

Dún Laoghaire-Rathdown County Council

# Cherrywood to Rathmichael Manor Rapid Build Cycle Scheme

Appropriate Assessment (AA) Screening

Reference: 278406-00\_AA Screening

P01 | 09 February 2024







This report takes into account the particular instructions and requirements of our client. It is not intended for and should not be relied upon by any third party and no responsibility is undertaken to any third party.

Job number 278406-00

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# 1. Introduction

## 1.1 Overview

Dún Laoghaire-Rathdown County Council (DLRCC) has commissioned Arup Ireland Partners Ltd (Arup) to conduct a Screening for Appropriate Assessment (AA) for a proposed active travel cycle route and pedestrian upgrade works (hereafter referred to as ‘the Proposed Development’). The Proposed Development comprises Phase 1 of the ‘Cherrywood to Shankill Cycle and Pedestrian Links’ scheme. Phase 1 is from Cherrywood to Rathmichael Manor and is a rapid build cycle scheme. This document sets out the information necessary for the competent authority, DLRCC to undertake a Screening for AA in respect of the Proposed Development and to make an AA Screening determination.

## 1.2 Proposed Development Description

The Proposed Development will include a high-quality cycle route and improved pedestrian routes between Cherrywood Park and Rathmichael Manor (Phase 1), which will enhance the priority of these modes of transport. It will include new cycle tracks, a ‘cycle street’ treatment along Bray Road, crossings treatments, upgraded footpaths and a new pedestrian crossing (at Rathmichael Manor). Localised replacement of existing infrastructure will be required to provide a more comprehensive cycle and pedestrian network.

Phase 2 of this cycle route is proposed to continue through Parc na Silla Rise, and to continue south through private lands at ‘Falmore’. The route then exits onto Falls Road where it will connect to the junction with Stonebridge Road. Phase 2 of the route does not form part of the Proposed Development but is considered in the AA Screening in the in-combination section of this report, where relevant.

Figure 1 depicts the two Phases of the ‘Cherrywood and Shankill Cycle and Pedestrian Links’ scheme.



**Figure 1 Phase 1 and Phase 2 of Cherrywood and Shankill pedestrian and cycle links scheme**

### 1.3 Location

The Proposed Development is situated in Dublin 18, between the M50 and N11 roads (Appendix A.1). The northern extent will run from Cherrywood Park (Irish Grid Reference O 24524 23267), routing along the Bray Road on the western side of the N11 as far as Rathmichael Manor (Irish Grid Reference: O 24886 22833). The total combined length of the Proposed Development is approximately 720m.

Please see Appendix A.1 for a Proposed Development site location map.

### 1.4 Aims and Objectives

The aims of this report are to:

- provide information on, and assess the potential for the Proposed Development to significantly impact on Natura 2000 sites (referred to as European designated sites in this report);
- determine whether the Proposed Development is directly connected with, or necessary to, the conservation management of any European designated site; and
- determine whether the Proposed Development, alone or in combination with other projects, has the potential for any likely significant effects (LSE) on European designated sites in view of their conservation objectives.

### 1.5 Qualifications and Experience

Fraser Maxwell (BSc, MSc, MCIEEM, CEnv) has reviewed and approved this report as a competent expert. Fraser is an Associate Director consultant at Arup, leading the Ecology team for Arup's North and North-West Yorkshire Region (Belfast, Glasgow, Edinburgh, Leeds, Manchester, York and Newcastle offices) with over 23 years' experience conducting Ecological Impact Assessments (EcIA) and over 15 years of undertaking AAs. He is an experienced leader of technical projects including high profile projects and has provided expertise internationally. Fraser is a member of the Scottish Chartered Institute of Ecology and Environmental Management (CIEEM) Committee.

Donncha Madden has checked this report. Donncha is a Chartered Ecologist (CEcol) and full member of the Chartered Institute of Ecology and Environmental Management (CIEEM). He has worked in the ecology, environmental and planning sector for over 20 years.

Amy Sproule (BAgrSc (Hons)) authored this report. She is an environmental consultant with Arup and has experience in AA and Habitat Regulation Assessment (HRA). Amy is a Qualifying Member of the CIEEM. She has experience in working across various regions and statutory requirements. She gained a BAgrSc (Hons) in Agri-Environmental Science from University College Dublin.

### 1.6 Report Layout

This report contains information required for the competent authority, DLRCC, to undertake screening for AA for the Proposed Development.

This report is based on desk study information only. The screening information presented in this report is based on the National Transport Authority (NTA) Guidance for Screening of EIA and AA Screening of Active Travel Projects Funded by the NTA and comprises:

- a summary of the relevant legislation and guidance (Section 2);
- Proposed Development information and baseline conditions (Sections 3 and 4);
- an ecological overview (Section 5) and identification of relevant European designated sites (Section 6) within the zone of influence of the Proposed Development;
- consideration of any potential Likely Significant Effects (LSE) and assessment of LSE on European designated sites (Section 7); and
- screening conclusions (Section 8).

## 2. Legislation & Guidance

### 2.1 Legislative Background

AA is a process required under Article 6(3) of the EU Habitats Directive. Article 6(3) is transposed in Ireland by the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No. 477 of 2011), as amended, and by Part XAB of the Planning and Development Act, 2000, as amended. All plans and projects which are not directly connected with or necessary to the management of a European site, but which either individually or in combination with other plans or projects, are likely to have a significant effect on “a European site,” require an AA of these effects to determine if they will adversely affect the integrity of these sites. The proposed development is considered to fall under the requirements of AA as applied to all plans and projects. An AA, derives from Article 6(3) of the Habitats Directive (92/43/EEC) and both involve a number of steps and tests that need to be applied in sequential order.

The AA screening process scrutinises the plan or project to determine if there are LSEs either individually or in combination with other plans or projects, on a European designated site (Natura 2000 site). European sites are part of the Natura 2000 network and include those designated as Special Areas of Conservation (SACs), Candidate SACs or Special Protection Areas (SPAs).

SACs are selected for the conservation of Annex I habitats (including priority types which are in danger of disappearance) and Annex II species (other than birds). SPAs are selected for the conservation of Annex I birds and all migratory birds and their habitats. The Annex habitats and species, for which each site is selected, are the *Qualifying Interests* (QI) for SACs and *Special Conservation Interests* (SCI) for SPAs of each site. *Conservation objectives* for the site are defined for these QI.

Article 6(3) is concerned with the strict protection of sites.

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 and 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 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”.*

### 2.2 Assessment Methodology

The competent authority is required to conduct a screening for AA, and if necessary, an AA as required by Habitats Directive. If the competent authority determines that the plan or project will adversely affect the integrity of a European site, it may only authorise that plan or project by following the Article 6(4) procedure. The Article 6(3) and 6(4) procedures are outlined as follows:

**Stage 1 – Screening for Appropriate Assessment** – to assess, in view of best scientific knowledge, if the project or plan, individually or in combination with another plan or project is likely to have a significant effect on the European designated site.

**Stage 2 – Appropriate Assessment** – this is required if it cannot be excluded, on the basis of objective information, that the project or plan, individually or in combination with other plans or projects, will have a significant effect on a European designated site. The AA must include a final determination by the competent authority as to whether or not a proposed project would adversely affect the integrity of a European designated site. In order to reach a final determination, the competent authority must undertake examination, analysis, and evaluation, followed by findings, conclusions, and a final determination. The appropriate assessment must contain complete, precise, and definitive findings and conclusions, and may not have lacunae or gaps.



**Stage 3 – Assessment of alternative solutions** – the process which examines alternative ways of achieving the objectives of the project or plan that avoid adverse impacts on the integrity of the European designated site.

**Stage 4 – Assessment where no alternative solutions exist and where adverse impacts remain** – an assessment of compensatory measures where, in the light of an assessment of imperative reasons of overriding public interest (IROPI) it is deemed that the project or plan should proceed.

Each stage determines whether the next stage in the process is required. If, for example, it is concluded, with thorough reasoning and justification that, at the end of Stage 1 there will be no significant impacts on Natura 2000 sites, there is no requirement to proceed to Stage 2.

## 2.3 Guidance and Data Sources

This report has been prepared with regard to the following guidance documents, where relevant:

- Appropriate Assessment of Plans and Projects in Ireland - Guidance for Planning Authorities. Department of environment, Heritage and Local Government (Revision 2010);
- Appropriate Assessment under Article 6 of the Habitats Directive: Guidance for Planning Authorities. Circular NPW 1/10 and PSSP 2/10;
- Department of Environment, Heritage, and Local Government. Appropriate Assessment of Plans and Projects in Ireland - Guidance for Planning Authorities (2010 revision);
- Department of Transport (2023) Guidelines on Traffic Works Procedures Section 38 of Road Traffic Act (1994);
- European Commission Environment Directorate-General [hereafter referred to as MN 2000], Managing Natura 2000 sites: The Provision of Article 6 of the Habitats Directive 92/43/EEC (2019);
- European Commission Environment Directorate-General. Assessment of Plans and Projects Significantly Affecting Natura 2000 sites: Methodical Guidance on the Provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC (November 2001, Publications Office, 2002);
- European Commission Guidance Document on Article 6(4) of the Habitats Directive 92/43/EEC (2007);
- European Commission. Communication from the Commission on the precautionary principle (2000);
- Guidelines for Good Practice Appropriate Assessment of Plans under Article 6(3) Habitats Directive (International Workshop on Assessment of Plans under the Habitats Directive, 2011);
- National Transport Authority (NTA) (2023) Guidance for EIA and AA Screening of Active Travel Projects Funded by the NTA; and
- Office of the Planning Regulator Practice Note PN01 – Appropriate Assessment Screening for Development Management (2021).

Sources of information that were used to collect data on the Natura 2000 network of sites and on the existing ecological environment comprise:

- Environmental Protection Agency (EPA) Online Map Viewer<sup>1</sup>;
- Cherrywood SDZ Planning Scheme<sup>2</sup>;
- Fossitt, J.A. (2000) A Guide to Habitats in Ireland<sup>3</sup>;
- Geological Survey Ireland (GSI) Map Viewer<sup>4</sup>;
- Google aerial photography (viewed in October 2023);
- National Biodiversity Data Centre (NBDC)<sup>5</sup>;
- National Parks and Wildlife Service (NPWS) online data on designated sites<sup>6</sup>; and
- NPWS online data on protected flora and fauna<sup>7</sup>.

Guidance which has assisted in determining whether impacts are likely to be significant includes:

- EPA. Advice Notes on Current Practice (in the preparation of Environmental Impact Statements) (2003);
- EPA. Draft Advice Notes for preparing Environmental Impact Statements (September 2015);
- EPA. Guidelines on the Information to be Contained in Environmental Impact Assessment Reports (2022);
- Office of the Planning Regulator Practice Note PN02 – Environmental Impact Assessment Screening (2021); and
- Chartered Institute of Ecology and Environmental Management. Guidelines for Ecological Impact Assessment in the UK and Ireland, Terrestrial, Freshwater, Coastal and Marine (September 2018).

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<sup>1</sup> EPA. Information on environmental quality data. EPA Online Environmental Map Viewer. Available <https://gis.epa.ie/EPAMaps/>. Accessed November 2023

<sup>2</sup> [Development Plan 2022-2028 | Dún Laoghaire-Rathdown County Council Cherrywood SDZ Planning Scheme | Dún Laoghaire-Rathdown County Council \(dlrcoco.ie\)](#) Accessed November 2023

<sup>3</sup> Fossitt, J.A. (2000) Available on [A Guide to Habitats in Ireland - Fossitt.pdf \(npws.ie\)](#) Accessed November 2023

<sup>4</sup> [Geological Survey Ireland Spatial Resources \(arcgis.com\)](#) Accessed in Accessed November 2023

<sup>5</sup> [National Biodiversity Data Centre A Heritage Council Programme, Documenting Ireland's Wildlife \(biodiversityireland.ie\)](#) Accessed November 2023

<sup>6</sup> NPWS. Designated site data. Available on <https://www.npws.ie/maps-and-data/designated-site-data>. Accessed November 2023

<sup>7</sup> NPWS. Article 17 GIS and Metadata Downloads. Available on [The Status of EU Protected Habitats and Species in Ireland \(arcgis.com\)](#) Accessed November 2023

## 3. Baseline Conditions

### 3.1 Air Quality

Under the Clean Air for Europe Directive (2008/50/EC), EU member states must designate "zones" for the purpose of managing air quality. The site is within Air Zone 1. The nearest air quality monitoring station to Proposed Development is Station 34, Dún Laoghaire, Co. Dublin. Air Quality Index is rated as 1 – Good<sup>1</sup>.

### 3.2 Lands and Soils

#### 3.2.1 Geology

The bedrock geology (100K) varies across the Proposed Development site, as depicted in Figure 2. The northern section is underlain by Type 2p microcline porphyritic described as granite with microcline phenocrysts. Maulin Formation, a dark blue-grey slate, phyllite & schist<sup>4</sup> lies beneath the southern section.

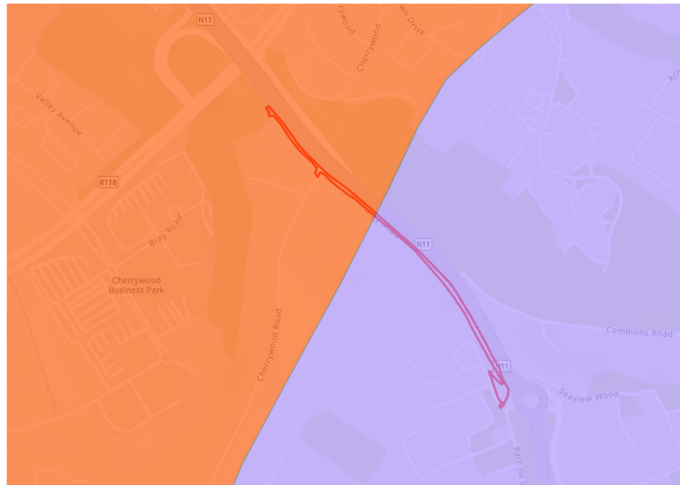


Figure 2: Bedrock geology (100k)

#### 3.2.2 Lands

The Proposed Development is located on lands that are defined in the EPA CORINE land cover classification as Agricultural Areas (west of N11) and Artificial Surfaces (east of N11).

