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Navan Cycle Scheme - R147 Poolboy Bridge to Kells Road Roundabout

Environmental Impact Assessment Screening

Meath County Council

November 2022

Notice

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Document history

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Client Sign off

Client	Meath County Council
Project	Navan Cycle Scheme – R147 Poolboy Bridge to Kells Road
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1. Introduction

Meath County Council (MCC) have appointed Atkins to prepare an Environmental Impact Assessment (EIA) Screening Report, to accompany a Part 8 Planning Application for the proposed Navan Cycle Scheme R147 Poolboy Bridge to Kells Road Roundabout, in order to provide improved facilities for pedestrians and cyclists.

Meath County Council intend to submit a Part 8 Planning Application for the development of a cycle route in order to provide improved facilities for pedestrians and cyclists in the town of Navan.

Atkins Ireland have been commissioned by Meath County Council to prepare a Screening for Appropriate Assessment (AA) report for the proposed Navan Cycle Scheme – R147 Poolboy Bridge to Kells Road Roundabout and all associated works in Navan Town. See Figure 1-1 below for an overview of the project location.

1.1. Proposed Project

The proposed scheme will consist of ca. 1.1km of segregated cycle and pedestrian facilities along R147 Dublin Road Navan and N51 Inner Relief Road, commencing at the tie in with the proposed Local Distributor 4 scheme, continuing east to an upgraded signalised junction at the Balmoral Industrial Estate and on to an upgraded signalised junction at the Navan Fire Station, with the scheme to be terminated at the junction of the R147 and Flowerhill (Poolboy Bridge).

The Navan Cycle Scheme 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 scheme is aligned with National Policy and is in keeping with the objectives of the Meath County Development Plan and Navan Development Plan.

1.2. Purpose of this Report

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 summarized overview of the potential significant 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 Screening for AA concluded that *'the proposed Navan Cycle Scheme - R147 Poolboy Bridge to Kells Road Roundabout project, either alone or in-combination with other plans or projects, will not result in likely significant effects on River Boyne and River Blackwater SAC, River Boyne and River Blackwater SPA or any other European site. Thus, it is recommended that it is not necessary for the project to proceed to Appropriate Assessment.'*

Figure 1-1 - Proposed Scheme 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* (EPA, 2022), the Environmental Impact Directive (85/337/EEC) and all subsequent relevant amendments, Planning and Development regulations (2001-2022), 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 2001-2022.

  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, Meath 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 - 2022 (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.

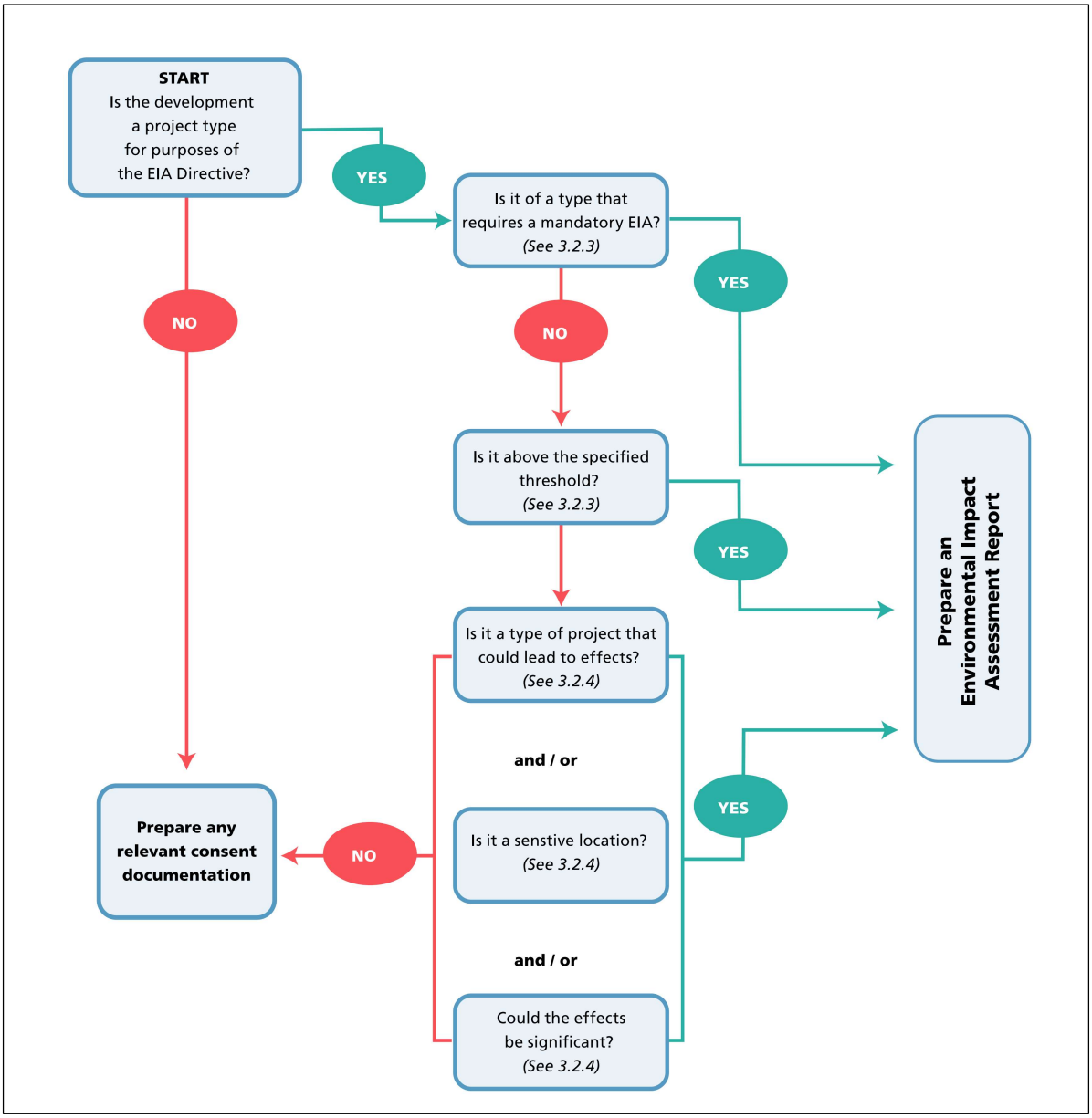


Figure 2-1 - EIA Screening Process (Source: 'Guidelines on the information to be contained in Environmental Impact Assessment Reports (EPA, 2022)).

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.

Criteria to evaluate whether significant impacts on the receiving environment will arise from a proposed roads development are listed under Schedule 7 of the relevant Planning & Development Regulations (2001-2022).

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 scheme has been screened against the criteria outlined in Section 50(1)(a) of the Roads Act 1993-2021[1] and Article 8 of S.I. No. 119/1994- Roads Regulations, 1994[2]. 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 Meath 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, 2001-2022 (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 scheme consists of a ca. 1.1km pedestrian and cycling improvements along the R147 and N51. The scheme has been broken down into general sections to provide for various link design types. These sections are as follows:

> Link A: LDR4 Scheme Tie in to N51 Kells Road / R895 Canon Row (Balmoral) Junction. This Link will comprise of the following proposed cross-sectional widths:
>
> - 2No. 1.8-2.0m wide footpaths;
> - 2No. 1.75-2.0m wide one-way cycle tracks; and
> - 2No. 3.25m wide traffic lanes.
>
> Link B: N51 Kells Road / R895 Canon Row (Balmoral) Junction to R147 Kells Road / N51 Junction. This Link will comprise of the following proposed cross-sectional widths:
>
> - 2No. 2m wide footpaths;
> - 2No. 2m wide one-way cycle tracks; and
> - 4No. 3m wide traffic lanes.

[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

Link C: R147 Kells Road / N51 Junction to R147 Kells Road / Watergate St – Flower Hill (Poolboy Bridge) Junction. This Link will comprise of the following proposed cross-sectional widths:

- 2No. 2m wide footpaths;
- 2No. 2m wide one-way cycle tracks; and
- 4No. 3m wide traffic lanes.

Design drawings are presented in Appendix A.

3.2.2. Construction Methodology

The Construction period for the proposed scheme is 12 months and can be summarised as follows.

3.2.2.1. Cycle path Construction

Works will commence with the clearance and off-site removal of redundant road signage, boundary treatment, road surface materials and topsoil. The works will be undertaken using a combination of operatives using hand tools, mechanical excavators and dumper trucks.

To accommodate the provision of the necessary pedestrian and cyclist infrastructure, the proposed scheme does require the removal of several trees (as noted within the Preliminary Design Drawings), particularly between the Balmoral and Poolboy Bridge junctions. 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, new trees, new hedging and street furniture is proposed at selected locations at junctions and along the links as noted in the Drawings.

To facilitate the main works, underground utilities which conflict with the main works will be uncovered using mechanical excavators and hand digging where appropriate. The need for significant utility diversions is not envisaged as part of the works; instead a 'lower and protect' approach will be favoured. This is likely to be restricted to locations where the walking and cycling facilities cross or interface with public roads.

Following the diversion of utilities, the initial pavement and cycle path construction phase will be undertaken. This will include the excavation and removal of the existing stone, soil, concrete ad bitumen materials along the route followed by the installation of new path and track base materials. Excavations will be largely undertaken by mechanical means, with any spoil arisings to be removed off site or reused locally where testing confirms its suitability. The proposed project involves an anticipated maximum excavation depth of 500mm below ground level to facilitate the base layers for the proposed footpaths / pavements and the ducting for the signalling associated with the scheme. The base layers of the pavement and track are to be made of compacted stone materials.

The works will also involve constructing the civil engineering elements required to facilitate the commissioning of the traffic signals and the public lighting elements at the latter stages of construction. Service chambers and underground duct sets will be laid within trenches and backfilled with granular material. Signal poles and public lighting columns will be erected, and ducting connections will be made to the base of each pole unit. Following completion of the lighting elements, the final pavement surface course will be laid using an asphalt paving machine followed by compaction using a vibrating roller.

3.2.2.2. Road Resurfacing

The scheme also involves the resurfacing of the roadways and painting of new road markings within the scheme footprint. The existing road surface course layer will be planed-out throughout the entire scheme extents with planings being removed off site. The planed-out area will be replaced with Hot Rolled asphalt (HRA) or Stone Mastic Asphalt (SMA) surface course ca. 40mm - 60mm thick. Additional to this, and where required, additional bituminous layers may be replaced in localised areas where there is evidence of pavement failure. It is not envisaged that the foundations layers (i.e. sub-base or capping) will require replacement. Following road resurfacing new road markings will be painted on road surfaces.

3.2.2.3. Footpath Construction

The construction of the cycleway will also involve the relocation and installation of footpaths and kerbs adjacent to the cycleway. Footpaths will be constructed similar to the cycleway; excavation of existing footpath with materials removed off site to a licenced waste facility, excavations along footpath alignment to depths of maximum 500mm, infill of footpath subbase materials (compacted stone) and the pouring of concrete footpaths in shuttered sections. A circa. 60mm high poured concrete kerb will also be installed along the footpath edge.

3.2.2.4. Drainage Alterations

Drainage works, which will 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. The drainage works at these locations are limited to the relocation of existing road gullies with the larger existing road drainage infrastructure (i.e. carrier drains) not being altered or adjusted. During these works the main carrier drains will be isolated / blocked off from works activities / work zones to facilitate the relocation of drainage gullies.

Typically, drainage will be provided using new gullies (relocated to alongside the proposed kerb positions) connecting to the existing surface water drainage infrastructure / main carrier drain. The new footpaths and cycle paths will generally slope towards the road in order to minimise the need for additional drainage collection measures specific for these facilities. 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 path 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 details of this will be further developed during the Detailed Design stage of the project

3.2.2.5. Verge Reinstatement

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.

There will be no demolition works associated with this project.

3.2.2.6. Traffic Management

The construction of the cycleway will be carried out in short segments (ca.100-200m in length) on one side of the roadway at a time to allow for continued traffic flow and will progress along the roadways, as such individual work zones will be relatively small.

3.2.2.7. Junctions

Three of the scheme's junctions will be fully segregated. This will feature cyclists passing through the junction on their own cycle paths with dedicated traffic signal phases which are separate to the vehicular phasing and separate to pedestrian phasing (where applicable). The proposed junctions are to include kerb upstands throughout (except at crossing points), providing vertical segregation and thereby increasing protection to the cycle paths. The Poolboy Bridge Junction will feature on road cycle lanes, as shown on the Design Drawings (Figure 1.3).

3.2.2.8. Site Compound

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, designated sites etc) so as to avoid potential impacts to the environment and the general public. The final proposed site compound location will not be permitted within the River Boyne and River Blackwater SAC / SPA nor within 25m of the River Boyne. It is planned that existing Local Authority (Meath County Council) controlled material storage yards in the locality, currently used for the storage of inert materials, will be utilised during the construction phase to store similarly inert materials for incorporation in the proposed scheme. Materials will be brought to site on a periodic basis as required directly from suppliers. Parking for operatives will be at the main compound only. Operatives will be transported from the compound to the works area. No parking will be allowed within the temporary works area or on-street.

3.2.2.9. Scheme connectivity

The western extent of the proposed Navan Cycle Scheme – R147 Poolboy Bridge to Kells Road will connect with existing cycle schemes on Beafort Road and Athboy Road, as well as another proposed and permitted scheme; the LDR4 Scheme at the Kells Road Roundabout, which in turn connects to existing cycling facilities on the N51 south of the existing roundabout.

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 proposed scheme will be constructed within the town of Navan along the existing road corridor.

