

Meadowbrook Cycle Scheme

Part 8 Report

Kildare County Council

March 2022



Notice

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Document history

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1. Introduction

1.1. Scheme Overview

Kildare County Council (The Client/KCC) as the Contracting Authority, appointed Atkins (the Consultant) in July 2021 to provide Engineering-led Multi-disciplinary Consultancy and Design services for the concept development & option selection, preliminary design and statutory processes of cycle provisions and associated works including public realm and urban enhancements on Meadowbrook Road, Old Greenfield Road & Beaufield Close in Maynooth, Co. Kildare. The location of the routes is shown in Figure 1-1.

Figure 1-1 - Proposed Route Locations



In October 2021 the NTA advised that Old Greenfield Road was to be removed from the scheme and that it would be considered, by others, as part of future potential schemes. The revised extents of the scheme are shown in Figure 1-2.

Figure 1-2 - Revised Scheme Extents



1.2. Stakeholder Consultation

Stakeholder Consultation has been undertaken with the following key stakeholders;

- National Transport Authority,
- Kildare County Council,
- All other relevant bodies.

1.3. Part 8 Planning Documentation

This Part 8 planning report has been prepared in accordance with Part 8 of the Planning and Development Regulations, 2001 as amended. This report should be read in conjunction with the following complementary documentation:

- Drawings:
 - 5208212/HTR/DR/0123 – Meadowbrook Sheet 1 of 2
 - 5208212/HTR/DR/0124 – Meadowbrook Sheet 2 of 2
 - 5208212/HTR/DR/0121 – Beaufield Close Sheet 1 of 2
 - 5208212/HTR/DR/0122 – Beaufield Close Sheet 2 of 2
- Appropriate Assessment Screening Report (*Atkins Ref: 5208212DG0039*)
- Environmental Impact Assessment Screening Report (*Atkins Ref: 5208212DG0037*)

2. Purpose of the Scheme

2.1. Project Aim & Objectives

The overall purpose of the project is the delivery of a cycle network which will provide safe and attractive cycle routes, catering for all cycle users including commuters, leisure and family cycling groups. Ultimately when the routes are delivered they will help to improve safety, including a reduction in vehicle speeds, and contribute towards an increased number of trips in the area by pedestrians and cyclists.

The objectives for the scheme are based on multi criteria requirements outlined by the Department of Transport in their report '*Common Appraisal Framework for Transport Projects and Programmes (March 2016, updated October 2020)*' (CAF). The multi-criteria headings are as follows:

- **Safety:** To reduce the potential for conflict between all road users along the routes through the provision of a facility which is in line with the current standards. The Scheme will seek to:
 - Reduce the frequency of conflict between all road users by providing a safer route for all users.
 - Improve priority for cyclists at junctions.
 - Improve safety for vulnerable road users and provide a better environment for vulnerable road users within the study area.
- **Physical Activity:** Provide improved opportunities for pedestrians and cyclists, thereby promoting physical activity, through improvements to footpaths and crossings, and the provision of new cycling facilities.
- **Environment:** To minimise impacts on the receiving environment.
- **Accessibility & Social Inclusion:** To improve accessibility for all road users and bring social inclusion benefits to those for whom non-motorised means are the predominate form of transit.
- **Integration:** To support the strategies set out in national and regional policies and guidelines.
- **Economy:** To provide an investment that offers good value for money.

Additional to the above CAF objectives, the following localised objectives are applicable:

- Provide improvements in pedestrian and cyclist permeability between the residential areas of Old Greenfield, Meadowbrook, Beaufield and those suburban areas accessed via Newtown Road.
- Provide improvements for non-motorised user access to, and surrounding, the retail / hospitality centre adjacent to the junction of Meadowbrook Road / Beaufield Close.
- Provide linkages with the existing cycle facilities on Newtown Road, Meadowbrook Link Road, and Meadowbrook Road (north of the scheme extents).
- Seek to provide improvements in the urban space / public realm, in the immediate vicinity of the scheme.

2.2. Design Principles

The cycle network has been designed in accordance with the guidance set out in the National Cycle Manual (NCM) and in particular to provide a Quality of Service Level of A+ or A. Given the urban environment in Maynooth, the design was also considered in the context of the Design Manual for Urban Roads and Streets (DMURS).

It is also inherently critical that the cycle routes' requirements are balanced with the needs of pedestrians and that the requirements for vehicular traffic movement are appropriately considered.

The core principles which should be implemented in the development of a cycle network are;

- **Road Safety:** Measures should be implemented which increase safety and the perception of safety.
- **Coherence:** Route and link type should have continuity and layout to be obvious in particular at junctions.
- **Directness:** Route should be direct, minimising delays and bestowing the advantage to cyclists.
- **Comfort:** Routes should be of adequate width and surface quality with minimal delays.
- **Attractiveness:** Route should be well maintained with landscaping and adequate lighting.

3. Planning and Policy Context

National, Regional and Local planning policy has been considered to ascertain compliance and is summarised below.

3.1. National Transport Policy

3.1.1. National Cycle Policy Framework 2009 – 2020

The backdrop to this policy is the government's transport policy for Ireland. The NCPF sets out a suite of intervention to improve the ease and safety of cycling in order to achieve greater mode share going forward. The framework states that the focus needs to be on:

- Reducing volumes of through-traffic, especially HGVs, in city and town centres and especially in the vicinity of schools and colleges;
- Calming traffic/enforcing low traffic speeds in urban areas;
- Making junctions safe for cyclists and removing cyclist-unfriendly multi-lane one-way street systems;
- Paying special attention to integrating cycling and public transport.

Other interventions include the following:

- Schools will be a strong focus of the NCPF;
- Supporting the provision of dedicated signed rural cycle networks for Cycling Tourism;
- Ensuring surfaces used by cyclists are maintained to a high standard and are well lit;
- Ensuring that all cycling networks are sign-posted to a high standard;
- Supporting the provision of secure cycle parking at all destinations of importance;
- Integrating cycling and Public Transport, including cycle parking at stations, and the capability to carry bikes on Public Transport services;
- Creation of municipal bike systems to complement an improved Public Transport system.
- Ensuring proposals cater for a 10% modal share of cyclists.

The NCPF states that making provision for cyclists in the urban environment does not merely consist of providing dedicated cycling facilities, but also involves wider traffic interventions that benefit all vulnerable road users.

3.1.2. National Cycle Manual 2011 – Present

The National Cycling Manual (NCM) embraces the principles of Sustainable Safety, as this will offer a safe traffic environment for all road users including cyclists. The five principles of Sustainable Safety are described in the NCM (Section 1.1) and noted below:

- Functionality – i.e. the design which is fit for purpose is safer.
- Homogeneity – i.e. reducing the relative speed, mass and directional differences of different road users sharing the same space increases safety.
- Legibility – i.e. a road environment that all road users can read and understand is safer.
- Forgiveness – i.e. environments that contribute to benign outcomes of accidents are safer (“passive safety”).
- Self-awareness – i.e. where road users are aware of their own abilities and limitations to negotiate a road environment, the environment is safer.

The NCM offers guidance on integrating the bicycle in the design of urban areas. Throughout the option selection and design process of this scheme the NCM is used, and is looked at further in Section 5 of this report.

3.1.3. NTA Cycle Network Plan (Greater Dublin Area) 2013

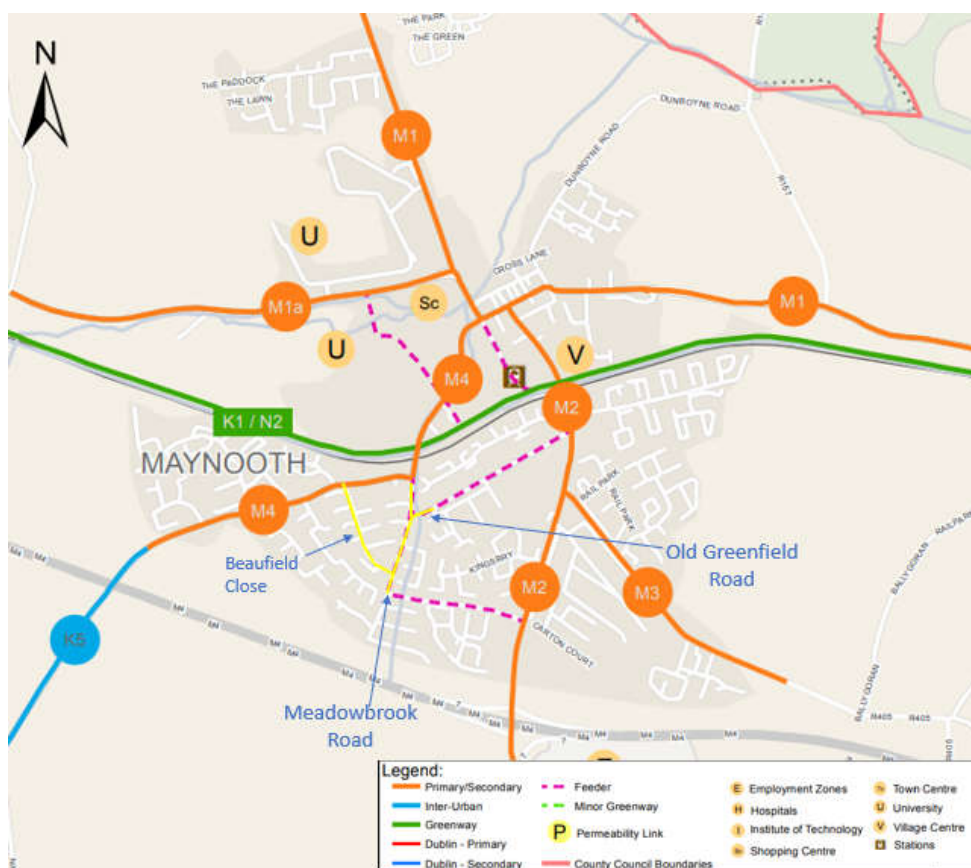
The NTA Cycle Network Plan (GDA) was compiled to identify and determine in a consistent, clear and logical manner, the urban cycle network at the primary, secondary and feeder levels in the greater Dublin area. Unlike area-based plans prepared previously by Local Authorities, this Cycle Network Plan is to be consistent across county boundaries such that there is continuity of route networks across these administrative boundaries. Within County Kildare the study focused on establishing an inventory of the cycling facilities within the larger towns of

the county and the existing primary facilities in Maynooth were assessed in the study to determine links throughout the town.

The NTA Cycle Network Plan sets out to develop a detailed understanding of cycling demand over a 10 year horizon period in the greater Dublin area. Over this 10 year period the demand for cycling in the GDA is forecast to increase due to two factors – population growth and the changes to the cycling mode share. The GDA Cycle model, developed as part of the Cycle Network Plan, provides a comprehensive representation of existing and projected future cycling demand patterns in the Greater Dublin Area. Trip assignment and route choice in the model is based on trip distance alone to provide a strategic plot of cycling desire lines on the network. The target is to provide a Quality of Service of Level B along all routes, regardless of the volume of demand.

Figure 3-1 shows the proposed routes for the Meadowbrook Cycle Scheme in relation to the NTA Cycle Network Plan. The route outlined in the Cycle Network Plan is Meadowbrook Road. This is noted as a Feeder Route. Whilst Beaufield Close is not specifically noted in the Cycle Network Plan it links a large number of residential areas to Meadowbrook Road, and the Primary/Secondary route on Newtown Road.

Figure 3-1 - Routes in relation to the NTA Cycle Network Plan for the GDA



3.1.4. Climate Action Plan 2021

The Climate Action Plan sets out a course of action over the coming years to address climate disruption, which is acknowledged as having diverse and wide-ranging impacts. The document outlines the aims for each sector of industry in Ireland. Electricity, Transport, Built Environment, Industry, Agriculture and waste have all been assessed in the document with a roadmap laid out to deliver a reduction of emissions in each of these sectors between 2021 and 2030.

In April 2021, Maynooth was selected as the county’s “Decarbonised Zone”, which will contribute to reaching the targets set out in the Climate Action Plan, focused on a 50% reduction in carbon emissions by 2030. Kildare County Council – with support from the Mid-East Climate Action Regional Office and the Council Climate Action, Planning and Environmental Teams – will provide a plan to guide the implementation of the decarbonisation measures in Maynooth, including the necessary resources that will be provided.

The promotion of walking, cycling and public transport, and a modal shift from the use of private vehicles will all contribute to the achievement of the targets set out in relation to climate action.

3.2. Regional Transport Policy

3.2.1. Regional Spatial and Economic Strategy (2019 – 2031)

The Regional Spatial and Economic Strategy provides a roadmap for effective regional development identifying key strategic assets, opportunities and challenges and sets out policy responses to ensure the people’s needs are met. The document delivers a combination of response, design and innovation; in how the Eastern & Midlands Region does business, delivers homes, builds communities and values land-use – creating healthy places and promoting sustainable communities. The RSES introduces the concept of a Growth Framework to achieve this integration as it is considered that regional growth cannot be achieved in linear steps. The report highlights Maynooth as a key location for development and sets out a policy objective to “support the promotion and development of greenway infrastructure and facilities in the Dublin Metropolitan area and to support the expansion and connections between key strategic cycle routes”. The strategy sets out Key objectives for cycling as follows;

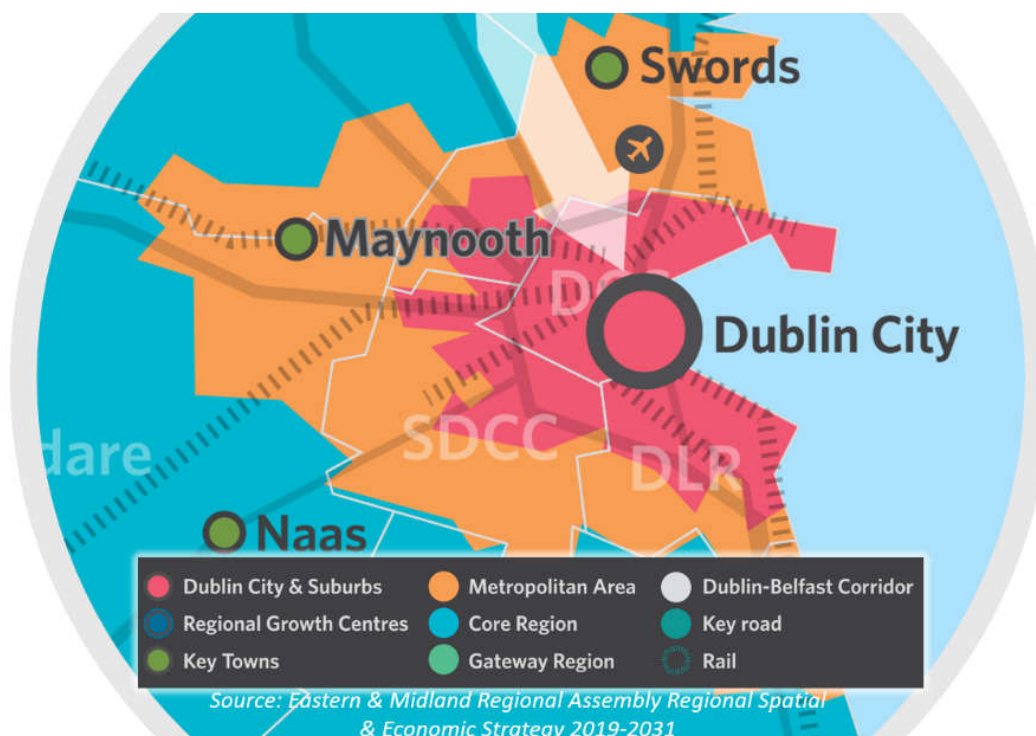
- Provide safe cycling routes in towns and villages across the region.
- Investment priorities for cycleways feasibility and route selection studies for cycleways shall identify and subsequently avoid high sensitivity feeding or nesting points for birds and other sensitive fauna.
- Delivery of the National Cycle Plan within the region.

3.2.2. Metropolitan Area Strategic Plan 2019

The Dublin Metropolitan Area Strategic Plan (MASP) is used to form part of the RSES mentioned in Section 3.2.1. The plan sets out a strategy to help identify the key change parameters for the greater Dublin area (as shown in

Figure 3-2), work out a sequence for infrastructure prioritisation and helps deliver compact regeneration and growth. The plan supports employment, population growth and a high quality of life in the greater Dublin region. The MASP specifically mentions the provision of core, primary, secondary and feeder cycle networks and safe crossing pedestrian facilities.

Figure 3-2 - Dublin Metropolitan Area



3.3. Development Plans & Local Area Plans

3.3.1. Kildare County Council Development Plan (2017 – 2023)

The Kildare County Council Development Plan notes that the Council recognises the importance of both walking and cycling to the overall well-being and quality of life of residents. Walking and cycling trends are noted to vary across the county. This highlights the difference in the convenience of walking or cycling as an option, due to the level of connectivity, road safety and quality of facilities provided. Levels of walking and cycling are described as higher in residential areas that are close to employment centres and education facilities.

The Development Plan notes that the Council will encourage and support the delivery of a high quality, permeable and attractive pedestrian and cycling network that allows for multiple direct connections between key destinations.

The Development Plan clearly sets out the development of cycling and pedestrian linkages with the following aims relevant to the Meadowbrook Cycle Scheme:

- Prioritise sustainable modes of travel by the development of high-quality walking and cycling facilities within a safe street environment.
- Promote the development of safe and convenient walking and cycling routes.
- Identify new walking and cycling routes and linkages on all sites where new development is proposed and to ensure that all streets and street networks are designed to prioritise the movement of pedestrians and cyclists.
- Minimise wait-times for pedestrians and cyclists at junctions.
- Support the implementation of the Greater Dublin Area Cycle Network Plan, in a balanced way in County Kildare.

3.3.2. Maynooth Local Area Plan (2013 – 2019)

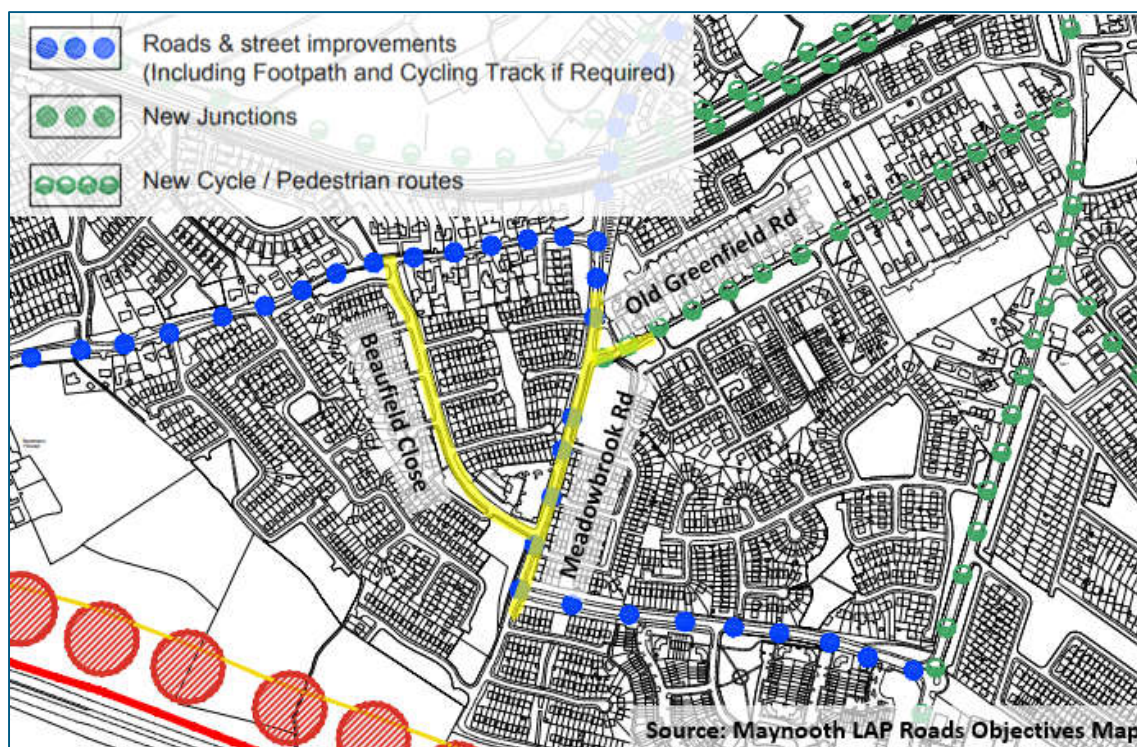
The Maynooth Local Area Plan (LAP) 2013–2019 has been prepared in accordance with the requirements and provisions of the Planning and Development Act 2000 as amended. It sets out an overall strategy for the proper planning and sustainable development of Maynooth in the context of the Kildare County Development Plan and the Regional Planning Guidelines for the Greater Dublin Area 2010–2022. It is also informed by Ministerial Guidelines published pursuant to Section 28 of the Planning and Development Act 2000 as amended together with EU requirements regarding Strategic Environmental Assessment and Appropriate Assessment.

As part of the LAP, it sets out that “Pedestrian and cycling facilities will be developed throughout the town particularly from new development areas back to the town centre and NUI Maynooth”. The LAP, under its Future Development Strategy, notes that “the development of new vehicular, pedestrian and cycling routes and the enhancement and maintenance of existing routes will ensure safe and convenient circulation around the town”. The LAP notes that the Council “will promote the expansion of cycle facilities throughout Maynooth particularly to and from areas of amenity, employment locations, the University, schools and residential development”.

The following are noted as being policies/objectives of the Council relevant to the scheme, some of which are outlined in the LAP’s “Roads Objective Map” (an extract of which is shown in Figure 3-3):

- To promote Maynooth as an attractive stop along the Royal Canal for pleasure boaters, walkers and cyclists. *[T 6]*
- To ensure that adequate secure bicycle parking facilities are provided generally throughout Maynooth, particularly as part of new educational, recreational and commercial developments. *[PC 1]*
- To refurbish all footpaths in the town and improve access for the disabled as part of this refurbishment and to construct new footpaths that are accessible to the mobility impaired. *[PCO 1]*
- To facilitate and encourage cycling as a more convenient and safe method of transport, through the designation of a cycle network, linking population, commercial, community facilities and transport nodes, with specific reference to Meadowbrook Road. *[PCO 4 (g) and (l)]*
- To provide for public transport, walking and cycling infrastructure in collaboration with the National Transport Authority under the National Transport Authority’s funding programmes. *[PCO 6]*
- To improve existing open space areas in housing developments that have been taken in-charge by the Council. *[AR 6]*

Figure 3-3 - Extract from the LAP Roads Objective Map



3.4. Design Guidance

Designs were developed in accordance with the Design Manual for Urban Roads and Streets (DMURS) and the National Cycle Manual (NCM). The scheme is designed in line with the current guidelines set out in the National Cycle Manual and aims to provide a minimum Quality of Service level of A throughout.

4. Description of Existing Network on Proposed Route

4.1. Meadowbrook Road

4.1.1. Road Network

This route is 415m long and considered as a local road. The route is generally bounded by walls, vegetation or railings. There are significant numbers of mature trees along the route; located in the verge between the footpath and road, and between the footpath and boundary walls. Public lighting columns are typically located in the verge between the road and footpath.

The typical cross section of Meadowbrook Road is a single carriageway circa 7.2m wide kerb to kerb with footpaths on both sides of the road separated from the carriageway by a grass verge, which brings the total width (from back-of footpath to back-of-footpath) to circa 12m. At some locations along the route there is an additional grass verge at the back of the footpath. In areas where this grass verge is present the cross section of the road increases to approx. 12m – 15m. An example of this is shown in Figure 4-1.

Figure 4-1 - Example of Existing Cross Section on Meadowbrook Road



Based on a 20th to 26th of September 2021 traffic survey carried out by Nationwide Data Collection the AADT on Meadowbrook Road is 2,959 with 85thile speed of 42.2km/h. 0.3% is composed of Heavy Goods Vehicles.

4.1.2. Junctions

There are four junctions along this section of Meadowbrook Road. Three of these junctions are into residential estates with cul-de-sacs and the fourth junction joins Meadowbrook Road to the Meadowbrook Link Road.

4.1.3. Public Transport

There is one existing unused bus stop on Meadowbrook Road. The existing bus stop is an in-line bus stop with no bus shelter. The bus operator has confirmed that this bus stop is no longer in use.

4.1.4. Pedestrian & Cycle Facilities

There are no controlled pedestrian crossing facilities along Meadowbrook Road. The road has dropped kerbs across most crossing locations but no tactile paving has been provided throughout the route, with the exception of the junctions with Beaufield Close, and Meadowbrook Link Road.

There are no formal cycling facilities along this section of Meadowbrook Road. At the northern tie-in point, existing raised cycle tracks are present, and likewise to the south, on Meadowbrook Link Road.

4.2. Beaufield Close

4.2.1. Road Network

This route is 410m long and is considered a local road. The route is generally bounded by walls, fences or railings. There are significant numbers of mature trees along the route; located in the verge between the footpath and

road, and between the footpath and boundary walls. Public lighting columns are typically located in the verge between the road and footpath.

The cross section of Beaufield Close is a single carriageway circa 7.5m wide kerb to kerb with footpaths on both sides of the road separated by a grass verge, which brings the total typical width (from back-of footpath to back-of-footpath) to circa 12m. In some locations along the route there are additional grass verges between the back of the footpath to the boundary wall. The widths of these verges varies throughout the route. Where there are such grass verges, the cross section of the road (boundary wall to boundary wall) is approx. 12m – 15m. An example of this is shown in Figure 4-2.

Figure 4-2 - Existing Beaufield Close Cross Section



Based on a 20th to 26th of September 2021 traffic survey carried out by Nationwide Data Collection the AADT on Beaufield Close is 3,623 vehicles with 85thile speed of 43km/h. 0.5% is composed of Heavy Goods Vehicles.

4.2.2. Junctions

There are 8 junctions along Beaufield Close, all junctions are connected into adjacent residential estates leading to cul-de-sacs.

4.2.3. Public Transport

There are no bus routes or bus stops along this route.

4.2.4. Pedestrian & Cycle Facilities

There is one controlled pedestrian crossing facility along Beaufield Close, in the form of a Zebra Crossing. Dropped kerbs are present throughout the scheme but there is a lack of tactile paving provided.

There are no formal cycling facilities along Beaufield Close.

5. Description of Proposed Scheme

5.1. Link Provision

Following the completion of a detailed Options Appraisal, undertaken in line with the Department of Transport's Common Appraisal Framework, the Preferred Options for the Meadowbrook Cycle Scheme are shown in Table 5-1.

Table 5-1 - Link Types by Route

Route Name	Link Type	NCM Ref.	Proposed Speed Limit
Meadowbrook Road	Raised Cycle Track	4.3.4	50kph
Beaufield Close	Cycle Track Behind Verge	4.3.4	50kph

It shall be noted that whilst the above Link Types are applied to the routes, where constraints or certain features require these may change locally; as described further in this chapter, and as shown on the Preliminary Design Drawings (as per Appendix A).