#### 3.2.3 Soils

The Teagasc Subsoils map classifies the soil as predominantly made ground. However other soil groups were identified within the Proposed Development:

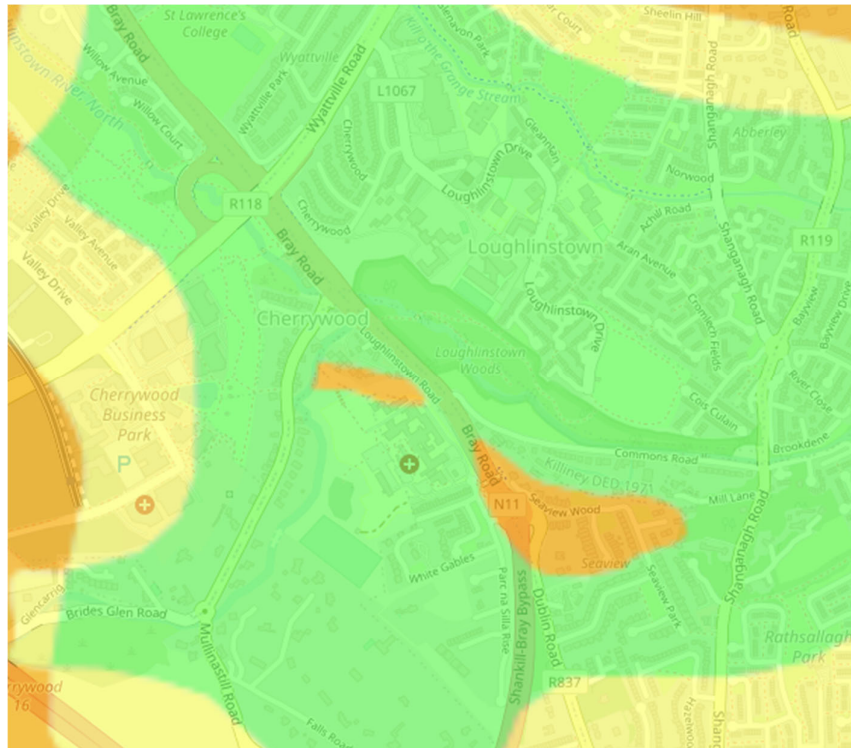
- Grey Brown Podzolics, Brown Earths;
- Lithosols, Regosols; and
- Surface water Gleys, Ground water Gleys.

### 3.3 Water

#### 3.3.1 Groundwater

The Proposed Development is located across two aquifers. The northern section of the Proposed Development is situated on a poor aquifer, where Bedrock is generally unproductive except for local zones. The southern section is described as a locally important aquifer - bedrock which is moderately productive only in local zones.

The Proposed Development will largely run above areas of low groundwater vulnerability, indicating that the risk of hitting bedrock during potential excavations is low. However, there is a section of high groundwater vulnerability which crosses the N11, indicating bedrock is close to the surface at this location (Figure 3).



**Figure 3: Ground water vulnerability (Source EPA Maps)**

There are no known karst features or groundwater wells or springs within the Proposed Development. There is a borehole well approximately 0.8km west, situated in Loughlinstown.

Groundwater recharge varies across the Proposed Development: Average Recharge Range (mm/yr): 1-50, 51-100, 101-150 and 151-200. Groundwater risk within the area has also been classified as *Good* and is abstracted for drinking water. Ground Waterbody WFD Status 2013-2018 is stated as *Good*.

The Proposed Development lies approximately c. 1.4km southwest of Kilcullen groundwater. This is identified as groundwater in SAC Habitats, according to EPA maps<sup>8</sup>, shown by the EPA.

### 3.3.2 Surface water

Figure 4 shows the ‘Carrickmines Stream\_10’ and the ‘Shanganagh\_010’ converge under the Proposed Development. ‘Carrickmines Stream\_10’ drains predominantly urban areas such as Carrickmines and Cabinteely while the ‘Shanganagh\_010’ drains the eastern slopes of the Dublin Mountains, flowing east through South Dublin and into the sea at Killiney Bay. Land use along the ‘Shanganagh\_010’ is predominantly agricultural and suburban towards the upstream extent with the mid to low stream extents being predominantly urban. ‘Shanganagh\_010’ is crossed by the Proposed Development at Loughlinstown Commons. ‘Shanganagh\_010’ then flows east (approximately 1.7 km) and discharges into the Irish Sea at Killiney Bay, just north of Shanganagh Wastewater Treatment Plant (WwTP).

The ‘Shanganagh\_010’, River Waterbody Status 2016-2021 is rated as 4. Water quality data obtained from readings within the Proposed Development (station code: RS10C040400) have shown a River Q value of 3, indicating *Poor* ecological status within the Shanganagh\_010.

<sup>8</sup> WFD Groundwater Waterbodies intersecting with Designated Special Areas of Conservation

Past flood events have been recorded at the Shanganagh River and records show 10 previous events dating from 1980 to 2011<sup>9</sup>. A recurring flood event has been identified at Commons Road (northeast of the Proposed Development).

Two wetland areas have been identified within 2 km north-west of the Proposed Development. These are Kilbogget Park Pond (1.5 km) and Cabinteely Park Pond (2 km). The Proposed Development also lies 4km north of the River Dargle, which is a designated Salmonid River under the Salmonid River Regulations (S.I. 293: European Communities (Quality of Salmonid Waters) Regulations, 1988).



**Figure 4: WFD watercourses in proximity to the Proposed Development**

### 3.3.3 Drainage

Surface water drains from the Proposed Development into the existing stormwater drainage system. The area falls into the outfall catchment of the Shanganagh watercourse, which as described above flows 1.7km east (approximately) into the sea at Killiney Bay.

## 3.4 Noise and Disturbance

The main contributors to noise in the area of the Proposed Development include the N11 (east), M11 (south), Luas rail line (west) and the M50 (west and south). Typically, noise in the area ranges from 55-59dB (day time) and 50-54dB (night time) to >75dB (day time) and >70dB (night time).

<sup>9</sup> <https://www.floodinfo.ie/map/floodmaps/>

## 4. Characteristics of the Proposed Development

### 4.1 Proposed Development Overview

The Proposed Development will include a high-quality cycle route and improved pedestrian routes between Cherrywood Park and Rathmichael Manor (Phase 1), which will enhance the priority of these modes of transport. It will include new cycle tracks, a 'cycle street' treatment along Bray Road, crossings treatments, upgraded footpaths and a new pedestrian crossing (at Rathmichael Manor). Localised replacement of existing infrastructure will be required to provide a more comprehensive cycle and pedestrian network.

The proposals are described below and broken down into three key sections:

#### *Section 1 – Cherrywood Park Access to Cherrywood Road*

The section is approximately 140m in length (between Cherrywood Park and the Cherrywood Road junction) and provides access to a small number of businesses and residences. It is a lightly trafficked street which is proposed to be converted to a 'cycle street'. This involves the provision of a new surface course on the existing pavement, footpath widening, road markings and signage.

#### *Section 2 – Cherrywood Road to N11 off slip road*

The section is approximately 320m in length, accommodates two-way traffic and provides access to a relatively small number of businesses and residences. There is approximately 40m which is one-way northbound for traffic (between the N11 off-slip and the driveway).

It is a lightly trafficked street which is proposed to be converted to a 'cycle street'. This involves the provision of a new surface course on the existing pavement, footpath widening and road markings. The section of one-way northbound carriageway will be realigned to accommodate a shared path / cycle track at that section.

#### *Section 3 – N11 off-slip road to Rathmichael Manor*

The section is approximately 260m in length and is traffic free at present. There is an existing separate footpath and path which is informally operating as a cycle lane at present. Near the existing bus stop, the path ends for a section, while there are also concrete barriers in place along the path at present.

It is proposed to apply a coloured surface treatment along the existing path and formalise the route as a two-way cycle track with road markings. Approximately 15m of the route in this section will be developed into a new path on approach to Rathmichael Manor, with a pedestrian crossing (with Belisha Beacons) and an adjacent cycle crossing provided. It is also proposed to widen to 3m the existing path to the pedestrian bridge. Minor modifications at the existing bus stop along this section will also be required.

Drawings are provided in Appendix B.1.

### 4.2 List of Works

#### 4.2.1 Site Preparation

It is anticipated that the contractor will be able to utilise part of the existing carriageway or verges for their site set up and accommodation (site compound).

Prior to the commencement of the works, the contractor will be required to develop a Temporary Traffic Management Plan (TTMP) where the works directly or indirectly interact with live traffic. This TTMP will consider any planning conditions associated with the works. This may involve closing the off-road slip from the N11 onto the Bray Road for a short period of time while the realignment of the one-way section of

roadway is occurring<sup>10</sup>. An alternative route is available at the junction with Cherrywood Road and the impact to traffic is negligible.

#### 4.2.2 Site Clearance

The following will be cleared and removed off site as part of the works:

- excavation of approximately 1m strip of existing grass verge to provide a realigned carriageway (approximately 40m in length);
- clearance of old paths (where needed); and
- other items made redundant (e.g., fencing).

The site clearance works will be completed using a combination of mechanical excavators, dump trucks and hand tools.

#### 4.2.3 Utilities

Raising and lowering of existing utility chambers are required.

#### 4.2.4 Excavation and Resurfacing

The planned works include a 40m x 1m strip also where excavation and removal of soil is required for the carriageway realignment. The excavation will be undertaken by a mechanical excavator and transported off site via a tipper truck and disposed of in a suitable licenced facility.

Excavation of up to 600mm below the finished road surface is anticipated where new carriageway is proposed and may include capping if necessary.

Where new cycle tracks or footpaths are proposed, it is expected that excavations will be to a depth of 200-300mm with the width varying.

Along existing carriageways which are proposed to become a 'cycle street', cold-milling of the existing carriageway (40-50mm) will be required along with the laying of a new surface course. New kerbs will be required in certain locations along the route (i.e., where footpath widening is proposed).

New tactile paving will be provided at key crossing locations also.

A trench and pavement reinstatement works will be required for the proposed pedestrian crossing at Rathmichael Manor to allow for the installation of ducting and a connection to a power supply.

No demolition works are proposed.

#### 4.2.5 Drainage and Public Lighting

Works will tie into existing drainage where possible. New gullies and connections to existing stormwater drainage system will be installed at certain locations, however it is anticipated to be limited. In addition, a small number of new public lighting poles may also be required.

#### 4.2.6 Traffic Calming Ramps

Works will include the provision of traffic calming raised tables along the existing carriageway. These are typically 6m in length and raise to 75-125mm above the existing carriageway level.

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<sup>10</sup> In coordination with local business requirements

#### 4.2.7 Road Signs and Road Marking

Several interventions such as traffic calming, road markings, pavement surfacing, new crossings and footpath improvements are planned improve the pedestrian and cycling environment along the proposed route. This will include:

- coloured surface treatment of cycle tracks and where a 'cycle street' is proposed;
- installation of new road signs and markings; and
- provision of a new pedestrian and cycle crossing including Belisha Beacons.

### 4.3 Construction Phase

It is anticipated that the construction phase of the Proposed Development will take approximately 6-8 weeks, with commencement expected to be Quarter 3 2024. The key components of the construction phase are outline below:

#### 4.3.1 Drainage

As mentioned, works will tie into existing stormwater drainage system where possible. Best practice construction practices (such as CIRIA Good Practice 4th edition) will be implemented throughout the duration of the construction phase. These are included as standard pollution prevention construction measures and are not included to protect any European designated site.

#### 4.3.2 Land-Use Requirements

All land take required will be fulfilled by the lands within the Proposed Development. There will be no tree or hedgerow removal required. The Proposed Development comprises predominantly hardstanding (road and footpath). There is also grass verge habitat, which an area (1m by 40m) will be excavated.

As mentioned, a site compound will be located within the Proposed Development. All construction machinery and fuels will be stored sensibly and securely. This will be away from any watercourse or pathways to watercourses.

#### 4.3.3 Potential Emissions to the Environment

##### **Air**

The Proposed Development will result in emissions to air from the combustion exhausts of construction plant and machinery and the vehicles used to transport workers, materials, and waste to and from the works areas. Dust emissions may arise in respect of excavations, especially in dry weather. Dust may also be raised by wind from dry surfaces and stockpiles.

##### **Disturbance**

Limited construction lighting will be required given the hours of work are predominately within daylight hours. Construction operations on site will generally be limited to 7am – 7pm, Monday to Friday; and 7am – 4.30pm, Saturday, where possible. No night working envisaged. Noise and vibration arising from the operation of the plant and machinery and the construction methodologies outlined in Section 4.2 have the potential to cause local noise and vibration nuisances.

##### **Water**

There is a risk, as in any construction site for a pollution event to occur resulting in water contamination. Given the proximity to surface water, there is potential for dust or other harmful pollutants to be emitted during construction, and for run-off to enter the Shanganagh River. However, such emissions would be very limited given best practice construction measures will be implemented.

There may be some requirement for water usage at the site; for welfare facilities or indeed for dust prevention. Any water use on site is not expected to be significant and would not be outside what would usually be expected for works of this nature.



## **Waste**

Where possible, excavated material will be assessed and if found suitable, shall be reused appropriately on site. Surplus construction materials which are not required for use on site will be reused, recovered or disposed off-site, in accordance with the Waste Management Act, 1996, as amended. An appropriate waste collection permit holder will be used for removal of wastes from site.

There will be some waste generated on site. Standard domestic waste will be generated in construction compounds and welfare facilities. This will be segregated at source, removed from site and disposed of in a suitable licenced facility.

## **4.4 Operational Phase**

### **4.4.1 Drainage**

Drainage from the Proposed Development will connect into existing drainage networks during the operational phase. As mentioned in Section 4.2.5, new gullies and connections to existing stormwater drainage system will be installed at certain locations, however it is anticipated to be limited.

### **4.4.2 Land-Use Requirements**

## **Ecological Value**

There will be no additional land required as part of the operational phase. The Proposed Development will operate on developed land. No habitat loss will occur within any European designated site or Annex I habitat type during the operational phase. The habitat within the Proposed Development is predominantly of low in ecological value.

### **4.4.3 Potential Emissions to the Environment**

## **Air**

During the operational phase, the Proposed Development will have a positive impact on air quality and climate, encouraging a model shift from private car. Any construction impacts would be short-term and localised.

## **Disturbance**

The Proposed Development will have a positive impact on noise and vibration, encouraging a model shift from private car, thus reducing noise emissions. A small number of new public lighting poles may be required during operation. Any construction impacts would be short-term and localised.

## **Water**

Please refer to Section 4.4.1 for surface water drainage. Given the nature and use of the Proposed Development, leaching of pollutants during operation is not envisaged.

## **Waste**

Waste is not expected to be significant during operation given the nature of the Proposed Development.

## 5. Ecological Overview

### 5.1 Introduction

Online species records provide, when considered in combination with other available data, an indication of the general ecological baseline for the Proposed Development. Whilst most of the habitat and species listed below will not be QIs of relevant sites, records of their presence do provide a picture of the ecological baseline and therefore whether there are any pathways for effects on a site or QIs or the conditions that support the conservation objectives of a site.

### 5.2 Habitats

The Cherrywood / Shankill area has a mix of landscape typologies, including existing residential and commercial development, areas of disturbed ground and scrubland, and agricultural land. Adjacent the Proposed Development, west of the N11, there appears to be broadleaved treelines. East of the N11 there is grassland and woodland (Loughlinstown Wood, a Proposed Natural Heritage Area (pNHA)<sup>11</sup>). Within Loughlinstown Wood there is Annex I habitat, Alluvial woodland 91E0. This is located 50m west (eastern side of N11).