Under the Draft Directions of the Material Amendments to the Meath County Development plan 2021-2027 (MCC, 2021) the following zoning objectives have been identified adjacent to the footprint of the proposed project:

- A1 - Existing Residential defined by MCC (2021/2027) as '*To protect and enhance the amenity and character of existing residential communities.'*
- A2 - New Residential defined by MCC (2021-2027) as '*To provide for new residential communities with ancillary community facilities, neighbourhood facilities and employment uses as considered appropriate for the status of the centre in the Settlement Hierarchy.'*
- B1 - Commercial Town or Village Centre, defined by MCC (2021-2027) as '*To protect, provide for and/or improve town and village centre facilities and uses.'*
- C1 – Mixed Use defined by MCC (2021-2027) as 'To provide for and facilitate mixed residential and employment generating uses'
- F1 - Open Space defined by MCC (2021-2027) as '*To provide for and improve open spaces for active and passive recreational amenities*; and,
- H1 – High Amenity defined by MCC (2021-2027) as '*To protect and improve areas of high amenity'*
- G1- Community Infrastructure defined by MCC (2021-2027) as '*To provide for necessary community, social, and educational facilities'*

It is considered that the proposed scheme is fully compatible with the zoning requirements of the development strategy for Navan, under the Meath County Development Plan 2021-2027. Additionally the entire scheme will be constructed within existing road corridors and verges. The Development Plan clearly sets out the development of cycling and pedestrian linkages with the following aims relevant to the Navan Cycle Scheme:

- The Plan will seek to support and facilitate an increase in modal share for cycling and increases in the use of the bus network in the County.
- Inclusion of measures to improve the efficiency and sustainability of urban transport including improved and expanded public transport capacity; walking and cycling infrastructure; improved traffic management and bus priority; and better use of Intelligent Transport Systems (ITS), where appropriate.
- To promote the use of mobility management and travel plans to bring about behaviour change and more sustainable transport use.

Hydrology and Designated Sites

While the majority of the proposed pedestrian and cycle scheme will be located on made ground it is proposed that small portions of grassland / road verges will be utilised on the landside areas of the N51 and R147.

The proposed scheme is located within the Boyne Water Framework Directive (WFD) catchment area and the Boyne sub-catchment area. The Blackwater (Kells) and Boyne River are within the immediate vicinity to the proposed scheme. The Blackwater (Kells) River has been assigned a 'Poor' WFD status and is 'At Risk' of failing to meet relevant WFD objectives by 2027. The Boyne has been assigned a 'Good' WFD status upstream of the confluence point with the Blackwater (Kells) River with the downstream stretches assigned a 'Moderate' WFD status for the 2013-2018 monitoring period. The Boyne is partially identified as being 'Not at Risk' of failing to achieve relevant WFD objectives by 2027 with risk of the downstream portion under 'Review' (EPA, 2022). Biological analysis is undertaken along the River Blackwater by the EPA within Navan town at the Poolboy Bridge and ca. 300m upstream from Poolboy Bridge. The upstream station is called New Bypass Bridge and identifies a Q-value of 3-4 in 2020 indicating a moderate biological status. The down stream station is called Slane Road Bridge Navan and identifies a Q-value of 3 in 2020 indicating a poor biological status.

There are 4 no. European sites within the potential zone of influence of the proposed scheme as follows:

- River Boyne and River Blackwater SAC (site code: 002299);
- River Boyne and River Blackwater SPA (site code: 004232);
- Boyne Coast and Estuary SAC (001957); and,
- Boyne Estuary SPA (004080).

The proposed project lies adjacent to the boundary of River Boyne and River Blackwater SAC (002299) and River Boyne and River Blackwater SPA (004232). The proposed scheme is within the immediate vicinity of these sites in a number of locations.

The Boyne Coast and Estuary SAC (001957) and Boyne Estuary SPA (004080) are located >30km downstream from the project site along the River Boyne and as such there is potential hydrological connectivity to these 2 no. European sites. However, based on the distance between the project site and these sites, the dilution and dispersal that would occur from the River Boyne and the scale and nature of the proposed works it is not likely that any pollution event which the project could potentially generate could result in significant impacts to the QI habitats of Boyne Coast and Estuary SAC.

The River Boyne and River Blackwater SAC is designated as a site of international importance for the conservation of natural habitats; fens and alluvial forests and for the conservation of fauna found within the river; otter (*Lutra lutra*), salmon (*Salmo salar*) and river lamprey (*Lampetra fluviatilis*).

The River Boyne and River Blackwater SPA is a site of international conservation status for its importance in hosting Kingfisher (*Alcedo atthis).*

There are no Natural Heritage Areas (NHA) or proposed NHA's within the proposed project site. There is 1no. NHA and 7no. pNHA's within 15km of the site boundary. Details of such sites and their potential indirect connectivity to the proposed scheme are detailed below in Table 3-1.

Table 3-1 – NHA's and pNHA's within 15km of the project site

Site Name & Code	Approximate distance from site	Connectivity to project site
Jamestown Bog NHA (001324)	Ca. 7.7km	No hydrological connectivity
Boyne Wood pNHA (001592)	Ca. 4.3km	Yes, potential hydrological pathway via the Boyne River. This pNHA is Ca 5.4km downstream of the site.
Balrath Woods pNHA (001579)	Ca. 11km	No hydrological connectivity.
Trim pNHA (001357)	Ca. 11.6km	No hydrological connectivity.
Slane Riverbank pNHA (001591)	Ca. 10.7km	Yes, potential hydrological pathway via the Boyne River. The pNHA is ca 13.1km downstream of the site.
Crewbane Marsh pNHA (000553)	Ca. 11.9km	Yes, potential hydrological pathway via the Boyne River. The pNHA is ca 15.1km downstream of the site.
Thomastown Bog (001593)	Ca. 13.4km	No hydrological connectivity.
Rossnaree Riverbank pNHA (001589)	Ca. 13.2km	Yes, potential hydrological pathway via the Boyne River. The pNHA is ca 18.4km downstream of the site.
Girley Bog NHA (001580)	14.9km	No hydrological connectivity

There are no Geological Heritage Sites within the site boundary, however the Boyne Geological heritage site is located ca. 600m downstream (GSI, 2022). According to GSI (2022) the site is described as '*A glacial U-shaped valley with characteristic depositional and erosional features associated with ice flow and glacial meltwater'.*

Biodiversity

There are no wetland habitats located within 2km of the proposed project. The closest reported wetland site, Knockunber Mine Ponds (artificial ponds), is located ca. 700km west of the site. There is no hydrological connection to this wetland site.

There are no nature reserves or National Parks located within 15km of the project site.

A National Survey of Native Woodlands (NSNW) was conducted between 2003 and 2008 with the aim of identifying areas of native woodlands within Ireland. There are no native woodlands within the proposed project site. There are also no woodlands identified within the inventory of Ancient and Long Established Woodlands of Ireland within the project site.

A search of NBDC records was carried out for the Ordinance Survey Ireland (OSI) 2km grid square; N86U and N86T which encompasses and surrounds the site. A number of bird species which have been designated for protection under the Wildlife Acts and European Birds Directive have been identified within the 2km grid square i.e. within the vicinity of the proposed project. These bird species are as follows.

- Red Listed birds recorded: Black-headed Gull (Larus ridibundus), Herring Gull (Larus argentatus)
- Amber Listed birds recorded: Barn Swallow (*Hirundo rustica*), Common Starling *(Sturnus vulgaris),* Common Swift (*Apus Apus*), Common Kingfisher (*Alcedo atthis)*, Great Cormorant (*Phalacrocorax carbo*), House Martin (*Delichon urbicum*), House Sparrow (*Passer domesticus*), Little Grebe (*Tachybaptus ruficollis*), Common Linnet (Carduelis cannabina), Common Sandpiper (Actitis hypoleucos), Sand Martin (Riparia riparia) and Stock Pigeon (Columba oenas).

A number of protected mammal species were also recorded within the two 2km grid squares within the vicinity of the proposed project including Daubenton's Bat (*Myotis daubentonii*), Pipistrelle (Pipistrellus pipistrellus sensu lato), Natterer's Bat (Myotis nattereri), Soprano Pipistrelle (Pipistrellus pygmaeus), European Otter (Lutra lutra), Eurasian Badger (Meles meles) and the West European Hedgehog (*Erinaceus europaeus*).

NBDC records identify otter and kingfisher as having been recorded along the entirety of the Boyne River Valley including adjacent to the project site.

According to NBDC species records floral invasive species Japanese knotweed (*Reynoutria japonica*) has been recorded ca. 50m south east of Poolboy Bridge. Indian Balsam, also known as Himalayan Balsam (*Impatiens glandulifera*) has been recorded ca. 200m south east of Poolboy Bridge.

To accommodate the provision of the necessary pedestrian and cyclist infrastructure, the proposed scheme does require the removal of several trees (as noted within the Preliminary Design Drawings), particularly between the Balmoral and Poolboy Bridge junctions. 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 produced by the arboriculturist, the values from which are summarised in Appendix B.

Landscaping, in the form of replacement trees, new trees, new hedging and street furniture is proposed at selected locations at junctions and along the links as noted in the Drawings.

Hydrogeology

The GSI (2022) groundwater wells and springs database identified 1 no. registered well ca. 70m south of the proposed scheme. It has a location accuracy of 1km. It is for domestic use only and the yield class is good.

The GSI (1999) provides a framework for the protection of groundwater source zones (i.e. zone of contribution to water supply bore holes). There are no public supply designated source protection areas within a 5km radius of the proposed project.

Groundwater vulnerability within the site is predominantly classified as 'Extreme' with a small portion of 'High' groundwater vulnerability noted within the western portion of the scheme. An area of 'Rock at or near Surface or Karst' is also directly adjacent to the route near Mill Road.

There are no gravel aquifers located within the site or its immediate vicinity. The closest reported gravel aquifer is located 13km south of the project between Bective and Assey Co. Meath.

The site is located within the Trim Ground Water Body (GWB) and groundwater quality of this GWB is reported to be of 'Good' Status for the 2013 to 2018 period and is 'At Risk' of failing to achieve relevant Water Framework Directive (WFD) objectives by 2027. A key component of the groundwater classification is the assessment of the impact of pollution on the groundwater body. The groundwater status classification process accounts for the ecological needs of the relevant rivers, lakes and terrestrial ecosystems that depend on contributions from groundwater.

Geology

The underlying geology consists of 'dark limestone and shale' from the Lucan Formation throughout the project site according to GSI maps (2022). The quaternary sediments underlaying the entirety of the project is urban sediment with areas of gravels derived from limestones, bedrock outcrop or subcrop and alluvium located immediately to the north of the scheme.

There are no identified karst features recorded within the vicinity of the project site (GSI, 2022). The closest karst feature is located ca 6m north east where there are 'superficial solution features' located at Gibstown Co. Meath.

There are no Geological Heritage Sites within the site, however the Boyne Valley Geological heritage site is located ca. 580m downstream of the site boundary (GS, 2022).

There are no EPA licenced facilities within the site or its immediate environs (EPA, 2022). The closest licenced facility, Navan Carpets Limited (P0490), is located ca. 360m west from the site.

Flooding

A Stage 1 Flood Risk Assessment (FRA) was prepared by Atkins (2022) which concluded that '*In relation to the proposed Navan Cycle Scheme: R147 Poolboy Bridge to Kells Road Roundabout in Navan based on the Stage*

1 - Flood Risk Identification findings discussed above the flood risk study has identified that sections of the proposed site are in Flood Zone A and at risk from fluvial flooding from the Boyne River.

However, the following should be noted:

- *The proposed cycle route will be along existing R147/N51 Road infrastructure and will be implemented by introducing a new raised cycle track, however, this raised cycle track is predominantly located within Flood Zone C and only the eastern extents of the cycle track is located within Flood Zone A.*
- *The section of cycle track located within Flood Zone A is required to tie into the existing road levels at either end of the scheme and therefore no alternative route is proposed.*
- *The volume of displaced water due to the raised cycle track will be minimal.*
- *The proposed cycle track is deemed to be "water compatible" and therefore a Stage 2 Flood Risk Assessment is not required.*

Drainage works, which will run in tandem with the pavement construction phase, are minimal and restricted to areas where the scheme interfaces with the public road. The drainage works at these locations are limited to the relocation of existing road gullies with the larger existing road drainage infrastructure (i.e., carrier drains) not being altered or adjusted. During these works the main carrier drains will be isolated / blocked off from works activities / work zones to facilitate the reallocation of drainage gullies.

In view of records of Historic flooding within the proposed site, it is recommended that in advance of the construction stage of the proposed active travel scheme, the nominated contractor shall have in place a flood emergency plan so that any potential flooding from the River Boyne during construction stage can be mitigate against. During operational stage it will be the responsibility of Meath County Council to manage the scheme during a Flood event.

Considering all the above, it is deemed that there will be no requirement to further review the risk of fluvial flooding at Stage 2 – Initial Flood Risk Assessment.'

Archaeology and Cultural Heritage

The sites and monuments record identifies 10no. features within 100m of the proposed scheme, they are detailed in Table 3-2.

Table 3-2 - SMR features within 100m of the proposed scheme

SMR Number	Class
ME025-024----	Religious house - Augustinian canons
ME025-024001-	Tomb - chest tomb
ME025-024002-	Stone sculpture*
ME025-024003	Graveyard
ME025-024004-	Font*
ME025-044008-	Bridge
ME025-044011-	Excavation - miscellaneous
ME025-044012-	Excavation - miscellaneous
ME025-044016-	Building
ME025-044017-	Excavation - miscellaneous

* indicates features which are within the extents of the proposed scheme alignment.

The National Inventory of Architectural Heritage identifies 10no. features within 100m of the proposed scheme, they are detailed in Table 3-3.

Table 3-3 - NIAH features within 100m of the proposed scheme

NIAH Number	Name
14006014	Ordnance stone/marker
14006018	Pollboy Bridge
14006025	Navan Infantry Barrack
14006026	Navan Infantry Barracks

NIAH Number	Name
14006027	Blackwater House
14006036	Weir
14006044	Mill
14007001	House
14009305	Navan Town Hall
14009306	Navan Town Hall

The eastern section of the proposed scheme covers the Navan Historic Core Architectural Conservation Area (ACA)[4]. As stated within the Meath County Development Plan 2021-2027 (MCC, 2021) the objectives for the Navan Historic Core Architectural Conservation Area are as follows:

1. *'To preserve the character of the Navan Historic Core Architectural Conservation Area, its buildings, streetscape, and public realm.*
2. *To preserve the historic street pattern within the core of the town, including the laneways.*
3. *To require the retention of all structures which contribute in a positive manner to the character of the ACA.*
4. *To support and encourage the re-use of suitable redundant or obsolete buildings within the ACA.*
5. *To protect the character of the existing streetscape by giving consideration to the suitability of style, construction materials, colour and decoration to be used in any proposals for development taking place within this area and to require that all new developments within or adjacent to the ACA shall observe the existing scale of the town.*
6. *To retain historic architectural and townscape elements such as shop fronts, sash windows, gutters and down pipes, decorative plasterwork, etc. that contribute to the character and appearance of the ACA.'*

As the eastern portion of the site is within the Zone of Notification for a number of SMRs, it is required that a National Monuments Service notification form is be completed and submitted to the National Monuments Service, a minimum of 2 months prior to construction works being undertaken within this area. All works will be constructed within the existing road carriageway and verge footprint which has already previously been excavated and therefore the impact on Archaeological and Architectural heritage will not likely be significant.

