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APPROPRIATE ASSESSMENT SCREENING REPORT

625-629 SOUTH CIRCULAR ROAD, KILMAINHAM, DUBLIN 8

2021

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REPORT NO:	PES_AA_ 21336	**REVIEWED:**	Mike Fraher. BSc.

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1.0 INTRODUCTION

Panther Environmental Solutions Ltd was commissioned by Downey Planning, to carry out an Appropriate Assessment for the redevelopment of a site for an apartment scheme of 8 apartments along with all ancillary siteworks at 625-629 South Circular Road, Kilmainham, Dublin 8, Co Dublin.

The principal aim of this study is to assess whether significant effects to European sites (the Natura 2000 network) are likely to occur as a result of this project in accordance with Article 6(3) of the Habitats Directive and the Planning and Development (Amendment) Act, 2001, as amended. This report has been prepared with regards to the European Communities (Natural Habitats) Regulations 1997 (S.I. No. 94 of 1997), and the later amendment regulations (S.I. No. 233 of 1998; S.I. No. 237 of 2005).

A study was undertaken by Dr Ross Donnelly-Swift (BSc (Hons) Biology, MSc Environmental Science and PhD Biosystems Engineering) of Panther Environmental Solutions Limited. This comprised a review of the proposed development, a site visit on the 12th November 2021 to examine the ecological context of the proposed development, a desk study of the information on European sites within the potential zone of influence of the site and an analysis of the information in the context of the guidance to determine if a Natura Impact Statement is required.

2.0 LEGISLATIVE CONTEXT

The EU Habitats Directive (92/43/EEC) on the conservation of natural habitats and of wild fauna by council directive 97/62/EC, 2006/105/EC, and Regulation EC1882/2003 of September 2003, as transposed into Irish law by the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. 477/11), provides the framework for legal protection for habitats and species of European importance. The Natura 2000 network provides an ecological infrastructure for the protection of sites that are of particular importance for rare, endangered or vulnerable habitats and species within the EU. The Natura 2000 network in Ireland is made up of European Sites which include:

- Special Areas of Conservation (SACs)
- Special Protection Areas (SPAs)

Article 6(3) of the Habitats Directive establishes the requirement for appropriate assessment when planning new developments that might affect a Natura 2000 site. Article 6(3) of the Habitats Directive states;

"*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.*

3.0 METHODOLOGY

Screening is the first stage in the Appropriate Assessment process and is carried out to determine whether a Stage 2 Appropriate Assessment and a Natura Impact Statement (NIS) is required. Screening addresses and records the reasoning and conclusions in relation to the first two tests of Article 6(3);

1. Whether a plan or project is directly connected to or necessary for the management of the European (Natura 2000) site; and

2. Whether a plan or project, alone or in combination with other plans or projects, is likely to have significant effects on a European (Natura 2000) site, in view of its conservation objectives.

Screening should be undertaken without the inclusion of mitigation measures. If the effects are deemed to be significant, potentially significant, or uncertain, or if the screening process becomes overly complicated, then the process must proceed to Stage 2 AA and an NIS.

The findings and conclusions of the screening process should be documented, with the necessary supporting evidence and objective criteria. This is of particular importance in the

cases where the Appropriate Assessment process ends at the screening stage because the conclusion is that no significant effects are likely.

Screening for Appropriate Assessment involves:

- Description of the project and area characteristics (existing environment);
- Identification and description of Natura 2000 sites that could potentially be affected, and compilation of information on their qualifying interests and conservation objectives;
- Assessment of likely effects – direct, indirect and cumulative, undertaken on the basis of availability of objective information as necessary;
- Screening statement with conclusions.

3.1 METHODOLOGY GUIDELINES

This Appropriate Assessment has been carried with reference to the following guidelines:

- *Appropriate Assessment of Plans and Projects in Ireland. Guidelines for Planning Authorities*. DoEHLG, 2009.
- Circular NPWS 1/10 & PSSP 2/10 Appropriate Assessment under Article 6 of the Habitats Directive: Guidance for Planning Authorities
- *Managing Natura 2000 sites – The Provisions of Article 6 of The Habitats Directive 92/43/EEC*. European Commission, 2000.
- Circular L8/08 Water Services Investment and Rural Water Programmes – Protection of Natural Heritage and National Monuments 2 September 2008
- *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, 2002.
- Commission Notice "Managing Natura 2000 sites The provisions of Article 6 of the Habitats Directive 92/43/EEC. European Commission, 21.11.2018
- CIEEM (2018) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine version 1.1. Chartered Institute of Ecology and Environmental Management, Winchester.

3.2 DESKTOP RESEARCH

Desktop research was carried out to gather information on the ecology of the site and surrounding areas. The locations of the Natura 2000 sites within 15km of the proposed development at 625-629 South Circular Road, Kilmainham, Dublin 8 were identified from National Parks and Wildlife Service (NPWS) online map viewer. Other Natura sites beyond 15km were also reviewed and considered for the potential for the project to have a negative effect.

Water quality data from the EPA was reviewed for the assessment of biological and environmental data collected on waterbodies in Ireland (Water Quality in Ireland 2013-2018 (2020))

Information on the characteristics of the Natura 2000 sites within the potential zone of influence was reviewed from the conservation objectives documents, site synopses and Standard Natura 2000 data forms available on the NPWS website.

3.3 FIELD SURVEY

A site characterisation assessment was undertaken on the 12th November 2021 to examine the ecological context of the development site, by systematically walking the site and boundaries and determining the habitats present. The habitat survey was undertaken in accordance with the standard methodology outlined in Fossitt's "*A Guide to Habitats in Ireland*", a hierarchical classification scheme based upon the characteristics of vegetation present. The Fossitt system also indicates when there are potential links with Annex I habitats of the E.U. Habitats Directive (92/43/EEC). Cognisance was also taken of the Heritage Council guidelines, "*Best Practice Guidance for Habitat Survey and Mapping*", (Smith *et al.*, 2011).

Bird species and signs of fauna activity and dwellings were also noted. Particular attention was given to the possible presence of habitats and/or species, which are legally protected under Irish and European legislation and to assessing any potential ecological connectivity with Natura 2000 sites or supplementary or steppingstone habitats of relevance to Natura 200 sites.

4.0 DESCRIPTION OF PROPOSED DEVELOPMENT AND EXISTING SITE

4.1 PROPOSED DEVELOPMENT

The site is located on the South Circular Road (R111), approximately 83m south of the Emmet Road and Old Kilmainham Road Junction. Its ITM Coordinates are 712665X, 733520Y. The total area of the site is 0.336 acres. The site is comprised of an existing building and hardcore car park. The site is accessed via the adjacent South Circular Road. The M50 motorway is located approximately 4.8km to the west via Emmet Road, Tyreconnell Road and the Naas Road. Dublin City Centre is located approximately 3.4km to the north-east. The River Camac is located approximately 105m to the north of the site.

The South Dublin Bay SAC (Site Code: 000210) and South Dublin Bay and River Tolka Estuary SPA (Site Code: 004024) are at their closest to the site approximately 6.31km and 5.65km to the east, respectively. See Figure 4.1 and 4.2 below.

The following project elements of the proposed development have been examined for relevance to possible effects on the Natura 2000 sites;

- Earthworks & Excavation
- Sediment & Hydrocarbon Runnoff
- Stormwater & Waste Water
- Disturbance to Protected Species
- Impact on Protected Habitats
- Dust and Noise
- Invasive Species

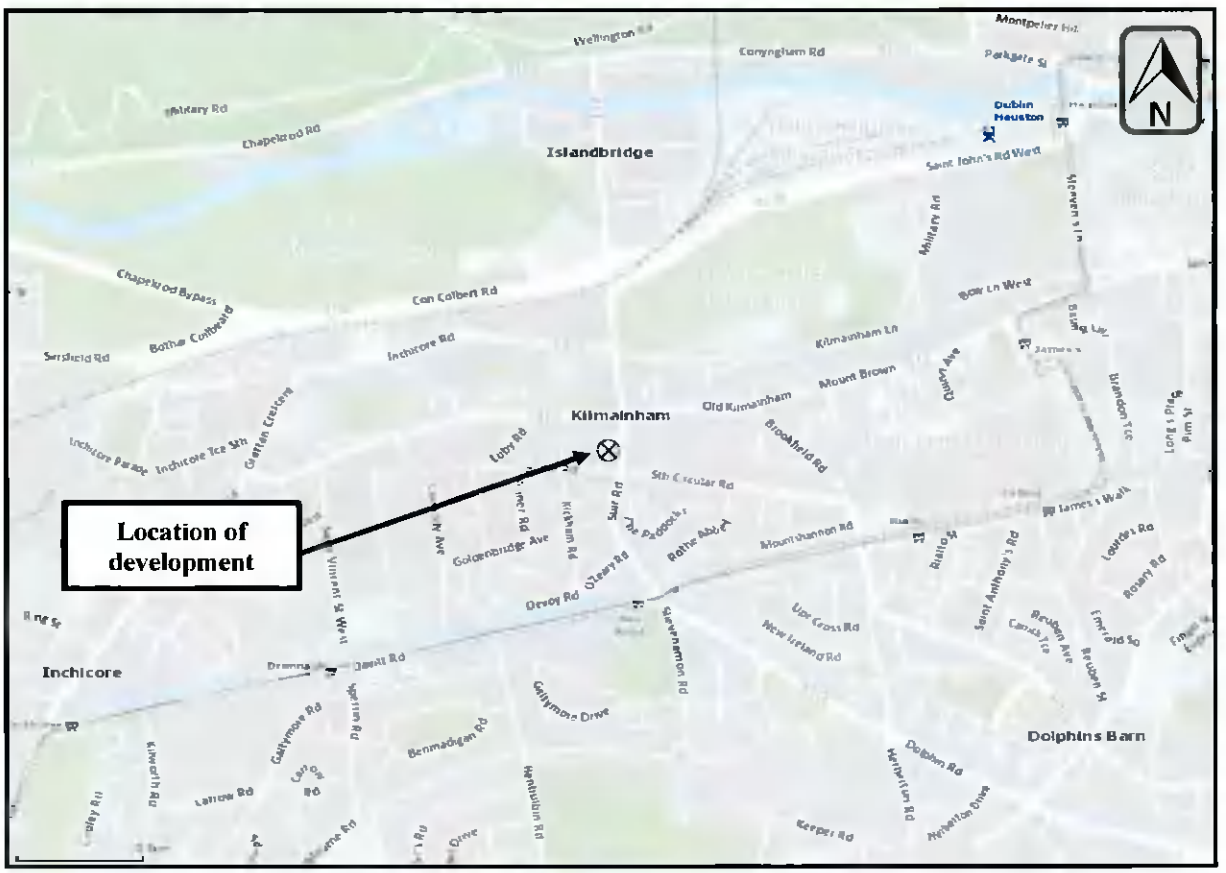


Figure 4.1: Location of Proposed Development at Kilmainham, Co. Dublin

Figure 4.2: Location of Proposed Development and Natura 2000 Sites

The proposed development will involve the redevelopment of an existing building to include 8 two-bedroom apartments which will be constructed over three floors and all ancillary site works. The total floor area of the proposed development is 679m^2 and is broken down as following;

APARTMENT NUMBER	AREA
Apartment 1 – Ground Floor	80m^2
Apartment 2 – First Floor	80m^2
Apartment 3 – First Floor	87m^2
Apartment 4 – First Floor	86m^2
Apartment 5 – Second Floor	80m^2
Apartment 6 – Second Floor	87m^2
Apartment 7 – Second Floor	86m^2
Apartment 8 – Third Floor	93m^2

The proposed development will also include five car parking spaces with one of these spaces being allocated to disability parking. There will also be a refuge storage area.

Access to the site is via a gateway which is located immediately adjacent to the South Circular Road. The foul water system has been designed in accordance with Part H of the Irish Building Regulations and the architectural scheme. Total foul water from the proposed development has

been calculated for an occupancy of 32 adults as 4.80m^3 per day. The proposed drainage scheme is designed and detailed in accordance with the Greater Dublin Regional Code of Practice for Drainage Works. The outfall manhole discharges to public mains via a 150mm diameter vitrified clay pipe installed to Dublin City Council guidelines. All drainage at the site will be SuDS complaint. Included in the proposed development is a sedum green roof system to the flat roof area of the proposed structure, impermeable finishes and the landscaped areas. The green roof is designed to retain water to allow for the growth of selected vegetation. With a typical green roof able to retain 40% of rainwater. Flora will be selected that are beneficial to biodiversity and a green roof is maintained with a minimum of two inspections per year to ensure they are in working order. This will also ensure no potential invasive species can take hold on the proposed development roof. The green roof and impermeable finishes will significantly reduce the surface water discharge from site to the public system. The design results in a 4.67 litres/second reduction on discharge of surface water for a 60 minute, 1 in 30-year return storm event. All surface water will be attenuated on site prior to discharge to the public drainage system. The site does not allow for inclusion of soakaways due to the urban setting and proximity of adjacent buildings. See Civil Engineering Planning Report by Brunner Consulting Engineers for foul water and stormwater drainage design specifications (Document Reference: K31_DRPL_001). Water will be supplied to the proposed development via a connection to the public mains and will be carried out to the requirements of Irish Water.

During excavation works, excavated soil would be temporarily stored onsite, for re-use in landscaping and reinstatement works where possible. Following site clearance works, the construction of the proposed development and associated works would commence. The estimated construction timeframe would be approximately eighteen months. No construction works would take place within or adjacent to any watercourses. All waste from the site will go to a licenced waste facility.

4.2 EXISTING ENVIRONMENT

The proposed development site consists of areas of predominately hardcore surface with a wire fence along the west boundary with the wayleave and north boundary with adjoining neighbour's garden. There is a small section of wall along the western boundary with the wayleave. Buildings in the immediate vicinity of the proposed development site consist of residential and commercial premises. The surrounding area is urban in nature with residential and commercial properties aligned with the local road network.

According to the Preliminary Flood Risk Assessment (PFRA) Mapping tool by the OPW, the proposed development site is not located within an area of fluvial flood, indicative of 10% AEP (10-yr) event, 1% AEP (100-yr) event or 0.1% AEP (1000-yr) event. However, it should be noted that this map is based on broad-scale simple analysis and may not be accurate for a specific location. A flood risk of the site was carried out by Brunner Consulting Engineers (Document Reference: K31_DRPL_001). The conclusion of this assessment is as follows;

It is evident from public information flood data that the proposed development is not at risk of coastal, fluvial or public drainage infrastructure flooding. As an extra precaution it is proposed to install all drainage outlets with nonreturn valves prior to discharge to public system. The site would be most at risk from pluvial flooding however the proposed development is outside a pluvial flooding zone with no significant risk to proposed development.

During the site assessment the following habitats were observed;

The site is predominately buildings and artificial surfaces (BL3) habitat with little to no vegetation cover. Along the west boundary is recolonising bare ground (ED3) habitat with Couch-grass (*Elytrigia repens*), Bramble (*Rubus fruticosus*), Dandelion (*Taraxacum spp.*), Dock (*Rumex spp.*), Nettle (*Urtica dioica),* Bindweed (*Calystegia* spp.), Ivy (*Hedera helix*), Herb-Robert (*Geranium robertianum*), Butterfly-bush (*Buddleja davidii*), Ribwort Plantain (*Plantago lanceolata*), Winter Heliotrope (*Petasites fragrans*) and Creeping Buttercup (*Ranunculus repens*).

All of habitats identified within the boundary of the site such as recolonising bare ground and buildings and artificial surfaces are considered to be modified and of low conservation value. There are no plant species of conservation significance nor or are there any Third Schedule high impact invasive plant species recorded within the site. See Table 4.1 for summary for habitats located at the proposed development.

Table 4.1: Habitats found in and adjacent to the development site

HABITAT CLASSIFICATION HIERARCHY		
LEVEL 1	**LEVEL 2**	**LEVEL 3**
B – Cultivated & built land	**BL** – Built land	**BL3** – Buildings and artificial surfaces
E – Exposed rock and disturbed ground	**ED** – Disturbed ground	**ED3** – Recolonising bare ground

Bird species noted during the site walkover included Jackdaw (*Corvus monedula*), Rook (*Corvus frugilegus*), Magpie (*Pica Pica*), Herring Gull (*Larus argentatus*), Collared Dove (*Streptopelia decaocto*) and Feral pigeons (*Columba livia domestica*) were observed. In addition, Grey Heron (*Ardea cinerea*), Blackbird (*Turdus merula*), Robin (*Erithacus rubecula*) and House Sparrow (*Passer domesticus*) was observed at the River Comac. One species is red listed, Herring Gull. None are amber listed. None of the bird species recorded are listed under Annex I of the E.U. Birds Directive.