As previously mentioned in Section 3.2.2, the Proposed Development footprint is located on comprising predominantly hardstanding, classified as BL3<sup>3</sup> (road and footpath) with grass verge habitat (GS2) adjacent to road in areas. Habitats are of low ecological value within the Proposed Development and fragmented from wider habitats by the N11.

### 5.3 Species

Species records within 2km grid square O22L (Figure 5) which comprised the Proposed Development were obtained from the NBDC<sup>5</sup>. Any records over 10 years old were omitted from analysis as these were not considered to reflect the current species assemblage.

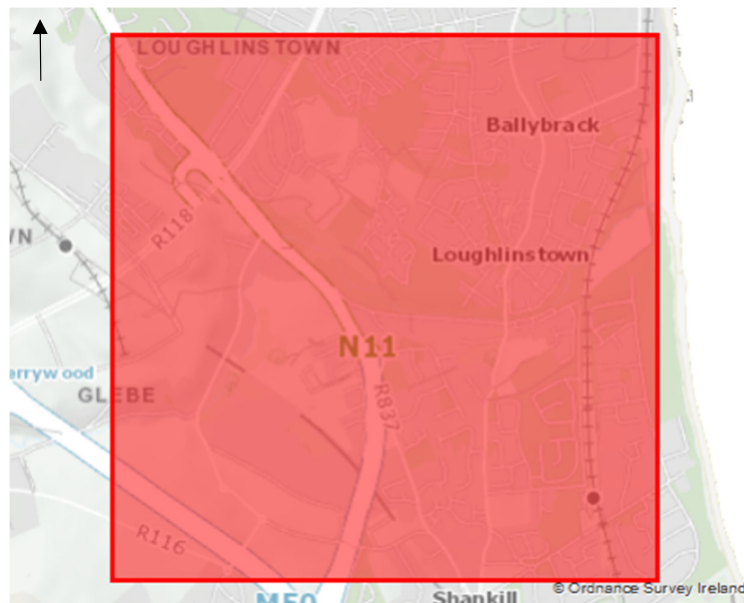


Figure 5: O22L 2km Grid Square

<sup>11</sup> Site code 001211

On review of records, species that would be considered QIs for European designated sites included; black-headed gull (*Chroicocephalus ridibundus*), Eurasian oystercatcher (*Haematopus ostralegus*), mallard (*Anas platyrhynchos*) and brent goose (*Branta bernicla*). No flora or fauna species with such designations were identified.

Invasive species identified within the records are shown in Table 1.

**Table 1: Invasive species identified in O22L records.**

Species	Designation or Invasive Impact Rating (NBDC)
American skunk-cabbage ( <i>Lysichiton americanus</i> )	Medium Impact Invasive, EU Regulation No. 1143/2014, Regulation S.I. 477 (Ireland)
Brown rat ( <i>Rattus norvegicus</i> )	High Impact Invasive, Regulation S.I. 477 (Ireland)
Butterfly-bush ( <i>Buddleja davidii</i> )	Medium Impact Invasive
Cherry laurel ( <i>Prunus laurocerasus</i> )	High Impact Invasive
Eastern grey squirrel ( <i>Sciurus carolinensis</i> )	High Impact Invasive, EU Regulation No. 1143/2014, Regulation S.I. 477 (Ireland)
Giant hogweed ( <i>Heracleum mantegazzianum</i> )	High Impact Invasive, Regulation S.I. 477 (Ireland)
Himalayan honeysuckle ( <i>Leycesteria formosa</i> )	Medium Impact
Japanese knotweed ( <i>Reynoutria japonica</i> )	High Impact Invasive, Regulation S.I. 477 (Ireland)
Jenkins' spire snail ( <i>Potamopyrgus antipodarum</i> )	Medium Impact Invasive
Sea-buckthorn ( <i>Hippophae rhamnoides</i> )	Medium Impact Invasive, Regulation S.I. 477 (Ireland)
Spanish bluebell ( <i>Hyacinthoides hispanica</i> )	Regulation S.I. 477 (Ireland)
Sycamore ( <i>Acer pseudoplatanus</i> )	Medium Impact Invasive
Three-cornered garlic ( <i>Allium triquetrum</i> )	Medium Impact Invasive, Regulation S.I. 477 (Ireland)
Traveller's-joy ( <i>Clematis vitalba</i> )	Medium Impact Invasive

Third Schedule list of the European Communities (Birds and Natural Habitats) Regulations 2011 [S.I.477/2011]<sup>12</sup>, Invasive Alien Species of Union concern listed under the EU IAS Regulation [1143/2014]<sup>13</sup>

There was no specific site survey undertaken for the purpose of the AA Screening report. The habitat and species data available through online records, aerial imagery and web viewers, were considered sufficient for an assessment of this scale and existing location.

<sup>12</sup> Third Schedule list of the European Communities (Birds and Natural Habitats) Regulations 2011 [S.I.477/2011]. Available on [https://invasives.ie/app/uploads/2021/10/S.I.477-ThirdSchedule\\_SppLists\\_FromSource.pdf](https://invasives.ie/app/uploads/2021/10/S.I.477-ThirdSchedule_SppLists_FromSource.pdf) (Accessed 17.11.2023)

<sup>13</sup> Invasive Alien Species of Union concern listed under the EU IAS Regulation. [1143/2014]. Available on [https://invasives.ie/app/uploads/2022/09/88\\_IASUnionConcern.pdf](https://invasives.ie/app/uploads/2022/09/88_IASUnionConcern.pdf) (Accessed 17.11.2023)

## 6. Identification of European Designated Sites within the Potential Zone of Influence

Whilst a Source-Pathway-Receptor (S-P-R) model was used to identify zones of influence for the Proposed Development, given the scale and nature of the Proposed Development, initial consideration was given to any European designated sites which were within approximately 15km. The application of a 15km buffer had been common practice in identifying the zone of influence and although this approach has since evolved, and a S-P-R model is now accepted practice, 15km was still used as a precautionary distance for a zone of influence to scope in or out sites for further screening.

The S-P-R model is based on a case-by-case basis rather than applying a one-size fits-all buffer distance. It focuses on individual ecological receptors, such as species mobility and foraging distances. As well as the proposed effect which air and hydrological pollution events could have a significant effect.

Based on this approach, 18 European designated sites require initial consideration in the AA process. These are listed in Table 2 and visually presented in Appendix A.2.

The simple presence of a European designated site within the zone of influence does not provide sufficient evidence to justify its scrutiny under subsequent stages of the AA, making for a shorter and more focused AA than would otherwise be the case. The zone of influence was further refined with further examination of the S-P-R model on a site-by-site basis.

Given the scale and the nature of the proposed works and taking into consideration the distance to QIs of the European designated sites and the lack of ecological connectivity, the following sites have been scoped out at this stage:

- Ballyman Glen SAC;
- Carriggower Bog SAC;
- Glen of the Downs SAC;
- Glenasmole Valley SAC;
- Knocksink Wood SAC;
- Wicklow Mountains SAC; and
- Wicklow Mountains SPA.

**Table 2: European Designated Sites within Zone of Influence**

Site Name and Code	QIs and Annex Codes	Approximate Distance From Site at Nearest Point (km)	Potential Pathway
Rockabill to Dalkey Island SAC 003000 <sup>14</sup>	Reefs [1170] Harbour Porpoise ( <i>Phocoena phocoena</i> ) [1351]	2.7	A hydrological pathway exists through surface water draining from the Proposed Development into the existing stormwater drainage system. The area falls into the outfall catchment of the Shanganagh watercourse, which as mentioned flows 1.7km (approximately) to Dublin Bay. Subsequently there is a hydrological connection from Dublin Bay to the SAC via the marine environment. No terrestrial pathway identified. Scoped in for further assessment.
Dalkey Islands SPA 004172 <sup>15</sup>	Roseate Tern ( <i>Sterna dougallii</i> ) [A192] Common Tern ( <i>Sterna hirundo</i> ) [A193] Arctic Tern ( <i>Sterna paradisaea</i> ) [A194]	4	A hydrological pathway exists through surface water draining from the Proposed Development into the existing stormwater drainage system. The area falls into the outfall catchment of the Shanganagh watercourse, which as mentioned flows 1.7km (approximately) to Dublin Bay. Subsequently there is a hydrological connection from Dublin Bay to the SAC via the marine environment. No terrestrial pathway identified. Scoped in for further assessment.
Ballyman Glen SAC 000713 <sup>16</sup>	Petrifying springs with tufa formation ( <i>Cratoneurion</i> ) [7220] Alkaline fens [7230]	4.4	No terrestrial or hydrological pathway identified. Topography suggests ground water moves east towards Irish Sea as opposed to south towards the SAC. Scoped out for further assessment.
South Dublin Bay and River Tolka Estuary SPA 004024 <sup>17</sup>	Light-bellied brent goose ( <i>Branta bernicla hrota</i> ) [A046] Oystercatcher ( <i>Haematopus ostralegus</i> ) [A130] Ringed plover ( <i>Charadrius hiaticula</i> ) [A137] Grey plover ( <i>Pluvialis squatarola</i> ) [A141] Knot ( <i>Calidris canutus</i> ) [A143] Sanderling ( <i>Calidris alba</i> ) [A144] Dunlin ( <i>Calidris alpina</i> ) [A149] Bar-tailed godwit ( <i>Limosa lapponica</i> ) [A157]	5.5	A hydrological pathway exists through surface water draining from the Proposed Development into the existing stormwater drainage system. The area falls into the outfall catchment of the Shanganagh watercourse, which as mentioned flows 1.7km (approximately) to Dublin Bay. Subsequently there is a hydrological connection from Dublin Bay to the SAC via the marine environment. No terrestrial pathway identified. Scoped in for further assessment.

<sup>14</sup> [npws.ie/sites/default/files/protected-sites/conservation\\_objectives/CO003000.pdf](https://npws.ie/sites/default/files/protected-sites/conservation_objectives/CO003000.pdf)

<sup>15</sup> [www.npws.ie/sites/default/files/protected-sites/conservation\\_objectives/CO004172.pdf](https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO004172.pdf)

<sup>16</sup> [npws.ie/sites/default/files/protected-sites/conservation\\_objectives/CO000713.pdf](https://npws.ie/sites/default/files/protected-sites/conservation_objectives/CO000713.pdf)

<sup>17</sup> [npws.ie/sites/default/files/protected-sites/conservation\\_objectives/CO004024.pdf](https://npws.ie/sites/default/files/protected-sites/conservation_objectives/CO004024.pdf)

Site Name and Code	QIs and Annex Codes	Approximate Distance From Site at Nearest Point (km)	Potential Pathway
	Redshank ( <i>Tringa totanus</i> ) [A162] Black-headed gull ( <i>Chroicocephalus ridibundus</i> ) [A179] Roseate tern ( <i>Sterna dougallii</i> ) [A192] Common tern ( <i>Sterna hirundo</i> ) [A193] Arctic tern ( <i>Sterna paradisaea</i> ) [A194] Wetland and Waterbirds [A999]		
Bray Head SAC 000714 <sup>18</sup>	Vegetated sea cliffs of the Atlantic and Baltic coasts [1230] European dry heaths [4030]	5.6	A hydrological pathway exists through surface water draining from the Proposed Development into the existing stormwater drainage system. The area falls into the outfall catchment of the Shanganagh watercourse, which as mentioned flows 1.7km (approximately) to Dublin Bay. Subsequently there is a hydrological connection from Dublin Bay to the SAC via the marine environment. No terrestrial pathway identified. Scoped in for further assessment.
South Dublin Bay SAC 000210 <sup>19</sup>	Mudflats and sandflats not covered by seawater at low tide [1140] Annual vegetation of drift lines [1210] Salicornia and other annuals colonising mud and sand [1310] Embryonic shifting dunes [2110]	5.7	A hydrological pathway exists through surface water draining from the Proposed Development into the existing stormwater drainage system. The area falls into the outfall catchment of the Shanganagh watercourse, which as mentioned flows 1.7km (approximately) to Dublin Bay. Subsequently there is a hydrological connection from Dublin Bay to the SAC via the marine environment. No terrestrial pathway identified. Scoped in for further assessment.
Knocksink Wood SAC 00725 <sup>20</sup>	Petrifying springs with tufa formation ( <i>Cratoneurion</i> ) [7220] Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0] Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> ( <i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i> ) [91E0]	5.8	No terrestrial or hydrological pathway identified. Topography suggests ground water moves east towards Irish Sea as opposed to south towards the SAC. Scoped out for further assessment.
Wicklow Mountains SAC 002122 <sup>21</sup>	Oligotrophic waters containing very few minerals of sandy plains ( <i>Littorelletalia uniflorae</i> ) [3110] Natural dystrophic lakes and ponds [3160]	8	No terrestrial or hydrological pathway identified. Scoped out for further assessment.

