LRD0012/S2	'Swift Square Apartments' Northwood



FINGAL COUNTY COUNCIL INTERNAL CONSULTEE

PLANNING REPORT

Report of Architects Department

Register Ref: LRD0012/S2

Area: Swords

Development: The proposed development will consist of the construction of a residential development comprising 3 no. apartment blocks comprising 198 no. apartment units to include 4 no. 1- bedroom units and 194 no. 2-bedroom units, shared residential services (concierge, multifunction unit and gymnasium), and open amenity spaces over a ment. The apartment blocks are to be constructed above a basement level and a partially shared podium structure (undercroft at ground-level), comprising: • Block 1, ranging in height from 6-9 storeys, will contain 68 no. apartment units consisting of 1 no. 1-bedroom unit, 67 no. 2-bedroom units with a concierge space (c. 158.2 sq.m) at ground-floor level with associated communal open spaces at podium level; • Block 2, ranging in height from 4-9 storeys, will contain 62 no. apartment units consisting of 2 no. 1-bedroom unit, 60 no. 2-bedroom units with a multifunction area (c. 167.8 sq.m) at ground-floor level with associated communal open spaces at podium level; and, • Block 3, ranging in height from 5-9 storeys, will contain 68 no. apartment units consisting of 1 no. 1-bedroom unit, 67 no. 2-bedroom with associated communal open spaces at podium level. The proposed development will also provide the following: • 180 no. car parking spaces for residents, consisting of 146 no. spaces at new basement level (incl. 1 no. disabled space) and 34 no. spaces at ground-floor level (undercroft) (incl. 1 no. disabled space); • 12 no. car parking spaces for visitors (incl. 1 no. disabled space and 2 no. car-sharing parking spaces at surface level); • Relocation of permitted 254 no. car parking spaces catering for Swift Square Office Park personnel, consisting of 214 no. spaces at new basement level (incl. 1 disabled space) and 40 no. spaces at ground-floor level (undercroft); • 33 no. motorcycle parking spaces, including 28 no. spaces at the basement level and 5 no. spaces at ground-floor level (undercroft); • 392 no. cycle parking spaces for residents distributed across 4 no. secure cycle store areas at ground-level (undercroft), and 100 no. cycle parking spaces for visitors at surface level; • a new vehicular access ramp to the basement level; • munal and public open spaces, including play areas; • private open space to apartments in the form of terraces and balconies; • a gymnasium space (c. 89.7 sq.m) at ground-floor level (undercroft) between Block 1 and Block 2; • site clearance and removal of all existing structures on site ancillary to the surface car parking; and, • all associated plant, drainage arrangements, works to facilitate utility connections, boundary treatment, landscaping, public lighting, refuse storage, vehicle, pedestrian and bicycle access, construction compounds and site development works. The proposed site layout plan is illustrated in Drawing Nos. PL102 and PL103 prepared by MCORM and enclosed with this submission.

Location:

Swift Square, Northwood Avenue, Santry, Dublin 9

Applicant:

JOM Investments Unlimited Company

Application Type:

LRD

Planning Officer:

Catherine Dillon

Date Received:

9 November, 2022



The Architect's Department examined this file as requested.

LRD0012/S2

'Swift Square Apartments' Northwood

The following should be considered regarding Architectural quality when assessing the application.

- In general, the massing and layout is successful, and we welcome that previous comments were largely taken on board, particularly in terms of reducing the height along the northern edge of the site.
- There are still some concerns about the scale, height and impact on Cedar View to the north though, more 3D visualisations from the north, east and west are requested to fully assess the impact of the proposal on the existing dwellings.
- Additionally, please consider providing a solid screen or obscured glazing to min 1.8m height to the balconies to the
 north-western corner of each block and consider removing the corner windows to the living areas to protect the
 privacy and amenity of the existing dwellings to the north.

Signed:

Annamie Pretorius

Position:

Senior Executive Architect

Date:

12/01/2023

FINGAL COUNTY COUNCIL INTERNAL CONSULTEE

PLANNING REPORT

Report of the Water Services Department

Register Reference: LRD0012/S2

Registration Date: 09-Nov-2022

Development:

The proposed development will consist of the construction of a residential development comprising 3 no. apartment blocks comprising 198 no. apartment units to include 4 no. 1- bedroom units and 194 no. 2-bedroom units, shared residential services (concierge, multifunction unit and gymnasium), and open amenity spaces over a basement. The apartment blocks are to be constructed above a basement level and a partially shared podium structure (undercroft at ground-level), comprising: • Block 1, ranging in height from 6-9 storeys, will contain 68 no. apartment units consisting of 1 no. 1-bedroom unit, 67 no. 2-bedroom units with a concierge space (c. 158.2 sq.m) at ground-floor level with associated communal open spaces at podium level; • Block 2, ranging in height from 4-9 storeys, will contain 62 no. apartment units consisting of 2 no. 1-bedroom unit, 60 no. 2-bedroom units with a multifunction area (c. 167.8 sq.m) at ground-floor level with associated communal open spaces at podium level; and, • Block 3, ranging in height from 5-9 storeys, will contain 68 no. apartment units consisting of 1 no. 1bedroom unit, 67 no. 2-bedroom with associated communal open spaces at podium level. The proposed development will also provide the following: • 180 no. car parking spaces for residents, consisting of 146 no. spaces at new basement level (incl. 1 no. disabled space) and 34 no. spaces at ground-floor level (undercroft) (incl. 1 no. disabled space); • 12 no. car parking spaces for visitors (incl. 1 no. disabled space and 2 no. car-sharing parking spaces at surface level); • Relocation of permitted 254 no. car parking spaces catering for Swift Square Office Park personnel, consisting of 214 no. spaces at new basement level (incl. 1 disabled space) and 40 no. spaces at ground-floor level (undercroft); • 33 no. motorcycle parking spaces, including 28 no. spaces at the basement level and 5 no. spaces at ground-floor level (undercroft); • 392 no. cycle parking spaces for residents distributed across 4 no. secure cycle store areas at ground-level (undercroft), and 100 no. cycle parking spaces for visitors at surface level; • a new vehicular access ramp to the basement level; • communal and public open spaces, including play areas; • private open space to apartments in the form of terraces and balconies; • a gymnasium space (c. 89.7 sq.m) at ground-floor level (undercroft) between Block 1 and Block 2; • site clearance and removal of all existing structures on site ancillary to the surface car parking; and, • all associated plant, drainage arrangements, works to facilitate utility connections, boundary treatment, landscaping, public lighting, refuse storage, vehicle, pedestrian and bicycle access, construction compounds and site development works. The proposed site layout plan is illustrated in Drawing Nos. PL102 and PL103 prepared by MCORM and enclosed with this submission.

LRD0012/S2

'Swift Square Apartments' Northwood

Location:

Swift Square, Northwood Avenue, Santry, Dublin 9

Applicant:

JOM Investments Unlimited Company

Application Type: LRD Meeting

Report

Water Supply: Acceptable

The development proposes to connect to the existing 200mm ND water supply network to the west in Northwood Road. Sections of this mains will be diverted to allow for the requisite Irish Water 3m separation distance.

The applicant has submitted a Pre-Connection Enquiry Form to IW (CDS22005482) and received a response letter dated 9th August 2022 for 203 units. The letter confirms the feasibility of the water connection of the proposed development to the IW water network without any infrastructure upgrades by IW.

The proposal is acceptable subject to;

- 1. The applicant is required to engage further with IW and to secure a Statement of Design Acceptance (SoDA) in advance of submitting the full LRD application.
- 2. The applicant shall enter into a Connection Agreement with IW.
- 3. The water supply mains should comply with:
 - a. IW Water Infrastructure Standard Details (IW-CDS-5020-01)
 - b. IW Code of Practice (IW-CDS-5020-03)

Foul Sewer: Acceptable

The development proposes to connect to the 1050mm ND trunk sewer to the south along Northwood Avenue.

The applicant has submitted a Pre-Connection Enquiry Form to IW (CDS22005482) and received a response letter dated 9th August 2022 for 203 units. The letter confirms the feasibility of the water connection of the proposed development to the IW water network without any infrastructure upgrades by IW. A developer funded length of sewer (c.80m) will be required to connect into the existing 1050mm ND trunk sewer.

The proposal is acceptable subject to;

- The applicant is required to engage further with IW and to secure a Statement of Design Acceptance in advance of submitting the full LRD application.
- The applicant shall enter into a Connection Agreement with IW.
- The foul sewerage should comply with: D
 - a. IW Wastewater Infrastructure Standard Details (IW-CDS-5030-01)
 - b. IW Code of Practice (IW-CDS-5030-03)

Surface Water: Acceptable

The existing site is predominantly surfaced and in use as a car parking area.

The proposed development will result in full site coverage, limiting available SuDS options. A connection to the existing 225mm ND drainage network of the Blackwood development to the north is proposed.

The following SuDS-measures are incorporated into the design;

Extensive green roofs on all 3 blocks

LRD0012/S2

'Swift Square Apartments' Northwood



- Intensive green roofs featuring planters, bio-retention areas and permeable paving on podium spaces
- · Light liquid / Hydro-carbon interceptor
- Attenuation within the existing attenuation tank located north west of the development, which
 discharges at Greenfield runoff rates into the Santry river via a flow control device.