Figure 5-1 – Raised Cycle Track (as per NCM 4.3.4)



Figure 5-2 - Cycle Track Behind Verge (as per NCM 4.3.4)



The desirable widths of each element of the links shall be as per Table 5-2. Widths which still comply with the minimum required in the design standards (NCM and DMURS) are denoted in brackets. The desirable widths are achieved at a minimum, unless noted otherwise within the Preliminary Design Drawings.

Table 5-2 - Table of Desired Widths

Link Type	Footway Width	Cycle Track Width	Verge Width	Trafficked Width	Total Width
Raised Cycle Track	2m (min. 1.8m)	2m (min. 1.75m)	-	2 x 3.25m lanes	14.5m (min. 13.6m)
Cycle Track Behind Verge	2m (min. 1.8m)	2m (min. 1.75m)	Varies, typically 1m	Existing Carriageway: 2 x 3.7m lanes	17.4m (min. 16.5m)

5.2. Key Ancillary Elements

5.2.1. Junctions & Entrances

All junctions along both routes will be upgraded with features as follows:

- Junction radii shall be tightened to 4.5m.
- Raised entry treatment on the adjoining road (to slow approaching traffic and remove the need to dish-down pedestrian crossings).
- Tactile paving shall be provided at the crossing to advise visually impaired pedestrians.
- A min. 2m long flush kerb shall be provided for right turning cyclists, i.e. those cyclists leaving or entering the raised cycle facility opposite the junction bellmouth.

5.2.2. Pedestrian Crossings

On all routes raised table crossings are proposed, to encourage slower speeds. The position of the existing Zebra crossing on Beaufield Close will be retained, however it will be amended to be a 4m wide Toucan crossing. All other crossings shall be uncontrolled.

Given the location of the schemes (i.e. outside of town centre locations, which would have high pedestrian and cyclist activity) the widths of crossings shall be as per the minimum required within DMURS (Section 4.3.2) and the Traffic Sign Manual (Section 7.16):

- 4m wide for Shared crossings (i.e. for pedestrians and cyclists);
- 2m at all uncontrolled pedestrian crossings.

All proposed crossings are shown within the Preliminary Design Drawings, and tabulated in Table 5-3 and Table 5-4.

Table 5-3 - Pedestrian Crossings (Meadowbrook Road)

Chainage	Proposed Type	Notes
0+030	Uncontrolled (Shared)	<ul style="list-style-type: none"> • Proposed uncontrolled Shared crossing to facilitate pedestrian movements across Meadowbrook Road, to/from Meadowbrook Link Road, Meadowbrook Court and College Green. • This crossing serves as an option for less-experienced cyclists travelling westbound on Meadowbrook Link Road, and wishing to turn right onto Meadowbrook Road. More experienced cyclists have the option to traverse straight across the junction to the flush kerb opposite, at Chainage 42.

Chainage	Proposed Type	Notes
0+170	Uncontrolled	<ul style="list-style-type: none"> Proposed uncontrolled pedestrian crossing to facilitate pedestrian movements across Meadowbrook Road to allow access to local amenities. This is an upgrade of an existing uncontrolled crossing.
0+355	Uncontrolled (Shared)	<ul style="list-style-type: none"> Proposed uncontrolled Shared crossing to facilitate pedestrian and cyclists movements at the Old Greenfield Road junction.

Table 5-4 - Pedestrian Crossings (Beaufield Close)

Chainage	Proposed Type	Notes
0+005	Uncontrolled	<ul style="list-style-type: none"> Proposed uncontrolled pedestrian crossing to facilitate pedestrian movements parallel to Newtown Road.
0+060	Uncontrolled	<ul style="list-style-type: none"> Proposed uncontrolled pedestrian crossing to facilitate pedestrian movements between residential areas.
0+200	Uncontrolled	<ul style="list-style-type: none"> Proposed uncontrolled pedestrian crossing to facilitate pedestrian movements between residential areas.
0+290	Controlled	<ul style="list-style-type: none"> Existing Zebra to be upgraded to a Toucan crossing with the position to be retained, to cater for the desire-line to/from the retail units.

5.2.3. Drainage

Typically, on Meadowbrook Road, drainage will be provided using new gullies (relocated to the proposed kerb positions) connecting to the existing surface water drainage system. The new footpaths and cycle tracks will generally slope towards the road in order to minimise the need for additional drainage collection measures. Alternatively, and where the proposed scheme results in a marked increase in catchment area (due to an increased hard-standing area), sections of footway and/or cycle track will be constructed using either porous surfacing; or where appropriate, the cross-fall will fall towards an adjacent grass verge (thus not discharging into the surface water network).

The foregoing will be applicable for Beaufield Close also, however the existing gullies will be retained for the majority of the route (as the carriageway kerblines will remain largely unaffected by the works, as noted in the Preliminary Design Drawings).

The details of this will be developed as part of the detailed design.

5.2.4. Lighting

All footpaths, cycle tracks and roads will be lit, in line with current best practice and design guidance in relation to public lighting; with the exception of the footpath proposed across the green area between the Meadowbrook Road / Old Greenfield Road junction and Meadowbrook Avenue, which will remain unlit.

All existing lighting within the scheme will be upgraded to new energy-efficient LED lighting; the details of which will be developed as part of the detailed design.

5.2.5. Pavements

In order to give the highest quality of service for cyclists, it is envisaged that a smooth asphalt surface course will be used with 10mm aggregate as recommended by the National Cycle Manual, with sufficient base and foundation layers to prevent failure. Shared spaces and footpaths are intended to be a concrete surface, to provide colour-contrast when compared to road and cycle surfaces, to aid people with visual impairments. The exact construction depth for the footpath and cycle track pavements is subject to detailed design.

The existing road surfaces have been assessed visually for deficiencies, and the subsequent report recommends that:

- Routine maintenance and if necessary, restoration of skid resistance, is carried out along Meadowbrook Road and Beaufield Close;

- Sections of surface renewal are recommended to restore smooth surface characteristics;
- In certain areas where alligator cracking or other structural distresses are evident, it is recommended that a structural treatment is considered.

As such it is envisaged that at a minimum a new surface course will be provided as part of the proposed scheme. The exact construction depth for the road construction in areas that need targeted interventions is subject to detailed design.

5.2.6. Services

At the outset of the project, utility companies were contacted seeking information relating to their plant and ducting within the route corridor. The following information was received.

Table 5-5 – Summary of Utility Companies’ Infrastructure

Service Provider	Services Present
ESB	Yes – Numerous underground lines, and overhead lines
Virgin Media	No
Irish water	Yes – Watermain present throughout the routes, and network of foul water services
GNI	Yes – Medium pressure gas mains along all routes
Enet	No.
BT	Yes – Services on both routes
Eir	Yes – Services present on both routes.

A Ground Penetrating Radar (GPR) and utility survey, including slit trenches for verification, is underway at the time of writing. This is to inform the Detailed Design Phase (by others) in determining the location of services to the most accurate extent possible. Any service diversions or protection works will be determined at that Phase. Given the nature of the scheme, which is contained within the existing boundary extents for the majority of the length of the routes, service diversions are expected to be minimal.

5.2.7. Land Take

The proposed routes have been designed to avoid the requirement for land take, and no private land take is required.

5.2.8. Tree Removal and Proposed Landscaping

To accommodate the provision of the necessary pedestrian and cyclist infrastructure, the proposed scheme requires the removal of a number of trees at various locations along the scheme (as noted within the Preliminary Design Drawings). A targeted tree survey has been undertaken based on the preliminary design and the expert advice of an arboriculturist has been used to determine the value, age and condition of all trees along the proposed route and any mitigation required where affected. A tree impact statement has been produced by the arboriculturist, the values from which are summarised in Appendix B.

Landscaping, in the form of replacement trees will be proposed at adjacent locations, where possible and as noted on the Preliminary Design Drawings.

Overall, a net gain of trees is proposed for the scheme (57no. proposed, with 41no. to be removed). It is noted that of those to be removed, 5no. of these are to be removed regardless of the scheme (as noted in Appendix B).

5.3. Key Features

Further to the scheme-wide design features noted in Sections 5.2.1 to 5.2.8, the other areas of note for each route are described in the following sections. These sections should be read in conjunction with the Preliminary Design Drawings.

5.3.1. Meadowbrook Road

This route includes the key design features as aforementioned and additional points of note as contained within Table 5-6.

Meadowbrook Road’s proposed cycle facilities generally comprises of raised cycle track with sections of raised cycle lanes across junctions, with localised sections of shared space as required.

Table 5-6 – Meadowbrook Road – Key Features

Chainage	Details
0+020	The route will tie into the existing carriageway just north of Meadowbrook Court. On-road cycle lanes, approx. 10m long, on the south side of the raised table at Chainage 0+025 will be used to enable cyclists to merge / diverge with vehicular traffic (who will be slowed, by the presence of the raised table).
0+025 to 0+070	The existing Meadowbrook Link Road junction will be tightened, and two raised table crossings provided, to encourage slower speeds at the junction. Right turning cyclist, coming from the Link Road, will be able to cross Meadowbrook Road using the proposed Shared Area and 4m wide uncontrolled crossing on the south side of the junction; or (for more experienced/confident cyclists) cross directly to the flush kerb at Chainage 42. The proposals at the Link Road will tie-in to the existing facilities (i.e. cycle track (behind verge) with parallel footpath).
0+140 to 0+200	Footpath widths varies due to existing constraints (i.e. boundary wall). A minimum footpath width of 1.6m is provided through this section on the northbound side of the carriageway. The proposed cycle track is similarly reduced to 1.6m wide through this section on the northbound carriageway.
0+240 to 0+330	The proposed footpath on the northbound carriageway has been offset further from the road to provide the required 2m width in addition to reducing the impact on the existing trees.
0+240 to 0+355	An existing desire line (evident in the form of a worn grass path), which passes through the green area on the east side of Meadowbrook Road will be formalised into a footpath, connecting the junction of Old Greenfield Road with Meadowbrook Avenue.
0+250	A permeability link is to be provided for cyclists, in the form of a two-way cycle track and short section of Shared Space, providing access to/from Beaufield Gardens.
0+360	Proposed Shared Spaces are to be provided on both the northbound and southbound sides of the carriageway, to facilitate the pedestrian /cyclist link with Old Greenfield Road.
0+410	The scheme will tie into the existing Meadowbrook Road cycle tracks just north of Meadowbrook Lawns.

Figure 5-3 - Meadowbrook Road Concept Design



5.3.2. Beaufield Close

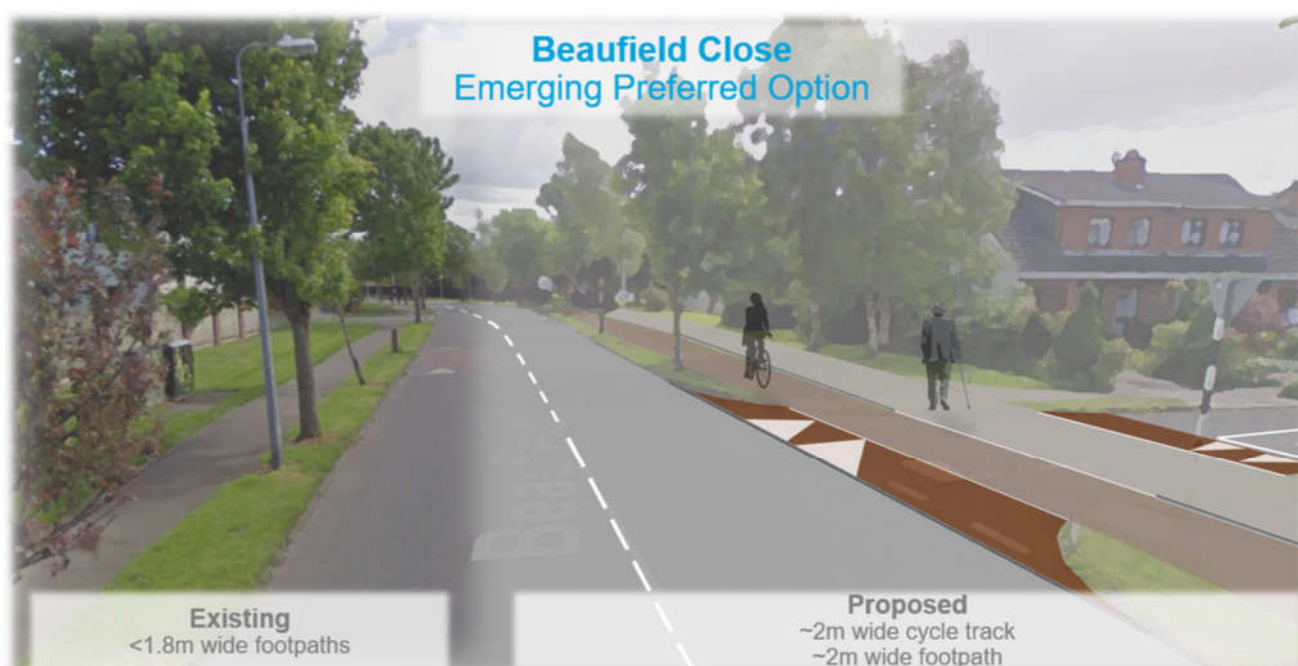
This route includes the key design features as aforementioned in Sections 5.2.1 to 5.2.8 and additional points of note as contained within Table 5-7. The Preliminary Design Drawings for the route are contained within Appendix A.

Beaufield Close’s proposed cycle facilities generally comprises of cycle tracks behind verges, and sections of shared space as required.

Table 5-7 - Beaufield Close - Key Features

Chainage	Details
0+030 to 0+040	The cycle facilities will tie into the existing carriageway just south of the Newtown Road junction. On-road cycle lanes, approx. 5 to 10m long, will be used to enable cyclists to merge / diverge with vehicular traffic (who will be slowed, by the presence of the raised tables at Chainage 0+005 and Chainage 0+060).
0+060 to 0+085	The proposed facilities are reduced on the eastern side of the road due to the existing boundary wall and two trees on the carriageway side creating a pinch point. A footpath width of 1.8m and a cycle track width of 1.5m is provided through this section to avoiding impacting on the boundary wall and trees.
0+040 to 0+300	The existing grass verge between the carriageway and the proposed cycle track is retained throughout, to maximise the retention of trees along the route.
0+270 to 0+400	The existing fence along the western side of the road is to be taken up and reinstated at the back of the proposed footpath to allow for a 2m wide cycle track and a 2m wide footpath through this section.
0+300 to 0+360	The proposed southbound cycle track is reduced to 1.75m wide to enable the provision of a 1m wide buffer between it and the parking bays; whilst retaining the raised planted area to the front of the retail/hospitality units. Pedestrians will utilise a re-constructed footpath immediately adjacent to the shop-fronts (beneath the existing canopy of the retail units).
0+0345	To facilitate right-turning cyclists to/from Beaufield Green, a short section of two-way cycle track is proposed on the east side of Beaufield Close, with sufficiently sized concrete build-outs each side to prevent parked vehicles from restricting inter-visibility for drivers and cyclists.
0+350 to 0+380	The existing parking bay at Chainage 0+0370 is to be relocated to Chainage 0+355.

Figure 5-4 - Beaufield Close Concept Design



6. Environmental & Quality Assessments

6.1. Appropriate Assessment

As part of the Preliminary Design Phase a Screening for Appropriate Assessment Report was undertaken (Atkins ref. 5208212DG0039, as contained within Appendix C). The purpose of the Screening for Appropriate Assessment Report is to determine the likelihood of significant effects, if any, that the proposed project could have on Natura 2000 sites either alone or in combination with other plans or projects.

This Screening for Appropriate Assessment report is based on the best available scientific information. It is concluded by the authors of this report that the proposed Meadowbrook Cycle Scheme, either alone or in combination with other plans or projects, will not result in likely significant effects on the conservation objectives of the Rye Water Valley/Carton SAC, or any other European site.

Thus, Atkins recommended that it is not necessary for the proposed project to proceed to Appropriate Assessment. However, the competent authority will ultimately determine whether an AA is required or not.

6.2. Environmental Impact Assessment

As part of the Preliminary Design Phase an Environmental Impact Assessment Screening Report was prepared (Atkins ref. 5208212DG0037, as contained within Appendix D). The purpose of this report is to determine whether the project requires the preparation of an Environmental Impact Assessment Report (EIAR), the key findings of which were as follows;

- Due to the limited nature of the works it is considered that there will be no significant cumulative impacts with other developments in the general area;
- Limited noise, vibration and dust emissions may be generated during construction; however, this is anticipated to be minimal in effect and will cause no significant impact;
- Soil and waste may be generated during construction; however, this is not anticipated to have significant effect;
- There will be no land take required for the proposed project;
- There will be no significant impact on biodiversity, groundwater, surface water or traffic; and,
- There will be no impact on recorded monuments or historic features.

In summary, no significant adverse impacts to the receiving environment will arise as a result of the proposed project.

Accordingly, Atkins consider that the preparation of an EIAR is not required for the Meadowbrook Cycle Scheme. However, the competent authority will ultimately determine whether an EIA is required or not.

6.3. Quality of Service Assessment

The routes have been designed to provide the highest quality of service possible for all users, within the constraints identified. Segregation along the routes allows for minimal conflicts between pedestrians and cyclists, increasing comfort and attractiveness for both. Table 6-1 shows the level of service being achieved along each route.

Table 6-1 - Quality of Service

Route	PCI Range	No. Adjacent Cyclists	No. of Conflicts (Per 100m)	Journey Time delay	HGV Influence	Quality of Service
Meadowbrook Road	90	1+1	1.0	0	0-1%	A+
Beafield Close	90	1+1	1.2	0	0-1%	A

7. Impact of the Proposed Scheme

7.1. Traffic, Transportation & Pedestrians

7.1.1. Vehicular Traffic

In general, there will be limited impacts to the existing vehicular traffic on the surrounding road network, however given the nature of the proposals (e.g. reduction in carriageway width, reduction in junction radii and an increase in pedestrian crossings) there will be a slowing of traffic speeds compared to that existing, and therefore some increase in journey time. This however is a necessity in order to provide a scheme which is safe and in line with best practice and guidelines. These proposals will help to reduce the likelihood of conflicts between all road users. The improvements to pedestrian and cycling infrastructure will encourage a modal shift away from the private vehicle, which should have a corresponding effect on reducing traffic volumes locally.

7.1.2. Cyclists

The provision of improved cycling facilities throughout both routes will be very beneficial to cyclists travelling to the town centre, university or linking to the train station. The provision of this high-quality cycle infrastructure (QoS Level A or A+) will provide attractive routes for cyclists linking many residential, educational and commercial areas.

7.1.3. Pedestrians

The new routes will provide safe, accessible and attractive routes for pedestrians with minimum 2m wide footpaths for all areas where new paths are to be provided, with the exception of a limited number of narrowed sections, as noted on the Preliminary Design Drawings. New and improved crossings will allow pedestrians to cross all of the roads within the scheme extents in a safe manner. The location of many of these crossings will improve access and permeability for pedestrians to the residential, recreational and retail areas within the scheme extents; and onwards to the commercial, educational and transport hubs closer to the town centre.

Facilities for those users with visual or mobility impairments will be much improved, with tactile paving, flush kerbs and raised crossings provided throughout.

7.1.4. Road Safety

The scheme's preliminary design has been subject to an independent Stage 1 Road Safety Audit; and will be subject to Stage 2 and 3 Road Safety Audits upon completion of the Detailed Design and after Construction, respectively.

7.1.5. Construction Traffic

During the construction phase, vehicular movement will increase in the immediate area, and temporary vertical elements such as hoarding or protective fencing, will be put in place. All construction impacts will be temporary. Prior to the commencement of works, the contractor should prepare a Construction Environmental Management Plan to set out the site-specific measures being put in place to avoid and minimise potential impacts on sensitive environmental receptors that could potentially occur during the construction phase.

7.2. Landscape and Visual

The proposed routes have been designed to avoid the requirement for land take, and no private land take is required. The proposed works will take place within the existing roadway cross section and will increase the pedestrian and cycling provisions along the route.

To accommodate the provision of the necessary pedestrian and cyclist infrastructure, the proposed scheme requires the removal of a number of trees at various locations along the scheme (as noted within the Preliminary Design Drawings). A targeted tree survey has been undertaken based on the preliminary design and the expert advice of an arboriculturist has been used to determine the value, age and condition of all trees along the proposed route and any mitigation required where affected.

Replacement trees will be proposed at adjacent locations, where possible and as noted on the Preliminary Design Drawings. A net gain in trees is proposed as part of the scheme.

7.3. Built and Cultural Heritage

A desktop study was carried out to identify the architecture, archaeology and cultural heritage within the study area. There is no National Inventory of Architectural Heritage (NIAH) and Record of Monuments and Places (RMP) features within the constraints study area. In overall terms the scheme is not predicted to have any significant negative heritage or archaeological impacts.

7.4. Other Environmental Impacts

Other Environmental Impacts (ecology, noise, air quality, etc) are as noted in the EIA Screening Report, which as noted in Section 6 is recommended to be screened-out.

7.5. Conclusion

The preliminary design for the scheme has been undertaken in line with DMURS and the NCM, developing the preferred options as outlined in the *Feasibility Study and Options Selection & Appraisal Report (Atkins Ref: 5208212DG0008)*.

The proposed improvements realised as part of the scheme align with the aims and objectives, as follows:

- **Safety (Conflict)**
 - The potential for conflicts shall be reduced through the provision of formalised crossing facilities throughout.
 - Where traffic volumes and speeds require it, the potential for conflicts shall be reduced by the segregation of cyclists from vehicular traffic.
 - The potential for conflicts between cyclists and pedestrians shall be reduced through the implementation of segregated facilities for the vast majority of the scheme.
- **Safety (Priority)**
 - Cyclists priority shall be improved at all junctions.
- **Safety (Vulnerable Road Users)**
 - Vulnerable road users shall be catered for through formalised crossing facilities, footways and the provision of kerbing and tactile paving in line with best practice.
- **Physical Activity**
 - The provision of the proposed facilities shall bring enhancements for pedestrians and cyclists, thereby promoting physical activity, particularly for those travelling to the adjacent residential, recreational, commercial and educational areas.
- **Accessibility and Social Inclusion**
 - Likewise, as with Physical Activity, accessibility and social inclusion shall be improved for those road users who rely on a non-motorised means of transport.
- **Environment**
 - The impact on the environment will be minimal, and the scheme is recommended to be screened-out for EIAR and AA.
- **Integration and Economy**
 - From these benefits the proposals will offer good value for money, both at a strategic level, and also to those individual users for whom the scheme shall enable a modal switch from the private car to walking / cycling; and aligns with national, regional and local policies, as outlined in Section 3.
- **Localised objectives**
 - Pedestrian and cyclist permeability will be improved between the residential areas of Old Greenfield, Meadowbrook, Beaufield and those suburban areas accessed via Newtown Road.
 - Improvements will be realised for non-motorised user access to, and surrounding, the retail / hospitality centre adjacent to the junction of Meadowbrook Road / Beaufield Close.
 - Linkages will be created to the existing cycle facilities on Newtown Road, Meadowbrook Link Road, and Meadowbrook Road (north of the scheme extents).
 - Improvements in the urban space / public realm, in the immediate vicinity of the scheme will be realised by the installation of new landscaping.

8. Submissions

Submissions with respect to the proposed development may be made in writing to:

Senior Executive Officer,
Roads Transport and Public Safety,
Kildare County Council,
Aras Chill Dara,
Devoy Park,
Naas,
Co.Kildare.

Or by email to roads@kildarecoco.ie

On or before the deadline as noted on Kildare County Council's website with respect to the scheme.

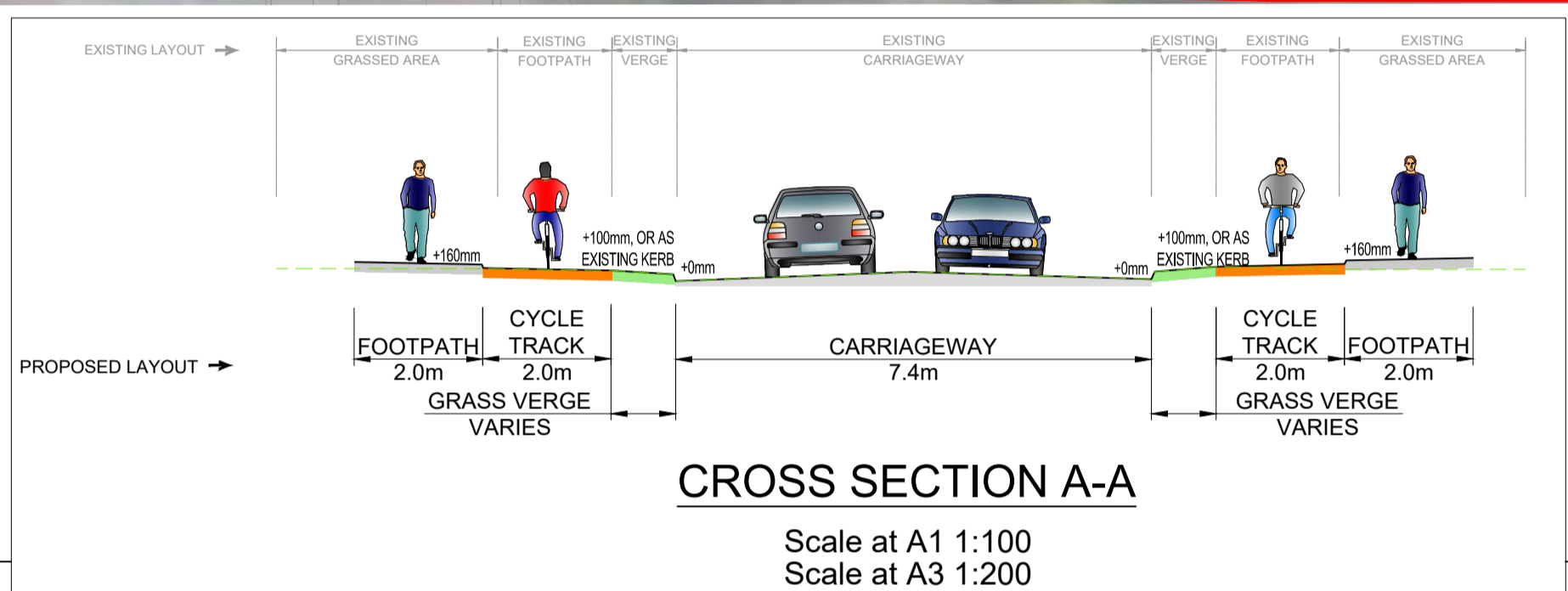
Submissions should be headed: "**Meadowbrook Cycle Scheme**"

All comments, including names and address of those making submissions in regard to this scheme will form part of the statutorily required report to be presented to the monthly meeting of Kildare County Council. Accordingly, these details will be included in the meeting minutes of that meeting and may appear in the public domain.