Evidence of Brown Rat (*Rattus norvegicus*) activity in the area from rat traps was noted during the site assessment. No other fauna, or evidence of fauna, were noted during the survey. Fauna typical of that found throughout the rest of Ireland which would be expected to be found in the wider area would include; Bat species, Badger (*Meles meles*), Otter (*Lutra lutra*), Rabbit (*Oryctalagus cuniculus*), Fox (*Vulpes vulpes*), Pine Marten (*Martes martes*), Stoat (*Mustela erminea hibernica*), American Mink (*Mustela vison*), Irish Hare (*Lepus timidus hibernicus*), Hedgehog (*Erinus europaeus*), Red Squirrel (*Sciurus vulgaris*), Grey Squirrel (*Sciurus carolinensis*), Wood Mouse (*Apodemus sylvaticus*), Pygmy Shrew (*Sorex minutus*) and Brown Rat (*Rattus norvegicus*). However, given the urban setting it is likely most fauna activity will be within large parks or along rivers such as the Rivers Comac and Liffey.

In addition to the site walkover, flora and fauna records were reviewed on the National Biodiversity Data Centre (NBDC) website for the proposed development site and vicinity. No protected plant species under the Flora (Protection) Order, 2015 (S.I. No. 356 of 2015) were

recorded within the 10km square (Tetrad – O13) in which the proposed development site is located. Endangered or threatened flora within this tetrad are Betony (*Stachys officinalis*), Blue Fleabane (*Erigeron acer*), Cornflower (*Centaurea cyanus*), Great Burnet (*Sanguisorba officinalis*), Hairy St John's-wort (*Hypericum hirsutum*), Hairy Violet (*Viola hirta*), *Lamiastrum galeobdolon subsp. Montanum,* Meadow Barley *(Hordeum secalinum),* Nettle-leaved Bellflower (*Campanula trachelium*), Opposite-leaved Pondweed *(Groenlandia densa),* Purple Spurge *(Euphorbia peplis),* Round-leaved Crane's-bill *(Geranium rotundifolium).* Small Cudweed *(Filago minima),* Spring Vetch *(Vicia lathyroides)* and Water-violet *(Hottonia palustris).*Eighteen invasive plant species listed in the Third Schedule of the European Communities Birds and Natural Habitats) Regulations 2011 (S.I. No. 477 of 2011) were recorded within the 10km square (Tetrad – O13): Water Fern (*Azolla filiculoides*), American Skunk-cabbage (*Lysichiton americanus*), Brazilian Giant-rhubarb (*Gunnera manicata*), Canadian Waterweed (*Elodea canadensis*), Curly Waterweed (*Lagarosiphon major*), *Fallopia japonica x sachalinensis = F. x bohemica,* Giant Hogweed (*Heracleum mantegazzianum*), Giant Knotweed (*Fallopia sachalinensis*), Giant-rhubarb (*Gunnera tinctoria*), Indian Balsam (*Impatiens glandulifera*), Japanese Knotweed (*Fallopia japonica*), New Zealand Pigmyweed (*Crassula helmsii*), Nuttall's Waterweed (*Elodea nuttallii*), Parrot's-feather (*Myriophyllum aquaticum*), Rhododendron ponticum, Sea-buckthorn (*Hippophae rhamnoides*), Spanish Bluebell (*Hyacinthoides hispanica*) and Three-cornered Garlic (*Allium triquetrum*).

Protected fauna species of note recorded within the NBDC 10km square ((Tetrad – O13) include the protected species, Common Frog (*Rana temporaria*), Smooth Newt (*Lissotriton vulgaris*), European Eel (*Anguilla anguilla*), Marsh Fritillary (*Euphydryas aurinia*), Common Dolphin (*Delphinus delphis*), Common Porpoise (*Phocoena phocoena*), Fin Whale (*Balaenoptera physalus*), Grey Seal (*Halichoerus grypus*), Striped Dolphin (*Stenella coeruleoalba*), Brown Long-eared Bat (*Plecotus auritus*), Daubenton's Bat (*Myotis daubentonii*), Badger (*Meles meles*), Pygmy Shrew (*Sorex minutus*), Red Squirrel (*Sciurus vulgaris*), Otter (*Lutra lutra*), Lesser Noctule (*Nyctalus leisleri*), Nathusius's Pipistrelle (*Pipistrellus nathusii*), Natterer's Bat (*Myotis nattereri*), Pipistrelle (*Pipistrellus pipistrellus sensu lato*), Soprano Pipistrelle (*Pipistrellus pygmaeus*), Whiskered Bat (*Myotis mystacinus*) and Hedgehog (*Erinaceus europaeus*). High impact invasive species listed in the Third Schedule of the European Communities Birds and Natural Habitats) Regulations 2011 (S.I. No. 477 of 2011) include Roach (*Rutilus rutilus*), American Mink (*Mustela vison*), Grey Squirrel (*Sciurus carolinensis*), Fallow Deer (*Dama dama*) and the Brown Rat (*Rattus norvegicus*).

Bird species of note include Arctic Tern (*Sterna paradisaea*), Barn Swallow (*Hirundo rustica*), Barnacle Goose (*Branta leucopsis*), Bar-tailed Godwit (*Limosa lapponica*), Black Guillemot (*Cepphus grylle*), Black-headed Gull (*Larus ridibundus*), Black-legged Kittiwake (*Rissa tridactyla*), Black-tailed Godwit (*Limosa limosa*), Brent Goose (*Branta bernicla*), Coot (*Fulica atra*), Goldeneye (*Bucephala clangula*), Greenshank (*Tringa nebularia*), Guillemot (*Uria aalge*), Kestrel (*Falco tinnunculus*), Kingfisher (*Alcedo atthis*), Linnet (*Carduelis cannabina*), Pochard (*Aythya ferina*), Redshank (*Tringa totanus*), Shelduck (*Tadorna tadorna*), Snipe (*Gallinago gallinago*), Starling (*Sturnus vulgaris*), Swift (*Apus apus*), Tern (*Sterna hirundo*), Dunlin (*Calidris alpina*), Curlew (*Numenius arquata*), Oystercatcher (*Haematopus ostralegus*), Teal (*Anas crecca*), Tree Sparrow (*Passer montanus*), Wigeon (*Anas penelope*), Woodcock (*Scolopax rusticola*), Golden Plover (*Pluvialis apricaria*), Shag (*Phalacrocorax aristotelis*), Gadwall (*Anas strepera*), Great Black-backed Gull (*Larus marinus*), Great Cormorant (*Phalacrocorax carbo*), Great Crested Grebe (*Podiceps cristatus*), Great Northern Diver (*Gavia immer*), Greater Scaup (*Aythya marila*), Grey Plover (*Pluvialis squatarola*), Greylag Goose (*Anser anser*), Hen Harrier (*Circus cyaneus*), Herring Gull (*Larus argentatus*),

House Martin (*Delichon urbicum*), House Sparrow (*Passer domesticus*), Lesser Black-backed Gull (*Larus fuscus*). Lesser Whitethroat (*Sylvia curruca*), Little Egret (*Egretta garzetta*). Little Grebe (*Tachybaptus ruficollis*), Mallard (*Anas platyrhynchos*), Manx Shearwater (*Puffinus puffinus*), Mediterranean Gull (*Larus melanocephalus*), Mew Gull (*Larus canus*), Mute Swan (*Cygnus olor*), Northern Gannet (*Morus bassanus*), Northern Lapwing (*Vanellus vanellus*), Northern Shoveler (*Anas clypeata*), Northern Wheatear (*Oenanthe oenanthe*), Peregrine Falcon (*Falco peregrinus*), Red Knot (*Calidris canutus*), Red-breasted Merganser (*Mergus serrator*), Red-throated Diver (*Gavia stellata*), Ringed Plover (*Charadrius hiaticula*), Rock Pigeon (*Columba livia*), Sand Martin (*Riparia riparia*), Sky Lark (*Alauda arvensis*), Spotted Flycatcher (*Muscicapa striata*), Stock Pigeon (*Columba oenas*), Tufted Duck (*Aythya fuligula*), Water Rail (*Rallus aquaticus*) and Yellowhammer (*Emberiza citrinella*).

4.3 WATER QUALITY

The proposed development is located within the Liffey Subcatchment (ID: 09_15) and the Liffey and Dublin Bay Catchment (ID 09). The nearest watercourse to the proposed development site is the River Camac (EPA Code: 09C02 – Order 4) which is located approximately 105m to the north. This river flows past the site in a north-easterly direction for a further 1.45km where it then flows into the River Liffey (EPA Code: 09L01 – Order 6). The River Liffey is tidal at this location. The Liffey then flows in an easterly direction for a further 7.55km until it flows into Dublin Bay. As the Liffey flows into Dublin Bay it also flows into the South Dublin Bay and River Tolka Estuary SPA and the South Dublin Bay SAC.

The Grand Canal is located approximately 340m from the southern boundary and is designated as a proposed National Heritage Area (pNHA) (Site Code 002104). See Figure 4.3 for watercourses within the vicinity of the site.

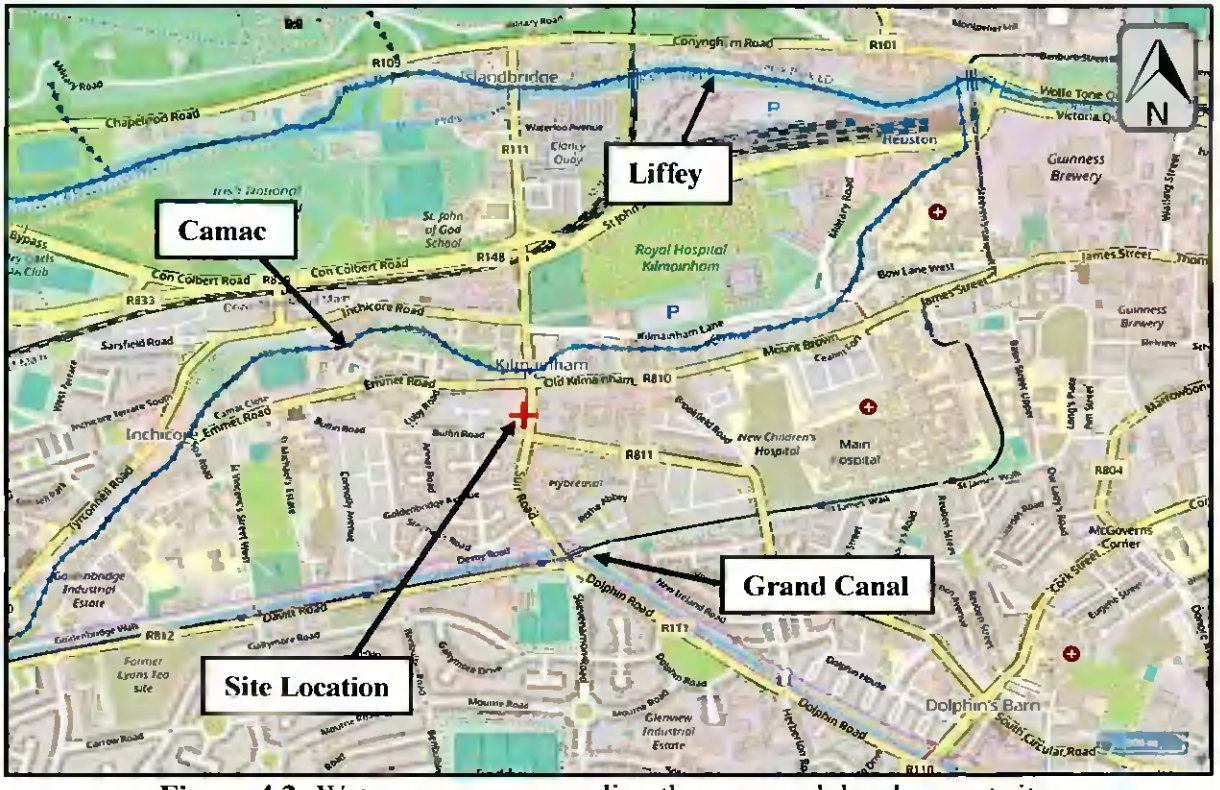


Figure 4.2: Watercourses surrounding the proposed development site

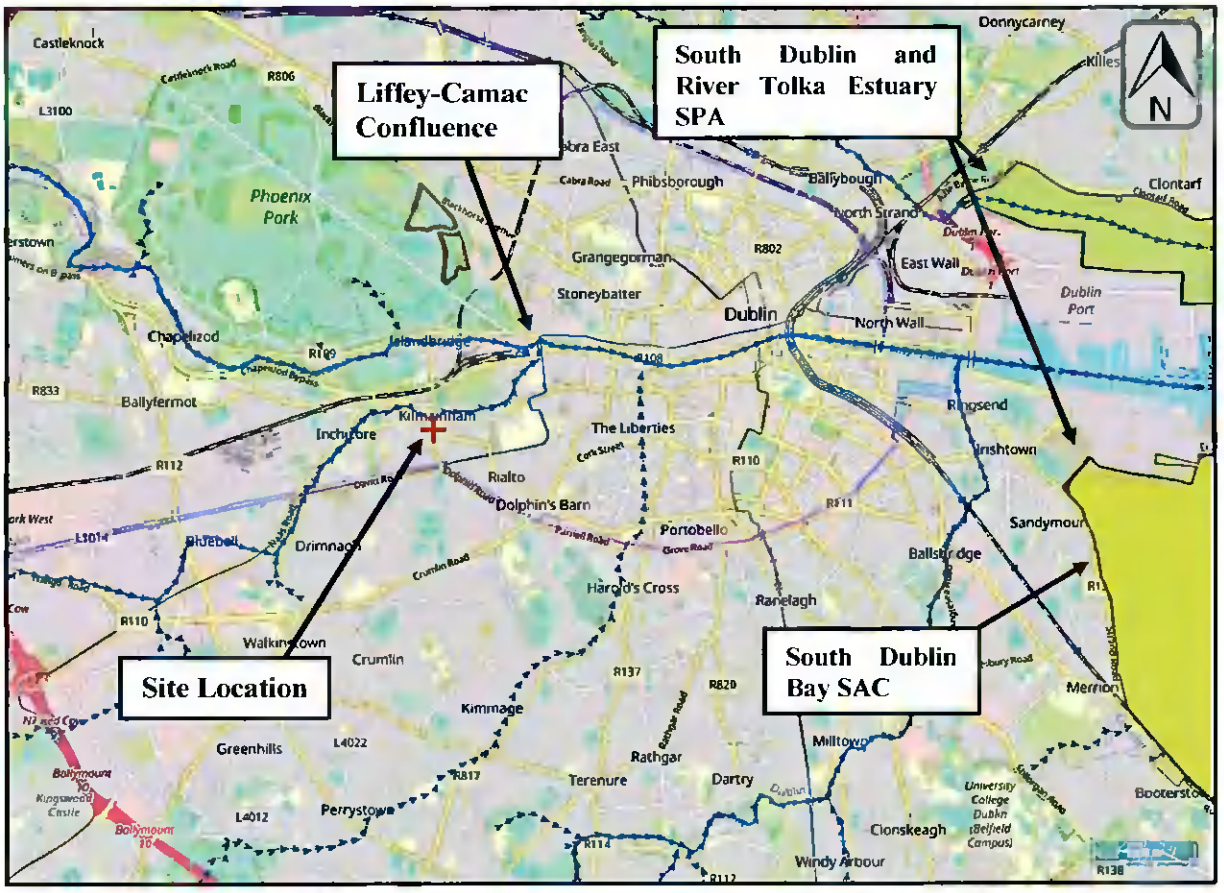


Figure 4.3: Confluence of Liffey and Camac and Nearby Natura 2000 Sites

The Environmental Protection Agency (EPA) undertake surface water monitoring along the Camac River. The results for the nearest monitoring stations with available information (as per Table 4.2) for the period 1998 – 2019 are summarised in Figure 4.4 below for indicative purposes. As can be seen in Figure 4.4 below, the Comac River is mainly achieving a water quality status of between Q3 (poor) to Q3-4 (moderate) in recent years. Note that station RS09C020500 recorded (2/0) in 2005 and (3/0) in 2010, station RS09C020250 recorded (3/0) in 2007 this indicates a toxic effect is apparent or suspected.

EPA comments on the most recent monitoring results for the Camac River are as follows

"The Camac was found to be at unsatisfactory conditions in August 2019. Poor ecological conditions recorded at 0100, 0310 and 0500, with 0100 (Saggart) declining from Good conditions in 2016. Moderate conditions were maintained at 0200 (Brownsbarn)."