The proposal includes a design allowance of +20% for climate change impact.

The proposal is acceptable subject to;

- a. The formal LRD submission must include full design calculations and details of all SuDS measures.
- b. The capacity of the existing attenuation tank to accept flows from this development must be sufficiently demonstrated.
- c. All SuDS systems shall be in accordance with the Ciria document C753 'The SuDS Manual'.
- d. No surface water / rainwater is to discharge into the foul water system under any circumstances.
- e. 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.

d risk: Acceptable

A commensurate flood risk assessment has been prepared by Barry & Partners Consulting Engineers dated October 2022. In accordance with The Planning System and Flood Risk Management Guidelines for Planning Authorities, the proposed development is considered to be a highly vulnerable development but located in its entirety within *Flood Zone* C (ie <0.1% AEP).

The proposal is deemed in accordance with The Planning System and Flood Risk Management Guidelines for Planning Authorities.

Engineer:	pg	Date:	4.1.23
Endorsed:		Date:	

FINGAL COUNTY COUNCIL INTERNAL CONSULTEE

PLANNING REPORT

Report of the Transportation Planning Department

Register Reference:

LRD0012/S2

Development:

Swift Square, Northwood Avenue, Santry,

Location:

Swift Square, Northwood Avenue, Santry, Dublin 9

Report Type:

Large Scale Residential Development S2

Lodged:

LRD S2 meeting was held on 9/12/2022 at 11am

General

> The proposed development is in 50km/hr speed limit. The site has a land zoning objective of 'ME – Metro Economic Corridor'.

> The proposed development is located off a private road network that is not taken in charge or under the maintenance of the Council.

> The proposed development is within 500m of a proposed Metro Station.

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- In summary, the proposed development would consist of the following:
- Site clearance, including part of existing surface car parking.
- Relocation of existing surface car parking spaces catering for Swift Square Office Park
 personnel to a new basement accessible via a new ramp off the local road from Northwood
 Avenue, and undercroft parking area with access at street level off the local road to the north
 of the site.
- The development of 3 no. apartment blocks (1, 2 and 3) over a partially shared podium structure, comprising 198 no. apartment units (4no. 1-bedroom units and 194no. 2-bedroom units).
- The provision of public and communal open spaces, public realm, boundary treatments, landscaping and lighting; refuse storage, associated drainage, attenuation and services; and all associated site development works.
- 180 no. car parking spaces for residents, consisting of 146 no. spaces at new basement level (incl. 1no. disabled space) and 34 no. spaces at ground-floor level (undercroft) (incl. 1 no. disabled space); 12 no. car parking spaces for visitors (incl. 1 no. disabled space and 2 no. car-sharing parking spaces at surface level).
- Relocation of previously permitted 254 no. car parking spaces catering for Swift Square
 Office Park personnel, consisting of 214 no. spaces at new basement level (incl. 1 disabled
 space) and 40 no. spaces at ground-floor level (undercroft).
- 392 no. cycle parking spaces for residents distributed across 4 no. secure cycle store areas at groundlevel (undercroft), and 100 no. cycle parking spaces for visitors at surface level.
- 33 no. motorcycle parking spaces, including 28 no. spaces at the basement level and 5 no. spaces at ground-floor level (undercroft);

LRD0012/S2

'Swift Square Apartments' Northwood

- The location of the two vehicular access points, to the undercroft parking and to the basement, is generally acceptable; however, the detail of the intersection between the public footpath and the vehicular access should be reconsidered and revised and updated.
- The vehicular access should consider the requirements of DMURS and also consider the pedestrian-vehicular intervisibility as per TII publication DN-GEO-03060 Section 5.6.3.7; and any recommendations of the Road Safety Audit Stage 1.

Sightlines

A sightline drawing should be provided for the main vehicular access points to the basement and the undercroft parking, and any other relevant internal junctions within the proposed development. Pedestrian-vehicular intervisibility should also be considered as per TII publication DN-GEO-03060 Section 5.6.3.7.

Car Parking

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>

> The breakdown of the parking demand and proposed provision is shown in the following table:

otal Number of	Apartment Unit	s=198			Prop	osed
Unit Type	Number of units	Rate	Development Plan Standards	Minimum Acceptable, Generally, by the Transportation Planning Section	Proposed Rate	Proposed Number
1 Bedroom Apartment	4	1 per unit	4	(1 per unit) 4	0.91 per	
2 Bedroom Apartment	194	1.5 per unit	291	(1 per unit) 194	unit	180
Visitor/Public Parking	198	1 per 5 Units	39	0	-	12
		Totals	334	198		192

- It should also be noted that under the Draft Fingal Development Plan 2023 2029, which is due to be adopted in February/March 2023; the proposed development is located within 'Zone 1', which would have a carparking demand of 0.5 spaces per 1 & 2 bedroom units with no visitor parking, amounting to a requirement for maximum 99 car parking spaces under the Draft Development plan Standards.
- The quantity and general location of the car parking provision is generally acceptable in this particular instance.
- A dedicated carparking provision drawing should be provided to clearly highlight the existing and proposed carparking layout (including details of the planning permission reference for the existing parking); the allocation of each proposed new parking space should be clearly highlighted as whether it's for the new residential development, the existing commercial development or for visitors to the residential development etc.

Bicycle Parking

> The breakdown of the bike parking demand and proposed provision is shown in the following table:

otal Number of Apartment Units = 198					Proposed	
Unit Type	Number of units	Rate	Development Plan Standards	Design Standards for New Apartments	Proposed Rate	Proposed Number
1 Bedroom Apartment	4	1 per unit	4	(1 per bed room) 4		392
2 Bedroom Apartment	194	1 per unit	194	(1 per bed room) 388		
Visitor/Public Parking	198	1 per 5 Units	39	(1 per 2 unit) 198		100
		Totals		590		492

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The applicant is proposing to provide 392 no. cycle parking spaces for residents distributed across 4 no. secure cycle store areas at groundlevel (undercroft), and 100 no. cycle parking spaces for visitors at surface level.

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The 'traffic and transport assessment report' states that the bicycle parking will be contained in communal locked cage enclosures in the undercroft area. This detail should be provided and demonstrate that the quantity of provision proposed can fit into the space allocated.

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The quantity and general location of the bicycle parking provision is generally acceptable in this particular instance; however, the detail of the bicycle parking infrastructure should be provided to demonstrate that the proposed 'communal locked cage enclosures' will fit in the space proposed; and the detail of the access, security and maintenance needs to be further expanded upon.

> The bicycle parking provision for the existing commercial development should also be

clarified.

Pedestrian and Cycling Connectivity and Permeability

The connectivity and permeability throughout the proposed development and through to adjacent developments is generally acceptable.

Internal Layout

- > The basement and under-croft carparking layout is generally acceptable.
- The detail of the vehicular access to both the undercroft and underground carpark ramp and its interaction with the public footpath should be provided; and it should comply with the DMURS standards and any recommendations of the Stage 1 Road Safety Audit.

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All of the apartment car parking spaces provided within the development should be individually marked and clearly assigned to the residential units and/or reserved for visitors to the residential units as appropriate. No parking space shall be used for any purpose not directly related to the development and no parking space shall be sold, leased, licensed or sublet in connection with any other use or purpose.

Swept Path Analysis/Autotrack for Car Parking

The applicant has provided a swept path analysis for the basement and under croft parking which is welcome; however, it has been carried out utilising a car length of 4.2m, and this should be revised for a car of for a standard saloon car of minimum 4.8 length

Swept Path Analysis for Service Vehicles & Emergency Services

A drawing detailing the access routes for emergency service vehicles to the proposed development should be provided.

Electric Vehicle (EV) charging.

- 10% of the residential parking spaces should have EV charging points from completion of the proposed development, with all ducting and services provided as part of the proposed development for all the remaining residential parking spaces to facilitate non-disruptive retro fitting of EV charging points.
- > The applicant has confirmed in the 'Traffic and Transport Assessment Report' that this will be provided for.

Traffic & Transport Assessment

A Traffic and Transport Assessment has been provided, and the level of detail included appears to be generally acceptable.

Road Safety Audit

A

Any Development Planning Application which results in a permanent change to the road layout should be accompanied by a Road Safety Audit. It is important that the Road Safety Audit process is built into the early stages of the Planning Procedure to allow the Local Authority to give due consideration to the potential road safety risks associated with a development prior to the award of planning consent, and prior to the commencement of construction work.

A Stage 1 Road Safety Audit must be completed and submitted by the Applicant with the Planning Application, to the satisfaction of the Planning Authority, in compliance with the TII Publication 'Road Safety Audit GE-STY-01024'. Following on from any grant of planning permission, a Stage 2 and a Stage 3 Road Safety Audit must be completed and submitted by the Applicant, to the satisfaction of the Planning Authority, in compliance with the TII Publication 'Road Safety Audit GE-STY-01024'.

Construction Management Plan

An Outline Construction and Demolition Waste Management Plan has been submitted, which is generally acceptable in terms of the Traffic Management. It should be noted that a final Construction Management Plan will need to be agreed with the Operations Department of Fingal County Council prior to construction of the roposed development.

'Swift Square Apartments' Northwood

LRD0012/S2

A contribution towards the Ballymun Road Junction upgrade will be required. FCC Transportation will revert to applicant with specific details. If the applicant is of the opinion that they should not be required to contribute towards the junction upgrade then the applicant should provide a rationale and justification for this.

