BusConnects Galway: Cross-City Link (University Road to Dublin Road)

August 2022

Appropriate Assessment Screening Report

BUS CONNECTS GALWAY

SUSTAINABLE TRANSPORT FOR A BETTER CITY.

Report for the purposes of
Appropriate Assessment Screening

BusConnects Galway
Cross City Link (University Road to Dublin Road) Project
REP/012

Prepared by: Moore Group – Environmental Services

August 2022

On behalf of

Galway City Council

Project Proponent	Galway City Council
Project	BusConnects Galway Cross City Link (University Road to Dublin Road) Project REP/012
Title	Report for the purposes of Appropriate Assessment Screening BusConnects Galway – Cross City Link (University Road to Dublin Road) Cross City Link Project REP/012

Project Number	19170	**Document Ref**	19170 BusConnects Galway AAS1 Rev10 220815	
Revision	**Description**	**Author**		**Date**
Rev10	Legal Review	G. O'Donohoe		15 August 2022
Moore Archaeological and Environmental Services Limited				

Table of Contents

1. Introduction 1
1.1. General Introduction 1
1.2. Legislative Background - The Habitats and Birds Directives 2
2. Methodology 3
2.1. Guidance 3
2.2. Data Sources 4
3. Description of the Proposed Scheme 5
4. Identification of Natura 2000 Sites 16
4.1. Description of Natura Sites Potentially Affected 16
4.2. Ecological Network Supporting Natura 2000 Sites 27
5. Identification of Potential Impacts & Assessment of Significance 27
5.1. Assessment of Likely Significant Effects 27
5.1.1. University Road 28
5.1.2. Gaol Road and Galway Cathedral 30
5.1.3. Salmon Weir Bridge 31
5.1.4. Newtownsmith/Waterside 31
5.1.5. Dyke Road/Headford Road 33
5.1.6. City Centre 35
5.1.7. College Road/Lough Atalia Road junction 35
5.1.8. R338 Dublin Road 37
5.1.9. Galway Harbour Enterprise Park 39
5.1.10. Invasive Species 40
5.2. Assessment of Potential In-Combination Effects 43
6. Conclusion 48
7. References 48

Abbreviations

AA	Appropriate Assessment
EEC	European Economic Community
EPA	Environmental Protection Agency
EU	European Union
GIS	Geographical Information System
NHA	Natural Heritage Area
NIS	Natura Impact Statement
NPWS	National Parks and Wildlife Service
OSI	Ordnance Survey Ireland
pNHA	proposed Natural Heritage Area
SAC	Special Area of Conservation
SPA	Special Protection Area

1. Introduction

1.1. General Introduction

This report for the purposes of Appropriate Assessment (AA) Screening has been prepared to support a Planning Application for the Proposed Scheme (described in Section 3 below). This report contains information required for the competent authority to undertake screening for Appropriate Assessment (AA) in respect of the construction and operation of the proposed BusConnects Galway Cross City Link (University Road to Dublin Road) Project (hereafter referred to as the Proposed Scheme) to determine whether it is likely individually or in combination with other plans and projects to have a significant effect on any European sites, in light of best scientific knowledge.

The Proposed BusConnects Galway Cross City Link (University Road to Dublin Road) Scheme consisting of the alteration of existing road layouts, including junction layouts, footpaths, signalling, pedestrian crossings, drainage and other associated works as described in detail in Section 3 below.

Having regard to the provisions of the Planning and Development Act 2000 – 2021 (the "Planning Acts") (section 177U), the purpose of a screening exercise under section 177U of the PDA 2000 is to assess, in view of best scientific knowledge, if the Proposed Scheme, individually or in combination with another plan or project is likely to have a significant effect on a European site.

If it cannot be excluded on the basis of objective information that the Proposed Scheme, individually or in combination with other plans or projects, will have a significant effect on a European site then it is necessary to carry out a Stage 2 appropriate assessment under section 177V of the Planning Acts.

When screening the project, there are two possible outcomes:

- the project poses no potential for a likely significant effect and as such requires no further assessment; and the project has potential to have likely significant effect (or this is uncertain) unless mitigation measures are applied, and therefore an AA of the project is necessary.

This report has been prepared by Moore Group - Environmental Services to enable the competent authority to carry out AA screening in relation to the Proposed Scheme. The report was compiled by Ger O'Donohoe (B.Sc. Applied Aquatic Sciences (GMIT, 1993) & M.Sc. Environmental Sciences (TCD, 1999)) who has 30 years' experience in environmental impact assessment and has completed numerous Appropriate Assessment Screening Reports and Natura Impact Statements on terrestrial and aquatic habitats for various development types.

1.2. Legislative Background - The Habitats and Birds Directives

Articles 6(3) and 6(4) of the Habitats Directive is transposed into Irish Law inter alia by the Part XAB of the Planning Acts (in particular section 177U and 177V) which governs the requirement to carry out appropriate assessment screening and appropriate assessment, where required, per Section 1.1 above.

The Habitats Directive (Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora) is the main legislative instrument for the protection and conservation of biodiversity in the European Union (EU). Under the Habitats Directive, Member States are obliged to designate Special Areas of Conservation (SACs) which contain habitats or species considered important for protection and conservation in a EU context.

The Birds Directive (Council Directive 2009/147/EC on the conservation of wild birds), transposed into Irish law by the Bird and Natural Habitats Regulations 2011, as amended, and the Wildlife Act 1976, as amended, is concerned with the long-term protection and management of all wild bird species and their habitats in the EU. Among other things, the Birds Directive requires that Special Protection Areas (SPAs) be established to protect migratory species and species which are rare, vulnerable, in danger of extinction, or otherwise require special attention.

SACs designated under the Habitats Directive and SPAs, designated under the Birds Directive, form a pan-European network of protected sites known as Natura 2000. The Habitats Directive sets out a unified system for the protection and management of SACs and SPAs. These sites are also referred to as 'European sites'.

Articles 6(3) and 6(4) of the Habitats Directive set out the requirement for an assessment of proposed plans and projects likely to have a significant effect on Natura 2000 sites.

Article 6(3) establishes the requirement to screen all plans and projects and to carry out an appropriate assessment if required (Appropriate Assessment (AA)). Article 6(4) establishes requirements in cases of imperative reasons of overriding public interest:

> ***Article 6(3):*** *"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 subjected to an appropriate assessment of its implications for the site in view of the site's conservation objectives. In 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."*

2. Methodology

The Commission's methodological guidance (EC, 2002, 2018, 2021 see Section 2.1 below) promotes a four-stage process to complete the AA and outlines the issues and tests at each stage. An important aspect of the process is that the outcome at each successive stage determines whether a further stage in the process is required.

Stages 1 and 2 deal with the main requirements for assessment under Article 6(3). Stage 3 may be part of Article 6(3) or may be a necessary precursor to Stage 4. Stage 4 is the main derogation step of Article 6(4).

Stage 1 Screening: This stage examines the likely effects of a project either alone or in combination with other projects upon a Natura 2000 site and considers whether it can be objectively concluded that these effects will not be significant. In order to screen out a project, it must be excluded, on the basis of objective information, that the Proposed Project, individually or in combination with other plans or projects, will have a significant effect on a European site.

Stage 2 Appropriate Assessment: In this stage, there is a consideration of the impact of the project with a view to ascertain whether there will be any adverse effect on the integrity of the Natura 2000 site either alone or in combination with other projects or plans, with respect to the site's structure and function and its conservation objectives. Additionally, where there are predicted impacts, an assessment of the potential mitigation of those impacts is considered.

Stage 3 Assessment of Alternative Solutions: This stage examines alternative ways of implementing the project that, where possible, avoid any adverse impacts on the integrity of the Natura 2000 site.

Stage 4 Assessment where no alternative solutions exist and where adverse impacts remain: Where imperative reasons of overriding public interest (IROPI) exist, an assessment to consider whether compensatory measures will or will not effectively offset the damage to the sites will be necessary.

To ensure that the Proposed Scheme complies fully with the requirements of Article 6 of the Habitats Directive and all relevant Irish transposing legislation, Moore Group compiled this report to enable the competent authority in relation to the Proposed Scheme to determine whether the Proposed Scheme, individually or in combination with another plan or project will have a significant effect on a Natura 2000 site.

2.1. Guidance

This report has been compiled in accordance with guidance contained in the following documents:

- Appropriate Assessment of Plans and Projects in Ireland - Guidance for Planning Authorities. (Department of Environment, Heritage and Local Government, 2010 rev.) (soon to be superseded by EC Guidance in prep.).

- Appropriate Assessment under Article 6 of the Habitats Directive: Guidance for Planning Authorities. Circular NPWS 1/10 & PSSP 2/10.
- Managing Natura 2000 Sites: The Provisions of Article 6 of the Habitat's Directive 92/43/EEC (EC Environment Directorate-General, 2000); hereafter referred to as MN2000.
- Managing Natura 2000 Sites: The Provisions of Article 6 of the Habitat's Directive 92/43/EEC (EC, 2018).
- Guidance document on the strict protection of animal species of Community interest under the Habitats Directive (EC, 2021).
- Assessment of plans and projects in relation to Natura 2000 sites - Methodological guidance on Article 6(3) and (4) of the Habitats Directive 92/43/EEC (EC, 2021).
- Office of the Planning Regulator (OPR) Practice Note PN01 Appropriate Assessment Screening for Development Management (OPR, 2021).

2.2. Data Sources

Sources of information that were used to collect data on the Natura 2000 network of sites, and the environment within which they are located, are listed below:

- The following mapping and Geographical Information Systems (GIS) data sources, as required:
    - National Parks & Wildlife (NPWS) protected site boundary data;
    - Ordnance Survey of Ireland (OSI) mapping and aerial photography;
    - OSI/Environmental Protection Agency (EPA) rivers and streams, and catchments;
    - Open Street Maps;
    - Digital Elevation Model over Europe (EU-DEM);
    - Google Earth and Bing aerial photography 1995-2022.
- Online data available on Natura 2000 sites as held by the National Parks and Wildlife Service (NPWS) from www.npws.ie including:
    - Natura 2000 - Standard Data Form;
    - Conservation Objectives;
    - Site Synopses.
- National Biodiversity Data Centre records;
    - Online database of rare, threatened and protected species;
    - Publicly accessible biodiversity datasets.
- Status of EU Protected Habitats in Ireland. (National Parks & Wildlife Service, 2019); and
- Relevant Development Plans in neighbouring areas:
    - Galway City Development Plan 2017-2023;
    - Galway County Development Plan 2022-2028.

3. Description of the Proposed Scheme

This report presents the relevant information to enable an AA screening assessment for the proposed BusConnects Galway (Cross City Link – University Road to Dublin Road) Project consisting of the alteration of existing road layouts, including junction layouts, footpaths, signalling, pedestrian crossings, drainage and other associated works.

An overview of the likely scheme construction phasing and the necessary construction works associated with each phase is outlined below.

For the majority of the works associated with the scheme, it is envisaged that normal working hours will be followed. In specific circumstances, such as road crossings or road resurfacing, the works will be carried out at night.

Existing signage will be retained or relocated within widened footpaths. Additional new signage will also be required at locations throughout the scheme. Typical excavation depths for installation of new signage will be approximately 1m.

Existing road markings will be retained where still valid within the carriageway. New road markings will be applied at locations throughout the scheme either via removal and replacement of existing markings or application of new road markings following resurfacing works.

Utility covers will be raised to match new ground heights where applicable.

University Road

Along University Road (from the junction with Newcastle Road to the Salmon Weir Bridge), the proposed scheme works will involve footpath widening, provision of an entry treatments at the entrance to NUIG, provision of two raised tables along the route at Canal Road Upper and Fisheries Field and the provision of two new signalised pedestrian crossings. Between the entrance to Fisheries Field and the Salmon Weir Bridge, it is proposed to install a bus gate and to designate the carriageway as a time-regulated bus lane in both directions.

Footpath widening works will require the existing footpaths to be broken out, and the bituminous layers of the road carriageway where widening is proposed to be removed, and the new widened footpath installed. This will require excavations of approximately 300mm of the existing road and footpaths. Drainage gullies will be relocated to the new kerb edge and will connect back to the existing drainage network. The maximum depth of trench excavation required to install gully pots and new connection pipes is 1.7-1.8m. This new drainage network will outfall to the canal in the vicinity of Canal Road Upper. It will outfall via a proposed new petrol interceptor in Canal Road, which will require excavation of approximately 3.0m -3.5m for installation. Works will involve the

diversion of Irish Water network within the new footpath. Other utilities, where present will be retained within the new footpath.

Ducting for the proposed signalised pedestrian crossing will be trenched across the road and into the footpath with a maximum excavation depth of 1.2m.

For the provision of entry treatments (at the entrance to NUIG) and the raised tables (at the junction with Canal Road Upper and the entrance to Fisheries Field), the works will involve the milling of the top layer of surface course, application of bond coat and the construction of the entry treatment/raised table utilising bituminous materials. The proposed bus gate adjacent to the Fisheries Field entrance will be installed within the raised table.

Temporary traffic management will be required to accommodate these works, including narrowing the road to a one-way shuttle system to facilitate road crossing trenches, works through narrow pinch points at certain times and for the surfacing of the road. The duration is estimated to be approximately 8 weeks. In addition the closure of Canal Road Upper to all vehicles for a duration of 3 days is expected for the installation of the petrol interceptor.

Gaol Road and Galway Cathedral

To the west of Galway Cathedral, on Gaol Road, the works involve footpath widening at the junction with University Road and to the south on Gaol Road the works involve re-development of the car and coach parking area to the south of Galway Cathedral. To the east of Galway Cathedral, the works involve the closure of the existing carriageway and creation of a pedestrianised public space.

Footpath widening works will require the existing footpaths to be broken out, and the bituminous layers of the road carriageway where widening is proposed to be removed, and the new widened footpath installed. This will require excavations of approximately 300mm of the existing road and footpaths. Drainage gullies will be relocated to the new kerb edge and will connect back to the existing drainage network. The maximum depth of trench excavation required to install gully post and new connection pipes is 1.2m. Other utilities, where present will be retained within the new footpath.

The car parking area south of Galway Cathedral will require the existing car parking area to be removed (including removal of existing kerbing and milling of the top layer of surface course). New carriageway surfacing, concrete islands and footpaths are to be provided within the revised car park area. The maximum depth of excavation within the existing car park is 300mm with trenches for new drainage connection pipes to be excavated to a maximum depth of 1.2m.

The area to the east of Galway Cathedral is to be closed to vehicular traffic and designated as a public pedestrian and landscaped space, and the carriageway and footpaths that will ultimately become part of the public space will be removed and/or regraded, with a new paved and landscaped area installed to connect with the existing

walls to the east (adjacent to the Canal) and to tie into the proposed landing area of the proposed Salmon Weir Pedestrian and Cycle bridge which is due to complete construction by Q4 2022. This will require the removal of the existing bituminous layers on the road and replacement with new materials.

It is proposed that the existing surface car-park will be utilised as a construction compound for the contractor during the works, with this area being completed as per the scheme design at the end of the scheme. This will include connections to existing power, water and drainage services for the duration of the construction works.

Temporary traffic management will be required to accommodate these works, and the duration is estimated to be approximately 16 weeks (initial 12 weeks at the beginning of the programme and a further 4 week at the end of the programme upon removal of the proposed contractors compound).

The proposed works will be undertaken in in a single main phase of traffic management:

Gaol Road (west of the cathedral) will be converted into a two-way traffic route and Gaol Road (east of the cathedral) will be closed to traffic form part of the works area. The car-park will form part of the works area for the duration of the scheme. Access to Nuns Island to be maintained for the duration.

Salmon Weir Bridge

On the Salmon Weir Bridge, the works include widening the existing footpath on the northern side of the bridge and the removal of the footpath on the southern side of the bridge and replacing it with a rubbing strip. Footpath widening works will require the existing footpaths to be broken out, and the bituminous layers of the road carriageway where widening is proposed to be removed, and the new widened footpath installed. This will require excavations of approximately 300mm of the existing road and footpaths. Other utilities, where present will be either retained, protected or diverted as required. Temporary traffic management will be required to accommodate these works, and the duration is estimated to be approximately 4 weeks.

Newtownsmith/Waterside

The works at this location will involve the permanent closure of Waterside as it approaches St. Vincent's Avenue from the north (with the resultant space used to create a public space), and the narrowing of Newtownsmith as it approaches St. Vincent's Avenue from the south (reduced to a single northbound traffic lane, with resultant wider footpaths).