<sup>18</sup> [npws.ie/sites/default/files/protected-sites/conservation\\_objectives/CO000714.pdf](https://npws.ie/sites/default/files/protected-sites/conservation_objectives/CO000714.pdf)

<sup>19</sup> [npws.ie/sites/default/files/protected-sites/conservation\\_objectives/CO000210.pdf](https://npws.ie/sites/default/files/protected-sites/conservation_objectives/CO000210.pdf)

<sup>20</sup> [npws.ie/sites/default/files/protected-sites/conservation\\_objectives/CO000725.pdf](https://npws.ie/sites/default/files/protected-sites/conservation_objectives/CO000725.pdf)

<sup>21</sup> [www.npws.ie/sites/default/files/protected-sites/conservation\\_objectives/CO002122.pdf](https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO002122.pdf)

Site Name and Code	QIs and Annex Codes	Approximate Distance From Site at Nearest Point (km)	Potential Pathway
	<p>Northern Atlantic wet heaths with <i>Erica tetralix</i> [4010]</p> <p>European dry heaths [4030]</p> <p>Alpine and Boreal heaths [4060]</p> <p>Calaminarian grasslands of the <i>Violetalia calaminariae</i> [6130]</p> <p>Species-rich <i>Nardus</i> grasslands, on siliceous substrates in mountain areas (and submountain areas, in Continental Europe) [6230]</p> <p>Blanket bogs (* if active bog) [7130]</p> <p>Siliceous scree of the montane to snow levels (<i>Androsacetalia alpinae</i> and <i>Galeopsietalia ladani</i>) [8110]</p> <p>Calcareous rocky slopes with chasmophytic vegetation [8210]</p> <p>Siliceous rocky slopes with chasmophytic vegetation [8220]</p> <p>Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles [91A0]</p> <p>Otter (<i>Lutra lutra</i>) [1355]</p>		
Wicklow Mountains SPA 004040 <sup>22</sup>	<p>Merlin (<i>Falco columbarius</i>) [A098]</p> <p>Peregrine (<i>Falco peregrinus</i>) [A103]</p>	8	No terrestrial or hydrological pathway identified. Scoped out for further assessment.
North-West Irish Sea SPA 004236 <sup>23</sup>	<p>Common scoter (<i>Melanitta nigra</i>) [A065]</p> <p>Red-throated diver (<i>Gavia stellata</i>) [A001]</p> <p>Great northern diver (<i>Gavia immer</i>) [A003]</p> <p>Fulmar (<i>Fulmarus glacialis</i>) [A009]</p> <p>Manx shearwater (<i>Puffinus puffinus</i>) [A013]</p> <p>Shag (<i>Phalacrocorax aristotelis</i>) [A018]</p> <p>Cormorant (<i>Phalacrocorax carbo</i>) [A017]</p> <p>Little Gull (<i>Larus minutus</i>) [A177]</p> <p>Kittiwake (<i>Rissa tridactyla</i>) [A188]</p> <p>Black-headed Gull [A179]</p> <p>Common Gull (<i>Larus canus</i>) [A182]</p> <p>Lesser Black-backed Gull (<i>Larus fuscus</i>) [A183]</p> <p>Herring Gull (<i>Larus argentatus</i>) [A184]</p> <p>Great Black-backed Gull (<i>Larus marinus</i>) [A187]</p>	10.8	<p>A hydrological pathway exists through surface water draining from the Proposed Development into the existing stormwater drainage system. The area falls into the outfall catchment of the Shanganagh watercourse, which as mentioned flows 1.7km (approximately) to Dublin Bay. Subsequently there is a hydrological connection from Dublin Bay to the SAC via the marine environment.</p> <p>No terrestrial pathway identified. Scoped in for further assessment.</p>

<sup>22</sup> [www.npws.ie/sites/default/files/protected-sites/conservation\\_objectives/CO004040.pdf](http://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO004040.pdf)

<sup>23</sup> [npws.ie/sites/default/files/protected-sites/conservation\\_objectives/CO004236.pdf](http://npws.ie/sites/default/files/protected-sites/conservation_objectives/CO004236.pdf)

Site Name and Code	QIs and Annex Codes	Approximate Distance From Site at Nearest Point (km)	Potential Pathway
	Little Tern ( <i>Sterna albifrons</i> ) [A195] Roseate Tern [A192] Common Tern [A193] Arctic Tern [A194] Puffin ( <i>Fratercula arctica</i> ) [A204] Razorbill ( <i>Alca torda</i> ) [A200] Guillemot ( <i>Uria aalge</i> ) [A199]		
Glen of the Downs SAC 000719 <sup>24</sup>	Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0]	11	No terrestrial or hydrological pathway identified. Scoped out for further assessment.
North Dublin Bay SAC 000206 <sup>25</sup>	Mudflats and sandflats not covered by seawater at low tide [1140] Annual vegetation of drift lines [1210] Salicornia and other annuals colonising mud and sand [1310] Atlantic salt meadows ( <i>Glauco-Puccinellietalia maritimae</i> ) [1330] Mediterranean salt meadows ( <i>Juncetalia maritimi</i> ) [1410] Embryonic shifting dunes [2110] Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) [2120] Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130] Humid dune slacks [2190] Petalwort ( <i>Petalophyllum ralfsii</i> ) [1395]	11	A hydrological pathway exists through surface water draining from the Proposed Development into the existing stormwater drainage system. The area falls into the outfall catchment of the Shanganagh watercourse, which as mentioned flows 1.7km (approximately) to Dublin Bay. Subsequently there is a hydrological connection from Dublin Bay to the SAC via the marine environment.  No terrestrial pathway identified. Scoped in for further assessment.
North Bull Island SPA 004006 <sup>26</sup>	Light-bellied Brent Goose A046] Shelduck ( <i>Tadorna tadorna</i> ) [A048] Teal ( <i>Anas crecca</i> ) [A052] Pintail ( <i>Anas acuta</i> ) [A054] Shoveler ( <i>Anas clypeata</i> )[A056] Oystercatcher [A130] Golden Plover [A140]	11	A hydrological pathway exists through surface water draining from the Proposed Development into the existing stormwater drainage system. The area falls into the outfall catchment of the Shanganagh watercourse, which as mentioned flows 1.7km (approximately) to Dublin Bay. Subsequently there is a hydrological connection from Dublin Bay to the SAC via the marine environment.  No terrestrial pathway identified. Scoped in for further assessment.

<sup>24</sup> [npws.ie/sites/default/files/protected-sites/conservation\\_objectives/CO000719.pdf](https://npws.ie/sites/default/files/protected-sites/conservation_objectives/CO000719.pdf)

<sup>25</sup> [npws.ie/sites/default/files/protected-sites/conservation\\_objectives/CO000206.pdf](https://npws.ie/sites/default/files/protected-sites/conservation_objectives/CO000206.pdf)

<sup>26</sup> [npws.ie/sites/default/files/protected-sites/conservation\\_objectives/CO004006.pdf](https://npws.ie/sites/default/files/protected-sites/conservation_objectives/CO004006.pdf)



Site Name and Code	QIs and Annex Codes	Approximate Distance From Site at Nearest Point (km)	Potential Pathway
	Grey Plover [A141] Knot [A143] Sanderling [A144] Dunlin [A149] Black-tailed Godwit ( <i>Limosa limosa</i> ) [A156] Bar-tailed Godwit [A157] Curlew ( <i>Numenius arquata</i> ) [A160] Redshank [A162] Turnstone ( <i>Arenaria interpres</i> ) [A169] Black-headed Gull [A179] Wetland and Waterbirds [A999]		
Howth Head SAC 000202 <sup>27</sup>	Vegetated sea cliffs of the Atlantic and Baltic coasts [1230] European dry heaths [4030]	13.3	A hydrological pathway exists through surface water draining from the Proposed Development into the existing stormwater drainage system. The area falls into the outfall catchment of the Shanganagh watercourse, which as mentioned flows 1.7km (approximately) to Dublin Bay. Subsequently there is a hydrological connection from Dublin Bay to the SAC via the marine environment.  No terrestrial pathway identified. Scoped in for further assessment.
The Murrough SPA	Red-throated Diver [A001] Greylag Goose ( <i>Anser anser</i> ) [A043] Light-bellied Brent Goose [A046] Wigeon ( <i>Anas penelope</i> ) [A050] Teal [A052] Black-headed Gull [A179] Herring Gull [A184] Little Tern [A195] Wetland and Waterbirds [A999]	13.4	A hydrological pathway exists through surface water draining from the Proposed Development into the existing stormwater drainage system. The area falls into the outfall catchment of the Shanganagh watercourse, which as mentioned flows 1.7km (approximately) to Dublin Bay. Subsequently there is a hydrological connection from Dublin Bay to the SAC via the marine environment.  No terrestrial pathway identified. Scoped in for further assessment.
Howth Head Coast SPA 004113 <sup>28</sup>	Kittiwake [A188]	13.8	A hydrological pathway exists through surface water draining from the Proposed Development into the existing stormwater drainage system. The area falls into the outfall catchment of the Shanganagh watercourse, which as mentioned flows 1.7km

<sup>27</sup> [npws.ie/sites/default/files/protected-sites/conservation\\_objectives/CO000202.pdf](https://npws.ie/sites/default/files/protected-sites/conservation_objectives/CO000202.pdf)

<sup>28</sup> [npws.ie/sites/default/files/protected-sites/conservation\\_objectives/CO004113.pdf](https://npws.ie/sites/default/files/protected-sites/conservation_objectives/CO004113.pdf)

Site Name and Code	QIs and Annex Codes	Approximate Distance From Site at Nearest Point (km)	Potential Pathway
			(approximately) to Dublin Bay. Subsequently there is a hydrological connection from Dublin Bay to the SAC via the marine environment. No terrestrial pathway identified. Scoped in for further assessment.
Glenasmole Valley SAC 001209 <sup>29</sup>	Semi-natural dry grasslands and scrubland facies on calcareous substrates ( <i>Festuco-Brometalia</i> ) (* important orchid sites) [6210] Molinia meadows on calcareous, peaty or clayey-silt-laden soils ( <i>Molinion caeruleae</i> ) [6410] Petrifying springs with tufa formation (Cratoneurion) [7220]	14.5	No terrestrial or hydrological pathway identified. Topography suggests ground water moves east towards Irish Sea as opposed to west towards the SAC. Scoped out for further assessment.
Carriggower Bog SAC 000716 <sup>30</sup>	Transition mires and quaking bogs [7140]	14.8	No terrestrial or hydrological pathway identified. Topography suggests ground water moves east towards Irish Sea as opposed to south towards the SAC. Scoped out for further assessment.
Baldoyle Bay SPA 004016 <sup>31</sup>	Light-bellied Brent Goose [A046] Shelduck [A048] Ringed Plover [A137] Golden Plover [A140] Grey Plover [A141] Bar-tailed Godwit [A157] Wetland and Waterbirds [A999]	15.8	A hydrological pathway exists through surface water draining from the Proposed Development into the existing stormwater drainage system. The area falls into the outfall catchment of the Shanganagh watercourse, which as mentioned flows 1.7km (approximately) to Dublin Bay. Subsequently there is a hydrological connection from Dublin Bay to the SAC via the marine environment. No terrestrial pathway identified. Scoped in for further assessment.

Grey shading indicating European designated sites scoped out

<sup>29</sup> [www.npws.ie/sites/default/files/protected-sites/conservation\\_objectives/CO001209.pdf](http://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO001209.pdf)

<sup>30</sup> [npws.ie/sites/default/files/protected-sites/conservation\\_objectives/CO000716.pdf](http://npws.ie/sites/default/files/protected-sites/conservation_objectives/CO000716.pdf)

<sup>31</sup> [www.npws.ie/sites/default/files/protected-sites/conservation\\_objectives/CO004016.pdf](http://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO004016.pdf)

## 7. Consideration of Any Likely Significant Effects on European Designated Sites

### 7.1 Introduction

The Proposed Development is not directly connected with or necessary to, the management of the European designated sites listed in Table 2 for nature conservation. The assessment therefore checks whether the Proposed Development has the potential for a LSE. A European designated site will only be at risk from LSE where the S-P-R link exists between the site and the European designated site.

### 7.2 LSE from Loss of Habitat

There will be no land take from any European designated site or any Annex I habitat as part of the Proposed Development both during construction and operation. Land take will be from artificial surfaces predominantly. The habitats recorded within the Proposed Development are considered of a low ecological value. However, there will be an area of grass verge excavated (1m by 40m). The habitats within the Proposed Development do not correspond to habitats listed on Annex I of the Habitats Directive. Nor are they considered suitable habitat to support the mobile QIs of any of the European designated sites under assessment (marine mammals, wetland and water birds).

**Therefore, there will be no likely significant effect on the conservation objectives any of European designated sites within the zone of influence as result of habitat loss.**

### 7.3 LSE from Direct Emissions to Water

During the operational phase, drainage at the Proposed Development will connect into the existing stormwater drainage network. As mentioned in Section 4.2.5, there will be limited additional drainage required, in the form of new gullies and connections to the existing stormwater drainage system. Given the Proposed Development aims to deliver cycle links (and reduce private vehicle travel), emissions of harmful pollutants into water (surface and ground) as a result of implementation is not expected during operation.

As mentioned in Section 4.3.3, there is a risk, as in any construction site for a pollution event to occur resulting in water contamination. During the construction phase, a potential pathway for effect exists through the surface run-off. Where surface run-off from the Proposed Development will enter the stormwater drainage network. The area falls into the outfall catchment of the Shanganagh watercourse, which as mentioned flows 1.7km (approximately) to Killiney Bay and subsequently, Dublin Bay.

There is potential source from dust or other harmful pollutants to be emitted during construction, and for run-off to enter the watercourse hydrologically connected to several European designated sites. Despite this, the source for effect is not considered sufficient given the size and scale of the Proposed Development. Significant waste, emissions or pollutants are not expected to arise as a result of the works. The construction phase is short-term (6-8 weeks). The pathway for effect is considered weak and in-direct. Any pollutants that would enter the Shanganagh River would be subject to dilution with the distance required to travel to any European designated site. There is also a considerable marine buffer (1.5km to nearest European designated site).

In addition, the contractor will be required to maintain a Construction Environmental Management Plan (CEMP). The employment of good construction management practices for the Proposed Development will serve to minimise the already minimal risk of pollution of soil, storm water run-off or groundwater. These are included as best practice and not in place to protect any European designated site.

The Proposed Development is not expected to impact groundwater, despite an area of high groundwater vulnerability being present (Figure 2), indicating bedrock being close to the surface. Excavations are to maximum depth of 600mm, in the pre-existing urban environment (See Section 4.2.4 for further information on excavation depths) and not expected to reach bedrock, thus impacting ground water. In addition,

topography suggests that ground water moves east towards the Irish Sea, away from any European designated sites with receptors vulnerable to groundwater change.

**Therefore, there will be no likely significant effect on the conservation objectives any of European designated sites within the zone of influence result of emission to water.**

#### **7.4 LSE From Direct Emissions to Air**

During the operational no significant air quality effects are expected given the Proposed Development will deliver cycle links, having an anticipated positive impact on air quality, encouraging a modal shift from private car.

The construction activities have the potential for dust emissions through excavations, particularly in dry weather. Dust may also be raised by wind from dry surfaces and stockpiles. Air emissions from the exhausts of construction plant, machinery and haulage trucks have the potential to be elevated during construction but are not expected to be significant, given the scale of the works, anticipated duration (6-8 weeks) and temporary nature of the emissions. In addition, the CEMP will implement measures such as sweeping and/or damping of haul routes and construction areas on a regular basis. Stockpiling of materials will also occur away from sensitive receptors. Please note such measures are not included to protect any European designated site but are in place as best construction practice.

Regardless of the limited source of aerial pollution, this report finds there is no pathway for effect from the Proposed Development to European designated sites within the zone of influence. The distance between the Proposed Development and the nearest European designated site (2.7km) is considered adequately distant for no impacts from air quality to occur. It is considered unlikely that any QIs will utilise the habitats associated with the Proposed Development.

**Therefore, there will be no likely significant effect on the conservation objectives any of European designated sites within the zone of influence result of direct emissions to air.**

#### **7.5 LSE from Direct Emissions From Light**

During the operational and construction phase, no significant effects from lighting are expected. There are new lighting poles proposed in operation, however, there is no pathway identified from the Proposed Development site to European designated sites within the zone of influence. The distance between the Proposed Development and the nearest European designated site (2.7km) is considered adequately distant to ensure that no impacts from lighting occur. It is considered unlikely that any QIs will utilise the habitats potentially disturbed by lighting.

