. The team will consist of a coordinator post, two support workers and an and administrative support officer. It is anticipated that the team will be in place within the Community Development division in Quarter 1 2024.

The primary role of the Fingal Local Authority Integration Team (LAIT) will be to provide ongoing integration supports to International Protection (IP) applicants, Programme Refugees and Beneficiaries of Temporary Protection (BOTP) to enable them to live independently in Fingal.

Age Friendly Fingal

Age Friendly Fingal is committed, through this strategy, to driving a collaborative, multi-sectoral approach which supports interventions that will significantly help to improve the quality of life of the current population of older people in Fingal and future generations.

Balbriggan Intergenerational Project: Shared Island Fund



Balbriggan Intergenerational Project (BIP) identified a ***lack of shared safe spaces for all ages and abilities*** as the issue they would like to address as part of this Shared Island funded initiative.

The group has outlined that this shared space should be inclusive where younger and

older people feel safe on their own or with others. This could be an indoor and/or outdoor drop-in space to meet other people, to take a break from their home, to sit and observe life in Balbriggan, to read a book or play a game.

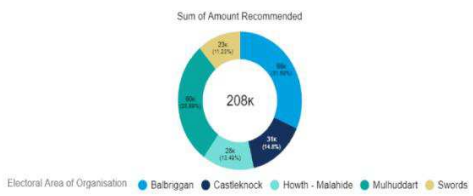
To get a better understanding of what is possible, the group visited the Welcome Room in Parslickstown House, Dublin 15 and a sensory garden in Kildare on Saturday 9 December. The site visit was not only informative but also further enhanced the positive relationships that have developed between the younger and older participants on this project. The next step for the group is to survey their peers on the use of a safe space and what this space would look like. Once a clearer project concept has emerged from this group, the Community Development Section will facilitate engagement with relevant stakeholders so that the group can progress their project.

The Voice of the Older Person

As a local authority serving a diverse population across Fingal it is crucial that we get input from all of our citizens on the issues that affect them to ensure that we are working effectively to improve the quality of life. Fingal Age Friendly gives a voice to senior citizens on the issues that affect them, and we welcome your opinions comments and observations about aging well in Fingal.
If you would like to learn more information about the Fingal Age Friendly programme or would like to receive our weekly newsletter please email OPC@fingal.ie

Funding

Activities Funding (up to 21st Dec 2023



In 2023 Communities Activities Funding has been awarded to **97** projects to the amount of **€207,539.40**

Howth Malahide – €27,994.96 – across 13 projects

Swords - €23,317.00 - across 13 projects

Castleknock/ Mulhuddart- €90,668.85 – across 42 projects

Balbriggan - €65,558.59 - across 29 projects

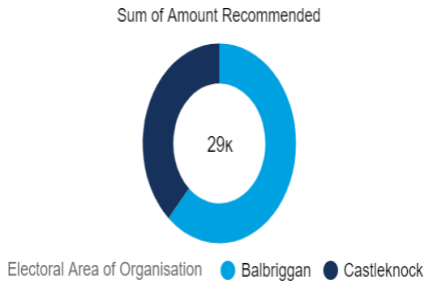
Of the funding awarded in 2023,

33% was awarded to Community Development, 32% was awarded to Social Inclusion

11% was awarded to both Integration and Residents Associations projects.



Community Facilities Remedial Works Scheme



In 2023 Remedial Grant Funding has been awarded to **4** projects to the amount of **€28,629.00**

Castleknock/ Mulhuddart - €11,009.00 – across 2 projects

Balbriggan - €17,620.00 – across 2 projects

ENVIRONMENT, CLIMATE ACTION, ACTIVE TRAVEL AND SPORTS DEPARTMENT

Contents

Active Travel
Climate Action
Environmental Awareness
Bring Centres
Litter Management
Landfill Aftercare
Water Quality Protection
Sports Office

Active Travel

NTA funding allocations for 2024 have not yet been finalised.

Protected Cycle Lanes:

BLRS Area:

St. Cronan's Ave and Brackenstown Road Protected Cycle Lanes

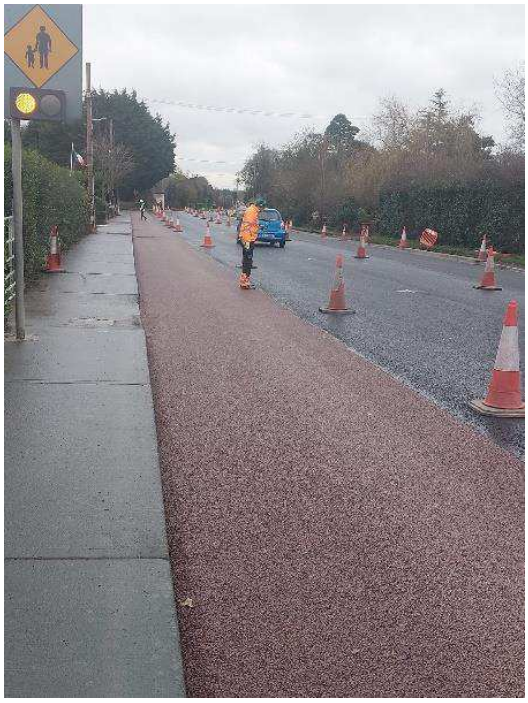
This project is now nearing completion along St. Cronan's Avenue and Brackenstown Road with some of the finishing touches such as the perch seats and bike stands recently installed along the front of St. Cronan's Schools during December. The new year will see the contractor tackling the Murrough Road/Rathbeale junction to provide seamless cycle lane integration and connections with other cycling infrastructure in the Swords area.



R132 Blakes Cross to Quickpenny Lane

Significant works were carried out along the R132 during December with the contractor completing over 2km of road resurfacing during nighttime works. All complex civils works and from Corduff National School right through to Quickpenny Lane are now complete leaving only minor items outstanding to complete this new section of Active Travel infrastructure. The newly laid red asphalt surface shown in the pictures below will provide a safer segregated space for walking and cycling. Bollards will be installed in the early new year to provide segregation between the live traffic and new shared lane. Four new bus stops are nearing completion and will be available to the local community, workers and visitors in the early new year. New drainage installation as part of this project at Corduff School and several other locations along the R132 in Lusk have made a positive difference to the flooding and water ponding along the road. The final phase of works from Corduff School heading south towards Blake's Cross is expected to be complete in Q1 2024.





Seatown Road Swords:
The Engineering Consultant is currently working with the Project Team to finalise the Non-Statutory Public Consultation Report. Once the report has been finalised, it will be published on the Consultation Portal. Works are ongoing to finalise the detailed design with the aim of going to the market in early 2024 for a Contractor to progress to the Construction stage in 2024 subject to NTA approvals. This project will provide segregated walking and cycling infrastructure from the R132 at Swords through to the estuary and connectivity to Malahide along the estuary.

Donabate Portrane R126 cycle paths:
The Project Team have engaged through our property section for the potential acquisition of lands along one section of the route to facilitate the progression of the proposed walking and cycling infrastructure from the end of the distributor road in Donabate along the R126 through to the coast at Portrane. Details of the preferred option are being finalised and once completed will be presented to the members at local ACM.
Coney Hill Balbriggan R132 cycle paths:

The Engineering Consultant is currently working with the Project Team to finalise concept designs and provision of an options report to assist with stakeholder engagement. This is a complex section of road as the road widths are narrow and confined. All options are being considered at present so that the preferred option can be established.
Pathfinder Pinnock Hill to Airport cycle paths:
The Project Team have developed initial concept designs for review and agreement with relevant stakeholders before moving to the next steps in early 2024. A traffic and topographical survey consultant have been appointed and is currently working with the project team to complete the traffic survey to inform the design process. Meetings have been arranged with the statutory stakeholder for early January to go through the preferred option. Further updates will be provided over the coming months, through this report and at ACM level.

Howth-Malahide Area:
Baldoyle-Howth Protected Cycle Lane Scheme Phase 2
The Active Travel Unit is currently reviewing funding requests for the 2024-2025 programme, including for a review of the existing road network in Baldoyle. This will include Willie Nolan Road, Brookstone Road and Main Street. It will comprise an advancement of a previous study for the improvement of pedestrian and cycle facilities on the existing road network. A brief will be developed for consultants in the coming months, in line with the Fingal County Development Plan, the Climate Action Plan and an Active Travel Strategy for Fingal.

Once a further study and preferred option has emerged from the process, it is envisaged that the scheme will progress, subject to funding from the National Transport Authority (NTA).
Paddy's Hill to Broomfield via Naomh Mearnóg GAA
The design brief for 'Concept Development and Options Selection' has been finalised for this connectivity project. Internal consultation with other FCC departments has taken place. The remaining tender

documents are being finalised by the Active Travel Unit.

When these are finalised, the next step will be to run a tender competition to appoint a design consultant for the 'Concept Development and Options Selection' Selection.

Enabling works have been completed to provide connectivity from Paddy's Hill Car Park to St. Helen's Junior School and Limetree Avenue. This included tree surgeon works, footpath works, new access points to the school, ramps, table-top crossings, dropped kerbs and ramps on the carriageway on Paddy's Hill.









Seapark Hill to Old Golf Course Link Park
A brief, and tender documents are currently being prepared by the Active Travel Unit to progress this project from the design phases through to completion as soon as possible.

The design will incorporate feedback from internal FCC stakeholders and the local Resident's Association.

Feltrim Road Cycle Infrastructure
A design brief has been completed to bring this project from the 'Concept Development and Options Stage' to completion.

The remaining tender documents are substantially complete and are under review. It is expected that the works will go to tender for a design consultant early in Q1, 2024.

Scoil an Duinninigh to Waterside Footpath and Cycleway
Planning permission has been granted for the school and the Department of Education is to engage with Fingal County Council in relation to pedestrian access as a condition of the granted Planning Permission. In the interim, a footpath, dropped kerbs with tactile paving have been provided on the route to/from the school and the Feltrim Road.

BMCO Area:

Snugborough Road – NAC to Ongar

The options report for the project has been completed after internal reviews by the Active Travel team and a workshop with the NTA. A Gateway 2 Report has been issued to the NTA for approval to proceed to the preliminary design phase of the project. Further engagement is taking place with the NTA in this regard. Further updates will be provided over the coming months, through this report and at ACM level.

Clonee to Blanchardstown Shopping Centre

All data collection has been collated and has informed the initial development of the options report. The design consultant has been issued with an updated review of the draft Options report and drawings following input from the Active Travel team. Once reviewed a workshop will be held with the NTA.

Castleknock to Dunsink Lane

This project is now focusing on Auburn Avenue linking into the Royal Canal at the 12th Lock along the Old Navan Road. The Options Report and relevant drawings for Auburn Avenue have been reviewed and approved by the NTA in compliance with the Gateway 2 Hold Point requirements. The project is proceeding to preliminary design where a road safety audit will commence on the latest drawings. Photomontages of the emerging preferred option are being prepared in advance of a public consultation. A presentation will be to the ACM in Q1 2024.

Hartstown/Huntstown/Mountview Road

It is proposed to use a newly formed Single Party Framework to progress design from earlier work carried out by the Cycle Design Office. Fingal County Council will progress on finalising the detailed design for roundabout and junction upgrades.

This is subject to revision of design standards to ensure compliance with the new National Cycle Manual.

Castleknock to Blanchardstown via Farmleigh

Stage 2 of the tender competition for a design consultant and assessment has been completed. Contract documents have been signed and sealed and a commencement meeting has taken place. The feasibility study has started, and tenders have been published to carry out traffic and drone surveys.

Towns & Villages

Works are continuing in the development of an Active Travel Plan for a number of our Towns & Villages. Details are outlined below.

New Street

The Chief Executives report for the Part VIII is now being prepared and it will be presented to the area meeting and full Council in January 2024.

Balrothery Active Travel Plan

The design Consultant is in the process of information gathering and have presented their initial findings to the Active Travel team. The consultant will conduct data collection and initial surveys in Q1, 2024.

Skerries Active Travel Plan

Stage One of the tender competition for the appointment of an integrated Design Team is now completed with the tender assessment process completed and letter to successful and un-successful tenders issued. Stage 2 of the process to commence in early 2024 which will take 7-8 weeks to complete.

The Project Team have recently published the Consultation Report for the project together with the ESRI report that was carried out on Active Travel best practice Nationally and Internationally. This report will inform the overall design process when the integrated design team is appointed in the near future. The Skerries Active Travel Plan will provide an overall plan for Skerries going forward and is expected to identify several projects that we can take forward for development, through various works streams and funding bodies.

Skerries Harbour Road:
The Project Team together with the Integrated design team have developed the preliminary drawings and options report to assist with stakeholder engagement. Internal workshops to discuss through the proposals occurred during the last few months and this feedback from these meetings has been taken on board.
The project team and the Integrated design team have developed photo montages and video footage of the proposal to assist in the consultation phase of the project. The proposed project has been lodged with the Planning Authority for Pre-Planning consent. The outcome of this will establish the governance and planning route for the project. The decision on this is expected in early 2024.

Connectivity/Permeability
We are continuing to receive various requests for Permeability and Connectivity improvements from various stakeholders across the county. These requests are being recorded in detail for evaluation through a multi criteria analysis. The projects are then reviewed across the departments to identify if an appropriate means of delivery can be established on the ground. Several projects identified through this process are being developed through the design phases for execution on the ground.

One such project is currently at Tender stage for a works contractor, and this is for the provision of footpath to link up to existing footpath along Beaverstown Road in Donabate.

Other projects are being progressed in the areas at either design or construction stage. These Connectivity and Permeability improvements are being delivered in cooperation with our Operations Department. These projects will enhance local communities and provide improved walking and cycling infrastructure within the county.

Greenway connectivity support teams have been convened to review, design, and deliver active travel infrastructure that will enhance accessibility between the proposed strategic greenways and residential, educational, amenity and commercial zones.

These support projects have been set up for Fingal Coastal Way, Broadmeadow Way/Sutton to Malahide Greenway and Royal Canal Greenway. This will help to optimise the use of the proposed greenway by both leisure and commuter users.

Newtown Bridge, Balheary Road:
The Engineering Consultant is currently working with the Project Team to finalise the Non-Statutory Public Consultation Report, the Options report and detailed drawings and screenings on the final option. Once the report has been finalised, it will be published on the Consultation Portal.

Works are expected to be finalised in early Q1 of 2024 with the aim of going to the market for a Contractor to progress to the Construction stage in early 2024.

Rush South Beach:
The project team and the Engineering consultant are currently preparing concept design and options report for new universal access path. Discussions with landowners are ongoing, with further meetings in early January. We are working collaboratively with the property owners to find an optimal solution that caters for everyone's needs.
Balgriffin Park Shared Pedestrian and Cycle Path:

This connectivity piece provides a shared pedestrian and cycle path from the county boundary with Dublin City on Balgriffin Park, to the junction with the R123. This will provide a pedestrian and cycling connection for many dwellings on/near Balgriffin Park to the newly constructed pedestrian and cycling facilities on the R123. Works are substantially complete and snagging is due to take place.









Howth Summit Inn to Bus Stop 567:
Dropped kerbs with tactile paving have been provided on the route between the Summit Inn and Bus Stop 567. This work has been completed.

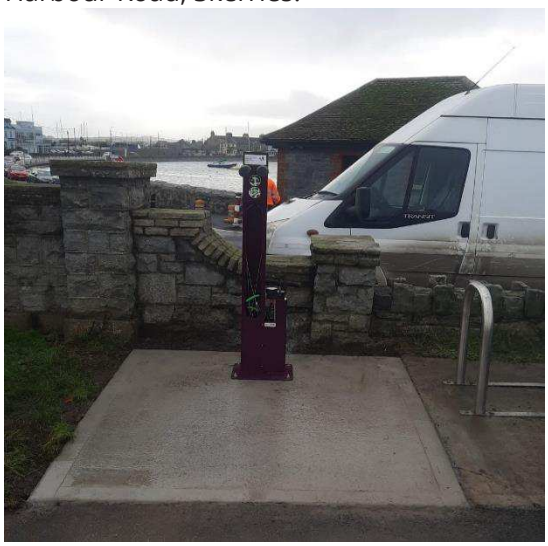
Offington, Howth:

Junction tightening and provision of tactile paving is continuing at three junctions in Offington, Howth: The two junctions of Offington Drive with Offington Avenue and the junction of Offington Lawn with Offington Avenue. This will slow turning movements by motorised vehicles while providing a shorter crossing distance for pedestrians and other vulnerable road users. Grassed areas are also being provided in the new pavement, which will provide additional greening and drainage.

Secure Bicycle Parking Infrastructure

Contractor is currently on site at various locations across the county and is progressing works to install a number of bicycle parking facilities across the county including Dublin 15 and Howth-Malahide Areas. Further works are planned in Swords, Skerries, and Balbriggan in the coming weeks.

The contractor has completed the installation of a Bicycle Repair Station adjacent to the existing Bicycle Parking Stands near the Skerries Sea Memorial, Harbour Road, Skerries.



Safe Routes to School
Round 1 – Tranche 1

The works contractor for the Safe Routes to School Tranche 1 contract is finalising snags at each of the 5 schools. A brief update is provided below for each school site and associated construction works completed to date since the appointment of the works contractor.

Rush and Lusk Educate Together

Works are now completed on this SRTS Project. The contractor has recently carried out some snagging and maintenance work to the Rain Gardens and addressed issues that were identified through the independent Road Safety Audit.