The pedestrianised area of Newtownsmith will require the existing footpaths to be broken out, and the bituminous layers of the road carriageway where widening is proposed to be removed, and the new surface to be raised and constructed at the level of the existing footway. This will require excavations of approximately 300mm of the existing road and footpaths. Drainage gullies will be relocated and will connect back to the existing drainage network. The maximum depth of trench excavation required to install gully post and new connection

pipes is 1.2m. The maximum depth of excavation pit of the installation of bollards is 1.6m. Other utilities, where present will be either retained, protected or diverted as required.

The carriageway and footpaths on Waterside that will ultimately become part of the public space will be removed and/or regraded, with a new paved area installed to connect with the existing footpaths (either kerbside where connecting to an existing footpath or at the back of a fully-replaced footpath) either side. This will require the removal of the existing bituminous layers on the road and replacement with new materials.

Temporary traffic management will be required to accommodate these works (with Newtownsmith likely requiring a road closure), and the duration is estimated to be approximately 8 weeks.

St. Vincent's Avenue/Walsh's Terrace

Localised works along St. Vincent's Avenue and Walsh's Terrace (between the Salmon Weir Bridge and Dyke Road) involve footpath widening and the upgrade of the junction at Woodquay (which is to be tightened up and replaced with a single, in-only road from St. Vincent's Avenue). A large, raised table, incorporating a toucan crossing is to be installed between and including the Corrib Terrace and Riverside junctions.

An entry treatment is proposed at the junction with Court Lane, and a small improvement to the junction with Court Avenue to provide a sufficient footpath on the eastern side of the junction. Footpath widening and landscaping works are proposed along the R866 Headford Road (Walsh's Terrace) between Woodquay and Bothar na mBan. Other improvement works within the Woodquay area itself are addressed below

Footpath widening works will require the existing footpaths to be broken out, and the bituminous layers of the road carriageway where widening is proposed to be removed, and the new widened footpath installed. This will require excavations of approximately 300mm of the existing road and footpaths. Drainage gullies will be relocated to the new kerb edge and will connect back to the existing drainage network. The existing drainage pipe on Headford Road (Walsh's Terrace) to be moved onto northern side of the road. The maximum depth of trench excavation required to install the new drainage, gully pots and new connection pipes is 1.5m – 2.3m.

Works will involve the diversion of a section of Virgin Media network in the new footpath. ESB box and pole will need to be moved to avoid conflict with the new kerb. Similarly, a manhole will require relocation. A small section of existing watermain will also need to be diverted on Walsh's Terrace in the proposed footpath. Other utilities, where present will be either retained, protected or diverted as required.

For the provision of the entry treatment at Court Lane, the works will involve the milling of the top layer of surface course, application of bond coat and the construction of the entry treatment/raised table utilising bituminous materials.

Temporary traffic management will be required to accommodate these works, including the likely requirement for lane closures and a shuttle traffic system, and the duration is estimated to be approximately 6 weeks.

Dyke Road/Headford Road

Works on Dyke Road and the Headford Road include footpath widening on Dyke Road, the signalisation of the junction of Dyke Road (heading north) and Dyke Road (heading east) and the signalisation of the junction of Dyke Road/Headford Road/St. Bridget's Place.

A short section of Dyke Road is also to have its carriageway widened (approaching the signalised junction of Dyke Road northbound/Dyke Road eastbound) and also realigned into a portion of the Dyke Road carpark. Junctions to be signalised will have pedestrian crossings incorporated.

Improvement works on Bóthar na mBan/St. Brendan's Avenue are addressed below.

Footpath widening works will require the existing footpaths to be broken out, and the bituminous layers of the road carriageway where widening is proposed to be removed, and the new widened footpath installed. This will require excavations of approximately 300mm of the existing road and footpaths. Drainage gullies will be relocated to the new kerb edge and will connect back to the existing drainage network. The maximum depth of trench excavation required to install the new drainage, gully pots and new connection pipes is 1.5m.

Works on Dyke Road will involve the decommissioning and diversion of a section of the existing ESB MV UG line. Similarly, a section of existing Eir duct and IW watermain will need to be decommissioned and diverted. An unidentified manhole will also require relocation to avoid the proposed kerb. Other utilities, where present will be either retained, protected or diverted as required.

Carriageway widening works will require the existing footpath to be broken out, full road build-up to be constructed and jointed to the existing adjacent carriageway, and replacement footpath constructed. Existing drainage, present kerbside, and other utilities present within the section of footpath to be removed will be relocated to the new kerb edge or the new footpath.

Ducting for the proposed signalisation works will be trenched across the road and into the footpath with a maximum excavation depth of 1.2m.

Temporary traffic management will be required to accommodate these works, including a one-way system and lane closures and a shuttle traffic systems, and the duration is estimated to be approximately 10 weeks.

St. Francis Street/Eglinton Street/Williamsgate Street

The works on St. Francis Street/Eglinton Street involve localised footpath widening along Eglinton Street and in the vicinity of the junction with Mary Street/Daly's Place, the provision of a new signalised crossing on St. Francis Street and the signalisation of the junction with Mary Street/Daly's Place.

Footpath widening works will require the existing footpaths to be broken out, and the bituminous layers of the road carriageway where widening is proposed to be removed, and the new widened footpath installed. This will

require excavations of approximately 300mm of the existing road and footpaths. Drainage gullies will be relocated to the new kerb edge and will connect back to the existing drainage network. The maximum depth of trench excavation required to install gully post and new connection pipes is 1.2m. An ESB pole will need to be relocated on Saint Francis Street to avoid conflict with the proposed Bus Shelter. A telecom chamber and a Manhole will be relocated into the proposed footpath on Eglinton Street. Other utilities, where present will be either retained, protected or diverted as required.

Ducting for the proposed signalised pedestrian crossing will be trenched across the road and into the footpath with a maximum excavation depth of 1.2m.

Temporary traffic management will be required to accommodate these works, including lane/road closures and a resultant shuttle traffic system, and the duration is estimated to be approximately 8 weeks.

Woodquay/Daly's Place/Mary Street

The works within Woodquay involve the removal of a substantial portion of the carriageway space and conversion of same to a pedestrian and landscaped public space through extensive footpath widening and landscaping and the provision of a southbound traffic lane linking Wood Quay to Daly's Place/Eyre Street. Entry treatments are also proposed at the junction with St. Brendan's Avenue and the junction with St. Anthony's Place. A contra-flow cycle track from Daly's Place to St. Vincent's Avenue is also proposed.

On Mary Street, the works involve localised footpath widening approaching the junction with Eglinton Street, which is to be signalised.

Footpath widening works will require the existing footpaths to be broken out, and the bituminous layers of the road carriageway where widening is proposed to be removed, and the new widened footpath installed. This will require excavations of approximately 300mm of the existing road and footpaths. Drainage gullies will be relocated to the new kerb edge and will connect back to the existing drainage network. The maximum depth of trench excavation required to install gully post and new connection pipes is 1.2m.

Several manholes will need to be relocated to avoid conflict with proposed kerbs. Other utilities, where present will be either retained, protected or diverted as required.

At the proposed traffic signal junction, new ducting, crossing the road on all arms of the junction will require trenches to be excavated up to a maximum depth of 1.2m

For the provision of the entry treatments, the works will involve the milling of the top layer of surface course, application of bond coat and the construction of the entry treatment/raised table utilising bituminous materials.

Temporary traffic management will be required to accommodate these works, including lane/road closures and a resultant shuttle traffic system, and the duration is estimated to be approximately 12 weeks.

Bóthar na mBan/St. Brendan's Avenue

Along Bothar na mBan (from its junction with Prospect Hill to its junction with Headford Road), the proposed scheme works will involve road realignment, entry treatment installation, footpath widening, new footpath and also the demolition of two residential properties.

The two residential properties to be demolished are No. 20 St. Brendan's Avenue and No. 5/6 Headford Road. Both of these properties are end of terrace houses, with a shared wall to the adjoining property. Demolition will require the removal of all above ground structures, potentially including the presence of asbestos, the decommissioning of utilities including water, electricity, gas and telecoms. Removal of domestic oil tanks and pipes will likely be necessary. Breaking out and removal of foundations will also be necessary. Party walls will be required to be maintained and supported during demolition.

Road widening and realignment is necessary at both ends of Bothar na mBan, in the location of the two residential properties to be demolished and also realignment of the road onto lands at Galway County Council County Hall. New carriageway will require the existing footpath to be broken out, full road build-up to be constructed and jointed to the existing adjacent carriageway, and replacement footpath constructed.

Footpath widening works will require the existing footpaths to be broken out, and the bituminous layers of the road carriageway where widening is proposed to be removed, and the new widened footpath installed. This will require excavations of approximately 300mm of the existing road and footpaths. Drainage gullies will be relocated to the new kerb edge and will connect back to the existing drainage network. The maximum depth of trench excavation required to install gully post and new connection pipes is 1.2m. Works will involve the decommissioning and diversion of a section of the existing ESB LV UG line. Additionally, a section of the ESB LV OH Cable will be undergrounded in the new footpath. Similarly, a section of existing Eir duct and chambers will need to be decommissioned and diverted. Several manholes will need to be relocated to avoid conflict with proposed kerbs. Other utilities, where present will be either retained, protected or diverted as required.

For the provision of entry treatments (at the entrance to Eyre Square North, Bothar Irwin and St. Brendan's Avenue), the works will involve the milling of the top layer of surface course, application of bond coat and the construction of the entry treatment/raised table utilising bituminous materials and natural stone.

Ducting for the proposed signalised pedestrian crossing will be trenched across the road and into the footpath with a maximum excavation depth of 1.2m.

Temporary traffic management will be required to accommodate these works, including lane closures and a resultant shuttle traffic system, and the duration is estimated to be approximately 20 weeks.

Prospect Hill

The works on Prospect Hill comprise the signalisation of the junction with Bohermore/Bóthar Uí hÉithir and the realignment of the junction with Bóthar na mBan (to re-designate Prospect Hill to the south-west as the minor arm of a T junction with a proposed entry treatment). A portion of the existing footpath and stone wall outside the entrance to Galway County Hall will be removed to facilitate the junction realignment, with the boundary wall and existing footpath both set back.

The works will also involve the conversion of Prospect Hill (between Bóthar na mBan and Eyre Square) into a two-way traffic route which then becomes a looped, one-way circular carriageway route that approaches Eyre Square before looping around and returning out via the two-way portion of Prospect Hill (this is to facilitate a taxi rank, drop-off and loading and to allow onward loading access to Eyre Square North at specific times via a new access-controlled link

Footpath widening will also be carried out (as a number of existing traffic lanes are to be removed). Carriageway widening and new carriageway construction will be required as part of the realignment of the junction with Bóthar na mBan and the new one-way looped route.

A signalised pedestrian crossing is also proposed on Bóthar na mBan adjacent to the new T-junction with Prospect Hill.

Significant public realm and landscaping works are proposed between Eyre Square and Bother na mBan requiring replacement of the entire surface.

Footpath widening works will require the existing footpaths to be broken out, and the bituminous layers of the road carriageway where widening is proposed to be removed, and the new widened footpath installed. This will require excavations of approximately 300mm of the existing road and footpaths. Drainage gullies will be relocated to the new kerb edge and will connect back to the existing drainage network. The maximum depth of trench excavation required to install gully post and new connection pipes is 1.2m. A section of a watermain at the Prospect Hill /Bóthar na mBan junction will require protection. An Eir Chamber will need to be relocated to avoid conflict with the new kerb at the Prospect Hill/Bóthar Uí hÉithir junction. Other utilities, where present will be either retained, protected or diverted as required

For the provision of the entry treatments, the works will involve the milling of the top layer of surface course, application of bond coat and the construction of the entry treatment/raised table utilising bituminous materials and natural stone.

New carriageway (to be provided along the proposed one-way loop and outside Galway County Hall) will require the existing footpath to be broken out, full road build-up to be constructed and jointed to the existing adjacent carriageway, and replacement footpath constructed. Existing drainage present kerbside, and other

utilities present within the section of footpath to be removed will be relocated to the new kerb edge or the new footpath.

Ducting for the proposed signalised pedestrian crossing will be trenched across the road and into the footpath with a maximum excavation depth of 1.2m.

Temporary traffic management will be required to accommodate these works, including lane/road closures and a resultant shuttle traffic system, and the duration is estimated to be approximately 8 weeks.

Eyre Square North/Eyre Square East/Eyre Square South

The works on Eyre Square North involve the removal of the carriageway space running parallel to Eyre Square North (to the north of the Liam Mellows Statue) and conversion of this area to a pedestrianised and landscaped public space. The vehicular linkage between Eyre Square North and Prospect Hill is also to be closed and replaced with a time-dependent controlled access link (controlled through retractable bollards) to facilitate access for loading and local access to

On Eyre Square East, the works involve localised footpath widening at the northeastern corner (between Eyre Square East and Eyre Square North) and upgrade of the existing pedestrian crossing at the same location, the provision of an entry treatment at St. Patrick's Avenue and localised carriageway widening at the south-eastern corner. The junction of Eyre Square East, Eyre Square South and Forster Street is to be fully signalised. On Eyre Square South minimal works are proposed.

Footpath widening works will require the existing footpaths to be broken out, and the bituminous layers of the road carriageway where widening is proposed to be removed, and the new widened footpath installed. This will require excavations of approximately 300mm of the existing road and footpaths. Drainage gullies will be relocated to the new kerb edge and will connect back to the existing drainage network. The maximum depth of trench excavation required to install gully post and new connection pipes is 1.2m. Enet chambers and several other manholes to be relocated to avoid conflict with the proposed kerb. Other utilities, where present will be either retained, protected or diverted as required.

Carriageway widening works will require the existing footpath to be broken out, full road build-up to be constructed and jointed to the existing adjacent carriageway, and replacement footpath constructed. Existing drainage present kerbside, and other utilities present within the section of footpath to be removed will be relocated to the new kerb edge or the new footpath.

For the provision of the entry treatment, the works will involve the milling of the top layer of surface course, application of bond coat and the construction of the entry treatment/raised table utilising bituminous materials and natural stone.

Ducting for the proposed signalisation works will be trenched across the road and into the footpath with a maximum excavation depth of 1.2m. The maximum depth of excavation pit of the installation of bollards is 1.5m.

Temporary traffic management will be required to accommodate these works, including lane/road closures and a resultant shuttle traffic system, and the duration is estimated to be approximately 20 weeks.

Victoria Place/Merchant's Road/Queen Street

Localised works on Victoria Place, Merchant's Road and Queen Street primarily involve footpath widening, provision of new raised uncontrolled pedestrian crossings and two new signalised pedestrian crossings on Forthill Road. An entry treatment is proposed at the junction of Forthill Road and Queen Street, and a new footpath is proposed on the south-eastern side of Dock Road, between Queen Street and Bóthar na Long. The existing signalised junction at Bóthar na Long/Dock Road (the triangular island) is to be upgraded to provide a signalised pedestrian crossing on the approach from the east (i.e. all three arms will have a signalised pedestrian crossing).

Footpath widening works will require the existing footpaths to be broken out, and the bituminous layers of the road carriageway where widening is proposed to be removed, and the new widened footpath installed. This will require excavations of approximately 300mm of the existing road and footpaths. Drainage gullies will be relocated to the new kerb edge and will connect back to the existing drainage network. A new drainage pipe to be laid on Merchants Road and Forthill Street, with and outlet to tie into existing network on Queen Street. The depth of trench excavation required to install the new drainage, gully post and new connection pipes is 1.55m. Works will also involve the diversion of a watermain on Merchants Road. Several manholes will need to be relocated to avoid conflict with proposed kerbs. Other utilities, where present will be either retained, protected or diverted as required.

For the provision of the entry treatments/raised uncontrolled crossings, the works will involve the milling of the top layer of surface course, application of bond coat and the construction of the entry treatment/raised table utilising bituminous materials and natural stone.

Ducting for the proposed signalisation works will be trenched across the road and into the footpath with a maximum excavation depth of 1.2m.

Temporary traffic management will be required to accommodate these works, including lane/road closures and a resultant shuttle traffic system, and the duration is estimated to be approximately 6 weeks.

Forster Street

The works on Forster Street involve the replacement of existing footpaths and widening of footpaths to the eastern end of the street, in the vicinity of the junction with Bóthar Uí hEithir/College Road/Fairgreen Road. The works at that junction are detailed below.

Footpath widening works will require the existing footpaths to be broken out, and the bituminous layers of the road carriageway where widening is proposed to be removed, and the new widened footpath installed. This will require excavations of approximately 300mm of the existing road and footpaths. Drainage gullies will be relocated to the new kerb edge and will connect back to the existing drainage network. The maximum depth of trench excavation required to install gully post and new connection pipes is 1.2m. Other utilities, where present will be either retained, protected or diverted as required.

Temporary traffic management will be required to accommodate these works, including lane closures and a resultant shuttle traffic system, and the duration is estimated to be approximately 4 weeks

College Road/Forster Street/Fairgreen Road/Bóthar Uí Either junction

The works at this junction comprise the upgrade of the junction to reduce the overall size and provide wider footpaths and shorter crossing distances.