**Therefore, there will be no likely significant effect on the conservation objectives any of European designated sites within the zone of influence result of lighting.**

#### **7.6 LSE from Direct Emissions From Noise or Vibration**

There is potential for noise to be generated during the proposed works due to construction traffic and machinery operation. However, due to the limited nature of works (no demolition or piling) and short-time scale, this is not expected to be significant.

No construction works are expected to take place outside of normal construction working hours (Section 4.3.3). Any additional works separate to the above and outside of normal construction working hours will be agreed in advance with Dun Laoghaire Rathdown County Council. The planning of such works will have regard to nearby sensitive receptors.

Noise emissions will be managed by the implementation of control measures as part of the CEMP. These are not in place to prevent any LSE on a European designated site and even in the absence of such measures, any LSE is considered unlikely due to the lack of a pathway and receptors present.

There are no mobile QI species likely to be present onsite due to the lack of suitable habitats. In addition, the nearest European site is 2.7km from the site, considered sufficiently distant to avoid any impacts from noise.

**Therefore, there will be no likely significant effect on the conservation objectives any of European designated sites within the zone of influence result of noise or vibration.**

### 7.7 LSE from Visual Disturbance

Visual disturbance will also be generated during the proposed works due to construction traffic, however as mentioned above there is a lack of receptor and pathway presence.

**Therefore, there will be no likely significant effect on the conservation objectives any of European designated sites within the zone of influence result of visual disturbance.**

### 7.8 LSE from Invasive Species

Invasive species listed on Irish Legislation have been identified in the NBDC records for the area in Section 5.3. There is however a lack of habitat where such species may exist, with the Proposed Development predominantly under hardstanding currently used as road and footpath. There is no hedgerow or tree removal under the works. Waste generated from excavating the grass verge will be cleared and removed off site as part of the works.

**Therefore, there will be no likely significant effect on the conservation objectives any of European designated sites within the zone of influence result of invasive species.**

### 7.9 Identification of other projects and plans

The Proposed Development forms part of the DLRCC Cycle Network. This project will connect with a wider network of existing and planned cycling infrastructure and greenways in the area. The Proposed Development will directly connect to a dense network of greenways proposed as part of the Cherrywood Planning Scheme which also connect to other schemes such as the planned Cherrywood to Cornelscourt Greenway, Cherrywood to Sandyford Greenway and Carrickmines to Cherrywood cycle route.

The Proposed Development represents the first phase of a 2-phase development (as discussed in Section 1.2) Due to the timing of the construction and the use of standard CEMP practises, no significant in-combination effects are likely to occur due to Phase 2.

Relevant schemes that could give rise to in-combination effects include: BusConnects Dublin, Future Luas extension and Cherrywood Planning Scheme. Their effect on the Proposed Development is outlined below.

**Table 3: Relevant Schemes with Potential for In-Combination Effects**

Name of Scheme	Description	In-Combination Effects
BusConnects	<p>BusConnects Dublin is the NTA’s programme to greatly improve bus services in Dublin. It includes a redesign of the bus network as well as infrastructure improvements along Core Bus Corridors (CBC). Improved cycling infrastructure is also proposed along the CBCs.</p> <p>CBC 13 runs from Bray to the City Centre. Through Shankill, it is proposed to operate bus services along Dublin Road, with cycle tracks proposed along Stonebridge Road and Dublin Road (south of the junction with Stonebridge Road).</p> <p>In the vicinity of the proposed development, it is proposed to maintain one bus lane and two general traffic lanes in each direction along the N11. CBC 13 also includes a ‘cycle street’ design for the Bray Road, similar to this current proposal.</p> <p>At the Loughlinstown Roundabout it is proposed to signalise the existing roundabout on three arms and to provide a continuous bus lane southbound through the junction towards Shankill.</p>	<p>CBC 13 proposes works along the Bray Road which are very similar in nature to what is included as part of the proposed development.</p> <p>No overlap in the construction phases is likely due to the timing of both projects.</p> <p>The proposed development provides a connection to two bus stops which will be served by the E1 bus service in the future (under BusConnects).</p>
Future Luas extension	<p>This project is the extension of the Green Luas Line from Cherrywood to Bray. The project is identified in the Transport Strategy for the GDA 2022-2042 which states ‘it is intended to extend the Luas Green Line southwards in order to serve the Bray and Environs area’.</p>	<p>It is expected to be developed in the period from 2031 to 2042, so no overlap with the construction of the Proposed Development will occur.</p>

Name of Scheme	Description	In-Combination Effects
Cherrywood Planning Scheme	<p>The Cherrywood Strategic Development Zone (SDZ) was designated as an SDZ by Government order in 2010. Dún Laoghaire-Rathdown County Council (DLRCC) was appointed as the Development Agency responsible for preparing the Planning Scheme. A number of other developments identified within the Cherrywood SDZ are currently under construction or are recently permitted.</p> <p>The Cherrywood Green Routes Network, which has Part 8 statutory approval, extends for approximately 5km from Brides Glen to Brennanstown comprising pedestrian and cycle connections to the N11, Wyattville Link Road, Cherrywood Avenue and Brides Glen/Cherrywood Road. This Green Routes Network is located within the SDZ.</p>	<p>There is the potential for in-combination effects due to the connection of the Proposed Development and Cherrywood Green Routes Network.</p> <p>An AA Screening found no LSE.</p>

Due to the separation of the Proposed Development from those identified above, the timing of their construction and the provision of best practice Construction Environmental Management Plan (CEMP) measures, no significant in-combination effects are likely to occur.

It is considered that other developments (listed in Table 3) have the potential for in-combination effects on the qualifying interests of relevant sites given the no significant effects were identified.

**Table 4: Relevant Projects with Potential for In-Combination Effects**

Planning Reference	Applicant	Decision date	Proposal	In-combination Effect
DZ21A/0932	LSREF V Eden TC5 Limited	07/04/2022	This application relates to residential development within the Cherrywood Strategic Development Zone (SDZ) and is subject to the Cherrywood Planning Scheme 2014, as amended. It is located approximately 500m west.	Carrickmines stream acts as an indirect source pathway linkage which ultimately discharges into Killiney Bay. However, the AA Screening report found due to the low chemical loading and distance to the European Sites, there is no potential for impact on water quality at these sites.
DZ17A/0714	William Neville & Sons	07/08/2018	Permission for a residential scheme of 322 no. units and a crèche facility. It is located approximately 600m west.	AA Screening concludes no significant effects.
DZ19A/0458	Hines Cherrywood Development Fund ICAV	19/06/2020	The proposed development will comprise: Amendments/modifications to the permitted development on plot TC1 and associated basement Levels BM, B1 and B2 shared with TC2 and specifically Blocks B1, B2, B5 and B6 as permitted under the Cherrywood Town Centre development Reg. Ref. DZ17A/0862 (as modified by Reg. Refs. DZ18A/1058, DZ18A/1178 and DZ19A/0148) and includes the development of a new mixed use urban block, Blocks B3/ B4 and associated amendments at basement Levels BM, B1, B2 and provision of a new basement Level B3. It is located approximately 600m west.	Surface water run-off will enter the existing surface water network. However, the AA Screening report found no measurable effects of water quality in Killiney Bay or Irish Sea.
DZ22A/0820	Quintain Developments Ireland Limited	12/12/2022	The site of the residential development is located in the Cherrywood Planning Scheme 2014, as amended and forms part of development area B - Tully. The overall site area of this application is approximately	AA Screening concludes no significant effects.

Planning Reference	Applicant	Decision date	Proposal	In-combination Effect
			9.68Ha. It is located approximately 1km west.	
DZ22A/1021	LSREF V Eden MI Limited	27/06/2023	This application relates to development within the Cherrywood Strategic Development Zone (SDZ) and is subject to the Cherrywood Planning Scheme 2014 (as amended). The development will consist of 283no. residential units and ancillary accommodation. It is located approximately 1km west.	There will be an indirect linkage with the Carrickmines river through the stormwater sewer. Due distance to the Natura 2000 sites, and absence of impacts arising from foul water discharge from the project there is no potential for impact on water quality at identified Natura 2000 sites.
DZ20A/0552	Quintain Developments Ireland Limited	11/03/2021	This application relates to development within the Cherrywood Strategic Development Zone (SDZ) and is subject to the Cherrywood Planning Scheme 2014, as amended and is generally bounded by Castle Street to the west, Tully Park, future development lands in Development Area 8 - Tully and the site of the permitted Primary School. It is located approximately 1km west.	AA Screening concludes no significant effects.
ABP31234721	J Coffey Property (Falmore) Ltd	22/04/2022	Permission refused: A strategic housing development, located approximately 1km west.	AA Screening found no viable surface-water for significant negative impacts on any Natura 2000 sites.
ABP30841820	ES Shan Limited	11/02/2021	Permission for a Build To Rent Strategic Housing Development comprise a Build to Rent (BTR) residential scheme comprising 193 no. apartments within 4 no. blocks ranging in height from 5 to 8 storeys.	Surface water run-off during construction and operation will discharge to the local surface water network which will ultimately discharge into Killiney Bay. There is connectivity between the groundwater on site discharging to the Shanganagh River A Natura Impact Statement has been prepared in respect of the proposed development.
D19A/0797	Melcorpo Commercial Properties Unlimited Company	28/07/2020	Permission for development. The development will consist of the demolition of all existing buildings (1985sq.m) on site and the construction of a 4 storey Primary Care Centre and General Practitioner (GP) Surgery with a gross floor area of 4,267sq.m.	No LSE on any European site
ABP30585919	Atlas GP Limited	25/06/2019	Permission for Strategic Housing Development comprising 234 residential units in a mix of apartments and duplexes in three blocks with associated residential facilities including open space, a gym, a creche and a lower foyer (approximately 1.1km north-west).	AA Screening report identifies a risk of surface run-off during operation and construction. Pollutants may include silt, sediments and/or other pollutants into Cabinteely stream. This joins the Shanganagh River, discharging into Killiney Bay. Based on the considerable marine buffer and dilution factor that exists between the outflow of the Shanganagh River and any Natura 2000 sites no LSE are envisaged.

Planning Reference	Applicant	Decision date	Proposal	In-combination Effect
DZ18A/0208 DZ19A/0863	Tudor Homes Ltd	04/02/2020 14/01/2020	Permission sought for a residential development at a site for new residential dwellings (approximately 1km north-west).	Outfall to Cabinteely stream poses risk impact to water quality during construction. No LSE from AA Screening report
DZ23A/0106	LSREF V Eden T1 Limited	22/09/2023	The planning permission is as follows: The development proposed consists of a mixed use commercial and Build to Rent apartment development (total overall gross floor area of c. 16,508sqm) consisting of 2no Blocks of 3-5 storeys over basement on a developing tile (T1) of approximately 1.09 Ha (approximately 500m north-west)	Outfall to Cabinteely stream poses risk impact to water quality during construction. No LSE from AA Screening report
DZ22A/0729	LSREF V Eden T3 Limited	29/08/2023	This application relates to development within the Cherrywood Strategic Development Zone (SDZ) and is subject to the Cherrywood Planning Scheme 2014, as amended.  The site of the residential development proposed is located in the Cherrywood Planning Scheme area and forms part of Development Area 8 – Tully (approximately 500m north-west).	The only relevant watercourse for the project site is the Shanganagh River as an indirect source pathway linkage. No LSE from AA Screening report



## 8. Summary

There are 18 European designated sites within the zone of influence:

- Ballyman Glen SAC;
- Bray Head SAC;
- Carriggower Bog SAC;
- Dalkey Islands SPA;
- Glen of the Downs SAC;
- Glenasmole Valley SAC;
- Howth Head Coast SPA;
- Howth Head SAC;
- Knocksink Wood SAC;
- North Bull Island SPA;
- North Dublin Bay SAC;
- North-West Irish Sea SPA;
- Rockabill to Dalkey Island SAC;
- South Dublin Bay and River Tolka Estuary SPA;
- South Dublin Bay SAC;
- The Murrough SPA;
- Wicklow Mountains SAC; and
- Wicklow Mountains SPA.

Given the distance, lack of pathway and QIs, duration, scale and the nature of the Proposed Development and therefore absence of any potential for effects, seven European designated sites were scoped out before any examination of potential for likely significant effects: Ballyman Glen SAC, Carriggower Bog SAC, Glen of the Downs SAC, Glenasmole Valley SAC, Knocksink Wood SAC, Wicklow Mountains SAC and Wicklow Mountains SPA.

Due to the potential hydrological pathway through surface water the potential for impacts on the remaining European designated sites were assessed for LSE.

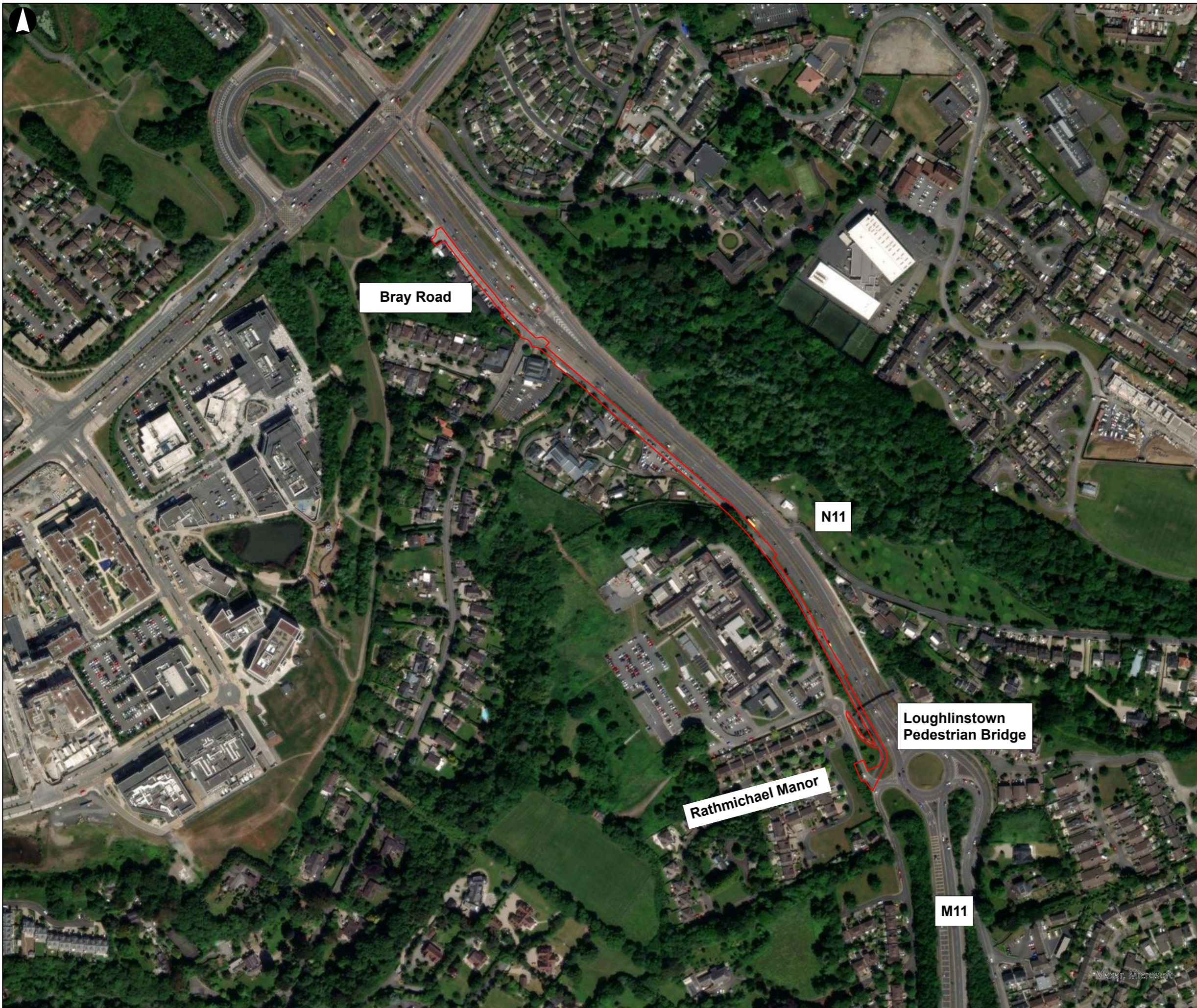
It is concluded beyond reasonable scientific doubt, in view of best scientific knowledge and in the absence of mitigation that the proposed development, individually or in-combination with other plans or projects, is not likely to have a significant effect on the above listed European Sites, in view of the sites' conservation objectives.