Castaheany ETNS / St.Benedict's NS

Works are now completed at the school site. The contractor has carried out minor snagging and maintenance on rain gardens. The Stage 3 Road Safety Audit has been completed by an independent auditor.





Bayside Junior & Senior School

Works are now completed at the school site. The contractor has carried out minor snagging and maintenance on rain gardens. The Stage 3 Road Safety Audit has been completed by an independent auditor. It is anticipated that the Belisha beacons at the zebra crossing will be connected in Q1, 2024.





Scoil Choilm CNS

Installation of flexible bollards on Porterstown Rd outside the school entrance is complete. These initial works took place before the new school year starts to alleviate poor parking near the school gates. The main works are due to start during Q1 2024.



Round 1 – Tranche 2

Detailed Design is complete for the Tranche 2 schools (4 no.) and a tender competition for the construction works has been published with a view to start on site in Q1 2024.

Round 2

In mid-December, An Taisce announced Round 2 of the Safer Routes to School programme, with the following Fingal schools selected:

Holy Family Junior National School, Forest Fields, Swords

Scoil Bhríde Buachaillí, Church Avenue, Blanchardstown

Scoil Bhríde Cailíní, Church Avenue, Blanchardstown

St Helen's SNS, Limetree Avenue, Portmarnock

St. Colmcille's Girls' National School, Chapel Lane, Swords

The Active Travel team are working closely with An Taisce in relation to data collection and engagement with the schools to develop delivery plans to enable the designers and contractors to carry out the works. An Taisce are due to provide the delivery plans for each of the schools in the new year that will inform the design process. Fingal County Council has procured the services of a consultants' team that will be working on the designs for these schools.

Mobility & Behaviour Change
Learn 2 Cycle with a Disability

Our 2024 Learn 2 Cycle with a Disability Courses kick off in Flemington Community Centre on Saturday 13th January at 1pm. We also have a course starting in Rivervalley Community Centre on Monday 15th January at 6pm. We will have courses throughout the County in 2024.





Staff eBike Trials

The Staff eBike Trials will continue into 2024, we now have 5 eBikes available to staff for a one-month trial period
These are
2 x Trekking Commuter Style Bikes
2 x Folding Bikes
1 x Long Tail Cargo Bike
If any staff are still interested in signing up for the eBike Trials, you can fill in the Expression of Interest form
https://forms.office.com/e/Gng6aR1LaH



Skerries Cycling Lessons

As part of the Community Departments Keen to be Green Initiative we have assisted in setting up cycling lessons for adults in Skerries. The Course was a brilliant success, providing participants with invaluable road safety training while building confidence and a sense of community.
The lessons finished with a group cycle around the Town on Saturday 16th December



Walking Buses

Throughout December we held a number of pop-up Walking Bus events across the County. These events were designed to gage interest among parents for permanent walking buses in the new year. Over the course of December we held walking events with St Cronan's JNS, Naul NS, Pope John Paul II, St Andrews, St Oliver Plunketts and Hansfield ETNS.
Our newest Walking Bus will be starting on Monday 22nd January from Seabury in Malahide and will be in partnership with some of the Parents from Pope John Paul II NS
Below is a piece we did around the St Cronan's JNS Walking Event
https://x.com/Fingalcoco/status/1736759285755879460?t=WWtM0TUNxoIygq8N01D_pw&s=08

Schools Active Travel Talks

As part of our work around awareness and opportunity building we have been giving Active Travel Talks in Schools across the County, St Fintans NS in Sutton was the last school we attended in 2023 and we had over 200 children in the school hall, the talks are a wonderful opportunity to engage with the Children. If you know a school who would be interested in an Active Travel talk this year, please contact Stephen.mcginn@fingal.ie



eCargo for Business/Community Group Trials

Our first Community eCargo Bike was lauched in December with Baldoyle Wildtown. The cargo bike has been given to the group for a 12-month period to help them with their activities around Baldoyle. The eCargo has already been put to good use by the group to transport shovels, compost and trees during their orchard planting event in Seagrange Park in December.



Cycling Buses

The Active Travel team joined the St Marnocks NS for their end of year Cycle Bus from the new active travel infrastructure on Station Road before the Christmas Holidays, the cycle bus has grown steadily over the year.



Men's Walk & Talk Groups

Our newest Men's Walk & Talk started during December in Castleknock. The Group meets every Thursday at 6pm from the Castleknock Community Centre in Laurel Lodge and is open to men of all ages. No registration is required, just turn up on the night and walk. We have Men's Walk & Talk Groups in Swords, Rush and Lusk as well. We're always on the lookout for Community Volunteers who are interested in starting their own Walking Groups, so if you would like more information, please contact Active.travel@fingal.ie



Fresh Air Friday

Every Friday in Fingal is Fresh Air Friday. This is where we encourage people who would normally drive to school or work to leave the car at home and choose active travel instead, Fresh Air Fridays can help to encourage a long-term behaviour change, improve the air quality around our towns and villages while also promoting a healthy start to the day. If your school or business are interested in signing up to Fresh Air Friday, simply contact active.travel@fingal.ie and we will help you get going.



Baldoyle Christmas Tree Lighting

On Sunday 3rd December we assisted The Baldoyle Community Hall Team in transporting Santa and Mrs Claus around Baldoyle as part of the Christmas tree lighting event. Despite the heavy rain, the crowd was massive and everyone enjoyed the evening.

We have 4 Cycling Without Age Trishaws available in Fingal, in Skerries, Baldoyle, Santry and St Catherine's Park. If you are interested in volunteering as a pilot or would like to book a Trishaw Trip you can email Active.travel@fingal.ie



CE Innovation Fund

As part of the 2023 CE Innovation Fund, we teamed up with the Heritage Section to look at a tappable signage project along heritage trails and at the 4 Cycling Without Age Locations. The first of the signs were installed in December and the remainder will be in place early in 2024



Leading Lights Awards

Congratulations to Rush National School on winning their category in the Leading Lights Award for Road Safety for their Junior School Warden Programme. Minister Jack Chambers, Mayor Adrian Henchy, Principal, Morgan Doran, School Warden Fiona McGuinness and two children from the junior school warden programme attended the event to accept their award. It is a great achievement and recognition of their commitment to improving road safety around their school. The programme is supported by the Active Travel Section



The Skerries Community Car

The Community Car in Skerries had 90 requested Trips for November and completed a total of 70, we have recently brought on board new volunteers that has significantly helped in reducing the missed demand on the Community Car. We are always in need of additional volunteers for the Community Car, if you are interested in learning more, please contact active.travel@fingal.ie

Month	Total Bookings	Total Trips	Appoint. Cancelled by Hospital	Missed Demand (no volunteer available)
Feb	106	90	12	4
Mar	108	58	34	16
Apr	114	80	16	18
May	65	34	11	14
Jun	50	26	8	16
Jul	50	33	7	10
Aug	130	52	28	50
Sep	128	66	30	32
Oct	102	68	22	14
Nov	90	70	18	2



Bike Share Schemes

2023 was a good year for Bike Share in Fingal, between our two operators we had just over 36,000 bike share journeys. 2023 was a challenging year in terms of weather. March was the wettest March on record and was followed in April by Storm Noa. The warmest June on record was followed by the wettest July on record and Storm Betty in August.

The e-bikes are suitable for anyone over the age of 16 and note that a credit or debit card is required to sign up for the service.

TIER Mobility November 2023; Key Statistics

Metric	Details
Trips	1,476
No of Customers	538
Trips / Customer	2.7
Distance Covered (KM)	4,113
Average Trip Duration	12.8mins
Average Trip length (KM)	2.8km

During the Winter Period TIER have taken a commercial decision to alter their service provision in areas with limited or no usage. This will enable them to maximise efficiencies in areas of high demand.
Swords, Howth, Malahide and Skerries will see a reduction in eBikes from January to April
Donabate, Rush, Lusk and Loughshinny will see a pausing of the service until the beginning of April 2024
Dublin 15 will see an increase in the number of eBikes in areas previously underserved.
We are currently preparing full tenders for both Pedal and eBikes and we would hope to have these in place by the start of Q2 2024.

Climate Action

Community Climate Action Fingal

Community Climate Action Fingal was launched in County Hall Swords on 6th December. The event was promoted with Community groups in Fingal and had a high turn-out with over 200 people attending. Welcome speeches were given by the Mayor and the Chief Executive. The Community Climate Action Grant scheme was introduced by Director David Storey and presented by Sinéad Fox Community Climate Action Officer. The grant is currently open for applications until 28th February. Applications should include projects under 5 main themes, Community Energy, Travel,

Shopping and Recycling, Food Waste, Climate and Environmental Action. More details at Community Climate Action Fingal | Fingal County Council. Workshop sessions are ongoing for January.







Climate Action Plan 2024 - 2029

The CE Report is currently being compiled in respect of submissions received throughout the public consultation on the draft Climate Action Plan 2024 -2029. This report will be presented to Councillors through the Climate Action SPC on January 31st.

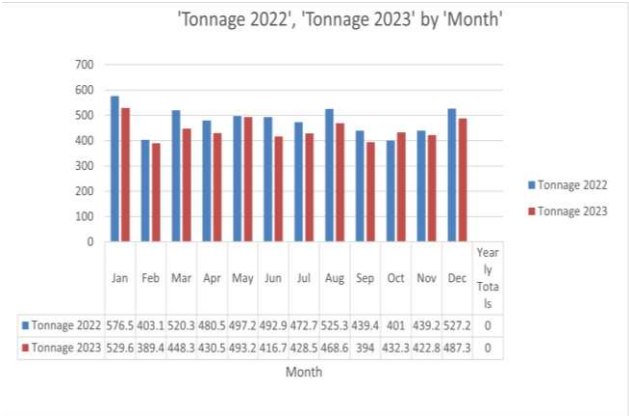
ENVIRONMENT

Environmental Awareness

In December 2023 the Environmental Awareness Section has been developing the environmental awareness program of work for 2024. Recycled bikes were given to children and adults in the Migrant Reception Centre.

Bring Centres

Bottle Banks



Total Glass volumes collected in December 2023 were 487 Tonnes. This compares with a Glass collection figure of 527 Tonnes of Glass collected in December 2022.

Textile Banks

Total textile volumes collected in November 2023 were **18.90 Tonnes**. This compares with a figure of **18.27 Tonnes** collected in November 2022.

Litter Management

In December as part of their role the Litter Wardens continued with their daily patrols and carried out 276 inspections on all known litter black spots in Fingal.

The Litter Wardens reported a marked increase in dumping in all areas of Fingal in December.



They also ensured that the roads were being keep clean of muck and that the building sites had a road sweeper in operation and followed up on reports to ensure users of agricultural vehicles were ensuring the roads were keep clean of muck.



The Litter Wardens continued to raise awareness of the issue of dog fouling on beaches, paths, and green areas in Fingal. They engaged with dog owners and dispensing dog poo bags, making people aware of their responsibilities to clean up after their dogs. They also erecting anti dog fouling signage in areas where complaints were received.



The Litter Warden conducted walking patrols, engaging with business regarding their responsibilities to keep outside their premises clean and free of litter. They also checked to see if any issues have arisen for the Operations crews, and they carried out inspections and followed up with fines/warning notice if evidence found.
All the bring banks in the Fingal area were inspected daily to ensure that there was no dumping. Any evidence found was dealt with under the Litter Pollution Acts.

The Variable Message Display VMS unit installed at Peter & Paul Church carpark, Balbriggan and Fingal Cemetery, Balgriffin advised members of the public regarding NO DUMPING - AVOID €150 FINE BRING YOUR BAGS & CARD**BOARD HOME WITH YOU.**



The Litter Wardens also investigated reports of abandoned cars, taking photographs, and updating the litter app and the CRM system.

Litter Fine cases before the district court in December, seven were successful prosecuted, and costs awarded.

2023 Month	Fines Issued	Warning Notices
December	14	8

The Litter Management section receiving numerous complaints regarding litter enforcement and the following cases were assigned to the Litter Warden under the CRM system.

CRMs December 2023	Amount
Env - Dog Fouling	4
Env - Fly tipping 1-20 bags equivalent	10
Env - General Litter Issue	15
Env – Littering at Bottle Banks	2
Env Litter Incident with witness	5
Env - Pollution - Dog Fouling Signage	1
Env – Abandoned cars	19

Abandoned Vehicles

There have been 380 reports of alleged Abandoned Vehicles received between 1st January 2023 – 31st December 2023. Burnt-out vehicles are also reported to the Environment Department.

The Litter Wardens carry out an initial inspection of all reported abandoned and burnt-out vehicles. To report a suspected abandoned vehicle the following information is required and should be emailed to environment@fingal.ie

- Vehicle Registration
- Colour / Make / Model
- Exact Location
- Period of time that vehicle has not been moved
- Name and Contact Number of person reporting the vehicle

Information on Abandoned Vehicles can be found on the Fingal County Council website: https://www.fingal.ie/council/service/abandoned-vehicles

2023	Abandoned Vehicles Removed as of 03/01/2024	Burnt out Vehicles Removed as of 03/01/2024
Jan	0	1
Feb	1	0
Mar	1	1
Apr	0	0
May	0	0
Jun	0	5
July	1	0
Aug	0	3
Sep	3	0
Oct	0	0
Nov	4	0
Dec	0	0
TOTAL	**10**	**10**

Dog Warden Service

The dog wardens continue to carry out enforcement in relation to breaches of the Control of Dogs Act 1986, Control of Dog Regulations 1998, Parks and Open Spaces byelaws and Beach and Foreshore byelaws. They also educate dog owners on the responsibilities of keeping a dog and remind owners to pick up after their pets when in public places. The dog wardens also increase their patrols of the beaches during the summer months to optimise bathing water quality and retain the status of Fingal's Blue Flag beaches.

The dog wardens are also continuing with door-to-door licence checks. Dog owners should ensure that they hold a valid licence for their dog and if issued with a 10-day notice by the dog wardens, should present their licence to controlofdogs@fingal.ie within the 10 days provided on the notice. Failure to do so may result in a fine being issued for failing to produce a dog licence when requested to do so by a dog warden and keeping a dog without a valid licence. The fine per offence is €100. 91 10 Day Notices were issued by the dog wardens during November 2023. 7 fines were issued during November 2023.

Month	10 Day Notices		Fines Issued		Fines Paid	
	2022	2023	2022	2023	2022	2023
January	5	40	0	68	0	€7,800
February	36	13	17	32	€300	€2,600
March	48	97	5	29	€350	€2,100
April	26	152	26	42	€30	€1,500
May	418	232	11	98	€280	€2,956
June	256	135	40	53	€200	€2,700
July	407	109	20	35	€700	€2,644.20
August	446	140	24	21	€1.600	€1,500
September	385	125	24	40	€1,440	€3,549
October	511	241	108	40	€1,400	€1,500
November	187	91	71	7	€4,020	€1,100
December	13	222	84	12	€4,600	€1,422.50
TOTAL	2738	1597	430	477	€15,620	€31,372.00

The Animal Welfare Section received 58 complaints in relation to dogs in December 2023. In 2023 there were a total of 572 complaints received:

Service	No of complaints per service during 2023
Env - Dog Fine Appeal	36
Env - Dog on Dog Attack	35
Env - Dog on Person Attack	32
Env - Pollution - Issue with Dog	246
Env - Restricted Breed Dog	103
Env - Surrendered Dog	8
Env- Stray Dog	112
Grand Total	**572**

Dog Licences and Fines

The below table shows the number of annual and lifetime licences purchased during 2023 in comparison with the same months in 2022. An annual dog licence fee is €20 and a lifetime dog licence fee is €140. We will continue to promote the requirement for a dog licence on social media platforms.

It is a legal requirement to hold a valid licence for any dog you own or are responsible for under the Control of Dogs Act 1986. Failing to hold a valid licence for a dog that you are own or are responsible for can incur a €100 fine.

Month	Annual Licences Purchased		Lifetime Licences Purchased		Income from Licences	
	'22	'23	'22	'23	'22	'23
Jan	577	635	69	65	€21,200	€21,800
Feb	491	562	37	58	€15,000	€19,360
Mar	458	561	47	55	€15,740	€18,900
Ap	529	451	54	41	€18,140	€14,760
May	1217	918	132	64	€42,820	€27,320
Jun	647	516	77	41	€23,720	€16,060
Jul	1075	766	88	47	€33,820	€21,900
Aug	1025	838	61	51	€29,040	€23,900
Sep	850	759	88	48	€29,320	€21,900
Oct	873	670	78	30	€28,380	€17,600
Nov	644	662	46	41	€19,320	€18,980
Dec	469	626	54	37	€16,940	€17,700
Total for year	**8855**	**7964**	**831**	**578**	**€293,440**	**€240,180**

We will continue to advertise the requirement for dog owners to hold a licence for their dogs on social media platforms.