Therefore, the works primarily comprise footpath widening and the removal of islands within the main carriageway and the installation of replacement traffic signals.

Footpath widening works will require the existing footpaths to be broken out, and the bituminous layers of the road carriageway where widening is proposed to be removed, and the new widened footpath installed. This will require excavations of approximately 300mm of the existing road and footpaths. Drainage gullies will be relocated to the new kerb edge and will connect back to the existing drainage network. The maximum depth of trench excavation required to install gully post and new connection pipes is 1.2m. Other utilities, where present will be either retained, protected or diverted as required.

Islands within the main carriageway will be broken out and the carriageway within the junction resurfaced. This will require the removal of the existing bituminous layers on the road and replacement with new materials.

Ducting for the proposed signalisation works will be trenched across the road and Temporary traffic management will be required to accommodate these works, including lane closures and a resultant shuttle traffic system, and the duration is estimated to be approximately 10 weeks.

Bóthar Uí hEithir

Works on Bóthar Uí hEithir are localised in nature and primarily comprise localised footpath widening at the junction to the south (with Forster Street/College Road) and the junction to the north (with Prospect Hill/Bohermore).

An entry treatment is also proposed at the entrance to Forster Court, and the existing entrance into the grounds of St. Patrick's Church (towards the southern end of Bóthar Uí hÉithir) is to be amended.

Footpath widening works will require the existing footpaths to be broken out, and the bituminous layers of the road carriageway where widening is proposed to be removed, and the new widened footpath installed. This will require excavations of approximately 300mm of the existing road and footpaths. Drainage gullies will be relocated to the new kerb edge and will connect back to the existing drainage network. The maximum depth of trench excavation required to install gully post and new connection pipes is 1.2m. Other utilities, where present will be either retained, protected or diverted as required.

For the provision of the entry treatment the works will involve the milling of the top layer of surface course, application of bond coat and the construction of the entry treatment/raised table utilising bituminous materials and natural stone.

Temporary traffic management will be required to accommodate these works, including lane closures, and the duration is estimated to be approximately 4 weeks.

Fairgreen Road

The works at Fairgreen Road primarily comprise the upgrade at the signalised junction with College Road/Forster Street, the provision of new entry treatments and some localised footpath widening in the vicinity of the entrance to the Radisson Blu Hotel, footpath replacement and the installation of a new controlled pedestrian crossing between Fairgreen House and the coach station. .

Footpath widening works will require the existing footpaths to be broken out, and the bituminous layers of the road carriageway where widening is proposed to be removed, and the new widened footpath installed. This will require excavations of approximately 300mm of the existing road and footpaths. Drainage gullies will be relocated to the new kerb edge and will connect back to the existing drainage network. The maximum depth of trench excavation required to install gully post and new connection pipes is 1.2m. Several manholes will need to be relocated to avoid conflict with proposed kerbs. Other utilities, where present will be either retained, protected or diverted as required.

For the provision of entry treatments, the works will involve the milling of the top layer of surface course, application of bond coat and the construction of the entry treatment/raised table utilising bituminous materials.

Temporary traffic management will be required to accommodate these works, including lane closures, and the duration is estimated to be approximately 3 weeks.

College Road (Forster Street to Lough Atalia Road)

The works along College Road between the junction with Forster Street and the junction with Lough Atalia Road primarily comprise localised footpath widening works, the provision of entry treatments at a number of junctions, new priority pedestrian crossings and the installation of a bus gate on College Road, west of the entrance to Galway City Hall.

Footpath widening works will require the existing footpaths to be broken out, and the bituminous layers of the road carriageway where widening is proposed to be removed, and the new widened footpath installed. This will require excavations of approximately 300mm of the existing road and footpaths. Drainage gullies will be relocated to the new kerb edge and will connect to a new drainage network. A new drainage pipe is to be laid along a section of the College Road from Yeats College to Lough Atalia. The maximum depth of trench excavation required to install the new drainage pipe, gully post and new connection pipes is 1.75m. Works will involve the relocation of Eir chambers and duct that conflict with the kerb adjacent the College Road/Glenmore Junction. Two additional Telecom chambers and several manholes will be relocated along the College Road. Other utilities, where present will be either retained, protected or diverted as required.

For the provision of the entry treatments the works will involve the milling of the top layer of surface course, application of bond coat and the construction of the entry treatment/raised table utilising bituminous materials. Carriageway widening works (at the localised realignment point) will require the existing footpath to be broken out, full road build-up to be constructed and jointed to the existing adjacent carriageway, and replacement footpath constructed. Existing drainage present kerbside, and other utilities present within the section of footpath to be removed will be relocated to the new kerb edge or the new footpath.

Ducting for the proposed signalised pedestrian crossing and the proposed zebra crossing will be trenched across the road and into the footpath with a maximum excavation depth of 1.2m.

For the proposed bus gate, the works primarily involve footpath widening, the installation of traffic signals and the application of a coloured red resin surface to the carriageway on either side of the bus gate to delineate the proposed vehicle restrictions.

Temporary traffic management will be required to accommodate these works, including lane closures, and the duration is estimated to be approximately 6 weeks.

College Road/Lough Atalia Road junction

The junction of College Road/Lough Atalia Road is to be realigned into a standard, signal controlled, T-junction arrangement, with a reduced junction footprint. The College Road (from City Hall) arm of the junction will be the minor arm of the 'T' arrangement. Existing traffic islands within the existing junction are to be removed, and the College Road approach to the junction realigned to route through the existing grassed area between College Road and Lough Atalia Road. The new T-junction will be signalised. The existing junction area that becomes redundant will be used to provide new or widened footpaths and provision of new landscaped areas. The existing entrance to Loyola Park will be retained in its current location, but altered to a priority controlled access with a new entry treatment and kerblines.

Footpath widening works will require the existing footpaths to be broken out, and the bituminous layers of the road carriageway where widening is proposed to be removed, and the new widened footpath installed. This will

require excavations of approximately 300mm of the existing road and footpaths. Drainage gullies will be relocated to the new kerb edge and will connect back to the new drainage network. A new drainage pipe and non-return valve to be installed at discharge point into Lough Atalia. The maximum depth of trench excavation required to install the new pipe, gully post and new connection pipes is 2.2m. Additionally, new attenuation tank and petrol interceptor will need to be installed, which will require excavation of approximately 3.5m -3.75m for installation. The outfall for the new pipe will be relocated in the existing rock armour along the shore of Lough Atalia, on the northern side of the existing playground. All works will be carried out from the land side.

Works will involve the decommissioning and diversion of existing Eir and Virgin Media ducts. Additionally, an ESB LV OH line will need to be diverted and an electrical pole will need to be relocated. A manhole will need to be relocated to avoid the proposed kerb. Other utilities, where present will be either retained, protected or diverted as required.

For the provision of the entry treatments the works will involve the milling of the top layer of surface course, application of bond coat and the construction of the entry treatment/raised table utilising bituminous materials.

The construction of new carriageway in existing hardstanding areas will require the existing footpath to be broken out, full road build-up to be constructed and jointed to the existing adjacent carriageway, and replacement footpath constructed. Existing drainage present kerbside, and other utilities present within the section of footpath to be removed will be relocated to the new kerb edge or the new footpath. Where the carriageway is to be constructed in grassed areas, excavation and full road build-up will be required. Where islands are to be removed, the carriageway surface beneath will be resurfaced and jointed to the adjacent carriageway surface.

Ducting for the proposed signalisation works will be trenched across the road and into the footpath with a maximum excavation depth of 1.2m.

Temporary traffic management will be required to accommodate these works, including lane closures, and the duration is estimated to be approximately 12 weeks.

College Road (Lough Atalia Road to junction at Moneenageisha)

The works proposed on College Road (between Lough Atalia Road and Moneenageisha) comprise significant carriageway widening on the western side of College Road to facilitate the construction of an additional outbound bus lane and inbound cycle track. Entry treatments are proposed at the entrances to Loyola Park, Gleann Nóinín and the Huntsman Inn.

Boundary walls along the section to be widened will be removed and set back at five properties (139 College Road, Gleann Noinin, Circle K, Moneenageisha Court and Bay View House). At 139 College Road and Gleann Noinin the existing lands within property boundaries will be broken out/excavated as necessary.

At Circle K, the proposed boundary will be set back. This will require the temporary acquisition of the entire Circle K property in order to complete the works. The works will include the decommissioning of all fuel tanks and systems in accordance with industry standards and according to best practice under Association for Petroleum and Explosives Administration (APEA) guidance. The works will include the complete removal of 2 of the 6 underground fuel storage tanks located on the site. It will also include the removal of 2 of the existing pumping stations located in the forecourt of the site. The existing canopy over the forecourt will require removal and replacement with a smaller canopy which will not overhang the relocated boundary will and the existing display signage will be required to be set back. The removal of the 2 underground tanks and the removal of the 2 pumping stations will also require the removal and relocation of a number of underground fuel pipes within the site.

At Moneenageisha Court, the existing boundary wall will be set back. This boundary wall is a retaining wall. A proposed new retaining wall (which retains a level difference of approximately 1.2m) will be constructed along the proposed new boundary.

This wall will have an exposed face of approximately 2.4m on the College Road side. The wall will be a reinforced concrete wall and will require excavations of approximately 2.0m below existing ground level across the frontage of Moneenageisha Court with the temporary removal of the existing road parallel to College Road. Replacement car-parking is proposed within Moneenageisha Court.

At Bay View House, the existing boundary wall will be set back. This boundary wall is a retaining wall. A proposed new retaining wall (which retains a level difference of approximately 0.9m) will be constructed along the proposed new boundary. The existing access gates and steps will be reconstructed along the new boundary. Internal car parking will be re-configured.

New carriageway will require the existing footpath to be broken out, full road build-up to be constructed and jointed to the existing adjacent carriageway, and replacement footpath and cycle-track constructed.

Drainage gullies will be relocated to the new kerb edge and will connect back to the new drainage network. Two runs of new drainage pipes are to be laid in the roadway, carrying the water in opposite directions. They will

outfall via proposed petrol interceptors, which will require excavation of approximately 3.2m -3.4m for installation. The maximum depth of trench excavation required to install the new pipes, gully post and new connection pipes is 2.0m.

Works will involve the decommissioning and diversion of existing ESB LV UG Line, MV UG Line and LV OH cable, along with a pole, into the new footpath. Additionally, runs of Eir, Virgin Media and BT ducts will be diverted. Several manholes will need to be relocated to avoid conflict with proposed kerbs. Other utilities, where present will be either retained, protected or diverted as required.

Temporary traffic management will be required to accommodate these works, including lane closures, and the duration is estimated to be approximately 20 weeks.

Moneenageisha Junction

The works at the junction at Moneenageisha involve the upgrade of the junction to provide two bus priority gates on approach to and through the junction from the College Road approach and also from the Dublin Road approach.

Removal and amendments to existing splitter islands are also proposed on order to facilitate the new cycle tracks, toucan crossing and proposed widened footpaths in some locations. The works predominantly relate to island removal, footpath widening and replacement of traffic signals.

Footpath widening works will require the existing footpaths to be broken out, and the bituminous layers of the road carriageway where widening is proposed to be removed, and the new widened footpath installed.

This will require excavations of approximately 300mm of the existing road and footpaths. Drainage gullies will be relocated to the new kerb edge and will connect back to the existing drainage network. The maximum depth of trench excavation required to install gully post and new connection pipes is 1.2m. Works will include diversion of an ESB MV UG line, a section of which is within the junction. Other utilities, where present will be either retained, protected or diverted as required.

Islands within the main carriageway will require the existing islands to be broken out, full road build-up to be constructed and jointed to the existing adjacent carriageway. This will require the removal of the existing bituminous layers on the road and replacement with new materials. New/relocated splitter islands will require the carriageway surface course to be milled out and new islands constructed.

Where existing ducting cannot be re-used, ducting for the relocated signals will be trenched across the road and into the footpath with a maximum excavation depth of 1.2m.

Temporary traffic management will be required to accommodate these works, including lane/road closures, and the duration is estimated to be approximately 10 weeks.

R338 Dublin Road

The works on the R338 Dublin Road comprise the installation of inbound and outbound bus lanes, raised adjacent cycle tracks and footpaths on both sides of the road. This is to be achieved via a combination of carriageway widening, repurposing of existing traffic lanes and setting back the existing footpath. An entry treatment is proposed at the entrance to the Huntsman Inn and Wellpark Retail Park.

Approaching the junction at Moneenageisha, footpath widening is proposed as part of the tightening of the entrance to the junction (removal of the left-slip to College Road, etc.).

Footpath widening works will require the existing footpaths to be broken out, and the bituminous layers of the road carriageway where widening is proposed to be removed, and the new widened footpath installed. This will require excavations of approximately 300mm of the existing road and footpaths. Drainage gullies will be relocated to the new kerb edge and will connect back to a new drainage network. Three runs of drainage pipes will be laid within the roadway with outlets to tie into the existing network. The maximum depth of trench excavation required to install the drainage pipes, gully post and new connection pipes is 1.8m – 2.3m. Additionally two new petrol interceptor will require excavation of approximately 3.0m -3.5m for installation.

Works will involve the diversion of two runs of ESB MV UG Line along the Old Dublin Road, along with diversions of a watermain and an Eir Duct. Other utilities, where present will be either retained, protected or diverted as required.

Carriageway widening works will require the existing footpath to be broken out, full road build-up to be constructed and jointed to the existing adjacent carriageway, and replacement footpath/raised adjacent cycle lane to be constructed. Existing drainage present kerbside, and other utilities present within the section of footpath to be removed will be relocated to the new kerb edge or the new footpath.

Carriageway widening works on the Lough Atalia side of Dublin Road, between Brothers of Charity and the existing billboard adjacent to the Huntsman Inn comprises a new 4.0 m wide footway/cycleway offset approximately 0.9m from the SPA boundary opposite the Eye cinema. Due to the uncertainty of the existing wall, it is proposed to install a new retaining wall through here to support the footway/cycleway, which is approximately 1.3m above the depressed bay level. To avoid encroachment into the SPA boundary, it is proposed to retain the existing stone wall/embankment by constructing a mass concrete gravity wall in behind it. This requires the material in behind the wall to be excavated out and then backfilled with mass concrete. Due to the potential instability of the stone wall, care is required during construction to protect the existing stone wall/embankment. The area behind the wall is designated as an SPA and hence all efforts will be made to avoid collapse of the existing wall/slope. This may require the installation of a temporary/sacrificial support to maintain the integrity of the slope and contain the concrete from seeping through the stone wall and into the

SPA beyond. Protection from construction run-off into the SPA will also need to be implemented during construction along this section.

A portion of the landscaped area in front of the grounds of the G Hotel will be removed to facilitate footpath re-location and the construction of the raised adjacent cycle lane. This will require the landscaped area to be removed and excavated to allow the footpath/cycle lane to be constructed.

Temporary traffic management will be required to accommodate these works, including lane closures and the duration is estimated to be approximately 16 weeks.

Galway Harbour Enterprise Park

It is proposed to use two sections of the Galway Harbour Enterprise Park as Construction Compounds. The areas comprise existing rough ground compounds with recolonising bare ground being the predominant habitat.

Figure 1 shows the Proposed Scheme location and Figure 2 shows a view of the Proposed Scheme boundary on recent aerial photography. Plans of the Proposed Scheme are presented in Figures 3 to 15.