Population and Human Health

There are 2no. Seveso (Control of Major Accident Hazards Regulations (COMAH)) establishments within 15km of the proposed scheme; Boliden Tara Mines DAC, an Upper Tier Seveso Site located ca.1.6km west, and Xtratherm a Lower Tier Seveso Sites located ca. 3.5km north. Due to the distance of these Seveso sites from the proposed scheme and the activity carried out at these sites (i.e. mining at the closest site to the scheme), the proposed works are not located in a high-risk area with respect to major accidents/ disasters. Due to the nature, scale and location of the proposed project, there will be no impact on any of these Seveso sites.

The proposed scheme is located within urban and sub-urban areas and therefore a number of sensitive receptors in terms of dust nuisances and noise and vibration nuisances are located within the vicinity of the scheme including (but not limited to) residential houses, schools, amenity areas, and retail / industrial units.

Given the urban / sub-urban nature of the scheme and the requirement for works within the confines of road corridors and associated parking areas, there is potential for impacts to traffic. 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.

3.2.3. 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 and immediately adjacent to River Boyne and River Blackwater SAC and River Boyne and River Blackwater SPA. The proposed project does not lie within any Nature Reserves, National Parks or Natural Heritage Areas (detailed in Section 3.3.2 of this report). The AA Screening

[4] https://consult.meath.ie/en/consultation/meath-draft-county-development-plan/chapter/navan-historic-core-architectural-conservation-area

prepared for the proposed project (Atkins, 2022) states that *the proposed Navan Cycle Scheme - R147 Poolboy Bridge to Kells Road Roundabout project, either alone or in-combination with other plans or projects, will not result in likely significant effects on River Boyne and River Blackwater SAC, River Boyne and River Blackwater SPA or any other European site. Thus, it is recommended that it is not necessary for the project to proceed to Appropriate Assessment'*

Philip Blackstock undertook a tree survey of the project area in July 2022, during which a total of 85no. trees were surveyed. This survey did not recommend that any mature trees be removed based on their current condition and that 'no action is required' for the majority of the trees. Some crown clearance works, ivy removal, clearance from overhead cables etc. is required at 20no. tree locations. To accommodate the provision of the necessary pedestrian and cyclist infrastructure, the proposed scheme does require the removal of several trees (as noted within the Preliminary Design Drawings), particularly between the Balmoral and Poolboy Bridge junctions. 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 produced by the arboriculturist, the values from which are summarised in Appendix B. Landscaping, in the form of replacement trees, new trees, new hedging and street furniture is proposed at selected locations at junctions and along the links as noted in the Drawings.

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, designated sites etc) so as to avoid potential impacts to the environment and the general public. The final proposed site compound location will not be permitted within the River Boyne and River Blackwater SAC / SPA nor within 25m of the River Boyne. It is planned that existing Local Authority (Meath County Council) controlled material storage yards in the locality, currently used for the storage of inert materials, will be utilised during the construction phase to store similarly inert materials for incorporation in the proposed scheme. Materials will be brought to site on a periodic basis as required directly from suppliers. Parking for operatives will be at the main compound only. Operatives will be transported from the compound to the works area. No parking will be allowed within the temporary works area or on-street.

The 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, soils and geology, 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 general depth of 500mm below ground level (bgl) along the existing road networks. Groundwater vulnerability within the site is predominantly classified as 'Extreme' with a small portion of 'High' groundwater vulnerability noted within the western portion of the scheme. In the unlikely event that that dewatering is required all water will be transported offsite for disposal at a WWTP.

No refuelling of vehicles will occur at the construction area. All vehicles and equipment will be inspected on a daily basis for potential fuel leaks. All site vehicles and equipment will be supplied with spill kits. As a result of the mitigation measures and due to the nature and scale of the works there will be no likely significant impact on groundwater.

An area of 'Rock at or near Surface' is also directly adjacent to the route near Mill Road. These ratings indicate that groundwater could potentially be shallow in the area and vulnerable to contamination during construction.

There is potential for contamination associated with urban soils and made ground as part of the existing road. In the unlikely event that contaminated materials are encountered these will need to be segregated from all uncontaminated soils, temporarily stored (any stockpiles should be lined and covered by heavy duty 1000-gauge plastic), sampled and analysed for relevant parameters (Waste Acceptance Criteria suite e.g. Rilta Disposal Suite). Any contaminated soils must be characterised as per the requirements of the relevant Waste Acceptance Criteria (WAC) under the relevant European Communities Council Decision (EC) (92003/33/EC) and classified in accordance with the requirements of the EPA as set out in the following documents 'Waste Classification List of Waste & Determining if Waste is Hazardous or Non-hazardous' (EPA, 2018). Any contaminated soils must be transported by appropriately permitted hauliers and disposed of to an appropriate EPA licensed Waste Facility in accordance with all relevant waste management legislation. Due to the nature and scale of the proposed scheme there will be no likely significant impact on soils and geology

The River Blackwater is directly adjacent to the cycle scheme in the eastern portion. The scheme is proposed within the extents of the N51 and R147 road corridors. All works will be along the roadway and within the existing roadside verges. The proposed scheme will tie into the existing drainage system on the existing road network. Where this cannot occur, new gullies will be installed and tied into the existing drainage system. Accordingly no significant adverse impacts are anticipated with respect to surface quality, levels or flow.

The proposed scheme lies within an urban area and there are sensitive receptors adjacent to the scheme i.e. residential and commercial properties. 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.

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.

3.2.4. 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 scheme may give rise to air, noise, water emissions and waste. However, the proposed scheme 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 footways and asphalt / road surface, mixed municipal waste (MMW), recyclables such as plastic wrapping, wooden pallets and paper. 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 Contactor 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 (NWCPO).

The Solid Waste Management policy of Variation No. 3 of the Navan Development Plan 2009-2015 (MCC) states the following:

- *'INF POL 65 To promote education and awareness on all issues associated with waste management, both at industry and community level. This will include the promotion of waste reduction by encouraging the minimization, re-use, recycling and recovery of waste within the country.*
- *INF POL 66 To implement the policies and objectives of the Waste Management Plan for the North East Region.*
- *INF POL 35 To promote and encourage the recycling of construction and demolition waste in accordance with approved construction and demolition waste management plans'.*

This policy will be implemented during the construction and operation of the proposed development.

Additionally, an objective of the Navan Development Plan 2009-2015 (Variation No. 3) is as follows:

INF OBJ 59: '*To require the submission of a waste management plan for developments which meet the threshold for such plans as set out in the 'Best Practice Guidelines on the Preparation of Waste Management Plans for Construction and Demolition Projects' (DoEHLG 2006) or its replacement.'*

The Contractor will be obliged to prepare a project specific Resource Waste Management Plan (WMP) prior to commencement of the proposed development in accordance with the relevant guidelines *'Best Practice Guidelines for the preparation of resource & waste management plans for construction & demolition projects'* prepared by the EPA (2021).

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 a limited amount of natural resources in the area will be utilised for the proposed project. All works will be within the existing road network, footpaths and road verges Trees and vegetation shall be protected as required in accordance with BS:5837:2012 during construction and demolition works.

Philip Blackstock undertook a tree survey of the project area in July 2022, during which a total of 85no. trees were surveyed. This survey did not recommend that any mature trees be removed based on their current condition and that 'no action is required' for the majority of the trees. Some crown clearance works, ivy removal, clearance from overhead cables etc. is required at 20no. tree locations. To accommodate the provision of the necessary pedestrian and cyclist infrastructure, the proposed scheme does require the removal of several trees (as noted within the Preliminary Design Drawings), particularly between the Balmoral and Poolboy Bridge junctions. 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 produced by the arboriculturist, the values from which are summarised in Appendix B. Landscaping, in the form of replacement trees, new trees, new hedging and street furniture is proposed at selected locations at junctions and along the links as noted in the Drawings.

The proposed project involves an anticipated excavation depth of 500mm bgl to facilitate the foundation for the proposed footpaths / pavements and the ducting for the signalling associated with the scheme, with localised deeper excavations potentially required at the Robinrath Stream crossing point. 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.

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.

3.2.5. 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 Meath County Planning records has been undertaken for the applications submitted within the past 7 years in the vicinity of the proposed development (last reviewed 09/08/2022). Some of the granted applications have already been completed and of those which are not completed, most are generally small scale in nature (i.e. residential extension works, or property improvement works). Completed or granted applications of such small scale (such as residential improvements) have not been considered further in terms of potential for cumulative impacts.

There are 4no. projects / committed developments, which have not yet been built and have been further evaluated with respect to cumulative impacts with the proposed Navan Cycle Scheme, they are detailed in Table 3-4 below.

Table 3-4 - Planning applications near the proposed scheme.

Planning Ref	Applicant Name / Location	Description	Assessment
NA151301	Sonbrook Property Moathill Ltd.	The proposed development will consist of: 99 no. residential units comprising 32 no. duplex/apartments set out in 2 no. 2 storey over lower ground floor blocks: and 67 no. 2 storey detached and semi-detached houses. The duplex/apartments will consist of: 16 no. 2-bed 1 storey apartment units at lower ground floor level (c. 75.5 sqm each); and 16 no. 3-bed 2 storey duplex units at ground floor and first floor level (c. 104.5 sqm each). The houses will consist of: 12 no. Type A 2 storey 4-bed semi-detached houses (c. 133.9 sqm each); 35 no. Type B 2 storey 3 - bed semi-detached houses (c. 112.0 sqm each); 4 no. Type B1 2 storey 3-bed semi-detached houses (c. 114.5 sqm each); 6 no. Type C 2 storey 3-bed semi-detached houses (c.110.0 sqm each); 7 no. Type D 2 storey 4-bed semi-detached houses (c. 127.3 sqm each); 2 no. Type C1 2 storey 3-bed detached houses (c. 110.0 sqm each); and 1 no. Type D1 2 storey 4-bed detached house (c. 127.3 sqm). The development will also include: a 2 storey creche (c. 130.5 sqm) with associated play area (c.156 sqm) and 5 no. carparking spaces; 2 no. bin storage buildings (c. 18.7 sqm each) and adjoining covered bicycle shelters (c. 22.6 sqm each) providing 20 no. bicycle spaces each; 2 no. car parking spaces on the curtilage of each house and 60 no. communal parking spaces for the apartment/duplex units; 2 no. landscaped public open spaces (c. 1,730 sqm and 2,930 sqm); internal access roads; a footpath and cycleway along the N51 National Road; a new vehicular access from the N51 National Road and associated revised junction layout; all ancillary landscaping and boundary treatments; drainage arrangements; and associated site development works, all on a site of c. 3.53 ha	Based on the location, scale and nature of this project, cumulative impacts associated with the proposed scheme on the receiving environment are unlikely.
NA171476	Foxtrot Investment 2011 Limited	The proposed development will consist of: Demolition of existing single and two storey warehouse buildings within the western portion of the site; Construction of a 6 no. storey mixed use building over basement (with rooftop plant at fifth floor level) to include setbacks and accessible terraces (eastern elevation) at first and fifth floor levels: Provision of a discount food store (to include off-licence use) with a gross floor area of c. 1,695 sq.m (net retail area 1,140 sq. m) at ground floor level to include all ancillary areas; provision of a 135 sq.m retail unit at first floor level (south) and circa 5,412 sq.m of office/medical floor space from first to fifth floors; provision of external plant enclosures (western elevation) at ground floor level; landscaped surface car park (90 no. car parking spaces) to serve the proposed discount food store (including 1 no. set down space), 70 no. bicycle parking spaces, goods delivery/reception area; provision of a basement car park to serve the medical/office uses (including plant room/ancillary areas and 120 no. car parking spaces); reconfiguration of internal road and provision of ramp to basement of proposed development; Upgrades to the existing footpath along Kells Road and provision of a landscape plaza area at the junction of the Kells Road and the existing access road to	Based on the location, scale and nature of this project, cumulative impacts associated with the proposed scheme on the receiving environment are unlikely.

Planning Ref	Applicant Name / Location	Description	Assessment
		Balmoral Industrial Estate; provision of 7 sq. m of illuminated signage located on the northern and eastern elevation including a 42 sq.m totem sign located at the main entrance of the site; all associated and ancillary site development and landscaping works. Significant further information/revised plans submitted on application.	
NA201713	Foxtrot Investment 2011 Limited	The development will consist of amendments to the permitted development (including footprint of building) to provide a total of 63 no. 'Build to Rent' apartments (27 no. 1-bed units, 35 no. 2-bed units and 1 no. 3-bed unit), and associated alterations compared to the permitted 50 no. 'Build to Rent' apartments in a building up to no. 7 no. storeys as follows: Replacement of permitted office/medical use at first floor level with 11 no. 'Build to Rent' residential apartments and ancillary amenity space (c. 148 sqm), with 1 no. additional 'Build to Rent' unit provided at fifth floor level. Amended layouts at upper floors and the reconfiguration of lower ground floors comprising reconfigured upper ground floor including, 1 no. 'Build to Rent' apartment unit, management store, with bicycle parking storage (105 no. spaces), provision of revised main entrance to Build to Rent accommodation, lobby and management office at the southern elevation, with 16 no. additional external bicycle parking spaces at south elevation. A reconfigured lower ground floor including retail floorspace and ancillary uses (increased from c. 1,686sqm to c. 1,747sqm) and reconfigured layout at eastern elevation at lower elevation at lower ground floor level to provide 20 no. bicycle parking spaces. Revised access to 'Build to Rent' accommodation and associated reconfiguration of ESB substation, switch room, bin stores and plant area at the western elevation. Amended elevational treatments (to balconies and external finishes) including minor reduction in overall height of building), provision of signage c. 4.4 sqm on the southern elevation). The parapet height of the retail unit is raised by 410mm along the northern and eastern facades. The omission of permitted basement level parking and its replacement with 50 no. surface car parking spaces, 16 no. bicycle parking spaces and associated road layout amendments in an extended western part of the site. Increase in total gross floor area from c. 7,181 sqm to c. 7,804 sqm. A Natura Impact Statement has been prepared in respect of this Planning Application. Significant further information/revised plans submitted on this application	Based on the location, scale and nature of this project, cumulative impacts associated with the proposed scheme on the receiving environment are unlikely.
NA180732	Gas Networks Ireland	Decommission and remove existing below ground District Regulating Installation (DRI) adjacent to Watergate St. and install a new above ground 0.87m x 0.50m x1.36m (LxWxH) DRI enclosure including a 3m high 'lamp post' style relief vent stack with all ancillary services and associated site works	Based on the location, scale and nature of this project, cumulative impacts associated with the proposed scheme on the receiving environment are unlikely.