Appendix A. Preliminary Design Drawings

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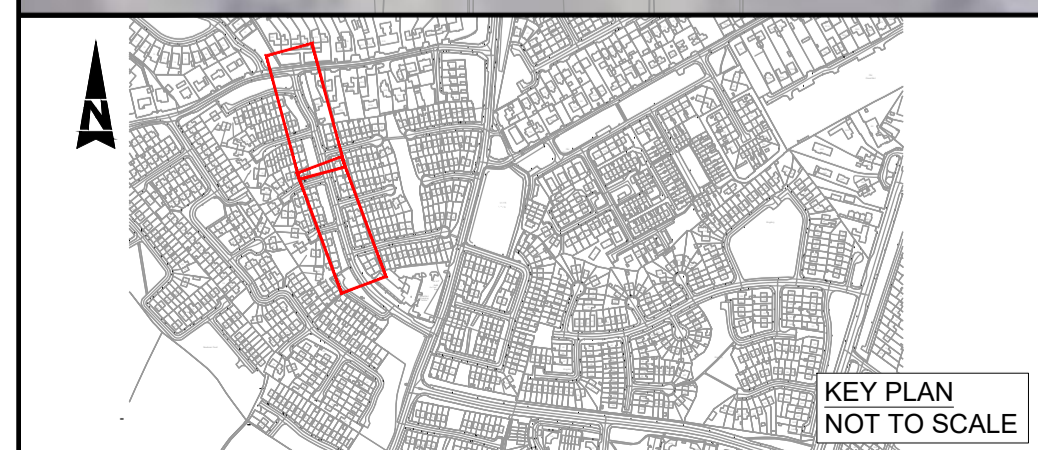


- GENERAL NOTES**
1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE
 2. ONLY WRITTEN DIMENSIONS SHALL BE USED. NO DIMENSIONS SHALL BE SCALED FROM THE DRAWINGS
 3. ALL LEVELS ARE IN METRES AND ARE TO MALIN HEAD DATUM
 4. ALL COORDINATES ARE IN METRES AND ARE TO IRISH TRANSVERSE MERCATOR
 5. DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE SPECIFICATION

- LEGEND:**
- CARRIAGEWAY
 - PROPOSED FOOTPATH
 - PROPOSED SHARED SPACE
 - PROPOSED RAISED CYCLE TRACK / LANE
 - PROPOSED ON ROAD CYCLE LANE
 - PROPOSED RAISED TABLE / ENTRY TREATMENT
 - PROPOSED TACTILE PAVING (CONTROLLED)
 - PROPOSED TACTILE PAVING (UNCONTROLLED)
 - PROPOSED GRASS VERGE
 - EXISTING GRASS VERGE TO BE RETAINED
 - BLOCK PAVING AREA
 - FLUSH KERB
 - 100mm UPSTAND KERB
 - 60mm UPSTAND KERB (BEVELLED)
 - EXISTING KERB TO BE RETAINED
 - PROPOSED FENCE
 - SITE BOUNDARY

- EXISTING TREES:**
- TO BE RETAINED (WITHOUT MITIGATION MEASURES)
 - TO BE RETAINED (WITH MITIGATION MEASURES)
 - TO BE REMOVED (AS A RESULT OF THE PROPOSED SCHEME)
 - TO BE REMOVED (RECOMMENDED, REGARDLESS OF PROPOSED SCHEME)
 - PROPOSED TREES
 - DELINEATOR POSTS

- NOTES:**
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 2. PROPOSED CYCLE TRACKS, CYCLE LANES AND FOOTPATHS SHALL BE MIN. 2m WIDE UNLESS NOTED OTHERWISE



Comhairle Contae Chill Dara
Kildare County Council

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National Transport Authority

Rev	Description	By	Date	Chk'd	Auth
A	UPDATE OF CONTROLLED CROSSING	JD	09.03.22	RR	ST
-	FOR PART 8 SUBMISSION	DB	25.02.22	RR	ST

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Client
KILDARE COUNTY COUNCIL

Project
MEADOWBROOK CYCLE SCHEME

Purpose
FOR PART 8 SUBMISSION

Title
BEAUFIELD CLOSE PRELIMINARY DESIGN SHEET 1 OF 2

Original Scale 1:250 at A1 1:500 at A3	Design/Drawn DB	Checked RR	Authorised ST
Date 25.02.22	Date 25.02.22	Date 25.02.22	Date 25.02.22

Status
P8

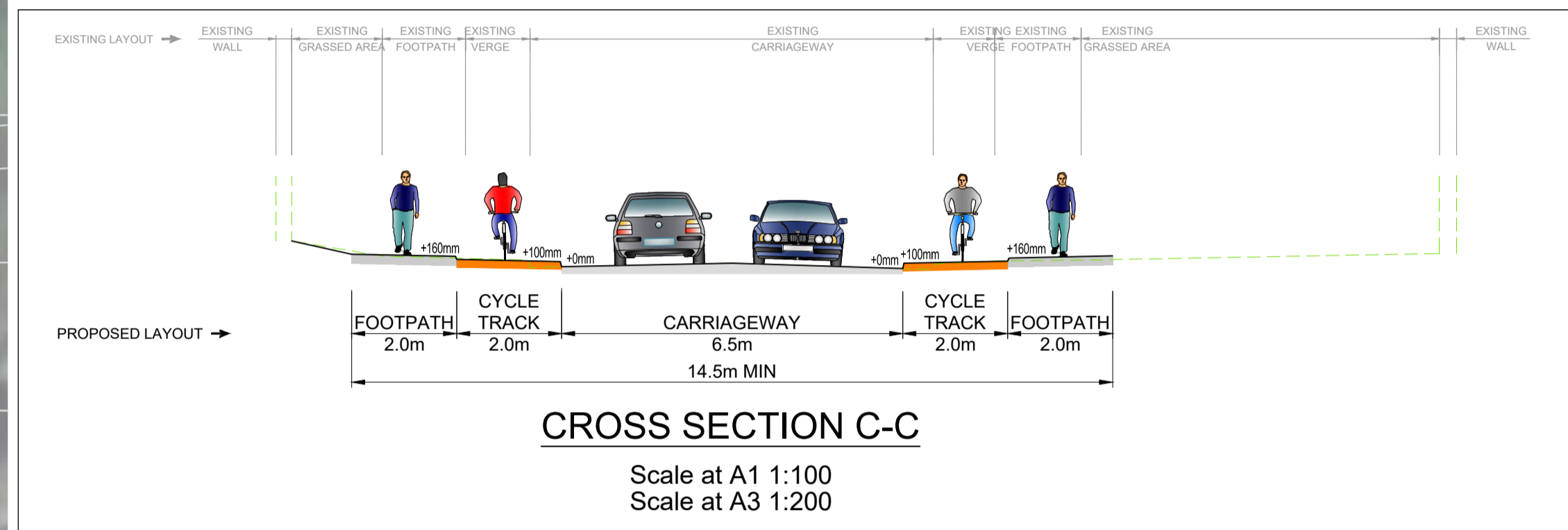
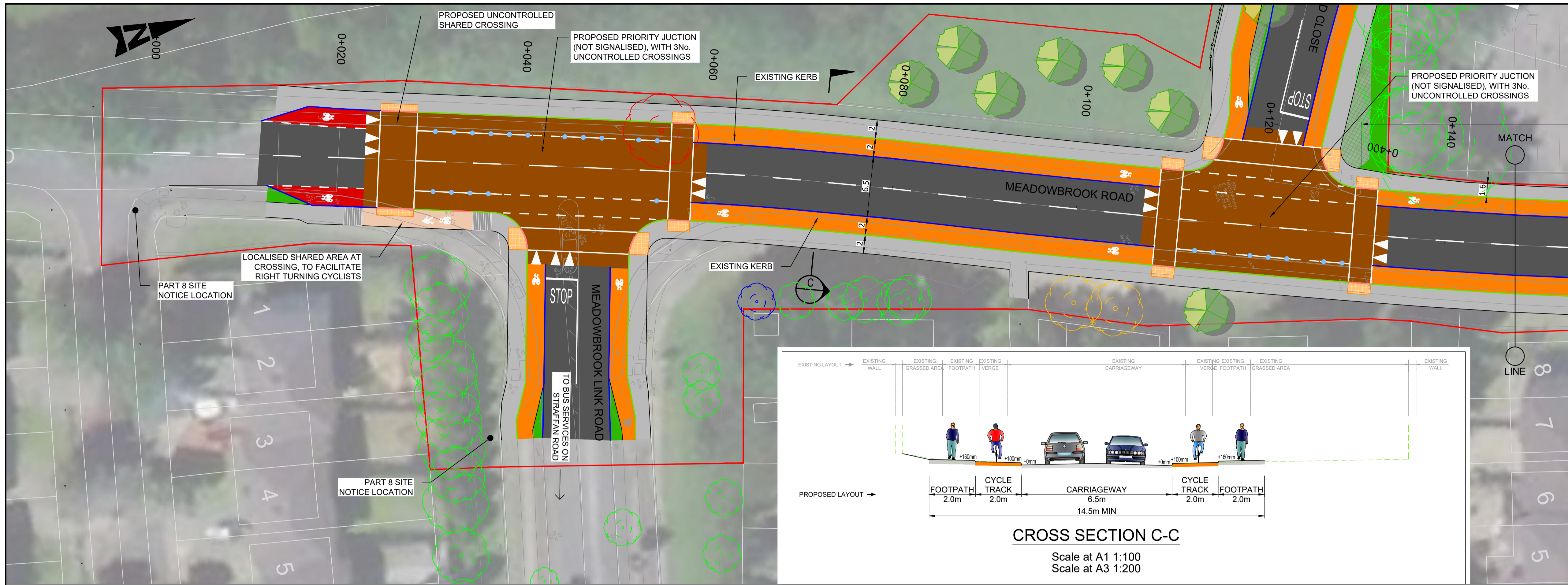
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Rev
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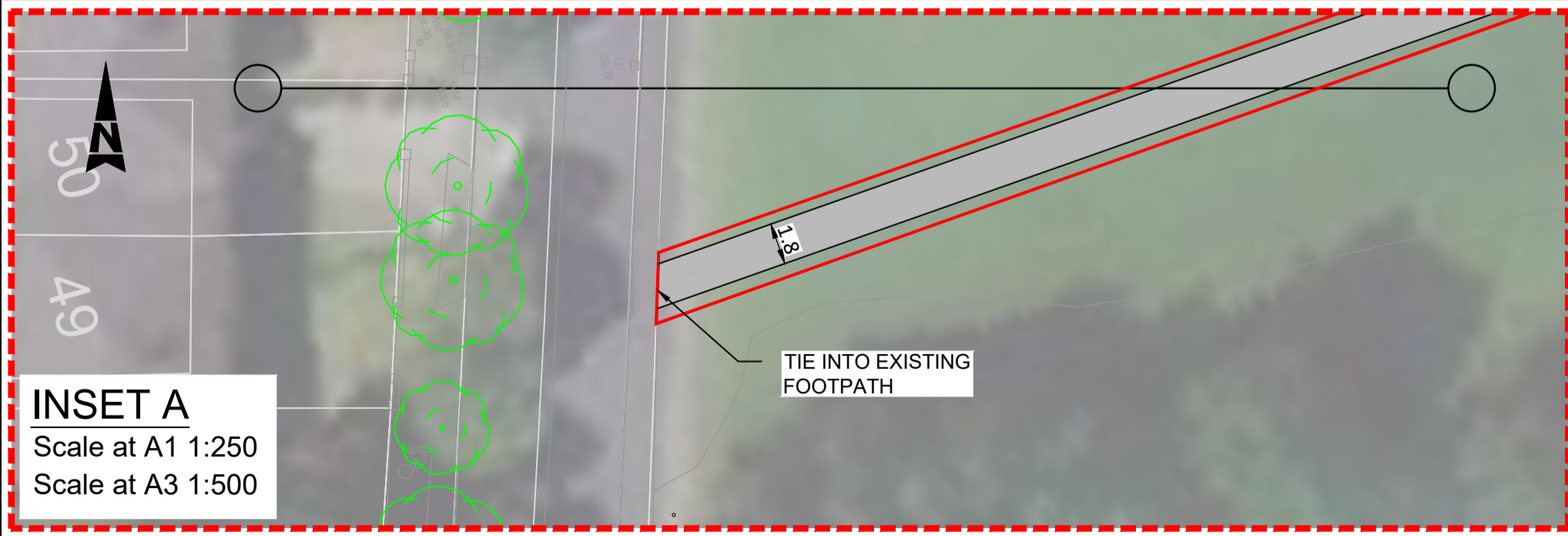
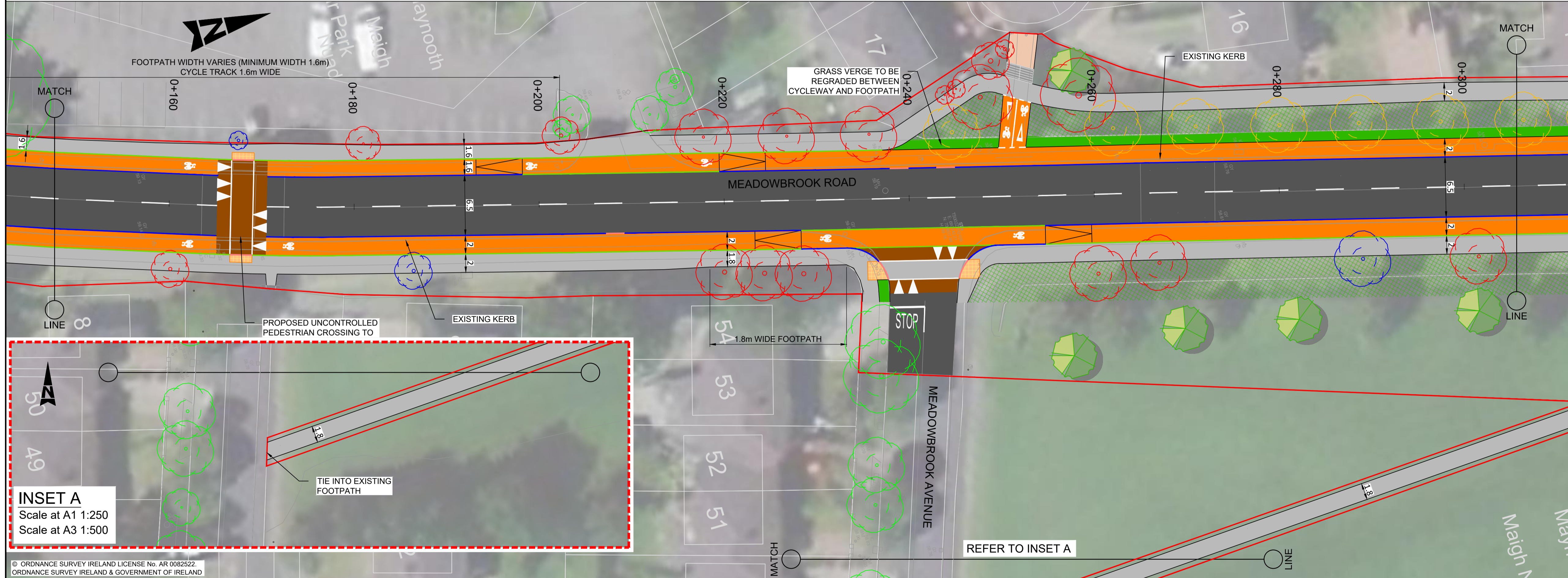


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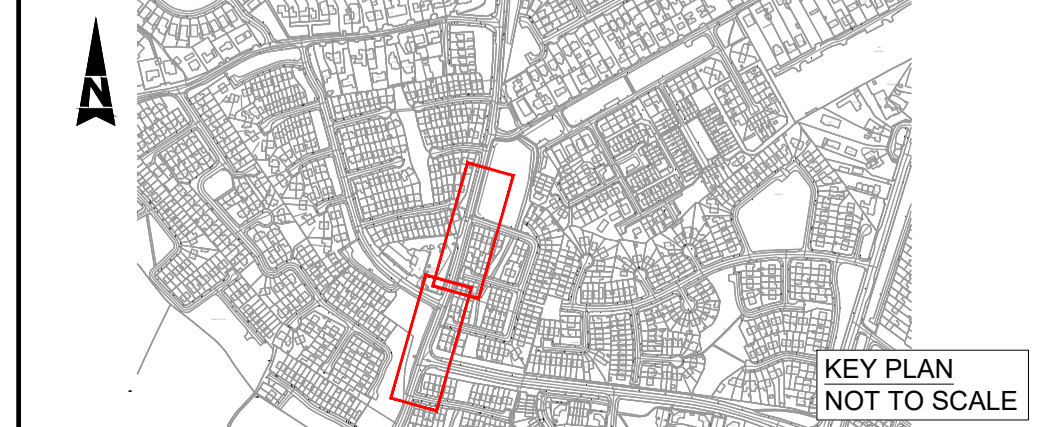
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Client
KILDARE COUNTY COUNCIL

Project
MEADOWBROOK CYCLE SCHEME

Purpose
FOR PART 8 SUBMISSION

Title
MEADOWBROOK ROAD PRELIMINARY DESIGN SHEET 1 OF 2

Original Scale	Design/Drawn	Checked	Authorised
1:250 at A1 1:500 at A3	DB	RR	ST
Date	Date	Date	Date
25.02.22	25.02.22	25.02.22	25.02.22

Status
P8

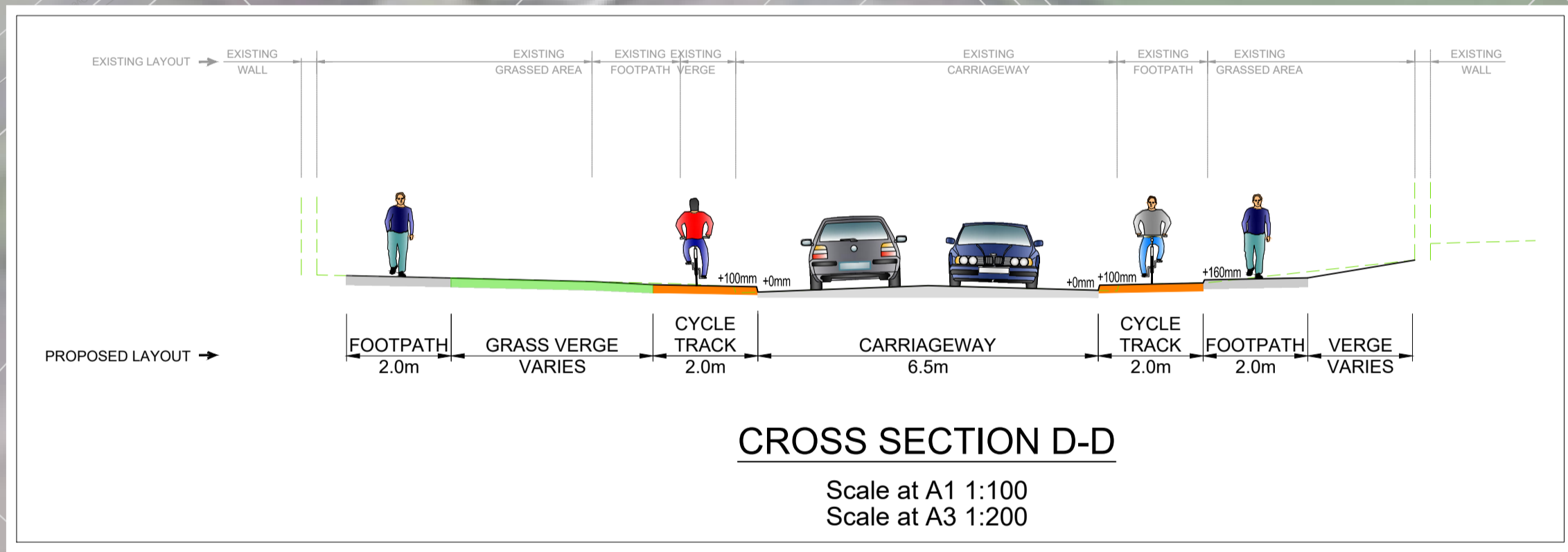
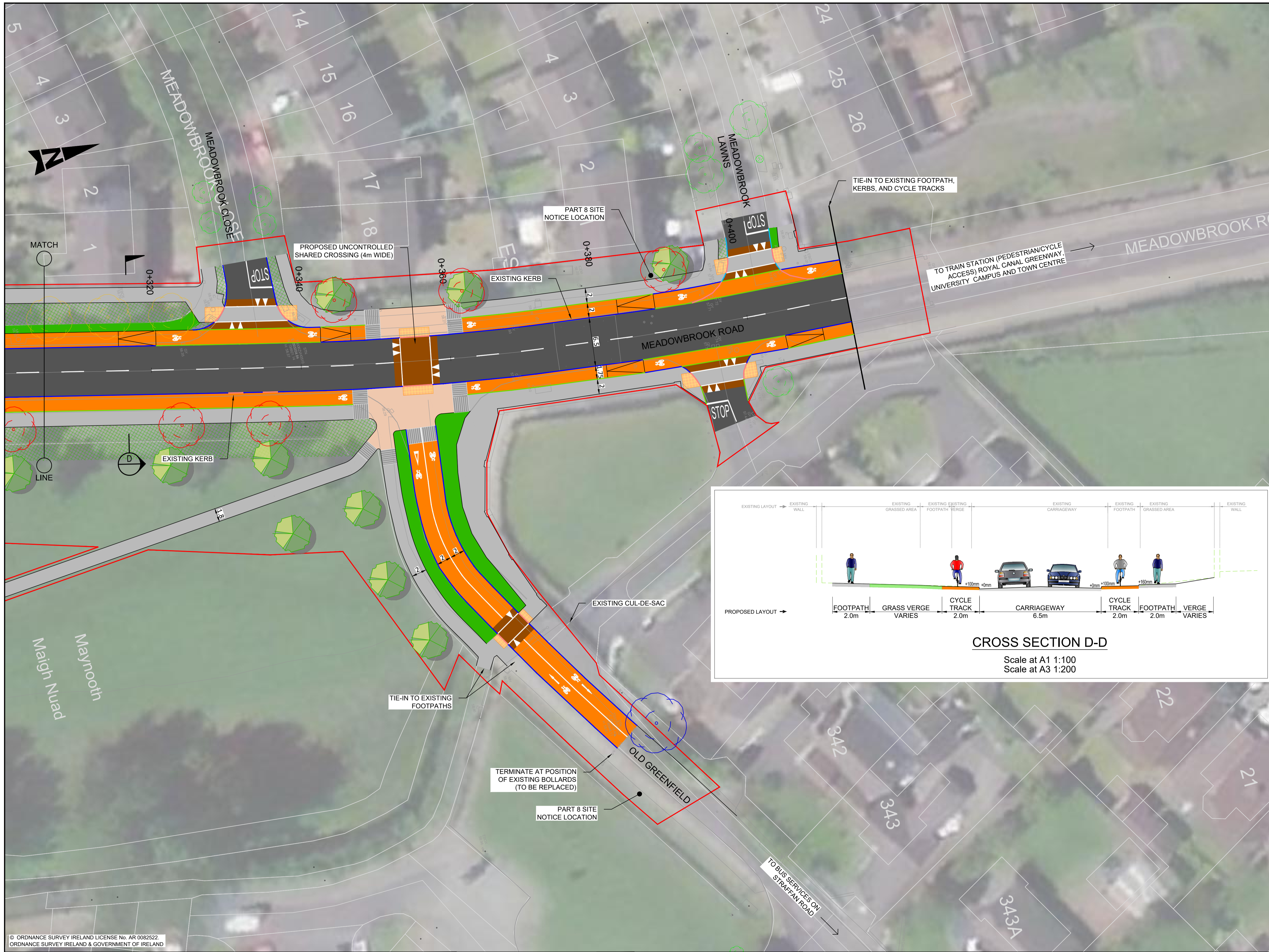
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Project
MEADOWBROOK CYCLE SCHEME

Purpose
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Title
MEADOWBROOK ROAD PRELIMINARY DESIGN SHEET 2 OF 2

Original Scale	Design/Drawn	Checked	Authorised
1:250 at A1 1:500 at A3	DB	RR	ST
Date	Date	Date	Date
25.02.22	25.02.22	25.02.22	25.02.22

Status	Drawing Number	Rev
P8	5208212 / HTR / DR / 0124	-

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Date: Feb 25, 2022 - 9:04am
Plotted by: jberaha

Appendix B. Tree Impact Summary

Meadowbrook Cycle Scheme (Meadowbrook Road & Beaufield Close)

Tree Survey Summary & Impacts - As a Quantum
Impact recommendation

Should be felled, either to ensure site safety or to clear obstructions, regardless of any proposed works	5
To be removed to facilitate these developments	36
To be retained (but root protection area impacted), so mitigation required	60
No impact	22
Totals	123

Count (Total)
5
36
60
22
Totals
123

Condition as per Tree Survey		
Dead	Fair	Poor
1	2	2
0	31	5
0	51	9
0	19	3
Totals	103	19

Other Action as per Tree Survey		
Monitor for death	Fell dead or dying stems	Other
0	0	5
14	0	22
10	1	49
2	1	19
Totals	2	95

Tree Survey Summary & Impacts - As a Percentage of Scheme Total
Impact recommendation

Should be felled, either to ensure site safety or to clear obstructions, regardless of any proposed works	4%
To be removed to facilitate these developments	29%
To be retained (but root protection area impacted), so mitigation required	49%
No impact	18%
Totals	100%

Count (Total)
4%
29%
49%
18%
Totals
100%

Condition as per Tree Survey		
Dead	Fair	Poor
1%	2%	2%
0%	25%	4%
0%	41%	7%
0%	15%	2%
Totals	84%	15%

Other Action as per Tree Survey		
Monitor for death	Fell dead or dying stems	Other
0%	0%	4%
11%	0%	18%
8%	1%	40%
2%	1%	15%
Totals	2%	77%

see overleaf for breakdown by Route →

Meadowbrook Road

Tree Survey Summary & Impacts - As a Quantum

Impact recommendation

Should be felled, either to ensure site safety or to clear obstructions, regardless of any proposed works	5
To be removed to facilitate these developments	20
To be retained (but root protection area impacted), so mitigation required	12
No impact	5

Totals

Count (Total)
5
20
12
5
42

Condition as per Tree Survey		
Dead	Fair	Poor
1	2	2
0	17	3
0	4	8
0	5	0
1	28	13

Other Action as per Tree Survey		
Monitor for death	Fell dead or dying stems	Other
0	0	5
13	0	7
9	1	2
0	0	5
22	1	19

Tree Survey Summary & Impacts - As a Percentage of Route Total

Impact recommendation

Should be felled, either to ensure site safety or to clear obstructions, regardless of any proposed works	12%
To be removed to facilitate these developments	48%
To be retained (but root protection area impacted), so mitigation required	29%
No impact	12%

Totals

Count (Total)
12%
48%
29%
12%
100%

Condition as per Tree Survey		
Dead	Fair	Poor
2%	5%	5%
0%	40%	7%
0%	10%	19%
0%	12%	0%
2%	67%	31%

Other Action as per Tree Survey		
Monitor for death	Fell dead or dying stems	Other
0%	0%	12%
31%	0%	17%
21%	2%	5%
0%	0%	12%
52%	2%	45%

Beaufield Close

Tree Survey Summary & Impacts - As a Quantum

Impact recommendation

Should be felled, either to ensure site safety or to clear obstructions, regardless of any proposed works	0
To be removed to facilitate these developments	16
To be retained (but root protection area impacted), so mitigation required	48
No impact	17

Totals

Count (Total)
0
16
48
17
81

Condition as per Tree Survey		
Dead	Fair	Poor
0	0	0
0	14	2
0	47	1
0	14	3
0	75	6

Other Action as per Tree Survey		
Monitor for death	Fell dead or dying stems	Other
0	0	0
1	0	15
1	0	47
2	1	14
4	1	76

Tree Survey Summary & Impacts - As a Percentage of Route Total

Impact recommendation

Should be felled, either to ensure site safety or to clear obstructions, regardless of any proposed works	0%
To be removed to facilitate these developments	20%
To be retained (but root protection area impacted), so mitigation required	59%
No impact	21%

Totals

Count (Total)
0%
20%
59%
21%
100%

Condition as per Tree Survey		
Dead	Fair	Poor
0%	0%	0%
0%	17%	2%
0%	58%	1%
0%	17%	4%
0%	93%	7%

Other Action as per Tree Survey		
Monitor for death	Fell dead or dying stems	Other
0%	0%	0%
1%	0%	19%
1%	0%	58%
2%	1%	17%
5%	1%	94%

Appendix C. AA Screening Report

Meadowbrook Cycle Scheme

AA Screening

Kildare County Council

24/02/2022



Notice

This document and its contents have been prepared and are intended solely as information for Kildare County Council and use in relation to Meadowbrook Cycle Scheme.