Conclusion

While the Transportation Planning Section is in favour of suitable development of this site, there are some issues to be addressed with the current proposal. Further detailed information and continued liaisons with the Applicant is still required prior to the lodgement of the full application to address the issues outlined above, and the following details should be addressed:

- A Stage 1 Road Safety Audit is required with full application.
- The detail of the interaction between the public footpath and the vehicular access should be reconsidered
 and revised and updated. The vehicular access should consider the requirements of DMURS and also
 consider the pedestrian-vehicular intervisibility as per TII publication DN-GEO-03060 Section 5.6.3.7; and
 any recommendations of the Road Safety Audit Stage 1.
- A sightline drawing should be provided for the main vehicular access points to the basement and the
 undercroft parking, and any other relevant internal junctions within the proposed development.
 Pedestrian-vehicular intervisibility should also be considered as per TII publication DN-GEO-03060 Section
 5.6.3.7.
- The detail of the bicycle parking infrastructure should be expanded upon and provided with the main application submission, to demonstrate that the proposed 'communal locked cage enclosures' will fit in the space proposed; and the detail of the access, security and maintenance needs to be further expanded upon.
- The swept path analysis/autotrack should be carried out utilising a standard saloon car of minimum 4.8m length.
- A dedicated carparking provision drawing should be provided to clearly highlight the existing and proposed carparking layout (including details of the planning permission reference for the existing parking); the allocation of each proposed new parking space should be clearly highlighted as whether it's for the new residential development, the existing commercial development or for visitors to the residential development etc.
- Details of the access provision/routes for emergency service vehicles to the proposed development should be provided.
- Details should be provided, preferably a drawing, demonstrating that 10% of the residential parking spaces will have EV charging points from completion of the proposed development, with all ducting and services provided as part of the proposed development for all the remaining residential parking spaces to facilitate non-disruptive retro fitting of EV charging points.
- A contribution towards the Ballymun Road Junction upgrade will be required. FCC Transportation will
 revert to the applicant with specific details

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Signed: Date:	Shane Comaskey 12/01/2023	Endorsed: Date:	 	_

FINGAL COUNTY COUNCIL INTERNAL CONSULTEE

PLANNING REPORT

Report of Parks and Green Infrastructure Division

Register Reference:

LRD0012/S2

Registration Date:

09-Nov-2022

Development:

The proposed development will consist of the construction of a residential development comprising 3 no. apartment blocks comprising 198 no. apartment units to include 4 no. 1- bedroom units and 194 no. 2-bedroom units, shared residential services (concierge, multifunction unit and gymnasium), and open amenity spaces over a basement. The apartment blocks are to be constructed above a basement level and a partially shared podium structure (undercroft at ground-level), comprising: • Block 1, ranging in height from 6-9 storeys, will contain 68 no. apartment units consisting of 1 no. 1-bedroom unit, 67 no. 2-bedroom units with a concierge space (c. 158.2 sq.m) at ground-floor level with associated communal open spaces at podium level; • Block 2, ranging in height from 4-9 storeys, will contain 62 no. apartment units consisting of 2 no. 1-bedroom unit, 60 no. 2bedroom units with a multifunction area (c. 167.8 sq.m) at ground-floor level with associated communal open spaces at podium level; and, • Block 3, ranging in height from 5-9 storeys, will contain 68 no. apartment units consisting of 1 no. 1-bedroom unit, 67 no. 2-bedroom with associated communal open spaces at podium level. The proposed development will also provide the following: • 180 no. car parking spaces for residents, consisting of 146 no. spaces at new basement level (incl. 1 no. disabled space) and 34 no. spaces at ground-floor level (undercroft) (incl. 1 no. disabled space); • 12 no. car parking spaces for visitors (incl. 1 no. disabled space and 2 no. car-sharing parking spaces at surface level); • Relocation of permitted 254 no. car parking spaces catering for Swift Square Office Park personnel, consisting of 214 no. spaces at new basement level (incl. 1 disabled space) and 40 no. spaces at ground-floor level (undercroft); • 33 no. motorcycle parking spaces, including 28 no. spaces at the basement level and 5 no. spaces at ground-floor level (undercroft); • 392 no. cycle parking spaces for residents

LRD0012/S2

'Swift Square Apartments' Northwood

distributed across 4 no. secure cycle store areas at ground-level (undercroft), and 100 no. cycle parking spaces for visitors at surface level; • a new vehicular access ramp to the basement level; • communal and public open spaces, including play areas; • private open space to apartments in the form of terraces and balconies; • a gymnasium space (c. 89.7 sq.m) at ground-floor level (undercroft) between Block 1 and Block 2; • site clearance and removal of all existing structures on site ancillary to the surface car parking; and, • all associated plant, drainage arrangements, works to facilitate utility connections, boundary treatment, landscaping, public lighting, refuse storage, vehicle, pedestrian and bicycle access, construction compounds and site development works. The proposed site layout plan is illustrated in Drawing Nos. PL102 and PL103 prepared by MCORM and enclosed with this submission.

Location:

Swift Square, Northwood Avenue, Santry, Dublin 9

Applicant:

JOM Investments Unlimited Company

Application Type:

LRD Meeting

Report

Public Open Space Provision

The Public Open Space and play provision requirements and assessment for this development are as follows:

	Units Total	Bed spaces Total	
3+ Bedroom Units	0	0	
1 and 2 Bedroom Units	198	297	
Unit Total	198		
Bedspace Total		297	
Open space requirement is 2.5 hectares per 1000 peop	le		
The requirement for this application is	1	0.74	hectares
The requirement for this application is Overall site area is	1.205	0.74 hectares	hectares
	1.205 0.1205	The second second	hectares

Objective DMS57 of the Fingal Development Plan 2017 - 2023 requires a minimum public open space provision of 2.5 hectares per 1000 population. For the purposes of this calculation, acceptable public open space requirements are based on residential units with an agreed occupancy rate of 3.5 persons in the case of dwellings with three or more bedrooms and 1.5 persons in the case of dwellings with two or fewer bedrooms. Based on these calculations the proposed development gives rise to an open space requirement of 0.74 hectares.

A large proportion of the proposed open space within the subject site is not acceptable as public open space as it does not meet Fingal County Council's standards for Public Open Space Provision.

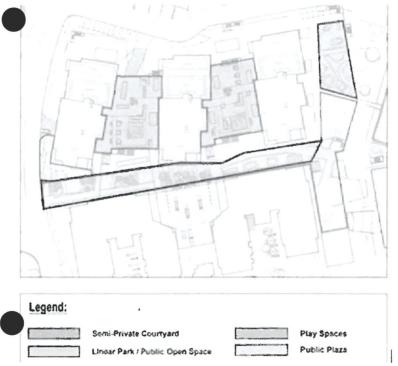


Image: Landscape Concept Plan

The linear element of open space that runs from west to east as seen above is not considered acceptable in the calculation for Public Open Space Provision as it does not meet Development Plans standards in terms of Public Open Space.

The applicant is requested to submit a revised plan showing the open space provision, omitting the area outlined above. If there is a shortfall of public open space generated through the development works, Fingal County Council will require the applicant to make up this shortfall by way of a financial contribution in accordance with section 48(2) (C) of the Planning & Development Act 2000 in lieu of the public open space provision. This contribution will be applied towards the continued upgrade of local class 1 open space facilities in Santry Demesne.

lay provision

The Playground provision requirements are as follows:

Playground requirement (4 sq metres per unit)	792 Square Metres
Playground provided on site	410 Square metres
Shortfall in Playground provision	382 Square metres

Under Objectives DMS75 and DMS76, a playground facility should be provided at a rate of 4 m² per residential unit. There is a total 198 residential units in this proposed development, therefore an equipped playground of a minimum size 792 m² is required for this development. As there is a shortfall in the playground provision for this development, it is considered appropriate to provide a financial contribution in lieu for this shortfall of 382 m² of playground provision. This financial contribution shall be used towards the improvement of the playground facilities at Santry Demesne.

However, if the layout was revised to include a portion of the "kickabout area", it appears there would be ample room to provide the full play provision on site.

LRD0012/52

'Swift Square Apartments' Northwood

- The proposed boundary treatment for the play areas is unsuitable. The hedge should be replaced with a black, 20mm solid bar bow top railing.
- · No specification has been given in relation to the safety surfaces for the play equipment
- The proposed wild flower meadow as a surface for the obstacle course items no. 1,2 & 3 is not practical for maintenance purposes and should be revised.
- An additional piece of equipment from the Kompan Obstacle Course range should be included in the "Informal Play Area", such as a pull up station or overhead ladder.
- The item referred to "Meeting Point with Movable Hammocks" should be substituted for a swing set with options for all ages; inclusive; toddler & 'You & Me' seats
- The Multi Spinner Carousel should be substituted for the Inclusive Carousel.
- A minimum separation distance of 25 metre from play facilities and residential units should be provided to minimise noise nuisance for the resident as per Fingal County Council's Play Policy "Space for Play".

Proposed Street Tree planting.

Street trees located in hard surfacing to be in integrated constructed tree pits using structural soil, minimum volume of 16 cubic metres. The location of the tree pits to be clearly shown in plan format in associated with services.

Lamp standards to be clearly shown on the landscape plans. No tree planting within 7 metres of lamp standards.