Given the nature, scale and location of these granted developments and the proposed project no significant impacts are anticipated. It is considered the proposed 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)).*

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 no significant impact on the River Boyne and River Blackwater SAC and River Boyne and River Blackwater SPA due to location, duration and scale of the works (refer to section 3.2.1). 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 Screening for AA concluded that *the proposed Navan Cycle Scheme - R147 Poolboy Bridge to Kells Road Roundabout project, either alone or in-combination with other plans or projects, will not result in likely significant effects on River Boyne and River Blackwater SAC, River Boyne and River Blackwater SPA or any other European site. Thus, it is recommended that it is not necessary for the project to proceed to Appropriate Assessment.*

No in-stream works will occur along the Boyne River or Blackwater River. The appointed contractor will be required to put in place site specific pollution control measures to protect local ecology and water quality.

Biosecurity protocols will be implemented during the construction phase of the proposed project to prevent the introduction of invasive species listed on the third schedule of the EC (Birds and Natural Habitats) Regulations 2011, as amended, to site.

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.

There are numerous dwellings located along the proposed scheme, which could be considered sensitive receptors in terms of potential dust or noise nuisance. 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 construction 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))

A Stage 1 Flood Risk Assessment (FRA) was prepared by Atkins (2022). It concluded that: '*In relation to the proposed Navan Cycle Scheme: R147 Poolboy Bridge to Kells Road in Navan based on the Stage 1 - Flood Risk Identification findings discussed above the flood risk study has identified that sections of the proposed site are in Flood Zone A and at risk from fluvial flooding from the Boyne River.*

However, the following should be noted:

- *The proposed cycle route will be along existing R147/N51 Road infrastructure and will be implemented by introducing a new raised cycle track, however, this raised cycle track is predominantly located within Flood Zone C and only the eastern extents of the cycle track is located within Flood Zone A.*
- *The section of cycle track located within Flood Zone A is required to tie into the existing road levels at either end of the scheme and therefore no alternative route is proposed.*
- *The volume of displaced water due to the raised cycle track will be minimal.*
- *The proposed cycle track is deemed to be "water compatible" and therefore a Stage 2 Flood Risk Assessment is not required.*

Drainage works, which will run in tandem with the pavement construction phase, are minimal and restricted to areas where the scheme interfaces with the public road. The drainage works at these locations are limited to the relocation of existing road gullies with the larger existing road drainage infrastructure (i.e., carrier drains) not being altered or adjusted. During these works the main carrier drains will be isolated / blocked off from works activities / work zones to facilitate the reallocation of drainage gullies.

In view of records of Historic flooding within the proposed site, it is recommended that in advance of the construction stage of the proposed active travel scheme, the nominated contractor shall have in place a flood emergency plan so that any potential flooding from the River Boyne during construction stage can be mitigate against. During operational stage it will be the responsibility of Meath County Council to manage the scheme during a Flood event.

Considering all the above, it is deemed that there will be no requirement to further review the risk of fluvial flooding at Stage 2 – Initial Flood Risk Assessment.' Due to the nature and scale of the works, the site setting of the proposed scheme, it is considered that the overall risk of major accidents and / or disasters associated with the proposed scheme is extremely low and does not warrant further consideration.

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 is 1no. reported domestic use well (GSI, 2022) within the vicinity of the proposed scheme; however the maximum excavation depth during construction will be ca. 500mm bgl. Accordingly there will be no significant impact on human health. The proposed scheme is underlain by a locally important aquifer bedrock which is moderately productive (GSI, 2022). Groundwater vulnerability within the site is predominantly classified as 'Extreme' with a small portion of 'High' groundwater vulnerability noted within the western portion of the scheme. An area of 'Rock at or near Surface or Karst' is also directly adjacent to the route near Mill Road. Due to the nature and scale of the proposed project it is not anticipated to have a significant impact on groundwater quality, resources or flow.

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 of Navan Town. 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)).*

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

(i) Wetlands, riparian areas, river mouths

Knockunmber Mine Ponds (Site Code: WMI_MH367) is located ca.700m west of the proposed scheme with the riparian vegetation of the River Boyne bank located immediately adjacent to the proposed scheme. All works will be within the existing road corridor and footpath and will not encroach this riparian area. Based on the location, nature and scale of the proposed project there are no significant impacts to these wetland sites 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 or forest 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

The proposed scheme is immediately adjacent to 2no. European sites; River Boyne and River Blackwater SAC and River Boyne and River Blackwater SPA. 2no. other European Sites; Boyne Coast and Estuary SAC and Boyne Estuary SPA are within the potential zone of influence of the proposed project, however based on the downstream distance from the project to these sites and the dilution factor from the River Boyne along with the scale and nature of the proposed works, impacts to these sites are negated.

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 are no Natural Heritage Areas (NHA) or proposed NHA's within the proposed project site. There is 1no. NHA and 7no. pNHA's within 15km of the site boundary, the closest of which is located ca. 4.3km from the project site.

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 Trim groundwater body (GWB) (EPA Code: IE_EA_G_002) which has '*good*' water quality status for the period of 2013-2018 (EPA, 2022) and is currently *'At Risk'* of failing to meet relevant WFD objectives. Due to the nature and scale of the works the proposed project is not anticipated to significantly impact groundwater quality.

The River Blackwater is directly adjacent to the site which flows in an eastern direction before joining with the River Boyne ca. 50m downstream from Poolboy bridge which then outfalls to the Irish Sea ca. 30km from the site at Drogheda. The proposed scheme is located within the Boyne Water Framework Directive (WFD) catchment area and the Boyne sub-catchment area.

The River Blackwater is reported by EPA (2022) as having 'Poor' WFD status for the 2013-2018 monitoring period and is detailed as 'At Risk' of failing to achieve the relevant WFD objectives. The Boyne has been assigned a 'Good' WFD status upstream of the confluence point with the Blackwater (Kells) River with the downstream stretches assigned a 'Moderate' WFD status for the 2013-2018 monitoring period. The Boyne is partially identified as being 'Not at Risk' of failing to achieve relevant WFD objectives by 2027 with risk of the downstream portion under 'Review' (EPA, 2022). 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 Navan which is a densely populated area. Navan Town has a population of 24,545 (CSO, 2022). It is anticipated that there will be no significant negative impact on densely populated areas during construction. The creation of the cycle and pedestrian scheme will reduce the volume of vehicular traffic using the routes and, will improve air quality and noise levels and provide additional social and recreational infrastructure within the town. It is considered therefore that the proposed scheme will likely 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)).'*

Poolboy bridge is listed as a National Inventory of Architectural Heritage (NIAH) feature (Reg. No. 14006018) and as a Sites and Monuments Record (SMR) sites/features (ID ME025-044008-).

The NIAH describe it as '*Seven arch roughly dressed stone bridge, c.1740, over the Blackwater River. Flattened cutwaters down-stream and 'V' cutwaters up-stream which carry up into the parapet walls to provide refuges of similar profile. Round arches with dressed stone voussoirs and centring stones through vault, ashlar voussoirs to downstream elevation*.'

The SMR description is as follows '*The Archaeological Survey of Ireland (ASI) is in the process of providing information on all monuments on The Historic Environment Viewer (HEV). Currently the information for this record has not been uploaded. To access available information for research purposes please make an appointment in advance with the Archive Unit (open Fridays 10.00 am – 5.00 pm), Department of Culture, Heritage and the Gaeltacht, The Custom House, Dublin 1 D01W6XO or email nmarchive@chg.gov.ie*.'

The next closest archaeological feature to the proposed scheme is a SMR feature of a stone sculpture (ID ME025-024002-) located 300m west of Poolboy bridge, described as '*The 'Apostle Stone'. Late 14th / early 15th century. A large coffin-shaped block of sandstone is a short distance west of St. Erc's Hermitage (ME019-026----) in Slane. It is carved in relief with six apostles on each of the long sides and a Crucifixion with Mary and John on the broader end. Many of the apostles are damaged so not all can be identified. They are dressed similarly in a tunic and cloak caught over the left arm. Only SS Paul and James are clearly identifiable. Hickey (1975) has shown that this is part of a composite tomb that includes the effigy of a bishop at Slane Castle (ME019-021----) that were removed from St. Mary's abbey in Navan (ME025-024----), in the late 18th century. Dims L 1.75m; Wth 0.42-0.52; H 0.44m''*

The eastern section of the site covers the Navan Historic Core Architectural Conservation Area (ACA).[5] As stated by Meath County Council the 6 objectives for the Navan Historic Core Architectural Conservation Area are as follows:

1. *'To preserve the character of the Navan Historic Core Architectural Conservation Area, its buildings, streetscape, and public realm.*
2. *To preserve the historic street pattern within the core of the town, including the laneways.*
3. *To require the retention of all structures which contribute in a positive manner to the character of the ACA.*
4. *To support and encourage the re-use of suitable redundant or obsolete buildings within the ACA.*
5. *To protect the character of the existing streetscape by giving consideration to the suitability of style, construction materials, colour and decoration to be used in any proposals for development taking place within this area and to require that all new developments within or adjacent to the ACA shall observe the existing scale of the town.*
6. *To retain historic architectural and townscape elements such as shop fronts, sash windows, gutters and down pipes, decorative plasterwork, etc. that contribute to the character and appearance of the ACA.'*

The proposed project will be constructed predominantly within the footprint of the existing road network. 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

[5] https://consult.meath.ie/en/consultation/meath-draft-county-development-plan/chapter/navan-historic-core-architectural-conservation-area

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 scheme (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 Meath 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- 2022 (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 Navan Cycle Scheme – R147 Poolboy Bridge to Kells Road Roundabout 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 impacts;
- There will be no significant impact on biodiversity, groundwater, surface water or traffic; and,
- There will be no significant impacts on recorded monuments or historic features.

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

Accordingly, we consider that the preparation of an EIAR is not required for the Navan Cycle Scheme – R147 Poolboy Bridge to Kells Road Roundabout. However, the competent authority will ultimately determine whether an EIAR is required or not.

4. References

Philip Blackstock (2022) Arboricultural Impact Statement.

Atkins (2022) Screening for Appropriate Assessment.

Atkins (2022) Flood Risk Assessment.

CIRIA (2001) Control of Water Pollution from Construction Sites. Guidance for Consultants and Contractors.

Department of Housing, Planning and Local Government, (2018), Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment.

Department of the Environment, Community & Local Government. (2013), Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment.

Department of the Environment, Heritage and Local Government (2003) Guidance for Consent Authorities regarding sub-threshold Development. Published by the Stationery Office.

Environmental Protection Agency (EPA), 2022. 'Guidelines on the information to be contained in Environmental Impact Assessment Reports'

Environmental Resources Management (2001) Guidance on EIA Screening. Published by the European Commission

European Commission, (2015) Environmental Impact Assessment – EIA, Overview, Legal context.

European Council Directive (EC) 85/337/EU of 1985 on Environmental Impact Directive

European Council Directive (EC) 97/11/EC of 3 March 1997 amending Directive 85/337/EEC on the assessment of the effects of certain public and private projects on the environment.

European Council Directive (EU) 2009/31/EC on the geological storage of carbon dioxide and amending Council Directive 85/337/EEC, European Parliament and Council Directives 2000/60/EC, 2001/80/EC, 2004/35/EC, 2006/12/EC, 2008/1/EC and Regulation (EC) No 1013/2006.

European Council Directive (EU) 2011/92/EU on the assessment of the effects of certain public and private projects on the environment.

European Council Directive (EU) 2014/52/EU of 16 April 2014 amending Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment.

Fossette, J. (2000). A Guide to habitats in Ireland. The Heritage Council.

Geological Survey of Ireland (GSI) 2022. https://www.gsi.ie/en-ie/Pages/default.aspx. (Consulted September 2022).

Health and Safety Executive. Notified Seveso Establishments https://www.hsa.ie/eng/Your_Industry/Chemicals/Legislation_Enforcement/COMAH/List_of_Establishments/ (Consulted May 2022).

Local Government (Planning and Development Act) 1963.

Meath County Development Plan 2021-2027

National Inventory of Architectural Heritage (2022). www.buildingsofIreland.com- (Consulted September 2022).

National Monuments Service, Historic Environment Viewer http://webgis.archaeology.ie/historicenvironment/ (Consulted September 2022).

National Parks & Wildlife Service. https://www.npws.ie/protected-sites/spa. (Consulted September 2022).

Navan Development Plan 2009-2015 Variation No. 3 (adopted 2019)

NRA (2009). Guidelines for Assessment of Ecological Impacts on national road schemes. Published by National Roads Authority.

NRA (2011) Guidelines for the Treatment of Air Quality During the Planning and Construction of National Road Schemes. Published by the National Roads Authority

NRA (2014) Good Practice Guidance for the Treatment of Noise during the Planning of National Road Schemes. Published by the National Roads Authority

Office of Public Works (2009). 'The Planning System and Flood Risk Management; Guidelines for Planning Authorities'.

