Ratoath Pedestrian & Cycling Scheme

Stage 1 Screening for Appropriate Assessment

February 2020

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1. Introduction

- 1.1 Atkins has been commissioned by Meath County Council to conduct a Stage 1 Screening for Appropriate Assessment for the proposed Ratoath Pedestrian & Cycling Scheme.
- 1.2 Ratoath is situated on the intersection of the R125 and R155 regional roads in the south east of County Meath. The town has developed significantly over the last 20 years and acts as a commuter town with more than three quarters of the population travelling to work in Dublin.
- 1.3 Meath County Council (MCC) in partnership with the National Transport Authority (NTA) propose to deliver a high-quality Pedestrian and Cycle Scheme within Ratoath. The proposed scheme consists of improvements and upgrades to the follow key routes: -
 - Town Centre Streets
 - Approach Roads
 - Distributor Roads
 - Greenway
 - School Access Roads
- 1.4 The site location is presented in Figure 1.1. A full set of design drawing accompanies the Part 8 planning application (see also Appendix A).
 - Book of Drawings
 - o Drawing 5139451/HW/0000: Cover Sheet
 - o Drawing 5139451/HW/0001: Site Location Plan
 - Drawing 5139451/HW/0002: Site Extents Key Plan
 - Drawing 5139451/HW/0003: Site Extents (Sheet 1 of 3)
 - o Drawing 5139451/HW/0004: Site Extents (Sheet 2 of 3)
 - Drawing 5139451/HW/0005: Site Extents (Sheet 3 of 3)
 - o Drawing 5139451/HW/800: General Layout Key Plan
 - Drawing 5139451/HW/800: General Layout Key Plan (Sheets 1 15)
- 1.5 The AA Screening should read in conjunction with the accompanying Part 8 Planning Report; an Ecology Report prepared for the proposed Greenway (see Figure 1-1) and the accompanying Construction and Environmental Management Plan.

Purpose of the Scheme

Scheme Purpose

- 1.6 Ratoath is a situated on the intersection of the R125 and R155 regional roads in the south east of County Meath. The town has developed significantly over the last 20 years and acts as a commuter town with more than three quarters of the population travelling to work in Dublin. In this time the town's population has also grown significantly with a stated population of just over 1,000 inhabitants in 1996, compared to over 9,000 inhabitants per the 2011 census records.
- 1.7 The expansion of both residential and educational developments within Ratoath over this period has coincided with national policy to promote and encourage sustainable travel among all age groups with a particular emphasis on creating a walking and cycling cultural among younger generations for the undertaking of short local short trip purposes. As such the need has arisen to provide improved pedestrian and cycle provision to form better connections between residential areas, schools, amenities and the town centre.
- 1.8 The proposed scheme will therefore aim to secure the development of pedestrian and cycle routes that will provide a high quality of service, whilst also ensuring that there remains an optimal balance of provision between the various competing transport modes within the town and its environs.

Scheme Objectives

- 1.9 The objectives of the proposed Pedestrian and Cycle Scheme are: -
 - Provide appropriate pedestrian and cycle facilities within the town centre, along the Broadmeadow river and on all key approach roads
 - To provide safe route link and crossing facilities for pedestrian and cyclists;
 - To provide appropriate speed and traffic management within the town centre and on approach roads;
 - To facilitate national/county policies/objectives in relation to sustainable transportation;
 - To facilitate the development of the Greater Dublin Area Cycle Network Plan;
 - To comply with the design standards and principles advocated within the Design Manual for Urban Roads and Streets and National Cycle Manual.

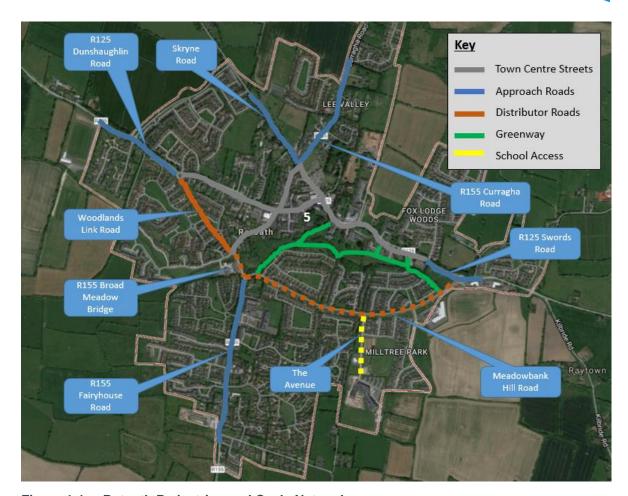


Figure 1-1. Ratoath Pedestrian and Cycle Network.

2. Scope of Study

Aims of the Report

2.1 The purpose of Screening for AA is to determine the likelihood of significant effects, if any, which the proposed remedial retaining wall repair works could have on Natura 2000 sites.

Legislative Context

- 2.2 Directive 92/43/EEC on the Conservation of Natural Habitats and Wild Fauna and Flora, known as the 'Habitats Directive' provides legal protection for habitats and species of European importance. Article 2 of the Directive requires the maintenance or restoration of habitats and species of European Community interest, at a favourable conservation status. Articles 3 9 provide the legislative means to protect habitats and species of Community interest through the establishment and conservations of an EU-wide network of sites known as Natura 2000 sites. Natura 2000 sites are Special Areas of Conservation (SACs) designated under the Habitats Directive and Special Protection Areas (SPAs) designated under the Conservation of Wild Birds Directive (79/409/EEC).
- 2.3 Articles 6(3) and 6(4) of the Habitats Directive set out the decision-making tests for plans or projects that could potentially affect Natura 2000 sites. Article 6(3) establishes the requirement for Appropriate Assessment: -
 - "Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives. In the light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public."
- Article 6 (4) deals with the steps that should be taken when it is determined, as a result of Appropriate Assessment, that a plan or project will adversely affect a European site. Alternative solutions, imperative reasons of overriding public interest (IROPI) and compensatory measures need to be addressed in this case. Article 6(4) states: -
 - "If, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature, the Member State shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted.

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

Appropriate Assessment Process

2.5 Guidance on the AA process was produced by the European Commission (EC, 2001), which was subsequently used to develop guidance for Ireland by the Department of Environment, Heritage and Local Government in 2009 (DEHLG, 2009). These guidance documents set out a four-staged approach to complete the AA process and outlines the issues and tests at each stage.

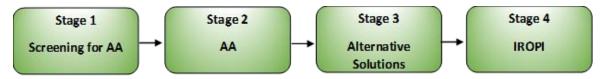


Figure 2-1 Appropriate Assessment Process (Source: DEHLG, 2009).

2.6 The stages outlined below are taken from the guidance document Appropriate Assessment of Planes and Project in Ireland – Guidance for Planning Authorities (DEHLG, 2009).