Boundary treatment with open space

A suitable boundary treatment is required to include separation of apartment curtilage and public open spaces. A hedge alone is not sufficient.

The applicant is requested to address the above comments in a revised Landscape Plan.

Officer:	_Annie Meager	Endorsed: _	Gemma Carr	
Date:	06/01/23	Date:	09/01/23	

FINGAL COUNTY COUNCIL INTERNAL CONSULTEE

PLANNING REPORT

Housing Department

Report

The Housing Department have reviewed the submitted Part V proposal for this development and have deemed it acceptable.

The applicant has provided evidence of eligibility to avail of the Part V transitional arrangement for this development.

A Part V validation letter should be submitted as part of the LRD application, the applicant should contact the Part V section directly at PartV@fingal.ie to request a validation letter prior to lodgement.

If permission is granted the developer is to liaise with the Housing Department in respect of an agreement to satisfy the Part V obligation under the Planning and Development Act, 2000 (as amended) prior to the commencement of the development.

Officer: Marina Rennicks Endorsed:	
Date: 05/01/2023 Date:	

Appendix 4: Fingal County Development Plan Objectives

Strategic Objectives

Objective SS01

Consolidate the vast majority of the County's future growth into the strong and dynamic urban centres of the Metropolitan Area while directing development in the core to towns and villages, as advocated by national and regional planning guidance.

Objective SS01a

Support the implementation of and promote development consistent with the National Strategic Outcome of Compact Growth as outlined in the NPF and the Regional Strategic Outcome of Compact Growth and Regeneration as set out in the RSES.

Objective SS01b

Consolidate within the existing urban footprint, by ensuring of 50% of all new homes within or contiguous to the built up area of Dublin City and Suburbs and 30% of all new homes are targeted within the existing built-up areas to achieve compact growth of urban settlements, as advocated by the RSES.

Objective SS 02b

Focus new residential development on appropriately zoned lands within the County, within appropriate locations proximate to existing settlement centre lands where infrastructural capacity is readily available, and they are along an existing or proposed high quality public transport corridors and on appropriate infill sites in the town centres, in a phased manner alongside the delivery of appropriate physical and social infrastructure.

Objective SS03a

Support the implementation of and promote development consistent with the National Strategic Outcome of Compact Growth as outlined in the NPF and the Regional Strategic Outcome of Compact Growth and Regeneration as set out in the RSES.

Objective SS15

Strengthen and consolidate existing urban areas adjoining Dublin City through infill and appropriate brownfield redevelopment in order to maximise the efficient use of existing infrastructure and services.

Objective SS16

Examine the possibility of achieving higher densities in urban areas adjoining Dublin City where such an approach would be in keeping with the character and form of existing residential communities, or would otherwise be appropriate in the context of the site.

Objective SS12

Promote the Key Town of Swords and the Metropolitan Area of Blanchardstown, respectively, as Fingal's primary growth centres for residential development in line with the County's Settlement Hierarchy.

Objective SS13

Facilitate the provision of sufficient employment, retail, community and cultural facilities to serve the growing residential communities of Swords and Blanchardstown

Santry Objectives

Objective SANTRY 1 Improve the visual approach to Santry from Dublin Airport by encouraging the regeneration of the lands along the R132 by minimising signage, enhancing landscaping and clearing derelict sites.

Objective SANTRY 2 Promote Santry Woods as a Fingal amenity and a public open space.

Objective SANTRY 3 Encourage enhanced landscaping and noise abatement measures along the realigned M50 where it impacts on Turnapin residents.

Objective SANTRY 4 Enhance cycle and pedestrian linkages between Santry and Ballymun.

Objective SANTRY 5 Prepare and implement a Masterplan for lands identified at Northwood (see Map Sheet 11, MP 11.E) during the lifetime of this Plan. The main elements to be included are provided below. The list is not intended to be exhaustive.

- Facilitate provision of an underpass to include provision for a car, bus, cycle, and pedestrian link to link lands east and west of the R108 to enhance connectivity.
- Ensure where feasible, development overlooks the Santry River Walk.
- Allow the re-location of existing units to facilitate connectivity to the proposed Northwood Metro Stop.
- Enhance pedestrian links within and to Santry Demesne.
- Ensure the continued protection of trees within the subject lands.
- Facilitate provision of a direct access route from Old Ballymun Road through Northwood. Development shall enhance connectivity to the proposed Northwood Metro Stop.

Objective SANTRY 6 Continue to support and facilitate a cross boundary forum, which includes Dublin City Council, to co-ordinate development between Dublin City's North West Area (which includes parts of Santry, Poppintree and Ballymun) and the adjoining areas in Fingal which include Santry, Meakstown and Charlestown and lands to the north of Ballymun.

Urban Development

The Fingal Development Plan emphasises the importance of sustainable communities and placemaking. The strategy of the Development Plan addresses urban design and urban development and design criteria for residential development. Objectives in this respect include:

Objective PM37

Ensure an holistic approach, which incorporates the provision of essential and appropriate facilities, amenities and services, is taken in the design and planning of new residential areas, so as to ensure that viable sustainable communities emerge and grow.

Objective PM38

Achieve an appropriate dwelling mix, size, type, tenure in all new residential developments.

Objective PM39

Ensure consolidated development in Fingal by facilitating residential development in existing urban and village locations

Objective PM40

Ensure a mix and range of housing types are provided in all residential areas to meet the diverse needs of residents.

Objective PM41

Encourage increased densities at appropriate locations whilst ensuring that the quality of place, residential accommodation and amenities for either existing or future residents are not compromised.

Objective PM42

Implement the policies and objectives of the Minster in respect of 'Urban Development and Building Heights Guidelines' (December, 2018) and Sustainable Urban Housing: Design Standards for New Apartments (March, 2018) issued under section 28 of the Planning and Development Act, as amended

Residential Development

Objective DMS03 requires the submission of a design statement for residential developments in excess of 5 units. The Development Plan also details specific criteria for new residential development including:

- Standards for residential amenity (Objectives DMS24, DMS25, DMS30, DMS34, DMS35).
- Separation distances (Objective DMS28)
- Management companies (Objective DMS33).
- Waste management (Objectives DMS36 and DMS37).

Public Art

Objective DMS05 requires new residential developments in excess of 100 units to provide for a piece of public art to be agreed with the Council.

Sustainable Drainage

The Development Plan objectives require the provision of Sustainable Urban Drainage solutions (Objective SW04) including the use of green roofs (Objectives DMS72, SW06, DMS16 and DMS17).

Public Open Space

The following objectives are set out within the Fingal Development Plan 2017-2023 which relate to public open space:

- Minimum public open space requirement (Objective PM52, DMS27, DMS57, DMS57A, DMS57B)
- Proximity to open space (Objective DMS59)
- Taking in charge and maintenance (Objectives DMS62, DMS63 and DMS64)
- Design and layout (Objectives PM60, Objective PM61, PM62 and DMS67
- Playground provision (Objectives DMS75 and DMS76)
- Impact of SuDS (Objectives DMS73 and DMS74)

Green Infrastructure

The Development Plan objectives support provision of green infrastructure. The objectives address the following issues:

- Provision of green corridors (Objective DMS71),
- Requirement for Green Infrastructure Plan (Objective GI22).

APPENDIX 6.1

Protected Sites for Nature Conservation in the Vicinity of the Proposed Development

APPENDIX 6.1

Protected Sites for Nature Conservation in the Vicinity of the Proposed Development

The Qualifying Interests (QIs) and Special Conservation Interests (SCIs) of the European sites in the vicinity of the proposed development site (see Figure 6.2 of Chapter 6 of Volume 2 of this EIAR)

Site Name	Distance	Designation – QIs or SCIs
SAC's		
North Dublin Bay SAC [000206]	Located c.6.7km southeast of prodevelopment	 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]; Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330]; Mediterranean salt meadows (Juncetalia maritimi) [1410]; Embryonic shifting dunes [2110]; Shifting dunes along the shoreline with Ammophila arenaria ('white dunes') [2120]; Fixed coastal dunes with herbaceous vegetation ('grey dunes')* [2130]; and Humid dune slacks [2190]. Annex II Species: Petalwort Petalophyllum ralfsii [1395]. S.I. No. 524/2019 - European Union Habitats (North Dublin Bay Special Area of Conservation 000206) Regulations 2019 NPWS (2013) Conservation Objectives: North Dublin Bay SAC 000206. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
South Dublin Bay SAC [000210]	Located c.7.9km southeast of prodevelopment	

of Conservation 000210) Regulations NPWS (2013) Conservation Objectives: South Dublin Bay SAC 000210. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht. Howth Head SAC [000202] Located c.10.9km east of the proposed Annex I Habitats: development Vegetated sea cliffs of the Atlantic and Baltic coasts [1230]; and European dry heaths [4030]. S.I. No. 524/2021 - European Union Habitats (Howth Head Special Area of Conservation 000202) Regulations 2021. NPWS (2016) Conservation Objectives: Howth Head SAC 000202, Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs. Rockabill to Dalkey Island SAC Located c.11.7km east of the proposed Annex I Habitats: [003000] development Reefs [1170]. Annex II Species: Harbour porpoise Phocoena phocoena [1351]. S.I. No. 94/2019 - European Union Habitats (Rockabill To Dalkey Island Special Area Of Conservation 003000) Regulations 2019 NPWS (2013) Conservation Objectives: Rockabill to Dalkey Island SAC 003000. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht. SPA's South Dublin Bay and River Tolka Located c.5.1km southeast of the **Special Conservation Interests:** Estuary SPA [004024] proposed development Light-bellied Brent Goose Branta bernicla hrota [A046]; Oystercatcher Haematopus ostralegus [A130]; Ringed Plover Charadrius hiaticula [A137]; Grey Plover Pluvialis squatarola [A140]; Knot Calidris canutus [A143]; Sanderling Calidris alba [A144]; Dunlin Calidris alpina [A149]; Bar-tailed Godwit Limosa Iapponica [A157];

Redshank *Tringa totanus* [A162]; Black-headed Gull *Chroicocephalus*

Roseate Tern Sterna dougallii

ridibundus [A179];

[A192];

- Common Tern Sterna hirundo [A193];
- Arctic Tern Sterna paradisaea [A194]; and
- · Wetlands and Waterbirds [A999].