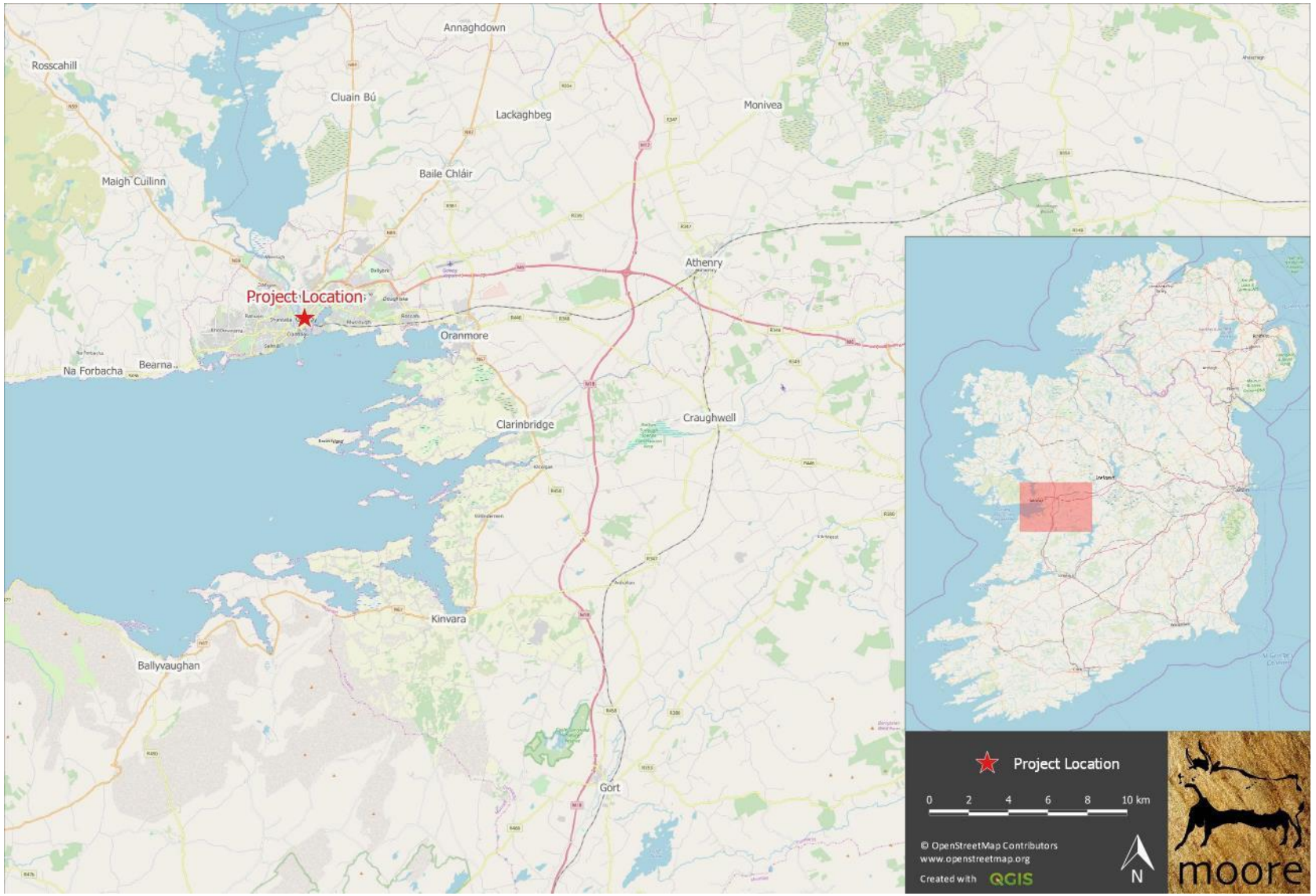

Figure 1. Showing the Proposed Scheme location in Galway City.

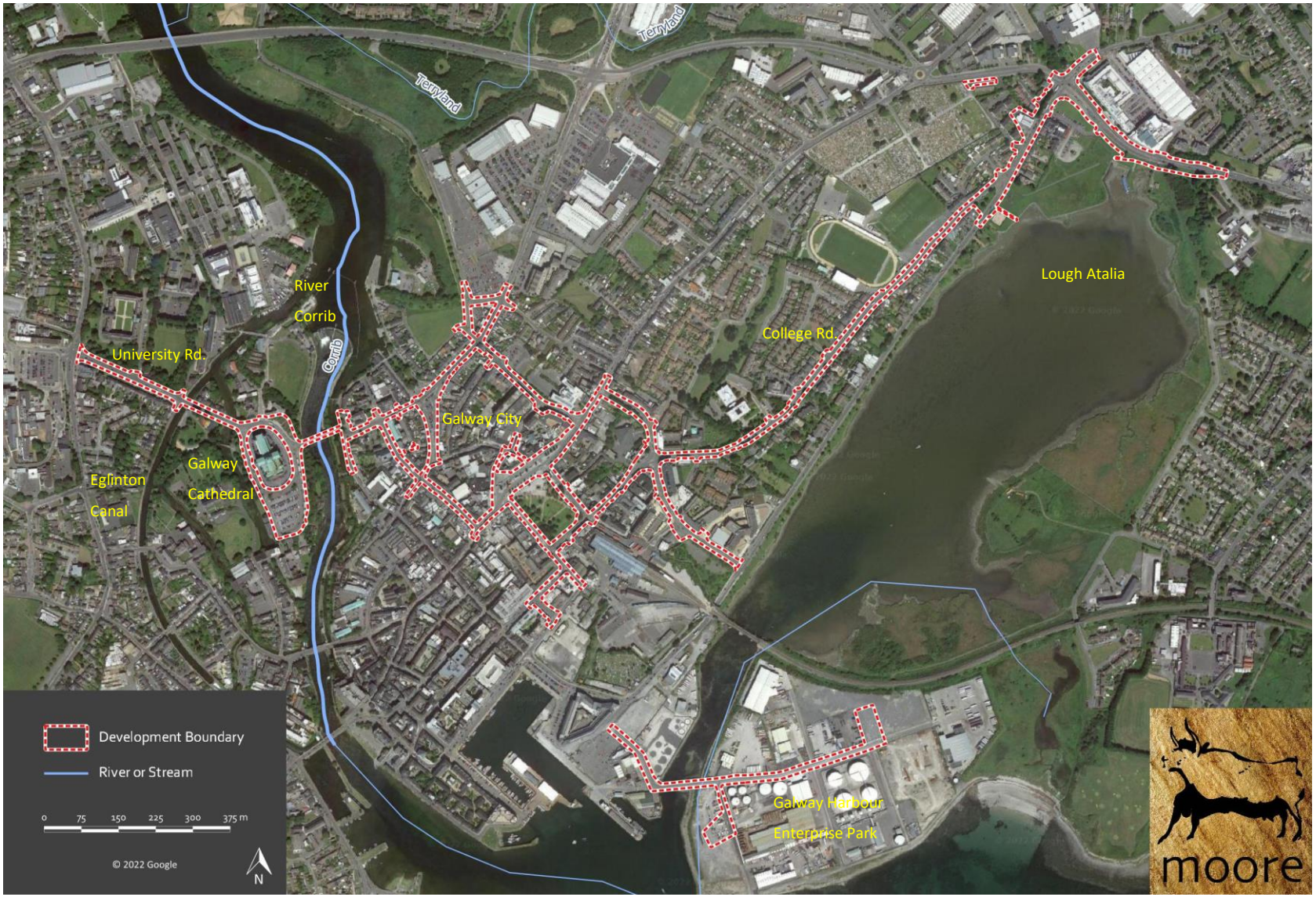

Figure 2. Showing the Proposed Scheme on recent aerial photography.

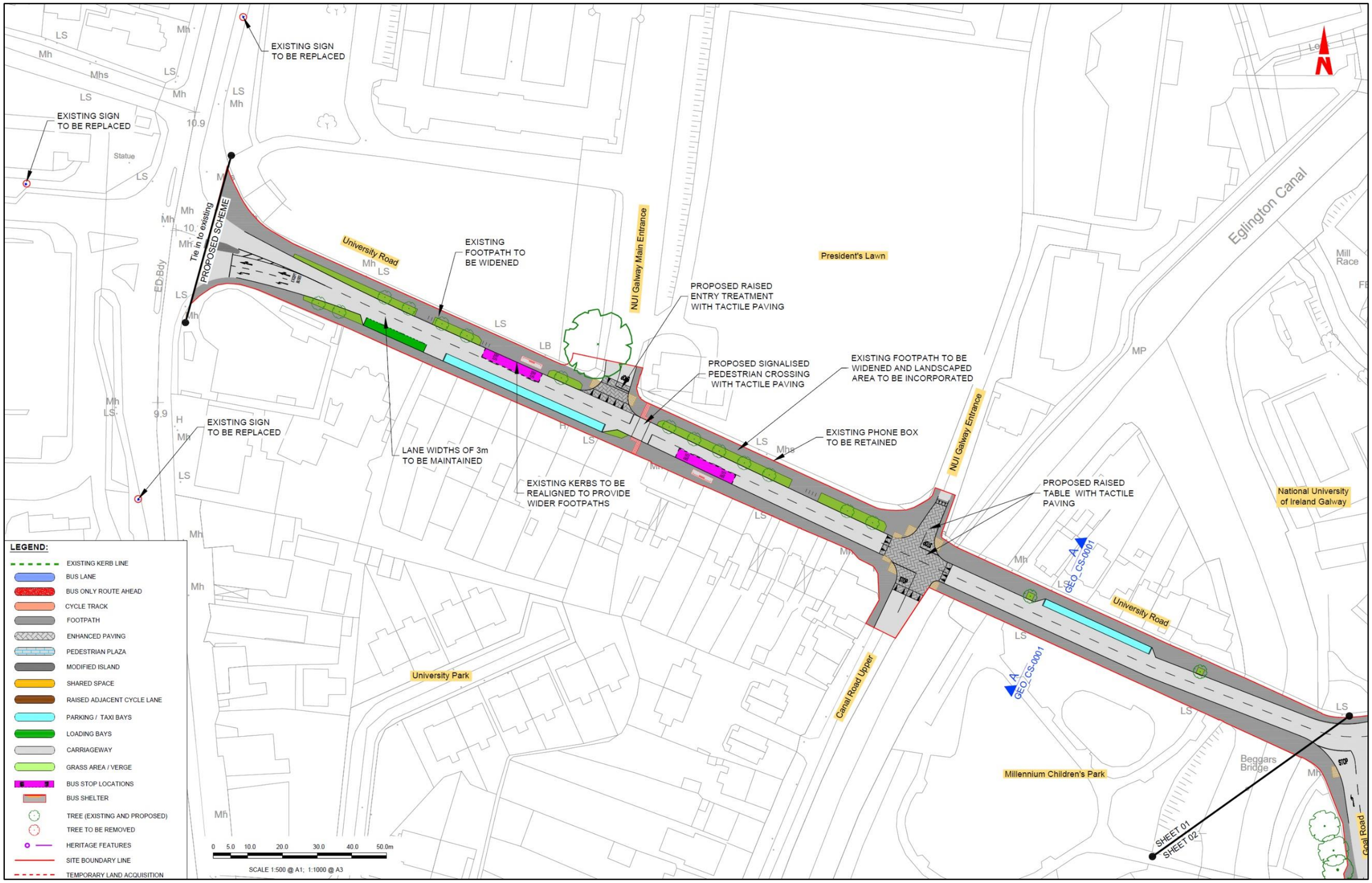

Figure 3. Plan of the Proposed Scheme 1 of 13 (note rotated N).

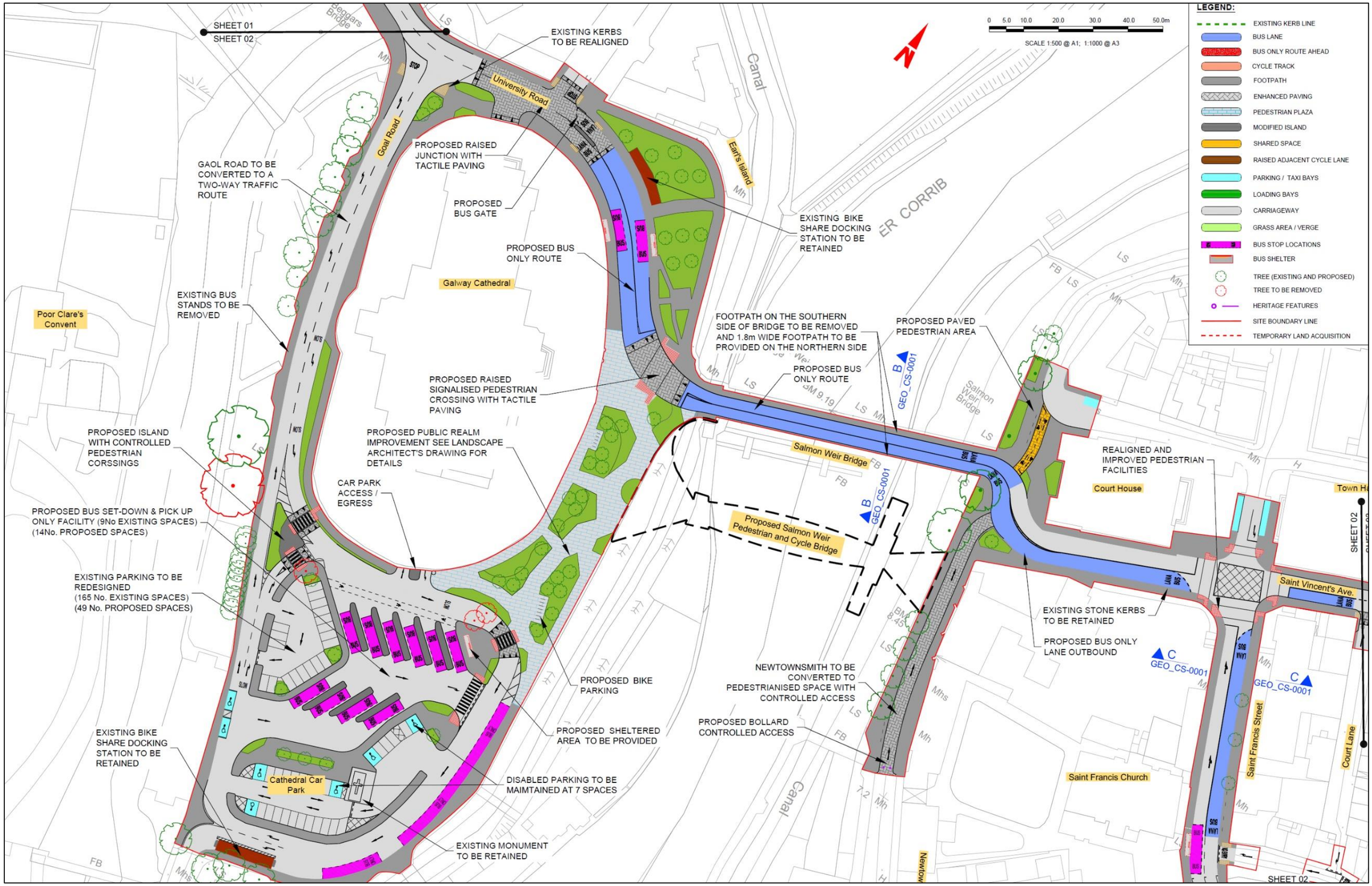

Figure 4. Plan of the Proposed Scheme 2 of 13 (note rotated N).

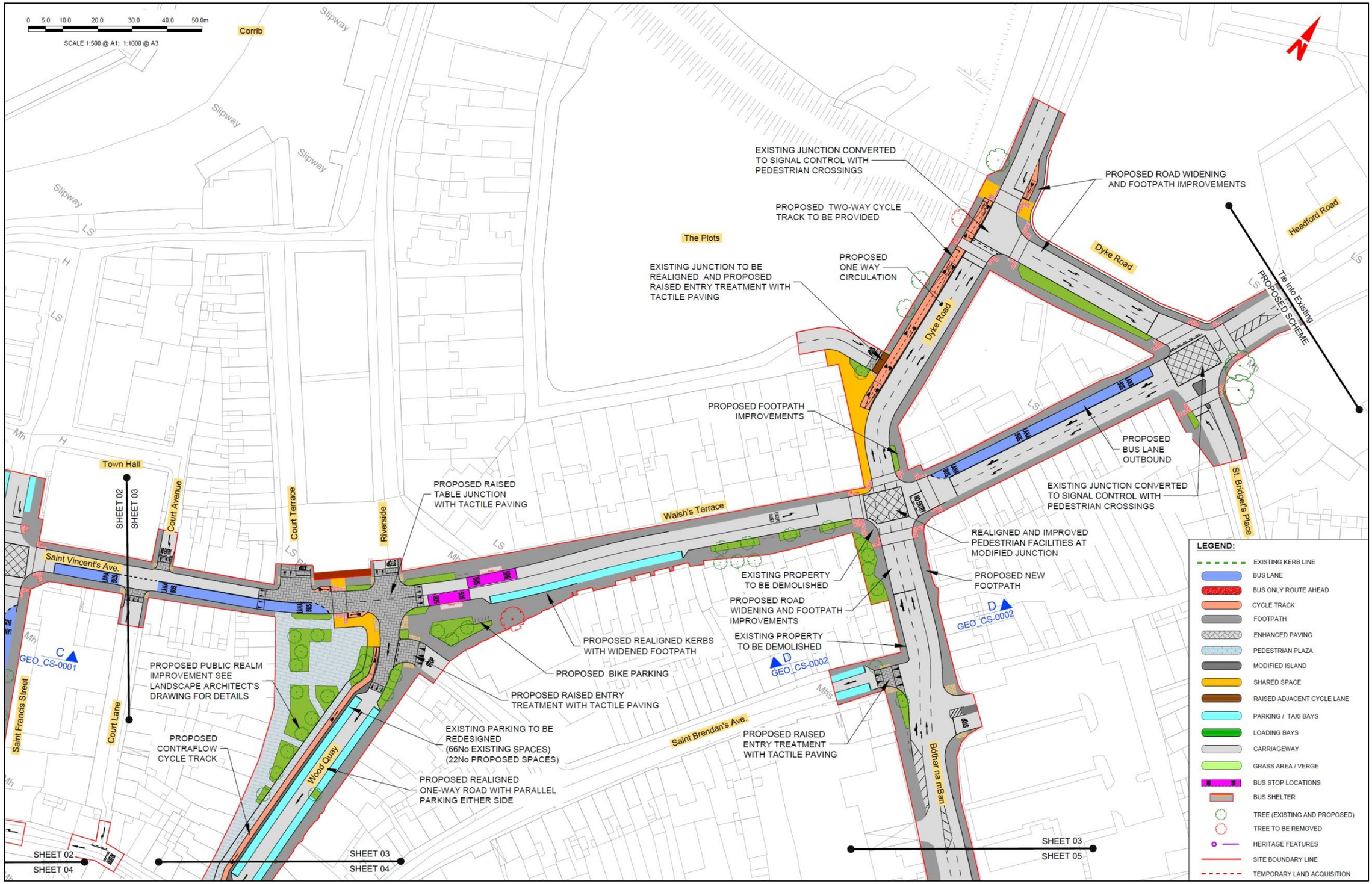

Figure 5. Plan of the Proposed Scheme 3 of 13 (note rotated N).