Stage 1 – Screening for Appropriate Assessment

- 2.7 Screening is the process that addresses and records the reasoning and conclusions in relation to the first two tests of Article 6(3):
 - i. Whether a plan or project is directly connected to or necessary for the management of the site, and
 - ii. Whether a plan or project, alone or in combination with other plans and projects, is likely to have significant effects on a Natura 2000 site in view of its conservation objectives.
- 2.8 If the effects are deemed to be significant, potentially significant, or uncertain, then the process must proceed to Stage 2 (AA).

Stage 2 – Appropriate Assessment

- 2.9 This stage considers whether the plan or project, alone or in combination with other projects or plans, will have adverse effects on the integrity of a Natura 2000 site, and includes any mitigation measures necessary to avoid, reduce or offset negative effects.
- 2.10 The competent authority can only agree to the plan or project after having ascertained that it will not adversely affect the integrity of the site(s) concerned. If this cannot be determined, and where mitigation cannot be achieved, the alternative solutions need to be considered and the process proceeds to Stage 3.

Stage 3 - Alternative Solutions

2.11 This stage examines any alternative solutions or options that could enable the plan or project to proceed without adverse effects on the integrity of a Natura 2000 site. The process must return to Sate 2 as alternatives will require appropriate assessment in order to proceed. Demonstrating that all reasonable alternatives have been considered and assessed, and that the least damaging option has been selected, is necessary to progress to Stage 4.

Stage 4 - IROPI

2.12 Stage 4 examines whether there are imperative reasons of overriding public interest for allowing a plan or project that will have adverse effects on the integrity of a Natura 2000 site to proceed in cases where it has been established that no less damaging alternative solution exists.



Compensatory measures must be proposed and assessed, of which the Commission must be informed.

- 2.13 The AA process only progresses through each of the four stages for certain plans and projects. For example, for a project not connected with the management of a site and where no likely significant effects on a Natura 2000 site in view of its conservation objectives are identified, the process stops at Stage 1, Screening for AA. Throughout the process the precautionary principle must be applied, which requires that the conservation objectives of Natura 2000 should prevail where there is uncertainty (EC, 2001).
- 2.14 This report is for Stage 1 of the process, Screening for Appropriate Assessment.

3. Methods

Guidance documents

- 3.1 The Screening for Appropriate Assessment was prepared with reference and due consideration to the following documents and case law, including but not limited to: -
 - Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild flora and fauna (Habitats Directive).
 - Statutory Instrument No. 477/2011 European Communities (Birds and Natural Habitats) Regulations 2011.
 - European Commission (2017). Managing Natura 2000 sites: the provisions of Article 6 of the 'Habitats' Directive 92/43/EEC.
 - European Commission (2001). Assessment of plans and projects significantly affecting Natura 2000 sites: Methodological guidance on the provisions of Articles 6(3) and (4) of the Habitats Directive 92/43/EEC.
 - European Commission (2007). Guidance document on Article 6(4) of the 'Habitats Directive' 92/49/EEC; clarification of the concepts of: Alternative solutions, Imperative reasons of overriding public interest, Compensatory Measures, Overall Coherence, Opinion of the Commission.
 - Department of the Environment, Heritage and Local Government (2009). Appropriate Assessment of Plans and Projects in Ireland. Guidance for Planning Authorities.
 - Case C-323/17 People Over Wind & anor. V. Coillte.

Desk Study

- 3.2 Locations and boundaries of all Natura 2000 sites within 15km of the proposed development were identified and reviewed using the National Parks and Wildlife Service (NPWS) online map viewer and the EPA Appropriate Assessment Geo Tool. Boundary shapefiles were also downloaded from this site to facilitate the preparation of project graphics. Possible hydrological linkages were examined using the EPAs Appropriate Assessment Geo Tool.
- 3.3 Desktop information on relevant Natura 2000 sites were reviewed on the NPWS website, including the site synopsis for each SAC/SPA, the conservation objectives, the site boundaries as shown on the NPWS online map viewer, the standard Natura 2000 Data Form for the SAC/SPA which details conditions and threats of the sites, and published information and unpublished reports on the relevant Natura 2000 sites. Article 17 mapping on the distribution of annexed habitats was downloaded from the NPWS webpage. The study area and the surrounding area was viewed using Google Earth, Google maps¹ and Bing maps² (last accessed on 25/06/2019).
- 3.4 Planning information from the surrounding area, dated within the last 5 years, was reviewed using the planning enquiry systems of Meath County Council. Search criteria were implemented to screen

¹ https://www.google.ie/maps

² http://www.bing.com/maps/

out such projects or plans that would not be relevant to this study. Plans and projects of interest included: -

- large scale projects/plans, requiring ER, EIAR, AA screening, or NIS;
- any project within 200m of the site.
- 3.5 This was used to determine potential cumulative impacts from other plans / projects near the proposed works.
- 3.6 The National Parks and Wildlife Service (NPWS) and National Biodiversity Data Centre (NBDC) online databases were also consulted concerning Natura 2000 sites, their features of interest, and invasive species near and around the retaining wall site.

Consultation

3.7 Consultation through the DAU of the Department of Arts, Heritage, Regional, Rural and Gaeltacht affairs was not formally undertaken for this project as it is not contained within or adjacent to a Natura 2000 site. The site shares a remote hydrologically connection with the Malahide Estuary SAC and the Malahide Estuary SPA via the Broadmeadow River which flows through the site – however, given the distance downstream to the SAC and SPA and minor temporary nature of the works no impacts are deemed likely to occur.

Statement of Authority

The appropriate assessment was initially undertaken by Elaine Bennett under the direction of Paul 3.8 O'Donoghue. Following adjustments to the proposed Ratoath Pedestrian & Cycling Scheme route a revision to this appropriate assessment was carried out by Conor Ruane in February 2020. The current Screening for Appropriate Assessment report was prepared by Conor Ruane and Paul O'Donoghue. Conor Ruane has a BSc (Hons) in Environmental Science. Conor has worked in ecological and environmental consultancy since 2014, working on a wide range of projects including bridge works, road construction, and road maintenance works. A focus of Conor's work to date has been on conducting Appropriate Assessment screenings, ecological appraisals and supporting the preparation of Natura Impact Statements and Ecological Impact Statements. Conor prepared this report. Paul O'Donoghue has a BSc (Zoology), MSc (Behavioural Ecology) and a PhD in avian ecology and genetics. Paul is a chartered member of the Society for the Environment (CEnv) and a full member of the Chartered Institute of Ecology and Environmental Management (MCIEEM). Paul has over 18 years' experience in ecology; including extensive experience in the preparation of Habitat Directive Assessments / Natura Impact Statements (i.e. Appropriate Assessment under Article 6(3) of the EU Habitats Directive). Paul carried out the technical review of this report.

4. Site Context

Proposed Development

- 4.1 The overall development consists of cycleways on existing paths/roadways with a Greenway element adjacent to the Broadmeadow River. This greenway running through lands adjacent to the Broadmeadow River was the focus of this Ecology Report. It should be noted the Broadmeadow River is also named as the Ratoath Stream (EPA Seg Code: 08_577) on the EPA River Network dataset. For the purpose of this this report it will, however, be called the Broadmeadow River. The stream is illustrated in Figure 1.1.
- 4.2 The following plates illustrate elements of the existing scheme (Plate 4.1).