Office of Public Works (2022). OPW National Flood Hazard Mapping Web Site. Available at: - http://www.floodmaps.ie/ (Consulted September 2022)

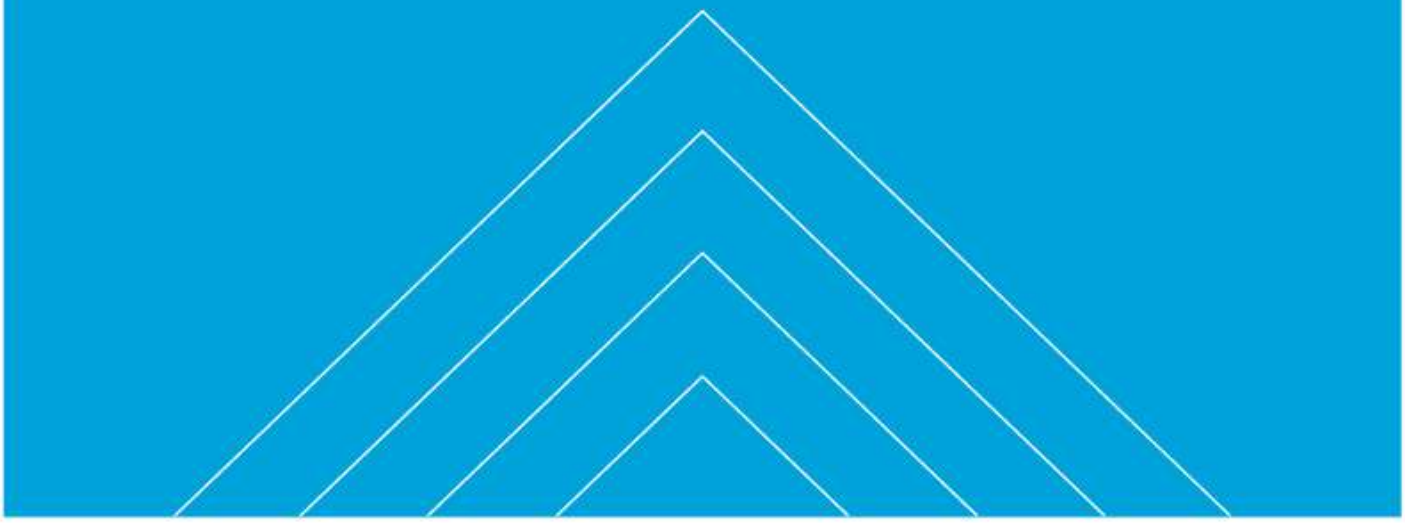
Statutory Instrument S.I. No. 296 of 2018. European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018.

Statutory Instrument S.I. No. 349/1989. European Communities (Environmental Impact Assessment) Regulations, 1989.

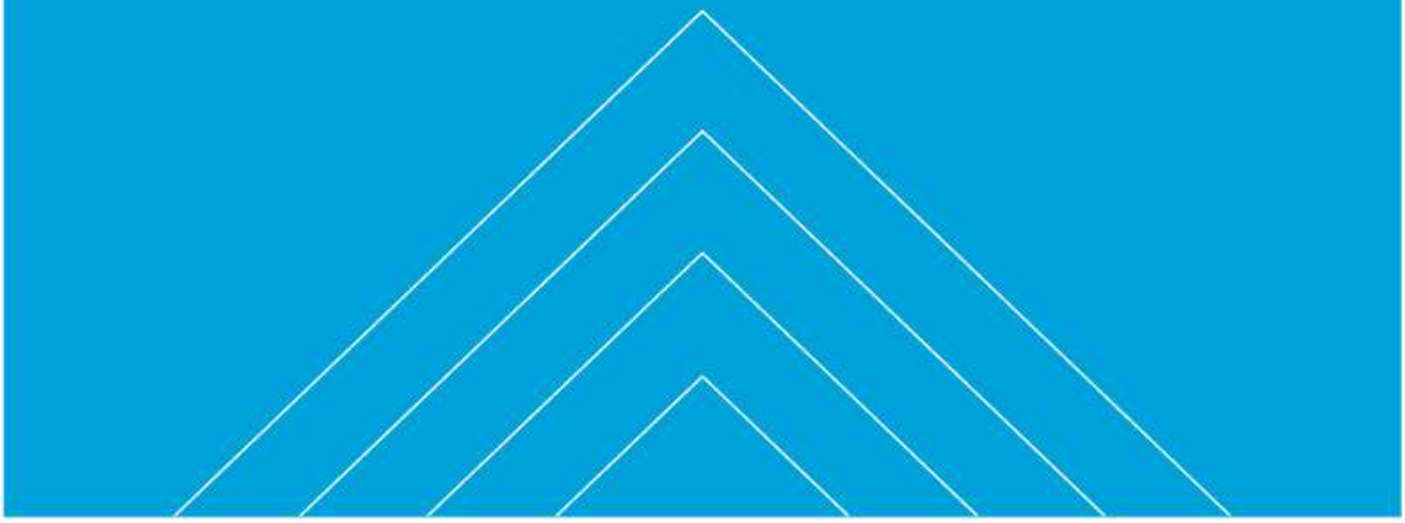
Statutory Instrument S.I. No. 600 of 2001. Planning and Development Regulations 2001.

Water Framework Directive (2022) http://watermaps.wfdireland.ie/NsShare_Web/SessionTimeout.aspx?Culture=&UICulture=&Theme=Geocortex_Essentials&referrer=http%3A%2F%2Fwatermaps.wfdireland.ie%2FNsShare_Web%2FViewer.aspx%3FSite%3DNsShare%26ReloadKey%3DTrue (Consulted September 2022)

Appendices



Appendix A. Design Drawings



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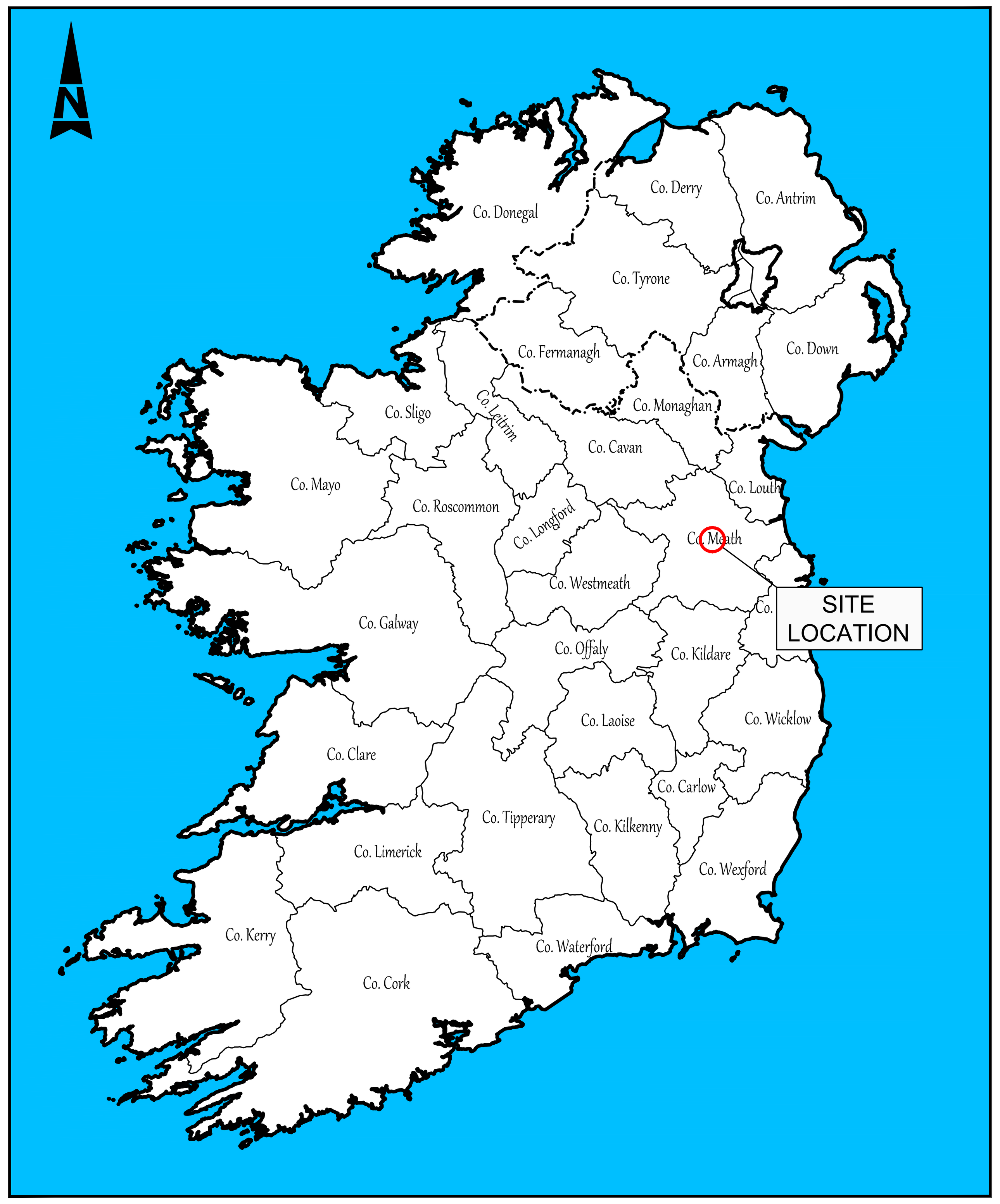

IRELAND LOCATION MAP

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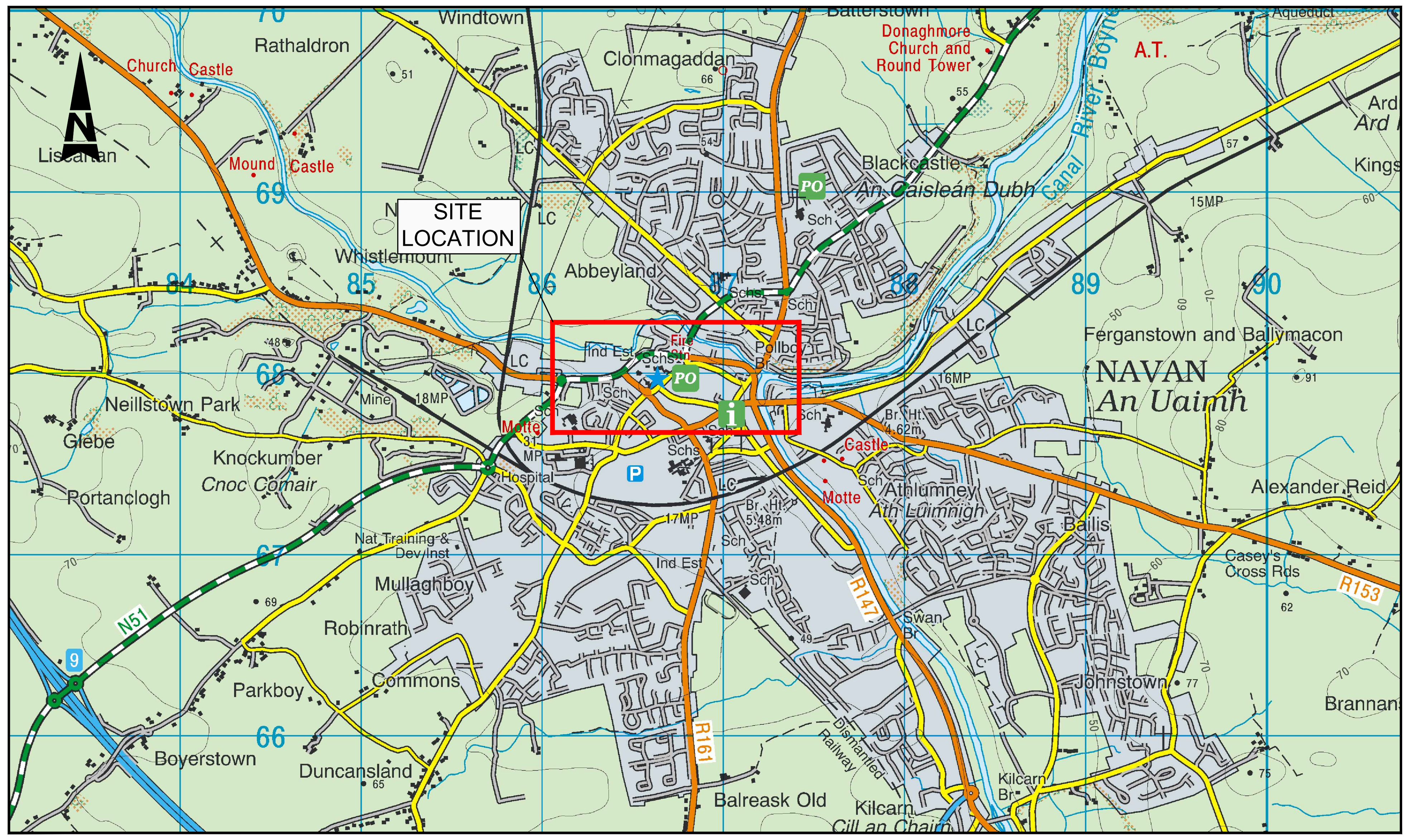
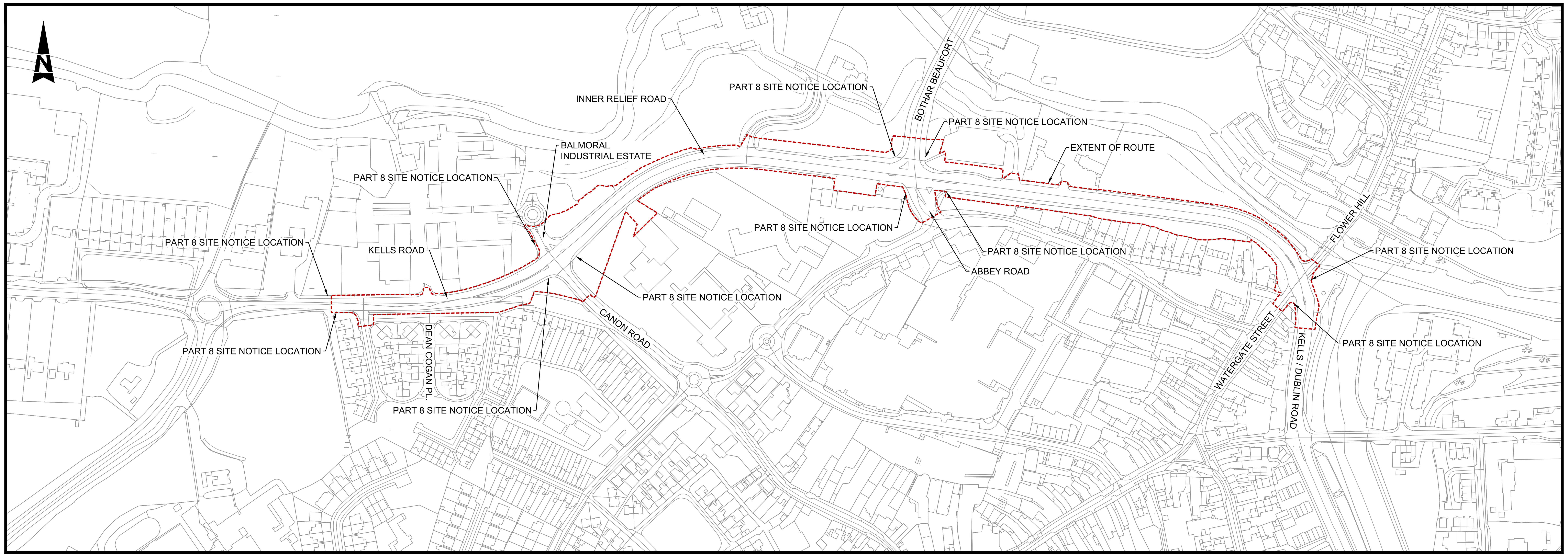