An appropriate assessment is therefore not required and there is no requirement for a Natura Impact Statement to be prepared in respect of the proposed development.

# Appendix A

## Maps

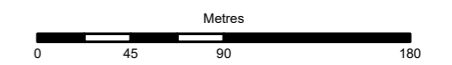
# A.1 Proposed Development Location



**Legend**

Proposed Development

Coordinate System: TM65 Irish Grid



P01	20.11.2023		AS	DM	FM
Rev	Date	By	Chkd	Appd	Authd

**ARUP**

Ove Arup & Partners Limited  
 Bedford House  
 3rd Floor  
 16-22 Bedford Street  
 Belfast BT2 7FD

Client  
**Dún Laoghaire-Rathdown County Council (DLRCC)**

Project Name  
**Cherrywood to Rathmichael Manor Rapid Build Cycle Scheme**

Drawing Title  
**Location**

Scale at A3  
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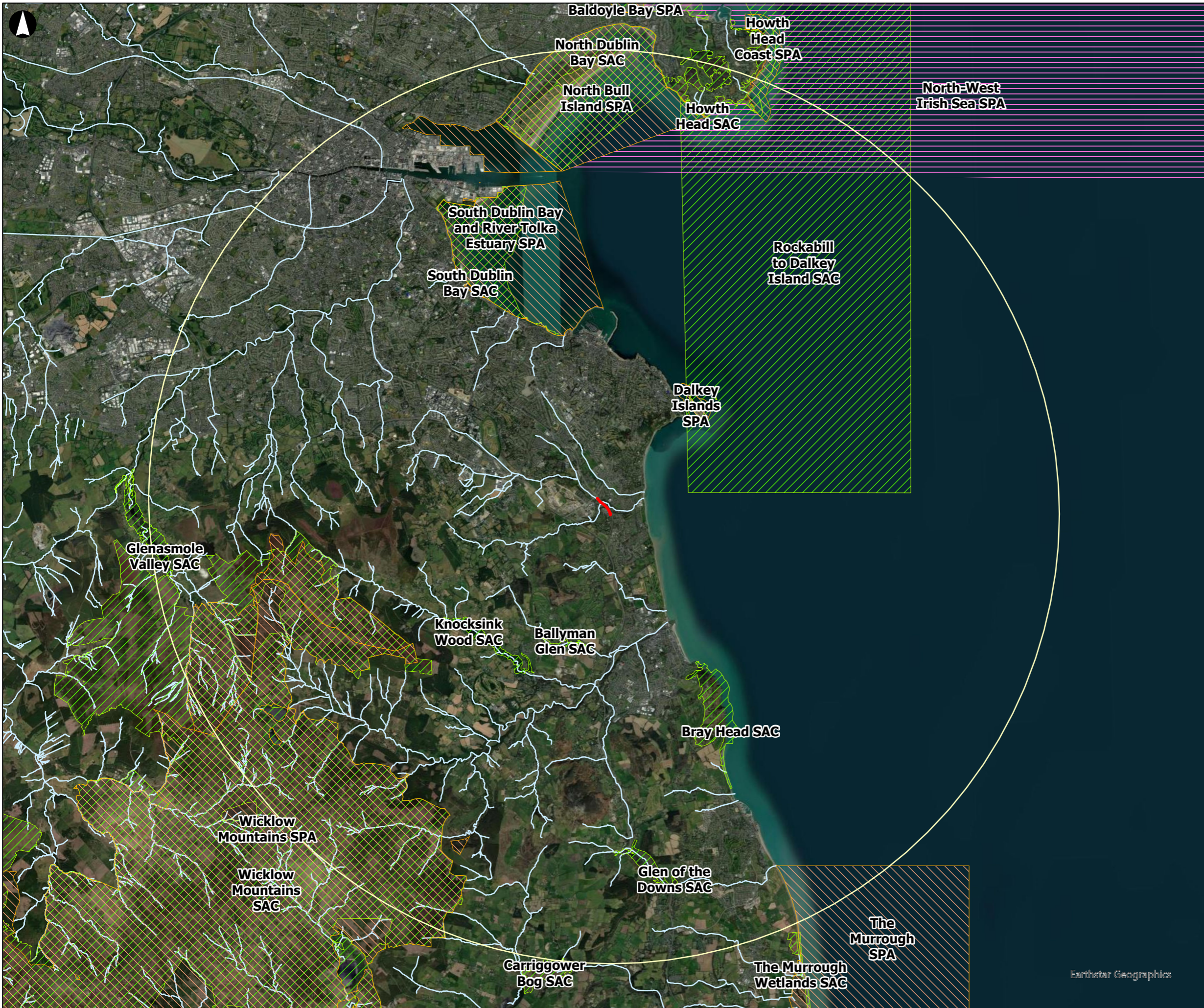
Role  
**Environmental**

Suitability  
**For Issue**

Project Number <b>278406-00</b>	Rev <b>P01</b>
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Drawing Number  
**A.1**

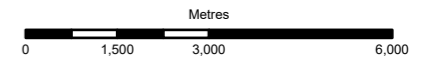
# A.2 European Designated Sites within Zone of Influence



**Legend**

- Proposed Development
- Buffer (15km)
- Special Area of Conservation (SAC)
- Special Protection Area (SPA)
- SPA Marine
- River Waterbodies

Coordinate System: TM65 Irish Grid



P01	20.11.2023		AS	DM	FM
Rev	Date	By	Chkd	Appd	Authd



Ove Arup & Partners Limited  
 Bedford House  
 3rd Floor  
 16-22 Bedford Street  
 Belfast BT2 7FD

Client

**Dún Laoghaire-Rathdown County Council (DLRCC)**

Project Name

**Cherrywood to Rathmichael Manor Rapid Build Cycle Scheme**

Drawing Title

**European Designated Sites within 15km**

Scale at A3

**1:124,000**

Role

**Environmental**

Suitability

**For Issue**

Project Number  
**278406-00**

Rev  
**P01**

Drawing Number

**A.2**

Earthstar Geographics

# Appendix B

## Drawings

# B.1 Proposed Development Drawings





A1  
1  
2  
3  
4  
5  
6  
7  
8  
9  
10

A B C D E F G H I J K L M N O P

- Legend
- Carriageway
  - Proposed Footpath
  - Cycle Track
  - Shared Path
  - Raised Table
  - Grass Area/Verge
  - 'Cycle Street' (red coloured pavement)
  - 'Cycle Street' at-grade Textured Strip

Issue	Date	By	Chkd	Appd
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P02	10/01/24	ES	JF	JF
P01	06/10/23	ES	JF	JF

Client  
Dun Laoghaire Rathdown  
County Council

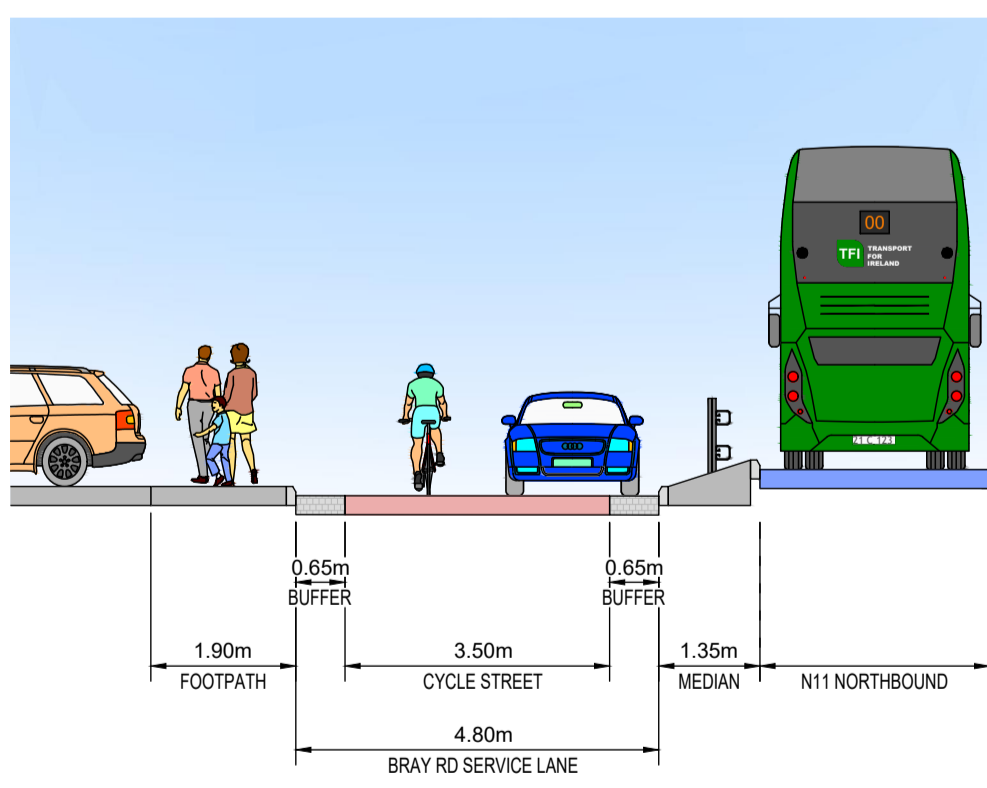
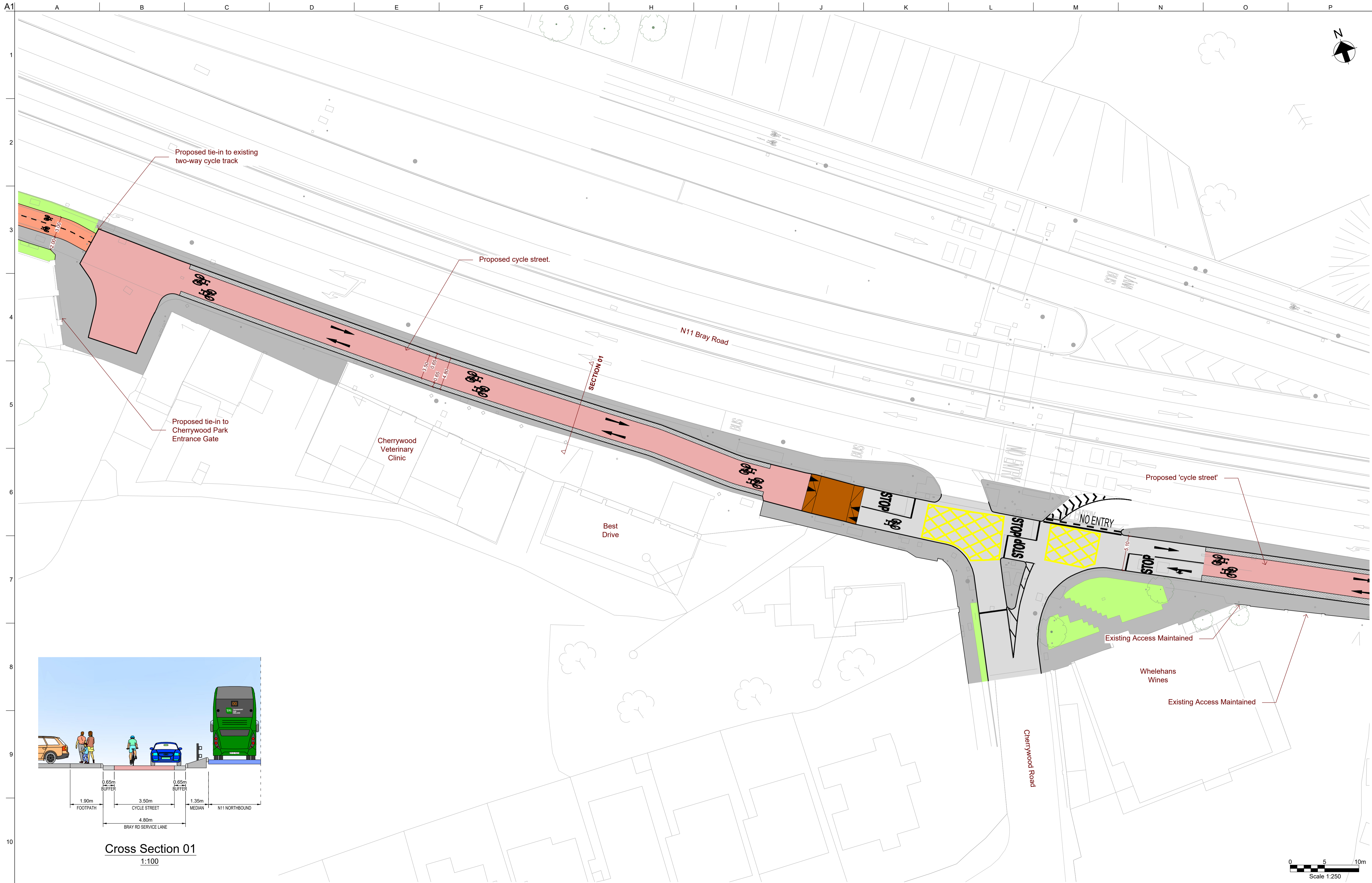
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Cherrywood to Rathmichael Manor  
Rapid Build Cycle Scheme