Plate 4.1 Existing elements of the pathway at Ratoath.





Plate 4.2. Existing elements of the pathway at Ratoath (continued).

- 4.3 The proposed works facilitate the implementation of improvements to pedestrian and cycle facilities and general traffic management within the town centre itself, along the Broadmeadow River and along the following major approach roads: -
 - Skryne Road
 - Curragha Road
 - Swords Road
 - Fairyhouse Road
 - Woodlands Link Road
 - Dunshaughlin Road
- This will comprise of the retrofitting of the existing street layout, realignment of kerbs, widening of the pedestrian footpaths, provision of new uncontrolled and controlled crossing layouts, reallocation of on street parking, retrofitting existing priority, roundabout and traffic signal junction layouts, upgrade of existing bus stops, relocation, upgrade and installation of public lighting, and implementation of speed management measures to create a self-regulating street environment conducive to pedestrian and cyclist safety and comfort. Certain sections of the works will also include the provision of appropriate street furniture and landscaping, removal of unnecessary street signage and furniture, installation of cycle parking and the resurfacing of road and footway pavements with appropriate materials. These elements are illustrated in full in the accompanying design drawings (Appendix A).

- While, the majority of the pedestrian and cycle scheme would be located on made ground, the greenway adjacent to the Broadmeadow River consists of some existing informal paths, through improved grassland (GA1) and wet grassland (GS4), which will require re-surfacing; two additional pathway are proposed to link the Green Village Residential area north of the river along with the installation of stepped access pathways at existing pathways connecting the Meadowbrook Hill Residential Development to the south. In general, the proposals for the riverside greenway are straightforward and do not incorporate any significant earth works or tree removal. It is proposed to upgrade the existing path to a consistent standard in terms of width, surfacing and appropriate public lighting (see Plate 4.1 & Appendix A).
- 4.6 The additional paths north of the river will provide access further east towards the Village Green Hill, increasing permeability and offering additional walking and cycling amenity within the town (see Appendix A).
- 4.7 A new footpath is proposed on the southern side of the Dunshaughlin Road; this is to be positioned within the existing footpath and verge. Excavation would be 250 to 300mm and will be 1m back from the edge of the footpath; running parallel with the ivy-covered broad-leaved trees along the southern side of the road. No removal of trees is required here. Every effort will be made limit impact to these trees and the root zones of the trees (See Ecology Report). There may be a minor interaction of the proposed pathway and the root systems of trees. However, the path will be constructed as far back as possible and where necessary might include a narrowing of the roadway; thus the retention of these trees has been integrated to the proposed development by means of designing / retaining buffer areas of public open space around them, however careful planning and site management will be required during construction works to ensure these areas are not adversely impacted by construction activities³.
- The proposed pedestrian and cycle facilities along Woodlands Link section of the scheme consist one-way cycle tracks on both sides of the road adjacent to the existing footpaths. A tree survey and root ball assessment carried out by Cunnane Stratton Reynolds on behalf of Atkins Ecology in November 2019 found; the assessment found the works on the Woodland links will entail the removal of the 59 semi-mature ornamental trees (*Tilia cordata, Acer psuedoplatanus & Quercus robur*). As these ornamental species such as these are not linked to nearby designated sites impacts to trees and proposed mitigation here is outlined in the accompanying Ecological Report.
- 4.9 Side road junctions will be negotiated via raised uncontrolled crossings. The removal of trees located within the grassed verge is necessary in order to provide a segregated cycling provision i.e. one-way cycle track on both sides of the road. It is evident that a segregated provision is the preferred option given the distributor road nature of this route along the Woodlands Link and the need to ensure segregation between cyclists, including children cycling to school, and high volume, high speed traffic. The design approach is discussed further in the Part 8 Report. The northern extent of this section will tie with proposed facilities on the R125 Dunshaughlin Road, whilst the southern extent will tie in with proposals at the Somerville Roundabout which are subject of a separate planning permission.
- 4.10 A new footpath and culvert upgrade works are proposed on western side of Curragha Road. This is to be positioned along the roadway within the existing roadside verge and adjacent to an ornamental hedge within a residential garden; the impact of this work be limited as the design does not impact on the adjacent field boundary. However, garden features impacted by the worked at this location will be replaced with same; the stream is a tributary of the Broadmeadow River.
- 4.11 Minor works to the culvert will also be required to widen lengthen the culvert to accommodate localised widening on the bend. The existing culvert pipe box section will be extended by 2m and placed on appropriate bedding material. The new culvert extension will be back filled with suitable

³ Tree Survey, Pedestrian/Cycles Scheme, Ratoath, Co Meath. November 2019. Cunnane Stratton Reynolds Land Planning & Design.



material and a new head wall will be constructed. New parapet with pedestrian guardrail to be constructed. New 2m minimum footpath to be constructed.

- 4.12 During construction small plant will be used for resurfacing, widening and construction of the new paths. Plant will consist of dumper trucks, pavers and diggers. Access to the works locations will be from the existing entrances. For the widening and construction of the new path, shallow excavations of topsoil will be required and then stone will be laid for the sub-base layer. The stone will be compacted and then a paver used to surface the path. 70mm of asphalt concrete base will be installed and 30mm of stone mastic asphalt will provide the surface layer. The site laydown area / site compound will not be located in proximity to the watercourse.
- 4.13 The path which proceeds through north and south along the Broadmeadow River Greenway will be resurfaced into a 3m wide greenway path with bound surfacing. The path width and alignment will be identical for both north and south of the Broadmeadow River, as will be the associated impacts. Exact construction detail and method will be specified at detailed design stage. It will be a requirement that the appointed Contractor prepares a Construction and Environmental Management Plan and that the final design solution is arrived at in consultation with an appropriately qualified ecologist in order to minimise the impacts to trees (refer to the accompanying Ecology Report).