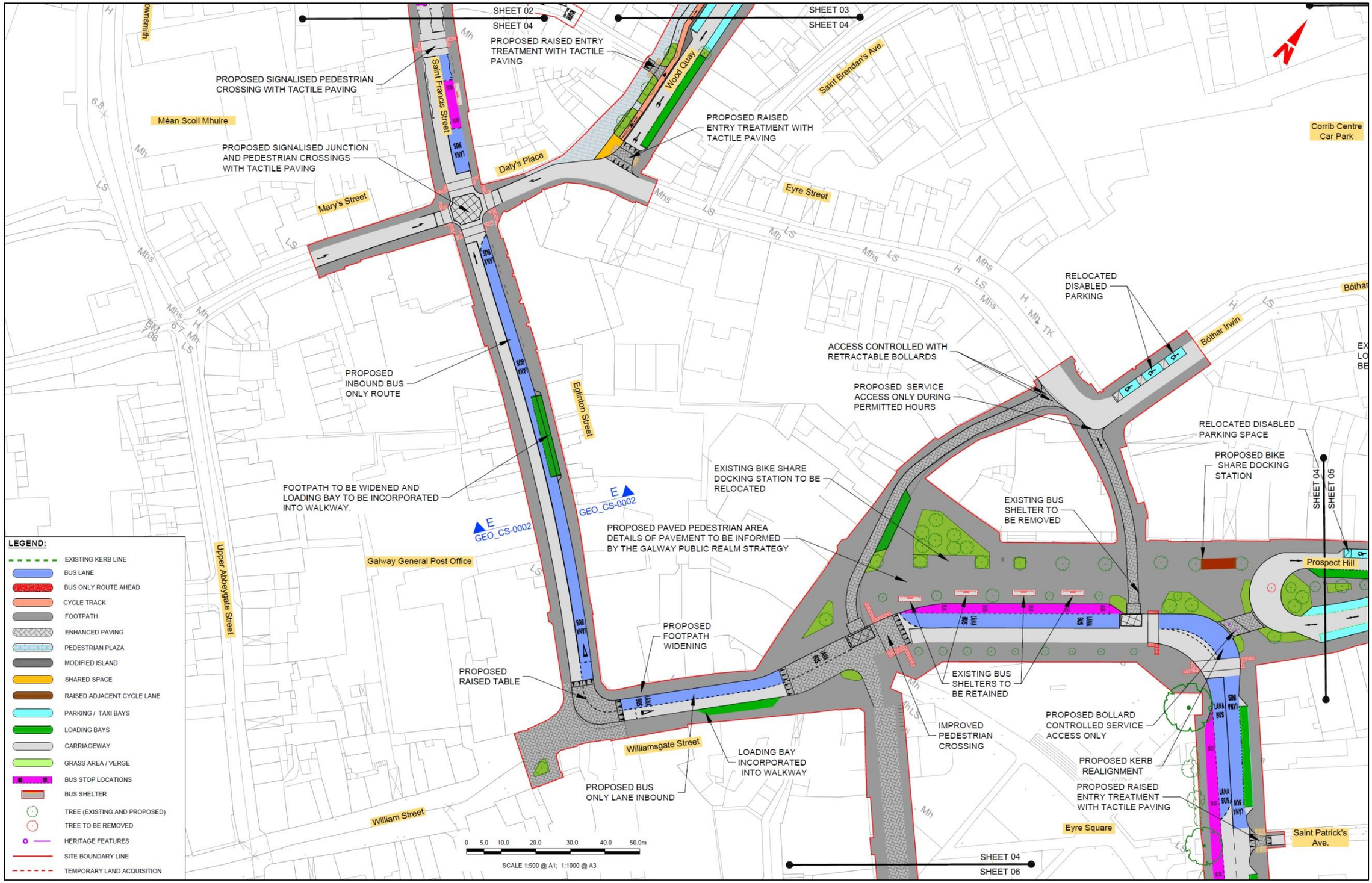

Figure 6. Plan of the Proposed Scheme 4 of 13 (note rotated N).

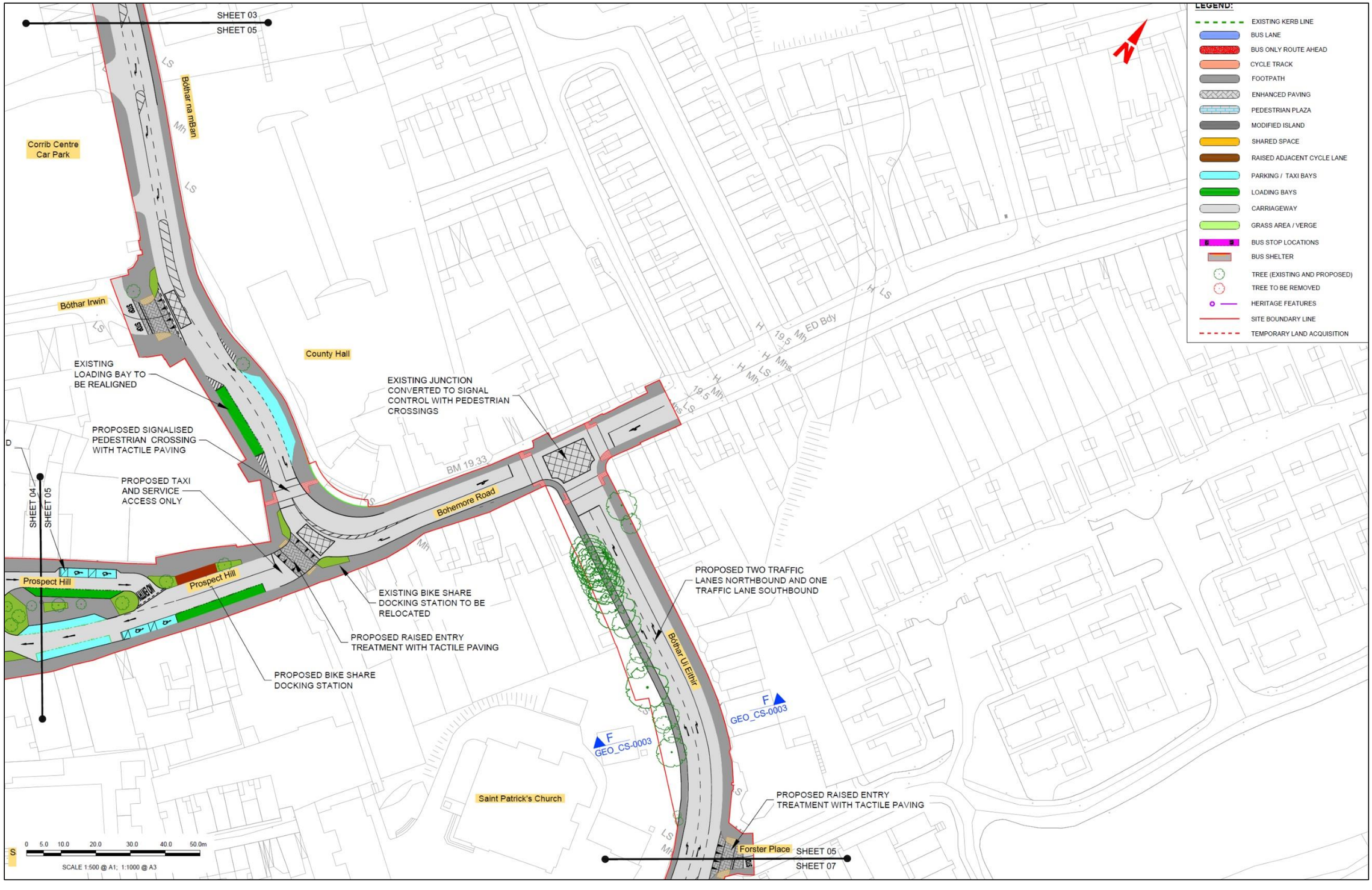

Figure 7. Plan of the Proposed Scheme 5 of 13 (note rotated N).

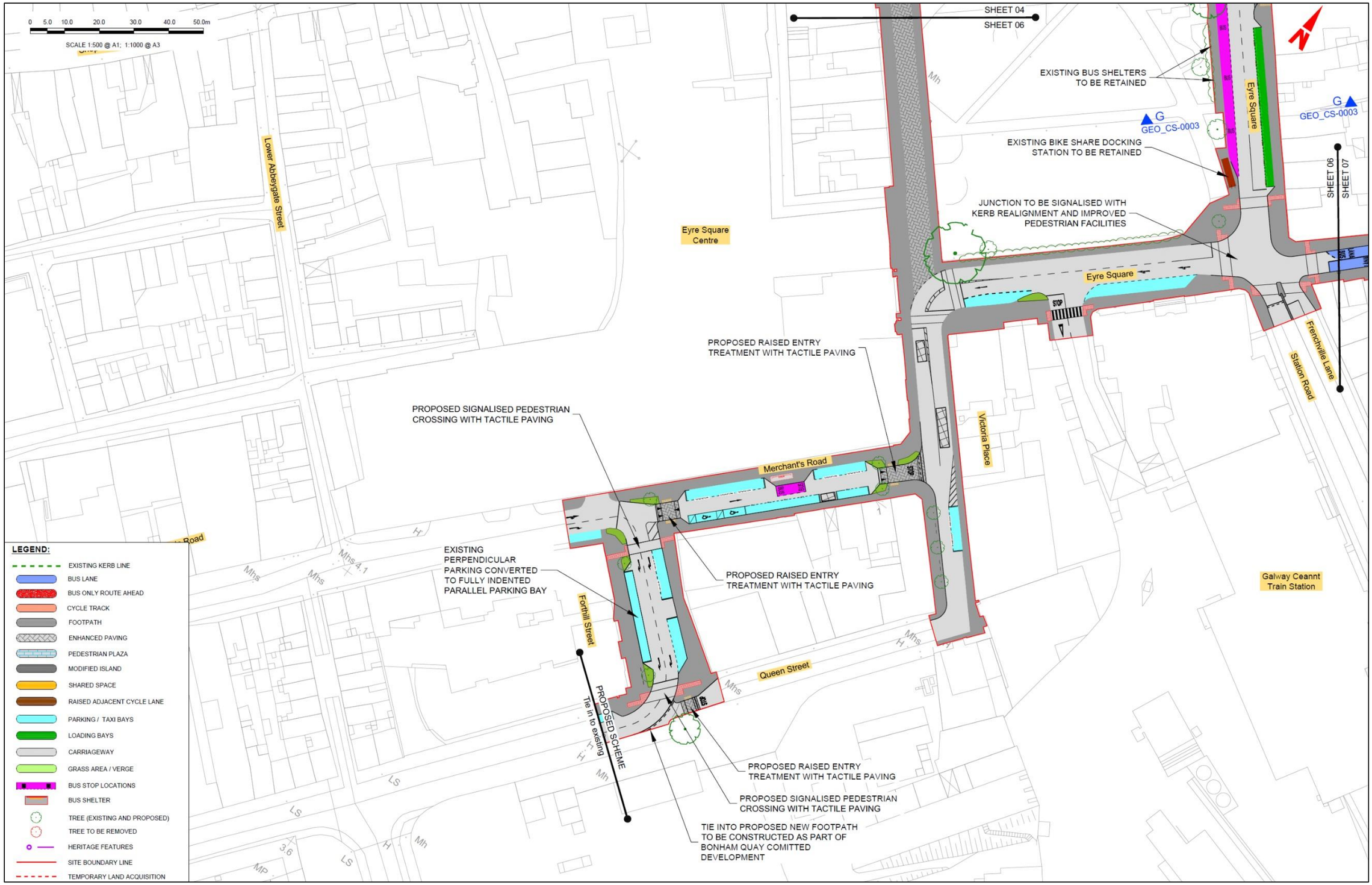

Figure 8. Plan of the Proposed Scheme 6 of 13 (note rotated N).

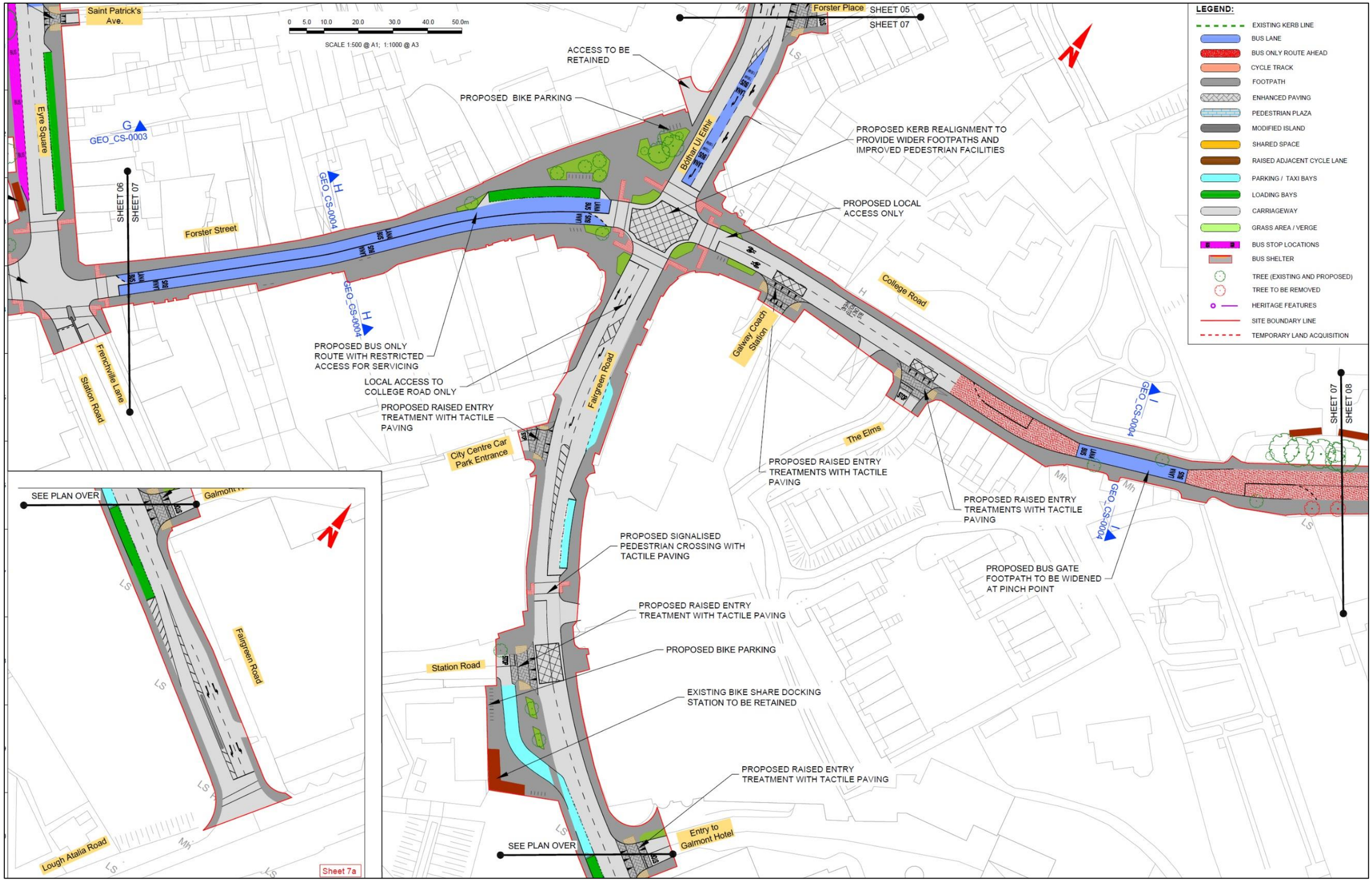

Figure 9. Plan of the Proposed Scheme 7 of 13 (note rotated N).