S.I. No. 212/2010 - European
Communities (Conservation of Wild
Birds (South Dublin Bay and River
Tolka Estuary Special Protection Area
004024) Regulations 2010.
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.

North Bull Island SPA [004006]

Located c. 6.7km southeast of the proposed development

Special Conservation Interests:

- Light-bellied Brent Goose *Branta* bernicla hrota [A046];
- Shelduck Tadorna tadorna [A048];
- Teal Anas crecca [A052];
- Pintail Anas acuta [A054];
- Shoveler Anas clypeata [A056];
- 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 tetanus [A162];
- Turnstone Arenaria interpres [A169];
- Black-headed Gull Chroicocephalus ridibundus [A179]; and
- Wetlands and Waterbirds [A199].

S.I. No. 211/2010 - European Communities (Conservation of Wild Birds (North Bull Island Special Protection Area 004006) Regulations 2010.

NPWS (2015) Conservation
Objectives: North Bull Island SPA
004006. Version 1. National Parks and
Wildlife Service, Department of Arts,
Heritage and the Gaeltacht.

Malahide Estuary SPA [004025]

Located c. 7.4km northeast of the Proposed Development

Special Conservation Interests:

 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]; and.
- · Wetland and Waterbirds [A999].

S.I. No. 285/2011 - European Communities (Conservation of Wild Birds (Malahide Estuary Special Protection Area 004025) Regulations 2011.

NPWS (2013) Conservation Objectives: Malahide Estuary SPA 004025. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

Baldoyle Bay SPA [004016]

Located c. 7.5km east of the proposed development

Special Conservation Interests:

- 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]; and
- Wetlands and Waterbirds [A999].

S.I. No. 275/2010 - European
Communities (Conservation of Wild
Birds (Baldoyle Bay Special Protection
Area 004016) Regulations 2010.
NPWS (2013) Conservation
Objectives: Baldoyle Bay SPA 004016.
Version 1. National Parks and Wildlife
Service, Department of Arts, Heritage
and the Gaeltacht.

Rogerstown Estuary SPA [004015]

Located c. 11.5km northeast of the proposed development

Special Conservation Interests:

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]; and,
- Wetland and Waterbirds [A999].

S.I. No. 271/2010 - European Communities (Conservation of Wild Birds (Rogerstown Estuary Special Protection Area 004015)) Regulations 2010.

NPWS (2013) Conservation Objectives: Rogerstown Estuary SPA 004015. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

Ireland's Eye SPA [004117]

Located c.11.9km east of the proposed Special Conservation Interests: development

- Cormorant Phalacrocorax carbo [A017];
- Herring Gull Larus argentatus [A184];
- Kittiwake Rissa tridactyla [A188];
- Guillemot Uria aalge [A199]; and
- Razorbill Alca torda [A200].

S.I. No. 240/2010 -European Communities (Conservation of Wild Birds (Ireland's Eye Special Protection Area 004117)) Regulations 2010. NPWS (2022) Conservation objectives for Ireland's Eye SPA [004117]. First Order Site specific Conservation Objectives Version 1.0. Department of Housing, Local Government

Howth Head Coast SPA [004113]

Located c. 13.2km east of the proposed Special Conservation Interests: development

Kittiwake Rissa tridactyla [A188].

Heritage.

S.I. No. 185/2012 -European Communities (Conservation of Wild Birds (Howth Head Coast Special Protection Area 004113)) Regulations 2012. 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.
Dalkey Islands SPA [004113]	Located c. 17.6km southeast of the proposed development	 Special Conservation Interests: Kittiwake Rissa tridactyla [A188]. Roseate Tern Sterna dougallii [A192] Common Tern Sterna hirundo [A193] Arctic Tern Sterna paradisaea [A194] S.I. No. 238/2010 - European Communities (Conservation of Wild Birds (Dalkey Islands Special Protection Area 004172)) Regulations 2010. NPWS (2022) Conservation objectives for Dalkey Islands SPA [004172]. First Order Site specific Conservation Objectives Version 1.0. Department of Housing, Local Government and Heritage.

^{** 1320} Spartina swards (Spartinion maritimae) habitat is included within the conservation objectives document for Malahide Estuary SAC, but not within the Statutory Instruments document. This is likely because Spartina is an invasive alien species in Ireland.

Appendix A2: Nationally designated sites in the vicinity of the proposed development site

National Site Name [Code] ¹	Distance	Designation
Santry Demesne pNHA [000178]	Located c.180m north of Proposed Development	 Presence of legally protected plant species, hairy St. John's- wort Hypericum hirsutum, and woodland habitat.
North Dublin Bay pNHA [000206]	Located c. 5.4km southeast of Proposed Development	 Listed under similar conservation objectives as its SAC and SPA designations. See Appendix A.1 under North Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA
South Dublin Bay pNHA [00210]	Located c.8.2km northeast of Proposed Development	Listed under similar conservation objectives as its SAC and SPA designations. See Appendix A under South Dublin Bay SAC and South Dublin Bay and River Tolka Estuary SPA
Howth Head pNHA [000202]	Located c.12km east of Proposed Development	Listed under similar conservation objectives as its SAC and SPA

¹ Only pNHAs considered to have potential source-pathway-receptor links or where risk of potential impact exists are listed in Appendix A. pNHAs shown on Figure 6.3 and not listed in Appendix A.2 are considered to fall outside the zone of influence of the proposed development due to the distance between the proposed development site and the pNHA and lack of source-pathway-receptor links, mainly hydrological.

		designations. See Appendix A.1 under Howth Head SAC and Howth Head Coast SPA
Baldoyle Bay pNHA [000199]	Located c.8.6km northeast of the Proposed Development	 Listed under similar conservation objectives as its SAC and SPA designations. See Appendix A.1 under Baldoyle Bay SAC and Baldoyle Bay SPA

APPENDIX 6.2

Desktop Study

APPENDIX 6.2

Desk Study

Species returned from the NBDC online database as occurring within 10km of the proposed development (HD = Habitats Directive; WA = Wildlife Acts (as amended)

Common Name / Scientific Name	Legal Status	Red List Status	Source
Plants			
Bearded Pawwort Barbilophozia barbata	n / a	Critically endangered	NBDC online database record
Dittander Lepidium latifolium	n / a	Vulnerable	NBDC online database record
Irish Whitebeam Sorbus hibernica	n / a	Vulnerable	NBDC online database record
Meadow Crane's-bill Geranium pratense	n / a	Vulnerable	NBDC online database record
Megapolitan Feather-moss Rhynchostegium megapolitanum	n / a	Near threatened	NPWS Consultation 2021
Water-violet Hottonia palustris	n / a	Critically endangered	NBDC online database record
Wild clary Salvia verbenaca	n / a	Least concern	NPWS Consultation 2021
Blunt-fruited Pottia Tortula modica	n / a	Vulnerable	NBDC online database record
Lance-leaved Pottia Tortula lanceola	n / a	Critically endangered	NBDC online database record
Shady Beard-moss Didymodon umbrosus	n / a	Vulnerable	NBDC online database record
Tall Aloe-moss Aloina ambigua	n / a	Endangered	NBDC online database record
Twisting Thread-moss Bryum torquescens	n / a	Vulnerable	NBDC online database record
Curved Hard-grass Parapholis incurva	n/a	Endangered	NBDC online database record
Prickly Poppy Papaver argemone	n/a	Vulnerable	NBDC online database record
Prostrate Broom Cytisus scoparius subsp. maritimus	n/a	Vulnerable	NBDC online database record