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Document history

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Rev 0.0	Draft for comment	NOC/CW	CW	NS	ST	07/12/2021
Rev 1.0	Final	NOC/CW	CW	NS	ST	24/02/2022

Client signoff

Client	Kildare County Council
Project	Meadowbrook Cycle Scheme
Job number	5208212
Client signature / date	

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Plate 4-4	Beaufield Close.

1. Introduction

Kildare County Council propose to deliver several high-quality cycle schemes within Maynooth, County Kildare. The proposed Meadowbrook Cycle Scheme will aim to deliver a level of service in line with the National Cycle Manual (NCM).

Atkins were commissioned by Kildare County Council to provide Engineering-led Multi-disciplinary Consultancy and Design services for the concept development & option selection, preliminary design and statutory processes of cycle provisions and associated works including public realm and urban enhancements on Meadowbrook Road & Beaufield Close in Maynooth, Co. Kildare.

Kildare County Council have appointed Atkins (Ireland) Ltd. to prepare a Screening for Appropriate Assessment report for the proposed scheme Meadowbrook Cycle Scheme.

1.1. Project details

The Meadowbrook Cycle Scheme consists of 2 routes located to the south of Maynooth, the routes of the proposed scheme are illustrated below in Figure 1.1.

The routes within the scope of this scheme are as follows:

- Meadowbrook Road – From a tie-in point at the existing cycle infrastructure just north of Meadowbrook Lawns to the tie-in point of existing cycle infrastructure of the Meadowbrook Link Road.
- Beaufield Close – Between R408 (Newtown Road) / Beaufield Close junction and Meadowbrook Road / Beaufield Close junction.

Meadowbrook Road

The construction of this section of the scheme will involve the installation of northbound and southbound to-standard Raised Cycle Lanes / Tracks parallel to the carriageway, with parallel to-standard footpaths; with sections of realigned footpath to reduce the impact on trees insofar as possible.

The construction of the proposed works on Meadowbrook Road involves the following:

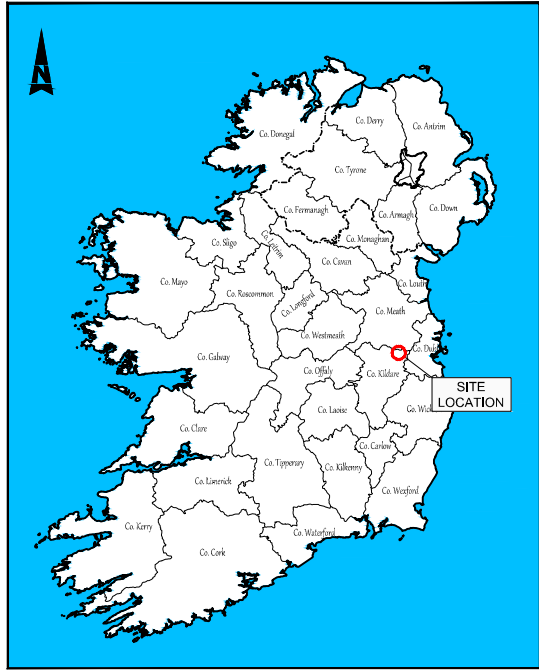
- The removal of existing kerbing and footways, and the construction of new kerbs and footways, to provide for a narrower road width (which encourages lower traffic speeds).
- Formalised pedestrian crossings (uncontrolled) will be added.
- The existing road will be resurfaced.
- Junction treatment is to be applied throughout the route, to narrow the junctions.

Beaufield Close

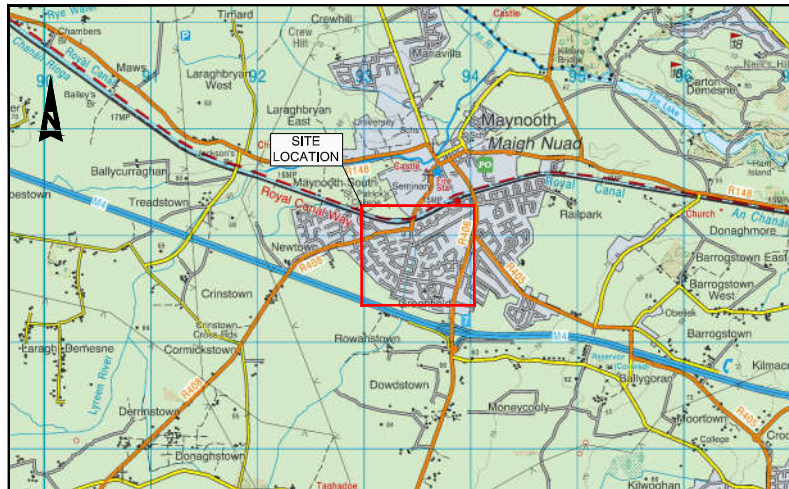
The construction of this section of the scheme will consist of northbound and southbound cycle tracks behind verges, parallel to the carriageway with generally parallel footpaths, with sections of realigned footpath to reduce the impact on trees where possible, while providing a facility along the route which is in accordance with current standards.

The construction of the proposed works on Beaufield Close involves the following:

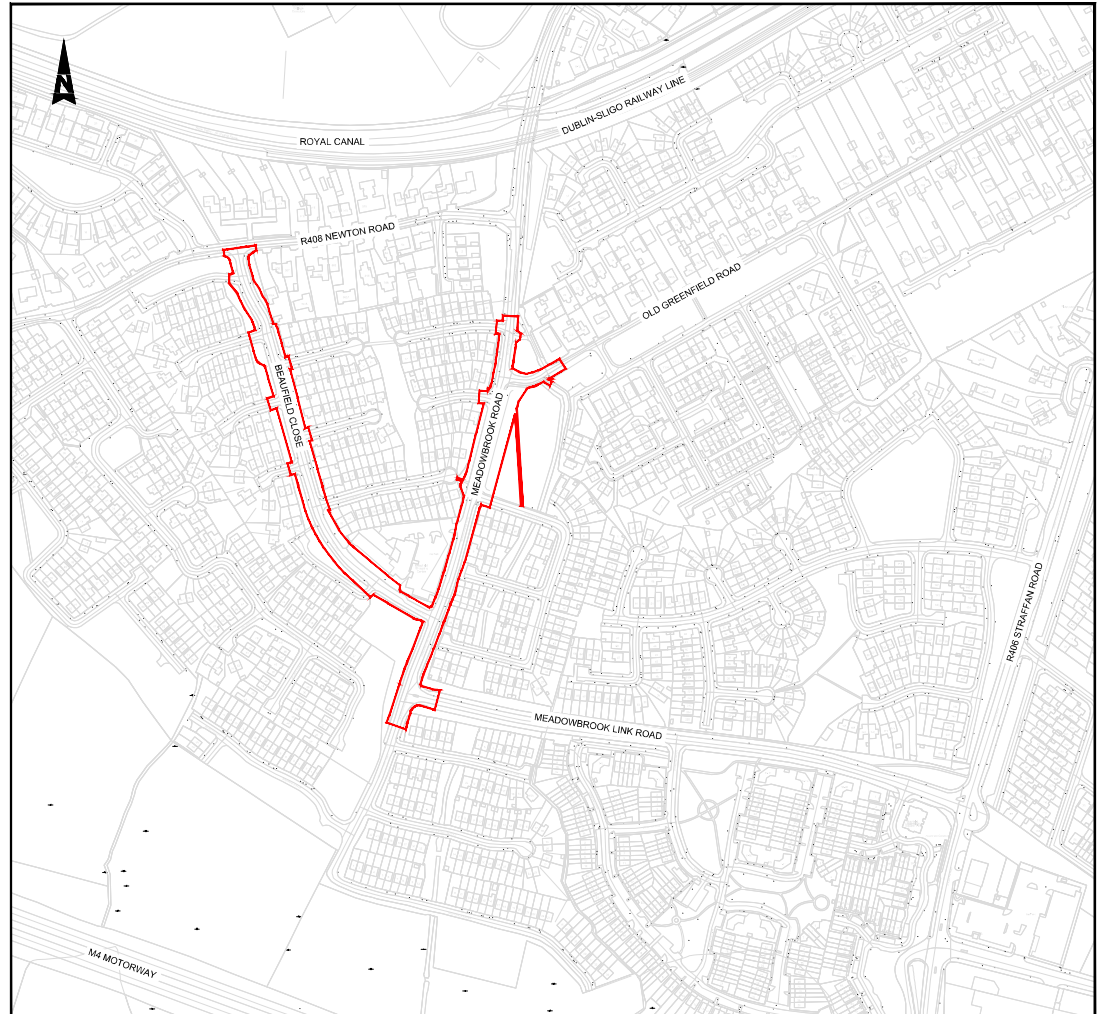
- The removal of existing footways, and the construction of new footways, while retaining the existing kerblines, with the exception of localised kerb replacement as required.
- The upgrade of the existing signalised pedestrian crossings along the route.
- Junction treatment is to be applied throughout the route, to narrow the junctions.
- The existing road will be resurfaced.



IRELAND LOCATION MAP
 Scale at A1 1:2,000,000
 Scale at A3 1:4,000,000



SITE MAP - MEADOWBROOK CYCLE SCHEME
 Scale at A1 1:25,000
 Scale at A3 1:50,000



SITE PLAN - MEADOWBROOK CYCLE SCHEME
 Scale at A1 1:2500
 Scale at A3 1:5000

Figure 1.1 Scheme Extents for Meadowbrook Cycle Scheme

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Rev	Description	By	Date	Chk'd	Auth
-	FOR INFORMATION	JD	22.10.21	RR	ST



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Client	KILDARE COUNTY COUNCIL
Project	MEADOWBROOK CYCLE SCHEME

Purpose	FOR INFORMATION
Title	SITE LOCATION MAP
Original Scale	AS SHOWN
Design/Drawn	JD
Checked	RR
Authorised	ST
Date	22.10.21
Date	22.10.21
Date	22.10.21
Status	1
Drawing Number	5208212 / HTR / DR / 0001
Rev	-

1.2. Construction Methodology

Works will commence with the clearance and off-site removal of redundant road signage and other existing road furniture as required. The works will be undertaken using a combination of operatives using hand tools, mechanical excavators and small dumper trucks. To facilitate the main works, underground utilities which conflict with the main works will be uncovered using mechanical excavators and hand digging where appropriate. A utility survey, including slit trenches for verification, is being carried out as part of the Preliminary Design Phase to determine the location of services to the most accurate extent possible. Any service diversions or protection works will be determined at Detailed Design. This is likely to be restricted to locations where the proposed facilities cross or interface with public roads.

Following the diversion of utilities, the initial paved areas construction phase will be undertaken. This will include the excavation and removal of the existing stone, soil, concrete and bitumen materials along the route followed by the installation of new paved area base materials, or their retention, where proposed levels and material conditions allow. Any excavations will be largely undertaken by mechanical means, with any excess soil arisings to be removed off site by the Contractor to an appropriately licenced waste recovery or waste disposal facility, or reused onsite (within the red line boundary) where testing confirms its suitability. The base layers of the paved areas, where required, are to be made of compacted stone materials.

Drainage works will involve the reinstatement of existing gullies, or installation of new gullies if required, and the use of the existing surface water network. So as not to unduly increase the load on the existing drainage network, where applicable, the following will apply:

- footways and/or cycle tracks will have such crossfalls so that they discharge surface water into adjacent green areas (rather than towards the road, and hence into the existing surface water network), and/or,
- porous pavement shall be used in cycle tracks and/or footways.

Therefore it is envisaged that the existing drainage network will be unaffected by the works (notwithstanding the need to relocate some gullies to suit the new arrangements). Details of the drainage design shall be confirmed in Phase 5 Detailed Design.

The works will also involve constructing the civil engineering elements required to facilitate the commissioning of the traffic signals (including Zebra crossing belisha beacons) and the public lighting elements at the latter stages of construction once all the heavy civil engineering works have been executed. Service chambers and underground duct sets will be laid within trenches and backfilled with suitable granular material. Signal poles (including Zebra crossing belisha beacon poles) and public lighting columns will be erected, and duct connections will be made to the base of each pole unit. The final pavement surface course will be laid using an asphalt paving machine followed by compaction using a roller.

For soft landscaping areas topsoil profiles will be graded to tie into the new pavement levels followed by grass seeding. The top soiling and seeding will be undertaken using a combination of mechanical excavator, tractor unit drawing a rotavator / rake / seed spreader and also operatives using hand tools for areas where machinery access is unavailable. Minimal demolition works are proposed as part of the proposed project i.e. clearance and off-site removal of redundant road signage, kerb removal, etc.

1.2.1. Drainage

Drainage works are likely to run in tandem with the pavement construction phase, are considered to be minimal and restricted to areas where the scheme interfaces with the public road. Drainage for the proposed scheme will be provided using existing or new gullies and, new or existing storm drainage pipes where appropriate. The new paved areas for non-motorised users will generally slope towards the road in order to minimise the need for additional drainage collection measures, except where appropriate they may discharge to adjacent grass verges.

There is 1 no. watercourse in the vicinity of the proposed scheme; The Taghadoe Stream. This stream is not crossed by the alignment of the proposed cycle route. This stream is culverted under Meadowbrook Road and is not crossed by the alignment of the proposed cycle route, as such no in stream works are necessitated. Whilst it cannot be fully confirmed, the existing surface water drainage network along Meadowbrook Road likely outfalls to this culverted urban watercourse.

2. Scope of Study

The aim of this report is to provide supporting information to assist the competent authority to carry out an AA determination with respect to the proposed project.

2.1. Legislative Context

Directive 92/43/EEC on the Conservation of Natural Habitats and Wild Fauna and Flora, known as the 'Habitats Directive' provides legal protection for habitats and species of European importance. Article 2 of the Directive requires the maintenance or restoration of habitats and species of European Community interest, at a favourable conservation status. Articles 3 – 9 provide the legislative means to protect habitats and species of Community interest through the establishment and conservations of an EU-wide network of sites known as European sites. European sites are Special Areas of Conservation (SACs) designated under the Habitats Directive and Special Protection Areas (SPAs) designated under the Conservation of Wild Birds Directive (79/409/EEC).

Articles 6(3) and 6(4) of the Habitats Directive set out the decision-making tests for plans or projects that could potentially affect European sites. Article 6(3) establishes the requirement for Appropriate Assessment: -

“Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site’s conservation objectives. In the light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public.”

Article 6 (4) deals with the steps that should be taken when it is determined, as a result of Appropriate Assessment, that a plan or project will adversely affect a European site. Alternative solutions, imperative reasons of overriding public interest (IROPI) and compensatory measures need to be addressed in this case. Article 6(4) states: -

“If, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature, the Member State shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted.

Where the site concerned hosts a priority natural habitat type and/or a priority species, the only considerations which may be raised are those relating to human health or public safety, to beneficial consequences of primary importance for the environment or, further to an opinion from the Commission, to other imperative reasons of overriding public interest.”

2.2. Appropriate Assessment Process

Guidance on the AA process was produced by the European Commission (EC, 2001; 2018), which was subsequently used to develop guidance for Ireland by the Department of Environment, Heritage and Local Government in 2009 (DEHLG, 2009), National Parks and Wildlife Service in 2018¹ (NPWS 2018) and the Office of the Planning Regulator (2021). These guidance documents set out a staged approach to complete the AA process and outline the issues and tests at each stage. The stages outlined below are taken from the guidance document Appropriate Assessment of Plans and Projects in Ireland –

¹ <https://www.npws.ie/development-consultations>

Guidance for Planning Authorities (DEHLG, 2009) and Office of the Planning Regulator; *Appropriate Assessment Screening for Development Management* (2021).

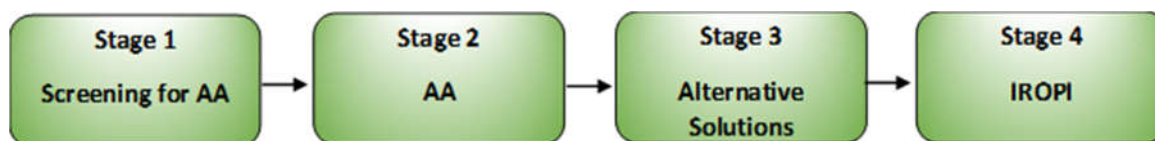


Figure 2-1 Appropriate Assessment Process (Source: DEHLG, 2009).

2.2.1. Screening for Appropriate Assessment

Screening is the process that addresses and records the reasoning and conclusions in relation to the first two tests of Article 6(3): -

- i. Whether a plan or project is directly connected to or necessary for the management of the site, and
- ii. Whether a plan or project, alone or in combination with other plans and projects, is likely to have significant effects on a European site in view of its conservation objectives.

If the effects are deemed to be significant, potentially significant, or uncertain, then the process must proceed to Appropriate Assessment.

2.2.2. Appropriate Assessment

Appropriate Assessment considers whether the plan or project, alone or in combination with other projects or plans, will have adverse effects on the integrity of a European site, and includes any necessary mitigation measures.

The competent authority can only agree to the plan or project after having ascertained that it will not adversely affect the integrity of the site(s) concerned. If this cannot be determined, and where sufficient mitigation cannot be achieved, the alternative solutions need to be considered and the process proceeds to the consideration of alternative solutions.

2.2.3. Alternative Solutions

This examines any alternative solutions or options that could enable the plan or project to proceed without adverse effects on the integrity of a European site. The process must return to AA as alternatives will require assessment in order to proceed. Demonstrating that all reasonable alternatives have been considered and assessed, and that the least damaging option has been selected, it is necessary to examine whether there are imperative reasons of overriding interest (IROPI).

2.2.4. IROPI

This examines whether there are imperative reasons of overriding public interest for allowing a plan or project that will have adverse effects on the integrity of a European site to proceed in cases where it has been established that no less damaging alternative solution exists. Compensatory measures must be proposed and assessed, of which the Commission must be informed.

The AA process only progresses through the full process for certain plans and projects. For example, for a project not connected with the management of a European site and where no likely significant effects on a European site in view of its conservation objectives are identified, the process stops at Screening for AA. Throughout the process the precautionary principle must be applied, which requires that the conservation objectives of Natura 2000 should prevail where there is uncertainty (EC, 2001; 2018).

3. Methods

3.1. Guidance documents

The Screening for Appropriate Assessment was prepared with reference and due consideration to the following documents and case law, including but not limited to: -

- Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild flora and fauna (Habitats Directive);
- Statutory Instrument No. 477/2011 — European Communities (Birds and Natural Habitats) Regulations 2011;
- National Parks and Wildlife Service - Development Consultations² (NPWS 2018)
- European Commission (2018). Managing Natura 2000 sites: the provisions of Article 6 of the 'Habitats' Directive 92/43/EEC;
- European Commission (2001). Assessment of plans and projects significantly affecting Natura 2000 sites: Methodological guidance on the provisions of Articles 6(3) and (4) of the Habitats Directive 92/43/EEC;
- European Commission (2021). Assessment of plans and projects in relation to Natura 2000 sites: Methodological guidance on Article 6(3) and (4) of the Habitats Directive 92/43/EEC.
- Department of the Environment, Heritage and Local Government (2010). Appropriate Assessment of Plans and Projects in Ireland. Guidance for Planning Authorities;
- National Roads Authority (2009). Guidelines for Assessment of Ecological Impacts of National Roads Scheme;
- Office of the Planning Regulator (2021). Appropriate Assessment Screening for Development Management. OPR Practice Note PN01; and,
- Case C-323/17 People Over Wind & anor. V. Coillte, Kelly v An Bord Pleanála & anor [2019] IEHC 84 and other relevant court rulings and case law.

3.2. Desk Study

A desk study was carried out to collate information available on European sites in the vicinity of the proposed project. These areas were viewed using Google Earth, Google maps³ and Bing maps⁴ (last accessed on 23/02/2022).

The National Parks and Wildlife Service (NPWS) and National Biodiversity Data Centre (NBDC) online databases were reviewed concerning European sites and their features of interest in the vicinity of the proposed project.

The Environmental Protection Agency (EPA) mapping⁵ system was used to identify any hydrological connection between the proposed project and European sites.

² <https://www.npws.ie/development-consultations>

³ <https://www.google.ie/maps>

⁴ <http://www.bing.com/maps/>

⁵ <https://gis.epa.ie/EPAMaps/>

Locations and boundaries of all European sites within 15km of the proposed projects were identified and reviewed using the NPWS online map viewer. Boundary shapefiles were also downloaded from this site to facilitate the preparation of project graphics.

Desktop information on relevant European sites were reviewed on the NPWS website, including the site synopsis for each SAC/SPA, the conservation objectives, the site boundaries as shown on the NPWS online map viewer, the standard Natura 2000 Data Form for the SAC/SPA which details conditions and threats of the sites, and published information and unpublished reports on the relevant European sites.

Relevant planning information for the surrounding area was reviewed using the planning enquiry systems of Kildare County Council. Search criteria were implemented to determine whether such projects or plans would be relevant to this study and this information was used to determine potential cumulative impacts from other plans / projects with the proposed project.

3.3. Site Visit

Site visits were undertaken by an Atkins environmental consultant with experience of surveying for invasive plant species within the Meadowbrook Cycle Scheme area during September 2021. Surveys were undertaken in accordance with CIEEM (2018). *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine*. (Version 1.1 – Updated September 2019).

The proposed project site was surveyed for invasive plant species listed on the third schedule of the EC (Birds and Natural Habitats) Regulations 2011 S.I. No. 477/ 2011. Species surveyed for included Japanese knotweed (*Fallopia japonica*) and associated hybrids. Surveys were undertaken during September 2021 which is within the seasonally appropriate window to assess the project site for the presence of invasive plant species. The site was walked, and any visible signs of invasive plant species were recorded. Photographs were taken of any non-native invasive plant species observed. All of the project site was accessible and no limitations to the site surveys are noted.

The findings of site surveys have been used to inform this report. Site photographs are presented below.

3.4. Statement of Authority

The Screening for Appropriate Assessment report was prepared by Niamh O'Connell and Colin Wilson and Niamh Sweeney provided peer review and support.

Niamh O'Connell (Atkins Galway) is working as an Environmental Engineering Specialist and has completed BSc (Hons) in Chemistry of Pharmaceutical Compounds and a P.G. Certificate in Environmental Sustainability. Niamh has worked in water services, as well as ecological and environmental consultancy since 2018, working on a wide range of projects including water and wastewater treatment plants, and Strategic Infrastructure Developments. A focus of Niamh's work to date has been on the preparation of Environmental Impact Assessment Reports, as well as input to wastewater treatment plant design and wastewater infrastructure planning. Niamh collated ecological information to inform this AA report.

Colin Wilson (Atkins Dublin) has a BSc (Hons) in Environmental Science. He has over 12 years working in the fields of ecology and environmental management. He is a Senior Ecologist with experience in ecological surveying, environmental assessment, on-site ecological supervision and mitigation. He has experience on multiple road projects regarding all elements of surface and groundwater management, monitoring, sampling and associated reporting. Colin also has a broad range of experience in invasive species management, biosecurity and control. Colin has prepared AA screening reports, Natura Impact Statements and has also been involved in the development of Environmental Operating Plans and Construction Environmental Management Plans for a number of national infrastructure projects.

Niamh Sweeney (BSc, MSc (Res)) is a freshwater ecologist with over 10 years' experience in ecological consultancy, with specialisms in macroinvertebrate and diatom taxonomy. Niamh has worked on numerous Screenings for Appropriate Assessment, Natura Impact Statements and Ecological Impact Assessments for private architect firms, waste companies, numerous County Councils, the OPW and Inland Fisheries Ireland.

4. Existing Environment

The proposed cycle scheme is located entirely within the existing footprint of the road network to the south of the town of Maynooth. These lands have historically been zoned as Existing Residential & Infill and Open Space & Amenity. The proposed scheme is entirely within an urban area and does not extend beyond the footprint of the existing road network, road verges and residential-area green spaces and does not encroach into any protected habitats.

The proposed project is within the Liffey and Dublin Bay Water Framework Directive (WFD) Catchment area and the Lyreen sub-catchment area. All surface hydrological features within the vicinity of the project flow in a general north-eastern direction. There are no karst features reported by GSI (2022) within the vicinity of the scheme.

The project site was reviewed for the presence of watercourses or surface water features. A review of EPA datasets⁶ identified the Taghadoe stream (IE_EA_09L020100) is culverted at the northern extent of the scheme before flowing in a northern direction and joining with the Lyreen River, which subsequently conjoins with the Rye Water River. The Taghadoe River and the Lyreen River have been assigned a 'Poor' Water Framework Directive status (WFD 2013-18) with the Rye Water River being assigned a WFD 'Moderate' status in the upper section and a 'Poor' status in the lower section. All of these watercourses are reportedly 'At risk' of not meeting the WFD objectives (EPA, 2022).



Figure 4.1 Watercourses in proximity to the proposed project.

⁶ <https://gis.epa.ie/EPAMaps/>

The Royal Canal proposed Natural Heritage Area (pNHA) is the closest designated conservation site, located ca. 165m to the north of the proposed site. Portions of the Rye Water Valley are designated as an SAC; Rye Water Valley/Carlton SAC and this area is also a pNHA. There are no nature reserves or national parks within the vicinity of the proposed scheme.