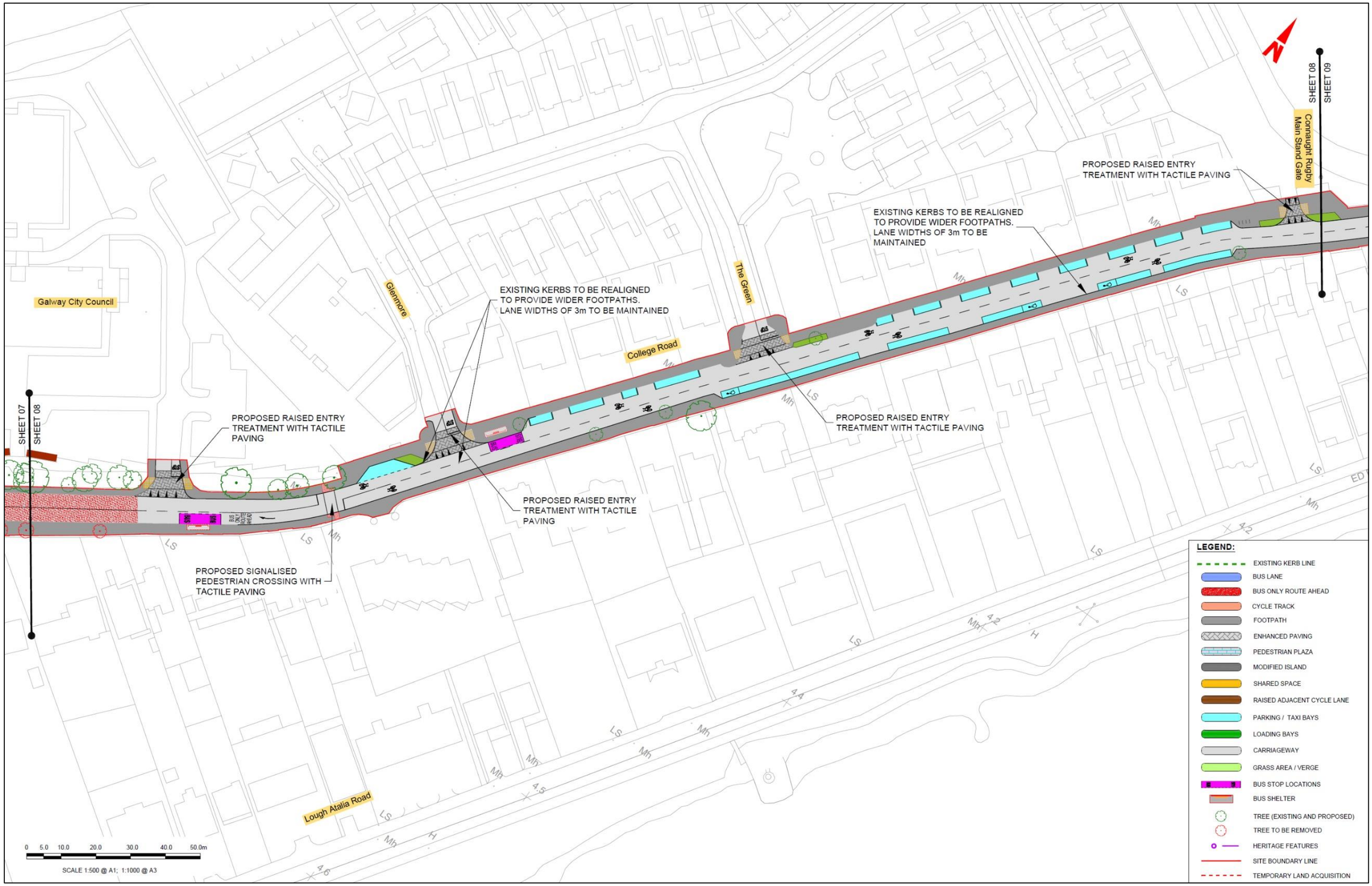

Figure 10. Plan of the Proposed Scheme 8 of 13 (note rotated N).

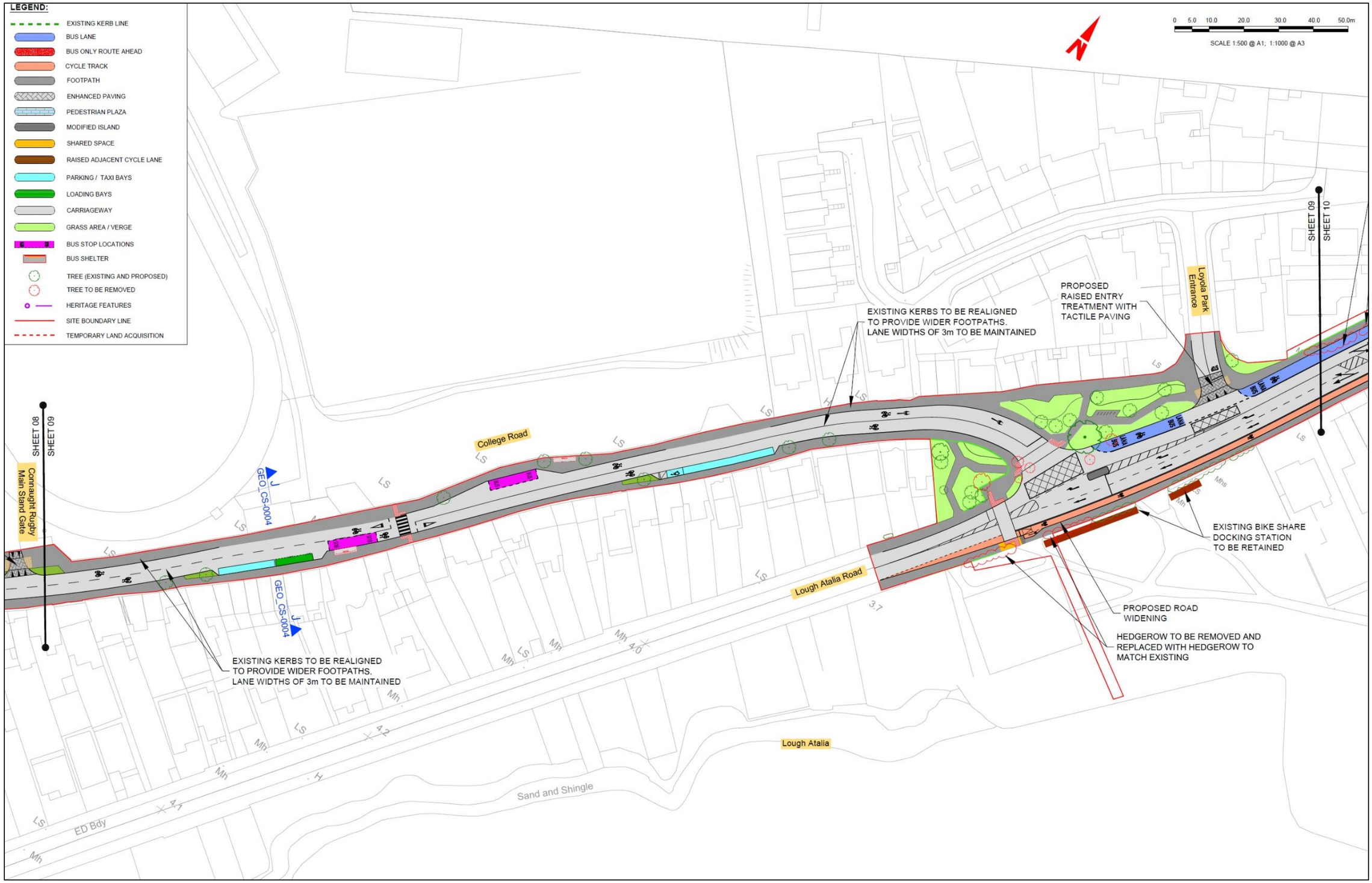

Figure 11. Plan of the Proposed Scheme 9 of 13 (note rotated N).

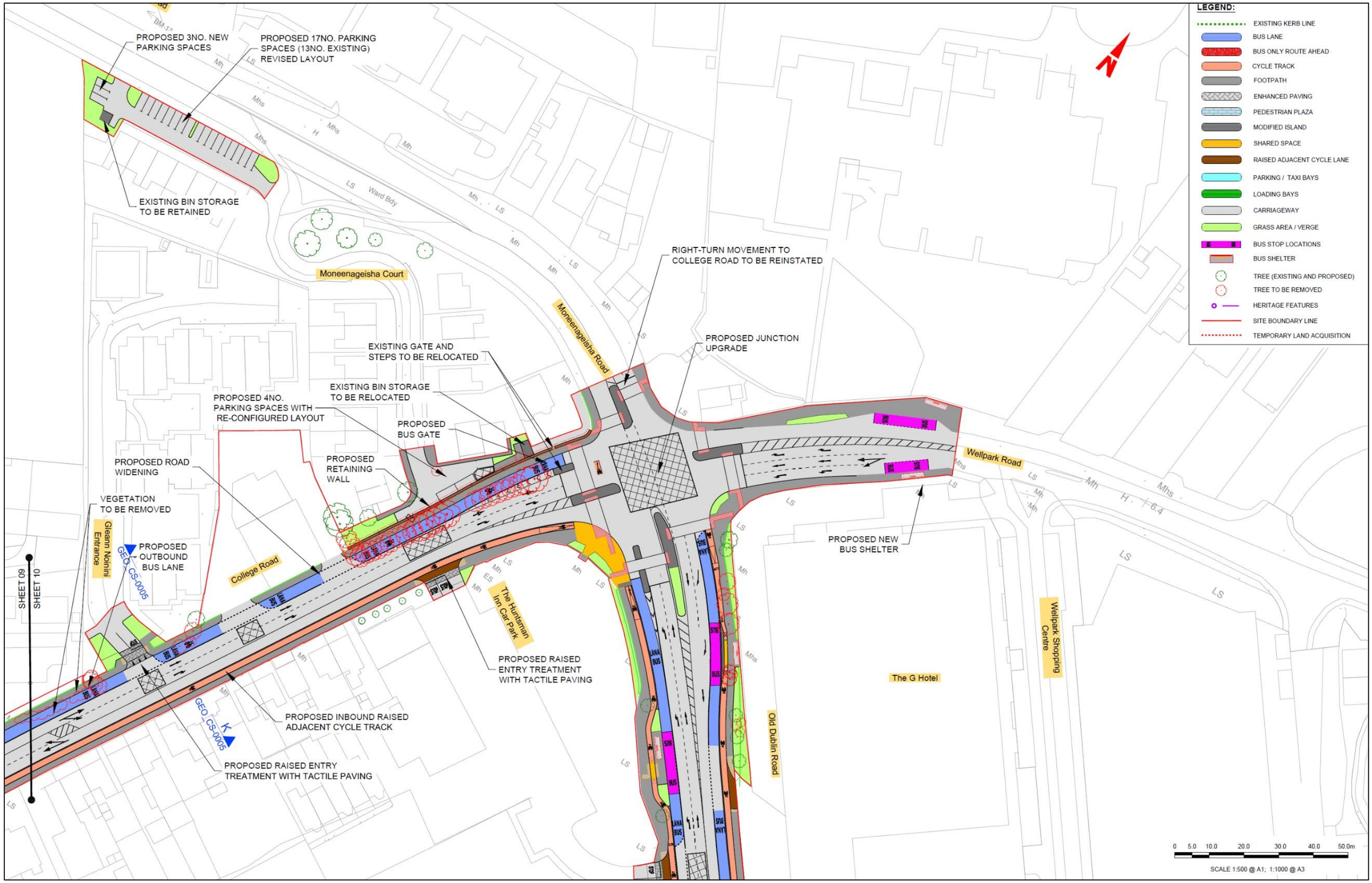

Figure 12. Plan of the Proposed Scheme 10 of 13 (note rotated N).

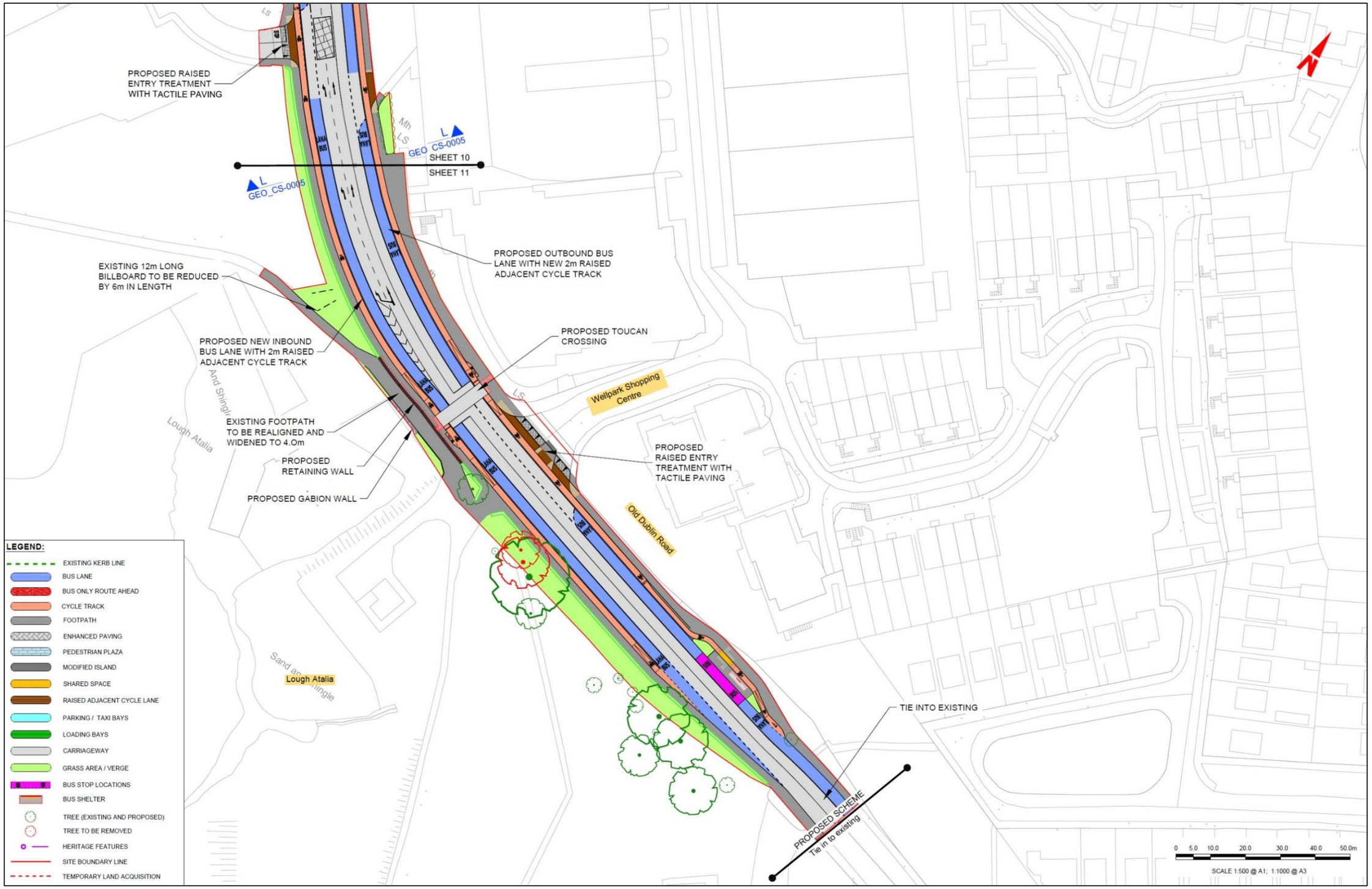

Figure 13. Plan of the Proposed Scheme 11 of 13 (note rotated N).