**ARUP**

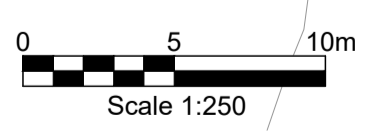
Arup, 50 Ringsend Road  
Dublin 4  
Tel +353(0)1 233 4455 Fax +353(0)1 668 3169  
www.arup.ie

Drawing Title  
General Arrangement - Overview

Drawing Status  
**S2 - Suitable for Information**  
Job No **278406-00** Drawing No **CSG-ARUP-ZZ-ZZ-DR-CH-0100** Issue **P03**



**Cross Section 01**  
1:100



- Legend**
- Carriageway
  - Proposed Footpath
  - Cycle Track
  - Shared Path
  - Raised Table
  - Grass Area/Verge
  - 'Cycle Street' (red coloured pavement)
  - 'Cycle Street' at-grade Textured Strip

Issue	Date	By	Chkd	Appd
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P02	10/01/24	ES	JF	JF
P01	06/10/23	ES	JF	JF

Client  
**Dun Laoghaire Rathdown  
County Council**

Job Title  
**Cherrywood to Rathmichael Manor  
Rapid Build Cycle Scheme**

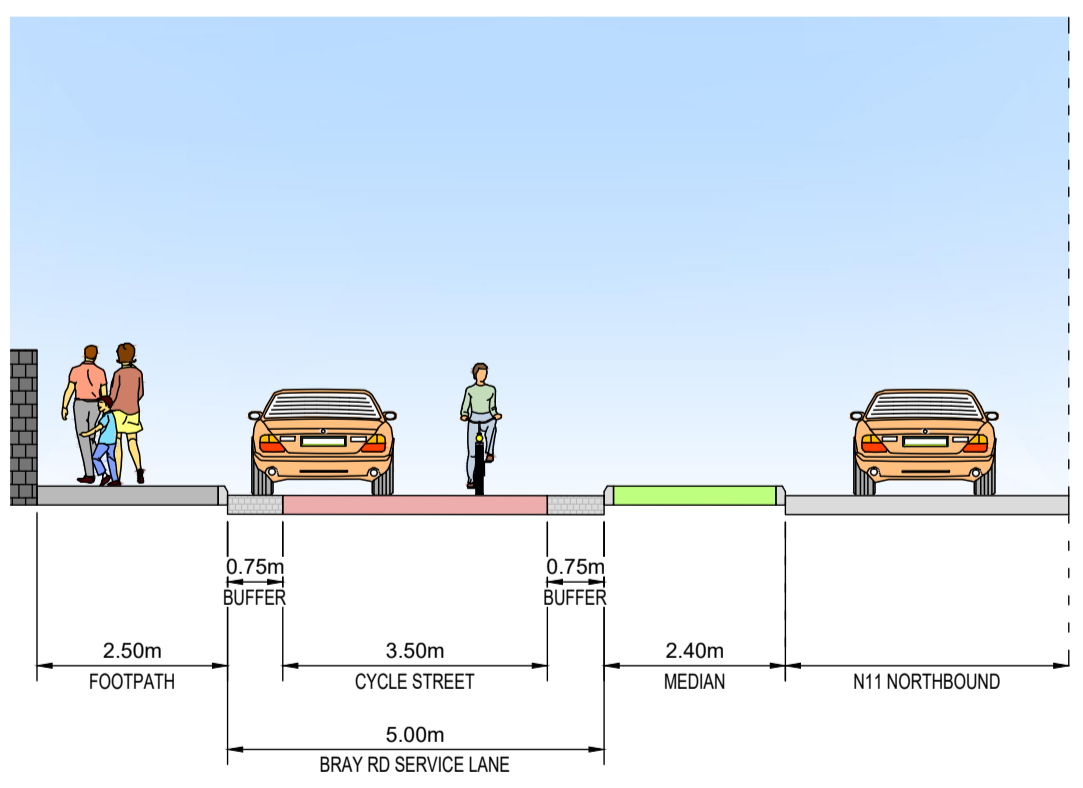
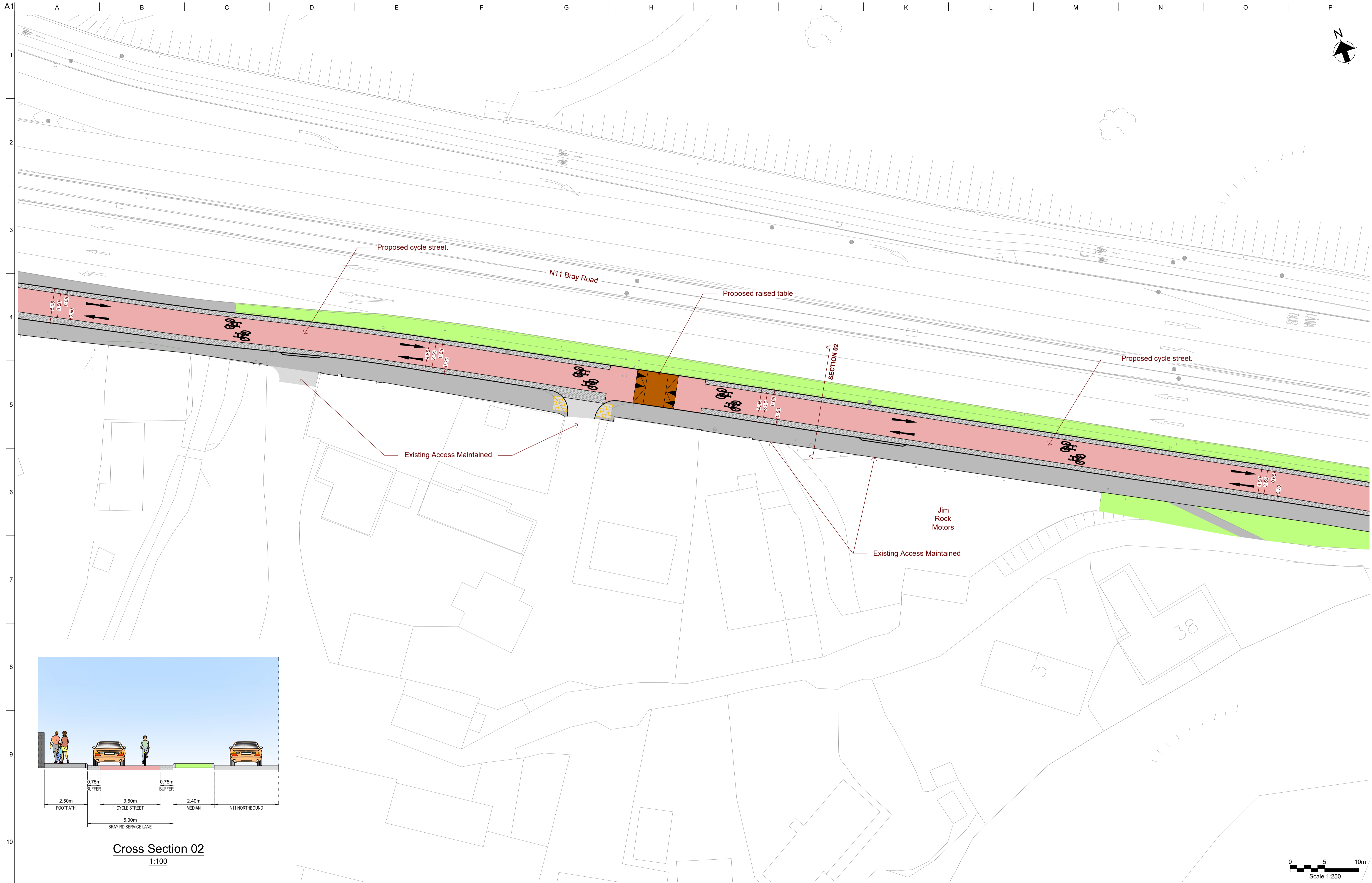
**ARUP**

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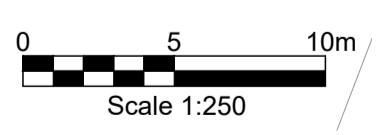
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**General Arrangement  
Sheet 1 of 4**

Drawing Status  
**S2 - Suitable for Information**

Job No <b>278406-00</b>	Drawing No <b>CSG-ARUP-ZZ-ZZ-DR-CH-0101</b>	Issue <b>P03</b>
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**Cross Section 02**  
1:100



- Legend**
- Carriageway
  - Proposed Footpath
  - Cycle Track
  - Shared Path
  - Raised Table
  - Grass Area/Verge
  - 'Cycle Street' (red coloured pavement)
  - 'Cycle Street' at-grade Textured Strip

Issue	Date	By	Chkd	Appd
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P02	10/01/24	ES	JF	JF
P01	06/10/23	ES	JF	JF

**Client**  
Dun Laoghaire Rathdown  
County Council

**Job Title**  
Cherrywood to Rathmichael Manor  
Rapid Build Cycle Scheme

Scale at A1: 1:250

Discipline: Planning

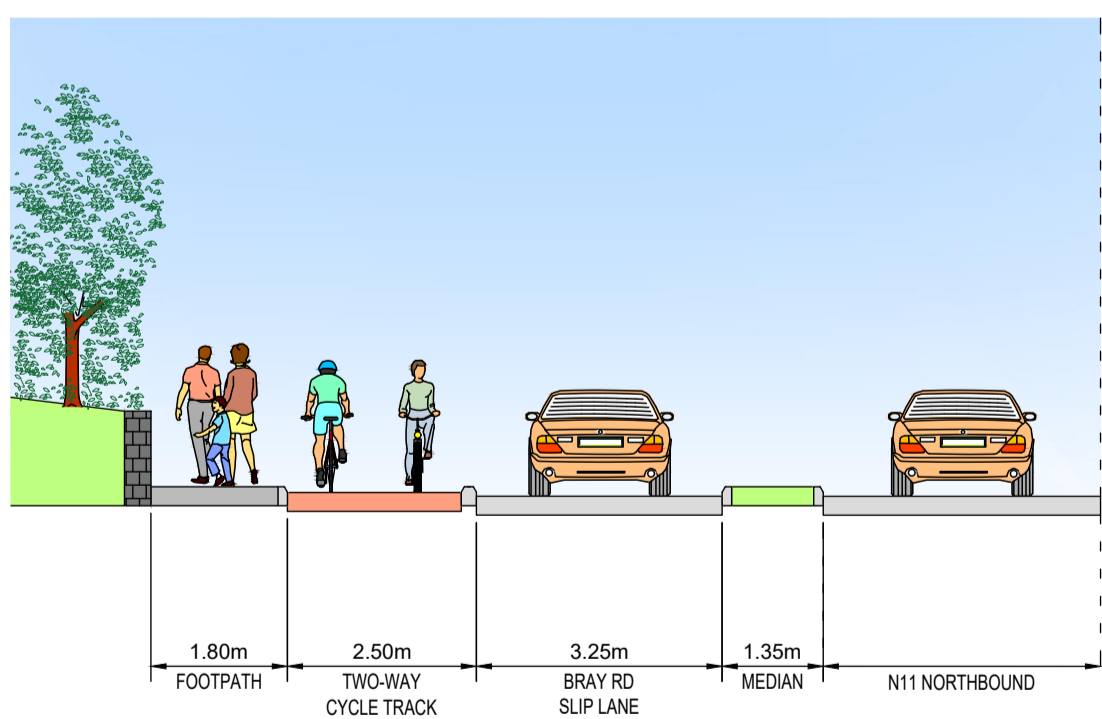
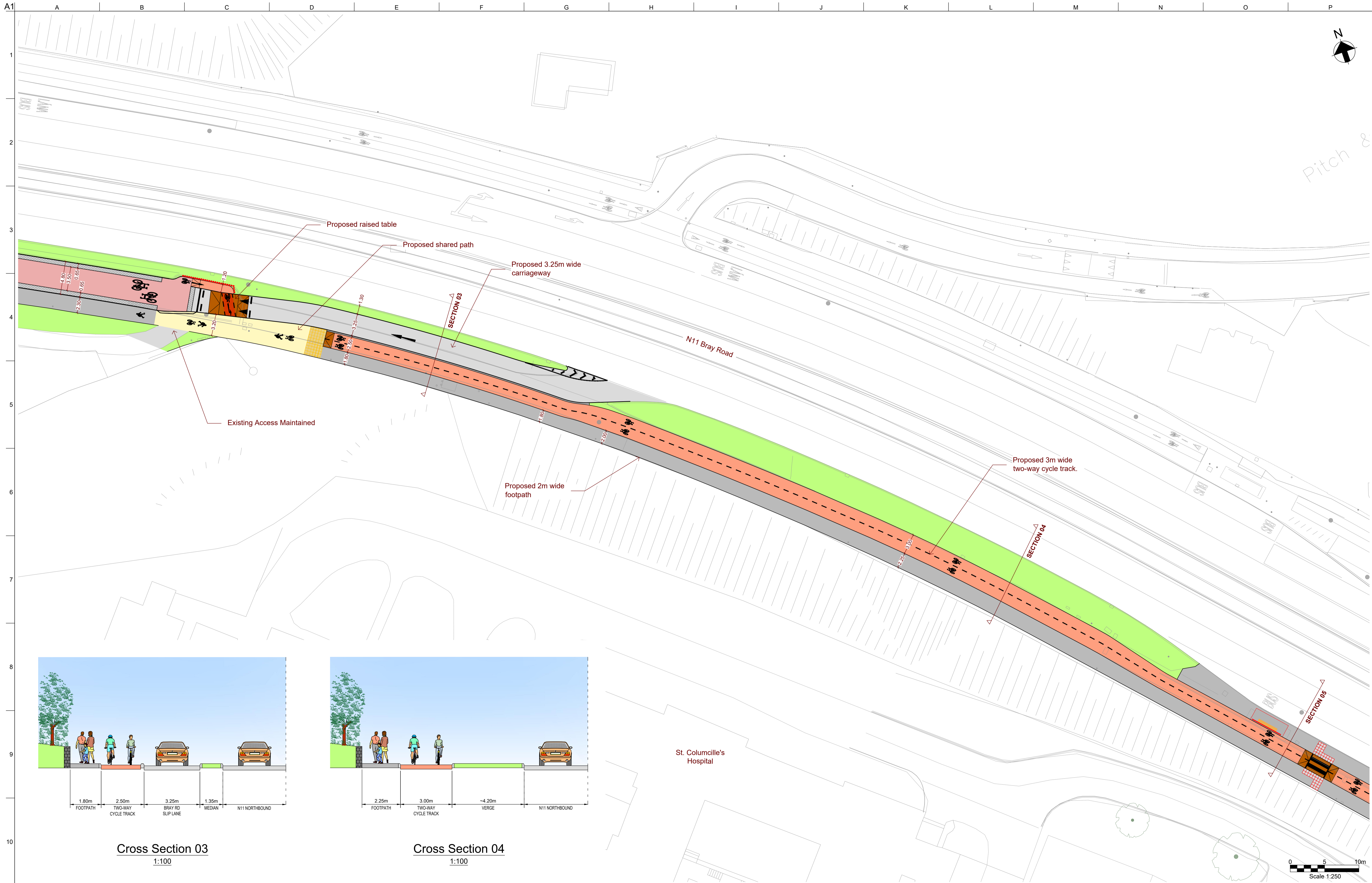
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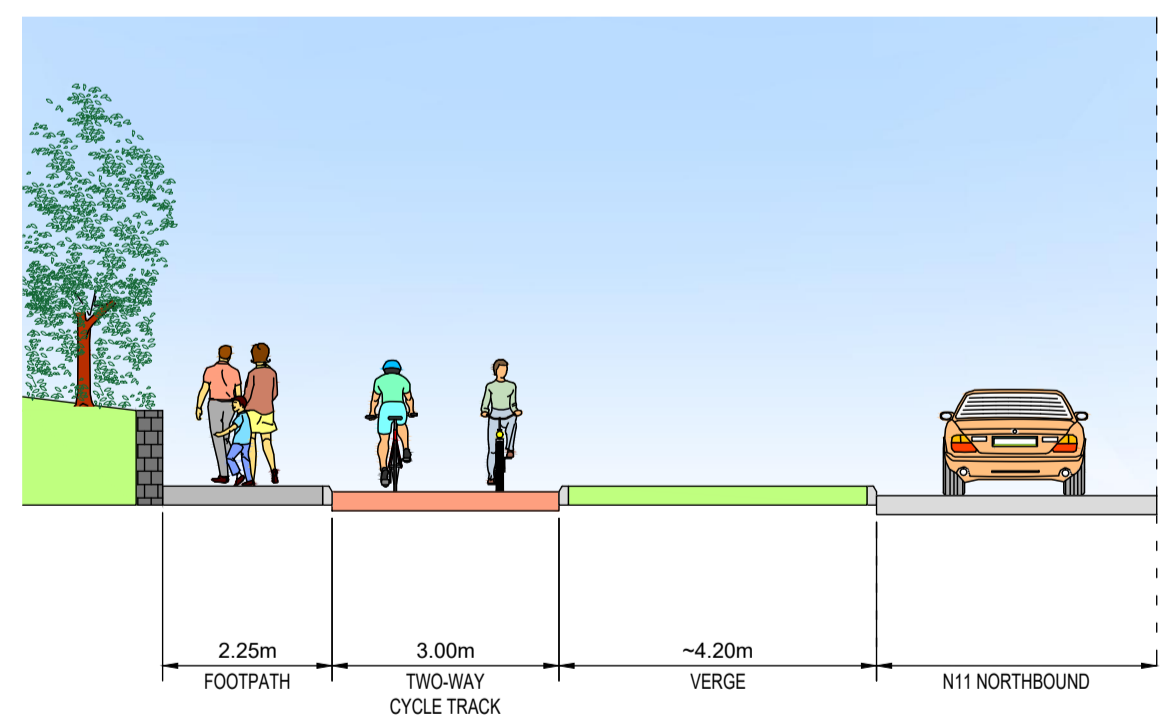
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Sheet 2 of 4