Wetland Survey Ireland⁷ identify 3 no. wetland habitats located within 2km of the proposed scheme; Lyreen River (ca. 1.5km north) classified as a river/riparian woodland, Lyreen Angling Center (ca. 1.8km north) classified as an artificial pond/reed swamp and Rye Water Valley/Carlton (ca. 2km north) which is encompassed within the SAC.

4.1. Site Visits

The project site is entirely within urban areas and is along the existing road network and adjoining footpaths (defined BL3 – Buildings and artificial surfaces under Fossitt’s classification of habitats) as confirmed in the site walkover. The eastern section of the site is along a laneway (part of Old Greenfield Road) which is now closed off on one end to traffic. Traffic access is available for the entire laneway with bollards in place to prevent through traffic onto Meadowbrook Road. This section of the route is aligned with a hedgerow (Fossitt’s WL1 – Hedgerows) and amenity grasslands (Fossitt’s GA2 Amenity grassland) to the south and residential properties align the northern boundary of the laneway. The northern extents of the project along Meadowbrook Road is close to the culverted Taghadoe Stream but is not crossed by the alignment of the proposed cycle route.

No evidence of third schedule invasive plant species were recorded within the extents of the project site.

Plates 4.1 – 4.4 below depict the urban setting of the proposed scheme.

⁷ <http://www.wetlandsurveysireland.com/wetlands/map-of-irish-wetlands--/map-of-irish-wetlands---map/index.html>

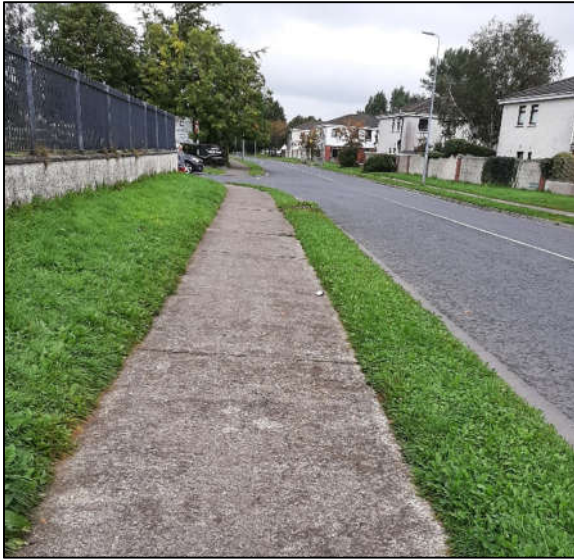


Plate 4-1 - Meadowbrook Road



Plate 4-2 - Meadowbrook Road including existing cycle track



Plate 4-3 - Old Greenfield Road tie in



Plate 4-4 - Beaufield Close

5. Appropriate Assessment Screening

5.1. Connectivity of Works Area to European Sites

The 'zone of influence' (Zoi) for a project is the area over which ecological features may be subject to significant effects as a result of the proposed project and associated activities. This is likely to extend beyond the project site, for example where there are ecological or hydrological links beyond the site boundaries. The zone of influence will vary for different ecological features depending on their sensitivity to an environmental change (CIEEM, 2019).

A distance of 15km is recommended in the case of plans, as a potential zone of influence and this distance is derived from UK guidance (Scott Wilson et al., 2006). However, for projects the distance could be much less, and in some cases less than 100m. National Parks and Wildlife Service and Office of the Planning Regulator guidance⁸ advises that this must be evaluated on a case-by-case basis with reference to the nature, size and location of the project, the sensitivities of the ecological receptors, and the potential for in-combination effects.

Thus, given the nature, scale and extent of the proposed project, the potential zone of influence will consider European sites with regard to the location of a European site, the QIs of the site and their potential mobility outside that European site, the Cause-Pathway-Effect model and potential environment effects of the proposed project.

The proposed project site does not lie within any European site. The potential zone of influence of the proposed is limited to those European sites and associated ecological receptors with potential hydrological connectivity to the proposed project.

There are 7 no. European sites within the potential zone of influence of the project; 5 no. SACs and 2 no. SPAs.

Table 5-1 details the European sites that are within the potential Zoi of the proposed project, which lists their associated qualifying interests and specifies if the European site is within the Zoi of the proposed project or not.

Figures 5-1 illustrates the locations of the European sites within the potential Zoi of the proposed project.

⁸ DoEHLG (2009). *Appropriate Assessment of Plans and Projects in Ireland. Guidance for Planning Authorities*. Department of Environment, Heritage and Local Government, Dublin, Ireland.
OPR (2021) Appropriate Assessment Screening for Development Management. OPR Practice Note PN01. Office of the Planning Regulator. Dublin, Ireland.

Table 5-1 European sites within potential Zone of Influence of the proposed project.

Site Name and Code	Approximate distance from project	Features of Interest	Within the ZoI
Rye Water Valley/Carton SAC (001398)	Ca. 2km Ca. 2.6km downstream via the Taghadoe Stream	<ul style="list-style-type: none"> • Petrifying springs with tufa formation (Cratoneurion) [7220] • Vertigo angustior (Narrow-mouthed Whorl Snail) [1014] • Vertigo moulinsiana (Desmoulin's Whorl Snail) [1016] 	<p>Yes</p> <p>There is potential indirect, hydrological connectivity from the project site to this SAC via road drainage network, the Taghadoe Stream and subsequently the Lyreen stream</p> <p>This site is discussed further below.</p>
Ballynafagh Bog SAC (000391)	ca. 14.2km	<ul style="list-style-type: none"> • Active raised bogs [7110] • Degraded raised bogs still capable of natural regeneration [7120] • Depressions on peat substrates of the Rhynchosporion [7150] 	<p>No</p> <p>There is no direct overlap between the proposed works and Ballynafagh Bog SAC.</p> <p>There is no indirect connectivity from the proposed project to this SAC via watercourses, groundwater, drains, ditches or any other vectors.</p> <p>The location, scale and nature of the proposed project is such that they will not contribute to direct, indirect or in-combination impacts on habitats for which the SAC has been designated and do not have the potential to affect the conservation objectives of these habitats.</p> <p>This site is therefore not considered further.</p>
Ballynafagh Lake SAC (001387)	Ca. 14.2km	<ul style="list-style-type: none"> • Alkaline fens [7230] • Vertigo moulinsiana (Desmoulin's Whorl Snail) [1016] • Euphydryas aurinia (Marsh Fritillary) [1065] 	<p>No</p> <p>There is no direct overlap between the proposed works and Ballynafagh Lake SAC.</p> <p>There is no indirect connectivity from the proposed project to this SAC via watercourses, groundwater, drains, ditches or any other vectors.</p> <p>The project site is entirely urban in nature and as such does not proffer habitats suitable for Vertigo or Marsh Fritillary.</p> <p>The location, scale and duration of proposed project is such that they will not contribute to direct, indirect or in-combination impacts on habitats or species for which the SAC has been designated and do not have the potential to affect the conservation objectives of these habitats and species.</p> <p>This site is not considered further.</p>

Site Name and Code	Approximate distance from project	Features of Interest	Within the Zol
North Dublin Bay SAC (000206)	Ca. 27.67km direct line distance. Ca. 36.65km downstream via watercourses	<ul style="list-style-type: none"> • 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] • <i>Petalophyllum ralfsii</i> (Petalwort) [1395] 	<p>No</p> <p>There is no direct overlap between the proposed works and North Dublin Bay SAC.</p> <p>There is potential for indirect connectivity from the proposed project to this European site via the Taghadoe Stream, the Lyreen stream, the Rye Water River and the River Liffey. The total downstream distance to this European site is ca. 36.6km.</p> <p>Whilst this potential connectivity exists, it is indirect and weak. The intervening land use and the separation distance of ca.>36km of watercourses means the water quality within the European site will not be negatively impacted by potential contaminants (e.g. silts, sediments or other construction related pollutants) due to the dilution factor the watercourses would present and the settling out that would occur over such a distance. Therefore, the surface water features of the Taghadoe Stream, the Lyreen stream, the Rye Water River and subsequently the River Liffey are not considered a viable pathway through which the European site could be impacted.</p> <p>This site is not considered further.</p>
South Dublin Bay SAC	Ca. 26km direct line distance. Ca. 34.89km downstream via watercourses	<ul style="list-style-type: none"> • 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] 	<p>No</p> <p>There is no direct overlap between the proposed works and South Dublin Bay SAC.</p> <p>There is potential for indirect connectivity from the proposed project to this European site via the Taghadoe Stream, the Lyreen stream, the Rye Water River and the River Liffey. The total downstream distance to this European site is ca. 35km.</p> <p>Whilst this potential connectivity exists, it is indirect and weak. The intervening land use and the separation distance of ca.>34km of watercourses means the water quality within the European site will not be negatively impacted by potential contaminants (e.g. silts, sediments or other construction related pollutants) due to the dilution factor the watercourses would present and the settling out that would occur over such a distance. Therefore, the surface water features of the Taghadoe Stream, the Lyreen stream, the Rye Water River and subsequently the</p>

Site Name and Code	Approximate distance from project	Features of Interest	Within the Zol
			<p>River Liffey are not considered a viable pathway through which the European site could be impacted.</p> <p>This site is not considered further.</p>
<p>North Bull Island SPA (004006)</p>	<p>Ca. 27.67km direct line distance Ca. 36.65km downstream via watercourses</p>	<ul style="list-style-type: none"> • Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [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 (<i>Haematopus ostralegus</i>) [A130] • Golden Plover (<i>Pluvialis apricaria</i>) [A140] • 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] • Black-tailed Godwit (<i>Limosa limosa</i>) [A156] • Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157] • Curlew (<i>Numenius arquata</i>) [A160] • Redshank (<i>Tringa totanus</i>) [A162] • Turnstone (<i>Arenaria interpres</i>) [A169] • Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179] • Wetland and Waterbirds [A999] 	<p>No</p> <p>There is no direct overlap between the proposed works and North Bull Island SPA.</p> <p>The project site is sufficiently remote (ca. 28km) from the SPA that there is no potential for impacts to qualifying interest (QI) waterbirds accommodated with the SPA. The proposed project site is along urban roadways and as such there are no habitats suitable for QI birds that may utilise lands outside of the SPA site extents. The location, scale and nature of the project is such that it will not contribute to direct, indirect or in-combination impacts on bird species for which the SPA has been designated and does not have the potential to affect the conservation objectives of these species.</p> <p>There is potential for indirect connectivity from the proposed project to this European site via the Taghadoe Stream, the Lyreen stream, the Rye Water River and the River Liffey. The total downstream distance to this European site is ca. 36.6km.</p> <p>Whilst this potential connectivity exists, it is indirect and weak. The intervening land use and the separation distance of ca.>36km of watercourses means the water quality within the European site will not be negatively impacted by potential contaminants (e.g. silts, sediments or other construction related pollutants) due to the dilution factor the watercourses would present and the settling out that would occur over such a distance. Therefore, the surface water features of the Taghadoe Stream, the Lyreen stream, the Rye Water River and subsequently the River Liffey are not considered a viable pathway through which the European site could be impacted. The proposed project will not impact on the wetland habitats which support the waterbirds given the lack of viable pathway from the project site to the SPA site.</p> <p>This site is not considered further.</p>

Site Name and Code	Approximate distance from project	Features of Interest	Within the Zol
South Dublin Bay and River Tolka Estuary SPA (004024)	Ca. 24.5km direct line distance Ca. 34.35km downstream via watercourses	<ul style="list-style-type: none"> • 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] • 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] 	<p>No</p> <p>There is no direct overlap between the proposed works and South Dublin Bay and River Tolka SPA.</p> <p>The project site is sufficiently remote (ca. 24.5km) from the SPA that there is no potential for impacts to qualifying interest (QI) waterbirds accommodated with the SPA. The proposed project site is along urban roadways and as such there are no habitats suitable for QI birds that may utilise lands outside of the SPA site extents. The location, scale and nature of the project is such that it will not contribute to direct, indirect or in-combination impacts on bird species for which the SPA has been designated and does not have the potential to affect the conservation objectives of these species.</p> <p>There is potential for indirect connectivity from the proposed project to this European site via the Taghadoe Stream, the Lyreen stream, the Rye Water River and the River Liffey. The total downstream distance to this European site is ca. 34km.</p> <p>Whilst this potential connectivity exists, it is indirect and weak. The intervening land use and the separation distance of ca.>34km of watercourses means the water quality within the European site will not be negatively impacted by potential contaminants (e.g. silts, sediments or other construction related pollutants) due to the dilution factor the watercourses would present and the settling out that would occur over such a distance. Therefore, the surface water features of the Taghadoe Stream, the Lyreen stream, the Rye Water River and subsequently the River Liffey are not considered a viable pathway through which the European site could be impacted. The proposed project will not impact on the wetland habitats which support the waterbirds given the lack of viable pathway from the project site to the SPA site.</p> <p>This site is not considered further.</p>

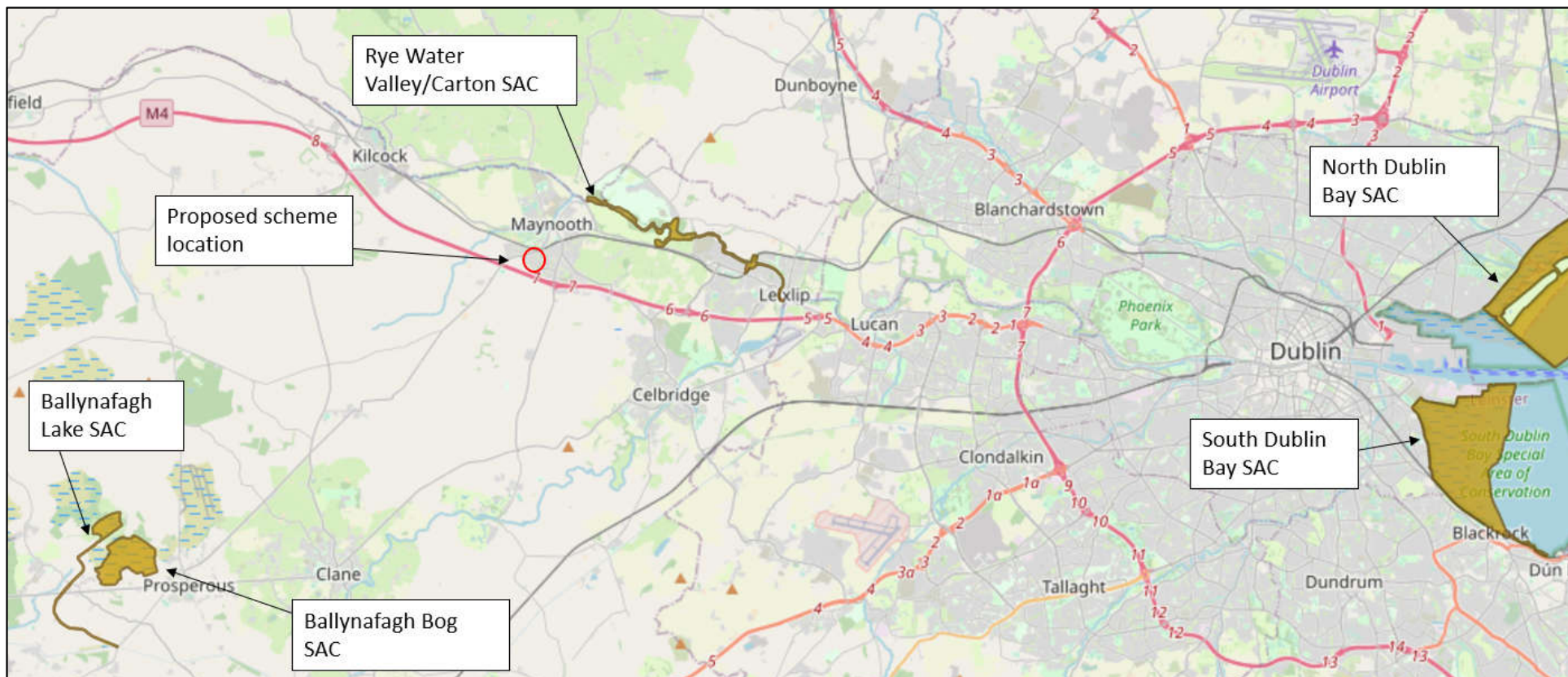


Figure 5-1 - SACs within potential zone of influence of the project.

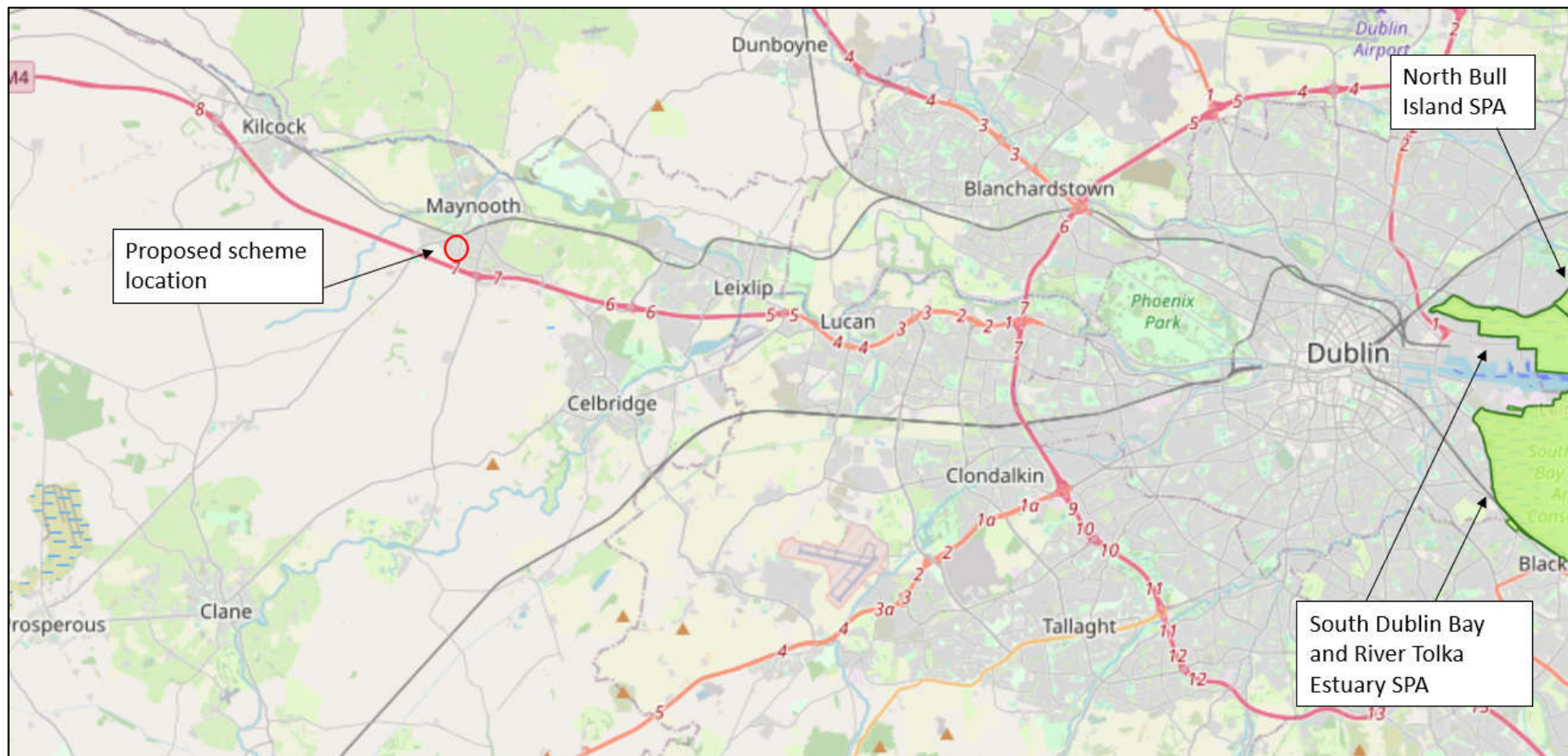


Figure 5-2 - SPAs within potential zone of influence of the project.

5.1.1. Brief Description of Rye Water Valley/Carnton SAC

A synopsis of the SAC, as detailed by NPWS, is as follows⁹: -

“The Rye Water in Carnton Estate is dammed at intervals, creating a series of lakes. Reed Sweet-grass (Glyceria maxima) is frequent around the lakes, along with Yellow Iris (Iris pseudacorus), Reed Canary-grass (Phalaris arundinacea), Bulrush (Typha latifolia), Water Forget-me-not (Myosotis scorpioides), Marsh-marigold (Caltha palustris) and starworts (Callitriche spp.). Along the remainder of the site the river has been dredged and much of the reed fringe removed.

The marsh, mineral spring and seepage area found at Louisa Bridge supports a good diversity of plant species, including stoneworts, Marsh Arrowgrass (Triglochin palustris), Purple Moor-grass (Molinea caerulea), sedges (Carex spp.), Common Butterwort (Pinguicula vulgaris), Marsh Lousewort (Pedicularis palustris), Grass-of-parnassus (Parnassia palustris) and Cuckooflower (Cardamine pratensis). The mineral spring found at the site is of a type considered to be rare in Europe and is a habitat listed on Annex I of the E.U. Habitats Directive. The Red Data Book species Blue Fleabane (Erigeron acer) is found growing on a wall at Louisa Bridge.

The Rye Water is also a spawning ground for Trout and Salmon, and the rare, Whiteclawed Crayfish (Austropotamobius pallipes) has been recorded at Leixlip. The latter two species are listed on Annex II of the E.U. Habitats Directive. The rare Narrowmouthed Whorl Snail and Desmoulin’s Whorl Snail occur in marsh vegetation near Louisa Bridge. Both are rare in Ireland and in Europe, and are listed on Annex II of the E.U. Habitats Directive. The scarce dragonfly, Orthetrum coerulescens, has also been recorded at Louisa Bridge. The conservation importance of the site lies in the presence of several rare and threatened plant and animal species, and the presence of petrifying springs, a habitat type listed on Annex I of the E.U. Habitats Directive. The woods found on Carnton Estate and their birdlife are of additional interest.”

5.1.1.1. Conservation Objectives

The Habitats Directive defines when the conservation status of the listed habitats and species is considered as favourable. The definitions it uses for this are specific to the Directive. In summary, they require that the range and areas of the listed habitats, and the range and population of the listed species, should be at least maintained at their status at the time of designation. Site-specific conservation objectives aim to define favourable conservation conditions for a particular habitat or species at that site.

Article (1) of the Habitats Directive (92/43/EEC) describes favourable conservation status for habitats and species as follows.

Favourable conservation status of a habitat is achieved when: -

- Its natural range, and area 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.

The 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

⁹ <https://www.npws.ie/sites/default/files/protected-sites/synopsis/SY001398.pdf>

- 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.

Site-specific conservation objectives have not been set for the Rye Water Valley/Carton SAC. Thus, there is one conservation objective for Rye Water Valley/Carton SAC, which is to maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected, and was published by NPWS (2021) Version 8.0; 23/03/2021.

5.2. Threats and Pressures

The threats, pressures and activities¹⁰ of the with impact on Rye Water Valley/Carton SAC are itemised in Table 5.2 below.

Table 5.2 Threats, pressures and activities with impacts on the SAC.

Rank	Threats and pressures (code)	Threats and pressures (type)	Inside/outside/both (i/o/b)
L	A08	Fertilisation	o
M	E01.01	Continuous urbanisation	o
M	J02.05.02	Modifying structures of inland water courses	i
L	A08	Fertilisation	i
L	A10.01	Removal of hedges and copses or scrub	i
M	B	Sylviculture, forestry	i
L	A04	Grazing	i
L	A04	Grazing	o
L	E01.03	Dispersed habitation	o
L	D01.02	Roads, motorways	o

¹⁰ <https://www.npws.ie/sites/default/files/protected-sites/natura2000/NF001398.pdf>

5.3. Likelihood of Potential Impacts on European Sites

The available information on the European Sites within the potential Zol of the proposed project was reviewed to establish whether or not the proposed Meadowbrook Cycle Scheme project is likely to have a significant effect on the conservation objectives of the SACs. The likelihood of impacts on the features of interest of European Sites identified in this report is based on information collated from the desk study, site visit, site plans and other available existing information.

The likelihood of impacts occurring are established in light of the type and scale of the proposed works, the location of the proposed works with respect to European sites and the features of interest and conservation objectives of the European sites.

This screening report is prepared following the Cause – Pathway – Effect model. The potential impacts are summarised into the following categories for screening purposes.

- Direct impacts refer to habitat loss or fragmentation arising from land-take requirements for development or agricultural purposes. Direct impacts can be as a result of a change in land use or management, such as the removal of agricultural practices that prevent scrub encroachment.
- Indirect and secondary impacts do not have a straight-line route between cause and effect. It is potentially more challenging to ensure that all the possible indirect impacts of the plan/project – in combination with other plans and projects - have been established. These can arise, for example, when a development alters the hydrology of a catchment area, which in turn affects the movement of groundwater to a site and the qualifying interests that rely on the maintenance of water levels. Deterioration in water quality can occur as an indirect consequence of development, which in turn changes the aquatic environment and reduces its capacity to support certain plants and animals. The introduction of invasive species can also be defined as an indirect impact. Disturbance to fauna can arise directly through the loss of habitat (e.g. displacement of qualifying interest species) or indirectly through noise, vibration and increased activity associated with construction and operation.

5.4. Identification of Potential Impacts on European Sites

The Rye Water Valley/Carton SAC covers a geographical area of over 70ha and the qualifying habitats and species for which they are designated are also spread widely throughout. Therefore, designated SAC features which have no potential of being impacted by the proposed project, either because they do not occur within the area likely to be affected or because of distance from the works areas of the proposed project, are listed as such below. Table 5-3 below presents an overview of the potential for impacts on the habitats and species listed as features of interest within the SAC.

Rye Water Valley/Carton SAC is designated for the protection of a terrestrial habitat; Petrifying springs with tufa formation (*Cratoneurion*). There are also 2 no. of protected species detailed as the qualifying interest of the SAC; Narrow-mouthed Whorl Snail and Desmoulin's Whorl Snail.

The NPWS Conservation Objective documentation for the SAC was reviewed to determine the location of qualifying interest habitats, and site documentation does not record any qualifying interest habitats within the area of the project. Similarly, the site visit did not record any qualifying interest habitats.

The proposed route alignment does not intersect the Rye Water Valley/Carton SAC. The alignment of the proposed route does not encroach into any of the qualifying interest habitats associated with the SAC nor does it encroach on habitats that would be utilised by the Narrow-mouthed Whorl Snail and the Desmoulin's Whorl Snail. As such there will be no direct impacts, such as loss of SAC habitat, as a result of the construction of the project on the qualifying interest habitats and species of the SAC.