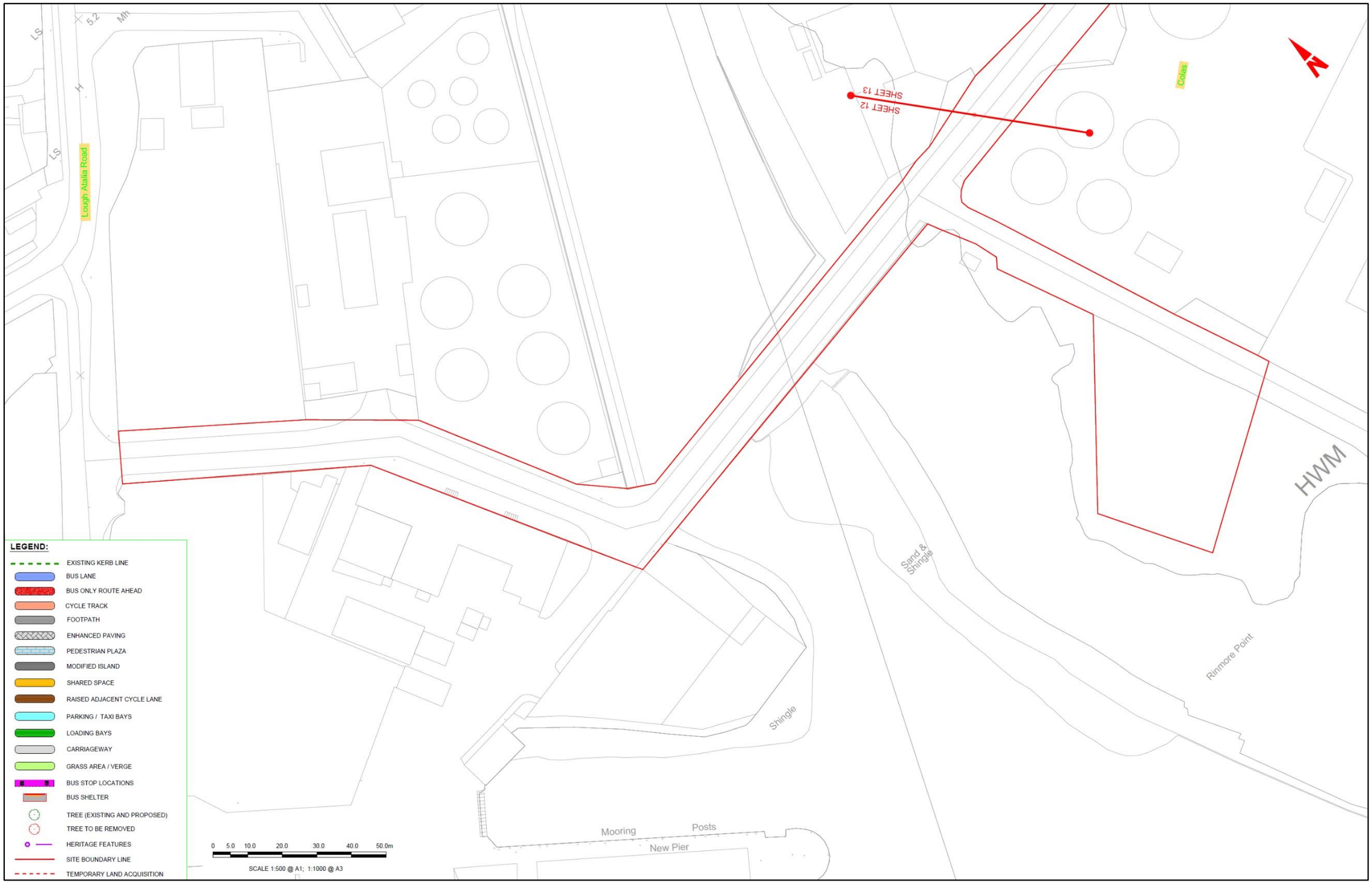

Figure 14. Plan of the Proposed Scheme 12 of 13 (note rotated N).

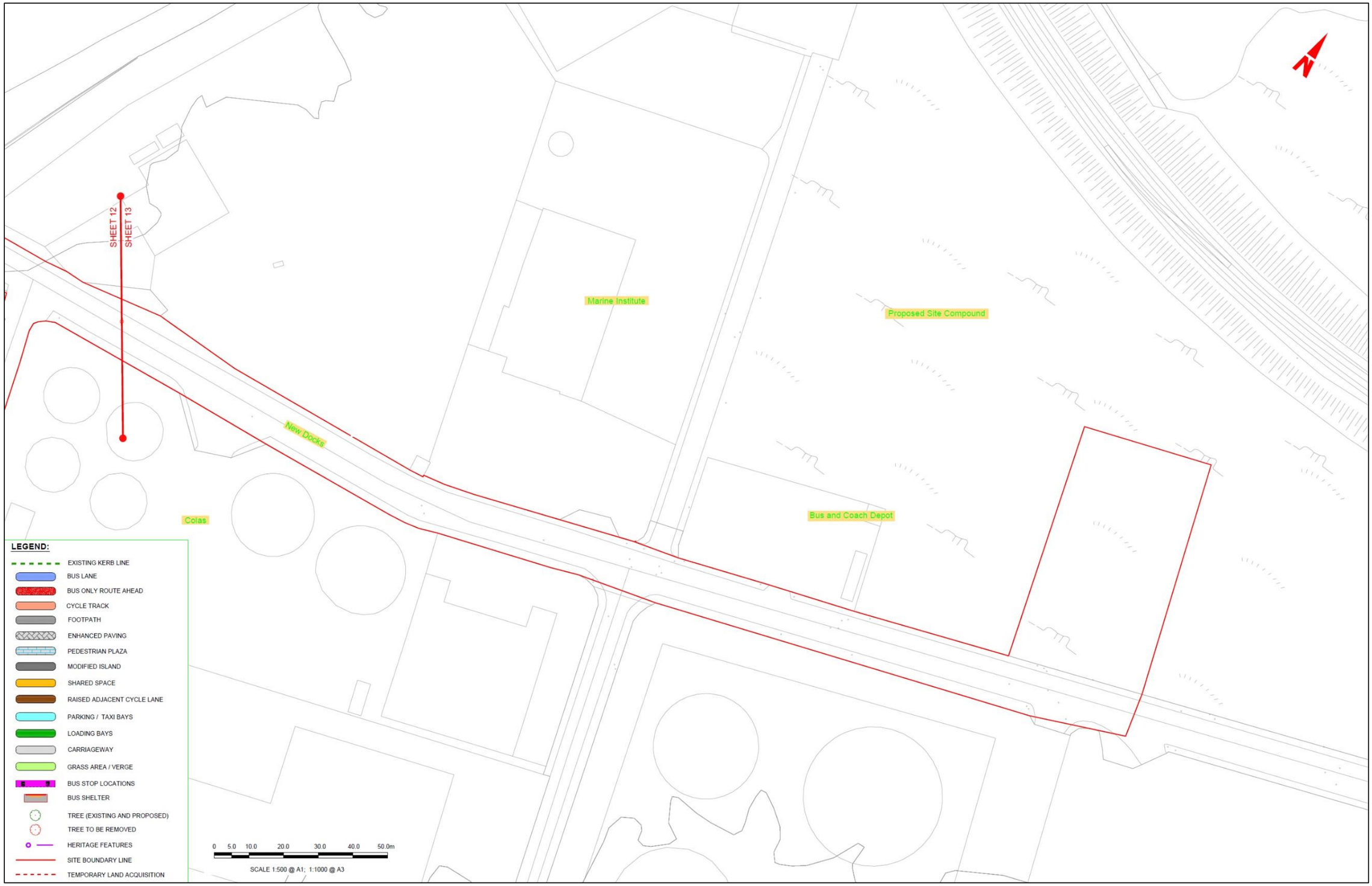

Figure 15. Plan of the Proposed Scheme 13 of 13 (note rotated N).

4. Identification of Natura 2000 Sites

4.1. Description of Natura Sites Potentially Affected

A Zone of Influence (ZoI) of a proposed Project is the geographical area over which it could affect the receiving environment in a way that could have significant effects on the Qualifying Interests of a European site. In accordance with the OPR Practice Note, PN01, the ZoI should be established on a case-by-case basis using the Source- Pathway-Receptor framework.

The European Commission's "*Assessment of plans and projects in relation to Natura 2000 sites guidance on Article 6(3) and (4) of the Methodological Habitats Directive 92/43/EEC*" published 28 September 2021 states at section 3.1.3:

> *Identifying the Natura 2000 sites that may be affected should be done by taking into consideration all aspects of the plan or project that could have potential effects on any Natura 2000 sites located within the zone of influence of the plan or project. This should take into account all of the designating features (species, habitat types) that are significantly present on the sites and their conservation objectives. In particular, it should identify:*
>
> - *any Natura 2000 sites geographically overlapping with any of the actions or aspects of the plan or project in any of its phases, or adjacent to them;*
> - *any Natura 2000 sites within the likely zone of influence of the plan or project Natura 2000 sites located in the surroundings of the plan or project (or at some distance) that could still be indirectly affected by aspects of the project, including as regards the use of natural resources (e.g. water) and various types of waste, discharge or emissions of substances or energy;*
> - *Natura 2000 sites in the surroundings of the plan or project (or at some distance) which host fauna that can move to the project area and then suffer mortality or other impacts (e.g. loss of feeding areas, reduction of home range);*
> - *Natura 2000 sites whose connectivity or ecological continuity can be affected by the plan or project.*
>
> *The range of Natura 2000 sites to be assessed, i.e. the zone in which impacts from the plan or project may arise, will depend on the nature of the plan or project and the distance at which effects may occur. For Natura 2000 sites located downstream along rivers or wetlands fed by aquifers, it may be that a plan or project can affect water flows, fish migration and so forth, even at a great distance. Emissions of pollutants may also have effects over a long distance. Some projects or plans that do not directly affect Natura 2000 sites may still have a significant impact on them if they cause a barrier effect or prevent ecological linkages. This may happen, for example, when plans affect features of the landscape that connect Natura 2000 sites or that may obstruct the movements of species or disrupt the continuity of a fluvial or woodland ecosystem. To determine the possible effects of the plan or project on Natura 2000 sites, it is necessary to identify not only*

the relevant sites but also the habitats and species that are significantly present within them, as well as the site objectives.

The Zone of Influence may be determined by considering the Proposed Project's potential connectivity with European sites, in terms of:

- Nature, scale, timing and duration of all aspects of the proposed works and possible impacts, including the nature and size of excavations, storage of materials, flat/sloping sites;
- Distance and nature of potential pathways (dilution and dispersion; intervening 'buffer' lands, roads etc.); and
- Location of ecological features and their sensitivity to the possible impacts.

The potential for source pathway receptor connectivity is firstly identified through GIS interrogation and detailed information is then provided on sites with connectivity. European sites that are located within a potential Zone of Influence of the Proposed Scheme, due to a potential for connectivity, are listed in Table 1 and presented in Figures 15 to 18, below. Other European sites have been excluded on the basis that there is no potential for connectivity.

Table 1 European Sites located within the potential Zone of Influence [1] of the Project.

Site Code	Site name	Distance (km)[2]
000268	Galway Bay Complex SAC	0.00
000297	Lough Corrib SAC	0.00
004031	Inner Galway Bay SPA	0.00
004042	Lough Corrib SPA	2.82
004142	Cregganna Marsh SPA	7.12
002034	Connemara Bog Complex SAC	12.11
000606	Lough Fingall Complex SAC	13.20
001312	Ross Lake and Woods SAC	13.29
001926	East Burren Complex SAC	13.64

Spatial boundary data on the Natura 2000 network was extracted from the NPWS website (www.npws.ie) on 9 August 2022. This data was interrogated using GIS analysis to provide mapping, distances, locations and pathways to all sites of conservation concern including pNHAs, NHA and European sites.

The Proposed Scheme is predominantly located on and adjacent to existing roads and footpaths in the urban environment of Galway City.

[1] All European sites potentially connected irrespective of the nature or scale of the proposed Project.

[2] Distances indicated are the closest geographical distance between the proposed Project and the European site boundary, as made available by the NPWS.

In view of the nature, scale and location of the Proposed Scheme, the distance of the Proposed Scheme from the European sites concerned, it is considered that there is no pathway and therefore no potential for any likely significant effect on the following European sites:

- Lough Fingall Complex SAC
- Ross Lake and Woods SAC
- East Burren Complex SAC
- Connemara Bog Complex SAC
- Lough Corrib SPA
- Cregganna Marsh SPA

In light of this, it is considered that there will be no potential for significant effects on these European sites.

There are five watercourses adjacent to the proposed works area travelling from west to east along University Road to Newtownsmith: the Eglinton Canal, the Gaol River, Persse's Distillery River (formerly called Mill Race), the Lower River Corrib and Friar's River (formerly called Waterside canal).

The Eglinton Canal and Gaol River are not designated for nature conservation but both discharge to the River Corrib downstream, see Figure 17 below.

Works in the vicinity of the Salmon Weir Bridge are considered in terms of proximity to the River Corrib. On the western side, the lower River Corrib is separated from Persse's Distillery River by an existing embankment. Similarly on the east, the Lower River Corrib is separated from Friar's River by an existing embankment. The watercourses are linked upstream and downstream.

The main channel of the lower River Corrib is designated as part of the Lough Corrib SAC (Site Code 000297) and c. 600 river metres downstream of the Salmon Weir Bridge, on the south side of Wolf Tone Bridge, the river is designated as part of Galway Bay Complex SAC (Site Code 000268).

Neither Persse's Distillery River nor Friar's River are designated for nature conservation, but both discharge to the lower River Corrib and thus the Lough Corrib SAC and the Galway Bay Complex SAC downstream of the proposed works locations.

There are no points of connectivity or pathways to European sites for the majority of works in the City centre sections of the proposed works areas.

The proposed works include the diversion of surface water drainage to Lough Atalia at the junction of College Road and Lough Atalia Road with the placement of a new drainage pipe and non-return valve to be installed at discharge point into Lough Atalia. Additionally, a new attenuation tank and petrol interceptor will need to be installed. The discharge point comprises an artificial rock armour habitat but is also the boundary of the Galway Bay Complex SAC and the Inner Galway Bay SPA.

Carriageway widening works comprises a new 4.0 m wide footway/cycleway offset approximately 0.9m from the SPA boundary opposite the Eye Cinema. Due to the uncertainty of the existing wall, it is proposed to install a new retaining wall through here to support the footway/cycleway, which is approximately 1.3m above the depressed bay level. To avoid encroachment into the SPA boundary, it is proposed to retain the existing stone wall/embankment by constructing a mass concrete gravity wall in behind it. This requires the material in behind the wall to be excavated out and then backfilled with mass concrete. Due to the potential instability of the stone wall, care is required during construction to protect the existing stone wall/embankment. The area behind the wall is designated as an SPA and hence all efforts will be made to avoid collapse of the existing wall/slope. This may require the installation of a temporary/sacrificial support to maintain the integrity of the slope and contain the concrete from seeping through the stone wall and into the SPA beyond. Protection from construction run-off into the SPA will also need to be implemented during construction along this section, see Figure 19 below.

The boundary of the SAC is adjacent to the southern side of the road and the artificial surfaces of the road and footpath in this area and the overlapping section of the Proposed Scheme and the SAC comprises bramble scrub over a retaining wall. The seaward side of this scrub boundary is located within the Inner Galway Bay SPA and comprises components of upper salt marsh. However, the salt marsh does not correspond with any of the Annexed Qualifying Interests of the SAC; (1310 Salicornia and other annuals colonising mud and sand; 1330 Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) or 1410 Mediterranean salt meadows (*Juncetalia maritimi*).

The Project boundary is located adjacent to and outside the boundary of the Inner Galway Bay SPA at this point at Lough Atalia.

Given the proximity of the proposed works to both the Lough Corrib SAC and the Galway Bay Complex SAC and the Inner Galway Bay SPA these sites are considered further herein.

The Qualifying Interests (QIs) and Special Conservation Interests (SCIs) of the European sites in the Zone of influence of the Proposed Scheme are provided in Table 2 below. The QIs and SCIs of the European sites may be re-confirmed by the competent authority prior to completing the assessment under Article 6(3) of the Habitats Directive.