5. Appropriate Assessment Screening

Connectivity of Works Area to Natura 2000 Sites

- The 'zone of influence' (ZoI) for a project is the area over which ecological features may be subject to significant effects as a result of the proposed project and associated activities. This is likely to extend beyond the project site, for example where there are ecological or hydrological links beyond the site boundaries. The zone of influence will vary for different ecological features depending on their sensitivity to an environmental change (CIEEM, 2018).
- A distance of 15 km is currently recommended in the case of plans, as a potential zone of influence, and this distance is derived from UK guidance (Scott Wilson et al., 2006). For projects, the distance could be much less than 15km, and in some cases less than 100m, but National Parks and Wildlife Service guidance advises that this must be evaluated on a case-by-case basis with reference to the nature, size and location of the project, the sensitivities of the ecological receptors, and the potential for in-combination effects.
- A search was conducted for Natura 2000 sites within 15km of the development. The proposed development is not located within a Natura 2000 site. There is a single Natura 2000 site located within 15km of the development the Rye Water Valley Carton SAC (site code 001398) is located ca. 14km to the south of the proposed development. Rye Water Valley Carton SAC is designated for: -
 - Petrifying springs with tufa formation (Cratoneurion) [7220]
 - Vertigo angustior (Narrow-mouthed Whorl Snail) [1014]
 - Vertigo moulinsiana (Desmoulin's Whorl Snail) [1016].
- However, there is no hydrological or ecological connectivity between the proposed development and this SAC. This site is not therefore considered further in this assessment.
- 5.5 The Broadmeadow River however, is hydrologically linked to Malahide Estuary SAC (site code 000205) and Broadmeadow/Swords Estuary (Malahide Estuary) SPA (site code 004025), which are located ca. 19.5km & 20.6km downstream, respectively, of the proposed development. Figure 5.1 illustrates the location of Natura 2000 sites in relation to the proposed development.
- 5.6 Within the study are the Broadmeadow River is quite small (ca. 2-3m); there was also evidence of litter in the river and poor existing water quality (water quality in Ratoath is currently Q2-3 / Q3; Poor Status⁴).

Malahide Estuary

5.7 As detailed above, Malahide Estuary SAC and Broadmeadow/Swords Estuary SPA are remotely hydrologically linked via the Broadmeadow River. No works are proposed to take place within the Broadmeadow River. The potential connection to the development area and the Broadmeadow River is remote and is a result of to the potential for run off from the works area to the river and

⁴ EPA River Water Quality 2004-2015; http://gis.epa.ie/Envision

minor culvert works within a tributary of the Broadmeadow River. Therefore, the connected Natura 2000 sites will be assessed in more detail.

Qualifying Interests of Malahide Estuary SAC

- 5.8 Taken from the Conservation Objectives document NPWS (2013) Conservation Objectives: Malahide Estuary SAC 000205. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht, the qualifying interests of Malahide Estuary SAC are as follows: -
 - 1140 Mudflats and sandflats not covered by seawater at low tide (M);
 - 1310 Salicornia and other annuals colonising mud and sand (M);
 - 1320 Spartina swards (Spartinion maritimae) no conservation objective for this site and not required to be included in AA (NPWS, 2013)⁵;
 - 1330 Atlantic salt meadows (Glauco-Puccinellietalia maritimae) (R);
 - 1410 Mediterranean salt meadows s (M);
 - 2120 Shifting dunes along the shoreline with Ammophila arenaria (white dunes) (R);
 - 2130 Fixed coastal dunes with herbaceous vegetation (grey dunes)* (R);
 *denotes priority habitat
- 5.9 There are detailed conservation objectives for this site which attributes and targets for each qualifying interests. The overall objective however, is to either restore or maintain the favourable conservation condition of each qualifying interest (this is denoted by R / M in the list above).
- 5.10 Threats and pressures to the site were derived from the Natura 2000 Standard Data form for the site and are detailed in Table 5.1.

Table 5.1 – Threats and Pressures – Malahide Estuary SAC.

Threats / Pressures	Inside/Outside	Rank (High/Medium/Low)
Urbanised areas, human habitation	Outside	High
Hunting	Inside	Low
Roads, motorways	Outside	High
Reclamation of land from sea, estuary or marsh	Outside	High
Golf course	Outside	Medium
Nautical sports	Inside	High
Walking, horse-riding and non-motorised vehicles	Inside	High
Fertilisation	Outside	High

⁵ Spartina beds in Ireland are not now viewed as equivalent to the annexed habitat 1320 Spartina swards (Spartinion maritimae)

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Potential for Significant Impacts to Malahide Estuary SAC

- 5.11 The SAC is designated for estuarine and coastal habitats. These habitats are located 19.5km from the proposed development and therefore there is no potential for direct impacts on the qualifying interests. Indirect impacts on these habitats are also not likely to occur due to a combination of the nature of the works (no in-stream works along the Broadmeadow River); as well as the extent and duration of proposed works. As noted a culvert located on a small tributary of the Broadmeadow River under Curragha Road is to be lengthened; the appointed contractor will be required to put in place site specific pollution control measures to protect local ecology and water quality. In the absence of such measures it is assumed that the distance to the SAC and dilution offered by the Broadmeadow River is such that negative impacts on Malahide Estuary SAC are not anticipated. However, it remains good practice to prevent any pollutants, such as silt laden waters, from reaching the stream in order to protect local ecology and water quality; and also to prevent these from travelling downstream.
- 5.12 Terrestrial dune habitats (2120 / 2130) for which Malahide Estuary SAC is designated would not be impacted by proposed works at Ratoath; while normal patterns of silt deposition within estuarine habitats is a key part of the functional biology of mudflats, saltmarshes and pioneer *Salicornia* beds (1140; 1310; 1320; 1330 and 1410).
- It will be a requirement of the contract that the appointed Contractor will be required to prepare a Construction and Environmental Management Plan which will focus in particular on preventing any pollutants entering the Broadmeadow River / tributary and on advising how the final design can minimise the loss of trees and protect water quality. The Contractor will be required to outline how these measures will be implemented and supervised. The majority of tree loss will be confined to semimature landscaped areas along the Woodland Links Road and trees in the proposed stepped access paths leading to the woodland. In general, the proposals for the riverside greenway are straightforward and do not incorporate any significant earth works or tree removal (see accompanying Ecology Report). The Contractor will also be required to demonstrate how impacts on vegetation will be minimised on the Dunshaughlin Road, Curragha Road and Woodland Links Road. The CEMP must be prepared with the input of a suitably qualified ecologist. The final design will also be required to identify areas of biodiversity gain within the final design; including identification of where trees can be planted (number equalling or greater than the number removed) (see accompanying Ecology Report).

Qualifying Interests of Broadmeadow/Swords Estuary SPA

- 5.14 Taken from the Conservation Objectives document NPWS (2013) Conservation Objectives: Malahide Estuary SPA⁶ 004025. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht, the Special Conservation Interests of the SPA area as follows:-
 - A005 Great Crested Grebe (Podiceps cristatus) (M)
 - A046 Brent Goose (Branta bernicla hrota) (M)
 - A048 Shelduck (Tadorna tadorna) (M)
 - A054 Pintail (Anas acuta) (M)
 - A067 Goldeneye (Bucephala clangula) (M)

⁶ This site is also often known as Broadmeadow or Swords Estuary.

- A069 Red-breasted Merganser (Mergus serrator) (M)
- A130 Oystercatcher (Haematopus ostralegus) (M)
- A140 Golden Plover (*Pluvialis apricaria*) (M)
- A141 Grey Plover (Pluvialis squatarola) (M)
- A143 Knot (Calidris canutus) (M)
- A149 Dunlin (Calidris alpina alpina) (M)
- A156 Black-tailed Godwit (Limosa limosa) (M)
- A157 Bar-tailed Godwit (Limosa lapponica) (M)
- A162 Redshank (Tringa totanus) (M)
- A999 Wetlands (M)
- 5.15 There are detailed conservation objectives for this SPA which detail attributes and targets for each species. The overall conservation objective is to maintain the conservation condition of each Special Conservation Interest.
- 5.16 Threats and pressures to the site, as detailed in the Natura 2000 Standard Data form for the SPA are detailed in Table 2.2.