SITE MAP - R147 POOLBOY BRIDGE TO KELLS ROAD ROUNDABOUT

Scale at A1 1:25,000
Scale at A3 1:50,000

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



SITE LOCATION MAP - R147 POOLBOY BRIDGE TO KELLS ROAD ROUNDABOUT

Scale at A1 1:2,500
Scale at A3 1:5,000

Údarás Náisiúnta Iompair
National Transport Authority

Rev	Description	By	Date	Chk'd	Auth
-	PART 8 PLANNING (FINAL)	CL	29/09/22	JMC	ST

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Client: MEATH COUNTY COUNCIL

Project: NAVAN CYCLE SCHEME R147 POOLBOY BRIDGE TO KELLS ROAD ROUNDABOUT

Purpose:

Title: SITE CONTEXT AND SITE LOCATION MAP

Original Scale	Design/Drawn	Checked	Authorised
AS SHOWN	CL Date 29/09/22	JMC Date 29/09/22	ST Date 29/09/22

Status	Drawing Number	Rev
P	5214376 / HTR / DR / 0001	-

File: 5214376_HTR_DR_0001.dwg Date: Nov 09, 2022 - 2:09pm Plotted by: DBrien

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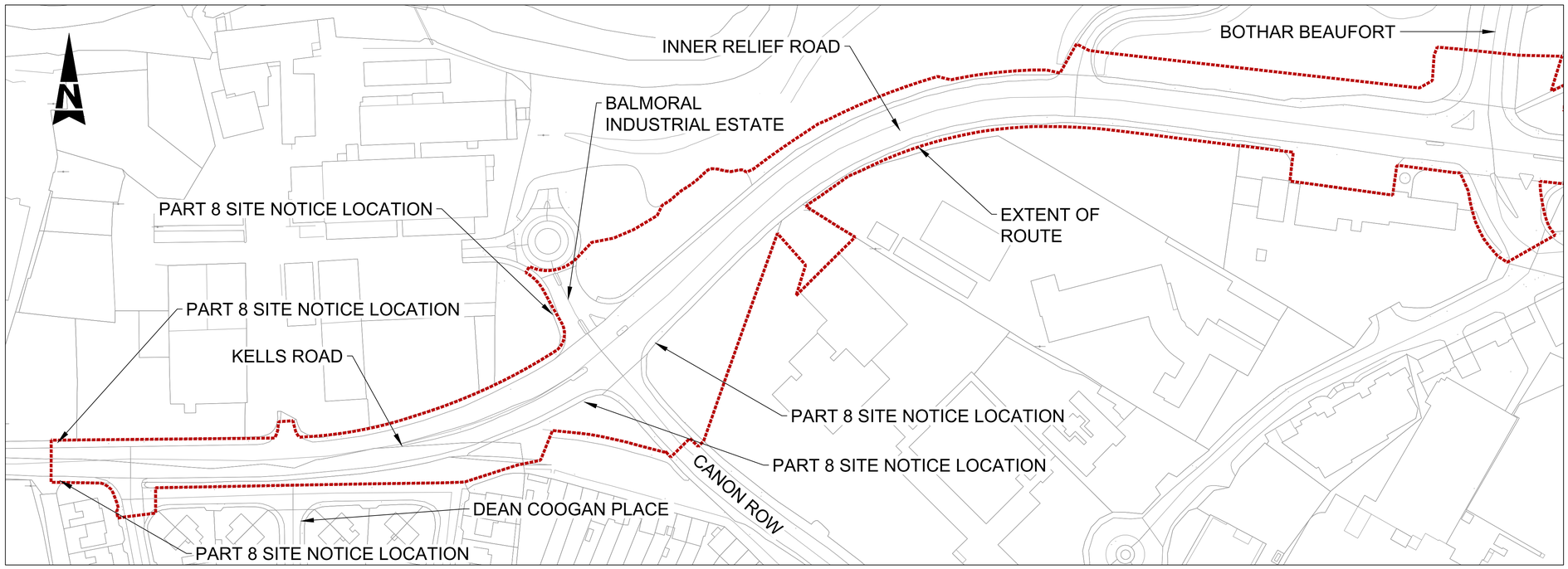

SITE LOCATION MAP - R147 POOLBOY BRIDGE TO KELLS ROAD ROUNDABOUT

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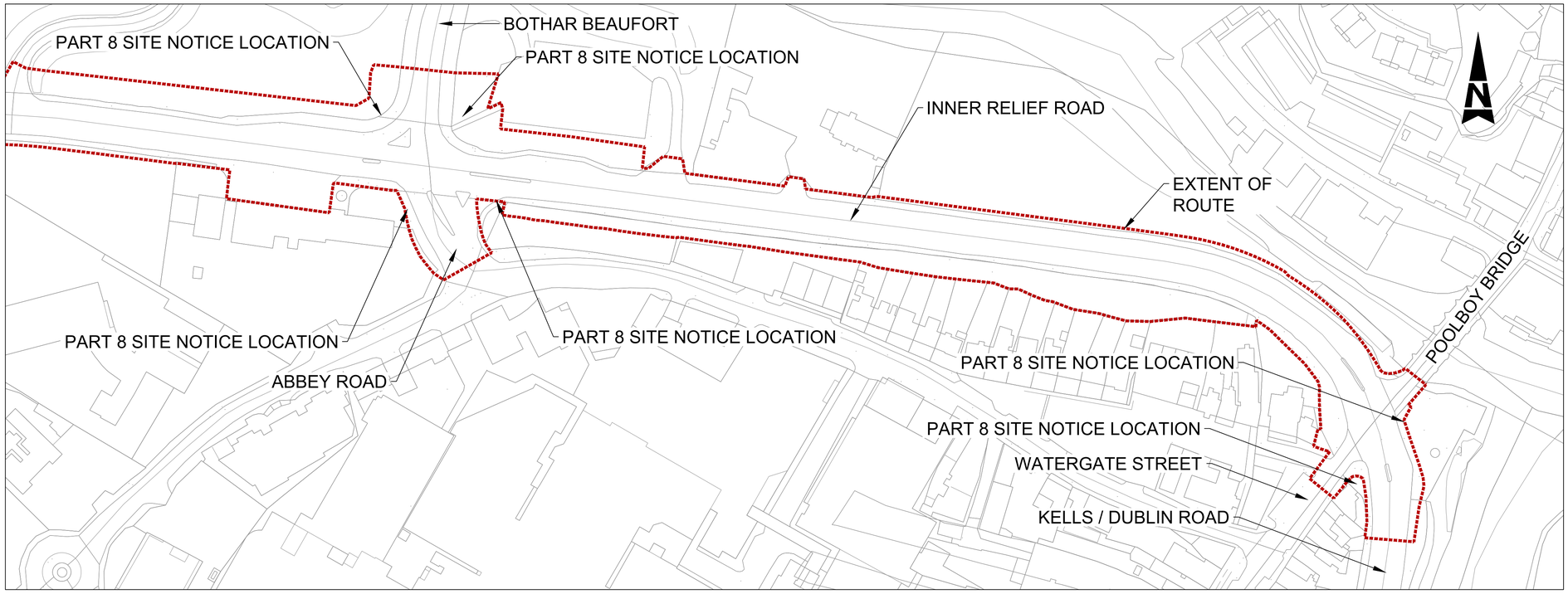

SITE LOCATION MAP - R147 POOLBOY BRIDGE TO KELLS ROAD ROUNDABOUT

Scale at A1 1:1,000
Scale at A3 1:2,000

GENERAL NOTES

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Rev	Description	By	Date	Chk'd	Auth
-	PART 8 PLANNING (FINAL)	CL	13/10/22	JMC	ST

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Client: MEATH COUNTY COUNCIL

Project: NAVAN CYCLE SCHEME
R147 POOLBOY BRIDGE TO KELLS ROAD ROUNDABOUT

Purpose:

Title: SITE LOCATION MAP

Original Scale	Design/Drawn	Checked	Authorised
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Status: P

Drawing Number: 5214376 / HTR / DR / 0003

Rev: -

A1

DO NOT SCALE

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Date: Nov 09, 2022 - 2:12pm
Plotted by: DBrien

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A1

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CROSS SECTION A-A

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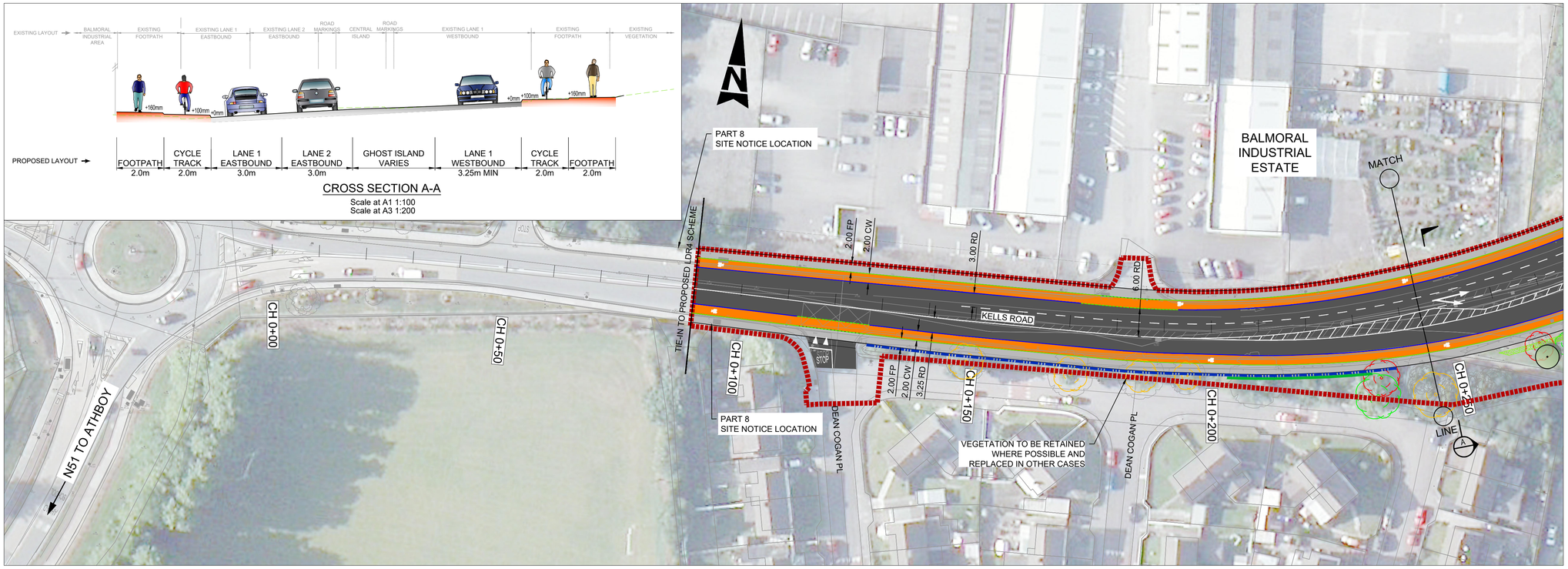
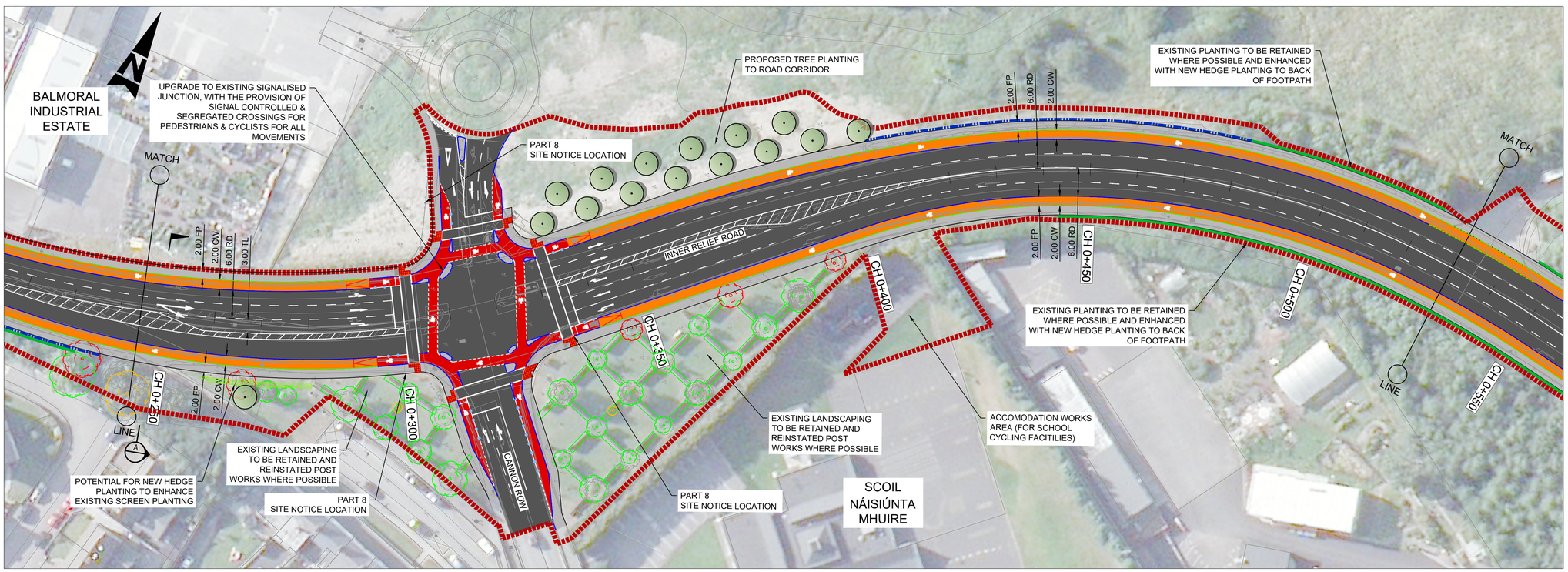
Scale at A3 1:200