Dog Shelter Service

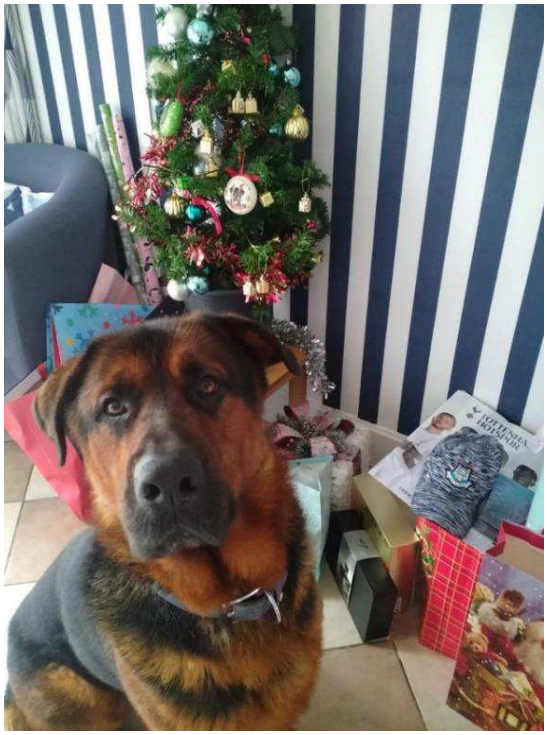
Dublin County Dog Shelter holds "Meet and Greet" visits for anyone looking to rehome a dog. Visits can be arranged by calling the shelter and arranging an appointment. These visits can be arranged from Monday – Friday from 11am to 1pm and from 2pm to 3.30pm. The shelter is also open on Saturday from 11am – 1pm. The shelter is closed to the public on Sundays.

The dog shelter holds stray dogs picked up by the dog warden and dogs who have been surrendered by their owners either to the dog wardens or directly to the shelter. At the beginning of December there were 24 dogs in the shelter.

During December 2023, 13 dogs were brought to the shelter by the dog wardens as stray or surrenders and one dog was surrendered by a member of the public. Of these 38 dogs, 2 have been reclaimed by their owners, 4 dogs have been rehomed to rescue, 5 have been rehomed to members of the public and none were PTS. At the end of December there were 27 dogs remaining in the shelter. The shelter has a Facebook page Dublin County Dog Shelter and Instagram Account @dublincountydogshelter which they actively update with strays and dogs wishing to be rehomed.

Dogs in Shelter at the start of December 2022	**12**	**Dogs in Shelter at start of December 2023**	**24**
Stray/Seized dogs brought to Shelter	16	Stray/Seized dogs brought to Shelter	13
Surrendered by owners	1	Surrendered by owners	1
Reclaimed	7	Reclaimed	2
Rehomed to Rescue	10	Rehomed to Rescue	4
Rehomed to Public	0	Rehomed to Public	5
PTS	0	PTS	0
Dogs in Shelter at the end of December 2022	**12**	**Dogs in shelter at the end of December 2023**	**27**

The total number of dogs entered through the shelter from 1st January 2023 to 31st December 2023 is 279, compared to 222 entered to the shelter for the full year 2022. Contact the shelter on 0873914008, WhatsApp or Facebook to make an appointment to see the dogs available for rehoming.

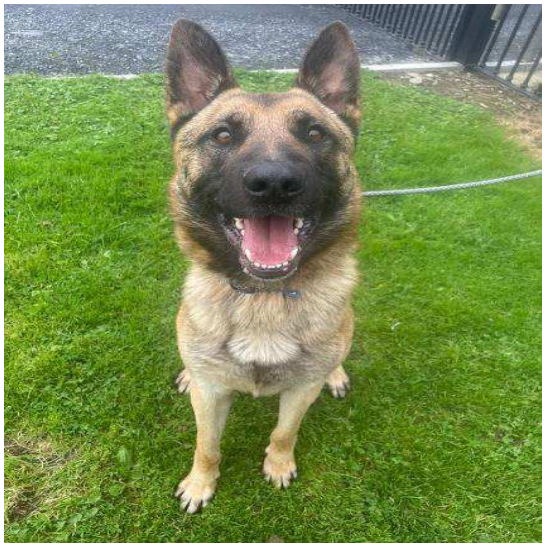


Zeus

Another one of the long-term residents Zeus went to his forever home, just in time for Christmas! 🎄Larger breeds like big Zeus unfortunately spend a lot more time in shelters than their smaller counterparts. However, it was worth the wait as he has now found his perfect home.



Mariah waiting for her forever home



Benji is just a big cuddle-bug!! Benji came into the shelter as a stray and unfortunately was never reclaimed. Benji is only a year old, and he has the energy to match! He's a gorgeous bouncy dog who would love an active family to adopt him.

Rialtas na hÉireann
Government of Ireland

Responsible Dog Ownership



How to be a responsible dog owner

Responsible Sourcing

- Consider adopting from a local authority dog shelter or animal welfare charity.
- If you decide to buy a dog, consult your vet for advice.
- Never agree to collect a dog without seeing the dog in its home environment.
- Reputable breeders have waiting lists so, please be prepared to wait.
- If sourcing your dog from a Dog Breeding Establishment (DBE) check the premises is registered with the local City/ County Council.
- A registered DBE will have a registration certificate on display in the premises.

Microchipping

- In Ireland, if you keep, sell, purchase or rehome a dog, your dog must be microchipped and registered on a database approved by the Department of Agriculture, Food and the Marine.
- If your dog goes missing, there is a greater chance of being reunited if your dog is microchipped.
- Please contact your vet for information on microchipping.

The Control of Dogs Section will shortly begin a campaign to circulate leaflets on Responsible Dog Ownership throughout the Fingal area. The leaflet will be available to view on our website/social media platforms and will also be distributed to all vets in the county. We will also provide a link in our emails to the public as it covers all aspects of responsible dog ownership.

Horses

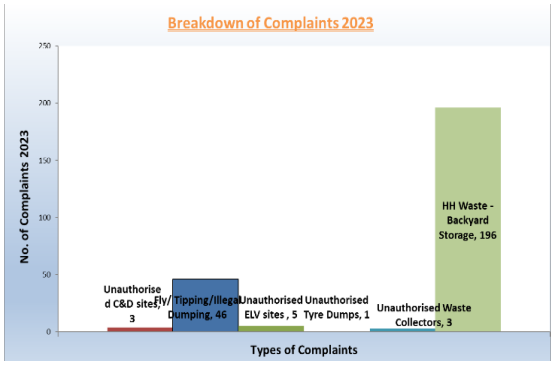
Weekly welfare inspections along with additional checks over the Christmas period continue to take place on Dunsink Landfill to monitor the numbers and welfare of the horses onsite. There are 10 hay feeders being filled by the Operations Department on a weekly basis to ensure adequate forage for the horses on the landfill.



Waste Enforcement & Regulation Complaints

Responding to waste related complaints was a major priority for the Waste Enforcement Section in 2023. A total of 13 waste complaints were recorded for the month of December. The majority of waste complaints related to backyard storage of waste, burning of waste and fly-tipping/illegal dumping.





Awareness surrounding the management of domestic waste in a sustainable and environmentally safe manner is crucial to ensure all households participate in a waste collection service as per the waste presentation bye-laws and use three bins (black, green and brown) to manage their waste.

Illegally dumped waste costs Local Authorities hundreds of thousands of euro each year, money which could be better spent on providing services to businesses and local communities. To report unauthorised waste collectors or illegal dumping contact **environment@fingal.ie**

Commercial Food Waste Inspections

It is estimated that up to 70% of the material in the general waste bins from the commercial sector contains recycling or organic waste. There is a legal obligation on all obligated commercial producers to source segregate Food Waste under the Waste Management (Food Waste) Regulations 2009. 'Waste Collection Household & Commercial' was a National Waste Enforcement Priority for 2023. The Waste Enforcement and Regulation section completed 96 commercial food waste inspections in 2023 under the Waste Management (Food Waste) Regulations 2009. These inspections covered a range of premises – supermarkets, cafes, restaurants, fast food chains and delicatessens. Of the 96 inspections completed, 56 were compliant on the first inspection. The remaining 40 inspections were non-compliant on the first inspection, were issued a warning letter of non-compliance and reinspected again to ensure compliance was demonstrated in line with the Waste Management (Food Waste) Regulations 2009.

Under the regulations commercial food premises are required to segregate their food waste and there are three options for segregated food waste:

- The waste can be collected by a waste collector that is offering a brown bin collection service. The collector always must take it to an approved plant for recycling by composting or by another similar process;
- The waste can be transported by the business directly to a composting plant to other type of food waste recycling facility; or
- The waste can be dealt with by the business on site using an authorised composting unit.







Producer Responsibility Inspections

Waste Tyres

14 unregistered and registered onsite waste tyre inspections were carried out in 2023 at tyre retailers. Premises were identified from the Repak ELT/Circol ELT list of revoked/potential retailers and inspectors' knowledge of areas where tyre businesses were in operation. A joint inspection was carried out with WERLA in an effort to target unregistered tyre retailers and get them to rejoin Circol ELT. 8 retailers were registered with Circol ELT and deemed compliant. 6 retailers were not registered with Circol ELT and deemed non-compliant.

Of the 6 non-compliant retailers, 3 have agreed to rejoin Circol ELT. Enforcement actions are underway at the other 3 non-compliant retailers. No enforcement action was required at the registered tyre retailers. Additionally, at the end of 2023, WERLA identified 5 more retailers whose memberships were revoked with Circol ELT due to reporting and membership fees. A phone call/email was followed up with these retailers to remind them of their obligations under the tyre regulations to be registered with Circol ELT. 4 of these retailers got in touch and agreed to rejoin Circol ELT. Enforcement action is being undertaken for the other retailer.

WEEE and Batteries Producers

A total of 31 WEEE Inspections and 34 battery inspections were carried out in 2023. 14 of the WEE inspected were non-compliant, 20 of the battery only inspections had no signage up in the store and did not have boxes for take back. 18 were not registered with the ERP recycling. These retailers have or in the process of rectifying any non-compliances.

Hazardous Waste Producers

20 hazardous waste retailer inspections were carried out in 2023 consisting of garages in the Fingal area to determine compliance with Section 32 of the Waste Management Act 1996 and the European Communities (Shipments of Hazardous Waste exclusively within Ireland) Regulations 2011. FCC visited a number of premises including garages, repair shops and requested waste dockets for the authorised disposal of hazardous waste i.e., oils, batteries, or filters. 19 premises were compliant and provided waste dockets/waste transfer forms. It was noticeable that producers have a good understanding, not only of storage of hazardous waste but the importance of engaging an authorised collector to remove waste. 1 premises were non-compliant, and a warning letter was issued advising the producer of his obligations under Section 32 of the Waste Management Act 1996, as amended. Follow up inspection will take place in 2024 to ensure improvements are implemented.

Waste Packaging

5 inspections were carried of Suspected Major Producers in the Fingal area in 2023. These companies are brought to our attention by WERLA as potential major producers of packaging waste. Of the 5 inspected 1 has joined Repak, 1 is in the process of joining Repak, 1 is engaging with Fingal County Council to see if they are obligated and 2 were not obligated.

There were 15 major producers registered as self-compliers with Fingal County Council in 2022. Due to amendments of the European Union (Packaging) Regulations 2014, they were required to register with Repak from January 2023. Of these 7 have joined Repak, 6 are in the process of joining Repak after Fingal County Council engagement and 2 have not joined Repak or engaged with Fingal County Council. These 2 will be followed up with in early 2024.

Update on Waste Presentation Bye Law Project 2023-2025.

As part of establishing the register of persons availing of a household waste collection service, some data gaps were identified where customers were not reported by the waste collectors either due to misunderstandings on local authority boundaries or to households being provided a services but wrongly classified as "commercial" rather than "household" (for example where communal bins are provided in multi-occupancy dwellings).

Work will take place in January 2024 to address these gaps and produce the register. This register will then be used to produce a reverse register to identify households not availing of a waste collection service.

Under phase 2 of the project, the reverse register will be used to enforce the Fingal County Council Segregation, Storage and Presentation of Household and Commercial Waste Bye-Laws 2020, where households on the reverse register can be contacted to ascertain how they are managing their waste in compliance with the Bye-law No. 2 – obligation to participate in a waste collection service.

Bathing Water:

Fingal County Council continues to carry out weekly investigative monitoring of the River Bracken during the closed season which in December resulted in the finding of another significant pollution source.

Fingal County Council addressed a build-up of waste material within the sewer network which runs immediately adjacent to the Bracken River. Going forward the river and sewer at this location will be closely monitored by Fingal County Council and Uisce Eireann to prevent any sewer overflows to the river.

EU WaterFramework Directive (WFD):

On the 6th of December 2023 Fingal County Council met with the Environmental Protection Agency (EPA) to discuss river sampling conditions along the River Delvin. Fingal County Council requested to meet with the EPA to highlight the morphology of the river in its upper reaches. The EPA advised that they intend to carry the next Q value sampling of the River in 2024 and will consider sampling the river slightly downstream of one of the Q value sampling stations where the river maybe more conducive to supporting micro-vertebrates.

The EPA biologist also advised of river sampling locations within the River Ward catchment which the EPA believes may require only slight improvement to achieve Good Status. Accordingly Fingal County Council intends to assign resources to the River Ward in 2024.

SPORTS OFFICE

Seventeen secondary schools enrolled in the Sports Office Exercise: Energise programme for this school year. This is an increase with three new schools now onboard. The programme which targets inactive teenage girls, and has been running for over 10 years, aims to provide participants with opportunities to try out sports activities in a safe fun environment usually during school lunchtime or at an afterschool club. Each school when enrolling appoints a co-ordinator, who are provided with funding support towards purchase of equipment or tutor costs.

Activities range from Taekwondo, Volleyball, Basketball, Zumba, Pilates and other various activities chosen by the girls themselves. This year we have included a video competition as an extra incentive. The schools have been invited to Fingal's Multi-Sports Day in the National Sports Campus in March as part of the HerMoves Campaign and Women in Sport Week.



Sports Hubs

The Multi-Sports Hubs for children aged 9-12 finished for the Christmas break in both Flemington Sports Centre Balbriggan and Corduff Sports Centre with between 25- 30 participants every Saturday morning. This initiative aims to get inactive children in the local area more active by giving them the opportunity to try emerging sports they may not have had the chance to try before. It also allows them to drop into the sports centres at their own convenience without having to commit or become a member of a club. The club will continue again in January and a new venue will be added in Holywell Community Centre Swords.

Exercise: Energise 2023/24



Primary School Initiatives

The Sports Office primary school initiatives focused particularly in the D15 for Q4 coinciding with the newly established Sports Hub in Corduff Sports Centre. 6 schools and over 2000 pupils in D15 participated in Sports Conditioning, Try Track and Field and GAA Handball. The aim of the primary school initiatives is to get inactive children active especially in their local community by improving their physical literacy skills and giving them access to emerging sports. This feeds into the Sports Hubs programme delivered in Corduff and Balbriggan on Saturday mornings. The programme also creates club/school links and 10 participants from the GAA Handball programme have joined St. Brigid's GAA.



Dyspraxia Group

D15 Dyspraxia Group finished a 10- week activity programme supported by Fingal Sports Office in December and are now in the process of registering as a social service with Arch Clubs. This programme started with a group of parents looking for appropriate and social sporting activities for their children with additional needs and the Sports Office was able to provide that service with a quality coaching programme which included a parent training workshop.

The group will continue to operate independently in the New Year every Monday evening in Corduff Sports Centre for children with dyspraxia. A key objective for the group is to increase the number of service users and expand the service beyond sports activities.



Fingal HomeFit

The Fingal HomeFit programme concluded a 6-week online Pilates and Chair Exercise programme in December. Over 120 participants attended the live classes and another 200 viewed the recordings. The programme was designed for adults who couldn't access in-person exercise classes. The classes catered for beginners, with progressions for the more experienced.

The HomeFit programme will continue in January, with a 6-week online Yoga programme.





Men on the Move

The Fingal Men on the Move programme finished just before Christmas in both Balbriggan and Mulhuddart. Balbriggan continues to have particularly good numbers of 20 + while Mulhuddart continues to have between 8 – 10 taking part, which is a slight improvement. There are several members in Mulhuddart who have Parkinson's and they have seen major benefits from the program in their end of year check-ups with HSE. The Mulhuddart programme has been rebranded to 'Mulhuddart on the Move' and a short video was created for social media which will be launched in January. Both Programs are due to restart in January. A feedback survey was conducted with all past participants and results were positive. 24 completed the feedback form. 22 rated the program excellent – 2 Very Good. All 24 said they would recommend it to others. Providing more classes was the top feedback given by participants.



Inclusive Swimming

Inclusive swimming lessons for adults with a disability took place over 6 weeks in Coolmine Leisure Centre and finished up in December. These small classes provided an opportunity for adults with a disability to learn to swim in a quiet environment with a small group allowing for individual instruction to meet each individuals needs. A block of six weeks of lessons was also provided for a local school ASD unit. Due to positive feedback from all involved, the sessions will continue in Janurary for a further 6 weeks.

Ice Skating

In the build up to Christmas, Fingal Sport Office hired Blanchardstown on Ice exclusively to provide an ice skating opportunity for people who would not otherwise have the opportunity to experience ice skating. 100 people attended the session and included people living in direct provision, people will disabilities and a local school who got access during school hours. The session was enjoyed by all with some people experiencing ice for the very first time!





Inclusive Dance

Inclusive Dance programmes wrapped up in December with two classes running for a period of time. One in Swords and one in Balbriggan. Both classes were very successful and will take a break before returning later in the year. The classes are run during the day time in community centres an attended by people with disabilities from various day services.

Ultimate Frisbee Blitz

Fingal Sport Office supported a beginners Ultimate Frisbee Blitz which was run by Dublin Youth Ultimate in the National Indoor Arena. The event had 11 schools and roughly 250 participants. It was an all Dublin Event with 5 of the schools attending from the Fingal Area. The blitz's will continue with our support into 2024.