Table 5.2 – Threats and Pressures – Malahide Estuary SPA.

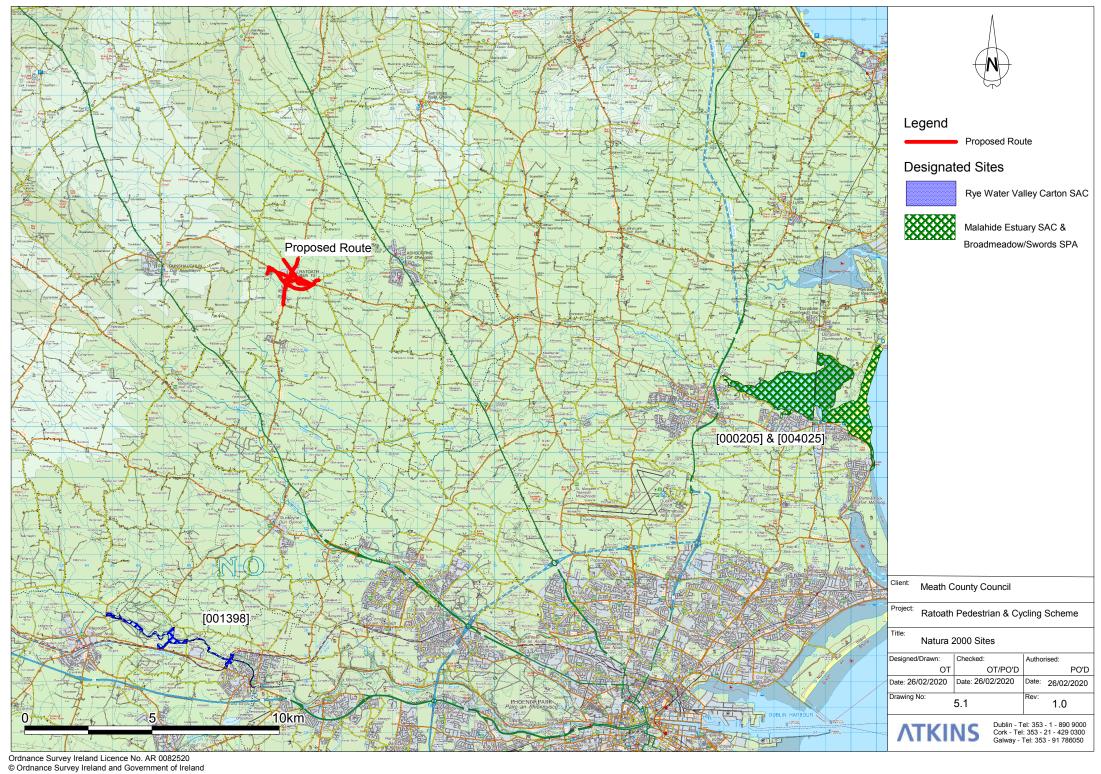
Threats / Pressures	Inside/Outside	Rank (High/Medium/Low
Nautical sports	Inside	High
Walking, horseriding and non-motorised vehicles	Inside	Medium
Paths, tracks, cycling tracks	Inside	High
Reclamation of land from sea, estuary or marsh	Inside	High
Urbanised areas, human habitation	Outside	High
Reclamation of land from sea, estuary or marsh	Outside	High
Railway lines, TGV	Inside	Medium
Invasive non-native species	Inside	Medium
Industrial or commercial areas	Outside	Medium
Fertilisation	Outside	Medium
Railway lines, TGV	Outside	Medium
Bridge, viaduct	Outside	Medium

Potential for Significant Impacts Broadmeadow/Swords Estuary SPA

- 5.17 The SPA is located ca. 20.6km downstream of the proposed works area at Ratoath. Due to the temporary limited nature of the works, distance between the SPA and the proposed development, direct impacts to the Special Conservation Interests such as loss of habitat (A999 Wetlands) will not occur.
- The SPA is designated for a suite of intertidal waders and wildfowl as well as a number of diving duck species. There will be no direct impacts on any of these species through habitat loss or through construction or operational disturbance. In terms of indirect impacts, such as a decrease in water quality, this has been addressed above under Malahide Estuary SAC. In summary, the risk of a deterioration in water quality from the proposed works affecting water quality within the SPA or associated habitats and thus available foraging opportunities are not likely.

Conclusion

As there are no potential impacts arising from the proposed development on Natura 2000 sites, it is not necessary to progress to Stage 2 Appropriate Assessment.



6. Appropriate Assessment Screening Matrix

Matrix

1. Description of the project or plan				
Location	Ratoath, Co. Meath			
Distance from designated site	19.5km (downstream)			
Brief Description of the project or plan	The development consists of pedestrian and cycleways on existing paths/roadways within the town; as well as a new element adjacent to the Broadmeadow River. The pedestrian and cycling scheme is predominantly located on made ground. The pedestrian and cycling scheme adjacent to the Broadmeadow River consists of some existing paths which will require re-surfacing and a small section which will be widened and also the construction of a new section of pathway to connect to the existing paths; some of which will run through an area of grassland north the Broadmeadow River.			
	A new footpath is proposed on the southern side of the Dunshaughlin Road; this is to be positioned within the existing footpath and verge. A new footpath is also proposed on western side of Curragha Road. This is to be positioned along the roadway within the existing roadside verge; it will require some hedge removal on the bend, and lengthening of a culvert carrying a stream (a tributary of Broadmeadow River) under the road.			
	During construction small plant will be used for resurfacing, widening and construction of the new paths. Plant will consist of dumper trucks, pavers and diggers. Access to the works locations will be from the existing entrances. For the widening and construction of the new path, shallow excavations of topsoil will be required and then stone will be laid for the sub-base layer. The stone will be compacted and then a paver used to surface the path. The estimated time for construction is not known at this time.			
Is the plan directly connected with or necessary to the site management for nature conservation?	No			

2. Brief Description of the Natura 2000 site(s)		
Name	Malahide Estuary SAC (000205) and SPA (004025)	
Site designation status	SAC and SPA	
Qualifying interests	Refer to paragraphs 2.16 and 2.23	
Unit size	SAC (809.34ha) ⁷ ; SPA (764.63ha) ⁸	

 $^{^{7}\} https://www.npws.ie/sites/default/files/protected-sites/natura2000/NF000205.pdf$

⁸ https://www.npws.ie/sites/default/files/protected-sites/natura2000/NF004025.pdf

3. Assessment Criteria

Other plans or projects which may have a cumulative impact

As there are no impacts to the SAC or SPA arising as a result of this development, there is no potential for cumulative impacts.