Surface water drainage from the hard-standing areas of the route will utilise existing or new gullies and existing or new road drainage networks where appropriate. The alignment of the route is along existing roadways and footpaths and as such significant impacts on surface water drainage flows are not anticipated from the construction of the route. Some areas of the grass verge will need to be removed to facilitate the new footpath on the Meadowbrook Road and Beaufield Close. The excavations of the grass verges may provide a pathway for entry of soil, silt or sediment to the stream. However, given the nature and scale of the proposed scheme, significant effects upon the water quality of the Taghadoe stream are not considered likely.

Notwithstanding the limited potential for water quality impacts to the stream, the qualifying interest habitats and species of the Rye Water Valley/Carlton SAC are terrestrial in nature. As such, petrifying springs and snails accommodated within the SAC cannot be impacted via the hydrological pathway of the Taghadoe stream and Lyreen stream. Given the qualifying interest species are terrestrial in nature, potential impacts via surface water pathways is negated.

The excavations associated with the construction of the proposals will be relatively shallow (ca. <500mm) and therefore no significant impacts on groundwater are likely. Given the location, scale and nature of the cycleway project, there will be no indirect impacts through hydrogeological pathways during the construction of the route on Rye Water Valley/Carlton SAC.

Given the nature, scale and location of the proposed route it is considered that the construction and operation of the proposed scheme will not have any effect on the qualifying interest habitats and species of Rye Water Valley/Carlton SAC.

Table 5-3 SAC qualifying interests within the potential Zol of the proposed project.

Habitat / Species	Comment	Within Zol
Rye Water Valley/Carlton SAC		
<ul style="list-style-type: none"> Petrifying springs with tufa formation (Cratoneurion) [7220] 	<p>The alignment of the proposed route is dominated by hard standing areas such as roadways and pathways. Petrifying springs do not occur with the proposed project site, as confirmed by the site visit.</p> <p>This habitat type is terrestrial in nature and cannot be impacted via hydrological pathways.</p> <p>Given the nature, scale and location of the proposed project, there will be no effects to this habitat either directly, indirectly on or in combination with other projects.</p>	No
<ul style="list-style-type: none"> Vertigo angustior (Narrow-mouthed Whorl Snail) [1014] Vertigo moulinsiana (Desmoulin's Whorl Snail) [1016] 	<p>The alignment of the proposed route is dominated by hard standing areas such as roadways and pathways. Habitats suitable for accommodating Vertigo species do not occur within the proposed project site, as confirmed by the site visit.</p> <p>The NPWS site synopsis lists that both the Narrow-mouthed Whorl Snail and the Desmoulin's Whorl Snail are found in marsh vegetation near the Louisa Bridge, which is located in Leixlip, ca. 6km from the proposed site. There is no direct or indirect connectivity to this habitat hosting the snail species.</p> <p>These species are not aquatic and as such cannot be impacted via a deterioration in surface water quality within the Taghadoe stream.</p> <p>Given the location, scale and nature of the project, there is no risk of displacement of Vertigo snails during either the construction or operation of the proposed route.</p>	No

	Given the nature, scale and location of the proposed project, there will be no effects to Vertigo snails either directly, indirectly on or in combination with other projects.	
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5.5. In-combination Impacts

The Kildare County Development Plan (KCDP) 2017-2023 sets out policies and objectives for the development of County Kildare. The Plan aims to promote the sustainable development of Kildare through provision of physical and social infrastructure to support urban and rural communities. The Plan describes key policies relating to the promotion of walking and cycling in the county, including preparation of a Cycle Network Study for all the major towns in Kildare and active support of the implementation of the National Cycle Policy Framework. The Plan highlights the need for public realm enhancements under the Design Manual for Urban Roads and Streets. The Plan aims to secure development of the Greater Dublin Area Cycle Network Plan Urban and Inter Urban Schemes, including the Maynooth Town North South Corridor. The NTA also describes the National Cycle Network (NCN) Route 8 from Galway to Dublin along the Royal Canal through Maynooth.

Throughout the preparation of the KCDP, the Appropriate Assessment process was integrated into the various stages of the plan process and has guided preparation of development scenarios for the city. A Natura Impact Report¹¹ accompanied the Kildare County Development Plan and addressed Stage 1 Appropriate Assessment and Stage 2 Natura Impact Report.

The findings of the NIR are as follows: -

‘Stage 1 Screening and Stage 2 appropriate assessment of the Kildare County Development Plan 2017-2023 have been carried out. Implementation of the Plan has the potential to result in impacts to the integrity of European Sites, if unmitigated.

The risks to the safeguarding and integrity of the qualifying interests and conservation objectives of European Sites have been addressed by the inclusion of mitigation measures that will prioritise the avoidance of effects in the first place and mitigate effects where these cannot be avoided. In addition, all lower level plans and projects arising through the implementation of the Plan will themselves be subject to AA when further details of design and location are known.

Having incorporated mitigation measures, it is considered that the Plan will not have a significant adverse effect on the ecological integrity of any European Site¹².

The Maynooth Local Area Plan 2013-2019 (most current version) outlines as a strategic goal; ‘To build on Maynooth’s strengths and to provide a focused approach to planning for future growth in a coherent sustainable, spatial fashion’. The Maynooth Local Area Plan was subject to the Appropriate Assessment process which concludes; ‘... the Maynooth Local Area Plan 2013-2019 shall not give rise to effects on the integrity of any Natura 2000 site, having regard to their conservation objectives and either alone or in-combination with other plans, programmes or projects.’

A search of Kildare County Planning records has been undertaken for the applications submitted within the past 5 years. This search identified over 50 no. developments, given the urban location of the proposed project. The majority of these developments have already been constructed or are of small scale in nature (i.e. extension works, or property retention works) or are considered to be a reasonable distance from the proposed works and have therefore not been considered further.

¹¹<https://kildare.ie/CountyCouncil/AllServices/Planning/DevelopmentPlans/KildareCountyDevelopmentPlan2017-2023/EnvironmentalReports/AA%20Natura%20Impact%20Report%202017.pdf>

¹² Except as provided for in Section 6(4) of the Habitats Directive, viz. There must be: (a) no alternative solution available, (b) imperative reasons of overriding public interest for the plan to proceed; and (c) adequate compensatory measures in place.

2 no. relevant developments have been further evaluated with respect to cumulative impacts with the proposed Meadowbrook Cycle Scheme, as follows;

- **Anthony Murray. Change of use of retail unit (201461). Granted March 2021.**

This development will be constructed adjacent to the proposed project and accessed off Meadowbrook Road along which the proposed project is aligned. This planning permission is for the change of use of an existing retail unit to a pizza takeaway and works will be minor in nature. There may be a cumulative impact on traffic, dust and noise; however due to the nature and scale of the project it is not anticipated that these impacts will be significant. The contractor for the proposed project, Meadowbrook Cycle Scheme, will provide a traffic management plan for the works to ensure minimal impact on traffic. The Contractor will also be obliged to prepare a project specific CEMP prior to commencement of the proposed project, which will include specific control measures in accordance with standard industry best practice to be implemented to fully address any potential air quality / dust emissions, noise / vibration nuisance, and onsite noise / vibration monitoring should this be necessary. No significant cumulative impacts are anticipated.

- **Tanya & Stephen Nevin. Construction of detached dwelling house and associated works (19625). Granted August 2019.**

This development will be constructed to the north of the proposed project and will be accessed off Meadowbrook Road to the north of the proposed project. This planning permission is for the construction of a detached two-storey house and associated site works. There may be a cumulative impact on traffic, dust and noise; however due to the nature and scale of the project it is not anticipated that these impacts will be significant. The contractor for the proposed project will provide a traffic management plan for the works to ensure minimal impact on traffic. The Contractor will also be obliged to prepare a project specific CEMP prior to commencement of the proposed project, Meadowbrook Cycle Scheme, which will include specific control measures in accordance with standard industry best practice to be implemented to fully address any potential air quality / dust emissions, noise / vibration nuisance, and onsite noise / vibration monitoring should this be necessary. No significant cumulative impacts are anticipated.

In addition another project of a similar nature in the vicinity which has received planning permission is given below

- **Royal Canal Greenway**

The proposed works comprise of an upgrade to the existing towpath along the Royal Canal from Maynooth to Leixlip. This involves resurfacing and widening of the existing towpath in sections along with the provision of new services and diversion of existing services where required. Sections of the proposed greenway will be surfaced in bituminous material while sections will be provided with a grit surface (in accordance with planning conditions). No significant cumulative impacts are anticipated.

Given the scale and nature of the proposed project and the fact that effects are not anticipated on any European site, the proposed cycleway project will not act in combination with these granted developments to create significant impacts.

NPWS site documents outline the main high threats and pressures on the European sites within the Zol of the proposed project as being from fertilisation, continuous urbanisation, modifying structures of inland water courses, removal of hedges and copses or scrub, silviculture, forestry, grazing, dispersed habitation, roads and motorways. It is considered unlikely that the proposed project will act in combination with the threats and pressures identified in the NPWS site documents to give rise to significant effects on the European sites within the Zol of the proposed project.

Thus, in summary, no proposed projects or plans were identified that would act in-combination with the proposed cycleway project to give rise to likely significant effects on any European sites.

5.6. Likelihood of Significant Effects on European Sites

Due to the scope and nature of the proposed project, it is considered that the proposed project, either alone or in combination with other plans or projects, will not result in likely significant effects on the conservation objectives of the Rye Water Valley/Carton SAC, or any other European site.

5.7. Consideration of Findings

This Screening for Appropriate Assessment report is based on the best available scientific information. It is concluded by the authors of this report that the proposed Meadowbrook Cycle Scheme, either alone or in combination with other plans or projects, will not result in likely significant effects on the conservation objectives of the Rye Water Valley/Carton SAC, or any other European site.

Thus, it is recommended that it is not necessary for the proposed project to proceed to Appropriate Assessment.

Should the scope of the proposed project change in nature or scale, a new Screening for Appropriate Assessment will be required.

6. Appropriate Assessment Screening Matrix

Table 6-1 Screening Matrix.

1. Description of the project or plan	
Location	Rye Water Valley/Carton SAC
Distance from designated site	Ca. 2km
Brief Description of the project or plan	See Section 1.1
Is the plan directly connected with or necessary to the site management for nature conservation?	No

2. Brief Description of the European site(s)	
Name	Rye Water Valley/Carton
Site designation status	SAC
Qualifying interests	See Table 4-1
Unit size	70.4826ha (0% Marine)

3. Assessment Criteria	
Other plans or projects which may have a cumulative impact	There are no impacts arising from the proposed works on the European sites and there are no other plans or projects ongoing at the same time that would contribute to a cumulative impact on the European sites. Therefore, cumulative impacts with other projects will not occur.
Describe the individual elements of the project (either alone or in combination with other plans or projects) likely to give rise to impacts on the European sites.	See Section 1.1 & 1.2 for description of the proposed project.
Describe any likely direct, indirect or secondary impacts of the project (either alone or in combination with other plans or projects) on the European site by virtue of: Size and scale Land-take Distance from European site or key features of the site Resource requirements	The location, nature and scale of the proposed project is such that direct or indirect impacts will not occur.

3. Assessment Criteria	
<p>Emissions</p> <p>Excavation requirements</p> <p>Transportation requirements</p> <p>Duration of construction, operation etc.</p> <p>Others</p>	
<p>Describe any likely changes to the site arising as a result of:</p> <p>Reduction of habitat area</p> <p>Disturbance of key species</p> <p>Habitat or species fragmentation</p> <p>Reduction in species density</p> <p>Changes in key indicators of conservation value</p> <p>Climate change</p>	<p>There shall be no changes to the site as a result of the proposed works.</p> <p>There shall be no reduction of habitat area within European sites as a result of the proposed project.</p> <p>There shall be no habitat or species fragmentation or reduction in species density as a result of the works.</p>
<p>Describe any likely impacts on the European site as a whole in terms of:</p> <p>Interference with the key relationships that define the structure of the site</p> <p>Interference with key relationships that define the function of the site.</p>	<p>There are no changes to the site as a result of the proposed project works with respect to the key relationships that define the structure or function of the SAC.</p>
<p>Provide indicators of significance as a result of the identification of effects set out above in terms of:</p> <p>Loss</p> <p>Fragmentation</p> <p>Disruption</p> <p>Disturbance</p> <p>Change to key elements of the site</p>	<p>There is no potential for impact to qualifying interests of the SAC given the location, nature and scale of the works.</p>
<p>Describe from the above those elements of the project or plan, or combination of elements, where the above impacts are likely to be significant or where the scale of magnitude of impacts is not known.</p>	<p>No significant impacts will occur as a result of the proposed works.</p>

Data collected to carry out the assessment			
Who carried out the assessment	Sources of data	Level of assessment completed	Where can the full results of the assessments be accessed and viewed?
Atkins 150 Airside Business Park Swords Co. Dublin	Desktop data derived from the NPWS – Natura 2000 form, site synopsis, SAC/SPA reports etc. National Biodiversity Data Centre online data. EPA Envision Mapping system; Google maps; Bing Maps etc. Kildare County Council Planning Enquiry System	Screening	Atkins 150 Airside Business Park Swords Co. Dublin

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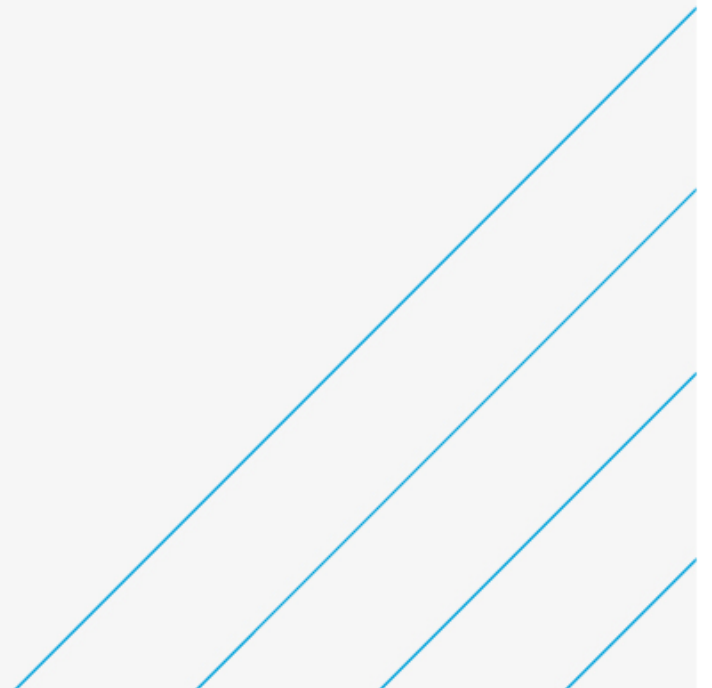
Appendix D. EIA Screening Report

Meadowbrook Cycle Scheme

Environmental Impact Assessment Screening

Kildare County Council

February 2022



Notice

This document and its contents have been prepared and are intended solely as information for Kildare County Council and use in relation to EIA Screening for the Meadowbrook Cycle Scheme.

WS Atkins Ireland Limited assumes no responsibility to any other party in respect of or arising out of or in connection with this document and/or its contents.

Document history

Revision	Purpose description	Originated	Checked	Reviewed	Authorised	Date
Rev 0	Draft for Client Comment	AMc	AMc	JL	ST	16/12/2021
Rev 1	Final	AMc	AMc	JL	ST	24/02/2022

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1. Introduction

Kildare County Council (KCC) appointed Atkins to prepare an Environmental Impact Assessment (EIA) Screening Report as part of the Part 8 Planning Application for the Meadowbrook Cycle Scheme.

1.1. Proposed Project

The proposed project is the development of Meadowbrook Cycle Scheme at Meadowbrook Road and Beaufield Close in Maynooth, Co. Kildare. The proposed project involves 2no. different routes. Refer to Figure 1-1 for the proposed project location.

1.2. Purpose of this Report

This report has been prepared to support a Part 8 Planning Application by Kildare County Council in relation to cycle / pedestrian routes in Maynooth, known as the Meadowbrook Cycle Scheme. The purpose of this report is to determine whether the project requires the preparation of an Environmental Impact Assessment Report (EIAR). The project has been screened to generate a summarised overview of the potential impacts on the receiving environment, and in the context of relevant statutory requirements.

A Stage 1 Screening for Appropriate Assessment has also been prepared (Atkins, 2022). The project has been assessed with regards to the likely significant effects of the project on European sites within the zone of influence of the proposed project. The project has been screened out at Stage 1 Screening for Appropriate Assessment, and therefore it has been determined that the project does not require the preparation of a Natura Impact Statement (NIS).

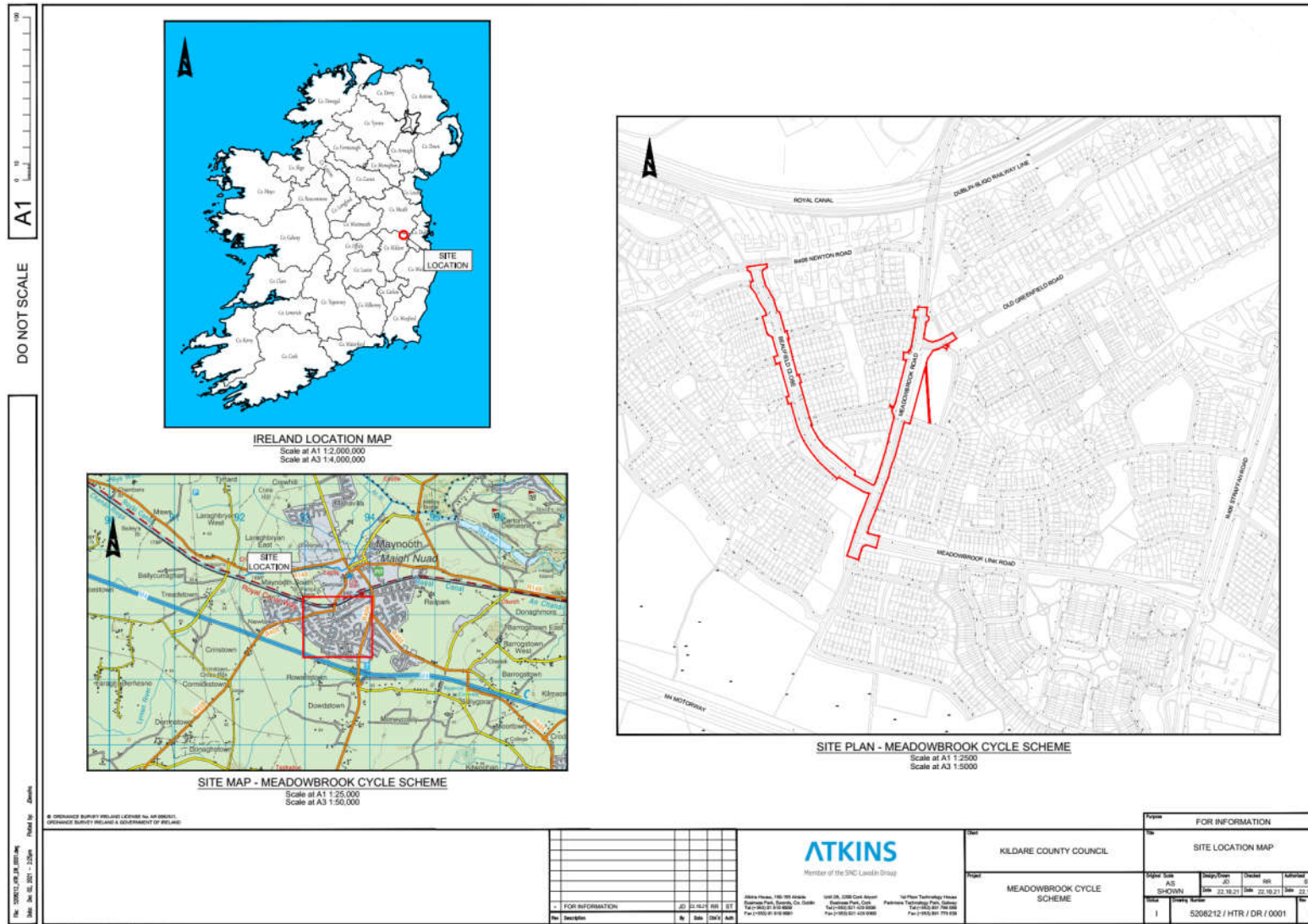


Figure 1-1 - Proposed Project Location

2. Methodology

This project has been screened in accordance with Section 3.2 of the ‘*Guidelines on the Information to be contained in Environmental Impact Assessment Reports – Draft*’ (EPA, 2017), the Environmental Impact Directive (85/337/EEC) and all subsequent relevant amendments, Planning and Development regulations (2001-2021), including S.I. No. 296 of 2018 - European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018, which came into operation on 1st September 2018. The project had been screened in accordance with the Roads Act, 1993-2021 and the European Union (Roads Act 1993) (Environmental Impact Assessment) (Amendment) Regulation 2019 S.I. No. 279 of 2019.

As set out under the relevant legislation (detailed further in Section 2.1 of this report), the following steps are involved when carrying out EIA screening for a particular project:

- **Step 1** is to determine if the proposed infrastructure works represent a project as understood by the Directive and if a mandatory EIAR is required. Such projects are defined in Article 4 of the EIA Directive and set out in Annexes I and II. Projects requiring a mandatory EIAR are included under Section 50 of the Roads Act (1993-2021), S.I. No. 279 of 2019 amendments and the prescribed projects listed in Section 8 of the Roads Regulations, 1994 (S.I. No. 119 of 1994).
- **Step 2** is to determine if the project is likely to have significant effects on the receiving environment. Section 50 (1)(b) of the Roads Act (1993-2021) states that *‘if An Bord Pleanála considers that any road development proposed (other than development to which paragraph (a) applies) consisting of the construction of a proposed public road or the improvement of an existing public road would be likely to have significant effects on the environment it shall direct that the development be subject to an environmental impact assessment.’*

Section 50 (1)(c) of the Roads Act (1993-2021) states that *‘where a road authority or, as the case may be, the Authority considers that a road development that it proposes (other than development to which paragraph (a) applies) consisting of the construction of a proposed public road or the improvement of an existing public road would be likely to have significant effects on the environment, it shall inform An Bord Pleanála in writing prior to making any application to the Bord for an approval referred to in section 51(1) in respect of the development.’*

Section 50 (1)(e) of the Roads Act (1993-2021) states *‘where a decision is being made pursuant to this subsection on whether a road development that is proposed would or would not be likely to have significant effects on the environment, An Bord Pleanála, or the road authority or the Authority concerned (as the case may be), shall take into account the relevant selection criteria specified in Annex III.’* Annex III as has been transposed into Irish Legislation via Schedule 7 of the Planning and Development Regulations 2001-2021.

There are no exacting rules as to what constitutes “significant” in terms of environmental impacts. The responsibility is on Planning Authorities to carefully examine every aspect of a development in the context of characterisation of the project; location of the project and type and characteristics of potential impacts. It is generally not necessary to provide specialist studies or technical reports to complete this screening process, rather to investigate where further studies may be required, and where risks, if any, to the integrity of the receiving environment may lie.

For the purposes of screening sub-threshold development for EIA, all of the relevant information as presented within EIA Planning and Development Regulations 2018 (Schedule 7A) has been provided on behalf of the applicant, Kildare County Council. The potential for the project to pose a significant impact to the receiving environment has also been evaluated in accordance with criteria listed in the Planning & Development Regulations, 2001 - 2021 (Schedule 7).

The findings of the EIA screening assessment prepared for the project has informed our professional opinion as to whether an EIAR is warranted for the proposed project, with due regard to all relevant statutory requirements and technical guidance. However ultimately it is the responsibility of the relevant planning authority to make a determination as to whether an EIAR is required for a particular project, based on screening conducted by the planning authority.

Figure 2-1 provides a summary of the main steps involved in the EIA screening process.

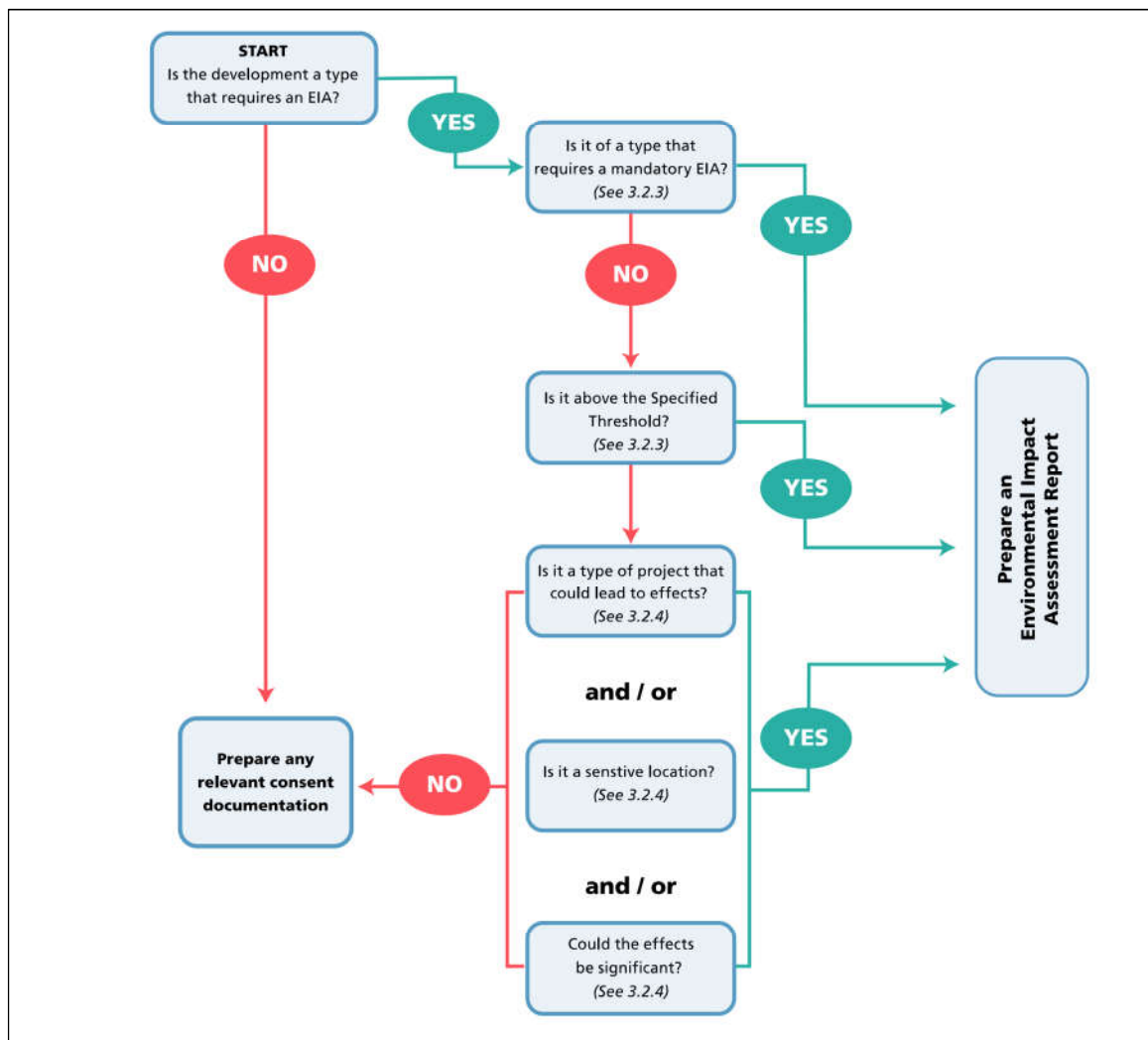


Figure 2-1 - EIA Screening Process (Source: ‘Guidelines on the Information to be contained in Environmental Impact Assessment Reports – Draft’ (EPA, 2017)).