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:

- SITE BOUNDARY
- BEVELLED ENTRANCE KERB
- 100mm CONCRETE KERB
- 60mm UPSTAND KERB
- 25mm UPSTAND KERB
- KASSEL KERB
- FLUSH KERB
- RETAINING FEATURES
- CARRIAGEWAY
- PROPOSED FOOTPATH
- PROPOSED SHARED SPACE
- PROPOSED RAISED CYCLE TRACK
- PROPOSED ON ROAD CYCLE LANE
- PROPOSED TACTILE PAVING (CONTROLLED)
- TACTILE PAVING (UNCONTROLLED JUNCTION)
- PROPOSED TACTILE PAVING (CORDUROY)
- PROPOSED GRASS VERGE
- PROPOSED OVER RUN AREA
- EXISTING GRASS VERGE TO BE RETAINED
- EXISTING FOOTPATH TO BE RETAINED
- EXISTING KERB TO BE RETAINED
- PROPOSED CYCLE RAMP
- PROPOSED BUS SHELTER
- DELINEATOR POSTS
- CW CYCLEWAY
- FP FOOTPATH
- RD ROAD
- SA SHARED AREA
- TL TURNING LANE
- POTENTIAL FOR NEW HEDGE PLANTING
- LENGTH OF VEGETATION CLEARANCE
- PROPOSED TREES

EXISTING TREES:

- TO BE RETAINED (WITHOUT MITIGATION MEASURES)
- TO BE RETAINED (WITH MITIGATION / MAINTENANCE MEASURES)
- TO BE REMOVED (AS A RESULT OF THE PROPOSED SCHEME)

NOTES :

1. PROPOSED CYCLE TRACKS, CYCLE LANES TO BE 2.0m WIDE UNLESS NOTED OTHERWISE.
2. PROPOSED FOOTWAYS SHALL BE 2.0m WIDE UNLESS NOTED OTHERWISE.

Rev	Description	By	Date	Chk'd	Auth
B	PART 8 PLANNING (FINAL)	DB	02.11.22	JMC	ST
A	PART 8 PLANNING (DRAFT)	DB	27.10.22	JMC	ST
-	PART 8 PLANNING (DRAFT)	CL	28.09.22	JMC	ST

NTA
Údarás Náisiúnta Iompair
National Transport Authority

ATKINS
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Fax (+353) 01 810 8001
Unit 2B, 2200 Cork Airport Business Park, Cork
Tel (+353) 021 429 0300
Fax (+353) 021 429 0360
1st Floor Technology House Parkmore Technology Park, Galway
Tel (+353) 091 786 050
Fax (+353) 091 779 830

Client: MEATH COUNTY COUNCIL

Project: NAVAN CYCLE SCHEME
R147 POOLBOY BRIDGE TO KELLS ROAD ROUNDABOUT

Purpose: PART 8 PLANNING

Title: GENERAL ARRANGEMENT SHEET 1 OF 2

Original Scale	Design/Drawn	Checked	Authorised
1:500 @ A1 1:1000 @ A3	CL Date 28/09/22	JMC Date 28/09/22	ST Date 28/09/22

Status	Drawing Number	Rev
P	5214376 / HTR / DR / 0121	B

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Date: Nov 09, 2022 - 2:25pm
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DO NOT SCALE

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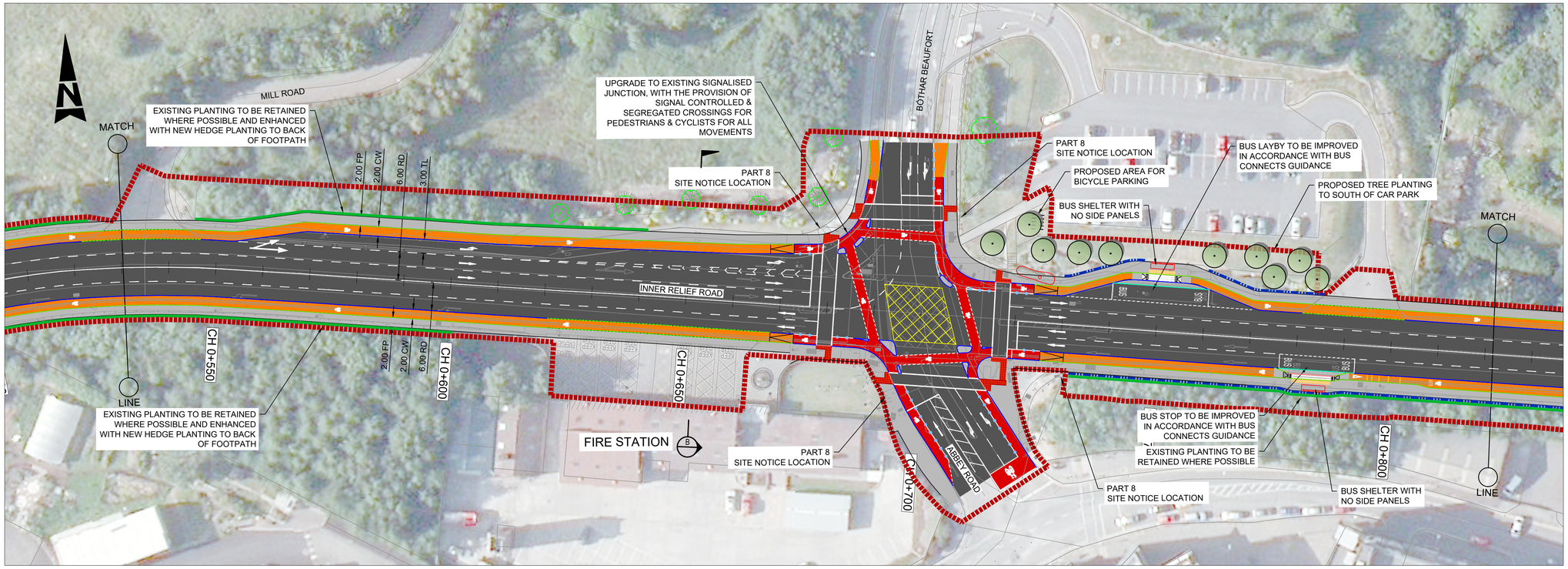

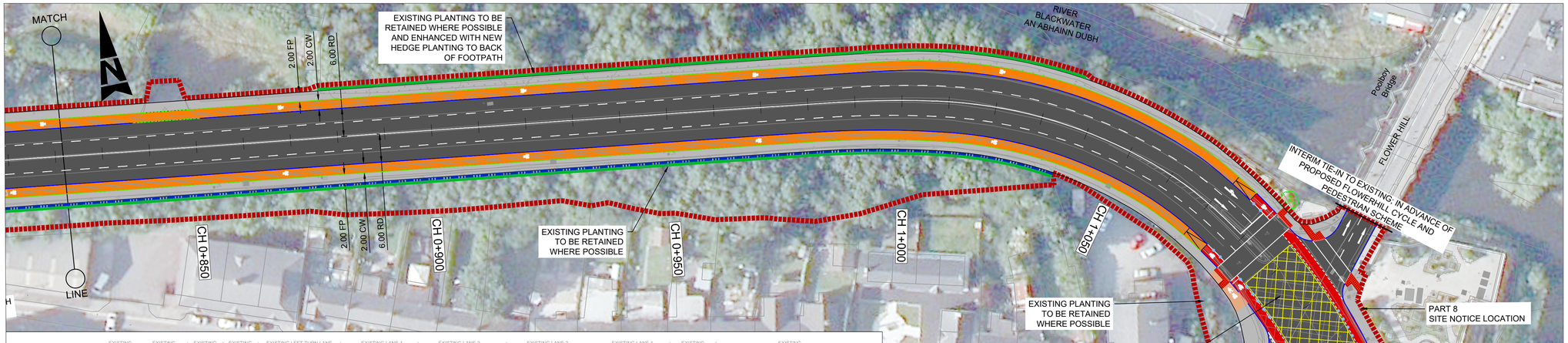

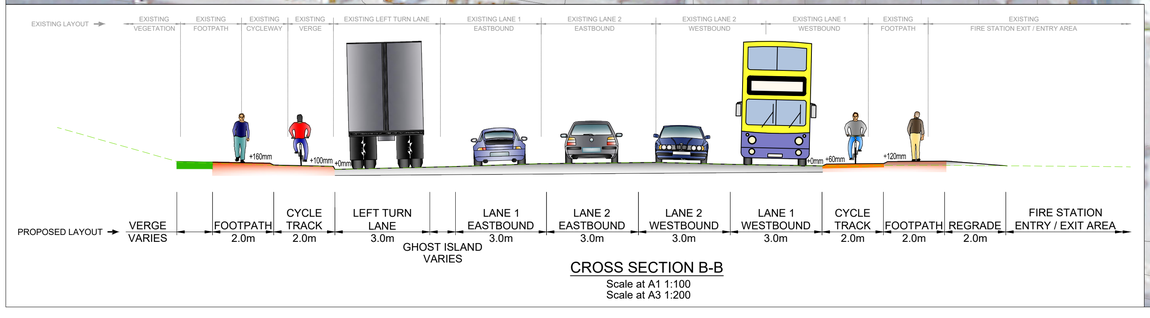

CROSS SECTION B-B
Scale at A1 1:100
Scale at A3 1:200

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1st Floor Technology House Parkmore Technology Park, Galway Tel (+353) 091 786 050 Fax (+353) 091 779 830

Client: MEATH COUNTY COUNCIL

Project: NAVAN CYCLE SCHEME
R147 POOLBOY BRIDGE TO KELLS ROAD ROUNDABOUT

Purpose: PART 8 PLANNING

Title: GENERAL ARRANGEMENT
SHEET 2 OF 2

Original Scale	Design/Drawn	Checked	Authorised
1:500 @ A1 1:1000 @ A3	CL Date 28/09/22	JMC Date 28/09/22	ST Date 28/09/22

Status: P
Drawing Number: 5214376 / HTR / DR / 0122
Rev: B

File: 5214376_HTR_DR_0122.dwg
Date: Nov 09, 2022 - 2:24pm
Plotted by: DBren

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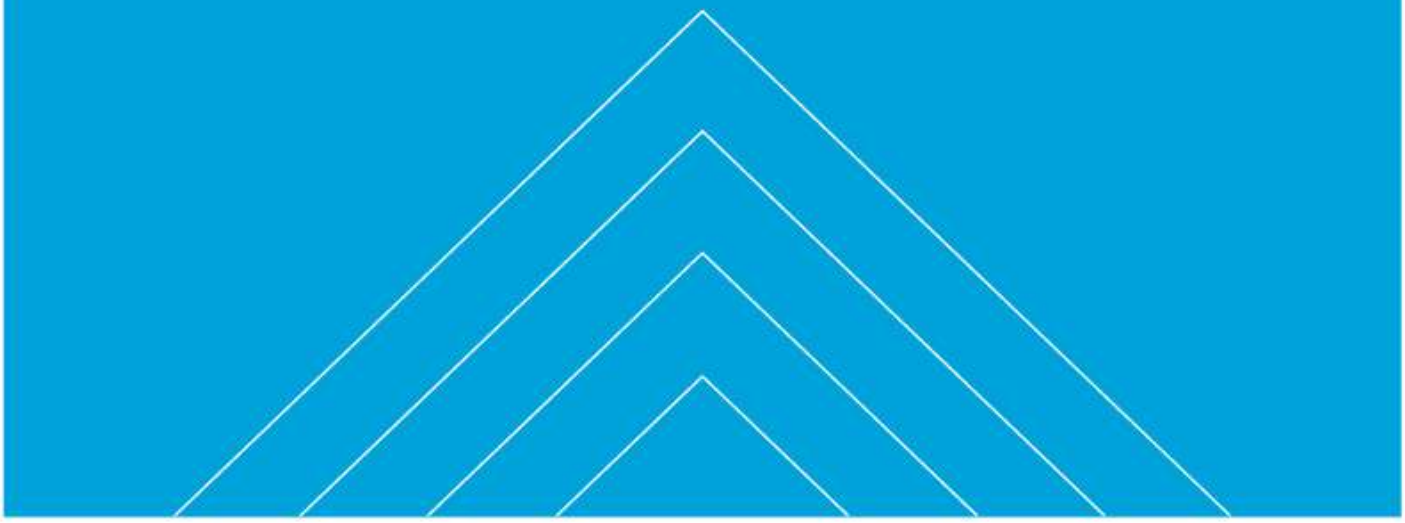
Appendix B. Arboricultural Impact Statement



ARBORICULTURAL IMPACT STATEMENT

FOR

Navan Cycle Scheme

- R147- Poolboy Bridge to Kells Rd Roundabout

OCTOBER 2022

PB

COMMISSIONED BY

ATKINS GLOBAL

Dr Philip Blackstock

ARBORICULTURAL IMPACT STATEMENT

On trees growing in the grounds of

For

Terms of reference

This statement was commissioned to identify the likely, foreseeable impacts of the proposed re-development of the above site on existing trees.

Proposed site plan referred to in this impact statement

5124376_HTR_DC_0121 Bound, with Tree Constraints Plan added

Produced by

Atkins Global & Dr Philip Blackstrock

Details available

Site Plan indicating position and Tree Protection Zones of existing trees, as well as the footprints of the existing and proposed buildings. No details on underground services, proposed level changes, elevations or the positions of proposed windows were available.