Shady Beard Moss Didymodon umbrosus	n/a	Vulnerable	NPWS Consultation 2021
Wild Clary Salvia verbenaca	n / a	Vulnerable	NBDC online database record
Glass-wort Feather-moss Scleropodium tourettii	n / a	Endangered	NBDC online database record
Many-seasoned Thread-moss Bryum intermedium	n / a	Endangered	NBDC online database record, Dublin City Biodiversity Action Plan 2015 - 2020
Mammals			
Brown Long-eared Bat Plecotus auritus	HD IV, WA	Least concern	NBDC online database record
Daubenton's Bat Myotis daubentonii	HD IV, WA	Least concern	NBDC online database record
Eurasian Badger Meles meles	WA	Least concern	NBDC online database record, Dublin City Biodiversity Action Plan 2015 - 2020
European Hedgehog Erinaceus europaeus	WA	Least concern	NBDC online database record
European Otter Lutra lutra	HD II, HD IV, WA	Least concern	NBDC online database record, Dublin City Biodiversity Action Plan 2015 - 2020
Lesser Noctule Nyctalus leisleri	HD IV, WA	Least concern	NBDC online database record, Dublin City Biodiversity Action Plan 2015 - 2020
Nathusius's Pipistrelle Pipistrellus nathusii	HD IV, WA	Least concern	NBDC online database record
Natterer's Bat Myotis nattereri	HD IV, WA	Least concern	NBDC online database record, Dublin City Biodiversity Action Plan 2015 - 2020
Pipistrelle Pipistrellus pipistrellus sensu lato	HD IV, WA	Least concern	NBDC online database record, Dublin City

			Biodiversity Action Plan 2015 - 2020
Soprano Pipistrelle Pipistrellus pygmaeus	HD IV, WA	Least concern	NBDC online database record, Dublin City Biodiversity Action Plan 2015 - 2020
Whiskered Bat <i>Myotis</i> mystacinus	HD IV, WA	Least concern	NBDC online database record, Dublin City Biodiversity Action Plan 2015 - 2020
Birds			
Barn Owl <i>Tyto alba</i>	WA	Red	NBDC online database record
Barn Swallow Hirundo rustica	WA	Amber	NBDC online database record
Black-headed Gull Chroicocephalus ridibundus	WA	Amber	NBDC online database record, Dublin City Biodiversity Action Plan 2015 - 2020
Blue Tit Cyanistes caeruleus	WA	Green	NBDC online database record
Chaffinch Fringilla coelebs	BD I, WA	Green	NBDC online database record
Coal Tit <i>Periparus ater</i>	WA	Green	NBDC online database record
Common Blackbird <i>Turdus</i> merula	WA	Green	NBDC online database record
Common Bullfinch <i>Pyrrhula</i> pyrrhula	WA	Green	NBDC online database record
Common Buzzard <i>Buteo</i> buteo	WA	Green	NBDC online database record
Common Chiffchaff Phylloscopus collybita	WA	Green	NBDC online database record
Common Coot Fulica atra	SCI, BD II(I) BD III(II), WA	Amber	NBDC online database record
Common Linnet Carduelis cannabina	WA	Amber	NBDC online database record

Common Moorhen Gallinula chloropus	WA	Green	NBDC online database record
Common Raven Corvus corax	WA	Green	NBDC online database record
Common Starling Sturnus vulgaris	WA	Amber	NBDC online database record
Common Swift <i>Apus apus</i>	SCI, BD II(II) BD III(III), WA	Red	NBDC online database record
Common Wood Pigeon Columba palumbus	BD II(I) BD III(I), WA	Green	NBDC online database record
Eurasian Collared Dove Streptopelia decaocto	WA	Green	NBDC online database record
Eurasian Jackdaw Corvus monedula	WA	Green	NBDC online database record
Eurasian Sparrowhawk Accipiter nisus	WA	Green	NBDC online database record
Eurasian Treecreeper Certhia familiaris	WA	Green	NBDC online database record
European Goldfinch Carduelis carduelis	WA	Green	NBDC online database record
European Greenfinch Carduelis chloris	WA	Amber	NBDC online database record
European Robin <i>Erithacus</i> rubecula	WA	Green	NBDC online database record
Fieldfare <i>Turdus pilaris</i>	WA	Green	NBDC online database record
Goldcrest Regulus regulus	WA	Amber	NBDC online database record
Great Tit Parus major	WA	Green	NBDC online database record
Grey Heron Ardea cinerea	SCI, WA	Green	NBDC online database record
Grey Wagtail Motacilla cinerea	WA	Red	NBDC online database record
Hedge Accentor Prunella modularis	WA	Green	NBDC online database record
House Martin <i>Delichon</i> urbicum	WA	Amber	NBDC online database record

House Sparrow Passer domesticus	WA	Amber	NBDC online database record
Lesser Redpoll <i>Carduelis</i> cabaret	WA	Green	NBDC online database record
Mallard <i>Anas platyrhynchos</i>	SCI, BD II(I) BD III(I), WA	Amber	NBDC online database record
Mistle Thrush <i>Turdus</i> viscivorus	WA	Green	NBDC online database record
Mute Swan <i>Cygnus olor</i>	WA	Amber	NBDC online database record
Peregrine Falcon <i>Falco</i> peregrinus	SCI, BD I, WA	Green	NBDC online database record, Dublin City Biodiversity Action Plan 2015 - 2020
Redwing Turdus iliacus	WA	Red	NBDC online database record
Rook Corvus frugilegus	WA	Green	NBDC online database record
Song Thrush <i>Turdus</i> philomelos	WA	Green	NBDC online database record
Tufted Duck Aythya fuligula	SCI, BD II(I) BD III(II), WA	Amber	NBDC online database record
White Wagtail <i>Motacilla alba</i>	WA	Green	NBDC online database record
Whooper Swan Cygnus cygnus	SCI, BD I, WA	Amber	NBDC online database record
Willow Warbler <i>Phylloscopus</i> trochilus	WA	Green	NBDC online database record
Reptiles			
Common Lizard Zootoca vivipara	WA	n / a	NBDC online database record, Dublin City Biodiversity Action Plan 2015 - 2020
Amphibians			
Common Frog <i>Rana</i> temporaria	HD II	Least concern	NBDC online database record, Dublin City Biodiversity Action Plan 2015 - 2020

European Eel <i>Anguilla anguilla</i>	OSPAR, Fisheries Acts	Critically endangered	NBDC online database record
Brown Trout <i>Salmo trutta</i>	Protected under Fisheries Acts and fishing bylaws	Least Concern	IFI Consultation (2020)
Three spined stickleback Gasterosteus aculeatus	Protected under Fisheries Acts	Least concern	IFI Consultation (2020)
Invertebrates			
Buffish Mining Bee <i>Andrena</i> nigroaenea	n / a	Vulnerable	NBDC online database record
Leaf Miner Beetle Bagous alismatis	n / a	Critically endangered	NBDC online database record
Moss Carder-bee Bombus muscorum	n / a	Near threatened	NBDC online database record
Red-tailed Carder bee <i>Bombus</i> ruderarius	n / a	Vulnerable	NBDC online database record

APPENDIX 6.3

Examples of Valuing Important Ecological Features

APPENDIX 6.3

Examples of Valuing Important Ecological Features

International Importance:

- 'European Site' including Special Area of Conservation (SAC), Site of Community Importance (SCI), Special Protection Area (SPA) or proposed Special Area of Conservation.
- Proposed Special Protection Area (pSPA).
- Site that fulfils the criteria for designation as a 'European Site' (see Annex III of the Habitats Directive, as amended).
- Features essential to maintaining the coherence of the Natura 2000 Network.¹
- Site containing 'best examples' of the habitat types listed in Annex I of the Habitats Directive.
- Resident or regularly occurring populations (assessed to be important at the national level)² of the following:
- Species of bird, listed in Annex I and/or referred to in Article 4(2) of the Birds Directive; and/or
- Species of animal and plants listed in Annex II and/or IV of the Habitats Directive.
- Ramsar Site (Convention on Wetlands of International Importance Especially Waterfowl Habitat 1971).
- World Heritage Site (Convention for the Protection of World Cultural & Natural Heritage, 1972).
- Biosphere Reserve (UNESCO Man & The Biosphere Programme).
- Site hosting significant species populations under the Bonn Convention (Convention on the Conservation of Migratory Species of Wild Animals, 1979).
- Site hosting significant populations under the Berne Convention (Convention on the Conservation of European Wildlife and Natural Habitats, 1979).
- Biogenetic Reserve under the Council of Europe.
- European Diploma Site under the Council of Europe.
- Salmonid water designated pursuant to the European Communities (Quality of Salmonid Waters) Regulations, 1988, (S.I. No. 1988).³

National Importance:

- Site designated or proposed as a Natural Heritage Area (NHA).
- Statutory Nature Reserve.
- Refuge for Fauna and Flora protected under the Wildlife Acts.
- National Park.
- Undesignated site fulfilling the criteria for designation as a Natural Heritage Area (NHA); Statutory Nature Reserve; Refuge for Fauna and Flora protected under the Wildlife Act; and/or a National Park.

¹ See Articles 3 and 10 of the Habitats Directive

² It is suggested that, in general, 1% of the national population of such species qualifies as an internationally important population. However, a smaller population may qualify as internationally important where the population forms a critical part of a wider population or the species is at a critical phase of its life cycle.

³ Note that such waters are designated based on these waters' capabilities of supporting salmon (*Salmo salar*), trout (*Salmo trutta*), char (*Salvelinus* spp) and whitefish (*Coregonus* spp.)

VOLUME 3: APPENDIX 6.3

- Resident or regularly occurring populations (assessed to be important at the national level)⁴ of the following:
- Species protected under the Wildlife Acts; and/or
- Species listed on the relevant Red Data list.
- Site containing 'viable areas'⁵ of the habitat types listed in Annex I of the Habitats Directive

County Importance:

- Area of Special Amenity.⁶
- Area subject to a Tree Preservation Order.
- Area of High Amenity, or equivalent, designated under the County Development Plan.
- Resident or regularly occurring populations (assessed to be important at the County level)⁷ of
- · the following:
 - Species of bird, listed in Annex I and/or referred to in Article 4(2) of the Birds Directive;
 - Species of animal and plants listed in Annex II and/or IV of the Habitats Directive;
 - Species protected under the Wildlife Acts; and/or
 - Species listed on the relevant Red Data list.