ARCHITECTS DEPARTMENT

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Architectural Conservation Funding 2023
Architectural Conservation Funding 2024

Architectural Conservation Funding 2023

The Conservation Office operated three schemes to assist owners with the cost of works to repair, stabilise, or restore the character of Protected Structures/buildings of merit within Architectural Conservation Areas in Fingal. A total of €409,029 was awarded for 35 projects.

The three schemes were:

- **Stitch in Time Grant (Architectural Heritage Fund)**
- **Built Heritage Investment Scheme**
- **Historic Structures Fund**

Stitch in Time Grant (Architectural Heritage Fund)

The council assisted 20 projects from its own funds to the tune of €27,502. Grants issued ranged from €100 to a maximum of €2500.

This scheme supports a "Stitch in Time" ethos, where minor repair/maintenance works may prevent more substantial works being required in future if not dealt with early on. The scheme also allows for restoration of features if sufficient evidence exists of original detail and design. Applicants may also get funds to complete condition report/surveys by conservation professionals.

Stitch In Time Funded – Small Roof Repair



Before Repair



After Repair

Built Heritage Investment Scheme (BHIS)

This scheme was funded by the Department of Housing, Local Government and Heritage but operated by Fingal County Council.

The total 2023 fund was €116,527 and this included a ring-fenced allocation of €11,217 that had to be used for thatching projects only. In total, 11 projects were grant-aided to complete medium scale projects for the repair and conservation of Protected Structures and occasionally structures in Architectural Conservation Areas.

Each grant had to range from a minimum of €2500 to the maximum of €15000 but couldn't exceed 50% of the total individual project cost. Some examples of projects are shown below.

BHIS - 5 & 6 Nashville Park, Howth- Repaired Timber Bargeboard





Before Repair of Decorative Timber Bargeboard



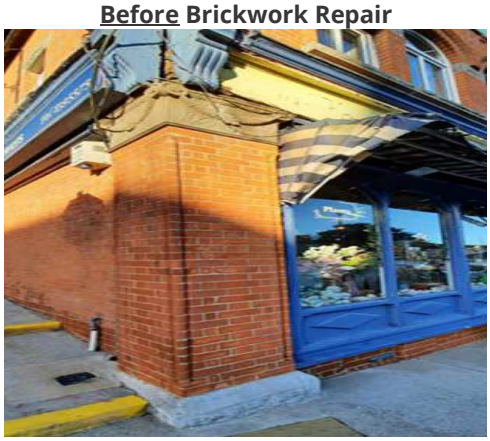
After Repair of the decorative Bargeboard

The BHIS scheme was advertised on the Council's website and applications were prioritised based on the significance of the structure, effectiveness of works, and employment benefits.

BHIS – No.15 Main Street, Howth Brick Work Repairs



Before Brickwork Repair



After Brickwork Repair

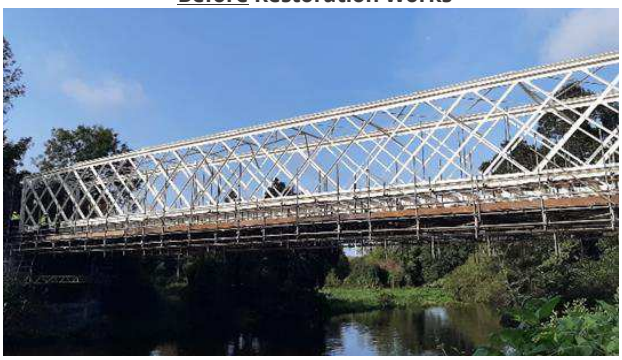
Historic Structures Fund (HSF)

Like the BHIS, this scheme was funded by the Department of Housing, Local Government and Heritage but operated by Fingal County Council.
A total of €265000 was granted to applicants in the Fingal area to assist in 4 projects with a 5th deferred to 2024. The HSF grant assistance was divided into 2x streams.
-Stream 1 grants range from €15000-€50000
-Stream 2 grants range from €50000-€200000.
The Department of Housing Local Government and Heritage made the final decision on projects to fund. An example of one of the funded projects was the iron Guinness Bridge spanning the river Liffey.

HSF Grant - Guinness Bridge, River Liffey - Restoration 1



Before Restoration Works



After Restoration Works



Before Restoration Works of Guinness Bridge



After Restoration works of Guinness Bridge

FINANCE

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(c) Summary of Corporate Debtors to 30th December 2023
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Contracts Awarded year to date

The table below outlines key financial statics at the end of November & December 2023.

Rates

Overall Commercial Rates collection to the end of December 2023 is running at **98.3%.**

Rates Collection	
Rates collected €M	152.9
Rates collected %	98.3%

Development Levy Income

Development levy income collected to the end of November is €32.7m this is c.**85%** of the overall collection for same period in 2022.

Development Levy Income	
Levies Receipted	32.7
Levies Collected as % of 2022	85%

Payroll

Overall payroll spend to the end of November is €76.3m which is c. **97%** of budget year to date.

Payroll	
Salaries & Wages €M	76.3
Percentage of Budget YTD	97%

Procurement

Outlined below is a summary of the overall procurement activity at end of December

No. of contracts awarded (details below) for year to date	289	
Value €m	100.6	
Procurements ongoing at end of December		
No. of procurements awaiting tender responses	19	(i)
Value €m	149.1	
No. of procurements under evaluation	30	(ii)
Value €m	80.0	
No. of procurements at approved	14	(iii)
Value €m	121.5	

Notes:
(i) Procurements awaiting tender responses – tender responses awaited at end of December.
(ii) Procurements under evaluation – tender responses submitted and being evaluated at end of the December.
(iii) Procurements at approved – Tender responses have been evaluated and approved. Pre- contract award processes ongoing at end of December.

Appendix 1 (a)

REVENUE ACCOUNT INCOME & EXPENDITURE SUMMARY BY SERVICE DIVISION AT 30 NOV 2023

	EXPENDITURE			INCOME			NET
	Expenditure €	Adopted Full Year Budget €	% Budget Spent to date	Income €	Adopted Full year Budget €	% Budget Raised	€
Housing & Building	83,562,137	90,151,700	93%	86,714,902	94,681,700	92%	-3,152,765
Road Transport & Safety	30,022,766	32,392,400	93%	9,339,371	8,698,800	107%	20,683,395
Water Services	16,963,041	14,994,900	113%	16,151,801	18,028,400	90%	811,240
Development Management	19,211,400	19,874,200	97%	5,199,170	5,480,800	95%	14,012,229
Environmental Services	42,365,238	48,361,500	88%	10,136,682	10,542,200	96%	32,228,556
Recreation & Amenity	45,920,405	49,953,500	92%	2,511,412	2,386,500	105%	43,408,993
Agriculture, Education, Health & Welfare	1,447,221	1,380,600	105%	371,160	340,100	109%	1,076,061
Miscellaneous Services	21,783,843	22,836,300	95%	24,403,812	24,576,200	99%	-2,619,969
Central Management Charge	43,527,591	53,803,600	81%	3,531,470	3,904,000	90%	39,996,121
Local Property Tax / GPG				8,964,358	9,779,300	92%	-8,964,358
Rates				142,386,475	155,330,700	92%	-142,386,475
	304,803,642	**333,748,700**	**91%**	**309,710,613**	**333,748,700**	**93%**	**-4,906,971**

Appendix 1 (b)

CAPITAL ACCOUNT
INCOME & EXPENDITURE SUMMARY BY SERVICE DIVISION TO 30/11/2023

	Balance at 01/01/2023 €	Expenditure YTD €	Income YTD €	Balance at 30/11/2023 €
Housing & Building	-45,026,626	202,832,621	-152,118,516	5,687,479
Road Transport & Safety	12,033,473	30,130,750	-20,423,926	21,740,297
Water Services	-10,811,421	902,633	-1,224,701	-11,133,489
Development Management	-134,303,923	26,098,339	-51,260,763	-159,466,347
Environmental Services	-21,303,306	4,111,301	-1,685,121	-18,877,126
Recreation & Amenity	-14,103,073	27,239,350	-20,619,180	-7,482,903
Miscellaneous Services	-52,242,890	17,313,975	-16,463,921	-51,392,836
Total	**-265,757,766**	**308,628,970**	**-263,796,128**	**-220,924,924**

Appendix 1 (c)

SUMMARY OF CORPORATE DEBTORS TO 30/11/2023				
	Balance at 01/01/2023 €	Balance at 30/11/2023 €	Current debt €	> 1 Year €
RATES*	€3,146,921	€6,601,823	€5,127,619	€1,474,204
LOANS	€2,030,260	€2,093,033	€240,689	€1,852,343
RENTS	€9,426,987	€9,665,516	€4,527,656	€5,137,860

* value of debit at 31/12/2022 was 5.1m with a credit of 1.97m which has substantially been offset against demands 2023 leaving an aged debt greater than the opening balance

Figures for rents and loans are unadjusted by credits/prepayments

Appendix 2
Number of Contracts Awarded for year to date

Dept	Description of Procurement	Supplier Name	Current Value of Contract (excl. VAT)	Contract Start Date (actual)	Contract End Date (actual)	Actual Duration (months)	Contract Award Date
Operations	Supply & Installation of a Combined Calisthenics Unit and Specified Outdoor Gym Equipment to two locations in the Balbriggan Area	Outfit Outdoor Fitness Equipment Ltd	€ 154,170.00	08/01/2024	30/04/2024	4	20/12/2023
Operations	Supply & Installation of Specified Calisthenics work out area and half court multi use Games Area Hub at Holywell Park, Swords	Outfit Outdoor Fitness Equipment Ltd	€ 112,785.00	12/02/2024	20/05/2024	3	20/12/2023
Operations	Supply & Installation of a Combined Calisthenics Unit and Specified Outdoor Gym Equipment to four Locations in the Howth Malahide Electoral Area	Outfit Outdoor Fitness Equipment Ltd	€ 139,150.00	11/12/2023	29/12/2023	3 weeks	20/12/2023
Digital Services	Provision of Support and Maintenance for Fingal County Councils Wireless Network	Exigent Network Integration Ltd	€ 37,135.00	01/01/2024	31//12/24	12	20/12/2023
Digital Services	Adobe Software Licencing Subscription Renewals	Software Pipeline Ireland Ltd	€ 140,703.00	18/12/2023	31/12/2025	24	20/12/2023
Digital Services	Cisco Backoff Support of Swords/Balbriggan Nexus Core Switches	BT Communications Ireland Ltd	€ 37,125.00	01/01/2024	31/12/2024	12	14/12/2023
Corporate Affairs	Replacement of Hot Water Calorifiers	Paul Murphy Heating & Plumbing Ltd	€ 150,054.00	03/01/2024	28/06/2024	6	13/12/2023
Planning and Strategic Infrastructure	Turvey Avenue Footpath Works Upgrade and Enhancement	Priority Construction Ltd	€ 529,237.00	02/01/2024	28/06/2024	6	13/12/2023
EETCD	Skerries Mills, Red Barn Enabling Works, Skerries	Hegarty Demolition Ltd.	€ 194,029.00	04/12/2023	30/01/2025	64 weeks	11/12/2023
Operations	Verona Carpark Works	Postmount Buildings Limited T/A Hayes Civil Engineering	€ 91,206.00	01/12/2023	21/12/2023	1	10/12/2023
Operations	Resurfacing Sections of Texas Lane, Malahide and Ancillary works	John McQuillan Contracts Ltd	€ 81,216.00	18/12/2023	31/12/2023	1	08/12/2023
Planning and Strategic Infrastructure	Sutton to Malahide Pedestrian & Cycle Scheme Ground Investigation Works	IGSL Ltd	€ 104,215.00	01/12/2023	01/02/2024	2	08/12/2023

Operations	Road Resurfacing Balgriffin Park	Lagan Asphalt Ltd	€ 59,370.00	11/12/2023	31/12/2023	1	06/12/2023
Corporate Affairs	Provision of Security Services	Manguard Plus Ltd	€ 267,418.00	19/11/2023	18/05/2024	6	06/12/2023
Environment, Climate Action	Decommissioning of the Leachate Treatment Plant	Campion Mechanical & Electrical Eng Ltd	€ 98,295.00	15/01/2024	28/05/2024	2	05/12/2023
Digital Services	Requirement for Delivery, installation and maintenance of public Wi-Fi Aps in Fingal, indoor and outdoor (Community Centres, Parks, town and village centres)	Magnet Networks Limited	€ 133,000.00	01/12/2023	01/12/2026	36	04/12/2023
Environment, Climate Action	Sampling of Rivers, Bathing Waters, and Trade Effluent Discharge Licensed Facilities	Fehily Timoney & Co. Ltd	€ 30,000.00	01/12/2023	01/05/2024	6	04/12/2023
Planning and Strategic Infrastructure	Ward River Regional Park Topographical Survey	Metroscan Utility Locating Ltd	€ 32,000.00	01/11/2023	01/04/2024	5	04/12/2023
Operations	Purchase of one to four new Fully Electric Mini-Diggers	E & S Machinery Sales Ltd	€ 97,500.00	09/11/2023	08/11/2024	12	01/12/2023
Operations	Annual Maintenance and Licencing of Easy Go Back Office Software for the Electric vehicle charging points installed across Fingal County Council	Easy Go	€ 35,000.00	01/12/2023	30/11/2024	12	01/12/2023
Operations	Grass Cutting Machinery and other grounds care machinery - Lot 5	Irish Farm and Garden Machinery	€ 41,099.40	01/12/2023	30/11/2025	24	01/12/2023
Operations	Grass Cutting Machinery and other grounds care machinery - Lot 4	Maher Tractor Sales Ltd	€ 48,800.00	01/12/2023	30/11/2025	24	01/12/2023
Operations	Grass Cutting Machinery and other grounds care machinery - Lot 3	Baytown Machinery Ltd	€ 32,600.00	01/12/2023	30/11/2025	24	01/12/2023
Operations	Grass Cutting Machinery and other grounds care machinery - Lot 2	Midlouth Garage	€ 90,820.00	01/12/2023	30/11/2025	24	01/12/2023
Operations	Grass Cutting Machinery and other grounds care machinery - Lot 1	Dublin Grass Machinery	€ 99,250.00	01/12/2023	30/11/2025	24	01/12/2023

Operations	Provision of On-Street Managed Parking Services	Tazbell Services Group DAC	€ 1,411,566	01/12/2023	30/11/2025	24	01/12/2023
Operations	Urgent Essential Works to the Malahide Road	Campbell Catering t/a Aramark	€ 402,800.00	27/11/2023	31/03/2024	4	30/11/2023
Planning and Strategic Infrastructure	Fingal Coastal Way Topographical Survey	Apex Surveys	€ 49,400.00	01/09/2023	30/11/2023	2	29/11/2023
Operations	Resurfacing of sections of Streamstown Lane	D.M. Morris Limited	€ 103,539.00	04/12/2023	16/12/2023	2 weeks	27/11/2023
Housing	Void Dwelling Security of Fingal County Council Stock	E & M Security	€ 250,000.00	24/11/2023	22/05/2024	6	22/11/2023
Operations	Installation of Pipework and all ancillary services for the connection of a new water supply to Shackleton Gardens	GMC Utilities Group Ltd.	€ 60,686.00	16/11/2023	15/12/2023	1	22/11/2023
Digital Services	Annual ComplyKEY Premium Support	ComplyKEY	€ 44,246.00	01/01/2024	01/01/2025	12	21/11/2023
Operations	Roadmarkings for the Howth/Malahide Area	Nuzum Road Services Ltd	€ 40,411.00	27/11/2023	27/03/2024	4	20/11/2023
EETCD	Shackleton Garden Christmas Lights Display 2023	Archetype	€ 35,000.00	20/11/2023	10/12/2023	3weeks	20/11/2023
EETCD	Mural Artwork Snugborough Road Interchange Infrastructural Works	Iverna	€ 45,000.00	04/12/2023	20/12/2023	1	20/11/2023
EETCD	Social Inclusion and Community Activation Programme 2024 - 2028 (SICAP)	Empower Local Development CLG	############	01/01/2024	31/12/2028	60	19/11/2023
Planning and Strategic Infrastructure	Taking in Charge Works for the Mount Eustace and Cruise Park Estates in Tyrellstown	Formac Construction	€ 234,323.00	01/11/2023	28/02/2024	4	17/11/2023
Housing	Demolition Works at 30-32 North Street, Swords, Co. Dublin	Hegarty Demolition Ltd.	€ 150,000.00	30/10/2023	22/12/2024	14	15/11/2023
Operations	Butterfly Pupae for the Tropical Butterfly House in Malahide Demesne	Stratford-upon-Avon Butterfly Tropical House	€ 36,000.00	01/08/2023	31/07/2024	12	14/11/2023
Operations	Installation of a replacement portal and related ancillary services at Newbridge Demesne	Larry Kane Steelworks Ltd	€ 97,600.00	01/11/2023	30/04/2024	6	14/11/2023