Statement produced on

5th October 2022

Impact Statement carried out and report compiled by

Dr Philip Blackstock, 26 Tullynahinnion Road, Portglenone BT44 8EL
Telephone 02825 821202, Fax 02825 821295, Mobile 07767 393075,
Email philip.blackstock@dnet.co.uk.

ARBORICULTURAL IMPACT STATEMENT FOR THE Navan Cycle Scheme - R147- Poolboy Bridge to Kells Rd Roundabout October 2022

The proposed cycle scheme on the R147 Poolboy Bridge to Kells Road Roundabout is part of a larger upgrade scheme designed to create connected cycle routes through Navan. In this part of the scheme, most of the upgrades are being accommodated within the existing hard surfaces of the carriageway and associated footpaths. As these lands are already occupied by ground that would not be deemed suitable for extensive tree root growth, it is assumed that no significant impacts on adjoining trees will occur.

There are a few places where the existing grass verge is to be incorporated into the new infrastructure. In these instances, it is likely that any tree or group of trees that are utilising these verges for structural support will be adversely affected, particularly where these proposed works extend within the notional root protection area surrounding these trees. (Tree roots tend to grow towards and then follow underground obstructions like the haunching supporting kerbs.) Because of this; and because of the obviously high risk of tree failures so close to a busy road, trees affected by loss of root protection area will be lost. In addition, where edge trees are removed from established blocks of wood, there will be a need to stabilise adjoining, retained trees by reducing their crowns in a way that creates a stable woodland edge.

Part of Group (G)93, Wood (W)966, W113 and G149 will be removed to facilitate these proposed developments. In these instances; it is likely that any stem within about 5.0m from the edge of construction will be removed. Those trees immediately exposed should have their live crowns reduced by about 30% by reducing end weight in their crown tops and sides. In addition, a Hedge (H)102, G117, G130, T131, G144 and G147 will be removed to facilitate these developments.

Finally, to ensure that those trees that are to be retained are not adversely affected by these developments, the arboricultural method statements reproduced below that are relevant to this project should be adopted

Dr Philip Blackstock

ARBORICULTURAL METHOD STATEMENTS

Protection of trees. A protective barrier, 2.3m high and comprising a vertical and horizontal framework of scaffolding, well braced to resist impacts and securely supporting weldmesh panels, (as illustrated in Figs 2 & 3 of BS5837:2012) shall be erected around the base of all trees to be retained on site. This barrier shall be clearly identified on site by the attachment of all-weather signs of suitable dimension stating: 'CONSTRUCTION EXCLUSION ZONE – NO ACCESS'. The line of this fence shall be at least the distance defined in the attached plan, or as otherwise directed by Dr Philip Blackstock. No construction traffic, materials or debris will be permitted within this zone of protection.

Access facilitation pruning. If it is deemed appropriate to trim back retained trees to provide adequate access to approved construction works, all such tree works should be undertaken by a competent and suitably qualified tree surgeon (will associated support, as defined in the Health and safety section of this report). Such works shall remedy any tree related conflict with proposed structures or access in a way that ensure that not less than 70% of live buds are retained within the tree canopy. The aim of the tree works shall be to retain the general form of the tree by a combination of crown thinning, reduction of end weight (tipping back of outermost branches) and the re-forming of the trees crown to create a pleasing and balanced crown. No branch, limb or trunk greater than 100mm diameter shall be cut in the process of reducing end weight.

Temporary surfaces within zone of protection. Where temporary access is to be established within the 'zone of protection' surrounding retained trees, (for example, during demolition of existing buildings), ground surfaces will be protected by a layer of sharp sand, approx. 50 mm thick, overlaid with a geotextile membrane on which a temporary surface of no fines granular material, at least 150 mm thick, (as detailed by a competent Civil or Structural Engineer) is laid. Where traffic is turning on these surface, stout planks will be laid over the geotextile membrane and below the granular material. The trunks of adjacent trees shall be suitably protected as indicated on site by Dr Philip Blackstock.

Demolition within the zone of protection. If it is deemed necessary to carry out demolition works within a construction exclusion zone surrounding retained trees, (for example, to remove existing paths), or kerbs, only pedestrian operated plant, or low ground pressure plant that is less than 2 tonnes gross weight fully loaded, shall be permitted. Such plant shall only be operated on existing hard surfaces, or where temporary surfaces have been established. In any case, no excavations within the root protection zone of these retained trees shall be permitted, except only, under close supervision, with the use of an 'Air Spade' or by the careful use of hand tools in a way that retains, without damage, all exposed roots with a diameter greater than 25mm.

Scaffolding within zone of protection. Where scaffolding is to be established within the 'zone of protection' surrounding retained trees, the existing undisturbed ground surfaces shall be protected by a layer of sharp sand, approx. 50 mm thick, overlaid with a geotextile membrane. Stout planks, such as closely side-butted scaffold boards, will be laid over the geotextile membrane and scaffolding will be constructed on these planks with additional stays, as directed by a competent person. Adequate protective fencing, as Illustrated in Figs 2 & 3 of BS5837:2012, will be maintained between scaffolding and adjacent trees.

Construction of hard surfaces close to retained trees. Where permanent surfaces are to be constructed close to retained trees, within the zone of protection as defined by BS5837: 2012, carefully remove accumulated organic material and loose soil, leaving existing topsoil in situ. Protect root zone with a layer of sharp sand and, on this, establish a firm sub-base of no-fines granular material supported on a geotextile membrane and a three-dimensional cell product (as defined by a competent Civil or Structural Engineer). Construct the paved area on this sub-base using established design guidelines (and no-fines granular material) with a porous surface finish such as pavers or porous bitmac.

Alterations of levels on lands adjoining construction exclusion zones. Where it is deemed appropriate to lower ground levels on land adjoining a root protection zone established around a retained tree, all excavations and the subsequent construction of supporting structures shall be managed in a way that excludes access by construction traffic to the construction exclusion zone. Where such alterations result in the lowering of existing surfaces, the existing ground water environment within the root protection zone shall be maintained by the insertion of a root barrier behind proposed supporting structures. This shall consist of a non-porous barrier carefully inserted in a way that maintains the existing soil moisture regime surrounding the retained tree. Where alterations result in the raising of levels, these shall be designed and detailed by a competent Civil or Structural Engineer to ensure no alterations to ground conditions within the root protection zones.

Landscaping within the root protection zone. If it is deemed necessary to carry out landscaping, planting or re-instatement works within a construction exclusion zone surrounding retained trees, only pedestrian operated plant, or low ground pressure plant that is less than 2 tonnes gross weight fully loaded, shall be permitted. Such works should be supervised by competent Horticulturalists and be timed and designed to ensure that no soil compaction occurs. In any case, no excavations within the root protection zone of these retained trees shall be permitted, except only, under close supervision, with the use of an 'Air Spade' or by the careful use of hand tools in a way that retains, without damage, all exposed roots with a diameter greater than 25mm.

Construction of garden walls or fences within the root protection zones of retained trees. No trench foundations are to be permitted within the root protection area of a retained tree. If walls, railings or other light structures are to be constructed within the root protection area of retained trees, these structures should be supported on point foundations excavated using a 300mm diameter drill or augur. (If in situ concrete foundations are to be constructed, the sides of the foundation pit, to 1.0m deep, should be lined with a non-porous lining.) In any case, no excavations for point foundations are to be permitted within 1.5m of a retained mature or semi mature tree. Excavations for these point foundations should be more than 2.0 apart and the wall or railings should be supported on a beam, or similar, constructed so that its underside is at least 50mm above exiting topsoil level. As the roots of large, retained trees may cause some movement within the top 1.0 m of the soil profile, all foundations should be designed by a competent Structural or Civil Engineer and be constructed to account for this.

HEALTH AND SAFETY

Working with trees is a hazardous occupation. It is important that competent tree surgery contractors are employed to carry out the tree works recommended in the attached tree survey report sheets. These contractors should carry all relevant insurance cover and should comply with the recommendations outlined below.

Notwithstanding the following recommendations, all tree surgeons and accompanying staff should comply with all the requirements contained in the Safety, Health and Welfare at Work Act 1989 (SHWW Act, 1989) and the Safety, Health and Welfare at Work (General Applications) Regulations, (GAR Regs, 1993) for forestry operations, Part 4 – work at height of the Safety, Health and Welfare at Work Regulations (2007), the Code of Practice for Managing Safety and Health in Forestry Operations and all subsequent legislation made thereunder.

Staff qualifications, experience and training

Only skilled operatives should be employed for all the work specified in the attached tree survey report sheets. These skilled operatives should have a proven expertise and experience in the areas of work specified and should hold all relevant certificates of competence.

Operatives using chain saws to fell trees must have National Proficiency Test Council (NPTC) certificate of competence Units CS 30, 31*, 32*, 33* (* whichever is appropriate for the size of tree being felled) if they are working from the ground and, in addition, Units CS 38, 39, 40 & 41 if they are climbing.

All operatives undertaking work near underground or overhead electric cables must have attended an Electricity Safety Awareness course, (such as UA1 Utility Arborist 1 Ireland). They must comply with the guidelines laid down in the Guidelines for Safe Working near Overhead Electricity lines in Agriculture (2010, published by the Health and Safety Authority), Code of Practice for Avoiding Danger from Overhead Electricity Lines (2019, published by ESB). Where there is a risk of a climber, equipment or parts of a tree touching or coming close to overhead cables, the advice of ESB must be sought, and adhered to, before work commences.

Work wear

All operatives should wear the appropriate safety clothing for the task being performed as specified in the relevant safety codes. Where operatives are employed on tree work near public roads, or when the available lighting is poor, they should wear high visibility 'florescent' jackets or waistcoats

Tools and Equipment

Tree surgeons should use such tools and equipment deemed suitable to complete the specified task. All bladed tools should be sharp and in a serviceable condition. All plant and machinery operated by the tree surgeon should be tested and certified to comply with all current legislation. All vehicles should be taxed and roadworthy. Machinery and vehicles should carry operational fire extinguishing equipment to the standards required by insurers.

All machinery should be used in accordance with the manufacturers' instructions. These machines should carry warning notices as specified by the relevant Health and safety guide.

Climbing and lifting equipment for tree work is subject to the provisions outlined in Chapter 2, Part 2 (updated 2010) of the Guide to the Safety, Health and Welfare at Work (General Application) Regulations 2007. Operatives using climbing or lifting equipment should be familiar with, and comply with, these and all other relevant regulations.

First aid
All chain saw operatives should have a current First Aid Certificate. No chain saw operative should be left working on site without an additional first aider present. These operatives should be familiar with FASTCo Safety Guide 802: Emergency Planning and First Aid.

All operatives should have immediate access to a first aid kit conforming to SI 1981 No 917 and FSC 34, and, in addition, carry a personal first aid kit which includes a large sterile wound dressing.

Site Organization
Tree surgeons should ensure that a team of at least three people carry out all tree climbing, pruning and tree felling operations. When undertaking tree climbing work, one of the grounds staff must be competent to perform aerial rescue and be conversant with FASTCo Safety Guide 401: Aerial Tree Rescue. In addition, one of the ground staff must be made responsible for ensuring that there is no trespass into the working zone when tree pruning or felling operations are taking place. Adequate staff should be available during tree work operations to ensure that no unauthorized persons or livestock enter the working area.

Tree surgeons should provide and constantly maintain all necessary warning and direction notices, cones and barriers when carrying out tree works that are adjacent to a road or footpath used by the public. These should conform to the recommendations and directions given in;
- Chapter 8 of the Traffic Signs Manual 1993,
- Temporary Traffic Management Design Guidance 2019
- Temporary Traffic Management Operations Guidance 2019 (all published by Department of Transport, Tourism and Sport)
- Safety at Street Works and Road Works- a code of practice 2013
- Any other relevant legislation and guidance

Where tree works are to be carried out over, or adjacent to, public roads, the contractor should arrange the work to avoid traffic congestion and public inconvenience. They should make arrangements with the Garda Siochana and the local county council as may be found necessary.

Statement of truth

I Dr Philip Blackstock confirm that I have made clear which facts and matters referred to in this report are within my own knowledge and which are not. Those that are within my own knowledge I confirm to be true. The opinions I have expressed represent my true and complete professional opinions on the matters to which they refer.

Signed:

Date:
5th October 2022

QUALIFICATIONS
National Diploma of Horticulture (R.H.S) Inter.
Diploma in Industrial Management
M.Sc. in Environmental Management (A Field Survey of Unmanaged Roadside Cuttings in South Antrim)
D.Phil. in Forestry (Broad-Leaved Tree and Shrub Invasion of Conifer Plantations in Ireland)

Professional member of the Arboricultural Association
Registered Forestry Consultant with the Irish Forest Service

EMPLOYMENT
1996 to present
Arboricultural and Woodland Consultant
Duties include carrying out tree and vegetation surveys and providing tree and woodland management plans, completing reports and liaising with clients, providing court appearances etc. for public and private clients.

ARBORICULTURAL AND FORESTRY EXPERIENCE AND EXPERTISE
I have carried out surveys and produced reports on the health, condition, amenity value and landscape value of more than 250,000 trees since 1983. Since 1996 I have been fully employed as an Arboricultural and Forestry Consultant. Clients have now included most of the Local Authorities, Health Trusts and Government Departments within Northern Ireland. Private clients have included Solicitors, Architects and Developers. I have also lectured, to foundation degree level, on arboriculture and forestry.

I have provided expert opinion (including Court appearances) for many clients involved in litigation or in planning appeals since 1996. Topics covered by these opinions have included the predictability of failure in trees, amenity and financial evaluation of damage to trees, evidence of subsidence caused by trees, evidence of unsafe tree surgery practices leading to injury, and tree related evidence in boundary and planning disputes.

I have maintained a research interest in the effects of environmental influences on tree and shrub regeneration in Ireland and on the development of woody biodiversity in recently planted woods. I have also a research interest in the distribution of and environmental influences on deciduous tree diseases, tree stability and in the incidence of dangerous roadside trees.

Dr Philip Blackstock

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150 Airside Business Park
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K67 K5W4
Tel: +353 1 810 8000