Table 4.2: Active Monitoring Stations Along the Camac River

STATION NO.	STATION LOCATION	EASTING	NORTHING	APPROX. LOCATION RELATIVE TO SITE
RS09C020250	Br SE of Baldonnell Ho	304913	229242	10.9km Upstream
RS09C020310	Riversdale Estate Br	307222	231611	7.01km Upstream
RS09C020500	Camac Close Emmet Rd	311965	233446	920m Upstream

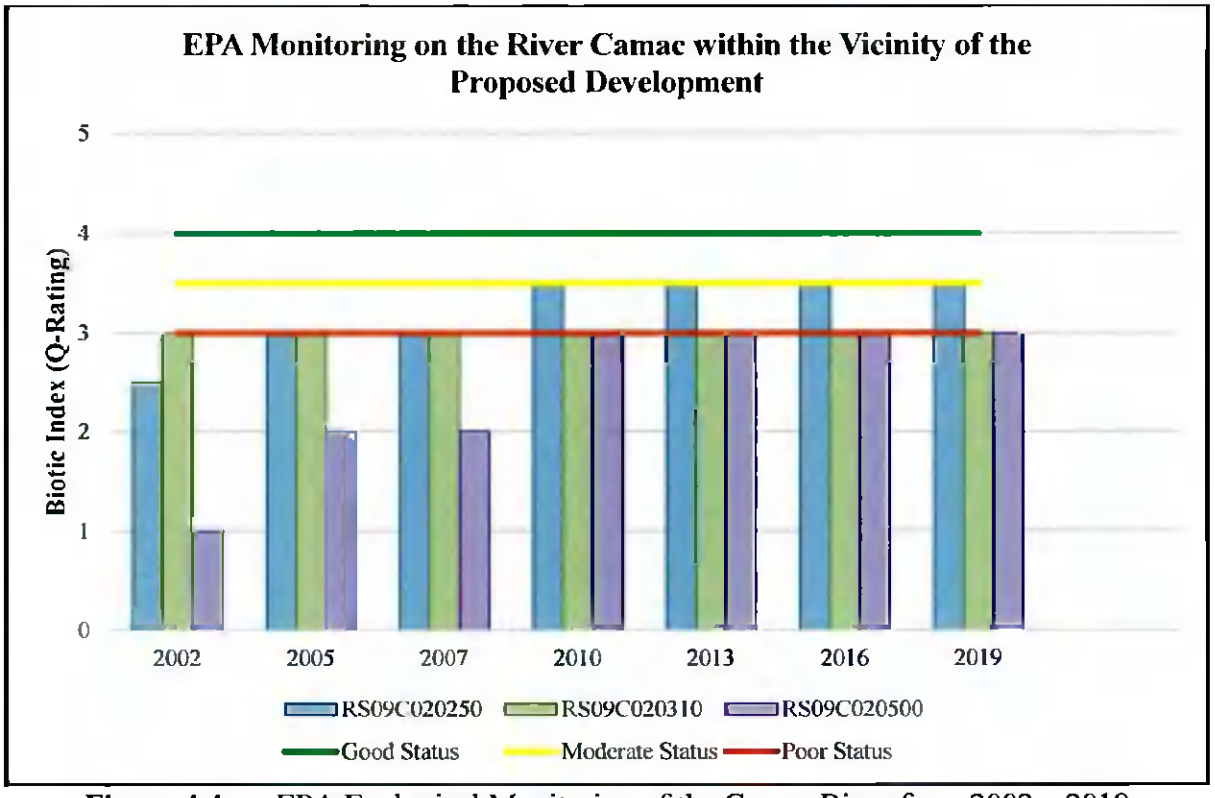


Figure 4.4: EPA Ecological Monitoring of the Camac River from 2002 – 2019

5.0 EUROPEAN SITES (NATURA 2000 SITES) WITHIN ZONE OF INFLUENCE

In assessing the zone of influence of this project upon European sites, the following factors have been be considered:

- Potential impacts arising from the project
- The location and nature of European sites
- Pathways between the development and European sites

There is no standard radius that can be used to select which European sites are to be analysed. This can only be determined by looking at the zone of influence of the project at hand. A rule of thumb often used is to include all European sites within a distance of 15km. Four Special Protection Area (SPA) site occurs within 15km of the proposed development. Eight Special Area of Conservation (SAC) sites occur within 15km of the proposed development and are shown in the Table 5.1

Table 5.1: Special Areas of Conservation and Special Protection Area potentially within the zone of influence

SITE NAME	DESIGNATION	SITE CODE	DISTANCE TO PROPOSED SITE
South Dublin Bay and River Tolka Estuary	SPA	004024	5.64km E
South Dublin Bay	SAC	000210	6.29km E
North Bull Island	SPA	004006	8.67km NE
North Dublin Bay	SAC	000206	8.67km NE
Howth Head	SAC	000202	14.45km NE
Glenasmole Valley	SAC	001209	9.86km SW
Wicklow Mountains	SAC	002122	11.3km S
Wicklow Mountains	SPA	004040	11.31km S
Rye Water Valley/Carton	SAC	001398	12.34km NW
Baldoyle Bay	SAC	000199	13.29km NE
Baldoyle Bay	SPA	004016	13.63km NE
Rockabill to Dalkey Island	SAC	003000	14.52km E

The location of the site in relation to Natura 2000 sites is shown Appendix A. Maps detailing European sites within 2km and 15km of the proposed site are included as Appendix A below.

The proposed development does not have a direct hydrological connection to the Rye Water Valley/Carton SAC (Site Code: 001398), Glenasmole Valley SAC (Site Code: 001209), Wicklow Mountains SAC (Site Code: 002122) and Wicklow Mountains SPA (Site Code: 004040). Each of these protected sites are located upstream from the development site and for

Glenasmole Valley SAC, Wicklow Mountains SAC/SPA located at a considerable topographical difference from the development site. Therefore, in the absence of a source-pathway-receptor relationship and given the distances from the development, these sites have been screened out.

Rockabill to Dalkey Island SAC (Site Code: 003000), Baldoyle Bay SAC (Site Code: 000199), Baldoyle Bay SPA (Site Code: 004016) are hydrologically connected to the site via the Rivers Comac and Liffey however given the considerable hydrological distance and dilution effect of the Irish Sea these sites have been ruled out.

For this assessment, the site considered to be within the zone of influence of the proposed development was the South Dublin Bay SAC (Site code: 000210), South Dublin Bay and River Tolka Estuary SPA (Site code: 004024), North Dublin Bay SAC (Site code: 000206) and North Bull Island SPA (Site code: 004006) due to a potential hydrological connectivity with the proposed development site.

5.1 SOUTH DUBLIN BAY SAC (SITE CODE: 000210)

This site lies south of the River Liffey in Co. Dublin and extends from the South Wall to the west pier at Dun Laoghaire. It is an intertidal site with extensive areas of sand and mudflats. The sediments are predominantly sands but grade to sandy muds near the shore at Merrion Gates. The main channel which drains the area is Cockle Lake. The site is a Special Area of Conservation (SAC) selected for the following habitats and/or species listed on Annex I / II of the E.U. Habitats Directive (* = priority; numbers in brackets are Natura 2000 codes):

HABITATS	
CODE	DESCRIPTION
1140	Tidal Mudflats and Sandflats
1210	Annual vegetation of drift lines
1310	*Salicornia* and other annuals colonising mud and sand
2110	Embryonic shifting dunes

The conservation objectives for the SAC site are to maintain or restore the favourable conservation condition of the qualifying interests. An excerpt from the Natura 2000 Data Form for the South Dublin Bay SAC is included below, while further details are available within the site's site synopsis;

"Site possesses a fine and fairly extensive example of intertidal flats. Sediment type is predominantly sand, with muddy sands in the more sheltered areas. A typical macro-invertebrate fauna exists. Has the largest stand of *Zostera* on the east coast. Supports part of the important wintering waterfowl populations of Dublin Bay. Regularly has an internationally population of *Branta bernicila horta*, plus nationally important numbers of at least a further 6 species, including *Limosa lapponica*. Regular autumn roosting ground for significant numbers of *Sterna terns*, including *S. dougallii*. The scientific interests of the site have been well documented. This intertidal site extends from the South Wall at Dublin Port to the West Pier at Dun Laoghaire, a distance of c. 5 km. At their widest, the intertidal flats extend for almost 3 km. The seaward boundary is marked by the low tide mark, while the landward boundary is

now almost entirely artificially embanked. Several permanent channels exist, the largest being Cockle Lake. A small sandy beach occurs at Merrion Gates, while some bedrock shore occurs near Dun Laoghaire. A number of small streams and drains flow into the site. The proximity of the site to Dublin City results in it being a very popular recreational area. It is also important for educational and research purposes."

Figure 5.1: South Dublin Bay SAC

South Dublin Bay SAC Conservation Objectives

The Habitats Directive requires the Appropriate Assessment process to assess the potential impacts of the development "in *view of the site's conservation objectives*". Site specific conservation objectives (SSCOs) for the qualifying interests of the South Dublin Bay SAC are provided in the table below, where available from the NPWS document "*Conservation Objectives: South Dublin Bay SAC (Site code: 000210)* (NPWS, 2013).

ATTRIBUTE	MEASURE	TARGET
[1140] Mudflats and sandflats not covered by seawater at low tide		
Habitat area	Hectares	The permanent habitat area is stable or increasing, subject to natural processes
Community extent	Hectares	Maintain the extent of the *Zostera*-dominated community, subject to natural processes
Community structure: *Zostera* density	Shoots/m²	Conserve the high quality of the *Zostera*-dominated community, subject to natural processes
Community distribution Hectares	Hectares	Conserve the following community type in a natural condition: Fine sands with *Angulus tenuis* community complex
[1210] Annual vegetation of drift lines		
None Specified	-	-
[1310] *Salicornia* and other annuals colonising mud and sand		
None Specified	-	-
[2110] Embryonic shifting dunes		
None Specified	-	-

South Dublin Bay SAC Conservation Status

According to the Habitat's Directive. favourable conservation status of a habitat is achieved when:

- Its natural range and areas it covers within that range are stable or increasing, and
- The specific structure and functions which are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future, and
- The conservation status of its typical species is favourable as defined below.

According to the Habitat's Directive, favourable conservation status of a species is achieved 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, and
- 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 probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.

The conservation statuses for the qualifying interests of South Dublin Bay SAC are outlined below.

CODE	QUALIFYING INTEREST	NATIONAL CONSERVATION STATUS*	SITE LEVEL CONSERVATION STATUS**
1140	Tidal Mudflats and Sandflats	Inadequate	Good
1210	Annual vegetation of drift lines	Inadequate	Good
1310	*Salicornia* and other annuals colonising mud and sand	Inadequate	Good
2110	Embryonic shifting dunes	Inadequate	Good

**Sourced from the Status of EU Protected Habitats and Species in Ireland (NPWS, 2019b and 2019c)*
***Sourced from NPWS (2020a)*

5.2 NORTH DUBLIN BAY SAC (SITE CODE: 000206)

This site covers the inner part of north Dublin Bay, the seaward boundary extending from the Bull Wall lighthouse across to the Martello Tower at Howth Head. The North Bull Island is the focal point of this site. The site is a Special Area of Conservation (SAC) selected for the following habitats and/or species listed on Annex I / II of the E.U. Habitats Directive (* = priority; numbers in brackets are Natura 2000 codes):

HABITATS	
CODE	DESCRIPTION
1140	Tidal Mudflats and Sandflats
1210	Annual vegetation of drift lines
1310	*Salicornia* and other annuals colonising mud and sand
1330	Atlantic Salt Meadows
1410	Mediterranean Salt Meadows
2110	Embryonic Shifting Dunes
2120	Marram Dunes (White Dunes)
2130	Fixed Dunes (Grey Dunes) *
2190	Humid Dune Slacks

** denotes a priority habitat*

SPECIES		
CODE	COMMON NAME	SCIENTIFIC NAME
1395	Petalwort	*Petalophyllum ralfsii*

Figure 5.2: North Dublin Bay SAC

North Dublin Bay SAC Conservation Objectives

The Habitats Directive requires the Appropriate Assessment process to assess the potential impacts of the development "in *view of the site's conservation objectives*". Site specific conservation objectives (SSCOs) for the qualifying interests of the North Dublin Bay SAC are provided in the table below, where available from the NPWS document "*Conservation Objectives: North Dublin Bay SAC (Site code: 000206)* (NPWS, 2013).

ATTRIBUTE	MEASURE	TARGET
[1140] Mudflats and sandflats not covered by seawater at low tide		
Habitat area	Hectares	Area stable or increasing, subject to natural processes, including erosion and succession. For sub-site mapped: North Bull Island
Habitat distribution	Occurrence	No decline, or change in habitat distribution, subject to natural processes
Physical structure: sediment supply	Presence/ absence of physical barriers	Maintain, or where necessary restore, natural circulation of sediments and organic matter, without any physical obstructions
Physical structure: creeks and pans	Occurrence	Maintain creek and pan structure, subject to natural processes, including erosion and succession
Physical structure: flooding regime	Hectares flooded; frequency	Maintain natural tidal regime
Vegetation structure: zonation	Occurrence	Maintain the range of coastal habitats including transitional zones, subject to natural processes including erosion and succession
Vegetation structure: vegetation height	Maintain structural variation within sward	Maintain structural variation within sward
Vegetation structure: vegetation cover	Percentage cover at a representative number of monitoring stops	Maintain more than 90% of area outside creeks vegetated
Vegetation composition: typical species and subcommunities	Percentage cover	Maintain the presence of species-poor communities listed in SMP (McCorry and Ryle, 2009)
Vegetation structure: negative indicator species - *Spartina anglica*	Hectares	No significant expansion of common cordgrass (*Spartina anglica*), with an annual spread of less than 1%
[1330] Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*)		
Habitat area	Hectares	Area stable or increasing, subject to natural processes, including erosion and succession. For sub-site mapped: North Bull Island - 81.84ha
Habitat distribution	Occurrence	No decline or change in habitat distribution, subject to natural processes.
Physical structure: sediment supply	Presence/ absence of physical barriers	Maintain, or where necessary restore, natural circulation of sediments and organic matter, without any physical obstructions
Physical structure: creeks and pans	Occurrence	Maintain creek and pan structure, subject to natural processes, including erosion and succession
Physical structure: flooding regime	Hectares flooded; frequency	Maintain natural tidal regime
Vegetation structure: zonation	Occurrence	Maintain the range of coastal habitats including transitional zones, subject to natural processes including erosion and succession
Vegetation structure: vegetation height	Centimetres	Maintain structural variation within sward

ATTRIBUTE	MEASURE	TARGET
Vegetation structure: negative indicator species - *Spartina anglica*	Hectares	No significant expansion of common cordgrass (*Spartina anglica*), with an annual spread of less than 1%
Vegetation composition: typical species and subcommunities	Percentage cover at a representative sample of monitoring stops	Maintain range of subcommunities with typical species listed in SMP (McCorry and Ryle, 2009)
[1410] Mediterranean salt meadows (*Juncetalia maritimi*)		
Habitat area	Hectares	Area stable or increasing, subject to natural processes, including erosion and succession. For sub-site mapped: North Bull Island - 7.98ha.
Habitat distribution	Occurrence	No decline or change in habitat distribution, subject to natural processes
Physical structure: sediment supply	Presence/absence of physical barriers	Maintain/restore natural circulation of sediments and organic matter, without any physical obstructions
Physical structure: creeks and pans	Occurrence	Maintain creek and pan structure, subject to natural processes, including erosion and succession
Physical structure: flooding regime	Hectares flooded; frequency	Maintain natural tidal regime
Vegetation structure: zonation	Occurrence	Maintain range of coastal habitats including transitional zones, subject to natural processes including erosion and succession
Vegetation structure: vegetation height Centimetres Maintain structural variation in the sward	Centimetres	Maintain structural variation in the sward
Vegetation structure: vegetation cover	Percentage cover at a representative sample of monitoring stops	Maintain more than 90% of area outside creeks vegetated
Vegetation composition: typical species and subcommunities	Percentage cover at a representative number of monitoring stops	Maintain range of subcommunities with characteristic species listed in SMP (McCorry and Ryle, 2009)
Vegetation structure: negative indicator species - *Spartina anglica*	Hectares	No significant expansion of common cordgrass (*Spartina anglica*), with an annual spread of less than 1%
[2110] Embryonic shifting dunes		
Habitat area	Hectares	Area stable or increasing, subject to natural processes, including erosion and succession. For sub-sites mapped: North Bull - 2.64ha; South Bull - 3.43ha
Habitat distribution	Occurrence	No decline or change in habitat distribution, subject to natural processes