Operations	Construction of a replacement Farm Animal Shed at Newbridge Demesne	Dowcon Ltd	€ 105,726.00	01/11/2023	30/04/2024	6	14/11/2023
Operations	Construction of a new Boundary Wall at Balgriffin Cemetary	Clar Con Construction Ltd	€ 123,566.00	08/11/2023	05/12/2023	1	08/11/2023
Community	Supply & Installation of temporary Accommodation for Childcare at Hartstown Community Centre, Hartstown	Cpac Modular	€ 173,260	01/10/2023	31/12/2024	15	07/11/2023
Corporate Affairs	Residents Booklet for delivery to 103,000 Homes in Fingal	Media Consult	€ 62,000.00	06/11/2023	05/02/2024	3	06/11/2023
Corporate Affairs	Webcasting Services	Public-I Group	£ 109,446.00	24/11/2023	23/11/2025	24	06/11/2023
Planning and Strategic Infrastructure	Preparation of a Local Area Plan for Flemington, Balbriggan	RMLA Ltd	€ 57,937	15/11/2023	14/11/2024	12	06/11/2023
Corporate Affairs	Installation of a Reversable Heat Pump	Lawler Sustainability	€ 43,961.00	01/11/2023	31/12/2023	2	01/11/2023
Corporate Affairs	Risk Assessment for both Civic Offices, Safety Officer & Supervisor Safety Officer on Site	NOC Consultancy	€ 38,800.00	01/11/2023	31/01/2024	3	01/11/2023
EETCD	Provision of Services for Fingal Remote Working Hubs Brand Identity & Marketing Campaign	Ripple Marketing	€ 45,000	02/10/2023	01/03/2024	5	01/11/2023
Operations	Road Surfacing Inlay, Strand Street, Skerries	Lagan Asphalt Ltd	€ 249,563.00	15/01/2024	02/02/2024	3 weeks	27/10/2023
Operations	Mechanical Planting of Bulbs and Wildflowers Countrywide	Flower your Place	€ 240,185	02/10/2023	03/11/2023	2	26/10/2023
Operations	Concrete Footpath Construction in a series of batches from 3 - 8 meters at Various Locations in Bayside, Co. Dublin	Joe Duke & Co. Ltd	€ 49,020.00	20/11/2023	15/12/2023	1	24/10/2023
Operations	Resurfacing of Sections of the R105, Sutton Cross	D.M. Morris Limited	€ 129,477.00	06/11/2023	01/12/2023	1	24/10/2023
Operations	Shared Bituminous Cycle & Footpath and existing concrete footpath works at Balgriffin Park	Formac Construction	€ 160,951.00	08/11/2023	01/12/2023	1	24/10/2023
Housing	Provision of New Modular Accommodation Liam Rodgers Community Centre	Cpac Modular	€ 97,325.00	23/10/2023	23/12/2023	2	23/10/2023

Operations	DE vegetation of 16 Fingal Bridges	Triur Construction	€ 39,720	01/10/2023	30/11/2023	2	23/10/2023
EETCD	Clearing Hazardous/Dangerous Rubbish and Site Clearance at Rathoath Road, Dunsink Finglas	G & K Kearns Developments Ltd	€ 127,096	11/10/2023	10/11/2023	1	20/10/2023
Corporate Affairs	Mobile Voice & Data Communications and Associated Products & Services	Vodafone	€ 90,000	01/10/2023	30/11/2023	2	19/10/2023
Active Travel	Supply and Delivery of Bicycle and Scooter Parking Equipment for Schools and Clubs in Fingal Area	Pittman	€ 27,006.00	21/09/2023	21/03/2024	6	18/10/2023
Operations	Concession to organise and operate Ice Skating Events in the Fingal County Council Administrative Area - Single Supplier Framework Agreement	Cool Running Event Ltd	€ 64,000.00	31/10/2023	16/02/2024	4	16/10/2023
Corporate Affairs	Provision of Services for Roof Maintenance and Callouts at 17 Fingal Locations	Geoffrey T Kelly Roofing and Cladding	€ 26,200	05/09/2023	04/09/2024	12	16/10/2023
Planning and Strategic Infrastructure	Design and Build of Fish Pass, Ward River	RIVUS Ecological Engineering Ltd	€ 87,254.00	01/01/2024	30/09/2024	9	12/10/2023
Operations	Supply, Delivery and erection of individual Christmas Trees for the Christmas Season 2023	King Tree Services	€ 59,716	27/10/2023	22/12/2023	2	12/10/2023
Operations	Purchase of requirement for 4 Ford Transit Vans	Henry Ford & Son Ltd.	€ 86,976	10/10/2023	09/10/2024	12	11/10/2023
Corporate Affairs	Provision of Fire Alarm and Emergency Lighting Maintenance Services	G4S	€ 32,445	09/09/2023	08/03/2024	6	11/10/2023
Operations	Resurfacing of one lane of Greenfield Road in Howth	Pavement & Road Surfacing Ltd	€ 62,522	16/10/2023	10/11/2023	1	09/10/2023
Planning and Strategic Infrastructure	Supply & Install New Boundary Fencing at Hampton Lands, Ardgillan Demesne, Balbriggan	Irish Fencing Services	€ 151,467	01/09/2023	01/04/2025	18	26/09/2023
Planning and Strategic Infrastructure	Installation of SeeBees at the Burrow, Portrane, Co. Dublin	Larry Kiernan Plant Hire Ltd	€ 75,987	01/10/2023	30/11/2023	2	25/09/2023
Operations	Road Salt for the 2023/2024 Winter Season	Salt Sales Company	€ 161,795	01/10/2023	31/12/2023	3	25/09/2023

Planning and Strategic Infrastructure	Quantity Surveying Services for the proposed development at Ballymastone Recreational Hub	Levins Associates	€ 30,900.00	01/11/2023	31/05/2024	7	22/09/2023
Planning and Strategic Infrastructure	Ward River Regional Park Historic Structures - Brick Arch and Walled Garden Sheds	Francis Haughey Building & Civil Engineering Contractors	€ 295,808	10/09/2023	09/02/2024	5	21/09/2023
Operations	Concrete Footpath Construction in a series of batches from 2 - 10 sq meters at Roselawn Road, Walk & Court, D 15	Formac Construction	€ 39,125	01/10/2023	01/11/2023	1	19/09/2023
Operations	Footpath Works, Paddys Hill, Portmarnock	Jim Hayes Civil Engineering	€ 81,520.00	18/09/2023	07/12/2023	1	18/09/2023
Operations	Resurfacing of Drynam, Seatown & Lissenhall Footbridges	Donnelly Civil Engineering Ltd	€ 228,756	31/08/2023	30/01/2024	5	14/09/2023
Operations	Solar Power Signage	PWS Signs Ltd	€ 31,185	11/09/2023	31/12/2023	4	14/09/2023
EETCD	Machinery Hire securing of land and site clearance	G & K Kearns Developments Ltd	€ 37,000.00	13/09/2023	13/10/2023	1	13/09/2023
Operations	Road Inlay & Ancillary Works, Dublin Road, Swords	D.M. Morris Limited	€ 163,656	25/09/2023	25/12/2023	3	13/09/2023
Operations	Loughshinny Harbour Refurbishment Works	Donnelly Civil Engineering Ltd	€ 158,498	01/10/2023	22/12/2023	3	13/09/2023
EETCD	Upgrade of fire alarm system at Malahide Castle	Pioneer Fire & Security for Upgrade	€ 70,871	01/10/2023	14/10/2023	2 weeks	11/09/2023
EETCD	Machinery Hire securing of land and site clearance	G & K Kearns Developments Ltd	€ 58,050.00	07/09/2023	06/10/2023	1	07/09/2023
Digital Services	NEC Application Programs for which the RDBA Service is being provided : NEC Housing	NEC Software Solutions	€ 66,000	01/09/2023	31/08/2025	24	07/09/2023
Housing	Churchfields, Damastown Ave, Mulhuddart, D 15 Watermain Diversion	Hegarty Demolition Ltd.	€ 625,173	11/09/2023	04/12/2024	15	06/09/2023
Operations	Football Pitch Extension at Porterstown, Dublin 15	KT Civil Engineering	€ 45,000	01/09/2023	01/10/2023	1	06/09/2023
Operations	Path Network, Tolka Valley	KT Civil Engineering	€ 28,000	15/09/2023	15/10/2023	1	06/09/2023
Operations	Path Extension, Delwood Park, D 15	KT Civil Engineering	€ 33,000	01/09/2023	01/11/2023	2	06/09/2023

EETCD	Project Management Consultancy Services for the Fingal Local Economic & Community Plan	Grant Thornton Finance Ltd	€ 48,900	08/05/2023	07/02/2024	9	06/09/2023
EETCD	Provision of Multi Disciplinary Consultancy Services for Industrial Zones, Infrastructure & Public Realm Projects in respect of the Economic Zone & Industrial Landbank at Stephenstown, Balbriggan	Clifton Scannell Emerson Associates	€ 317,182	01/08/2023	31/07/2025	24	**06/09/2023**
ANCA	Legal Services for Aircraft Noise Competent Authority	A & L Goodbody LLP	€ 1,000,000	01/09/2023	31/08/2025	24	05/09/2023
Planning and Strategic Infrastructure	Construction of a Pocket Park at Bridge Street, Balbriggan	Peter O'Brien & Sons Landscaping	€ 41,535	28/08/2023	23/09/2024	13	05/09/2023
Active Travel	Requirement for Engineering Consultancy Services for Active Travel Pathfinder Swords to Airport Quick Build	Tobin Consulting Engineers	€ 225,775	21/08/2023	20/08/2026	36	05/09/2023
Operations	Engineering Consultancy Services for Dredging of Balbriggan Harbour	Byrne Looby & Partners Ltd	€ 321,888	18/09/2023	17/09/2026	36	04/09/2023
Operations	Demolition and Remediation Works of a bridge Structure at Grallagh	Triur Construction	€ 44,265	01/09/2023	30/09/2023	1	04/09/2023
Digital Services	Maintenance and Support on the Fingal Website from Annertech	Annertech Ltd	€ 25,505.00	01/09/2023	31/08/2024	12	01/09/2023
Operations	Road Inlay & Ancillary Works R109, Lower Lucan Road	D.M. Morris Limited	€ 658,619	01/10/2023	01/12/2023	2	01/09/2023
Community	8 Week running programme for 5th and 6th class students in Primary Schools	Marathon Kids	€ 26,900	01/09/2023	31/12/2023	4	01/09/2023
Operations	Concrete Footpath & Bituminous Cycle Track Installation at Northwood Avenue, Santry, Dublin 9	John Browne Construction Ltd	€ 44,250	25/09/2023	25/10/2023	1	31/08/2023
Operations	Concrete Footpath Construction in a series of batches Deerpark Road, Drive & Avenue, D 15	Citius Ltd	€ 34,990	15/09/2023	15/10/2023	1	31/08/2023
Operations	Road Inlay & Ancillary Works Northwood Avenue, D 9	Lagan Asphalt Ltd	€ 130,351	11/09/2023	11/10/2023	1	31/08/2023
Operations	Caretakers agreement to manage and operate the concession Malahide Recreational Facility, located in the Pavillion Building, Malahide Demesne	Aramark Northern Europe	€ 126,465	01/09/2023	31/12/2023	4	31/08/2023
Libraries	Supply & Installation of 3 Tovertafel Unit to include 2 year licence, warranty, service and staff training	Homecare Medical	€ 28,510	01/07/2023	01/07/2025	24	30/08/2023

Operations	Design & Build Public Conveniences and Associated Works at Burrow Beach, Portrane	Lidan Innovations Ltd	€ 202,343	17/07/2023	17/07/2024	12	29/08/2023
Operations	Design & Build Public Conveniences and Associated Works at Malahide, Muldowney	Lidan Innovations Ltd	€ 329,129	17/07/2023	16/07/2024	12	29/08/2023
Operations	Design & Build Public Conveniences and Associated Works at Howth East Pier, Co. Dublin	Lidan Innovations Ltd	€ 447,089	17/07/2023	16/07/2024	12	29/08/2023
EETCD	Provision of Services for the Co Ordinator and Delivery of the Student Enterprise Programme for Fingal Local Enterprise Office	Real Events Management T/A Real Nation	€ 40,600	21/08/2023	21/06/2024	10	28/08/2023
Planning and Strategic Infrastructure	Supply & Execution of ESB approved Civil Works to enable the undergrounding of existing 10/20kv overhead at Ballymastone Recreational Hub	Larry Kieran Plant Hire Ltd	€ 78,997	01/09/2023	01/10/2024	13	24/08/2023
Planning and Strategic Infrastructure	Sutton to Malahide Pedestrian & Cycle Scheme Topographic Survey	Apex Surveys	€ 32,910	01/08/2023	07/10/2023	5 weeks	23/08/2023
Environment, Climate Action	Supply Anti Littering Devices at Locations in Fingal	RiteView Solutions	€ 25,120	01/03/2023	28/02/2024	12	18/08/2023
Planning and Strategic Infrastructure	Installation of Traffic Signals in respect of the Harry Reynolds Road Pedestrian & Cycle Route	Traffic Solutions Ltd	€ 165,281	21/08/2023	21/02/2025	18	16/08/2023
Planning and Strategic Infrastructure	Main Works Contract of the Ongar to Barnhill Road Scheme	BAM Civil Limited	€ 16,823,243	14/08/2023	18/04/2025	20	15/08/2023
EETCD	Provision of Consultancy Services to develop Town Centre Plans for Fingal County Council with an initial contract to develop a Town Centre Plan for Lusk, Co. Dublin	AP + E	€ 63,680	08/08/2023	31/10/2023	3	14/08/2023
Active Travel	Work on the R132 Cycle Lane Scheme (Blakes Cross to Quickpenny Lane)	McAvoy Contracts Ltd	€ 2,202,117	31/07/2023	31/12/2024	19	11/08/2023
Planning and Strategic Infrastructure	Conservation Repairs to Malahide Church and Graveyard, Malahide Demesne	James Francis Haughey Building Contractors	€ 128,974	08/08/2023	31/10/2024	15	08/08/2023
Planning and Strategic Infrastructure	Provision of Road Removal Works St. Itas, Portrane, Co. Dublin	Larry Kieran Plant Hire Ltd	€ 38,975	14/08/2023	08/09/2023	1	03/08/2023
Operations	Installation of Traffic Signals within the Admin Area of Fingal Co Co Council	Traffic Solutions Ltd	€ 1,423,645	24/07/2023	31/12/2023	5	02/08/2023

Corporate Affairs	Catering Services for Fingal County Council Offices in Swords & Blanchardstown	Compass Catering Services Ireland Ltd	€ 750,000	25/07/2023	24/07/2025	24	02/08/2023
Operations	Road Inlay & Ancillary Works R125, Clonsilla Road Junctions at Coolmine and Blanchardstown, D 15	Lagan Asphalt Ltd	€ 170,971	25/08/2023	25/11/2023	3	01/08/2023
Digital Services	Backup & Disaster Recovery services for Office 365 & SharePoint Online	Sureskills Ltd	€ 49,470	01/08/2023	31/07/2026	24	01/08/2023
Operations	Road Inlay & Ancillary Works, Castleknock Road, Auburn Ave Junction.	Lagan Asphalt Ltd	€ 76,234	23/08/2023	23/08/2023	12	01/08/2023
Environment, Climate Action	Provision of a Management Service in respect of Glass Bottle Banks in the Dublin Area	Glassco Recycling Ltd	€ 520,000.00	01/08/2023	31/10/2023	3	28/07/2023
Operations	Resurfacing of Sections of the R106, Swords Road, Malahide & Ancillary Works	D.M. Morris Limited	€ 280,087	21/08/2023	21/09/2023	1	28/07/2023
Planning and Strategic Infrastructure	Site Surveys and Snagging Drawings and Taking in Charge Drawings of 13 Estates due to be taken in charge	Thorntons Chartered Surveyors	€ 37,620	12/07/2023	12/04/2024	9	28/07/2023
Operations	Concrete Footpath Construction in a series of batches from 3 - 7 sq meters at Melrose Park and Drinan Hall	John Browne Construction Ltd	€ 27,895	14/08/2023	08/09/2023	1	27/07/2023
Operations	Road Inlay & Ancillary Works Millview Lawns, Malahide	Pavement & Road Surfacing Ltd	€ 89,400	04/09/2023	29/09/2023	1	27/07/2023
Corporate Affairs	Supply of Fixed Voice Services	Eir Ltd	€ 87,500	01/09/2023	29/02/2024	6	26/07/2023
Operations	Maintenance, Servicing, Repair and Ticket replenishment of Pay & Display Parking Machines	Actavo (Sierra Support Services Group)	€ 50,000	01/07/2023	30/11/2023	5	24/07/2023
Operations	Provision of Enforcement and Legal Services to FCC for Parking Services	Parkrite	€ 182,184	01/07/2023	30/11/2023	5	24/07/2023
Housing	24 Hour Security Service at Liscappagh Estate, Dublin 11	ABM	€ 127,458	15/06/2023	11/08/2023	2	24/07/2023
Operations	Construction of a Parkour Facility at Millennium Park, Dublin15	Outfit Outdoor Fitness Equipment Ltd	€ 98,120	01/09/2023	30/09/2023	1	21/07/2023
Operations	Concrete footpath construction in a series of batches from 3 - 8 meters at Willie Nolan Road and Mainstreet, Baldoyle, Co. Dublin	Joe Duke & Co. Ltd	€ 41,131	14/08/2023	08/09/2023	1	19/07/2023