Site containing area or areas of the habitat types listed in Annex I of the Habitats Directive that do not fulfil the criteria for valuation as of International or National importance.

Local Importance (higher value):

- Locally important populations of priority species or habitats or natural heritage features identified in the Local BAP, if this has been prepared;
- Resident or regularly occurring populations (assessed to be important at the Local level)8 of the following:
 - Species of bird, listed in Annex I and/or referred to in Article 4(2) of the Birds Directive;
 - Species of animal and plants listed in Annex II and/or IV of the Habitats Directive;
 - Species protected under the Wildlife Acts; and/or
 - Species listed on the relevant Red Data list.
- Sites containing semi-natural habitat types with high biodiversity in a local context and a high degree of naturalness, or populations of species that are uncommon in the locality;
- Sites or features containing common or lower value habitats, including naturalised species that are nevertheless
 essential in maintaining links and ecological corridors between features of higher ecological value.

Local Importance (lower value):

- Sites containing small areas of semi-natural habitat that are of some local importance for wildlife;
- Sites or features containing non-native species that are of some importance in maintaining habitat links.

⁴ It is suggested that, in general, 1% of the national population of such species qualifies as a nationally important population. However, a smaller population may qualify as nationally important where the population forms a critical part of a wider population or the species is at a critical phase of its life cycle.

⁵ A 'viable area' is defined as an area of a habitat that, given the particular characteristics of that habitat, was of a sufficient size and shape, such that its integrity (in terms of species composition, and ecological processes and function) would be maintained in the face of stochastic change (for example, as a result of climatic variation).

⁶ It should be noted that whilst areas such as Areas of Special Amenity, areas subject to a Tree Preservation Order and Areas of High Amenity are often designated on the basis of their ecological value, they may also be designated for other reasons, such as their amenity or recreational value. Therefore, it should not be automatically assumed that such sites are of County importance from an ecological perspective.

⁷ It is suggested that, in general, 1% of the County population of such species qualifies as a County important population. However, a smaller population may qualify as County important where the population forms a critical part of a wider population or the species is at a critical phase of its life cycle.

⁸ It is suggested that, in general, 1% of the local population of such species qualifies as a locally important population. However, a smaller population may qualify as locally important where the population forms a critical part of a wider population or the species is at a critical phase of its life cycle.

APPENDIX 6.4

Biodiversity Policies and Objectives from Fingal Development Plan 2023-2029

APPENDIX 6.4

Biodiversity Policies and Objectives from Fingal Development Plan 2023-2029

Policy/Objective number	Detail			
Policy GINHP5	Develop the green infrastructure network to ensure the conservation and enhancement of biodiversity, including the protection of European Sites, the provision of accessible parks, open spaces and recreational facilities (including allotments and community gardens), the sustainable management of water, the Fingal County Development Plan 2023-2029 65 Natura Impact Report maintenance of landscape character including historic landscape character and the protection and enhancement of archaeological and heritage landscapes.			
Objective GINHO2	Reduce fragmentation and enhance the resilience of Fingal's green infrastructure network by strengthening ecological links between urban areas, Natura 2000 sites, proposed Natural Heritage Areas, parks and open spaces and the wider regional network by connecting all new developments into the wider green infrastructure network.			
Policy GINHP17	Protect areas designated or proposed to be designated as Natura 2000 sites (i.e. Special Areas of Conservation (SACs) and Special Protection Areas (SPAs); also known as European sites) including any areas that may be proposed for designation or designated during the lifetime of this Plan.			
GINHP1	Ensure that areas and networks of green infrastructure are identified, protected, enhanced, managed and created to provide a wide range of environmental, social and economic benefits to communities.			
GINHP4	Ensure the green infrastructure Strategy for Fingal protects and enhances existing green infrastructure resources and plans for future green infrastructure provision which addresses the five main themes identified in this Plan, namely: Biodiversity, Parks, Open Space and Recreation, Sustainable Water Management, Archaeological and Heritage landscapes, Landscape.			
NHP5	Develop the green infrastructure network to ensure the conservation and enhancement of biodiversity, including the protection of European Sites, the provision of accessible parks, open spaces and recreational facilities (including allotments and community gardens), the sustainable management of water, the maintenance of landscape character including historic landscape character and the protection and enhancement of archaeological and heritage landscapes.			
GINHO2	Reduce fragmentation and enhance the resilience of Fingal's green infrastructure network by strengthening ecological links between urban areas, Natura 2000 sites, proposed Natural Heritage Areas, parks and open spaces and the wider regional network by connecting all new developments into the wider green infrastructure Network.			
GINHO3	Make provision for biodiversity within public open space and include water sensitive design and management measures (including SuDS) as part of a sustainable approach to open space design and management.			
GINHO5	Continue to support the provisions of the National Pollinator Plan 2021-2025 through the management and monitoring of the County's pollinator protection sites and through the promotion of additional pollinator sites during the lifetime of this Development Plan.			
GINHP6	Ensure delivery of multifunctional green and civic spaces that meet community needs, promote active and passive recreation, flood and surface water management and local habitat improvements. The multi-functionality of spaces will be balanced against the need to protect and enhance local habitat and the recreational and functional requirements of parks.			
GINHO9	Ensure that all greenway developments have a biodiversity net gain. Nature conservation and opportunities for biodiversity enhancement will be a key part of these infrastructure projects and nature conservation will be considered throughout the lifetime of the project and into the future, following project completion.			

GINHP7	Protect and enhance the natural, historical, amenity and biodiversity value of the County's watercourses, flood plains, riparian corridors, wetlands and coastal area though long-term and liaison with relevant Prescribed Bodies where appropriate				
GINHO12	Ensure the provision of new green infrastructure addresses the requirements of functional flood storage, the sustainable management of coastal erosion, and links with provision for biodiversity, Sustainable Drainage Systems (SuDS) and provision for parks and open space wherever possible and appropriate.				
GINHO13	Seek the creation of new wetlands and/or enhancement of existing wetlands through provision for Sustainable Drainage Systems (SuDS) where appropriate.				
GINHO14	Seek the provision of green roofs and green walls as an integrated part of Sustainable Drainage Systems (SuDS) and which provide benefits for biodiversity, wherever possible				
GINHO15	Limit surface water run-off from new developments through the use of appropriate Sustainable Urban Drainage Systems (SuDS) using nature-based solutions and ensure that SuDS is integrated into all new development in the County. GINHO16 Ensure the green infrastructure strategy for Fingal protects the County's natural coastal defences, such as beaches, sand dunes, salt marshes and estuary lands, and promotes the use of soft engineering techniques as an alternative to hard coastal defence works wherever possible.				
GINHO16	Ensure the green infrastructure strategy for Fingal protects the County's natural coastal defences, such as beaches, sand dunes, salt marshes and estuary lands, and promotes the use of soft engineering techniques as an alternative to hard coastal defence works wherever possible.				
GINHO19	Create an integrated and coherent green infrastructure for the County by requiring the retention of substantial networks of green space in urban, urban fringe and adjacent countryside areas to serve the needs of communities now and in the future including the need to adapt to and mitigate climate change.				
GINHO20	Where new residential development is proposed, seek, where appropriate to maximise the use and potential of existing parks, open spaces and recreational provision, by upgrading and improving the play and recreational capacity of these existing facilities through development contributions in lieu of new open space or play provision.				
GINHO21	Avoid the fragmentation of green spaces in site design and to link green spaces /greening elements to existing adjacent green infrastructure / the public realm where feasible and to provide for ecological functions				
GINHO22	Resist development that would fragment or prejudice the County's strategic green infrastructure network.				
GINHP10	Seek a net gain in green infrastructure through the protection and enhancement of existing assets, through the provision of new green infrastructure as an integral part of the planning process, and by taking forward priority projects including those indicated on the Development Plan Green Infrastructure maps during the lifetime of the Development Plan.				
GINHP11	Support the adoption and implementation of the Fingal Biodiversity Action Plan, implementation of the National Biodiversity Action Plan 2017- 2021 and the All-Ireland Pollinator Plan 2021-2025 and any superseding plans.				
GINHP12	Protect areas designated or proposed to be designated as Natura 2000 sites (i.e. Special Areas of Conservation (SACs) and Special Protection Areas (SPAs), proposed Natural Heritage Areas (pNHAs), Natural Heritage Areas (NHAs), Statutory Nature Reserves, and Refuges for Fauna.				
GINHP13	Support the development of the Fingal Ecological Network in line with the Fingal Biodiversity Action Plan.				
GINHP14	Promote biodiversity net gain in new developments and develop a planning guidance document on Biodiversity Net Gain.				
GINHP16	Promote and support rewilding and pollinator initiatives in Fingal.				
GINHO27	Support the National Parks and Wildlife Service, in the maintenance and achievement of favourable conservation status for the habitats and species in Fingal by taking full account of the requirements of the Habitats and Birds Directives, in the performance of its functions.				
GINHO28	Ensure that development does not have a significant adverse impact on proposed Natural Heritage Areas (pNHAs), Natural Heritage Areas (NHAs), Statutory Nature Reserves, Refuges for Fauna, Habitat Directive Annex I sites and Annex II species contained therein, and on rare and threatened species including those protected by law and their habitats.				