ATTRIBUTE	MEASURE	TARGET
Physical structure: sediment supply	Presence/absence of physical barriers	Maintain/restore natural circulation of sediments and organic matter, without any physical obstructions
Vegetation structure: zonation	Occurrence	Maintain range of coastal habitats including transitional zones, subject to natural processes including erosion and succession
Vegetation composition: plant health of foredune grasses	Percentage cover	Percentage cover More than 95% of sand couch (*Elytrigia juncea*) and/or lyme-grass (*Leymus arenarius*) should be healthy (i.e. green plant parts above ground and flowering heads present)
Vegetation composition: typical species and subcommunities	Percentage cover at a representative number of monitoring stops	Maintain the presence of species-poor communities with typical species: sand couch (*Elytrigia juncea*) and/or lyme-grass (*Leymus arenarius*)
Vegetation composition: negative indicator species	Percentage cover	Negative indicator species (including non-native species) to represent less than 5% cover
[2120] Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes)		
Habitat area	Hectares	Area stable or increasing, subject to natural processes including erosion and succession. North Bull - 2.20ha; South Bull - 0.97ha. S
Habitat distribution	Occurrence	No decline or change in habitat distribution, subject to natural processes
Physical structure: functionality and sediment supply	Presence/ absence of physical barriers	Maintain the natural circulation of sediment and organic matter, without any physical obstructions
Vegetation structure: zonation	Occurrence	Vegetation structure: zonation Occurrence Maintain the range of coastal habitats including transitional zones, subject to natural processes including erosion and succession
Vegetation composition: plant health of dune grasses heads present)	Percentage cover	95% of marram grass (*Ammophila arenaria*) and/or lyme-grass (*Leymus arenarius*) should be healthy (i.e. green plant parts above ground and flowering heads present)
Vegetation composition: typical species and subcommunities	Percentage cover at a representative number of monitoring stops	Maintain the presence of species-poor communities dominated by marram grass (*Ammophila arenaria*) and/or lymegrass (*Leymus arenarius*)
Vegetation composition: negative indicator species	Percentage cover	Negative indicator species (including non-natives) to represent less than 5% cover
[2130] Fixed coastal dunes with herbaceous vegetation (grey dunes)		
Habitat area	Hectares	Area stable or increasing, subject to natural processes including erosion and succession. For subsites mapped: North Bull - 40.29ha; South Bull - 64.56ha
Habitat distribution	Occurrence	No decline or change in habitat distribution, subject to natural processes

ATTRIBUTE	MEASURE	TARGET
Physical structure: functionality and sediment supply	Presence/ absence of physical barriers	Maintain the natural circulation of sediment and organic matter, without any physical obstructions
Vegetation structure: zonation	Occurrence	Maintain the range of coastal habitats including transitional zones, subject to natural processes including erosion and succession
Vegetation structure: bare ground	Percentage	Bare ground should not exceed 10% of fixed dune habitat, subject to natural processes
Vegetation structure: sward height	Centimetres	Maintain structural variation within sward
Vegetation composition: typical species and subcommunities	Percentage cover at a representative number of monitoring stops	Maintain range of subcommunities with typical species listed in Delaney et al. (2013)
Vegetation composition: negative indicator species (including *Hippophae rhamnoides*)	Percentage cover	Negative indicator species (including non-natives) to represent less than 5% cover
Vegetation composition: scrub/trees	Percentage cover	No more than 5% cover or under control
[2190] Humid dune slacks		
Habitat area	Hectares	Area increasing, subject to natural processes including erosion and succession. For sub-sites mapped: North Bull - 2.96ha; South Bull - 9.15ha
Habitat distribution	Occurrence	No decline or change in habitat distribution, subject to natural processes
Physical structure: functionality and sediment supply	Presence/ absence of physical barriers	Maintain the natural circulation of sediment and organic matter, without any physical obstructions
Physical structure: hydrological and flooding regime	Water table levels; groundwater fluctuations (metres)	Maintain natural hydrological regime
Vegetation structure: zonation	Occurrence	Maintain the range of coastal habitats including transitional zones, subject to natural processes including erosion and succession
Vegetation structure: bare ground	Vegetation structure: bare ground Percentage cover	Bare ground should not exceed 5% of dune slack habitat, with the exception of pioneer slacks which can have up to 20% bare ground
Vegetation structure: vegetation height	Centimetres	Maintain structural variation within sward
Vegetation composition: typical species and subcommunities	Percentage cover at a representative number of monitoring stops	Maintain range of subcommunities with typical species listed in Delaney et al. (2013)

ATTRIBUTE	MEASURE	TARGET
Vegetation composition: cover of *Salix repens*	Percentage cover; centimetres	Maintain less than 40% cover of creeping willow (*Salix repens*)
Vegetation composition: negative indicator species	Percentage cover	Negative indicator species (including non-natives) to represent less than 5% cover
Vegetation composition: scrub/trees	Percentage cover	No more than 5% cover or under control
[1395] Petalwort *Petalophyllum ralfsii*		
Distribution of populations	Number and geographical spread of populations	No decline
Population size	Number of individuals	No decline. Population at Bull Island estimated at a maximum of 5,824 thalli. Actual population is more likely to be 5% of this, or c. 300 thalli
Area of suitable habitat	Hectares	No decline. Area of suitable habitat at Bull Island is estimated at c. 0.04ha
Hydrological conditions: soil moisture	Occurrence	Maintain hydrological conditions so that substrate is kept moist and damp throughout the year, but not subject to prolonged inundation by flooding in winter
Vegetation structure: height and cover	Centimetres and percentage	Maintain open, low vegetation with a high percentage of bryophytes (small acrocarps and liverwort turf) and bare ground

North Dublin Bay SAC Conservation Status

According to the Habitat's Directive, favourable conservation status of a habitat is achieved when:

- Its natural range and areas it covers within that range are stable or increasing, and
- The specific structure and functions which are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future, and
- The conservation status of its typical species is favourable as defined below.

According to the Habitat's Directive, favourable conservation status of a species is achieved 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. and
- 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 probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.

The conservation statuses for the qualifying interests of the North Dublin Bay SAC are outlined below.

CODE	QUALIFYING INTEREST	NATIONAL CONSERVATION STATUS*	SITE LEVEL CONSERVATION STATUS**
1140	Tidal Mudflats and Sandflats	Inadequate	Good
1210	Annual vegetation of drift lines	Inadequate	Good
1310	*Salicornia* and other annuals colonising mud and sand	Favourable	Excellent
1330	Atlantic Salt Meadows	Inadequate	Good
1410	Mediterranean Salt Meadows	Inadequate	Good
2110	Embryonic Shifting Dunes	Favourable	Excellent
2120	Marram Dunes (White Dunes)	Inadequate	Good
2130	Fixed Dunes (Grey Dunes)	Favourable	Excellent
2190	Humid Dune Slacks	Favourable	Excellent
1395	Petalwort	Inadequate	Good

**Sourced from the Status of EU Protected Habitats and Species in Ireland (NPWS, 2019b and 2019c)*
***Sourced from NPWS (2020b)*

5.3 SOUTH DUBLIN BAY AND RIVER TOLKA ESTUARY SPA (SITE CODE: 004024)

The South Dublin Bay and River Tolka Estuary SPA comprises a substantial part of Dublin Bay. It includes the intertidal area between the River Liffey and Dun Laoghaire, and the estuary of the River Tolka to the north of the River Liffey, as well as Booterstown Marsh. A portion of the shallow marine waters of the bay is also included. In the south bay, the intertidal flats

extend for almost 3 km at their widest. The sediments are predominantly well-aerated sands. Several permanent channels exist, the largest being Cockle Lake. A small sandy beach occurs at Merrion Gates, while some bedrock shore occurs near Dun Laoghaire. The landward boundary is now almost entirely artificially embanked. There is a bed of Dwarf Eelgrass (*Zostera noltii*) below Merrion Gates which is the largest stand on the east coast. Green algae (*Ulva spp.*) are distributed throughout the area at a low density. The macroinvertebrate fauna is well-developed and is characterised by annelids such as Lugworm (Arenicola marina), *Nephthys spp.* and Sand Mason (*Lanice conchilega*), and bivalves, especially Cockle (*Cerastoderma edule*) and Baltic Tellin (*Macoma balthica*). The small gastropod Spire Shell (*Hydrobia ulvae*) occurs on the muddy sands off Merrion Gates, along with the crustacean *Corophium volutator*. Sediments in the Tolka Estuary vary from soft thixotrophic muds with a high organic content in the inner estuary to exposed, well-aerated sands off the Bull Wall. The site includes Booterstown Marsh, an enclosed area of saltmarsh and muds that is cut off from the sea by the Dublin/Wexford railway line. being linked only by a channel to the east, the Nutley stream. Sea water incursions into the marsh occur along this stream at high tide. An area of grassland at Poolbeg, north of Irishtown Nature Park, is also included in the site. The site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for the following species: Light-bellied Brent Goose, Oystercatcher, Ringed Plover, Grey Plover, Knot, Sanderling, Dunlin, Bar-tailed Godwit, Redshank. Black-headed Gull, Roseate Tern, Common Tern and Arctic Tern. The E.U. Birds Directive pays particular attention to wetlands, and as these form part of the SPA, the site and its associated waterbirds are of special conservation interest for Wetland & Waterbirds. The site is a SAC selected for the following habitats and species listed on Annex I / II of the E.U. Habitats Directive:

HABITATS	
CODE	DESCRIPTION
A999	Wetlands

SPECIES		
CODE	COMMON NAME	SCIENTIFIC NAME
A046	Light-bellied Brent Goose	*Branta bernicla hrota*
A130	Oystercatcher	*Haematopus ostralegus*
A137	Ringed Plover	*Charadrius hiaticula*
A141	Grey Plover	*Plover Pluvialis squatarola*
A143	Knot	*Calidris canutus*
A144	Sanderling	*Calidris alba*
A149	Dunlin	*Calidris alpina alpina*
A157	Bar-tailed Godwit	*Limosa lapponica**
A162	Redshank	*Tringa totanus*
A179	Black-headed Gull	*Chroicocephalus ridibundus*
A192	Roseate Tern	*Sterna dougallii**
A193	Common Tern	*Sterna hirundo**
A194	Arctic Tern Sterna	*Sterna paradisaea**

** Bird species listed under Annex I of the E.U. Birds Directive*

Figure 5.3: North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA

South Dublin Bay SPA Conservation Objectives

The Habitats Directive requires the Appropriate Assessment process to assess the potential impacts of the development "in *view of the site's conservation objectives*". Site specific conservation objectives (SSCOs) for the qualifying interests of the South Dublin Bay and River Tolka Estuary SPA are provided in the table below, where available from the NPWS document "*Conservation Objectives: South Dublin Bay SPA* (Site code: 004024) (NPWS, 2015).

ATTRIBUTE	MEASURE	TARGET
[A046] Light-bellied Brent Goose		
Population trend	Percentage change	Long term population trend stable or increasing
Distribution	Range, timing and intensity of use of areas	No significant decrease in the range, timing or intensity of use of areas by Light-bellied Brent Goose, other than that occurring from natural patterns of variation
[A130] Oystercatcher		
Population trend	Percentage change	Long term population trend stable or increasing
Distribution	Range, timing and intensity of use of areas	No significant decrease in the range, timing or intensity of use of areas by Oystercatcher, other than that occurring from natural patterns of variation
[A137] Ringed Plover		
Population trend	Percentage change	Long term population trend stable or increasing
Distribution	Range, timing and intensity of use of areas	No significant decrease in the range, timing or intensity of use of areas by Ringed Plover, other than that occurring from natural patterns of variation
[A141] Grey Plover		
Population trend	Percentage change	Long term population trend stable or increasing
Distribution	Range, timing and intensity of use of areas	No significant decrease in the range, timing or intensity of use of areas by Grey Plover other than that occurring from natural patterns of variation
[A143] Knot		
Population trend	Percentage change	Long term population trend stable or increasing
Distribution	Range, timing and intensity of use of areas	No significant decrease in the range, timing or intensity of use of areas by Knot other than that occurring from natural patterns of variation
[A144] Sanderling		
Population trend	Percentage change	Long term population trend stable or increasing
Distribution	Range, timing and intensity of use of areas	No significant decrease in the range, timing or intensity of use of areas by Sanderling other than that occurring from natural patterns of variation
[A149] Dunlin		
Population trend	Percentage change	Long term population trend stable or increasing

ATTRIBUTE	MEASURE	TARGET
Distribution	Range, timing and intensity of use of areas	No significant decrease in the range, timing or intensity of use of areas by Dunlin other than that occurring from natural patterns of variation
[A157] Bar-tailed Godwit		
Population trend	Percentage change	Long term population trend stable or increasing
Distribution	Range, timing and intensity of use of areas	No significant decrease in the range. timing or intensity of use of areas by Bar-tailed Godwit other than that occurring from natural patterns of variation
[A162] Redshank		
Population trend	Percentage change	Long term population trend stable or increasing
Distribution	Range, timing and intensity of use of areas	No significant decrease in the range, timing or intensity of use of areas Redshank other than that occurring from natural patterns of variation
[A192] Roseate Tern		
Passage population: individuals	Number	No significant decline
Distribution: roosting areas	Number; location; area(hectares)	No significant decline
Prey biomass available	Kilogrammes	No significant decline
Barriers to connectivity	Number; location; shape; area (hectares)	No significant increase
Disturbance at roosting site	Level of impact	Human activities should occur at levels that do not adversely affect the numbers of roseate tern among the post-breeding aggregation of terns
[A193] Common Tern		
Breeding population abundance: apparently occupied nests (AONs)	Number	No significant decline
Productivity rate: fledged young per breeding pair	Mean number	No significant decline
Passage population: individuals	Number	No significant decline
Distribution: roosting areas	Number; location; area(hectares)	No significant decline
Prey biomass available	Kilogrammes	No significant decline
Barriers to connectivity	Number; location;	No significant increase

ATTRIBUTE	MEASURE	TARGET
	shape; area (hectares)	
Disturbance at breeding site	Level of impact	Human activities should occur at levels that do not adversely affect the breeding common tern population
Disturbance at roosting site	Level of impact	Human activities should occur at levels that do not adversely affect the numbers of roseate tern among the post-breeding aggregation of terns
[A194] Arctic Tern		
Population trend	Number of individuals	No significant decline
Distribution: roosting areas	Number; location; area(hectares)	No significant decline
Prey biomass available	Kilogrammes	No significant decline
Barriers to connectivity	Number; location; shape; area (hectares)	No significant increase
Disturbance at roosting site	Level of impact	Human activities should occur at levels that do not adversely affect the numbers of roseate tern among the post-breeding aggregation of terns
[A999] Wetlands		
Habitat area	Hectares	The permanent area occupied by the wetland habitat should be stable and not significantly less than the area of 2,192 hectares, other than that occurring from natural patterns of variation

South Dublin Bay and River Tolka Estuary SPA Conservation Status

According to the Habitat's Directive, favourable conservation status of a habitat is achieved when:

- Its natural range and areas it covers within that range are stable or increasing, and
- The specific structure and functions which are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future, and
- The conservation status of its typical species is favourable as defined below.

According to the Habitat's Directive, favourable conservation status of a species is achieved 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, and
- 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 probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.

The conservation statuses for the qualifying interests of the South Dublin Bay SPA are outlined below.

CODE	QUALIFYING INTEREST	CONSERVATION STATUS*	SITE LEVEL CONSERVATION STATUS**
A046	Light-bellied Brent Goose (*Branta bernicla hrota*)	Amber	Excellent
A130	Oystercatcher (*Haematopus ostralegus*)	Amber	Good
A137	Ringed Plover (*Charadrius hiaticula*)	Green	Good
A141	Grey Plover (*Pluvialis squatarola*)	Amber	Good
A143	Knot (*Calidris canutus*)	Amber	Good
A144	Sanderling (*Calidris alba*)	Green	Excellent
A149	Dunlin (*Calidris alpina*)	Red	Good
A157	Bar-tailed Godwit (*Limosa lapponica*)	Amber	Good
A162	Redshank (*Tringa totanus*)	Red	Good
A179	Black-headed Gull (*Chroicocephalus ridibundus*)	Red	Good
A192	Roseate Tern (*Sterna dougallii*)	Amber	Excellent
A193	Common Tern (*Sterna hirundo*)	Amber	Excellent
A194	Arctic Tern Sterna (*Sterna paradisaea*)	Amber	Excellent

** Birds of Conservation Concern in Ireland 2021- 2026 (Gilbert, Stanbury & Lewis, 2021)*
***Sourced from NPWS (2020c)*

5.4 NORTH BULL ISLAND SPA (SITE CODE: 004006)

This site covers all of the inner part of north Dublin Bay, with the seaward boundary extending from the Bull Wall lighthouse across to Drumleck Point at Howth Head. 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 5 km long and 1 km wide and runs parallel to the coast between Clontarf and Sutton. Part of the interior of the island has been converted to golf courses. The site is a SAC) selected for the following habitats and species listed on Annex I / II of the E.U. Habitats Directive:

HABITATS	
CODE	DESCRIPTION
A999	Wetlands

SPECIES		
CODE	COMMON NAME	SCIENTIFIC NAME
A046	Light-bellied Brent Goose	*Branta bernicla hrota*
A048	Shelduck	*Tadorna tadorna*
A052	Teal	*Anas crecca*
A054	Pintail	*Anas acuta*
A056	Shoveler	*Anas clypeata*
A130	Oystercatcher	*Haematopus ostralegus*
A141	Grey Plover	*Plover Pluvialis squatarola*
A143	Knot	*Calidris canutus*
A144	Sanderling	*Calidris alba*
A149	Dunlin	*Calidris alpina alpina*
A156	Black-tailed Godwit	*Limosa limosa*
A157	Bar-tailed Godwit	*Limosa lapponica**
A160	Curlew	*Numenius arquata*
A162	Redshank	*Tringa totanus*
A169	Turnstone	*Arenaria interpres*
A179	Black-headed Gull	*Chroicocephalus ridibundus*

** Bird species listed under Annex I of the E.U. Birds Directive*

The conservation objectives for the SAC site are to maintain or restore the favourable conservation condition of the qualifying interests. An excerpt from the Natura 2000 Data Form for the North Bull Island SPA is included below, while further details are available within the site's site synopsis (NPWS, 2014).