Operations	Supply and Installation of specified calisthenics and outdoor fitness equipment to Hazelbury Park, D 15	Outfit Outdoor Fitness Equipment Ltd	€ 60,625	01/08/2023	31/08/2023	1	19/07/2023
Environment, Climate Action	Dublin Airport Noise Plan 2024 - 2029 Appointment of Acoustic Consultants	Logika Noise Air Quality Consultants	€ 60,000	01/07/2023	01/07/2025	24	18/07/2023
Operations	Temporary Car Park Surfacing and Associated Works at Ballymastone	DM Morris Ltd	€ 209,089	02/09/2023	01/10/2024	13	17/07/2023
Corporate Affairs	Catering Services for County Hall and Grove Road	Compass Catering Irl Ltd	€ 94,248	01/04/2023	24/07/2023	4	17/07/2023
Operations	Road Inlay & Ancillary Works R125, Murrough Road to Watery Lane, Swords	D.M. Morris Limited	€ 292,977	17/07/2023	17/10/2023	3	13/07/2023
Operations	Supply & Installation of Full Size MUGA at Mick Walsh Park, Dublin 15	Outfit Outdoor Fitness Equipment Ltd	€ 66,225	03/07/2023	31/07/2023	1	12/07/2023
Planning and Strategic Infrastructure	Multi Disciplinary Engineering Consultancy Services, Kinsealy Walking & Cycling Routes	Barry Transportation	€ 396,356	15/06/2023	14/06/2025	24	12/07/2023
Operations	Requirement for Road Lining Contract for the Fingal Swords, Balbriggan Areas Including PSCS	MacLochlainn (Roadmarkings) Limited	€ 46,718	24/07/2023	31/12/2023	5	11/07/2023
Operations	Road Lining Contract for Castleknock Mulhuddart, Blanchardstown including PSCS and Traffic Management	MacLochlainn (Roadmarkings) Limited	€ 59,965	10/07/2023	31/12/2023	6	10/07/2023
Environment, Climate Action	Provision of Eircode/Postcode Address Encoding Services	Dataconversion Direct Ltd	€ 45,000	10/07/2023	10/10/2023	3	10/07/2023

Housing	Actuarial Services for the replacement of Fingal County Councils Housing Loans System	Mazars	€ 43,750	03/07/2023	03/12/2023	6	10/07/2023
Planning and Strategic Infrastructure	Supply & Install temporary Traffic Management Equipment for 2 Car Parks in Balbriggan	McAvoy Contracts Ltd	€ 39,120	06/07/2023	06/07/2024	12	07/07/2023
Planning and Strategic Infrastructure	Traffic Management Equipment for 2 Public Car Parks in Balbriggan	McAvoy Contracts Ltd	€ 39,120	26/07/2023	25/08/2023	1	07/07/2023

Operations	Road Inlay & Ancillary Works, Parkvale, Baldoyle	John McQuillan Contracts Ltd	€ 58,101	24/07/2023	04/08/2023	1	07/07/2023
Housing	24 Hour Security Services for 67 Newly Constructed Units to be delivered on a phased basis during July & August 2023 at Churchfields Estate	ABM	€ 188,842	24/07/2023	03/11/2023	5	06/07/2023
Operations	Supply & Delivery of Washed Surface Dressing Chips	Tullyraine Quarries Limited	€ 30,075	14/07/2023	14/12/2023	5	06/07/2023
Operations	Installation of Traffic Calming Ramps, Ramp Components, ramp replacement and repairs	MCM Surfacing Ltd	€ 148,335	17/07/2023	19/01/2024	6	04/07/2023
Operations	Replacement of Artificial Grass Surfaces to Two MUGAS in Whitestown, D.15	Sole Sports and Leisure Ltd	€ 47,811	07/07/2023	06/08/2023	1	04/07/2023
Operations	Purchase of New Compact Tractors	Dublin Grass Machinery	€ 68,000	25/06/2023	24/06/2024	12	04/07/2023
Planning and Strategic Infrastructure	Multi-disciplinary Engineering Consultancy Services for Donabate Transport Projects Active Travel Routes Design Services	Roughan & O'Donovan Ltd	€ 690,814	19/06/2023	19/06/2025	24	**04/07/2023**
Digital Services	Renewal of the subscription to the Technical Index	Allium UK Holding	€ 31,269	01/07/2023	30/06/2024	12	30/06/2023
EETCD	Supply, Installation, derig and transportation of 3 x 3m gazebos, picket fencing and truck stage for the Flavours of Fingal County Show 2023	Castle Stage Hire	€ 55,925	28/06/2023	03/07/2023	1 week	28/06/2023
Operations	Concrete Footpath Construction in a series of batches from 3 - 8 sq meters at Moyclare, Baldoyle	Clar Con Construction Ltd	€ 30,960	03/07/2023	28/08/2023	7 weeks	27/06/2023
Planning and Strategic Infrastructure	Wetland Restoration and Greenway Project - St. Itas Donabate	Larry Kieran Plant Hire Ltd	€ 39,987	26/06/2023	07/07/2023	2 weeks	23/06/2023
Operations	Road Inlay & Ancillary Services Works, Church Street & St. Patricks Park, Blanchardstown, D15	D.M. Morris Limited	€ 72,995	01/07/2023	01/10/2023	3	22/06/2023
EETCD	Provision of Stewarding Services for Flavours of Fingal 2023	Invictus Event Management Ltd	€ 52,806	21/06/2023	04/07/2023	2 weeks	21/06/2023
Operations	Road Inlay & Ancillary Works, Glasmore Park, - Windmill Lands, Swords, Co. Dublin	John McQuillan Contracts Ltd	€ 55,739	30/06/2023	30/11/2023	5	20/06/2023

Planning and Strategic Infrastructure	The Design and Execution of Works in connection with the Installation of Play Spaces for Fingal County Council - four distinct projects - ITT (Repeat of FCC/173/20	Creative Play Solutions	€ 1,697,921	15/05/2023	15/09/2025	28	20/06/2023
Operations	Supply & Installation of Specified Calisthenics and Outdoor Fitness Hub at Damastown Park and Porterstown Park, D. 15.	Outfit Outdoor Fitness Equipment Ltd	€ 92,795	30/06/2023	30/07/2023	1	20/06/2023
Operations	Concrete Footpath Construction in a series of batches from 3 - 7 sq meters at Stapolin Lawns and Grange Park, Baldoyle	John Browne Construction Ltd	€ 39,323	26/06/2023	25/07/2023	1	19/06/2023
Operations	Supply of Bitumen Emulsion Fingal Area 2023	Colas Teoranta	€ 16,662	01/07/2023	01/12/2023	5	16/06/2023
Operations	Supply of Bitumen Emulsion Fingal Area 2023	Lagan Asphalt Ltd.	€ 32,075	01/07/2023	01/12/2023	5	16/06/2023
Operations	Supply of Bitumen Emulsion Fingal Area 2023	Irish Tar and Bitumen Suppliers Limited	€ 116,462	01/07/2023	01/12/2023	5	16/06/2023
Planning and Strategic Infrastructure	Re Surfacing of Existing Car Park at Bremore Castle, Balbriggan	Larry Kieran Plant Hire Ltd	€ 27,250	15/05/2023	15/06/2023	1	16/06/2023
EETCD	Supply of Buses/Coaches/Minibuses including wheelchair accessible vehicles, event staff as bus stops and management of online booking form	Marathon Training & Events	€ 127,250	01/07/2023	02/07/2023	1 day	15/06/2023
Operations	Consultancy Services for a Bridge Inventory Survey of Fingals Road Network	Atkins Ireland (WS Atkins Ireland Ltd)	€ 29,060	10/04/2023	09/06/2023	3	15/06/2023
Operations	2023 Road Network Machine Survey Services	PMS	€ 37,676	14/06/2023	31/10/2023	4	14/06/2023
Digital Services	Provision of Services on the online portal for Affordable Housing Schemes	Interform Limited	€ 35,250	09/06/2023	09/06/2024	12	12/06/2023
Corporate Affairs	Replacement of Critical LV Electrical Infrastructure (ACBs) in Blanchardstown Library & Draiocht and Malahide Library	Vincent Doherty Ltd	€ 66,605	01/06/2023	31/08/2023	3	12/06/2023
EETCD	Traffic management for Flavours of Fingal 2023	Freeflow Traffic Management	€ 54,315	09/06/2023	02/07/2023	1	09/06/2023
Housing	24 Hour Security Service at Wellview Estate, Dublin 15	DTC Security Ltd	€ 92,860	04/07/2023	05/09/2023	3	07/06/2023
Operations	Resurfacing of Dublin Road, R106 in Malahide	D.M. Morris Limited	€ 82,160	01/07/2023	30/07/2023	1	06/06/2023

Community	Provision of an Audit of Community, Sports & Recreation Facilities in the Administrative area of Fingal County Council and a radius of 10km around its borders	KPMG Ireland	€ 58,475	22/05/2023	16/01/2024	8	06/06/2023
Community	Modification & Upgrade Works at Hartstown Community Centre, D 15	FLN Consulting Engineers	€ 26,900	01/06/2023	31/07/2026	37	01/06/2023
EETCD	Bridge Stret Demolitions & Enabling Works Phase 1 as Part of the Balbriggan Rejuvenation Plan 2019 - 2025	Hegarty Demolition Ltd.	€ 183,884	01/06/2023	14/07/2024	13	01/06/2023
Operations	Road Markings at various locations within the Fingal Area	Nuzum Road Services Ltd	€ 57,248	14/06/2023	14/06/2024	12	01/06/2023
Operations	Road Inlay & Ancillary Works, R125 Murrogh Road to Watery Lane, Swords	John McQuillan Contracts Ltd	€ 267,406	01/06/2023	24/09/2023	4	01/06/2023
Environment, Climate Action	Environmental Awareness Campaign Cinemas	Pearl & Dean Ireland Ltd	€ 86,000	01/06/2023	31/05/2024	12	01/06/2023
Operations	Cleaning & Maintenance Services for all public conveniences within Fingal County Councils Administrative Area	Healthmatic Ltd	€ 1,822,007	28/04/2023	27/04/2025	24	01/06/2023
Operations	Footpath Construction Millview Lawns, Millview Court, Millview Road, Yellow Walls Road and Sea Road, Malahide	John Browne Construction Ltd	€ 40,152	06/06/2023	23/06/2023	1	29/05/2023
Operations	Rd Inlay & Ancillary Works, Wellview Ave, Mulhuddart	Lagan Asphalt Ltd	€ 69,163	01/06/2023	01/09/2023	3	23/05/2023
Operations	Concrete Footpath Repair 2 - 10 sq mts Phoenix Residential Estate, Castleknock, Dublin 15	John Browne Construction Ltd	€ 65,000	01/06/2023	01/09/2023	3	23/05/2023
Planning and Strategic Infrastructure	Specialist Ecology/Biodiversity Advice, support, management and coordination of surveys - Broadmeadow Way	Brady, Shipman Martin	€ 215,000	01/05/2023	31/05/2031	96	23/05/2023
EETCD	Malahide Castle & Visitor Centre Emergency Lighting Works	Norton Electrical Ltd	€ 186,995	01/06/2023	01/09/2024	15	**23/05/2023**
Housing	Refurbishment of 6 Houses, Portrane Avenue, Portrane	CTS Projects Ltd	€ 999,775	01/05/2023	30/11/2023	7	18/05/2023
Planning and Strategic Infrastructure	Disposal of Waste from Site to the rear of Seamus Ennis Arts Centre	Larry Kiernan Plant Hire Ltd	€ 45,929	06/06/2023	06/07/2023	1	16/05/2023
Operations	Purchase of 3 Ford Ranger Crew Cab Jeeps with Automatic Transmission & Hard Top Canopy	Henry Ford & Son Ltd.	€ 77,040	10/05/2023	09/05/2024	12	12/05/2023

Operations	Consultancy Services for Fingal Harbours and Associated Services - Initial Contract for the Rehabilitation of Skerries Harbour	Byrne Looby & Partners Ltd	€ 104,615	06/03/2023	06/09/2024	18	12/05/2023
Operations	Supply only of Ready Mix Concrete for Fingal Castleknock/Mulhuddart	Keegan Quarries Ltd	€ 50,600	18/05/2023	31/12/2023	7	11/05/2023
Operations	Supply & delivery of All-Inclusive Carousel in Santry Demesne Playground	Spraoi Linn Ltd	€ 26,350	03/05/2023	03/08/2023	3	05/05/2023
Operations	Purchase of 1 x 7.5 Tonne Tipper Truck	FUSO Ireland, MMC Commercials	€ 127,722	05/05/2023	04/05/2024	12	05/05/2023
Operations	Road Inlay & Ancillary Works, Edgewood Lawn, Corduff, Dublin 15	Lagan Asphalt Ltd	€ 109,787	15/05/2023	15/08/2023	3	04/05/2023
Corporate Affairs	Removal of Asbestos from a house on Parnell Square East Dublin 1	Grove Environmental Solutions Ltd.	€ 35,900	01/04/2023	01/06/2023	2	04/05/2023
Libraries	Design, Supply, Installation and Maintenance of Library Building Automation solution (My Open Library) for Skerries Library	Spectrum Communications Ltd	€ 41,005	01/05/2023	30/04/2024	12	04/05/2023
Operations	Road resurfacing & Ancillary Works, on the R122 Fieldstown Bridge 1 to Surgalstown Cross	Roadstone Ltd	€ 852,077	01/06/2023	01/09/2023	3	03/05/2023
Operations	Road Inlay & Ancillary Works on the R125 County Boundary to Lispopple Cross	D.M. Morris Limited	€ 473,469	01/06/2023	01/09/2023	3	03/05/2023
EETCD	Economic Consultancy Services for the Development of an Economic Development Strategy for Fingal	Grant Thornton Finance Ltd	€ 157,500	09/05/2023	08/11/2023	6	03/05/2023
Operations	Installation of new timber knee rail fencing in Swords	Fingal Farm Home and Garden	€ 45,687	08/05/2023	08/07/2023	2	02/05/2023
Planning and Strategic Infrastructure	Topographical Survey for the design stage of the N3 M50 to Clonee Road Scheme	IO Geomatics Ltd	€ 164,950	16/01/2023	15/07/2023	6	28/04/2023
Planning and Strategic Infrastructure	Re-Instatement of Car Park Surface & Footpaths, ducting and 5 x light sockets and assoc. works at Bath Road Car Park, Balbriggan	Postmount Buildings Limited T/A Hayes Civil Engineering	€ 43,850	24/04/2023	24/11/2023	7	26/04/2023
Operations	Hire of Generators, Tower Lights and Electricians and Teleporter for Flavours of Fingal County Show 2023	GH Energy Rentals Ltd	€ 90,000	28/06/2023	07/07/2023	8 days	25/04/2023

Planning and Strategic Infrastructure	Construction of Harry Reynolds Road Pedestrian & Cycle Route	Jons Civil Engineering Co. Ltd	€ 7,715,430	15/05/2023	15/06/2024	13	24/04/2023
Housing	Employers Representative Led Integrated Consultant Design team for proposed residential developments at Holywell & Seatown Road, Swords, Co. Dublin	Henchion Reuter Architects	€ 2,449,510	01/04/2023	29/02/2028	58	19/04/2023
Operations	Installation of 2. No.Half MUGAS to Wellview and Parslickstown Residential Estates	Outfit Outdoor Fitness Equipment Ltd.	€ 75,450	01/05/2023	31/05/2023	1	19/04/2023
Planning and Strategic Infrastructure	Supply of specially cut limestone blocks for the completion of the parapet on Bremore Castle Gate House	McKeown Stone	€ 33,628	26/06/2023	31/07/2023	5weeks	18/04/2023
Operations	Supply & Installation of Permanent Road Traffic Signs and Ancillary Works	PWS Signs Ltd	€ 33,430	02/05/2023	22/12/2023	8	18/04/2023
Operations	Road Inlay & Ancillary Works, Turvey Avenue, Donabate	D.M. Morris Limited	€ 89,939	08/05/2023	08/09/2023	5	18/04/2023
Operations	Road Inlay & Ancillary Works, Hazelwood Green & Avenue	D.M. Morris Limited	€ 80,130	30/04/2023	30/07/2023	3	18/04/2023
Operations	Road Inlay & Ancillary Work, Balscadden Road, Howth	John McQuillan Contracts Ltd	€ 100,705	05/05/2023	01/06/2023	1	17/04/2023
Operations	Supply & Installation of Landscapes Structure We-Go Swing Unit at Malahide Demesne	Sole Sports and Leisure Ltd	€ 52,000	22/08/2023	12/09/2023	3 weeks	17/04/2023
Operations	Road Inlay & Ancillary Works, Chapel Green, Lusk	Lagan Asphalt Ltd	€ 84,460	01/06/2023	21/06/2023	3 weeks	14/04/2023
Operations	Road Inlay & Ancillary Works, Curran Park, Balbriggan	Roadstone Ltd	€ 61,729	01/06/2023	21/06/2023	3 weeks	14/04/2023
Operations	Road Inlay & Ancillary Works Balgriffin Cemetary	John McQuillan Contracts Ltd	€ 30,092	25/04/2023	23/05/2023	1	14/04/2023
Operations	Supply and Installation of an Outdoor Fitness Hub at Littlepace Park, Dublin 15	Outfit Outdoor Fitness Equipment Ltd	€ 113,725	01/04/2023	30/05/2023	2	13/04/2023
Operations	Installation of Concrete Footpath Works - Traffic Section	Clar Con Construction Ltd	€ 36,486	25/04/2023	04/08/2023	5	12/04/2023
Operations	Concrete Footpath Construction at Pinewood & Ashfield Green Residential Estates, Huntstown, D 15	John Browne Construction Ltd	€ 37,815	30/04/2023	30/05/2023	1	12/04/2023
Housing	Energy Efficiency Retrofitting Works	Bayview Contracts Ltd	€ 2,000,000	01/03/2023	31/03/2025	24	12/04/2023