2.1. Relevant Legislation

The Environmental Impact Directive (85/337/EEC) was brought into force in 1985. Subsequent amendments were made with the following pieces of legislation - 97/11/EC, 2003/35/EC, 2009/31/EC, 2011/92/EU and 2014/52/EU. The Directive was originally transposed into Irish Law by the European Communities (Environmental Impact Assessment) Regulations, 1989 (S.I. No. 349/1989). This amended the Local Government (Planning and Development Act) 1963 and introduced the requirement for an Environmental Impact Assessment in certain specified circumstances. The most recent amendment to the Directive is focused on clarifying and simplifying the process of EIA. The screening criteria have been updated, and Member States have a mandate to simplify their assessment procedures. EIA reports are to be made more readily understandable to members of the general public. Section 50 of the Roads Acts 1993 and the 2021 amended Regulation outlines certain categories of roads projects which require an EIAR.

New EIA Regulations ((Planning and Development) Environmental Impact Assessment) Regulations 2018 (S.I. No. 296 of 2018)) transposing the 2014 EIA Directive were recently adopted and came into operation on 1st September 2018. These regulations amend the Planning and Development Regulations 2001 (S.I. No.600 of 2001); they seek to transpose EIA Directive 2014/52/EU and to give further effect to the 2011 Directive, as follows;

- An EIAR is required as a matter of course on specified large-scale projects which have a high likelihood of impacting on the receiving environment. These projects are listed in full within the Planning & Development Regulations (2001-2021), Schedule 5, Part 1 – Development for the purposes of Part 10.
- Each EU Member State has discretionary consideration for the requirement of an EIA in relation to various processes and activities. These projects are listed in full within the Planning & Development Regulations

(2001-2021), Schedule 5, Part 2 – Development for the purposes of Part 10. If the proposed project is listed under Schedule 5, Part 2, but does not exceed the relevant stated thresholds, it is considered to be sub-threshold. Part 10, article 92 of the Planning & Development Regulations, 2001 as amended states “sub-threshold development’ means development of a type set out in Part 2 of Schedule 5, which does not equal or exceed, as the case may be, a quantity, area or other limit specified in that Schedule in respect of the relevant class of development”. Any sub-threshold developments should be evaluated to determine if the project is likely to have a significant impact on the environment.

- Criteria to evaluate whether significant impacts on the receiving environment will arise from a proposed development are listed under Schedule 7 of the relevant Planning & Development Regulations (2001-2021). A list of the relevant information to be provided by the applicant or developer for the purposes of sub-threshold EIA screening is presented in Schedule 7A of the Regulations, and summarised below;
 1. A description of the proposed development, including in particular:
 - a. a description of the physical characteristics of the whole proposed development and, where relevant, of demolition works; and,
 - b. a description of the location of the proposed development, with particular regard to the environmental sensitivity of geographical areas likely to be affected.
 2. A description of the aspects of the environment likely to be significantly affected by the proposed development.
 3. A description of any likely significant effects, to the extent of the information available on such effects, of the proposed development on the environment resulting from:
 - a. the expected residues and emissions and the production of waste, where relevant: and,
 - b. the use of natural resources, in particular soil, land, water and biodiversity.
 4. The compilation of the information at paragraphs 1 to 3 shall take into account, where relevant, the criteria set out in Schedule 7.

3. Environmental Impact Assessment Screening

3.1. Step 1 - Mandatory Screening for EIA

The project has been screened against the criteria outlined in Section 50(1)(a) of the Roads Act 1993-2021¹ and Article 8 of S.I. No. 119/1994- Roads Regulations, 1994². This project does not fall within any category of development requiring a mandatory EIA; hence the preparation of an EIAR is not required under Section 50 (1)(a).

3.1.1. Sub-threshold Development Likely to Have Significant Effects on the Environment

The scheme has been screened against the criteria outlined in Section 50(1)(b) and 50(1)(c) of the Roads Act 1993-2021, as follows;

Section 50(1)(b) – *‘If An Bord Pleanála considers that any road development proposed (other than development to which paragraph (a) applies) consisting of the construction of a proposed public road or the improvement of an existing public road would be likely to have significant effects on the environment it shall direct that the development be subject to an environmental impact assessment.’*

Section 50(1)(c) – *‘Where a road authority or, as the case may be, the Authority considers that a road development that it proposes (other than development to which paragraph (a) applies) consisting of the construction of a proposed public road or the improvement of an existing public road would be likely to have significant effects on the environment, it shall inform An Bord Pleanála in writing prior to making any application to the Bord for an approval referred to in section 51(1) in respect of the development.’*

Therefore, it is considered that the scheme should undergo an EIA screening to determine if an EIAR would be required in accordance with Section 50(1)(b) and 50(1)(c) of the Roads Act 1993-2021.

3.2. Step 2- Determining if the project is likely to have significant effect on the receiving environment.³

All relevant information as required under Schedule 7A has been provided on behalf of Kildare County Council and is presented within this screening report. The potential for this project to pose a significant impact to the receiving environment has also been evaluated in accordance with criteria listed in the Planning & Development Regulations, 2001-2021 (Schedule 7), as presented within this screening report.

3.2.1. Description of the Proposed Development (Schedule 7A (1))

A description of the Physical Characteristics of the Whole Proposed Development and Where Relevant of Demolition Works (Schedule 7A (1) (a))

The proposed project is the development of Meadowbrook Cycle Scheme at Meadowbrook Road and Beaufield Close in Maynooth, Co. Kildare. Drawings of the preliminary design are shown in Appendix A. A description of the proposed scheme is as follows;

Meadowbrook Road

The construction along Meadowbrook Road will involve the installation of northbound and southbound to-standard Raised Cycle Lanes / Tracks (as per National Cycle Manual (NCM) 4.3.2/4.3.4), parallel to the carriageway, with parallel to-standard footpaths; with sections of realigned footpath to reduce the impact on trees insofar as possible.

The proposed works on Meadowbrook Road also involves the following:

- The removal of existing kerbing and footways, and the construction of new kerbs and footways, to provide for a narrower road width (which encourages lower traffic speeds);

¹ <http://www.irishstatutebook.ie/eli/2021/si/12/made/en/print>

² <http://www.irishstatutebook.ie/eli/1994/si/119/made/en/print>

³ Pursuant to Schedule 7(A) of the Planning and Development Regulations as amended 2001-2021

- Formalised pedestrian crossings (uncontrolled) will be added;
- The existing road will be resurfaced; and,
- Junction treatment is to be applied throughout the route, to narrow the junctions.

Beaufield Close

The construction along Beaufield Close will consist of northbound and southbound cycle tracks behind verges, parallel to the carriageway with generally parallel footpaths, with sections of realigned footpath to reduce the impact on trees where possible, while providing a facility along the route which is in accordance with current standards.

The proposed works on Beaufield Close involves the following:

- The removal of existing footways, and the construction of new footways, while retaining the existing kerbline (with the exception of localised kerb replacement works);
- Formalised pedestrian crossings (uncontrolled) will be added;
- The upgrade of the existing Zebra crossing on the route;
- Junction treatment is to be applied throughout the route, to narrow the junctions; and,
- The existing road will be resurfaced.

Construction Methodology

Works will commence with the clearance and off-site removal of redundant road signage and other existing road furniture as required. The works will be undertaken using a combination of operatives using hand tools, mechanical excavators and small dumper trucks. To facilitate the main works, underground utilities which conflict with the main works will be uncovered using mechanical excavators and hand digging where appropriate. A utility survey, including slit trenches for verification, is being carried out as part of the Preliminary Design Phase to determine the location of services to the most accurate extent possible. Any service diversions or protection works will be determined at Detailed Design. This is likely to be restricted to locations where the proposed facilities cross or interface with public roads.

Following the diversion of utilities, the initial paved areas construction phase will be undertaken. This will include the excavation and removal of the existing stone, soil, concrete and bitumen materials along the route followed by the installation of new paved area base materials, or their retention, where proposed levels and material conditions allow. Any excavations will be largely undertaken by mechanical means, with any excess soil arisings to be removed off site by the Contractor to an appropriately licenced waste recovery or waste disposal facility, or reused onsite (within the red line boundary) where testing confirms its suitability. The base layers of the paved areas, where required, are to be made of compacted stone materials.

Drainage works will involve the reinstatement of existing gullies, or installation of new gullies if required, and the use of the existing surface water network. So as not to unduly increase the load on the existing drainage network, where applicable, the following will apply:

- footways and/or cycle tracks will have such crossfalls so that they discharge surface water into adjacent green areas (rather than towards the road, and hence into the existing surface water network), and/or,
- porous pavement shall be used in cycle tracks and/or footways.

Therefore it is envisaged that the existing drainage network will be unaffected by the works (notwithstanding the need to relocate some gullies to suit the new arrangements). Details of the drainage design shall be confirmed in Phase 5 Detailed Design.

The works will also involve constructing the civil engineering elements required to facilitate the commissioning of the traffic signals (including Zebra crossing belisha beacons) and the public lighting elements at the latter stages of construction once all the heavy civil engineering works have been executed. Service chambers and underground duct sets will be laid within trenches and backfilled with suitable granular material. Signal poles (including Zebra crossing belisha beacon poles) and public lighting columns will be erected, and duct connections will be made to the base of each pole unit. The final pavement surface course will be laid using an asphalt paving machine followed by compaction using a roller.

For soft landscaping areas topsoil profiles will be graded to tie into the new pavement levels followed by grass seeding. The top soiling and seeding will be undertaken using a combination of mechanical excavator, tractor unit drawing a rotavator / rake / seed spreader and also operatives using hand tools for areas where machinery access is unavailable. Minimal demolition works are proposed as part of the proposed project i.e. clearance and off-site removal of redundant road signage, kerb removal, etc.

A Description of the Location of the Proposed Development, with Particular Regard to the Environmental Sensitivity of Geographical Areas Likely to be Affected (Schedule 7A(1)(b)).

The project will be constructed within the town of Maynooth, along the existing Meadowbrook Road and Beaufield Close Road which are maintained by Kildare County Council.

Under the Maynooth Local Area Plan 2013-2019 (KCC, 2013/2018) the following zoning objectives have been identified adjacent to the footprint of the proposed project: Refer Figure 3-1.

- B: Existing Residential & Infill defined by KCC (2013/2018) as ‘to protect and improve existing residential amenity, to provide for appropriate infill residential development and to provide for new and improved ancillary services’; and,
- F: Open Space and Amenity defined by KCC (2013/2018) as ‘to protect and provide for open space, amenity facilities and recreational uses’

It is considered that the proposed project is fully compatible with the zoning requirements of the Maynooth Local Area Plan 2013-2019, providing a social amenity and pedestrian access, and complementing the residential, nature of the area. The proposed project is in line with the following objectives of the Maynooth Local Area Plan:

- To promote Maynooth as an attractive stop along the Royal Canal for pleasure boaters, walkers and cyclists. [T 6]
- To ensure that adequate secure bicycle parking facilities are provided generally throughout Maynooth, particularly as part of new educational, recreational and commercial developments. [PC 1]
- To refurbish all footpaths in the town and improve access for the disabled as part of this refurbishment and to construct new footpaths that are accessible to the mobility impaired. [PCO 1]
- To facilitate and encourage cycling as a more convenient and safe method of transport, through the designation of a cycle network, linking population, commercial, community facilities and transport nodes, with specific reference to Meadowbrook Road. [PCO 4 (g) and (l)]
- To provide for public transport, walking and cycling infrastructure in collaboration with the National Transport Authority under the National Transport Authority’s funding programmes. [PCO 6]
- To improve existing open space areas in housing developments that have been taken in-charge by the Council. [AR 6]

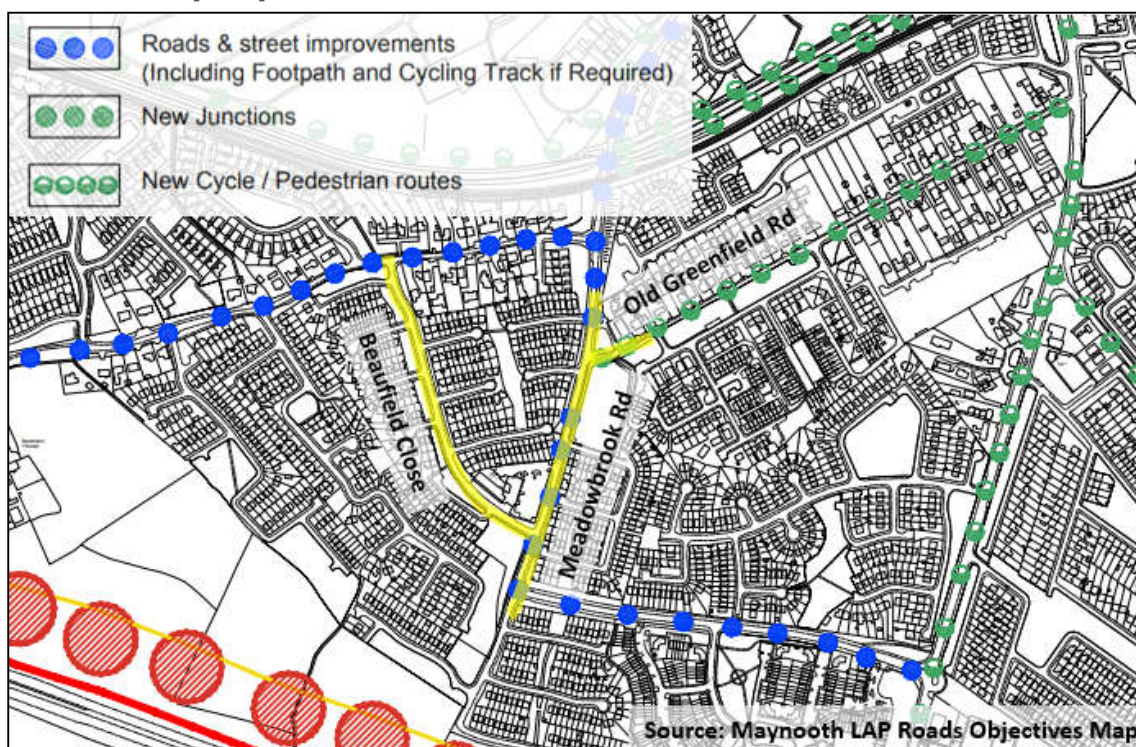


Figure 3-1 - Extract from the LAP Roads Objective Map (Yellow routes denotes the proposed project) (KCC, 2013/2018)

Hydrology and European Sites

The proposed project is located to the South of Maynooth Town between the M4 to the south and the Royal Canal to the north.

The proposed project is within the Liffey and Dublin Bay Water Framework Directive (WFD) Catchment area and the Lyreen sub-catchment area. There is 1no. watercourse (The Taghadoe stream aka Joan Slade River) (EPA Code: IE_EA_09L020100) within the vicinity of the proposed project which appears to travel in a northern direction before being culverted beneath the Meadowbrook Road via. an existing culvert structure and existing hardstanding areas of the urban lands. The Taghadoe stream (aka Joan Slade River) flows directly below the proposed Meadowbrook Cycle Scheme and crosses under the Royal Canal (via an existing culvert) before appearing to continue flowing north partially beneath urban land (Artificial Surfaces) and discharging into the Lyreen River (EPA Code: IE_EA_09L020100) and subsequently the Rye Water River (EPA Code: IE_EA_09R010400) ca. 2km north of the proposed project. The Rye Water River flows in a general south east direction before joining the River Liffey in the town of Leixlip which flows in a general easterly direction to discharge to the Irish Sea ca. 30km from the proposed project.

There are 3no. European sites within the Zone of Influence (Zol) of the proposed project; 3no. Special Areas of Conservation (SACs) and no Special Protection Areas (SPAs). The proposed project does not lie within, nor does it intersect with any European sites. The proposed project is located ca. 2km west / south-west of 1no. SAC; Rye Water Valley/Carton SAC (Site Code: 001398), which is located along the Rye Water River and therefore hydrologically connected to the proposed project. There are no hydrological connections between the proposed project and the other 2no. SAC's within 15km of the proposed project.

There will be no land take from any of the designated sites within 15km of the proposed project and, based on the findings of the Stage 1 Appropriate Assessment Screening report (Atkins, 2022) there will be no potential significant adverse effects to European sites arising from the proposed project.

The proposed project does not lie within a nationally designated conservation area. There is 1no. Natural Heritage Area (NHA) site and 7no. proposed Natural Heritage Area (pNHA) sites within 15km of the proposed project. Of these 8no. pNHAs/ NHAs, 3no. pNHA have connectivity to the proposed project via. surface water features. The Royal Canal pNHA, Rye Water Valley/Carton pNHA and Liffey Valley pNHA all have connectivity to the proposed project via the Taghadoe Stream which runs parallel to the proposed Meadowbrook Road cycle route.

There are no Geological Heritage Areas within the project site or its immediate vicinity. The closest Geological Heritage Areas to the site are Louisa Bridge Cold Spring (Site Code: KE016) and Louisa Bridge Warm Spring (Site Code: KE017) which are located ca. 6km east of the proposed project (GSI, 2022). According to GSI (2022) the cold springs are '*associated with a warm spring formerly used as a spa*' i.e. Louisa Bridge Warm Spring, and is '*characterised by a generally low flow rate, with long periods during the summer when there is no flow*'.

Hydrogeology

There are 4no. GSI registered wells identified along the proposed project route or within its immediate vicinity, all of which have no reported use (GSI, 2022). These wells are reported to a 1km and 2km locational accuracy and therefore their exact locations are not known at this stage.

There are no Public Drinking Water Supply or Group Drinking Water Supply Source Protection Zones within 8km of the proposed scheme (GSI, 2022). The closest Public Drinking Water Supply or Source Protection Zone is the Public Supply Source Protection Area for Dunboyne Public Water Supply located ca. 9.3km north east of the proposed project (GSI, 2022). The closest Drinking Water Supply Source Protection Zone is located ca. 16km north of the proposed project site (GSI, 2022). Taking account of the distance of this public water supply there is no residual risk to regional potable supplies.

The proposed project is underlain by a poor bedrock aquifer which is generally unproductive except for local zones (GSI, 2022). Groundwater vulnerability beneath the proposed project has been classified by GSI (2022) entirely as 'moderate'. The proposed project is within the Dublin groundwater body (EPA Code: IE_EA_G_008) (GSI, 2022).

Geology

The proposed project is underlain by dark limestone and shale within the northern portion and Calcareous shale and limestone conglomeration in the southern portion.

There are no karst features within the vicinity of the proposed project. The closest karst features are 2no. caves at Carton Demesne, which are located ca. 3.5km north east of the proposed scheme. There are no recorded landslides, landslide susceptibility or historic mines reported within the vicinity of the proposed project (GSI, 2022).

Flooding

The Meadowbrook Road portion of the proposed project is reported by OPW (2022) as having a low probability of fluvial flooding or 1-in-a-1000 chance of flooding occurring or being exceeded in any given year within the immediate vicinity of the Taghadoe stream. The potential for flooding within the proposed scheme has been reviewed. A Strategic Flood Risk Assessment (SFRA) was undertaken as part of Kildare County Development Plan (2017-2023) which recommends *'that any planning applications in flood risk areas are accompanied by a supporting appropriately detailed flood risk assessment. This is to ensure a conservative approach and that consideration is given to new development within Flood Zones where mitigation measures may still be required to ensure an appropriate level of flood protection and/or resilience. The detailed assessment should include at a minimum Stage 1 - Identification of Flood Risk. Where flood risk is identified a Stage 2 - Initial FRA will be required, and depending on the scale and nature of the risk a Stage 3 - Detailed FRA may be required.'*

Kildare County Council have confirmed to Atkins that this scheme does not require a site specific FRA.

The nature, along with the location of the proposed scheme, is unlikely to give rise to any potential additional flood risk. No flooding or storm water management issues related to the proposed site are identified as warranting further investigation.

Biodiversity

There are 3no. wetland habitats located within 2km of the proposed project; Lyreen River (ca. 1.5km north) classified as a river/riparian woodland, Lyreen Angling Center (ca. 1.8km north) classified as an artificial pond/reed swamp and Rye Water Valley/Cartron (ca. 2km north) which is encompassed within the SAC. These wetland habitats are vulnerable to changes in hydrology, hydrogeology and water quality. There is a potential indirect hydrological connection to all 3no. of these wetland habitats through the Taghadoe Stream which flows parallel to the proposed project in a northern direction.

There are no Ramsar sites located within the vicinity of the proposed project. There is 1no. Irish Wetland Bird Survey sites (I-webs) located ca. 14.2 km south-west of the proposed project known as Ballynafagh Lake (S101) (I-webs, 2022). However, there are no identified connections from the proposed project area to this site (as it is not located within the immediate vicinity of the study area and not hydrologically linked via surface water features).

Documented Rare and Protected Species (Species Records)

A number of Bird Species which have been designated for Protection under the Wildlife Acts and European Birds Directive have been identified within the vicinity of the proposed project following a search of National Biodiversity Data Centre (NBDC) records. Such species include

- Annex II birds recorded; Rock Pigeon (*Columbia livia*);
- Red Listed birds recorded; Herring Gull (*Larus argentatus*), Black-headed Gull (*Larus ridibundus*); and,
- Amber Listed birds recorded; Barn Swallow (*Hirundo rustica*), Common Starling (*Sturnus vulgaris*), Common Swift (*Apus Apus*), House Martin (*Delichon urbicum*), House Sparrow (*Passer domesticus*), Lesser Black-backed Gull (*Larus fuscus*), Mew Gull (*Iarus canus*), Mute Swan (*Cygnus olor*).

A number of protected mammal species including the Eurasian Badger (*Meles Meles*), Eurasian Pygmy Shrew (*Sorex minutus*) and West European Hedgerow (*Erinaceus europaeus*) were also recorded within the last 8 years.

The proposed project site was surveyed for invasive plant species listed on the third schedule of the EC (Birds and Natural Habitats) Regulations 2011 S.I. No. 477/ 2011. Whilst a review of NBDC records (2022) indicate that Japanese knotweed has been recorded within the vicinity of the junction of Meadowbrook Road and Beaufield Close, the area was subject to site surveys during August 2021 and no evidence of Japanese knotweed was noted.

Archaeology and Cultural Heritage

There are no reported National Inventory of Architectural Heritage (NIAH) sites or Sites and Monuments Record (SMR) features along the proposed project route. The closest historic feature is a railway bridge (Reg. No. 11803132) which is a NIAH feature located ca. 150m north of the proposed project.

The environmental sensitivity of geographical areas likely to be affected by the proposed development are evaluated further within Section 3.3.2 of this report (*'Location of proposed development - The environmental sensitivity of geographical areas likely to be affected by the proposed development'*) as required under Schedule 7 of the relevant regulations.

3.2.2. Description of Aspects of the Environment Likely to be Significantly affected by the Proposed Development (Schedule 7A (2)).

The proposed project is hydrologically connected to the Rye Water Valley/Carlton SAC and 3no. pNHAs. The proposed project does not lie within any European site, Nature Reserves or Natural Heritage Areas (detailed in Section 3.3.2 of this report). There are 3no. European sites within the ZOI of the proposed site. The AA Screening prepared for the proposed project (Atkins, 2022) concluded that *'the proposed Meadowbrook Cycle Scheme, either alone or in combination with other plans or projects, will not result in likely significant effects on the conservation objectives of the Rye Water Valley/Carlton SAC, or any other European site. Thus, it is recommended that it is not necessary for the proposed project to proceed to Appropriate Assessment. Should the scope of the proposed project change in nature or scale, a new Screening for Appropriate Assessment will be required.'*

It will be the responsibility of the Contractor to determine a suitable location for the site compound within the proposed development area, but away from any identified environmental sensitive receptors (watercourses etc) so as to avoid potential impacts to the environment and the general public. The final proposed site compound location will be subject to Client approval. The only other relevant aspects of the environment (including human health), which could potentially be significantly affected by the proposed project are receiving groundwater environment, surface water environment, air quality environment, the receiving noise and vibration environment, and the receiving traffic environment, during the construction phase.

The works will mainly involve excavations to a maximum depth of 0.5m bgl along the existing road networks GSI (2022) have reported a 'moderate' groundwater vulnerability rating beneath the proposed project route.

The Taghadoe stream is crossed by the proposed project via a culvert structure on Meadowbrook Road via an existing culvert structure and flows parallel to the proposed scheme. Works at this stream crossing will be entirely within the footprint of the existing road network and therefore significant impacts are not anticipated. Due to the nature and scale of the project it is anticipated that the construction works, and operation of the proposed project will not have a significant impact on surface water and groundwater quality.

The proposed scheme lies within an urban area and there are sensitive receptors adjacent to the scheme i.e. residential properties along the proposed scheme. Dust may be generated during the construction phase. Construction will require the use of machinery such as dump trucks, mechanic excavators etc. The presence of such machines may result in a temporary increase in noise and dust. The air quality at the proposed project is 'good' (EPA, 2022). However, management of dust will be in line with relevant best practice measures such as those set out in 'Guidelines for the Treatment of Air Quality During the Planning and Construction of National Road Schemes' (NRA, 2011). Due to the nature and scale of the project it is anticipated that the construction works will not have a significant impact on air quality. It is anticipated that the operational phase will likely have a positive impact on air quality.

Noise levels will not exceed the indicative levels of acceptability for construction noise in an urban environment as set out in the NRA guidance 'Good Practice Guidance for the Treatment of Noise during the Planning of National Road Schemes' (NRA, 2014). It is anticipated that the works will be scheduled during day-time hours. Construction contractors will be required to comply with the requirements of the European Communities (Construction Plant and Equipment) (Permissible Noise Levels) Regulations, 1988 as amended in 1990 and 1996 (S.I. No. 320 of 1988, S.I. No. 297 of 1990 and S.I. No. 359 of 1996), and the Safety, Health and Welfare at Work (Control of Noise at Work) Regulations, 2006 (S.I. No. 371 of 2006). Due to the nature and scale of the project it is anticipated that the construction works, and operation of the proposed project will not have a significant impact on noise.