"Saltmarsh extends along the length of the landward side of the island and provides the main roost site for wintering birds in Dublin Bay. The island shelters two intertidal lagoons which are divided by a solid causeway. These lagoons provide the main feeding grounds for the wintering waterfowl. The sediments of the lagoons are mainly sands with a small and varying mixture of silt and clay. Green algal mats (*Ulva spp.*) are a feature of the flats during summer. These sediments have a rich macro-invertebrate fauna, with high densities of Lugworm

(*Arenicola marina*) and Ragworm (*Hediste diversicolor*). 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."

NORTH BULL ISLAND SPA Conservation Objectives

The Habitats Directive requires the Appropriate Assessment process to assess the potential impacts of the development "in *view of the site's conservation objectives*". Site specific conservation objectives (SSCOs) for the qualifying interests of the North Bull Island SPA are provided in the table below, where available from the NPWS document "*Conservation Objectives:* North Bull Island SPA (Site code: 004006) (NPWS, 2015).

ATTRIBUTE	MEASURE	TARGET
[A046] Light-bellied Brent Goose		
Population trend	Percentage change	Long term population trend stable or increasing
Distribution	Range, timing and intensity of use of areas	No significant decrease in the range, timing or intensity of use of areas by Light-bellied Brent Goose, other than that occurring from natural patterns of variation
[A048] Shelduck		
Population trend	Percentage change	Long term population trend stable or increasing
Distribution	Range, timing and intensity of use of areas	No significant decrease in the range, timing or intensity of use of areas by Shelduck, other than that occurring from natural patterns of variation
[A052] Teal		
Population trend	Percentage change	Long term population trend stable or increasing
Distribution	Range, timing and intensity of use of areas	No significant decrease in the range, timing or intensity of use of areas by Teal, other than that occurring from natural patterns of variation
[A054] Pintail		
Population trend	Percentage change	Long term population trend stable or increasing
Distribution	Range, timing and intensity of use of areas	No significant decrease in the range, timing or intensity of use of areas by Pintail, other than that occurring from natural patterns of variation
[A056] Shoveler		
Population trend	Percentage change	Long term population trend stable or increasing
Distribution	Range, timing and intensity of use of areas	No significant decrease in the range, timing or intensity of use of areas by Shoveler, other than that occurring from natural patterns of variation
[A130] Oystercatcher		
Population trend	Percentage change	Long term population trend stable or increasing
Distribution	Range, timing and intensity of use of areas	No significant decrease in the range, timing or intensity of use of areas by Oystercatcher other than that occurring from natural patterns of variation
[A140] Golden Plover		
Population trend	Percentage change	Long term population trend stable or increasing

ATTRIBUTE	MEASURE	TARGET
Distribution	Range, timing and intensity of use of areas	No significant decrease in the range, timing or intensity of use of areas by Golden Plover other than that occurring from natural patterns of variation
[A141] Grey Plover		
Population trend	Percentage change	Long term population trend stable or increasing
Distribution	Range, timing and intensity of use of areas	No significant decrease in the range, timing or intensity of use of areas by Grey Plover other than that occurring from natural patterns of variation
[A143] Knot		
Population trend	Percentage change	Long term population trend stable or increasing
Distribution	Range, timing and intensity of use of areas	No significant decrease in the range, timing or intensity of use of areas by Knot other than that occurring from natural patterns of variation
[A144] Sanderling		
Population trend	Percentage change	Long term population trend stable or increasing
Distribution	Range, timing and intensity of use of areas	No significant decrease in the range, timing or intensity of use of areas by Sanderling other than that occurring from natural patterns of variation
[A149] Dunlin		
Population trend	Percentage change	Long term population trend stable or increasing
Distribution	Range, timing and intensity of use of areas	No significant decrease in the range, timing or intensity of use of areas by Dunlin other than that occurring from natural patterns of variation
[A156] Black-tailed Godwit		
Population trend	Percentage change	Long term population trend stable or increasing
Distribution	Range, timing and intensity of use of areas	No significant decrease in the range, timing or intensity of use of areas by Black-tailed Godwit other than that occurring from natural patterns of variation
[A157] Bar-tailed Godwit		
Population trend	Percentage change	Long term population trend stable or increasing
Distribution	Range, timing and intensity of use of areas	No significant decrease in the range, timing or intensity of use of areas by Bar-tailed Godwit other than that occurring from natural patterns of variation

ATTRIBUTE	MEASURE	TARGET
[A160] Curlew		
Population trend	Percentage change	Long term population trend stable or increasing
Distribution	Range, timing and intensity of use of areas	No significant decrease in the range, timing or intensity of use of areas by Curlew other than that occurring from natural patterns of variation
[A162] Redshank		
Population trend	Percentage change	Long term population trend stable or increasing
Distribution	Range, timing and intensity of use of areas	No significant decrease in the range, timing or intensity of use of areas Redshank other than that occurring from natural patterns of variation
[A169] Turnstone		
Population trend	Percentage change	Long term population trend stable or increasing
Distribution	Range, timing and intensity of use of areas	No significant decrease in the range, timing or intensity of use of areas by Turnstone other than that occurring from natural patterns of variation
[A179] Black-headed Gull		
Population trend	Percentage change	Long term population trend stable or increasing
Distribution	Range, timing and intensity of use of areas	No significant decrease in the range, timing or intensity of use of areas Black-headed Gull other than that occurring from natural patterns of variation
[A999] Wetlands		
Habitat area	Hectares	The permanent area occupied by the wetland habitat should be stable and not significantly less than the area of 1,713 hectares, other than that occurring from natural patterns of variation

North Bull Island SPA Conservation Status

According to the Habitat's Directive, favourable conservation status of a habitat is achieved when:

- Its natural range and areas it covers within that range are stable or increasing, and
- The specific structure and functions which are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future, and
- The conservation status of its typical species is favourable as defined below.

According to the Habitat's Directive, favourable conservation status of a species is achieved 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, and
- 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 probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.

The conservation statuses for the qualifying interests of the North Bull Island SPA are outlined below.

CODE	QUALIFYING INTEREST	CONSERVATION STATUS*	SITE LEVEL CONSERVATION STATUS**
A046	Light-bellied Brent Goose (*Branta bernicla hrota*)	Amber	Excellent
A048	Shelduck (*Tadorna tadorna*)	Amber	Excellent
A052	Teal (*Anas crecca*)	Amber	Excellent
A054	Pintail (*Anas acuta*)	Red	Excellent
A056	Shoveler (*Anas clypeata*)	Red	Excellent
A130	Oystercatcher (*Haematopus ostralegus*)	Amber	Good
A141	Grey Plover (*Pluvialis squatarola*)	Amber	Good
A143	Knot (*Calidris canutus*)	Amber	Good
A144	Sanderling (*Calidris alba*)	Green	Excellent
A149	Dunlin (*Calidris alpina*)	Red	Good
A156	Black-tailed Godwit (*Limosa limosa*)	Amber	Excellent
A157	Bar-tailed Godwit (*Limosa lapponica*)	Amber	Good
A160	Curlew (*Numenius arquata*)	Red	Excellent
A162	Redshank (*Tringa totanus*)	Red	Excellent
A169	Turnstone (*Arenaria interpres*)	Green	Excellent
A179	Black-headed Gull (*Chroicocephalus ridibundus*)	Red	Good

**Birds of Conservation Concern in Ireland 2021- 2026 (Gilbert, Stanbury & Lewis, 2021)*
***Sourced from NPWS (2020d)*

6.0 ASSESSMENT OF LIKELY IMPACTS

6.1 DISTURBANCE TO PROTECTED HABITATS AND SPECIES

The site does not directly impinge on any part of a European site, and as such would not be expected to have any in-situ effects upon a protected site through loss or destruction of habitat, fragmentation of habitat, disturbance of habitat or direct reduction in species density.

It is not considered that the site would contain the habitats or species for which the South Dublin Bay SAC, South Dublin Bay and River Tolka Estuary SPA, North Dublin Bay SAC and North Bull Island SPA have been designated. No areas of sand dunes, mudflats or tidal estuary exist within the site. The nearest example of these habitats hydrologically is approximately 9km via the Rivers Comac and Liffey, therefore the site does not contain any habitat which would have potential links to the qualifying interests associated with saltwater and tidal conditions.

The site would not offer suitable breeding grounds for the bird species associated with both the South Dublin Bay and River Tolka Estuary SPA and North Bull Island SPA. Also, the site would not offer suitable foraging habitat for these protected species. The majority of the site is made up of modified habitats (BL3 and ED3) which would be of limited value. While Herring Gull (*Larus argentatus*) was noted flying in the vicinity of the site this species is opportunistic and is known to scavenge within urban areas.

It is not envisaged that protected species would be adversely impacted upon by the site due to noise generated by the proposed development or by noise generated from the associated site works and urban setting of the site. While there would be increased noise and dust emissions during the construction phase of the development, these would not be considered to pose a significant risk owing to the transient nature of the site traffic and the distances between the site and designated sites. Any fauna in the area will be accustomed to noise from human activity during the operational phase of the development. There would be no significant impact on the Natura 2000 network from site excavation works as they would be limited to within the site boundary and only outside it for connecting to the stormwater drainage and foul water systems in proximity to the proposed site.

It is therefore considered that the proposed development would not result in any significant risk to the protected habitats and species of the South Dublin Bay SAC, South Dublin Bay and River Tolka Estuary SPA, North Dublin Bay SAC and North Bull Island SPA due to habitat fragmentation or loss, disturbance or reduction in species density.

6.2 INVASIVE SPECIES

Under Regulation 49(2) of the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No. 477 of 2011), save in accordance with a licence granted under paragraph (7), any person who plants, disperses, allows or causes to disperse, spreads or otherwise causes to grow in any place specified in relation to any plant which is included in Part 1 of the Third Schedule shall be guilty of an offence. Materials containing invasive species such as Japanese Knotweed are considered "controlled waste", and, as such, there are legal restrictions on their handling and disposal. Under Regulation 49(7) of the European Communities (Birds and Natural Habitats) Regulations 2011, it is a legal requirement to obtain a license to move "vector materials" listed in the Third Schedule, Part 3.

Table 6.1: National Biodiversity Data Centre records of high impact invasive species within 10km square (Tetrad-S86) of the proposed development.

INVASIVE FLORA SPECIES	
Water Fern (*Azolla filiculoides*)	American Skunk-cabbage (*Lysichiton americanus*)
Brazilian Giant-rhubarb (*Gunnera manicata*)	Canadian Waterweed (*Elodea canadensis*)
Curly Waterweed (*Lagarosiphon major*)	Hybrid Knotweed (*Fallopia japonica x sachalinensis = F. x bohemica*)
Giant Hogweed (*Heracleum mantegazzianum*)	Giant Knotweed (*Fallopia sachalinensis*)
Giant-rhubarb (*Gunnera tinctoria*)	Indian Balsam (*Impatiens glandulifera*)
Japanese Knotweed (*Fallopia japonica*)	New Zealand Pigmyweed (*Crassula helmsii*)
Nuttall's Waterweed (*Elodea nuttallii*)	Parrot's-feather (*Myriophyllum aquaticum*)
Rhododendron ponticum	Sea-buckthorn (*Hippophae rhamnoides*)
Spanish Bluebell (*Hyacinthoides hispanica*)	Three-cornered Garlic (*Allium triquetrum*)

The spread of invasive plant and animal species can negatively impact on the conservation objectives of certain Annex I habitats and species designated within SACs.

There are no high impact invasive species within or directly adjacent the site boundary. The risk of invasive species being introduced onto the site during the both the construction and operational phase of the project is considered to be low, with no import of materials with the potential to contain invasive flora species. The landscape plan will use native and non-invasive ornamental species in its design. Any topsoil required for landscaping will come from a certified source.

Therefore, it is considered that there would be no significant risk to protected habitats and species as a result of invasive species from the site.

6.3 POTENTIAL IMPACTS ON WATER QUALITY

The proposed site is located within the Liffey and Dublin Bay Catchment (ID 09), thus the site would be hydrologically linked to the South Dublin Bay SAC (Site code: 000210), South Dublin Bay and River Tolka Estuary SPA, North Dublin Bay SAC and North Bull Island SPA.

However, the site would not be considered to impact upon the listed habitats and species of the SAC site due to deleterious effects on water quality, owing to the location of the site, the scale of the site and the drainage system put in place. All stormwater at the proposed site will be attenuated before leaving the site and joining the local drainage system. Waste water will connect with the local WWTP at Ringsend. Irish Water is currently increasing capacity at this treatment plant with sufficient capacity for the city of Dublin and ensure compliance with the Urban Wastewater Treatment Directive standards.

During the construction phase of projects, a deterioration in water quality can arise through the release of suspended solids during soil disturbance works, the release of uncured concrete and

the release of hydrocarbons (fuels and oils). Construction works would be confined to the proposed development footprint, with no works taking place within or immediately adjacent to a riparian or aquatic habitat. The development of the site would be on hardcore material. There are no drainage manholes located within the site boundary. Any potential sediment would likely remain on site as water percolates to ground with any other runoff that leaves the proposed site during construction captured within the local drainage system that would have measures to prevent sediment from directly entering a watercourse.

In the event suspended solids become entrained in surface water run-off, there is considered to be no significant risk of impact on water quality as suspended solids would likely be retained on site as run-off percolates to the ground. The risk of water quality deterioration as a result of uncured concrete would be further reduced, given that precast concrete / blockwork would be used where possible and surplus concrete would be returned to the batching plant. Given the construction footprint would be relatively small in scale and the type of construction plant and equipment required, the risk of the proposed development impacting significantly upon water quality would be greatly reduced. Therefore, run-off from the proposed development will not have a significant impact on the any watercourse such as the River Comac within the vicinity of the proposed development.

As discussed in Section 4, the site is not located within an area of fluvial flooding nor an area of pluvial flooding. As noted above stormwater will be attenuated on site and released gradually to prevent impacting the local drainage system. Therefore, the site would not be anticipated to pose a significant risk upon the Natura 2000 network as a result of floodwaters.

It is therefore considered that, due to the location of the site, the relative scale and extent of the site, the drainage system and the considerable hydrological distance to the South Dublin Bay SAC, South Dublin Bay and River Tolka Estuary SPA, North Dublin Bay SAC and North Bull Island SPA, the site would not pose a significant risk upon these protected sites due to a deleterious effect on water quality during the operational phase.

6.4 IN COMBINATION EFFECTS

The following plans and projects were reviewed and considered for in-combination effects with the proposed development:

- Dublin City Council Development Plan 2016-2022;
- Dublin City Council Local Economic and Community Plan 2016-2021;
- Proposed and permitted developments in the area available on Dublin City Council planning system.

The site is located within an urban area in Kilmainham, Dublin 8. As the development is within an urban area there is a mixture of developments within the vicinity such as residential properties, amenities, railway lines and the Chapelizod bypass motorway. Buildings in the immediate vicinity of the proposed site are comprised of a mixture of residential and commercial premises. There are no large-scale industrial sites within proximity to the site. Recent planning applications granted within the vicinity of the development include retentions and alterations to buildings for both residential and local amenities.