Describe the individual elements of the project (either alone or in combination with other plans or projects) likely to give rise to impacts on the Natura 2000 sites.

The proposed development is not likely to give rise to impacts on the Natura 2000 sites. The development is located ca. 19.5km upstream of the Natura 2000 sites. While there is connectivity via the Broadmeadow River to the Natura 2000 sites, combination of the distance from Malahide / Swords Estuary; the nature (no in-stream works on the Broadmeadow River), extent and duration of proposed works and the ability to implement pollution prevention / surface water management measures on—site.

As noted a culvert located on a small tributary of the Broadmeadow River under Curragha Road is to be lengthened; the appointed contractor will be required to put in place site specific pollution control measures to protect local ecology and water quality. In the absence of such measures it is assumed that the distance to the SAC and dilution offered by the Broadmeadow River is such that negative impacts on Malahide Estuary SAC are not anticipated. However, it remains good practice to prevent any pollutants, such as silt laden waters, from reaching the stream in order to protect local ecology and water quality; and also to prevent these from travelling downstream.

By strict adherence to established on-site best practice to ensure no deterioration in water quality within the Broadmeadow River, therefore there will be no negative impacts on downstream Natura 2000 sites such as Malahide Estuary SAC.

Additionally, terrestrial dune habitats (2120 / 2130) for which Malahide Estuary SAC is designated would not be impacted by proposed works at Ratoath; while normal patterns of silt deposition within estuarine habitats is a key part of the functional biology of mudflats, saltmarshes and pioneer *Salicornia* beds (1140; 1310; 1320; 1330 and 1410). As strict adherence to on-site pollution measures are aimed at protecting the Broadmeadow River close to the proposed works area this will also protect any downstream ecological constraints / designated sites.

The SPA is designated for a suite of intertidal waders and wildfowl as well as a number of diving duck species. There will be no direct impacts on any of these species through habitat loss or through construction or operational disturbance. In terms of indirect impacts such as a decrease in water quality this has been addressed above under Malahide Estuary SAC. In summary, the risk of a deterioration in water quality from the proposed works affecting water quality within the SPA; associated habitats and thus available foraging opportunities are not likely.

Describe any likely direct, indirect or secondary impacts of the project (either alone or in combination with other plans or projects) on the Natura 2000 site by virtue of:

- Size and scale
- Land-take
- Distance from Natura 2000 site or key features of the site
- Resource requirements
- Emissions
- Excavation requirements
- Transportation requirements

There are no likely direct or indirect impacts to the SAC or SPA as a result of the proposed development due to the distance between the development and the Natura 2000 sites and also due to the implementation of best practice construction methods.

3. Assessment Criteria				
- Duration of construction, operation etc.				
- Others				
Describe any likely changes to the site arising as a result of:	There are no likely changes development.	arising to the si	tes as a result of the	
- Reduction of habitat area				
- Disturbance of key species				
- Habitat or species fragmentation				
- Reduction in species density				
- Changes in key indicators of conservation value				
- Climate change				
Describe any likely impacts on the Natura 2000 site as a whole in terms of:				
Interference with the key relationships that define the structure of the site				
Interference with key relationships that define the function of the site.				
Provide indicators of significance as a result of the identification of effects set out above in terms of:	Not applicable, as no effects have been identified.			
- Loss				
- Fragmentation				
- Disruption				
- Disturbance				
- Change to key elements of the site				
Describe from the above those elements of the project or plan, or combination of elements, where the above impacts are likely to be significant or where the scale of magnitude of impacts is not known.	There are no likely significant impacts arising from the proposed development.			
Data collected to carry out the assessment				
Who carried out the assessment	Sources of data	Level of assessment completed	Where can the full results of the assessments be accessed and viewed?	
Atkins Unit 2B 2200 Cork Airport Business Park, Cork	Desktop / published data, including data derived from the NPWS –Natura 2000 form, site synopsis, SAC reports etc.	Screening	Atkins, Unit 2B 2200 Cork Airport Business Park, Cork	

3. Assessment Criteria				
	National Biodiversity Data Centre online viewer			
	Google Map; Bing Maps; OSi map viewer			
	Site Visit			
	Iterative consultation with engineering / design team.			

Finding of No Significant Effects

Name and location of Natura site(s)	Malahide Estuary SAC (000205) and SPA (004025)
Brief description of the project or plan	The development consists of pedestrian and cycleways on existing paths/roadways within the town; as well as a new element adjacent to the Broadmeadow River. The pedestrian and cycling scheme is predominantly located on made ground. The pedestrian and cycling scheme adjacent to the Broadmeadow River consists of some existing paths which will require re-surfacing and a small section which will be widened and also the construction of new section of pathway to connect to the existing paths; some of which will run through an area of grassland north the Broadmeadow River.
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Is the project or plan directly connected with or necessary to the site management for nature conservation?	No
Are there other projects or plans that together with the project or plan being assessed could affect the site?	There are no likely impacts arising from the proposed development on Natura 2000 sites and therefore cumulative impacts with other projects will not occur.

Assessment of significance of effects				
Describe how the project (either alone or in combination with other plans or projects) is likely to affect the Natura 2000 site.	The proposed development is not likely to impact Natura 2000 sites due to the distance from the sites; no instream works being required or heavy earth works in close proximity to the river and the limited potential for impact of potential pollutants as a result of the works on the qualifying interest and special conservations interests of the SAC and SPA.			
Explain why the effects are not considered significant	There are no effects to Natura 2000 sites identified.			
List the Agencies consulted	Due to the location, type and extent of works formal consultation with NPWS was not undertaken at this time.			
	Inland Fisheries Ireland have not been consulted at this time, but should be consulted at detailed design regarding pollution prevention measures to protect the Broadmeadow River.			
Response to Consultation	n/a.			