GINHO29	Ensure that the management of the Council's open spaces and parks is pollinator-friendly, provides more opportunities for biodiversity, and is carried out without the use of pesticides where possible.				
GINHO30	All greenway and infrastructure projects are to have a net biodiversity gain and this principle shall be incorporated from the start of the project.				
GINHO31	Continue the control programs of invasive species with all relevant stakeholders and landowners to control the key invasive species.				
GINHO32	Ensure that proposals for development do not lead to the spread or introduction of invasive species. If developments are proposed on sites where invasive species are or were previously present, the applications will be required to submit a control and management program for the particular invasive species as part of the planning process and to comply with the provisions of European Communities (Birds and Natural Habitats) Regulations 2011 and EU Regulations 1143/2014.				
GINHP17	Strictly protect areas designated or proposed to be designated as Natura 2000 sites (i.e. Special Areas of Conservation (SACs) and Special Protection Areas (SPAs); also known as European sites) including any areas that may be proposed for designation or designated durin the lifetime of this Plan.				
GINHP18	The Council will seek to protect rare and threatened species, including species protected by law and their habitats by requiring planning applicants to demonstrate that proposals will not have a significant adverse impact on such species and their habitats.				
GIHNO33	Ensure that development does not have a significant adverse impact on proposed Natural Heritage Areas (pNHAs), Natural Heritage Areas (NHAs), Statutory Nature Reserves, Refuges for Fauna, Habitat Directive Annex I sites and Annex II species contained therein, and on rare and threatened species including those protected by law and their habitats.				
GINHP19	Protect the functions of the ecological buffer zones and ensure proposals for development have no significant adverse impact on the habitats and species of interest located therein.				
GINHO34	Develop Ecological Masterplans for the Rogerstown, Malahide and Baldoyle Estuaries focusing on their ecological protection and that of their surrounding buffer zones.				
GINHO35	In accordance with Appropriate Assessment of Plans and projects in Ireland, Guidance for Planning Authorities 2010, any plans or projects that are likely to have a significant effect on a Natura 2000 site, either individually or in combination with other plans or projects, are subject to a screening for Appropriate Assessment unless they are directly connected with or necessary to the management of a Natura 2000 site.				
GINHO36	Promote biodiversity gain by allocating a proportion of Council owned land currently leased for farming for the purposes of rewilding and biodiversity initiatives over the lifetime of this Plan.				
GINHO37	Maintain and/or enhance the biodiversity of the Nature Development Areas indicated on the Green Infrastructure maps.				
GINHP20	Protect the ecological corridor function along rivers by including mammal ledges or tunnels in new bridges over any of the main rivers: Liffey, Tolka, Pinkeen, Mayne, Sluice, Ward, Broadmeadow, Ballyboghil, Corduff, Matt and Delvin. New bridge structures will also cater for Dipper boxes and Bats where possible. Where new road infrastructure crosses significant urban ecological corridors, tunnels shall be installed underneath the road to facilitate movement of small mammals and amphibians				
GINHO40	Protect the ecological functions and integrity of the corridors indicated on the Development Plan Green Infrastructure Maps. An ecological assessment may be required for any proposed development likely to have a significant impact on habitats and species of interest in an ecological corridor or stepping-stone.				
GINHO41	Protect rivers, streams and other watercourses and maintain them in an open state capable of providing suitable habitat for fauna and flora, including fish.				

APPENDIX 7.1

Ground Investigation Report (August 2022)



August 2022

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Ground Investigations Ireland
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 JB Barry
 Ground Investigation Report





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Ground Investigations Ireland Ltd. present the results of the fieldworks and laboratory testing in accordance with the specification and related documents provided by or on behalf of the client. The possibility of variation in the ground and/or groundwater conditions between or below exploratory locations or due to the investigation techniques employed must be taken into account when this report and the appendices inform designs or decisions where such variation may be considered relevant. Ground and/or groundwater conditions may vary due to seasonal, man-made or other activities not apparent during the fieldworks and no responsibility can be taken for such variation. The data presented and the recommendations included in this report and associated appendices are intended for the use of the client and the client's geotechnical representative only and any duty of care to others is excluded unless approved in writing.





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CONTENTS

1.0	Preamble1
2.0	Overview1
2.1.	Background1
2.2.	Purpose and Scope1
3.0	Subsurface Exploration1
3.1.	General1
3.2.	Trial Pits2
3.3.	Cable Percussion Boreholes 2
3.4.	Surveying2
3.5.	Groundwater Monitoring Installation
3.6.	Laboratory Testing3
4.0	Ground Conditions
4.1.	General3
4.2.	Groundwater4
4.3.	Laboratory Testing4
4.3.1.	Geotechnical Laboratory Testing4
4.3.2.	Chemical Laboratory Testing4
4.3.3.	Environmental Laboratory Testing4
5.0	Recommendations & Conclusions5
5.1.	General5
5.2.	Foundations5
5.3.	Excavations 6

APPENDICES

Appendix 1 Figures

Appendix 2 Trial Pit Records

Appendix 3 Cable Percussion Borehole Records

Appendix 4 Laboratory Testing



1.0 Preamble

On the instructions of JB Barry consulting engineers, a site investigation was carried out by Ground Investigations Ireland Ltd. (GII) in July 2022 at the site of the proposed residential development in Swift Square, Northwood Park, Dublin 9.

2.0 Overview

2.1. Background

It is proposed to construct a new residential development with associated services, access roads and car parking at the proposed site. The site is currently occupied by a car park. The proposed construction is envisaged to consist of conventional foundations and pavement make up with some local excavations for services and plant.

2.2. Purpose and Scope

The purpose of the site investigation was to investigate subsurface conditions utilising a variety of investigative methods in accordance with the project specification. The scope of the work undertaken for this project included the following:

- Visit project site to observe existing conditions
- Carry out 2 No. Trial Pits to a maximum depth of 2.50m BGL
- Carry out 2 No. Cable Percussion boreholes to a maximum depth of 6.30m BGL
- Installation of 1 No. Groundwater monitoring well
- Environmental Laboratory testing
- Report with recommendations

3.0 Subsurface Exploration

3.1. General

During the ground investigation a programme of intrusive investigation specified by the Consulting Engineer was undertaken to determine the sub surface conditions at the proposed site. Regular sampling and insitu testing was undertaken in the exploratory holes to facilitate the geotechnical descriptions and to enable laboratory testing to be carried out on the soil samples recovered during excavation and drilling.

The procedures used in this site investigation are in accordance with Eurocode 7 Part 2: Ground Investigation and testing (ISEN 1997 – 2:2007) and B.S. 5930:2015+A1:2020.

3.2. Trial Pits

The trial pits were excavated using a JCB 3CX excavator at the locations shown in the exploratory hole location plan in Appendix 1. The locations were checked using a CAT scan to minimise the potential for encountering services during the excavation. The trial pits were sampled, logged and photographed by a Geotechnical Engineer/Engineering Geologist prior to backfilling with arisings. Notes were made of any services, inclusions, pit stability, groundwater encountered and the characteristics of the strata encountered and are presented on the trial pit logs which are provided in Appendix 2 of this Report.

3.3. Cable Percussion Boreholes

The Cable Percussion Boreholes were drilled using a Dando 2000 drilling rig with regular in-situ testing and sampling undertaken to facilitate the production of geotechnical logs and laboratory testing.

The standard method of boring in soil for site investigation is known as the Cable Percussion method. It consists of using a Shell in non cohesive soils and a clay cutter in cohesive soils, both operated on a wire cable. Very hard soils, boulders and other hard obstructions are broken up by chiselling and the fragments removed with the Shell. Where ground conditions made it necessary, the borehole was lined with 200mm diameter steel casing. While the use of the Cable Percussion method of boring gives the maximum data on soil conditions, some mixing of laminated soil is inevitable. For this reason, thin lenses of granular material may not be noticed. Disturbed samples were taken from the boring tools at suitable depths, so that there is a representative sample at the top of each change in stratum and thereafter at regular intervals down the borehole until the next stratum was encountered. The disturbed samples were then sealed and sent to the laboratory where they were visually examined to confirm the description of the relevant strata. Standard Penetration Tests were carried out in the boreholes. The results of these tests, together with the depths at which the tests were taken are shown on the accompanying borehole records. The test consists of a thick wall sampler tube, 50mm external diameter, being driven into the soil by a monkey weighing 63.5kg and with a free drop of 760mm. For gravels and glacial till the driving shoe was replaced by a solid 60° cone. The Standard Penetration Test number referred to as the 'N' value is the number of blows required to drive the tube 300mm, after an initial penetration of 150mm. The number gives a guide to the consistency of the soil and can also be used to estimate the relative strength/density at the depth of the test and also to estimate the bearing capacity and compressibility of the soil. The cable percussion borehole logs are provided in Appendix 3 of this Report.

3.4. Surveying

The exploratory hole locations have been recorded using a KQGeo M8 GNSS System which records the coordinates and elevation of the locations to ITM as required by the project specification. The coordinates and elevations are provided on the exploratory hole logs in the appendices of this Report.