Table 6.2: Recent planning applications close to the proposed site

Application No.	Development Type	Outcome	Approximate Distance
3964/14	Permission for a development consisting of a commercial/retail unit, 7 no. one bedroom apartments and 6 no. two bedroom apartments (total 13 no. apartments), balconies and roof terraces/gardens at 2nd and 3rd floors, new vehicle, and pedestrian entrances at South Circular Road, 5 no. car spaces and ancillary site development works	Granted - Conditional	30m NE
3870/14	Permission for the construction of 3 no. 3 bed houses, comprised of 1 no. 2-storey detached house & 2 no. 2-storey semi-detached houses.	Granted - Conditional	61m NE
3404/17	Permission for a development which will consist of the following: A) To demolish the existing single storey extension, 22.5m^2 to the rear of my existing residence; B) Construction of part single storey, part two-storey extension, 83 m^2 in area. to side and rear comprising stairwell, kitchen, dining area, utility room and living room on ground floor and stairwell, extended bedroom, additional bedroom and ensuite bathroom on first floor;	Granted - Conditional	127m SW
4198/16	Permission for a development consisting of the demolition of an existing 2-storey side extension to the South, with internal changes to the existing house no. 64 Bulfin Road, with the construction of a proposed 2 no. bedroom 2 storey detached house to the South	Granted - Conditional	320m W
2269/20	Permission for development consisting of the construction of two new houses (one 3-bed, one 4-bed) that are each two-storey, split-level. semi-detached with 2 car spaces and 4 cycle spaces on the site to the rear of 122 and 122A	Granted - Conditional	417m W
4260/19	Permission for development including52 no. apartment dwellings with balconies; (a) 16 no. 2 bedroom apartments; (b) 36 no. 1.5 bedroom apartments.	Granted - Conditional	483m SW
4622/18	Permission for development at 128 & 128A, Inchicore Road, Dublin 8, consisting of: a) Change of use from commercial to residential, incorporating the subdivision of the existing two storey commercial building into 2 no. dwelling houses,	Granted - Conditional	716m NW
2453/19	Amendment to Planning Ref. No. 3635/16 for the previous approved 4-storey apartment development in the back lands for the increase in height to six storey building above semi-basement level consisting of: 6 no. one-bed, 18 no. two-bed apartments	Granted - Conditional	797m W
3890/16	Planning permission for the demolition of an existing detached garage and construction of a two storey, 3 bedroom detached dwelling	Granted - Conditional	810m SW

Air emissions would be typical of a residential complex being primarily from heating and therefore low impact in-and-of-itself. In-combination residential impacts would be controlled by national energy policies, grant schemes and fuel emission targets.

Continued implementation of the Water Framework Directive would result in achieving, or maintaining, improvements to water quality in the River Liffey and Dublin Bay catchment. Developments such as this proposed development could act in combination with existing environmental pressures on the Liffey and Dublin Bay Catchment, including agriculture, anthropogenic, domestic and urban wastewater, urban run-off, industry and forestry. Considering this is a residential complex with 8 two-bedroom apartments the proposed development would not significantly alter the existing characteristics or intensity of foul water to Ringsend WWTP, it is not considered that the proposed development would have a significant in-combination effect with existing or proposed developments in the area. As noted in Section 6.3, it is not considered that the development would pose a significant risk upon any Natura 2000 site due to a deleterious effect on water quality, during either the construction or operational phase.

As discussed in Sections 6.1 – 6.3 above, it is considered that there would be no significant in-combination risk to any European site owing to the development. As there are no anticipated significant risks from the development and proposed works given the small-scale nature of recent nearby developments, the distances of other developments in the area, it is considered that there would be no significant cumulative water, noise or air impacts which would pose a significant risk to designated sites or species.

7.0 SCREENING STATEMENT AND CONCLUSIONS

It is the conclusion of this screening study that there would be no potential for significant effects on European Sites (Natura 2000 network) as a result of the proposed development, by itself or in combination with other developments, and an Appropriate Assessment is not warranted. Screening establishes that there is no potential for significant effects, and the project is recommended to proceed as proposed.

8.0 REFERENCES

Aas, G., Riedmiller, A. (1994) *Trees of Britain & Europe*. Harper Collins Publishers

Averis, B. (2013) P*lants and Habitats: An introduction to common plants and their habitats in Britain and Ireland.* United Kingdom: Swallowtail Print Ltd

Bang, P., Dahlstrøm, P. and Walters, M. (2006) *Animal Tracks and Signs.* Oxford University Press

Byrne, A., Moorkens, E.A., Anderson, R., Killeen, I.J. & Regan, E.C. (2009) *Ireland Red List No. 2 – Non-Marine Molluscs*. National Parks and Wildlife Service, Department of the Environment, Heritage and Local Government, Dublin, Ireland.

Cabot, D. (2004*) Irish Birds*. Harper Collins Publishers, London

Curtis, T. and Thompson, R. (2009) *The Orchids of Ireland.* National Museums Northern Ireland

Devlin, Z. (2014) *Wildflowers of Ireland: A Field Guide*. Cork: Collins Press.

DoEHLG (2009) *Appropriate Assessment of Plans and Projects in Ireland - Guidance for Planning Authorities*.

Environment DG, European Commission (2002) *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*.

Environmental Protection Agency Licence public access information, Available at: http://www.epa.ie/licensing/iedipcse/

EPA (March 2021) "*Code of Practice – Domestic Waste Water Treatment Systems (Population Equivalents ≤10)*".

European Communities Environmental Objectives (Surface Waters) Regulations 2009 (S.I. No. 272 of 2009).

European Communities Environmental Objectives (Freshwater Pearl Mussel) Regulations 2009 (S.I. 296 of 2009)

European Communities (Quality of Salmonid Waters) Regulations 1988 (S.I. No. 293 of 1988)

Fitzpatrick, U., Weeks, L., Wright, M. (2016) *Identification Guide to Irelands Grasses*. National Biodiversity Data Centre

Fossitt, J.A. (2000) *A Guide to Habitats in Ireland*. Kilkenny: The Heritage Council.

Harrap, S. (2013) *Wild Flowers, A Field Guide to the Flowers of Britain & Ireland.* Bloomsbury Publishing

Johnson, O. and More, D. (2006) *Collins Tree Guide: The Most Complete Field Guide to the Trees of Britain and Europe*. London: HarperCollins Publishers.

Kelly, F.L., Connor, L., Matson, R., Feeney, R., Morrissey, E., Coyne, J. and Rocks, K. (2015aa) Sampling Fish for the Water Framework Directive, Rivers 2014. Inland Fisheries Ireland. 3044 Lake Drive. Citywest Business Campus, Dublin 24, Ireland

Kelly, M. and Reynolds, J. (2020) *Ireland's Rivers*. University College Dublin Press.

Marnell, F., Kingston, N. and Looney, D. (2009). *Ireland Red List No. 3: Terrestrial Mammals*, National Parks and Wildlife Service, Department of the Environment. Heritage and Local Government, Dublin, Ireland.

National Parks and Wildlife Service, available at: http://www.npws.ie/protected-sites

NPWS (2020a) Natura Standard Data Form for South Dublin Bay SAC (000210).

NPWS (2020b) Natura Standard Data Form for North Dublin Bay SAC (000206).

NPWS (2020c) Natura Standard Data Form for South Dublin Bay and River Tolka Estuary SPA (004024).

NPWS (2020d) Natura Standard Data Form for North Bull Island SPA (004006).

Natura Standard Data Form for South Dublin Bay and River Tolka Estuary SPA (004024).

NPWS (2019a) *The Status of Protected EU Habitats and Species in Ireland.* Volume 1: Summary Overview Unpublished Report, National Parks and Wildlife Services, Department of Culture, Heritage and the Gaeltacht.

NPWS (2019b) *The Status of EU Protected Habitats and Species in Ireland.* Volume 2: Habitats Assessments. Unpublished report. National Parks and Wildlife Services, Department of Culture, Heritage and the Gaeltacht.

NPWS (2019c) *The Status of EU Protected Habitats and Species in Ireland.* Volume 3: Species Assessments. Unpublished report. National Parks and Wildlife Services, Department of Culture, Heritage and the Gaeltacht.

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

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.

NPWS (2013) Conservation Objectives: North Dublin Bay SAC 000206. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

NPWS (2013) Conservation Objectives: South Dublin Bay SAC 000210. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

O'Neill, F.H. & Barron, S.J. (2013) Results of monitoring survey of old sessile oak woods and alluvial forests. Irish Wildlife Manuals, No. 71. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht, Dublin, Ireland.

Parnell, J. and Curtis, T. (2012) *Webb's An Irish Flora*. Cork: Cork University Press.

Philips, R. (1980) *Grasses, Ferns, Mosses & Lichens of Great Britain and Ireland*. London: Pan Books.

Rose, F. (2006) *The Wildflower Key: How to identify wildflowers, trees and shrubs in Britain and Ireland*. China: Frederick Warne & Co.

Smith, G.F., O'Donoghue, P., O'Hora, K. and Delaney, E. (2011) *Best Practice Guidance for habitat survey and mapping*. The Heritage Council, Kilkenny. Available at: www.heritagecouncil.ie/wildlife/publications/

Streeter, D. (2018) *Collins Wild Flower Guide*. Harper Collins Publishers, London

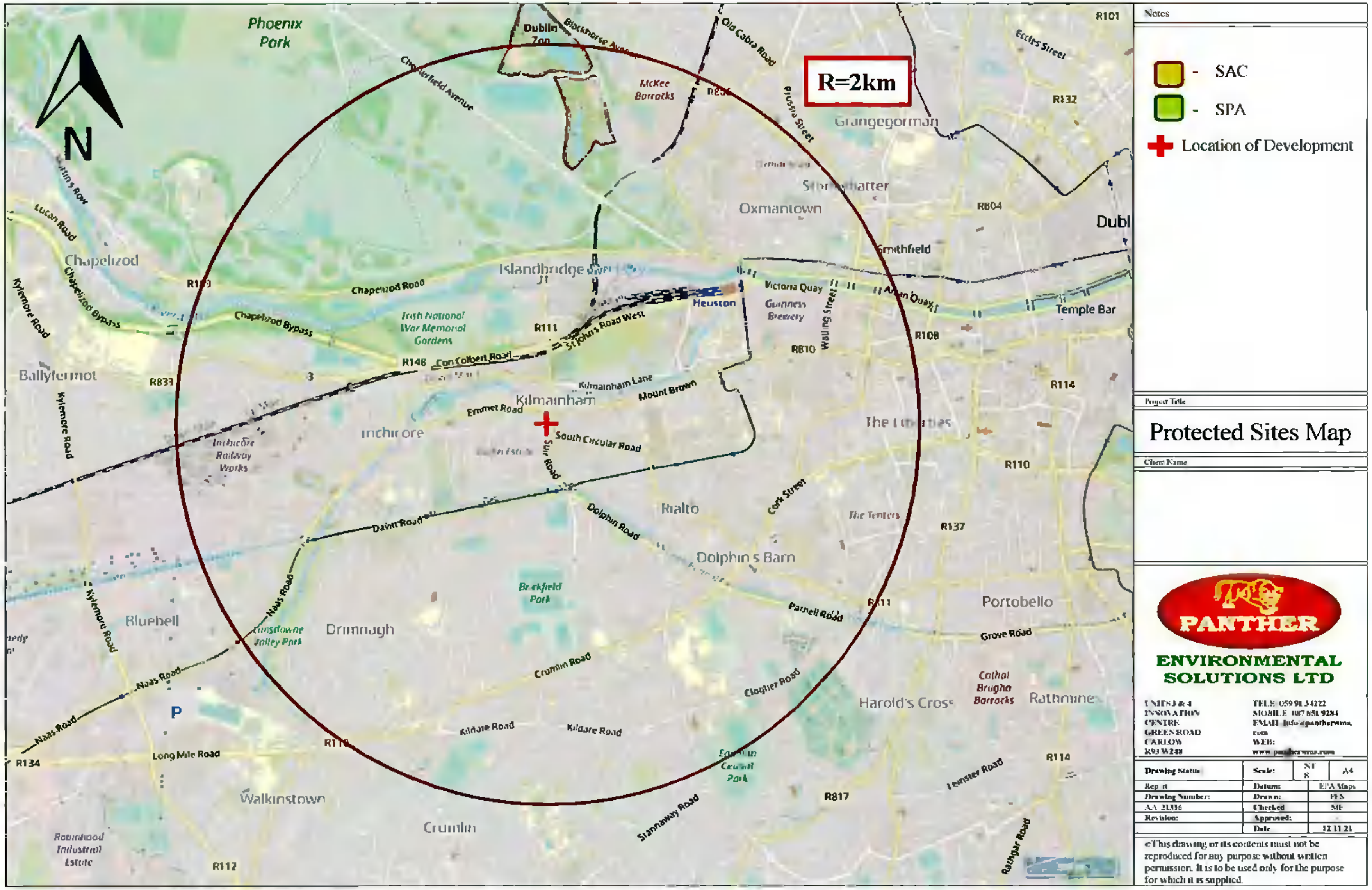
Sterry, P. (2004) *Complete Irish Wildlife*. Harper Collins Publishers, London

Sutherland, W.J. (Ed.). (2006) *Ecological Census Techniques*. United Kingdom: Cambridge University Press.

Wheater, C.P., Bell, J.R. and Cook, P.A. (2011) *Practical Field Ecology: A Project Guide*. John Wiley & Sons.