Appendix A – Design Drawings

• 5139451/HW/0001 Site Location Plan

• 5139451/HW/0002 Site Extents Keyplan

• 5139451/HW/0003 Site Extents – Sheet 1 - 3





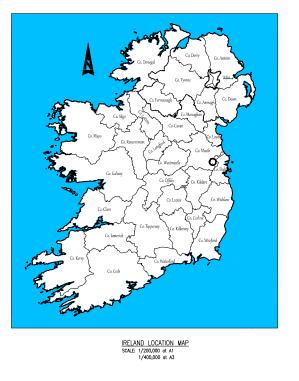
PART 8 PLANNING DRAWINGS

Sheet List Table				
DRAWING No.	TITLE	REVISION		
5139451 / HW / 0000	COVER SHEET	С		
5139451 / HW / 0001	SITE LOCATION PLAN	С		
5139451 / HW / 0002	SITE EXTENTS KEYPLAN	С		
5139451 / HW / 0003	SITE EXTENTS - SHEET 1 OF 3	С		
5139451 / HW / 0004	SITE EXTENTS - SHEET 2 OF 3	С		
5139451 / HW / 0005	SITE EXTENTS - SHEET 3 OF 3	С		
5139451 / HW / 800	PART 8 GENERAL LAYOUT KEY PLAN	С		
5139451 / HW / 801	PART 8 GENERAL LAYOUT 1 OF 15	D		
5139451 / HW / 802	PART 8 GENERAL LAYOUT 2 OF 15	D		
5139451 / HW / 803	PART 8 GENERAL LAYOUT 3 OF 15	D		
5139451 / HW / 804	PART 8 GENERAL LAYOUT 4 OF 15	E		
5139451 / HW / 805	PART 8 GENERAL LAYOUT 5 OF 15	D		
5139451 / HW / 806	PART 8 GENERAL LAYOUT 6 OF 15	D		
5139451 / HW / 807	PART 8 GENERAL LAYOUT 7 OF 15	D		
5139451 / HW / 808	PART 8 GENERAL LAYOUT 8 OF 15	D		
5139451 / HW / 809	PART 8 GENERAL LAYOUT 9 OF 15	D		
5139451 / HW / 810	PART 8 GENERAL LAYOUT 10 OF 15	D		
5139451 / HW / 811	PART 8 GENERAL LAYOUT 11 OF 15	D		
5139451 / HW / 812	PART 8 GENERAL LAYOUT 12 OF 15	D		
5139451 / HW / 813	PART 8 GENERAL LAYOUT 13 OF 15	С		
5139451 / HW / 814	PART 8 GENERAL LAYOUT 14 OF 15	D		
5139451 / HW / 815	PART 8 GENERAL LAYOUT 15 OF 15	D		

RATOATH PEDESTRIAN AND CYCLE SCHEME PART 8 PLANNING DRAWINGS







TO CURRAGHA LOCATION TO DUBLIN TO FAIRYHOUSE Fleenstown Great

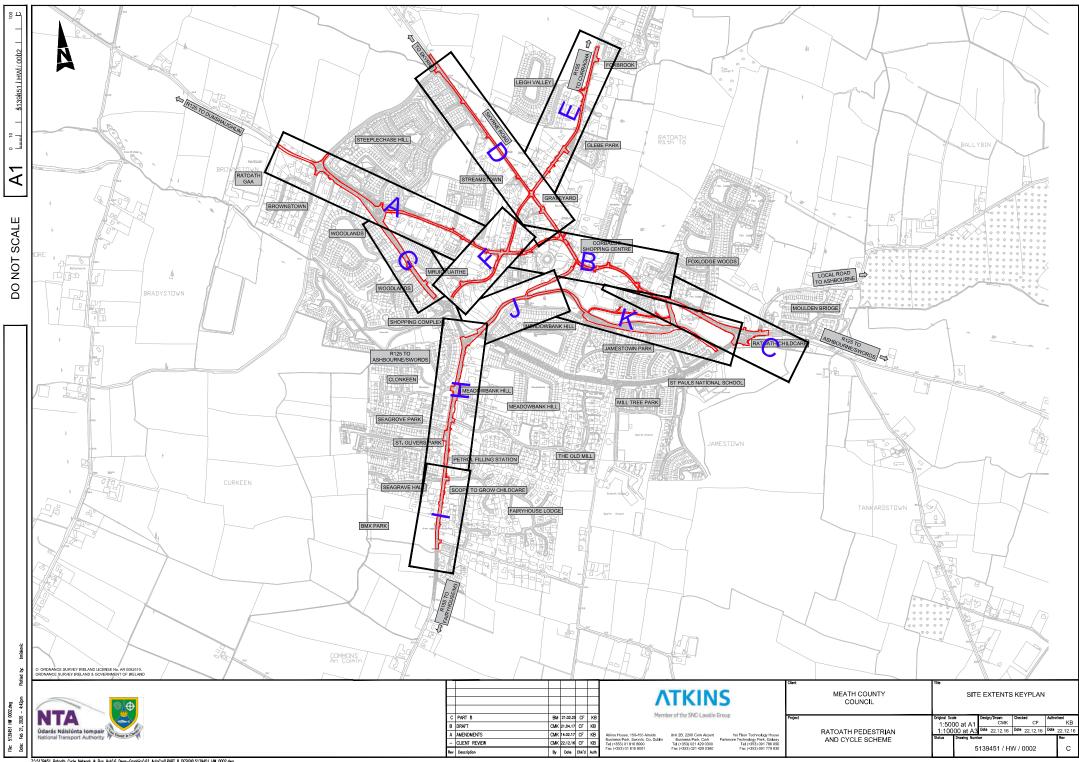
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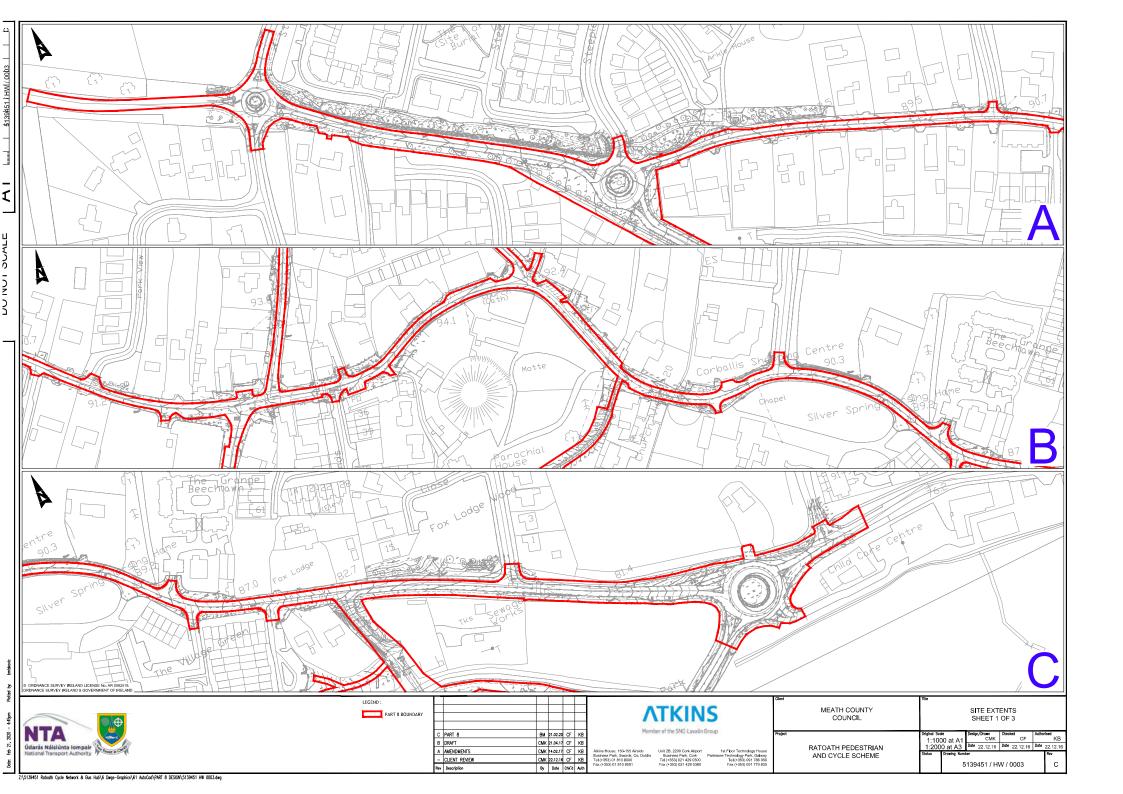
C PART 8 B DRAFT BM 21.02.20 CF KB CMK 21.04.17 CF KB A AMENDMENTS CMK 14.02.17 CF KB - CLIENT REVIEW