An Arboricultural Impact Statement was prepared for the proposed scheme (Blackstock.P, 2022) and it is anticipated that ca. 42no trees will be removed as part of the scheme along the Meadowbrook Road and Beaufield Close; 5no. of which are recommended for felling for safety reasons or to clear obstructions regardless of any proposed works. These trees are not suitable for bat roosting habitats as they are immature and are aligned along an existing roadway within an urban / sub-urban area. Trees and vegetation shall be protected as required in accordance with BS:5837:2012 during construction and demolition works.

Due to the scale and nature of the project it is anticipated that there may be impacts on traffic volumes during the construction phase of the project. The roadworks will be carried out on a phased basis. A traffic light system or Stop/Go system will be maintained throughout the works area to ensure that traffic is controlled and continues to flow during the construction phase. It is considered that there will be no significant negative impact on traffic during the construction and operational phase of the project.

3.2.3. A Description of Any Likely Significant Effects (To the Extent of The Information Available on Such Effects) of The Proposed Development on The Environment (Schedule 7A(3)).

The Expected Residues and Emissions and the Production of Waste where relevant (Schedule 7A (3)(a)).

The proposed project may give rise to air, noise, water emissions and waste. However, the proposed project will be designed in order to minimise any potential impacts as a result of these emissions during the operational phase. Standard mitigation measures will be implemented by the Contractor to address potential air and noise emissions during the construction phase. The Contractor will ensure that onsite storm water management during the construction phase is carried out in accordance with relevant best practice measures as set out in Construction Industry Research and Information Association (CIRIA) guidance 'C532 - Control of Water Pollution from Construction Sites'.

Given the scale and nature of the proposed development any such waste is likely to be generated in very minor volumes. During the construction phase the following waste streams will be generated: construction and demolition (C&D) waste including redundant road signage, kerbs, footways and asphalt / road surface, mixed municipal waste (MMW), recyclables such as plastic wrapping, wooden pallets, paper and/or waste electrical and electronic equipment (WEEE). Waste Volumes will be determined at detailed design stage. All waste will be removed on a regular basis to a designated area in the proposed site compound where it will be segregated and temporarily stored before being recycled or disposed of by the Contractor to an appropriately licenced waste recovery or waste disposal facility. All waste generated will be disposed of by the Contractor in accordance with all relevant waste management legislation. The Contractor will be responsible for segregating each waste type as per the relevant List of Waste (LoW) (also referred to European Waste Catalogue (EWC) code). All waste materials must be removed offsite by a suitably permitted waste haulage contractor who holds a current valid waste collection permit issued by the National Waste Collection Permit Office (NWCPPO).

The Contractor will be obliged to prepare a project specific Construction and Demolition (C&D) Waste Management Plan (WMP) prior to commencement of the proposed development in accordance with the relevant guidelines 'Best Practice Guidelines on the Preparation of Waste Management Plans for Construction and Demolition Projects' prepared by the DoEHLG.

The operational phase of the project should be accompanied by an increase in cyclists and an associated reduction in vehicular traffic. The proposed scheme is not likely to have a significant environmental effect with regard to expected residues and emissions and the production of waste.

The Use of Any Natural Resources in particular soil, land, water and biodiversity (Schedule 7A (3)(b)).

During the construction of the proposed project natural resources in the area will not be required to facilitate the provision of this project. There will be no land take for the proposed project as it will be entirely within the existing road network / footpaths. It is anticipated that ca.42no. trees will be removed as part of this scheme; 5no. of these are recommended for felling regardless of proposed works. Trees and vegetation shall be protected as required in accordance with BS:5837:2012 during construction and demolition works.

The proposed project involves an anticipated maximum excavation depth of 0.5m bgl to facilitate the foundation for the proposed footpaths / pavements and the ducting for the signalling associated with the scheme. All soil requiring disposal offsite will require waste classification in accordance with EPA requirements as set out in the documents 'Waste Classification List of Waste & Determining if Waste is Hazardous or Non-hazardous' (EPA, 2015), and 'Determining if waste is hazardous or non-hazardous' (EPA, 2018), and all relevant waste management legislation. In addition to screening against relevant WAC, the preparation of a waste classification tool (hazwaste online / EPA paper tool or similar etc.) will be required to be carried out in order to determine the relevant LoW / EWC code for the transport of any waste soils which require offsite removal and disposal.

Soils may be reused onsite where suitable. Engineering grade fill material (hardcore or similar) will be imported to the site during the proposed works. The use of other natural resources with respect to soils and land will not be required arising from the proposed project.

Therefore, based on the environmental setting, and taking account of the nature, scale and location of the proposed project other than standard construction materials, the proposed project (during both construction and operational phases) will not have a significant impact on natural resources.

3.2.4. The Compilation of The Information at Paragraphs 1 To 3 Shall Take into Account, where Relevant, the Criteria set out in Schedule 7 (Schedule 7A(4)).

All relevant criteria set out in Schedule 7 of the Regulations is presented in Section 3.2 (*'Criteria for Determining Whether Development Listed in Part 2 of Schedule 5 Should be subject to an EIA'*) of this screening report.

During the preparation of Sections 3.3.1 to 3.3.3 (i.e. Schedule 7A (1) to (3)) all pertinent Schedule 7 information has been taken account of as required, with specific details presented in the following section of this report (Section 3.3 and 3.4).

3.3 Criteria for Determining Whether Development Listed in Part 2 of Schedule 5 Should be subject to an EIA

3.3.1 Characteristics of proposed development (Schedule 7(1))

The size and design of the whole of the proposed development (Schedule 7(1)(a))

Refer to Section 3.2.1 under *'A description of the Physical Characteristics of the Whole Proposed Development and Where Relevant of Demolition Works (Schedule 7A (1) (a))'*.

Cumulation with other existing development and/or development the subject of a consent for proposed development for the purposes of section 172(1A)(b) of the Act and/or development the subject of any development consent for the purposes of the Environmental Impact Assessment Directive by or under any other enactment (Schedule 7(1) (b))

Committed Development

A search of Kildare County Planning records has been undertaken for the applications submitted within the past 5 years. This search identified over 50no. developments, given the urban location of the proposed project. The majority of these developments have already been constructed or are of small scale in nature (i.e. extension works, or property retention works) or are considered to be a reasonable distance from the proposed works and have therefore not been considered further. 2no. relevant developments have been further evaluated with respect to cumulative impacts with the proposed Meadowbrook Cycle Scheme, as follows;

- **Anthony Murray. Change of use of retail unit (201461). Granted March 2021.**

This development will be constructed adjacent to the proposed project and accessed off Meadowbrook Road along which the proposed project is aligned. This planning permission is for the change of use of an existing retail unit to a pizza takeaway and works will be minor in nature. There may be a cumulative impact on traffic, dust and noise; however due to the nature and scale of the project it is not anticipated that these impacts will be significant. No significant cumulative impacts are anticipated.

- **Tanya & Stephen Nevin. Construction of detached dwelling house and associated works (19625). Granted August 2019.**

This development will be constructed to the north of the proposed project and will be accessed off Meadowbrook Road to the north of the proposed project. This planning permission is for the construction of a detached two-storey house and associated site works. There may be a cumulative impact on traffic, dust and noise; however due to the nature and scale of the project it is not anticipated that these impacts will be significant. No significant cumulative impacts are anticipated.

Given the nature, scale and location of these granted developments and the proposed project no significant impacts are anticipated. It is considered the proposed Meadowbrook Cycle Scheme will not act in combination to give rise to any cumulative impacts.

3.3.1.1 The nature of any associated demolition works (Schedule 7(1)(c))

Refer to Section 3.2.1 under *'A description of the Physical Characteristics of the Whole Proposed Development and Where Relevant of Demolition Works (Schedule 7A (1) (a))'*. No demolition works are proposed as part of the proposed project.

3.3.1.2 The use of natural resources, in particular land, soil, water and biodiversity (Schedule 7(1)(d))

Refer to Section 3.2.3 under *'The Use of Any Natural Resources in particular soil, land, water and biodiversity (Schedule 7A (3)(b))'*. The use of natural resources with respect to soils and land will not be required arising from the proposed project.

3.3.1.3 The production of waste (Schedule 7(1)(e))

Refer to Section 3.2.3 under ‘*The Expected Residues and Emissions and the Production of Waste where relevant (Schedule 7A (3)(a))*.’ The proposed project is not likely to have a significant environmental effect with regard to the production of waste. All waste will be removed to an appropriately licenced/ permitted waste disposal/ recovery facility.

3.3.1.4 Pollution and nuisances (Schedule 7(1)(f))

Refer to Section 3.2.2 under ‘*Description of Aspects of the Environment Likely to be Significantly affected by the Proposed Development (Schedule 7A (2))*.’ There will be minimal impact on the Taghadoe stream and Rye Water Valley/Carlton SAC/pNHA due to the limited nature of works proposed to be carried out (refer to section 3.2.1) and all works will be completed on the existing road networks.

The construction phase of the project may generate waste such as metals, asphalt, construction and demolition waste, plastic wrapping, wooden pallets or soil arisings. As outlined previously (under ‘*The production of waste (Schedule 7(1)(e))*’), appropriate robust waste management procedures will be implemented by the Contractor to ensure that any minimal volumes of waste which will be generated during the construction phase do not pose a pollution / nuisance risk to the receiving environment.

In the event that any excavated soils need to be disposed of offsite as part of the proposed project, such soils/waste material will require waste classification in accordance with EPA requirements as set out in the documents ‘Waste Classification List of Waste & Determining if Waste is Hazardous or Non-hazardous’ (EPA, 2015), and ‘Determining if waste is hazardous or non-hazardous’ (EPA, 2018), and all relevant waste management legislations. In addition to screening against relevant WAC, the preparation of a waste classification tool (hazwaste online / EPA paper tool or similar etc.) will be required to be carried out in order to determine the relevant LoW / EWC code for the transport of any waste soils/material which require offsite removal and disposal.

The nearest sensitive receptors (dwelling) are located along the proposed project. Dust may be generated during the construction phase. However, management of dust will be in line with best practice such as that set out in ‘*Guidelines for the Treatment of Air Quality During the Planning and Construction of National Road Schemes*’ (NRA, 2011).

Construction will require the use of machinery such as excavators etc. and the presence of such machines may result in a temporary increase of noise. The contractor will be required to avoid leaving machinery idling and required to change reverse indicators beepers. Noise levels will not exceed the indicative levels of acceptability for construction noise in an urban environment as set out in the NRA guidance ‘*Good Practice Guidance for the Treatment of Noise during the Planning of National Road Schemes*’ (NRA, 2014). The majority of the works will be carried out during daytime hours.

No significant impacts from pollution or nuisances are anticipated from the proposed project.

3.3.1.5 The risk of major accidents, and/or disasters which are relevant to the project concerned, including those caused by climate change, in accordance with scientific knowledge (Schedule 7(1)(g))

There is 1no. Seveso (Control of Major Accident Hazards Regulations (COMAH)) establishment within 15km of the proposed project; Intel Ireland Limited is an Upper Tier Seveso site located in Leixlip ca. 4.5km east of the proposed project. Due to the distance of Intel Ireland Limited from the proposed project, the proposed works are not located in a high-risk area with respect to major accidents/ disasters and is outside the consultation distance as per Table 2 of the Schedule 8 of the Planning and Development Regulation, 2001 (S.I. No. 600/2001). Due to the nature and scale of the proposed project, it is not anticipated that there will be a significant impact on this Seveso site.

The potential for flooding within the proposed scheme has been reviewed. A Strategic Flood Risk Assessment (SFRA) was undertaken as part of Kildare County Development Plan (2017-2023) which recommends ‘*that any planning applications in flood risk areas are accompanied by a supporting appropriately detailed flood risk assessment. This is to ensure a conservative approach and that consideration is given to new development within Flood Zones where mitigation measures may still be required to ensure an appropriate level of flood protection and/or resilience. The detailed assessment should include at a minimum Stage 1 - Identification of Flood Risk. Where flood risk is identified a Stage 2 - Initial FRA will be required, and depending on the scale and nature of the risk a Stage 3 - Detailed FRA may be required.*’ Kildare County Council have confirmed to Atkins that this scheme does not require a site-specific FRA.

Refer to 3.3.1 under ‘*A Description of the Location of the Proposed Development, with Particular Regard to the Environmental Sensitivity of Geographical Areas Likely to be Affected (Schedule 7A(1)(b))*.’

3.3.1.6 The risks to human health (for example, due to water contamination or air (Schedule 7(1)(h)) pollution)

Dust may be generated during the construction phase. However, management of dust will be in line with best practice such as that set out in 'Guidelines for the Treatment of Air Quality During the Planning and Construction of National Road Schemes' (NRA, 2011).

Noise levels during the construction phase, will not exceed the indicative levels of acceptability for construction noise in an urban environment as set out in the NRA guidance '*Good Practice Guidance for the Treatment of Noise during the Planning of National Road Schemes*' (NRA, 2014). The Contractor will be required to comply with the requirements of the European Communities (Construction Plant and Equipment) (Permissible Noise Levels) Regulations, 1988 as amended in 1990 and 1996 (S.I. No. 320 of 1988, S.I. No. 297 of 1990 and S.I. No. 359 of 1996), and the Safety, Health and Welfare at Work (Control of Noise at Work) Regulations, 2006 (S.I. No. 371 of 2006). No significant impact on human health due to noise pollution is anticipated to occur during the operational phase of the project.

There are no reported public drinking water supplies within a 2km radius of the project (GSI, 2022). It has been noted that the proposed project is underlain by a poor bedrock aquifer which is generally unproductive except for local zones with groundwater vulnerability classified as 'moderate'. Due to the nature and scale of the proposed project it is not anticipated to have a significant impact on groundwater.

Given the location, nature and scale of the proposed project, the overall risk to human health is low.

3.3.2 Location of proposed development - The environmental sensitivity of geographical areas likely to be affected by the proposed development (Schedule 7(2))

The existing and approved land use (Schedule 7(2)(a))

The project will be constructed within an urban setting to the south of Maynooth Town along the existing Meadowbrook Road and Beaufield Close which are maintained by Kildare County Council. The proposed project and surrounding area are dominated by land use zoned as '*Existing Residential & Infill*' and '*Open Space and Amenity*'

The location of the proposed project has been detailed previously in Section 3.3.1 under Schedule 7A (1)(a).

The relative abundance, availability, quality and regenerative capacity of natural resources (including soil, land, water and biodiversity) in the area and its underground (Schedule 7(2)(b))

Refer to Section 3.2.3 under *The Use of Any Natural Resources in particular soil, land, water and biodiversity (Schedule 7A (3)(b))*.

During the construction of the proposed project natural resources will not be required to facilitate the provision of this project.

The absorption capacity of the natural environment, paying particular attention to the following areas (Schedule 7(2)(c)):

(i) Wetlands, riparian areas, river mouths

There are 3no. wetland habitats located within 2km of the proposed project; Lyreen River (ca. 1.5km north) classified as a river/riparian woodland, Lyreen Angling Center (ca. 1.8km north) classified as an artificial pond/reed swamp and Rye Water Valley/Carlton (ca. 2km north) which is encompassed within the SAC. Based on the location, nature and scale of the proposed project there are no significant impacts to this wetland site anticipated.

(ii) Coastal zones and the marine environment

The proposed project is located ca. 30km from the Irish Sea. Therefore, it is not anticipated that it will have a significant impact on the coastal zone or marine environment.

(iii) Mountain and forest areas

There are no mountain areas within 2km of the proposed project and therefore no impacts on this habitat type.

(iv) Nature reserves and parks

There are no nature reserves or national parks located within 15km of the proposed project.

(v) Areas classified or protected under legislation, including Natura 2000 areas designated pursuant to the Habitats Directive and the Birds Directive

There are 3no. European sites within the ZoI of the proposed project; 3no. SACs). The proposed project does not lie within, nor does it intersect with any European sites. The proposed project is located ca. 2km east / south-east of 1no. SAC, Rye Water Valley/Carton SAC (Site Code: 001398), which is located along the Rye Water River and therefore hydrologically connected to the proposed project. There is 1no. Natural Heritage Area (NHA) site and 7no. proposed Natural Heritage Area (pNHA) sites within 15km of the proposed project. Of these 8no. pNHAs/ NHAs, 3no. pNHA have connectivity to the proposed project via surface water features. The Royal Canal pNHA, Rye Water Valley/Carton pNHA and Liffey Valley pNHA all have connectivity to the proposed project via the Taghadoe stream which crosses under and runs parallel to the proposed Meadowbrook Road cycle route.

The risk from the indirect hydrological link between the proposed project and the Rye Water Valley/Carton SAC, Royal Canal pNHA, Rye Water Valley/Carton pNHA and Liffey Valley pNHA is negated due to the scale and nature of the proposed project and fundamentally as the lands made available for the works have been identified within the existing street boundaries.

The excavations associated with the construction of the project will be relatively shallow (ca. <0.5m bgl) and therefore no significant impacts on groundwater are likely. As such there are no indirect impacts anticipated through hydrogeological pathways, either during the construction or operation of the project, on any internationally or nationally designated conservation sites.

It is considered that the proposed project will not give rise to significant effects on Rye Water Valley/Carton SAC, Royal Canal pNHA, Rye Water Valley/Carton pNHA and Liffey Valley pNHA. There is no anticipated potential for significant impact on areas classified or protected under legislation.

(vi) Areas in which there has already been a failure to meet the environmental quality standards laid down in legislation of the European Union and relevant to the project, or in which it is considered that there is such a failure.

The proposed project lies within the Dublin groundwater body (GWB) (EPA Code: IE_EA_G_008) which has a 'good' water quality status for the period of 2013-2018 (EPA, 2022). Its risk of failing to meet WFD objectives is currently under 'review'. Due to the nature and scale of the works the proposed project is not anticipated to significantly impact groundwater quality.

The Taghadoe stream flows below the proposed Meadowbrook road route via a culvert structure and crosses under the Royal Canal (via an existing culvert) before appearing to continue flowing north partially beneath urban land (Artificial Surfaces) and discharging into the Lyreen river (EPA Code: IE_EA_09L020100) and subsequently the Rye Water River (EPA Code: IE_EA_09R010400) ca. 2km north of the proposed project. The Rye Water River flows in a general south east direction before joining the River Liffey in the town of Leixlip which flows in a general easterly direction to discharge to the Irish Sea ca. 30km from the proposed project.

The Taghadoe stream and Lyreen River have been assigned 'poor' water quality status under the WFD for the period of 2013-2018; and is 'at risk' of failing to meet the relevant WFD objectives. The Rye Water River has been assigned a 'moderate' water quality status upstream and downstream (for a distance) of the joining point of the Lyreen River and a 'poor' good quality status further downstream. However, both upstream and downstream stretches of the watercourse is 'at risk' of failing to meet the relevant WFD objectives.

It is considered that due to the nature and scale of the project the works will not have a significant impact on baseline surface water quality.

Air quality in the area is reported as 'good' (EPA, 2022). Dust may be generated during the construction phase which has the potential to impact on human health. However, management of dust will be in line with best practice such as that set out in 'Guidelines for the Treatment of Air Quality During the Planning and Construction of National Road Schemes' (NRA, 2011). Due to the nature and scale of the project it is anticipated that there will be no significant impact on air quality.

It is anticipated that during construction there may be an increase in noise volumes. Noise levels shall not exceed the indicative levels of acceptability for construction noise in a rural environment as set out in the TII guidance 'Good Practice Guidance for the Treatment of Noise during the Planning of National Road Schemes' (TII, 2014).

It is considered that due to the nature and scale of the works there will be no significant impact on baseline air and water quality from the proposed project.

(vii) Densely populated areas

The proposed project will be constructed within the town of Maynooth which is a densely populated area. The project will be constructed within the existing Meadowbrook Road and Beaufield Close road corridors. Maynooth Town had a population of 14,585 in 2016 (CSO, 2016). It is anticipated that there will be no significant negative impact on densely populated areas during construction. The creation of the cycle scheme will reduce the volume of vehicular traffic using the route, will improve air quality and noise levels and provide additional social and recreational infrastructure. It is considered therefore that the proposed project will potentially have a positive impact on this densely populated area during the operational phase.

(viii) Landscapes and sites of historical, cultural or archaeological significance

Refer to 3.3.2 under 'A Description of the Location of the Proposed Development, with Particular Regard to the Environmental Sensitivity of Geographical Areas Likely to be Affected (Schedule 7A(1)(b)).'

There are no Record of Monuments & Places (RMP) features or National Inventory of Architectural Heritage (NIAH) sites within close proximity of the site.

The proposed project will be constructed predominantly within the footprint of the existing Meadowbrook Road and Beaufield Close.

There are no protected views or landscapes along the proposed route.

It is considered that due to the nature and scale of the works there will be no significant impact on landscapes and sites of historical, cultural or archaeological significance from the proposed project.

3.3.3 Types and characteristics of potential impacts (Schedule 7(3))

The likely significant effects on the environment of the proposed project have been evaluated taking into account the following specific criteria.

The magnitude and spatial extent of the impact (for example, geographical area and size of the population likely to be affected) (Schedule 7(3)(a))

The spatial extent of potential impacts is limited to the localised footprint of the proposed project (refer to Figure 1-1). Based on the location, current site setting, and the nature of the proposed project, any potential impacts (during the construction and operational phases) are not likely to be significant in magnitude.

The nature of the impact (Schedule 7(3)(b))

There will be no significant impact on the receiving environment arising from the proposed project (during the construction or operational phases).

The transboundary nature of the impact (Schedule 7(3)(c))

There is no potential for transboundary impacts as a result of the proposed project (during the construction or operational phases).

The intensity and complexity of the impact (Schedule 7(3)(d))

There will be no significant impact on the receiving environment arising from the proposed project (during the construction or operational phases).

The probability of the impact (Schedule 7(3)(e))

The probability of impacts on the receiving environment is low given the following considerations:

- The receiving environment is not considered to be at risk of significant impact due to the nature and scale of the proposed project; and,

- The Contractor will be obliged to implement standard best practice procedures prior to commencement of the proposed project including all environmental control measures for the onsite management of any pollution / nuisance issues which could arise during the construction phase.

The expected onset, duration, frequency and reversibility of the impact (Schedule 7(3)(f))

The probability of impacts on the receiving environment is considered to be low, as previously outlined. Therefore, there shall be no requirement for the reversibility of the impacts caused by this project (during the construction or operational phases).

The cumulation of the impact with the impact of other existing and/or development the subject of a consent for proposed development for the purposes of section 172(1A)(b) of the Act and/or development the subject of any development consent for the purposes of the Environmental Impact Assessment Directive by or under any other enactment (Schedule 7(3)(g))

As previously detailed no significant cumulative impacts associated with the project (during the construction or operational phases) have been identified, arising from other existing and/or approved projects. Refer to Section 3.3.1 under '*Cumulation with other existing development and/or development the subject of a consent for proposed development for the purposes of section 172(1A) (b) of the Act and/or development the subject of any development consent for the purposes of the Environmental Impact Assessment Directive by or under any other enactment (Schedule 7(1) (b))*'.

The possibility of effectively reducing the impact (Schedule 7(3)(h))

Significant effects on the receiving environment are not anticipated as a result of the provision of the proposed project (during the construction or operational phases).

3.4 Potential for Significant Effects on the Receiving Environment

All relevant information as required under Schedule 7A has been provided on behalf of Kildare County Council and is presented within Section 3.2 of this screening report. The potential for this project to pose a significant impact to the receiving environment has also been evaluated in accordance with criteria listed Planning and Development Regulations (2001-2021) (Schedule 7), as presented within Section 3.2 of this screening report.

Based on the information provided within Section 3.2 and 3.3 of this report, and summarised below, it is considered that due to the size, nature, and characteristics of the proposed development, no significant effects on the receiving environment are expected; hence the preparation of a sub-threshold EIAR is not required.

3.5 Screening Conclusion

This EIA screening report has been carried out in accordance with the Planning and Development Regulations as amended 2001- 2021 (which give effect to the provisions of EU Directive 2014/52/EU), and the Roads Acts 1993-2021. The report assessed the impact of the Meadowbrook Cycle Scheme in conjunction with committed developments in the surrounding area.

Based on all available information, and taking account of the scale, nature and location of the proposed project it is our opinion that the preparation of an EIAR is not a mandatory requirement (under Section 50 of the Roads Acts 1993-2021). The project is deemed a sub-threshold development; hence the potential for significant environmental effects arising as a result of the proposed project has been evaluated, in accordance with the requirements of Schedule 7A and Schedule 7 of the Planning and Development Acts 2001-2021.

Key findings are summarised as follows;

- Due to the limited nature of the works it is considered that there will be no significant cumulative impacts with other developments in the general area;
- Limited noise, vibration and dust emissions may be generated during construction; however, this is anticipated to be minimal in effect and will cause no significant impact;
- Soil and waste may be generated during construction; however, this is not anticipated to have significant effect;
- There will be no land take required for the proposed project;
- There will be no significant impact on biodiversity, groundwater, surface water or traffic; and,
- There will be no impact on recorded monuments or historic features.

In summary, no significant adverse impacts to the receiving environment will arise as a result of the proposed project.

Accordingly, we consider that the preparation of an EIAR is not required for the Meadowbrook Cycle Scheme. However, the competent authority will ultimately determine whether an EIA is required or not.

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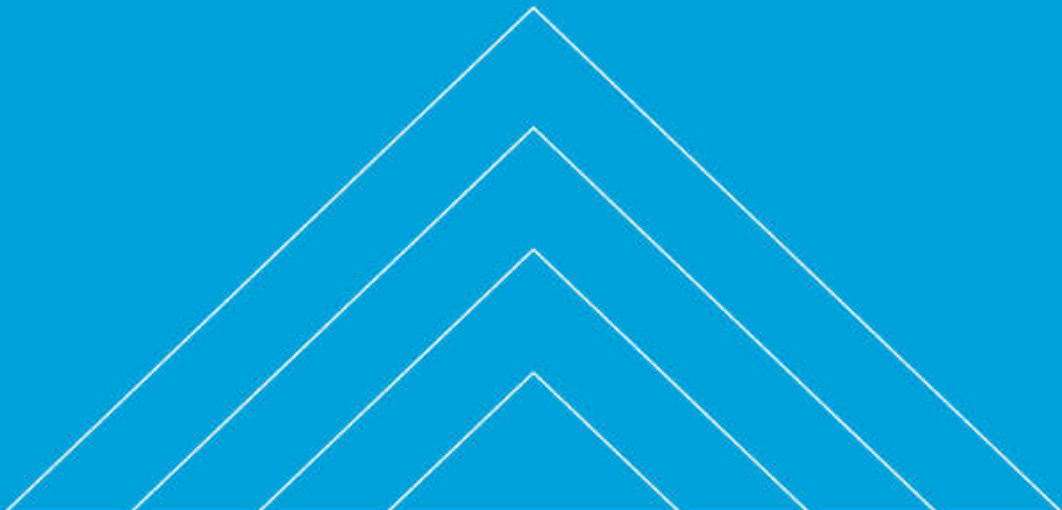
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Appendices



Appendix A. Drawings

Refer to Appendix A of Part 8 Report (Doc. Ref.
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