Wilson, J. and Carmody, M. (2013) *The Birds of Ireland*. Gill Books

APPENDIX A
PROTECTED SITES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Phoenix Park
Dublin Zoo
McKee Barracks
Grangegorman
Oxmantown
Smithfield
Chapelizod
Islandbridge
Heuston
Victoria Quay
Guinness Brewery
Temple Bar
Irish National War Memorial Gardens
Ballyfermot
Kilmainham
Inchicore
Inchicore Railway Works
South Circular Road
Emmet Road
Mount Brown
Kilmainham Lane
Con Colbert Road
St John's Road West
Chapelizod Road
Chapelizod Bypass
Suir Road
Dolphin Road
Davitt Road
Rialto
Cork Street
The Tenters
Dolphin's Barn
Parnell Road
Portobello
Grove Road
Bluebell
Drimnagh
Lansdowne Valley Park
Naas Road
Crumlin Road
Kildare Road
Clogher Road
Harold's Cross
Cathal Brugha Barracks
Rathmines
Walkinstown
Crumlin
Stannaway Road
Long Mile Road
Robinhood Industrial Estate
Leinster Road
Rathgar Road
Eccles Street
Prussia Street
Old Cabra Road
Chesterfield Avenue
Kylemore Road
Lucan Road
Notes
SAC
SPA
Location of Development
Project Title
Protected Sites Map
Client Name
PANTHER
ENVIRONMENTAL SOLUTIONS LTD
Drawing Status
Scale:
A4
Report
Datum:
EPA Maps
Drawing Number:
AA 21336
Revision:
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Date
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Dunboyne
Kilcock
Maynooth
Leixlip
Lucan
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Howth
Phoenix Park
Dublin
Celbridge
Clondalkin
Tallaght
Dundrum
Dun Laoghaire
Sallins
Naas
Bray
Notes
SAC
SPA
Location of Development
Project Title
Protected Sites Map
Client Name
PANTHER
ENVIRONMENTAL SOLUTIONS LTD
UNITS 3 & 4
INNOVATION CENTRE
GREEN ROAD
CARLOW
R93 W248
TEL#: 059 91 34222
MOBILE: 087 851 9284
WEB: www.pantherwm.com
Drawing Status:
Report
Drawing Number:
A3_21T16
Revision:
Scale: NTS A4
Datum: EPA Maps
Drawn: PES
Checked: MF
Approved: -
Date: 12.11.2021
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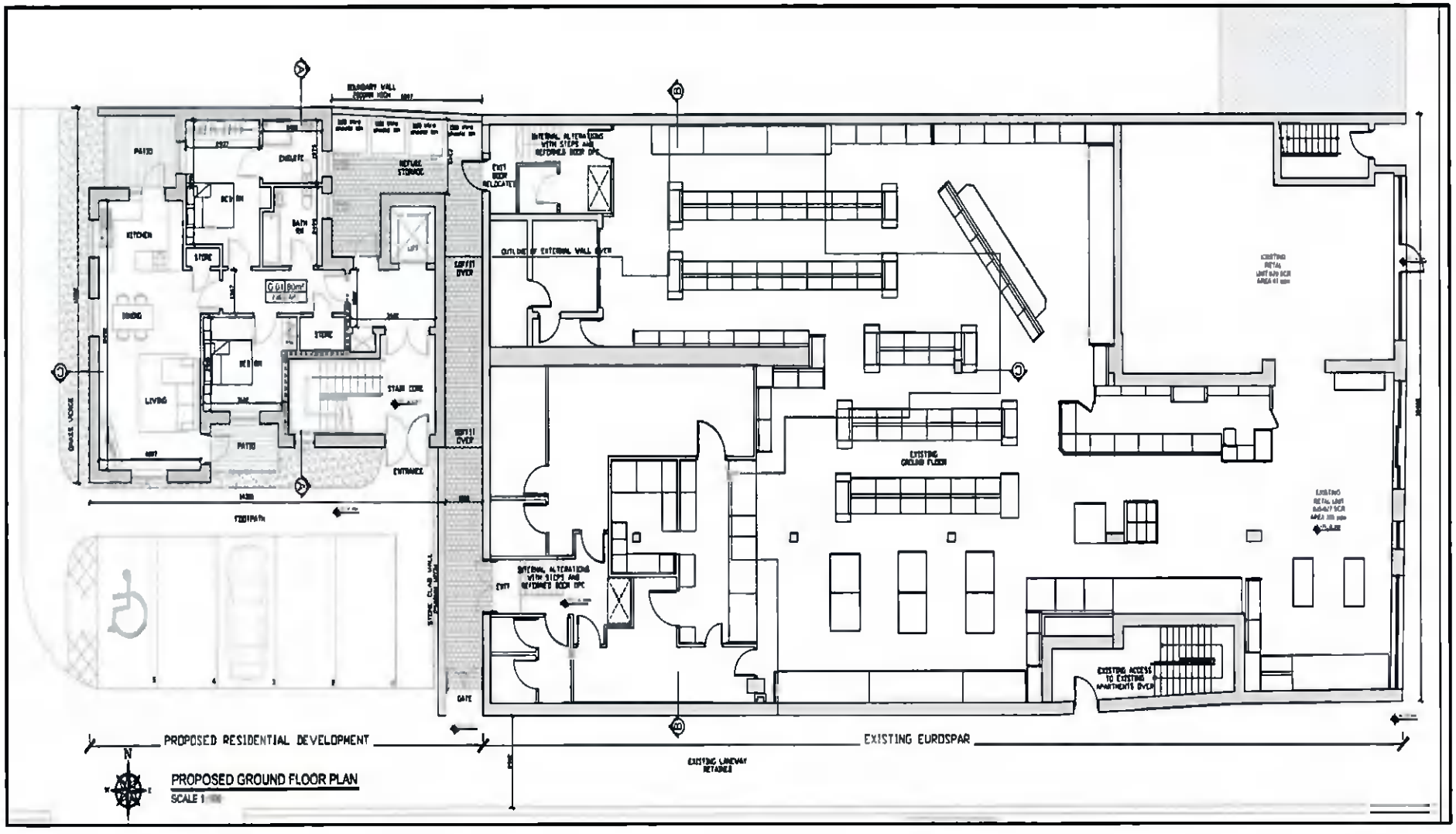
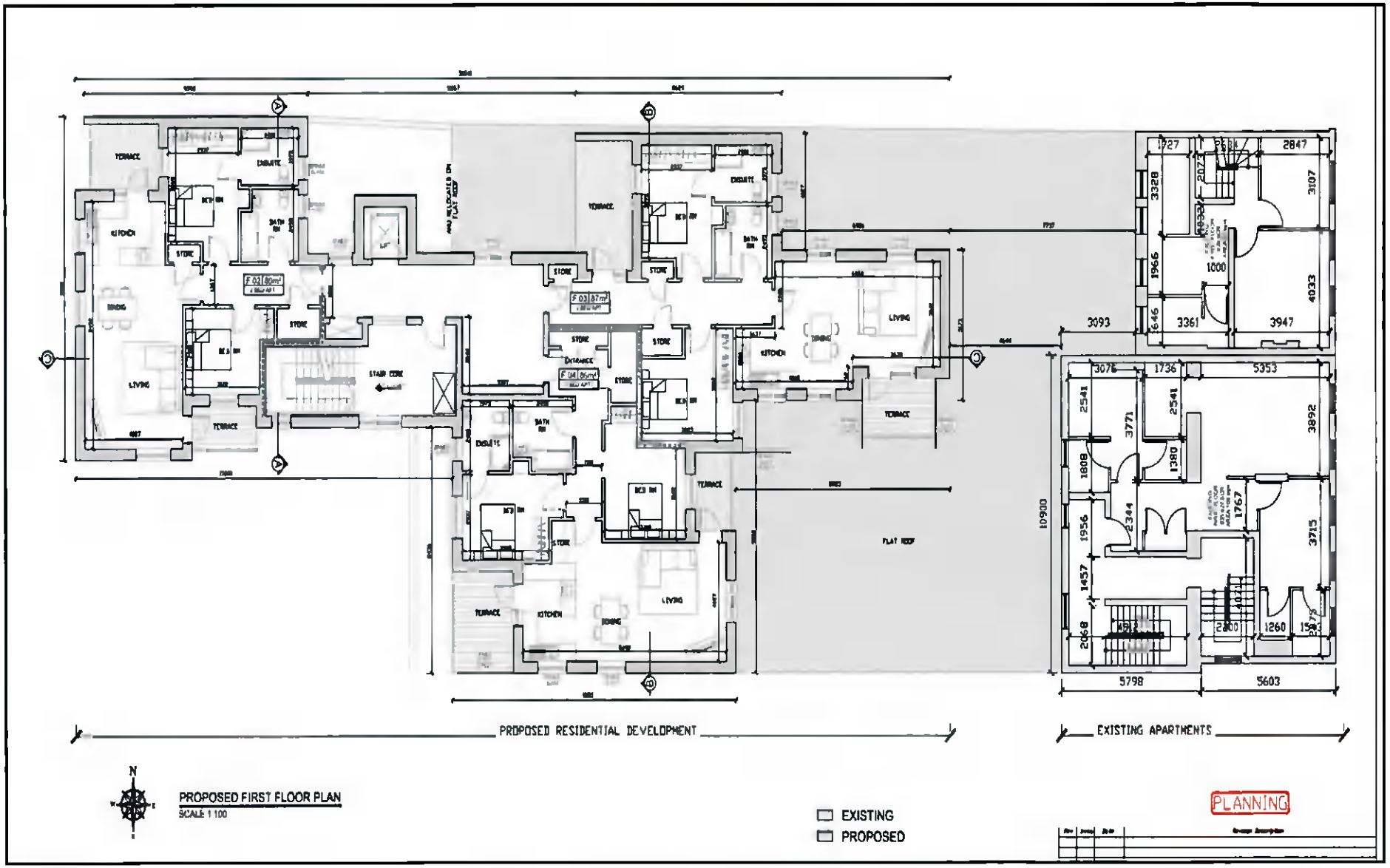
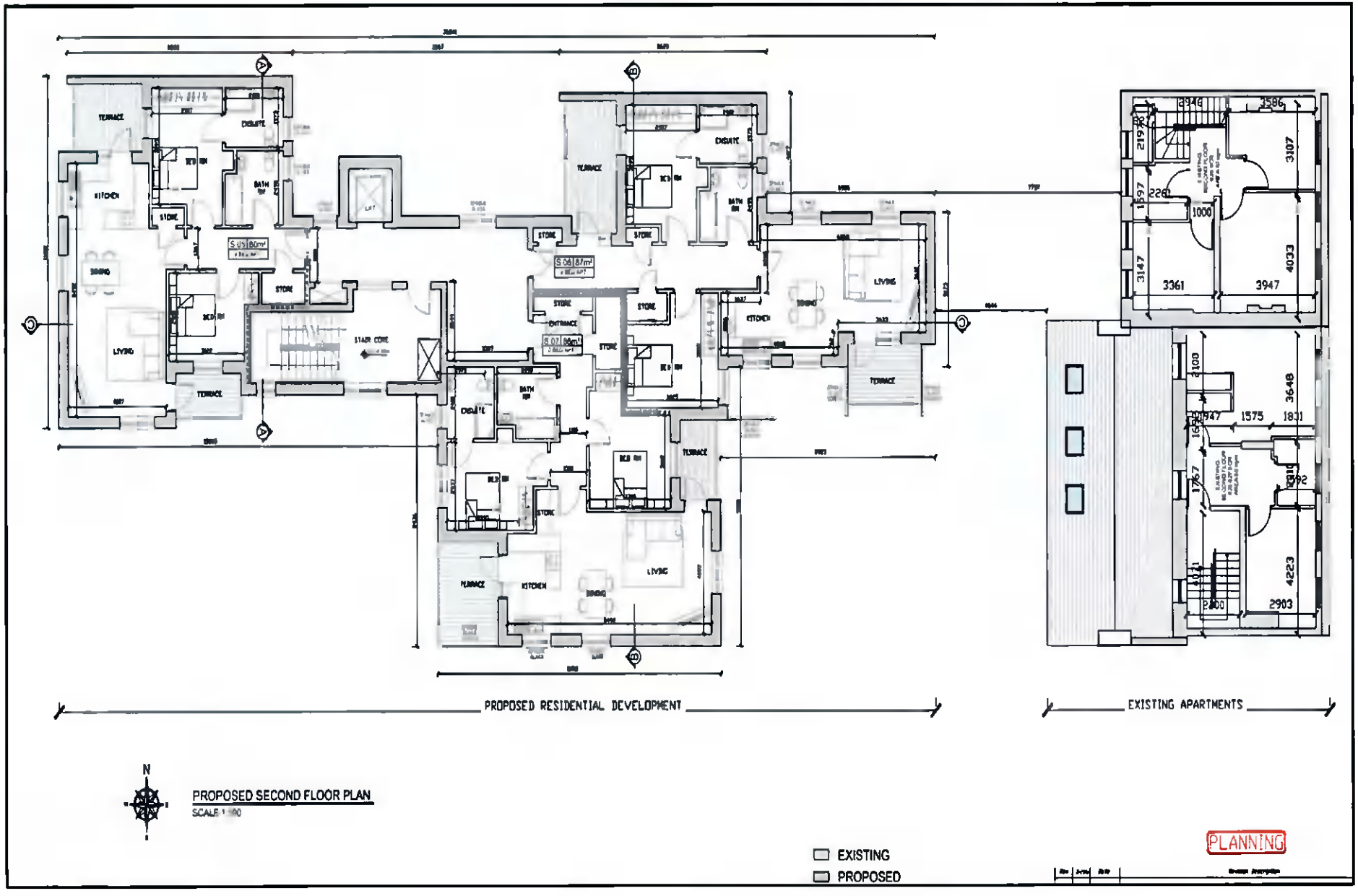
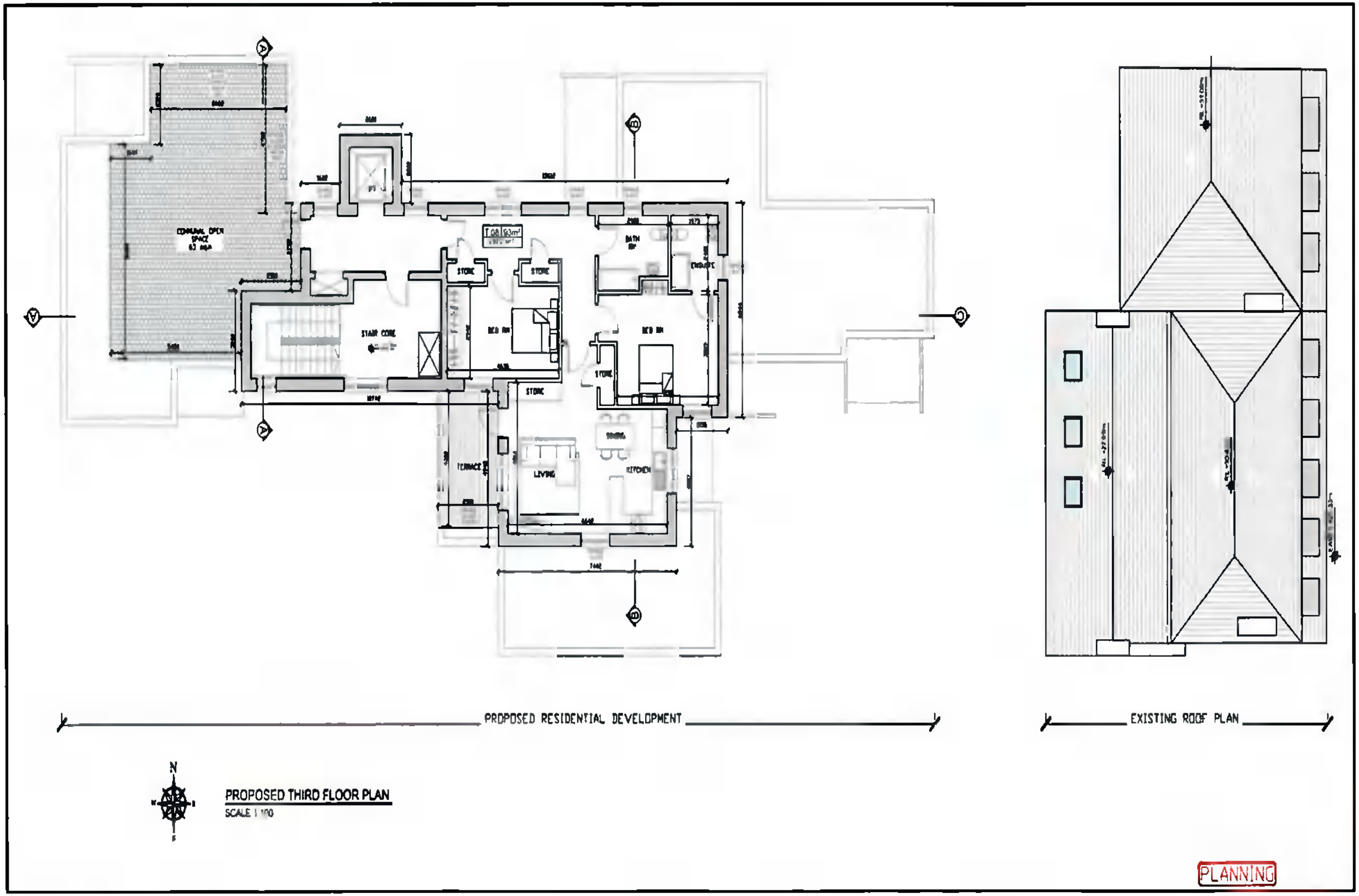
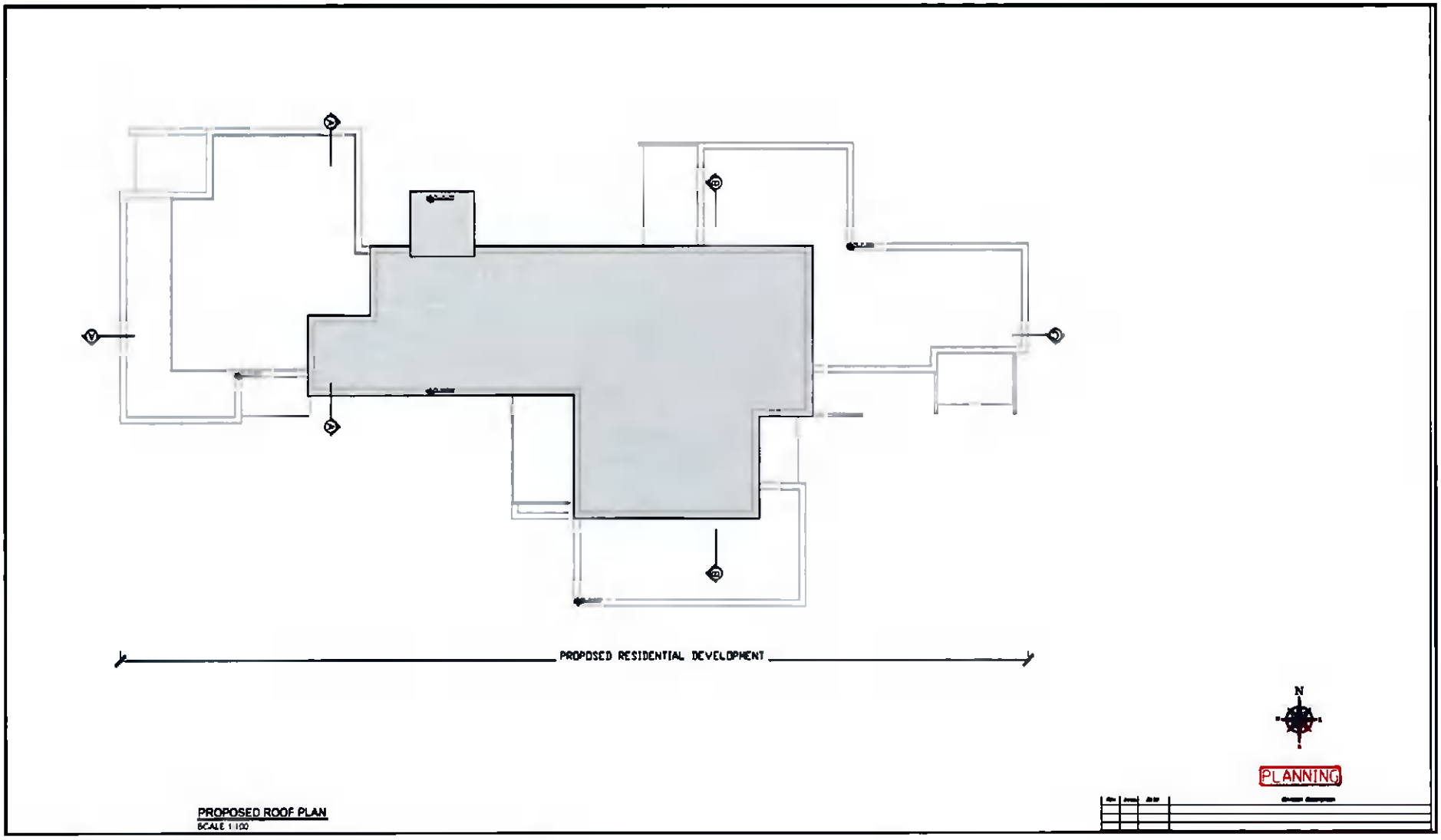
APPENDIX B
SITE LAYOUT AND PLANS