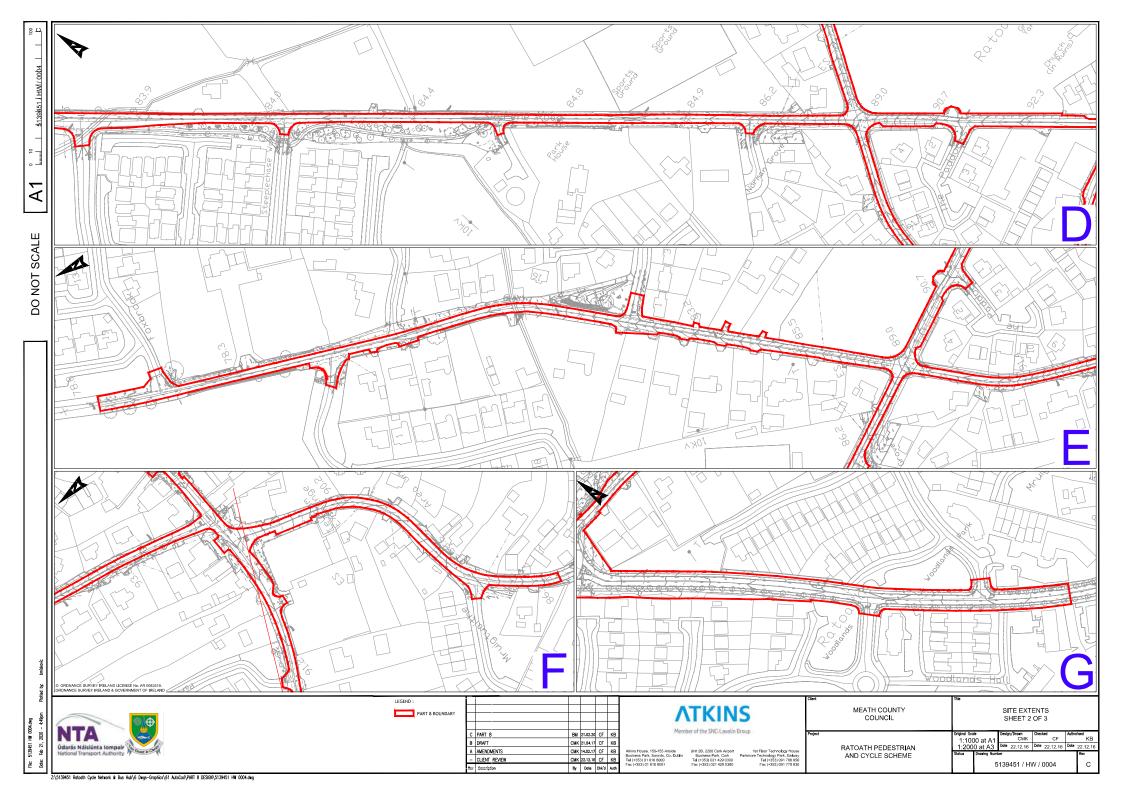
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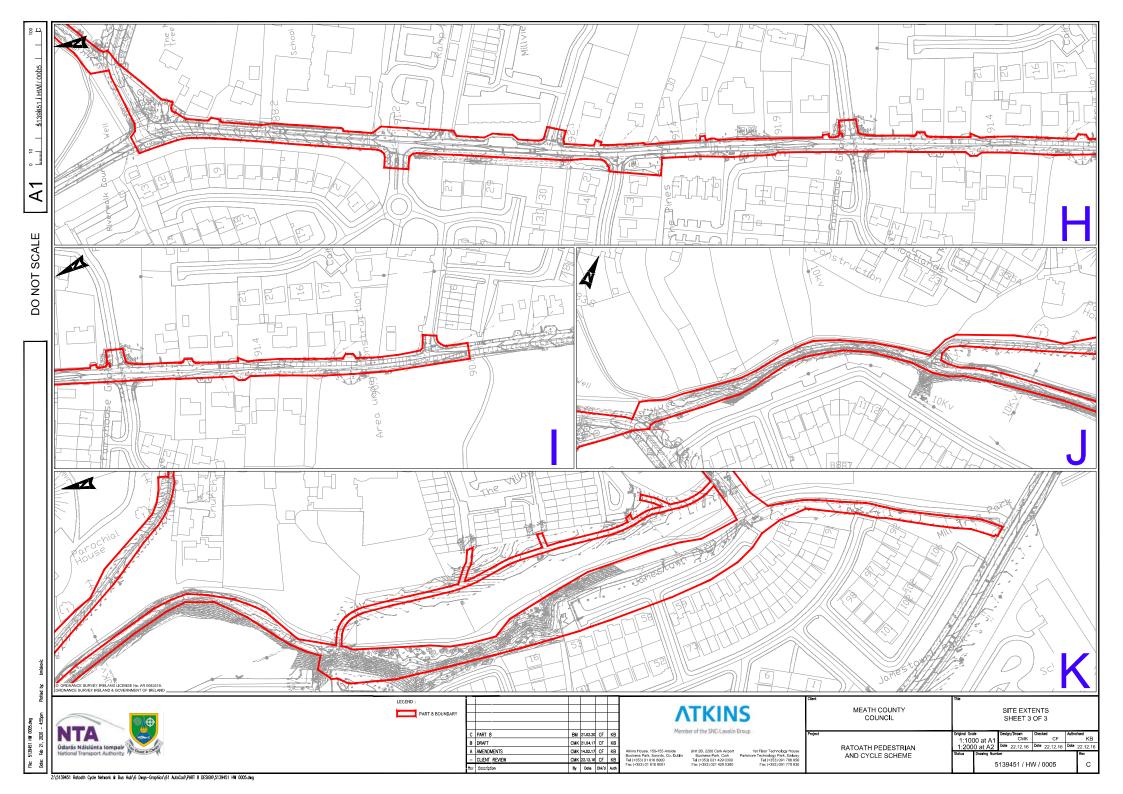
MEATH COUNTY COUNCIL RATOATH PEDESTRIAN AND CYCLE SCHEME 5139451 / HW / 0001

SITE LOCATION PLAN









Atkins is one of the world's leading providers of professional, technology based consultancy services. With over 18,000 staff worldwide, Atkins has expanded in recent years from its historical base in traditional engineering into related technological consultancy services. In Ireland, Atkins can deliver the full range of services to clients in both the public and private sector.

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