Operations	Conservation, Architectural & Engineering Consultancy Services for Talbot Botanic Garden Glass House Refurbishment, Malahide, Co. Dublin	Bluett & O'Donoghue (Prodomo Ltd)	€ 79,930	11/04/2023	23/01/2024	10	12/04/2023
Operations	Bituminous Footpath Works at Balscadden Road, Howth	D.M. Morris Limited	€ 53,295	24/04/2023	23/05/2023	1	09/04/2023
Operations	Hire of 1 x 85 HP Plus 4 wheel Drive Tractor/with driver/operative 1 x Backhoe Excavator, 1 teleporter, 1 x John Deer Gater with cab	Larry Kieran Plant Hire Ltd	€ 62,883	10/04/2023	30/09/2023	5	06/04/2023
Libraries	Creator - Makers In Residence Programme & Development of Maker Spaces	Make Create Innovate Limited	€ 117,500	01/03/2023	01/03/2025	24	06/04/2023
Operations	Overlay at Back Corballis Road, Donabate	Roadstone Ltd	€ 50,981	17/04/2023	17/07/2023	4	05/04/2023
Operations	Road Inlay & Ancillary Works, Estuary Road, Swords	John McQuillan Contracts Ltd	€ 136,350	08/05/2023	08/09/2023	5	05/04/2023
EETCD	Conservation & Enabling Works - Swords Castle	Oldstone Conservation Ltd	€ 621,115	17/04/2023	11/07/2024	15	04/04/2023
EETCD	Enabling Works - initial contract for SCQ Enabling Works (€5m/€750k)	Hegarty Demolition Ltd.	€ 834,932	05/04/2023	25/07/2024	16	04/04/2023
People Services	Corporate Employer Branding Project	Barlo	€ 81,000	20/02/2023	19/02/2025	24	03/04/2023
Corporate Affairs	Provision of a Water Hygiene Programme	Healthy Buildings (Ireland) Ltd. T/A HBE	€ 71,892	01/04/2023	31/03/2025	24	01/04/2023
Operations	Road Inlay & Ancillary works at Bun a Knock, Naul	Siac Bituminous Products Ltd	€ 38,025	24/04/2023	28/04/2023	1 week	31/03/2023
Digital Services	Vmware vSan Expansion - Provision of Vmware Software and Licencing	Triangle Computer Services	€ 93,231	01/05/2023	30/04/2024	12	31/03/2023
Community	Provide Outdoor Equipment lockers with app access	BoxUp SA	€ 34,443	01/03/2023	01/03/2027	48	31/03/2023
EETCD	Development of the Castleknock and Balbriggan App Trails and the inclusion of same in the Dublin Discovery Trails AR App	Peel Entertainment Group Ltd t/a Peel Interactive	€ 50,000	27/03/2023	31/07/2023	4	31/03/2023
Operations	Concrete Footpath Construction in a series of batches from 6 - 12 Sq Mts at Mainstreet, Howth, Co. Dublin	Formac Construction	€ 80,826	24/04/2023	24/05/2023	1	30/03/2023
Operations	Road Inlay & Ancillary Works at Townparks Distributor Road, Skerries	Roadstone Ltd	€ 77,592	24/04/2023	05/05/2023	2 weeks	30/03/2023
Operations	Road Inlay & Ancillary Works at Healys Lane, Rush	Roadstone Ltd	€ 39,209	08/05/2023	19/05/2023	2 weeks	30/03/2023

Corporate Affairs	Supply of Fixed Voice Services	Eir Ltd	€ 110,000	01/01/2023	31/08/2023	8	29/03/2023
Digital Services	Property Interest Register Annual Maintenance Services	Irish Mapping & GIS Solution Ltd.,	€ 27,110	01/01/2023	31/12/2025	36	28/03/2023
EETCD	Classical Production for Shackleton Proms Event	Arun Rao	€ 41,000	12/05/2023	14/05/2023	2 days	28/03/2023
Operations	Footpath Landscaping & Drainage Works, Paddys Hill	Jim Hayes Civil Engineering	€ 39,000	15/04/2023	14/05/2023	1	27/03/2023
Operations	Donabate Cemetary Upgrade Works	Lakelands Civil Engineering Ltd	€ 47,425	27/03/2023	26/06/2023	3	27/03/2023
Planning and Strategic Infrastructure	Ongar Development Remedial Works	Formac Construction	€ 919,532	01/05/2023	30/09/2023	5	24/03/2023
Digital Services	12 month Autodesk Software Subscription (2023)	Diatec Group	€ 56,063	01/03/2023	29/02/2024	12	22/03/2023
Corporate Affairs	County Hall Courtyard Upgrade Works	McKeon Construction Ltd T/A Hereworks	€ 989,616	20/03/2023	31/07/2023	4	22/03/2023
Operations	Road Inlay and Ancillary Works, Sycamore View, Castleknock, Dublin 15	Lagan Asphalt Ltd	€ 30,957	01/05/2023	31/05/2023	1	20/03/2023
Operations	Supply of Macadam for various locations in Fingal County Council for Road Repairs	Roadstone Ltd,	€ 95,770	17/01/2023	31/12/2023	11.5	15/03/2023
Operations	Road Marking for Howth/Malahide Area	Nuzum Road Services Ltd	€ 27,504	02/04/2023	01/07/2023	3	13/03/2023
Operations	Hire of Rubber Wheeled Excavator (Wacker Neuson EW65 or Equivalent)	Thomas Brennan & Sons Ltd	€ 72,000	13/03/2023	12/03/2026	36	13/03/2023
Operations	Brackenstown Road Subsidence and Reinstatement	Larry Kiernan Plant Hire Ltd	€ 301,441	06/03/2023	24/11/2023	8	13/03/2023
Operations	Hire of 2 Mobile Welfare Pods	G & J Kearns Ltd	€ 50,000	13/03/2023	12/03/2026	36	09/03/2023
EETCD	Provision of Economic Consultancy Services for a feasibility Study for the Development Regional Innovation Hubs in the Dublin Belfast Economic Corridor Region	KPMG Ireland	€ 112,995	07/03/2023	06/09/2024	18	07/03/2023
EETCD	Catering Services at Ardgillen Castle, Balbriggan, Co. Dublin	Brambles Deli Café Ltd	€ 51,500	04/03/2023	03/03/2024	12	04/03/2023

EETCD	Production & Promotion of Unison Festival	TASCQ	€ 70,000	01/03/2023	28/02/2024	12	01/03/2023
Planning and Strategic Infrastructure	Broadmeadow Way Greenway - GI Enabling Works, Access Track	Glas Civil Engineering Ltd	€ 232,319	13/03/2023	12/05/2023	2	01/03/2023
Digital Services	Revamp of Council Chamber Technology	SKS Communications Ltd	€ 275,504	03/01/2023	02/01/2028	60	28/02/2023
Operations	Kerbing & bituminous Footpath Works on a section of New Road, Donabate, Co. Dublin	D.M. Morris Limited	€ 165,072	07/03/2023	07/06/2023	3	28/02/2023
Housing	Single Storey Extension to Dwelling at Whitestown Drive, Blanchardstown, Dublin 15	Arthurstown Construction Limited	€ 123,797	27/02/2023	10/06/2023	4	27/02/2023
Corporate Affairs	Supply and Installation of Etrel Chargers and Back Office	Easy Go	€ 32,659	24/02/2023	23/02/2024	12	24/02/2023
Corporate Affairs	Supply & Install of Roof Guardrail Protection - Civic Office Grove Road	Barton Industrial Services Ltd	€ 27,080	01/02/2023	30/04/2023	3	23/02/2023
Housing	Refurbishment works a Dwelling in Corduff Green, Dublin 15	Arthurstown Construction Limited	€ 124,563	01/02/2023	31/12/2023	11	22/02/2023
Housing	Renovation of 3 Dwellings, St. Philomenas Court, Ballycoolin, Dublin 15	Arthurstown Construction Limited	€ 191,625	06/03/2023	31/08/2024	18	21/02/2023
Planning and Strategic Infrastructure	Design and Site Supervision Services for Ongar-Barnhill Road Construction Stage	Clifton Scannell Emerson Associates	€ 965,610	01/03/2023	01/09/2026	42	21/02/2023
Digital Services	Implement and deploy Dynamics 365 for Field Services as both an asset management solution and scheduling solution	Ergoservices Ltd t/a Ergo	€ 198,000	01/04/2023	31/03/2026	36	21/02/2023
Community	Community Care Construction Works Meakestown Sports and Community Centre	Vision Contracting Ltd	€ 6,153,131	20/02/2023	14/10/2025	32	20/02/2023
Environment, Climate Action	Horse Seizure Services	County Council Security Support Services Ltd	€ 104,500	16/02/2023	15/02/2024	12	16/02/2023
Operations	Urgent Drainage Works in Malahide Demesne	Aquaturf Solutions Ltd	€ 27,987	27/02/2023	10/03/2023	0	16/02/2023
Digital Services	Requirement for departmental access to lawlink	Rochford Brady Legal Services Ltd	€ 43,458	01/01/2023	31/12/2023	12	16/02/2023
Digital Services	Supply of 200 Microsoft 365 E5 Licences	MicroMail Ltd	€ 49,992	01/02/2023	31/05/2023	4	16/02/2023
Digital Services	Maintenance and Support of the Cygnus Housing Loans Software System	Gemini Consultants Ltd	€ 56,839	01/04/2023	31/03/2024	12	16/02/2023

Planning and Strategic Infrastructure	Asbestos Removal Turvey Depot	Grove Environmental Solutions Ltd.	€ 89,500	14/02/2023	15/05/2023	2.5 months	14/02/2023
Housing	10 Unit Housing Development with Studio/Gallery Space at Ballough Place, Barrack Lane, Lusk and proposed 5 Unit Passive House Development at Monastery Court, Church Road, Lusk	AXIS Construction	€ 4,623,548	13/02/2023	14/02/2025	24	13/02/2023
EETCD	Catering Services at Newbridge House Visitors Centre, Donabate	Brambles Deli Café Ltd	€ 60,000	27/02/2023	26/02/2024	12	10/02/2023
Operations	Resurfacing Works on the existing all weather pitch in Skerries Town Park	Sole Sports and Leisure Ltd	€ 475,935	11/07/2022	31/08/2023	13	09/02/2023
Operations	Balbriggan Harbour Redevelopment Minor Works	Donnelly Civil Engineering Ltd	€ 625,099	23/01/2023	31/01/2024	12	07/02/2023
EETCD	Training Services for Local Enterprise Offices - LEAN Business Programme Dublin	Jigsaw VATVAE t/a Jigsaw Better Business	€ 355,500	01/01/2023	31/12/2024	24	06/02/2023
EETCD	Food Tourism Marketing Consultant for Fingal Food & Drink Policy	Marie Brouder	€ 41,800	01/02/2023	31/12/2023	11	31/01/2023
Operations	Design and Installation of 25 Linear meters of ARMCO Crash Barrier along R122 Outside St. Margarets National School	Motorway Care	€ 29,670	03/01/2023	28/02/2023	2	23/01/2023
Operations	Removal of Dangerous Dead Trees overhanging the Turvey Avenue and the R126 at Cobbes Lane	Redwood Tree Services Ltd	€ 26,000	23/01/2023	23/02/2023	1	20/01/2023
Operations	Maintenance, Servicing, Repair and Ticket replenishment of Pay & Display Parking Machines	Actavo (Sierra Support Services Group)	€ 50,000	01/02/2023	30/06/2023	5	18/01/2023
EETCD	Requirement to provide specialist lighting consultancy services for Quay Street & Environs Public Realm Project, Balbriggan	Arup	€ 29,000	23/01/2023	23/06/2023	6	17/01/2023
Operations	Provision of Enforcement and Legal Services to Fingal County Council for Parking Services	Parkrite	€ 182,184	01/02/2023	30/06/2023	5	16/01/2023
Operations	Planting & Maintenance of Council Owned Summer/Winter Floral Display Baskets/Planters for various locations within Fingal Administrative Area and the Supply of a limited number of units	Redlough Landscapes Ltd	€ 173,182	10/01/2023	10/12/2024	24	12/01/2023
Operations	Road Resurfacing R132, Balrothery to Balbriggan	D.M. Morris Limited	€ 575,190	01/03/2023	01/05/2023	3	12/01/2023
Operations	Purchase of 2 to 5 New 80 kw 4 wheel drive tractors	Midlouth Garage	€ 285,000	12/12/2022	12/12/2023	12	09/01/2023
Operations	Purchase of 2 to 4 New Electric Dumpers with 1500kg Payload Capacity	Maher Tractor Sales Ltd	€ 78,000	05/12/2022	04/12/2023	12	09/01/2023

Environment, Climate Action	Environmental Monitoring & Reporting Services	McQuillan Environmental John McQuillan Contracts	€ 101,028	09/01/2023	08/01/2024	12	09/01/2023
Corporate Affairs	Postal Collection Services for 2023	Print Post Ltd.	€ 145,000	01/01/2023	31/12/2023	12	05/01/2023
EETCD	Engagement of Denise Reddy for Provision of Arts Services for 2023	Denise Reddy	€ 30,000.00	04/01/2023	03/01/2024	12	04/01/2023
Community	Implementation of a series of Pilot Playful Streets throughout Fingal	A Playful City	€ 100,000	26/05/2023	24/05/2024	12	01/01/2023
EETCD	Production, Promotion and Distribution of Tradfest: The Fingal Sessions (six half hour TV Shows for Domestic (RTE) and global distribution	TASCQ	€ 130,000	01/01/2023	31/12/2023	12	01/01/2023
Housing	Weekly Bin Collections and Ad hoc Skip Collections from the Halting Sites in the Fingal Area	Starrus Holdings Ltd	€ 64,000	01/01/2023	30/09/2023	9	01/01/2023
Housing	Parnell Estate D15 Management Service - Unsold Affordable	Paula Barrett Properties Ltd	€ 240,000	01/01/2023	31/12/2023	12	01/01/2023
Operations	Hire of Excavator & Operator at the Former Dunsink Landfill & Environs	Anthony Patton Plant Hire Ltd	€ 78,000	16/01/2023	15/01/2024	12	01/01/2023
Digital Services	Citrix Licences and Support Services Ltd	Arkphire Security Ltd	€ 25,540	01/01/2023	31/12/2023	12	01/01/2023
Digital Services	Upgrade of Broadband Bandwidth for Public Internet Access in Fingal Libraries	Virgin Media	€ 36,000	01/01/2023	31/12/2025	36	01/01/2023

Appendix 3

Active Travel Investment Grants: 2023 Allocations		
Project Code:	Project Name & Funding Allocation 2023	Comments
FCC/19/0005	Schools Streets non SRTS €100,000	Small improvements at schools (not in SRTS programme) which can be delivered through numerous departments.
FCC/20/0004	Bicycle Parking (Covid) €150,000	Contractor is gearing up to complete bike parking stands in various locations across the county. Further work packages are being developed by the team for Swords and Dublin 15 areas. Ongoing liaison with Operations and Parks to agree suitable locations for bike parking.
FCC/21/0001	Snugborough Road – NAC to Ongar €220,000	Gateway 2 Report has been issued to the NTA to gain approval to proceed to preliminary design phase of the project.
FCC/21/0002	Baldoyle to Howth €300,000	Phase One of the project has reached substantial completion.
FCC/21/0006	Clonee to Blanchardstown Shopping Centre €235,000	Data collection for the options stage of the project has been completed i.e. topographical, traffic surveys, tree surveys. This data will feed into development of the options report for the project. A second Draft options report has been submitted by consultant and been reviewed by Active Travel.
FCC/22/0001	Castleknock to Dunsink Lane €185,000	The options report and relevant drawings for Auburn Ave and Dunsinea Lane have been submitted to the NTA in compliance to the Gateway 2-5 Hold Point requirements. A Draft options report has been submitted by consultant for Dunsink Lane and currently been reviewed by Active Travel.
FCC/22/0004	Hartstown/Huntstown/Mountview Rd D1 €100,000	The phase 2b junction designs have been completed by the cycle design office (CDO). These designs are being reviewed by FCC before tendering for construction.