**Drawing Status**  
**S2 - Suitable for Information**

Job No: **278406-00** Drawing No: **CSG-ARUP-ZZ-ZZ-DR-CH-0102** Issue: **P03**



**Cross Section 03**  
1:100



**Cross Section 04**  
1:100

- Legend**
- Carriageway
  - Proposed Footpath
  - Cycle Track
  - Shared Path
  - Raised Table
  - Grass Area/Verge
  - 'Cycle Street' (red coloured pavement)
  - 'Cycle Street' at-grade Textured Strip

Issue	Date	By	Chkd	Appd
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P02	10/01/24	ES	JF	JF
P01	06/10/23	ES	JF	JF

Client  
**Dun Laoghaire Rathdown  
County Council**

Job Title  
**Cherrywood to Rathmichael Manor  
Rapid Build Cycle Scheme**

Scale at A1: 1:250

Discipline: Planning

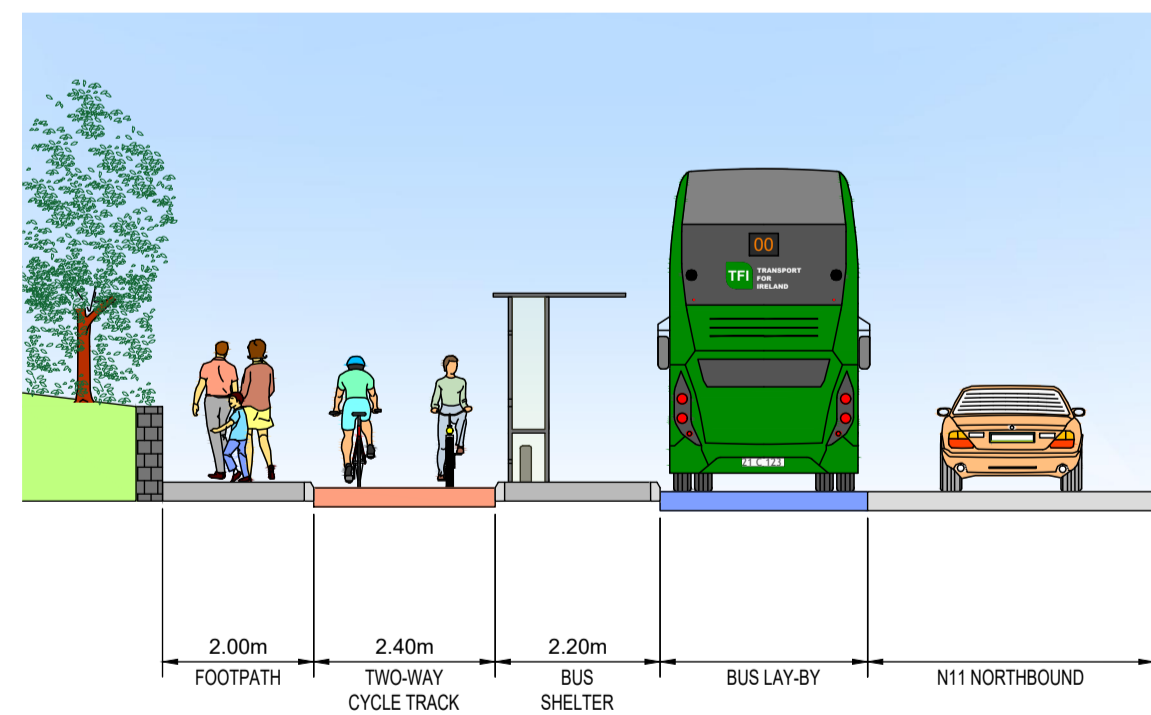
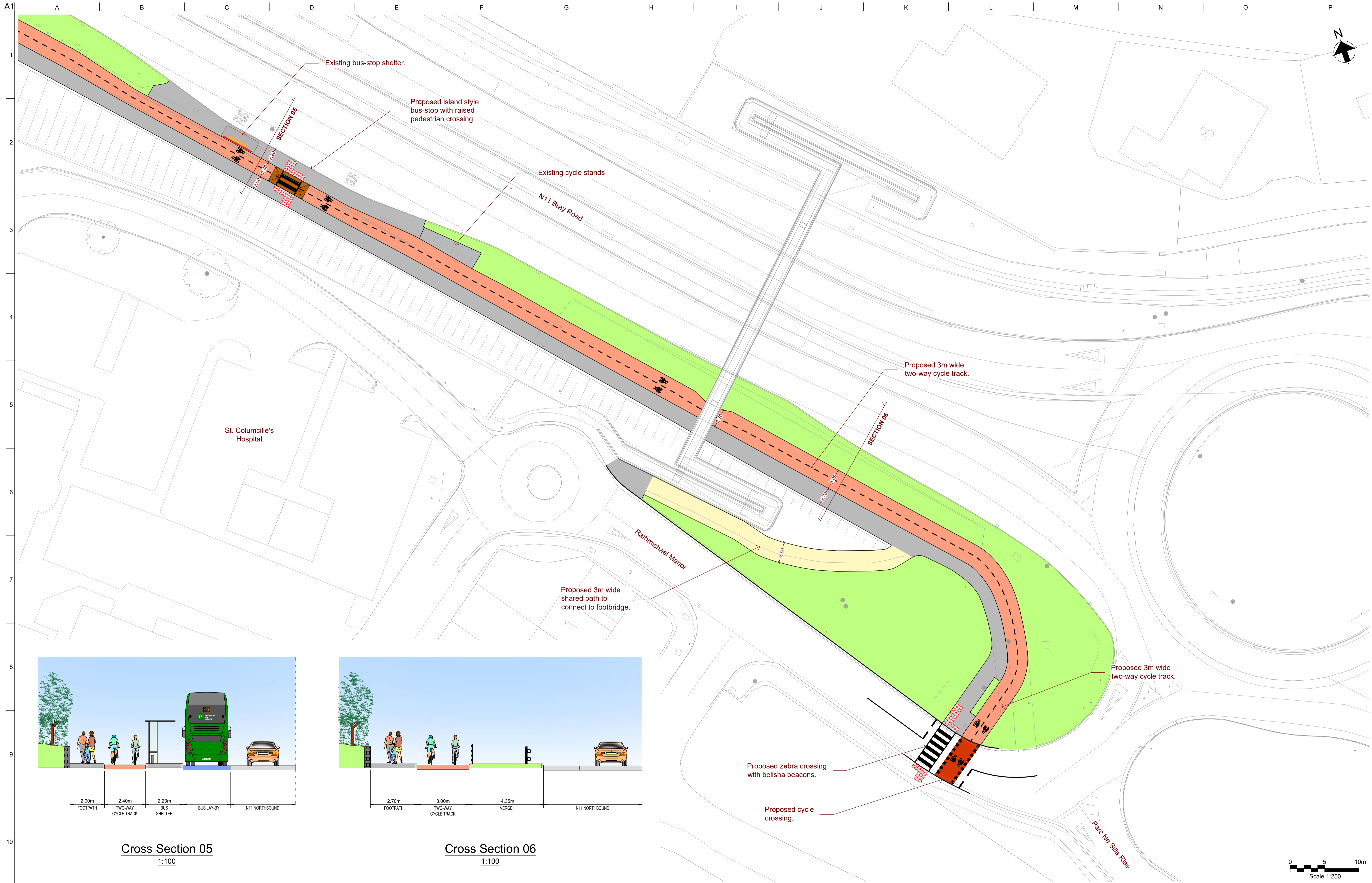
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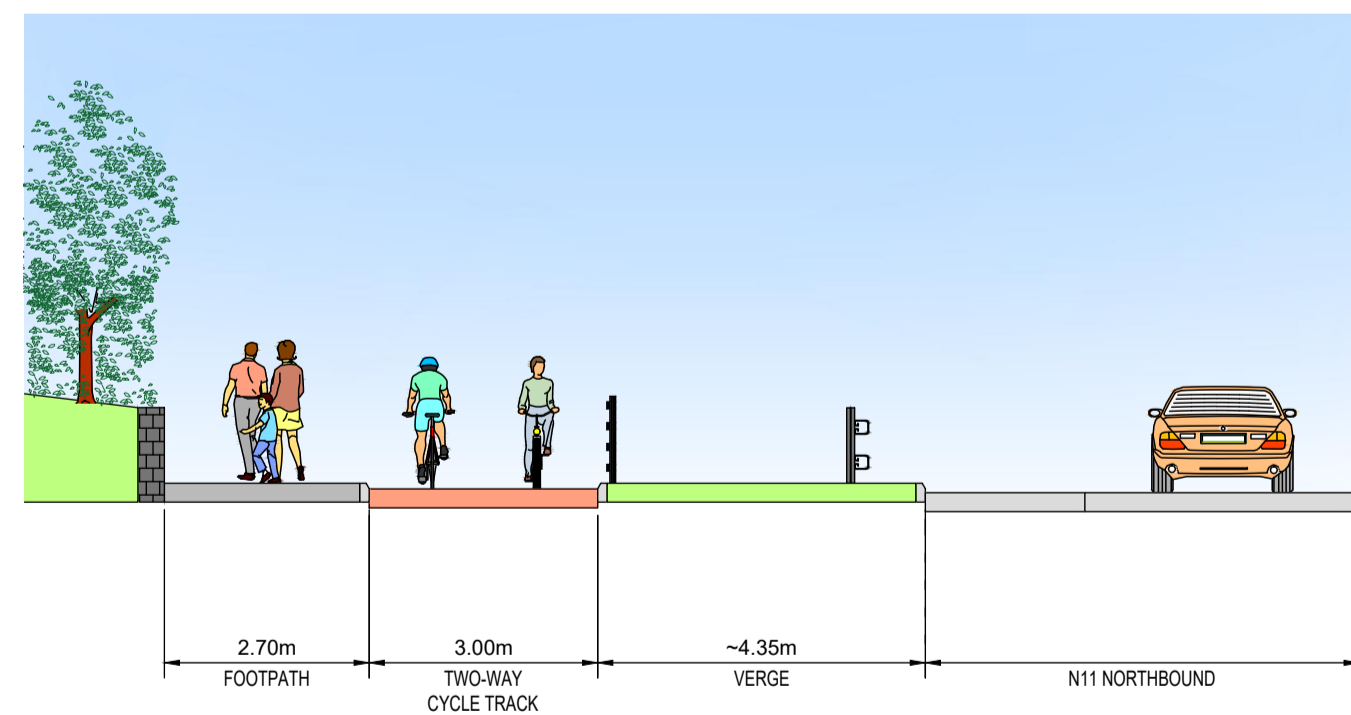
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Sheet 3 of 4**

Drawing Status  
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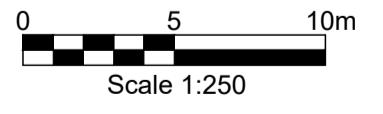
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**Cross Section 05**  
1:100



**Cross Section 06**  
1:100



- Legend**
- Carriageway
  - Proposed Footpath
  - Cycle Track
  - Shared Path
  - Raised Table
  - Grass Area/Verge
  - 'Cycle Street' (red coloured pavement)
  - 'Cycle Street' at-grade Textured Strip

Issue	Date	By	Chkd	Appd
P03	29/01/24	ES	JF	JF
P02	10/01/24	ES	JF	JF
P01	06/10/23	ES	JF	JF

Client  
Dun Laoghaire Rathdown  
County Council

Job Title  
Cherrywood to Rathmichael Manor  
Rapid Build Cycle Scheme

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Drawing Title  
General Arrangement  
Sheet 4 of 4

Drawing Status  
**S2 - Suitable for Information**  
Job No: **278406-00** Drawing No: **CSG-ARUP-ZZ-ZZ-DR-CH-0104** Issue: **P03**