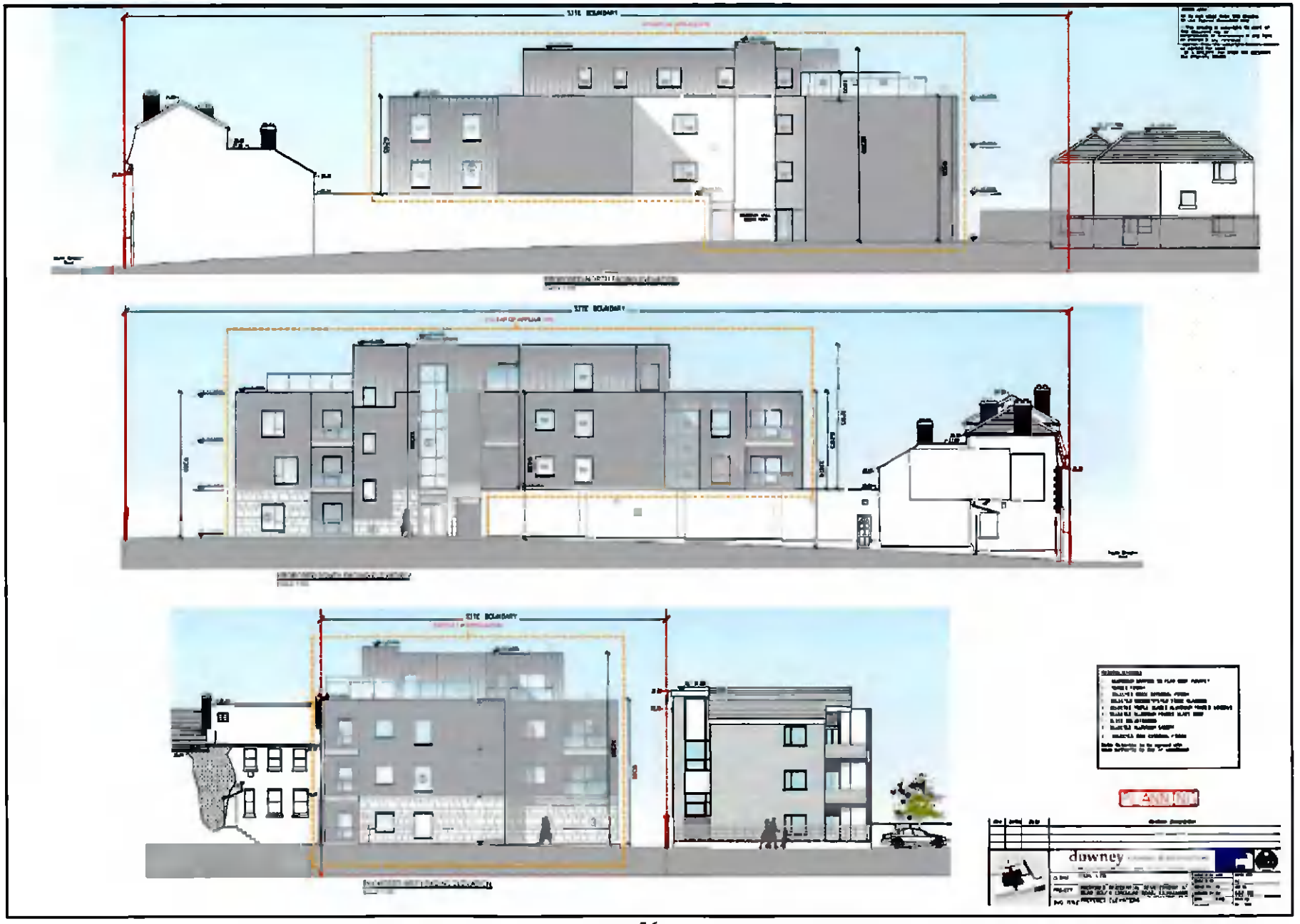

PROPOSED RESIDENTIAL DEVELOPMENT
EXISTING EUROSPAR
PROPOSED GROUND FLOOR PLAN
SCALE 1:100
N
KITCHEN
LIVING
STORE
PATIO
ENTRANCE
STAIR CORE
EXISTING GROUND FLOOR
EXISTING ACCESS TO EXISTING APARTMENTS ABOVE
EXISTING LANEWAY RETAINED

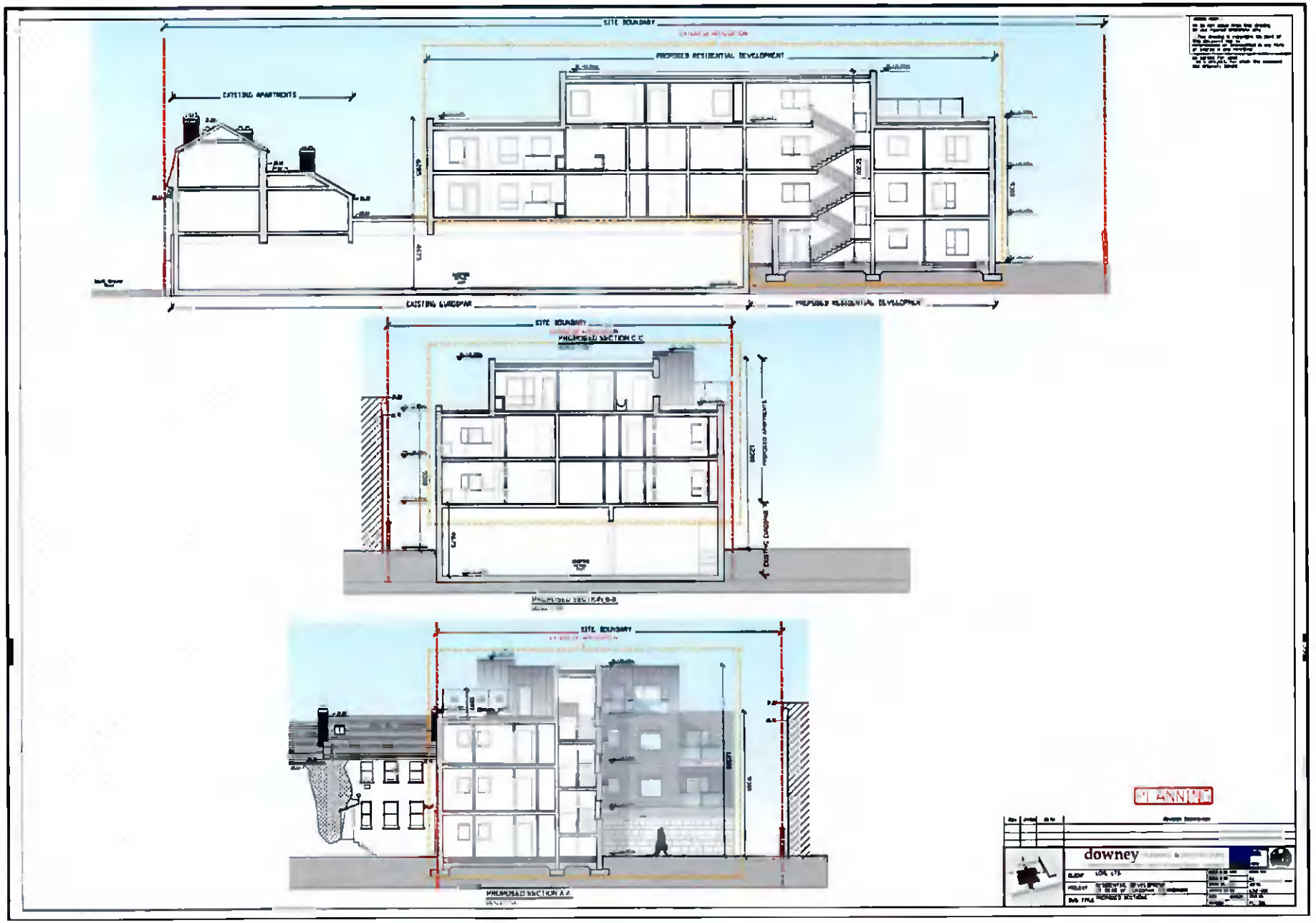

PROPOSED RESIDENTIAL DEVELOPMENT
EXISTING APARTMENTS
PROPOSED FIRST FLOOR PLAN
SCALE 1:100
EXISTING
PROPOSED
PLANNING

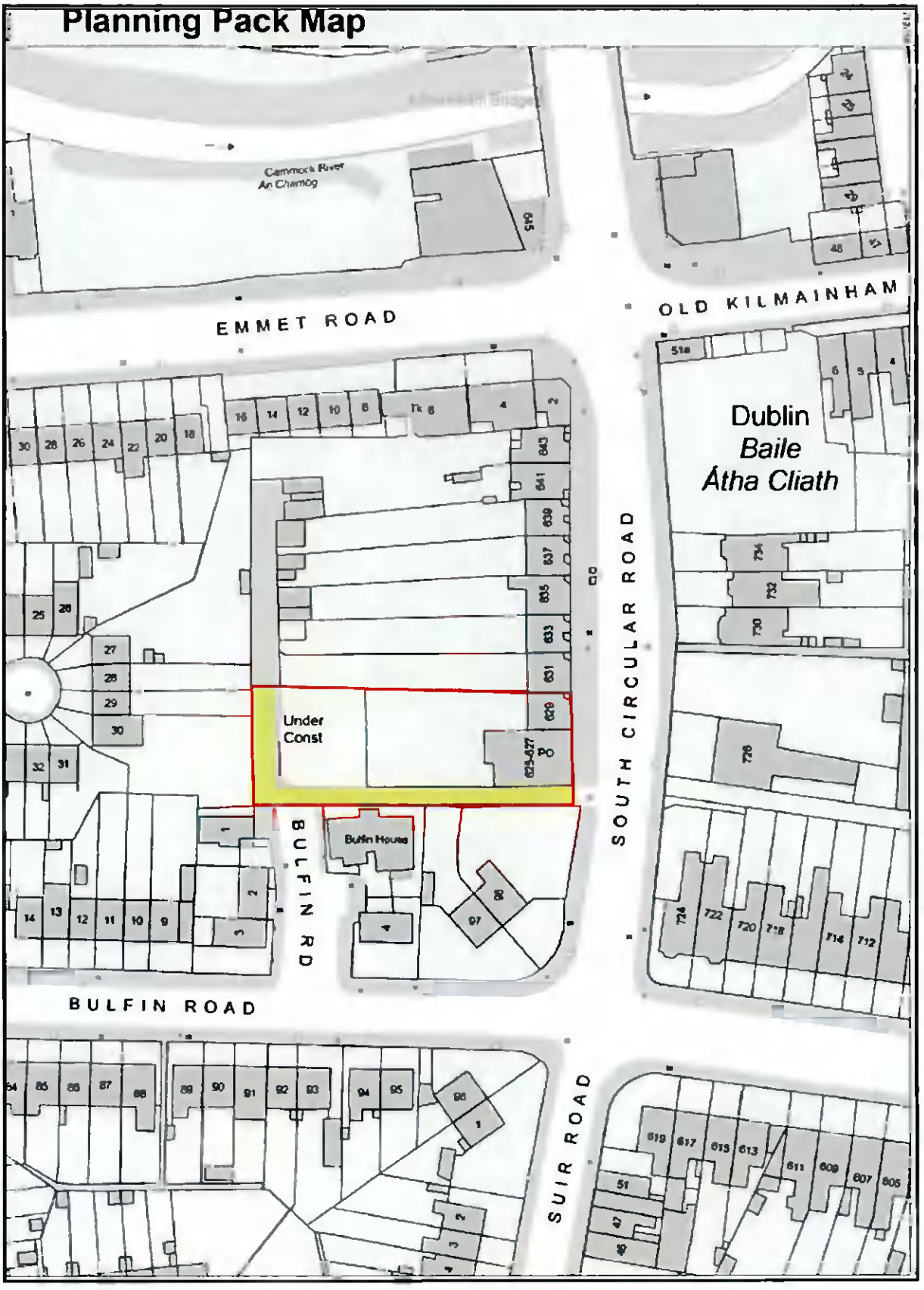

PROPOSED RESIDENTIAL DEVELOPMENT
EXISTING APARTMENTS
N
PROPOSED SECOND FLOOR PLAN
EXISTING
PROPOSED
PLANNING


COMMUNAL OPEN SPACE
STAIR CORE
STORE
STORE
STORE
STORE
BED RM
BED RM
BATH
ENSUITE
TERRACE
LIVING
DINING
KITCHEN
PROPOSED RESIDENTIAL DEVELOPMENT
EXISTING ROOF PLAN
N
PROPOSED THIRD FLOOR PLAN
PLANNING


PROPOSED RESIDENTIAL DEVELOPMENT
N
PLANNING
PROPOSED ROOF PLAN
SCALE 1:100


SITE BOUNDARY
SITE BOUNDARY
SITE BOUNDARY
downey


SITE BOUNDARY
PROPOSED RESIDENTIAL DEVELOPMENT
EXISTING APARTMENTS
EXISTING CARRIAGEWAY
PROPOSED RESIDENTIAL DEVELOPMENT
SITE BOUNDARY
PROPOSED SECTION C-C
PROPOSED APARTMENTS
EXISTING CARRIAGEWAY
PROPOSED SECTION B-B
SITE BOUNDARY
PROPOSED SECTION A-A
PLANNING
downey


Planning Pack Map
Cammock River
An Chamóg
EMMET ROAD
OLD KILMAINHAM
Dublin
Baile
Átha Cliath
SOUTH CIRCULAR ROAD
Under
Const
Bulfin House
BULFIN RD
BULFIN ROAD
SUIR ROAD

APPENDIX C
PHOTO LOG

Plate 1: Buildings and artificial surfaces (BL3) – facing west

Plate 2: East boundary of site

Plate 3: Buildings and artificial surfaces (BL3) – facing south

Plate 4: Site entrance from South Circular Road

Notes:

APPENDIX C
PHOTO LOG

PANTHER
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file location.		scale. N/A	A4
drawing status	REPORT	datum: N/A	
		drawn: PES	
drawing no.	rev	checked MF	
AA_21336	A	approved -	
		date: 12/11/2021	

Plate 5: Wayleave at west boundary

Plate 6: View of site facing northeast

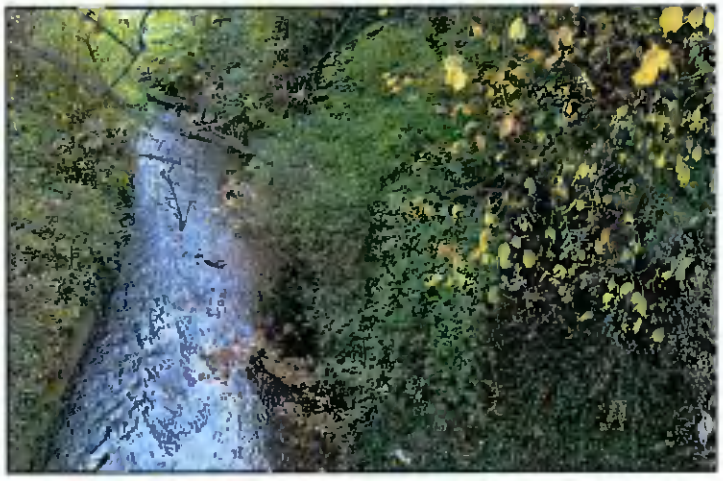

Plate 7: River Comac view from bridge on R111

Plate 8: View of site to South Circular Road

Notes:

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drawing no	rev	checked:	MF
AA_21336	A	approved:	-
		date.	12/11/2021