FCC/22/0005	St. Cronan's Ave & Brackenstown Rd €1,387,711	The Project was officially opened in November. The Contractor has completed most of the snags at this stage. The Contractor is due back to site in early 2024 to carry out works on the Murrough Road / Rathbeale Road junction
FCC/22/0006	Rathingle/Rivervalley Rd. Swords €176,000	Design works for phase 2b the modification of the existing roundabout is currently being discussed with the NTA.
FCC/22/0007	Balbriggan Road Mill Street and Drogheda Street €100,000	Active Travel have been working closely with the Our Balbriggan Project Team. The Active Travel Team are working to Procure an Integrated Design Team for Towns & Village Projects. We have recently completed stage 1 of the process and will be commencing with stage 2 in early 2024, to secure an Integrated Design Team by mid 2024.
FCC/22/0009	Permeability Links North County €465,000	Several projects are still being identified and assessed via multi criteria analysis. We are also in ongoing discussions with Operations to incorporate other works in order to get best value for money when we go to delivery of these works. Active Travel are progressing with some of these projects and tenders are currently out to the market to secure a works contractor to complete some of these works on the ground.
FCC/22/0010	R132 Ministers Rd to Blakes Cross + Kilhedge Lane €300,000	The Contractor has been on site since September 2023 and the cycle lanes and overlay of the existing surface has been completed from south of Corduff school to Quickpenny Lane. The contractor is due back on site in early January to complete the project by the end of Q1 2024.
FCC/22/0011	Skerries – Harbour Road (footpath build outs) €905,000	Engineering consultants have finalised concept designs and options report. The proposed project has been lodged with the Planning Authority for Pre-Planning consent. The outcome of this will establish the governance and planning route for the project. The decision on this is expected in early 2024.
FCC/22/0012	Seatown Roundabout to Estuary Rd (Swords to Malahide) €140,000	Engineering consulting are finalising the Non-Statutory Public Consultation Report is due to be released in early January. Works to complete the screening reports and detailed drawings are well underway and it is anticipated to go to the market for a works contractor in Q1 2024

FCC/22/0014	Balbriggan – Coney Hill from Devlin Bridge to Bremore Cottages €140,000	Consultant is finalising concept drawings and options report which is expected to be submitted to the project team.
FCC/22/0015	Rush South Beach (Bawn Rd across carpark and out to South Shore. €500,000	We are continuing engagement with Property Section about acquisition of lands in this area. Works are also ongoing to look at options in this area that will serve not only this project but that will benefit the Fingal Coastal way route options. further discussions with landowner in early January.
FCC/22/0016	New Street Public Realm Project €583,899	The Chief Executive's report is now being prepared and it is anticipated that this will be presented to the meeting of the County Council in January 2024.
FCC/22/0018	Data collection for Active Travel Projects €60,000	Traffic, air, noise etc
FCC/22/0019	Skerries Active Travel Plan €655,000	Tender competition is completed for Stage 1 of the process. Stage 2 to commence early 2024.
FCC/22/0020	Balrothery Active Travel Review €282,500	The design Consultant is in the process of information gathering and have presented their initial findings to the Active Travel team. The consultant will conduct data collection and initial surveys in Q1, 2024.
FCC/22/0021	Seamount Heights to Old Golf Links Park €300,000	A brief, and tender documents are currently being prepared by the Active Travel Unit to progress this project from the design phases through to completion as soon as possible. The design will incorporate feedback from internal FCC stakeholders and the local Resident's Association.
FCC/22/0022	Broomfield to Paddy's Hill via Naomh Mearnog GAA €350,000	The design brief for 'Concept Development and Options Selection' has been finalised for this connectivity project. Internal consultation with other FCC departments has taken place. The remaining tender documents are being finalised by the Active Travel Unit.
FCC/22/0026	Fingal County Council Active Travel Office – Staff Costs €1,100,000	

FCC/22/0028	FCC Castleknock to Blanchardstown via Farmleigh €90,000	Stage 2 of the tendering process complete and tender assessment has taken place. Contract documents to be signed in coming weeks.
FCC/22/0030	Station Road Portmarnock Footpaths and Cycleway €150,000	Works have reached substantial completion.
FCC/ 23/XXX	Scoil an Duinninigh to Waterside footpath and cycleway €220,000	Planning permission has been granted for the school and the Department of Education is to engage with Fingal County Council in relation to pedestrian access as a condition of the granted Planning Permission. In the interim, a footpath, dropped kerbs with tactile paving have been provided on the route to/from the school and the Feltrim Road.
FCC/ 23/XXX	Feltrim Road cycle infrastructure €120,000	A design brief has been completed to bring this project from the 'Concept Development and Options Stage' to completion. The remaining tender documents are substantially complete and are under review. It is expected that the works will go to tender for a design consultant early in Q1, 2024.
FCC/ 23/XXX	Active Travel Pathfinder – Swords to Airport quick build €200,000	Project team have engaged an Integrated Design Team to work on the project. Preferred Options report has been completed and is due for discussion and consultation with the Statutory stakeholder in early January.
FCC/23/XXX	Donabate to Portrane (R126) - Distributor Road to Portrane Avenue €40,000	Consultant is finalising concept drawings and options report. Discussion and negotiations ongoing with Property Section and landowners to acquire lands where required.
FCC/23/XXX	SRTS (R1) – Scoil Mhuire & Iosef, Sinsear – Bayside Senior National School €200,000	Works are now completed at the school site. The contractor has carried out minor snagging and maintenance on rain gardens. The Stage 3 Road Safety Audit has been completed by an independent auditor. It is anticipated that the Belisha beacons at the zebra crossing will be connected in Q1, 2024.
FCC/23/XXX	SRTS (R1) – Scoil Ghrainne CNS €200,000	Detailed design nearing completion to enable procurement of works contractor. Contract documents are being finalised to engage a contractor for the works.

FCC/23/XXX	SRTS (R1) – Bayside Junior School €200,000	Works are now completed at the school site. The contractor has carried out minor snagging and maintenance on rain gardens. The Stage 3 Road Safety Audit has been completed by an independent auditor. It is anticipated that the Belisha beacons at the zebra crossing will be connected in Q1, 2024.
FCC/23/XXX	SRTS (R1) – Scoil Choilm CNS €200,000	Installation of flexible bollards on Porterstown Rd. outside the school entrance is complete. Detailed design nearing completion to enable procurement of works contractor. Contract documents are being finalised to engage a contractor for the works.
FCC/23/XXX	SRTS (R1) – Rush & Lusk ETNS €200,000	Construction work is now complete and final snagging works has been completed.
FCC/23/XXX	SRTS (R1) – Pope John Paul II NS, Malahide €200,000	Detailed Design is nearing completion for the Tranche 2 schools (4 no.), including Pope John Paul II NS. It is envisaged that this work package will go to construction in Q1 2024, and Pope John Paul II NS is currently scheduled to be the final Safe Routes to School scheme implemented in this package. Contract documents are being finalised to engage a contractor for the works.
FCC/23/XXX	SRTS (R1) – Castaheany ETNS €200,000	Works have been substantially completed by contractor. Minor snag works ongoing.
FCC/23/XXX	SRTS (R1) – St. Benedict's NS €200,000	Works have been substantially completed by contractor. Minor snag works ongoing.
FCC/23/XXX	SRTS (R1) – Ladyswell National School €200,000	Detailed design nearing completion to enable procurement of works contractor. Contract documents are being finalised to engage a contractor for the works.

Appendix 4

Housing Delivery Construction Programme

Schemes on Site

Area Committee	Provider	Funding Stream	Site Name	No. Units	Status Detail	On-Site Date	Handover (estimated)
Balbriggan/Rush-Lusk/Swords	FCC	Social	Bowden Court (Outlands), Swords 53°27'52.7"N 6°14'04.1"W - Google Maps	**11** 4 x 1Bed 4 x 2 Bed 3 x 3 Bed	On-Site	Q4 2022	Q3 2024
Balbriggan/Rush-Lusk/Swords	Tuath Housing	Social - Elderly	Kilhedge Lane, Lusk 53°31'24.4"N 6°10'30.3"W - Google Maps	**31** 13 x 1 Bed 18 x 2 Bed	On-Site	Q1 2023	Q1 2024
Balbriggan/Rush-Lusk/Swords	FCC	Social	Ballough Place (Former Leonards Garage), Lusk https://goo.gl/maps/8u6BiRWzuLSTtmjk8	**10** 9 x 2 Bed 1 x 1 Bed	On-Site	Q1 2023	Q3 2024
Balbriggan/Rush-Lusk/Swords	FCC	Social	Monastery Court (Katies Hunts), Church Road, Lusk https://goo.gl/maps/vqRAVUw8ZqhM75w66	**5** 5 x 2 Bed	On-Site	Q1 2023	Q1 2024
Balbriggan/Rush-Lusk/Swords	FCC	Mixed Tenure	Hayestown, Rush 53°31'24.1"N 6°06'42.1"W - Google Maps	**62** 17 x 2 Bed 45 x 3 Bed	On-Site	Q2 2023	Q3 2024
Balbriggan/Rush - Lusk/Swords	FCC	Social	St. Ita's, Portrane Portrane Ave - Google Maps	**11** Restoration of existing cottages.	On-Site	Q4 2022	Q3 2024
Balbriggan/Rush-Lusk/Swords	Glenveagh Living Ltd	Mixed Tenure	Balmoston Ph1., Donabate 53°29'21.2"N 6°07'58.1"W	**172** 432 units, of which 20% are social and 20% affordable	On-Site	Q3 2023	Q2 2025

Appendix 4- continued

Schemes with Planning Approval and at Tender stage

Area Committee	Provider	Funding Stream	Site Name	No. Units	Status Detail	On-Site Date	Handover (estimated)
Blanchardstown/Mulhuddart/Castleknock/Ongar	FCC	Mixed Tenure	Church Fields 3A 53°24'44.7"N 6°23'39.0"W - Google	**300** 27 x 1 Bed 118 x 2 Bed 136 x 3 Bed 19 x 4 Bed	Sod-turning ceremony expected in Q1 2024.	Q4 2023	Q3 2025
Balbriggan/Rush-Lusk/Swords	FCC	Social - Elderly	North Street, Swords 53°27'38.6"N 6°13'06.7"W - Google Maps	**13** 6 x 1 Bed 7 x 2 Bed	Enabling works package ready. Design team tender being evaluated.	Q4 2023	Q3 2025
Balbriggan/Rush-Lusk/Swords	FCC	Social -	Seatown Swords 53°27'35.4"N 6°13'04.7"W Google Maps	**36** 36 x 2 Bed	Design ongoing, Tender package to be completed.	Q1 2024	Q3 2025
Balbriggan/Rush-Lusk/Swords	North and East Housing Association	Social – Elderly	Garristown 53°34'03.7"N 6°22'42.1"W - Google Maps	**6** 3 x 2-bed house 3 x 1-bed house	Planning granted.	Q4 2023	Q4 2024
Blanchardstown/Mulhuddart/Castleknock/Ongar	FCC	Social – Elderly TBC	Junction of Blakestown Road and Huntstown Way, Dublin 15 53.399869, -6.401776 Google Maps	**30** 16 x 1 Bed 14 x 2 Bed	Conveyancing completed with planning permission.	TBC	TBC
Howth/Malahide	FCC	TBC	Tuckets Lane 53.385248, -6.066128 Google Maps	**8** 4x 1 Bed 4x 2 Bed	Boundary issues being resolved	TBC	TBC

Appendix 4- continued

Schemes at the Pre-Planning Stage

Area Committee	Provider	Funding Stream	Site Name	No. Units	Status Detail	On-Site Date	Handover (estimated)
Blanchardstown-Mulhuddart/ Castleknock/ Ongar	FCC	Mixed Tenure	Church Fields 3B 53°24'44.7"N 6°23'39.0"W - Google Maps	**217**	Pre-planning and design stage. Part 10 planning application for 217 units was lodged to ABP in June. Awaiting a decision from ABP.	Q1 2025	Q2 2026
Balbriggan/Rush-Lusk/Swords	FCC	Social	Holywell, Swords 53°26'48.1"N 6°12'42.8"W	**57** 20 x 1- bed 29 x 2-bed 8 x 3-bed	S179a planning process underway.	Q2 2024	Q4 2025
Blanchardstown-Mulhuddart/ Castleknock/ Ongar	FCC	Mixed Tenure	Mayeston, Dublin 11 53°24'28.4"N 6°17'02.1"W - Google Maps	**119** 39 x 1 Bed 68 x 2 Bed 12 x 3 Bed	S179a planning process underway.	Q2 2024	Q4 2025
Balbriggan/Rush-Lusk/Swords	FCC	Social	Remount, Lusk 53.521033026946974, -6.161600488074793	**18** 2 x 1 Bed 11 x 2 Bed 5 x 3 Bed	At pre-planning stage.	TBC	Q3 2025
Balbriggan/Rush-Lusk/Swords	FCC	Mixed Tenure	New Road, Donabate 53°29'02.6"N 6°08'27.5"W	**160** All Houses	At pre-planning stage.	TBC	TBC
Balbriggan/Rush-Lusk/Swords	FCC	Social	Mourne View, Skerries. 53.580404, -6.122225	**14** 11x2Bed 3x3Bed 1x4Bed	Surveys progressing.	TBC	Q4 2025

Balbriggan/Rush-Lusk/Swords	FCC	TBC	O'Dwyers, Balbriggan. https://maps.app.goo.gl/inSEC4Qq3QSBHQHp8	**80-120**	Surveys progressing.	TBC	TBC
Balbriggan/Rush-Lusk/Swords	FCC	Social	Woodside, Swords. 53.453901, -6.210574 Google Maps	**34**	Design team have been appointed.	TBC	TBC
Balbriggan/Rush-Lusk/Swords	FCC	TBC	Mooretown Phase 1, Swords. https://maps.app.goo.gl/R8eAG1aoLXh1nL2J9	**200**	Design Masterplan to be completed.	Q1 2025	Q1 2026
Balbriggan/Rush-Lusk/Swords	FCC	Social	Kenure, Rush. 53.532278, -6.102176 Google Maps	**32** 10x1Bed 10x2Bed 12x3Bed	Surveys progressing.	TBC	TBC
Blanchardstown-Mulhuddart/ Castleknock/ Ongar	FCC	Social	Fortlawn, Dublin 15	**3**		TBC	TBC
Howth/Malahide	FCC	Social	Fingerpost, Malahide	**4**	Design stage.	TBC	Q4 2026
Balbriggan/Rush-Lusk/Swords	FCC	Mixed Tenure	Balmoston Ph2, Donabate 53°29'21.2"N 6°07'58.1"W	**172**	At pre-planning stage.	TBC	TBC

*The above-estimated timelines are indicative and subject to a successful planning and procurement process.

Appendix 4- continued

Long Term Leasing

Area Committee	Lessor	Funding Stream	Site Name	No. Units	Status Detail	Handover (estimated)
Blanchardstown-Mulhuddart/Castleknock/Ongar	Glenveagh Homes	Enhanced Leasing	Balroy House	**82**	On-site	Q1 2024
Blanchardstown-Mulhuddart/Castleknock/Ongar	Alanna Homes	Long Term Leasing	Hansfield	**159**	Delivered	Q4 2023

COMHAIRLE CONTAE FHINE GALL
FINGAL COUNTY COUNCIL

COUNTY COUNCIL MEETING

TUESDAY 16TH JANUARY 2024

ITEM NO. 38

COLOUR CODED BUS AND CYCLE LANES

Motion: Councillor P. Rane

"That this Council does a visibility study with the possibility of colour coding bus and cycle lanes, in order to address accidents that have been occurring and what poses a challenge to motorists, colour coding bus and cycle lanes creates a safer way for motorists to determine what lanes they are on and also helps during the evenings when it gets darker and harder to see signs."

Report:

At present, the national standards, published by the Department of Transport and/or the National Transport Authority (NTA) outline the appropriate finishes for cycle lane and bus lane infrastructure. These documents are as follows;

- Design Manual for Urban Roads and Streets (DMURS)
- National Cycle Manual (NCM)
- Traffic Signs Manual (TSM)
- Traffic Management Guidelines

An updated National Cycle Manual was recently published in 2023 and this includes guidance on surface finishes on cycle lanes. Based on the manual it is recommended that all new dedicated cycle facilities, with the exception of remote greenways or shard active travel facilities, in urban areas in Ireland should be red in colour. This choice of surface finish is taken on a case-by-case basis for each project. Regarding bus lane finishes, this is outlined in the Traffic Signs Manual which indicates that bus lanes be highlighted using only line marking and text, i.e., Bus Lane. The road's surface finish is at the designer's discretion in this case.

It should be noted that there are subsequent changes planned regarding the Traffic Signs Manual on foot of the published National Cycle Manual.

Legislation is currently being prepared at a national level which will require a review of our current speed limits. The planned changes would mean the default speed limit on national secondary roads would be set at 80km/h down from 100km/h. It would drop from 80km/h to 60km/h on rural or local roads and from 50km/h to 30km/h on roads in built up areas.

Source of Report
Mary T Daly, Director of Operations

COMHAIRLE CONTAE FHINE GALL
FINGAL COUNTY COUNCIL

COUNTY COUNCIL MEETING

TUESDAY 16TH JANUARY 2024

ITEM NO. 44

LEGAL PROCEEDINGS RELATING TO THE EXERCISE OR PERFORMANCE OF A RESERVED FUNCTION

Motion: Councillor D. Healy

"That the Chief Executive report on the legal proceedings which the Council is involved in which relate to the exercise or performance of a Reserved Function, and to set out how it is proposed to obtain the express authorisation of the elected Council in relation to the doing of any such act, matter, or thing on behalf of the local authority in each legal proceeding, in accordance with s. 153(2) of the Local Government Act 2001."

Report :

The Chief Executives report contains a list of the current Judicial review proceedings involving Fingal County Council which includes two cases containing a challenge to the decision of the Elected Members in relation to the adoption of the Development Plan 2023 - 2029. Those cases were first referred to in the Chief Executives Report dated 12th June 2023 and a briefing note was circulated to the Elected Members by e-mail on 29th June 2023.

Those cases will continue to be vigorously and robustly defended to accord with the decision of the Elected Members to adopt the Development Plan 2023 - 2029.

Source of Report

Matthew McAleese Director of Services, Planning and Strategic Infrastructure