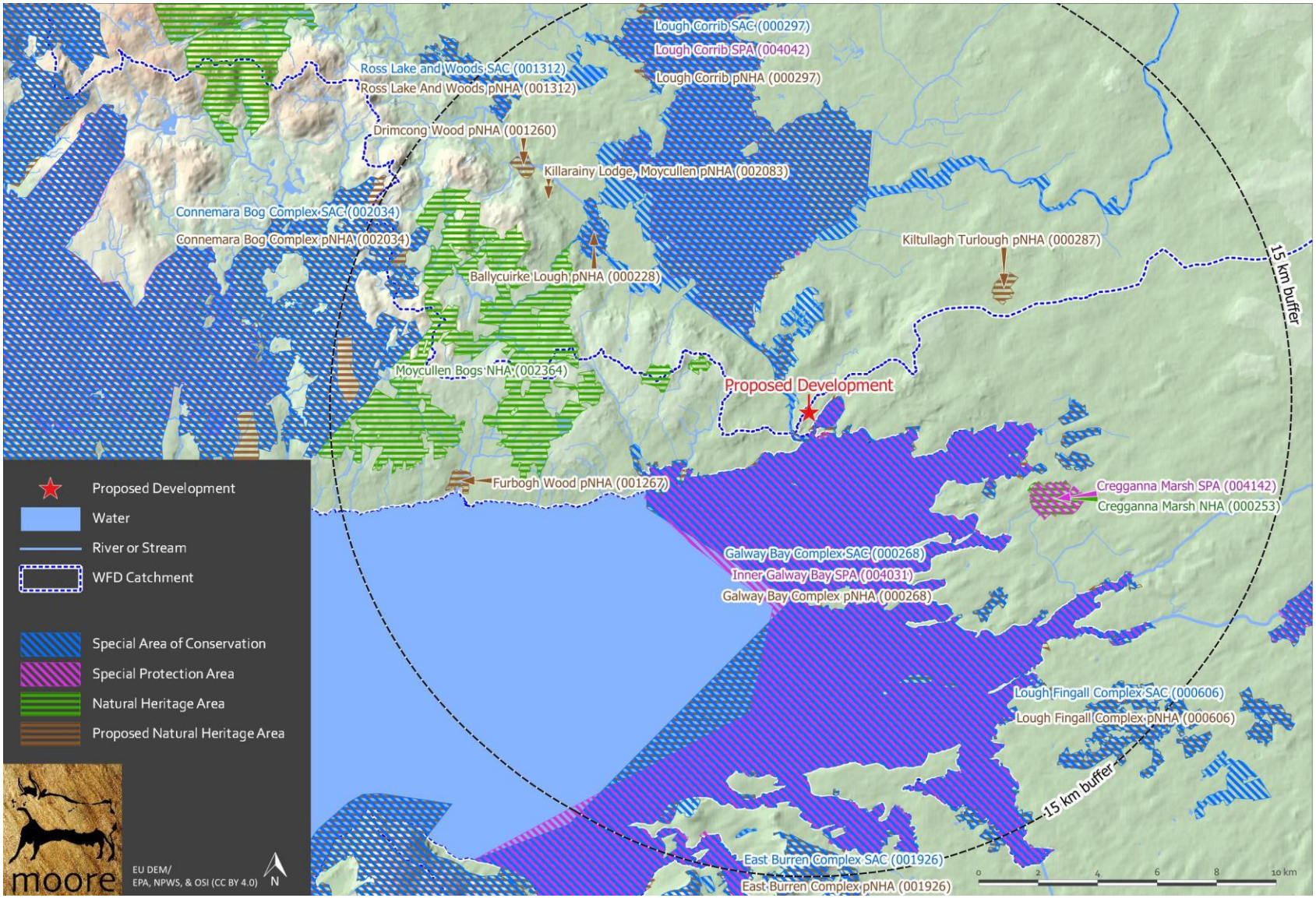

Figure 16. Showing European sites and NHAs/pNHAs in the wider potential zone of influence of the Proposed Scheme.

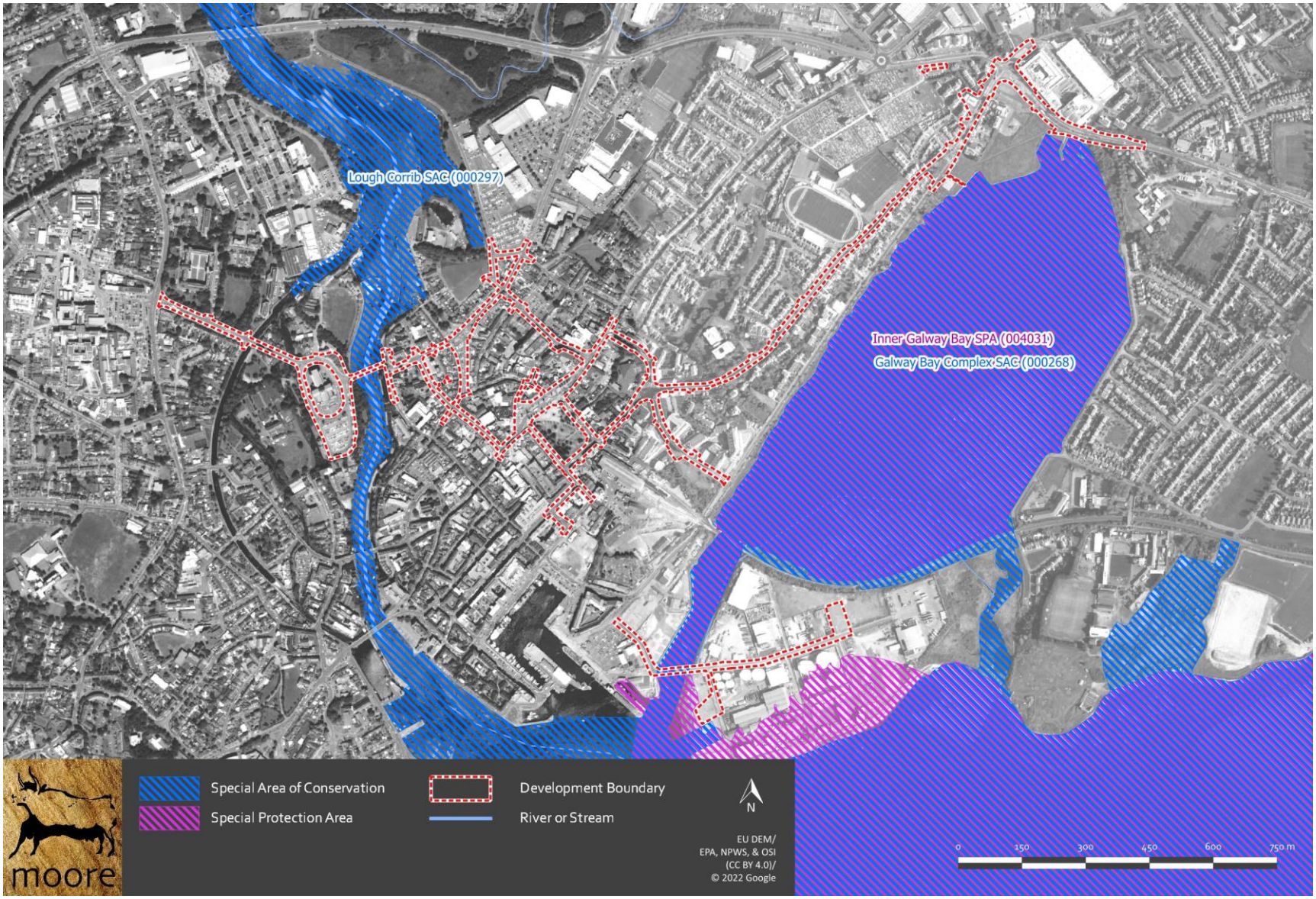

Figure 17. Detailed view of European sites in the nearer potential zone of influence of the Proposed Scheme.

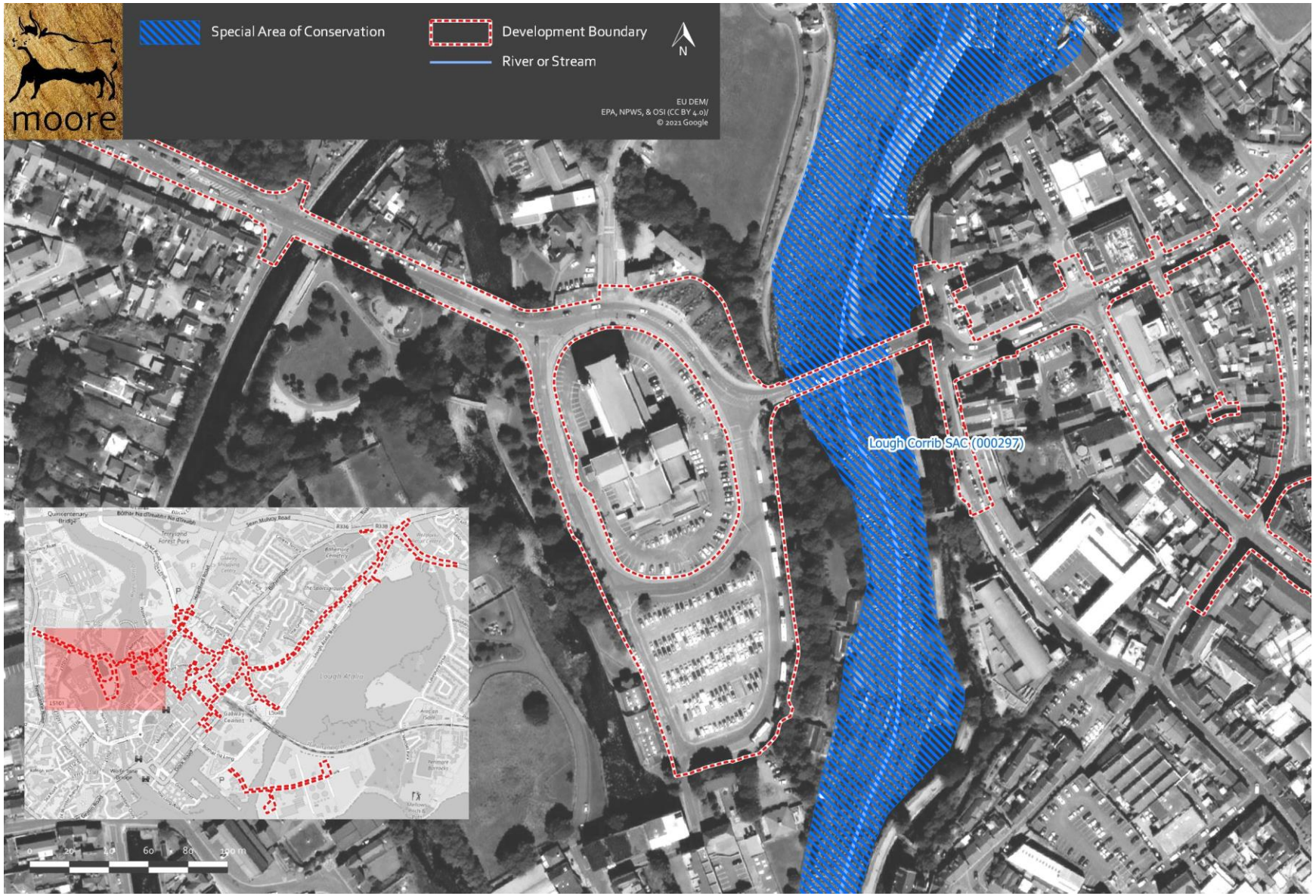

Figure 18. Detailed view of European sites in the vicinity of the Proposed Scheme where it crosses the River Corrib and associated canals.

Figure 19. Detailed view of European sites in the vicinity of the Proposed Scheme at Lough Atalia.

*Table 2 Identification of relevant European sites using Source-Pathway-Receptor model and compilation of information QIs and conservation objectives. *Priority Habitats*

European site name & Site code	Location Relative to the Proposed Scheme Site	Connectivity – Source-Pathway-Receptor	Considered further in Screening – Y/N
Galway Bay Complex SAC (000268) Mudflats and sandflats not covered by seawater at low tide [1140] Coastal lagoons [1150]* Large shallow inlets and bays [1160] Reefs [1170] Perennial vegetation of stony banks [1220] Vegetated sea cliffs of the Atlantic and Baltic coasts [1230] Salicornia and other annuals colonising mud and sand [1310] Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) [1330] Mediterranean salt meadows (*Juncetalia maritimi*) [1410] TurLoughs [3180]* *Juniperus communis* formations on heaths or calcareous grasslands [5130] Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco-Brometalia*) (* important orchid sites) [6210] Calcareous fens with *Cladium mariscus* and species of the *Caricion davallianae* [7210]* Alkaline fens [7230] Limestone pavements [8240]* *Lutra lutra* (Otter) [1355] *Phoca vitulina* (Harbour Seal) [1365] **https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO000268.pdf**	0.00km to the Proposed Scheme	Part of the widening works at the Dublin Rd at the eastern extent of Lough Atalia is located within a designated Special Area of Conservation. The appointed contractor will be required to ensure no runoff from the proposed works will enter Lough Atalia during the construction stage. Drainage gullies will be relocated to the new kerb edge and will connect back to the new drainage network. A new drainage pipe and non-return valve to be installed at discharge point into Lough Atalia. The maximum depth of trench excavation required to install the new pipe, gully post and new connection pipes is 2.2m. Additionally, new attenuation tank and petrol interceptor will need to be installed, which will require excavation of approximately 3.5m -3.75m for installation. These works will require timing restrictions in terms of avoidance of disturbance to wintering birds and the avoidance of impacts on water quality during construction.	Y
Lough Corrib SAC (000297) Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*) [3110]	0.00km to the Proposed Scheme	There are no planned discharges to surface water to the River Corrib. However, there is potential connectivity to the River Corrib at proposed works areas adjacent to the Eglinton Canal at University Road.	Y

European site name & Site code	Location Relative to the Proposed Scheme Site	Connectivity – Source-Pathway-Receptor	Considered further in Screening – Y/N
Oligotrophic to mesotrophic standing waters with vegetation of the *Littorelletea uniflorae* and/or *Isoeto-Nanojuncetea* [3130] Hard oligo-mesotrophic waters with benthic vegetation of Chara spp. [3140] Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation [3260] Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco-Brometalia*) (* important orchid sites) [6210] Molinia meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*) [6410] Active raised bogs [7110]* Degraded raised bogs still capable of natural regeneration [7120] Depressions on peat substrates of the Rhynchosporion [7150] Calcareous fens with *Cladium mariscus* and species of the Caricion davallianae [7210]* Petrifying springs with tufa formation (Cratoneurion) [7220]* Alkaline fens [7230] Limestone pavements [8240]* Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0] Bog woodland [91D0]* *Margaritifera margaritifera* (Freshwater Pearl Mussel) [1029] *Austropotamobius pallipes* (White-clawed Crayfish) [1092] *Petromyzon marinus* (Sea Lamprey) [1095] *Lampetra planeri* (Brook Lamprey) [1096] *Salmo salar* (Salmon) [1106] *Rhinolophus hipposideros* (Lesser Horseshoe Bat) [1303] *Lutra lutra* (Otter) [1355] *Najas flexilis* (Slender Naiad) [1833] *Hamatocaulis vernicosus* (Slender Green Feather-moss) [6216] **https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO000268.pdf**		These works will require restrictions in terms of avoidance of impacts on water quality during construction.	

European site name & Site code	Location Relative to the Proposed Scheme Site	Connectivity – Source-Pathway-Receptor	Considered further in Screening – Y/N
Inner Galway Bay SPA (004031) Black-throated Diver (*Gavia arctica*) [A002] Great Northern Diver (*Gavia immer*) [A003] Cormorant (*Phalacrocorax carbo*) [A017] Grey Heron (*Ardea cinerea*) [A028] Light-bellied Brent Goose (*Branta bernicla hrota*) [A046] Wigeon (*Anas penelope*) [A050] Teal (*Anas crecca*) [A052] Red-breasted Merganser (*Mergus serrator*) [A069] Ringed Plover (*Charadrius hiaticula*) [A137] Golden Plover (*Pluvialis apricaria*) [A140] Lapwing (*Vanellus vanellus*) [A142] Dunlin (*Calidris alpina*) [A149] Bar-tailed Godwit (*Limosa lapponica*) [A157] Curlew (*Numenius arquata*) [A160] Redshank (*Tringa totanus*) [A162] Turnstone (*Arenaria interpres*) [A169] Black-headed Gull (*Chroicocephalus ridibundus*) [A179] Common Gull (*Larus canus*) [A182] Sandwich Tern (*Sterna sandvicensis*) [A191] Common Tern (*Sterna hirundo*) [A193] Wetland and Waterbirds [A999] **https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO004031.pdf**	0.00km to the Proposed Scheme	Part of the widening works at the Dublin Rd at the eastern extent of Lough Atalia is located within a designated Special Area of Conservation. The appointed contractor will be required to ensure no runoff from the proposed works will enter Lough Atalia during the construction stage. Drainage gullies will be relocated to the new kerb edge and will connect back to the new drainage network. A new drainage pipe and non-return valve to be installed at discharge point into Lough Atalia. The maximum depth of trench excavation required to install the new pipe, gully post and new connection pipes is 2.2m. Additionally, new attenuation tank and petrol interceptor will need to be installed, which will require excavation of approximately 3.5m -3.75m for installation. These works will require timing restrictions in terms of avoidance of disturbance to wintering birds and the avoidance of impacts on water quality during construction.	Y

4.2. Ecological Network Supporting Natura 2000 Sites

A concurrent GIS analysis of the proposed Natural Heritage Areas (pNHA) and designated Natural Heritage Areas (NHA) in terms of their role in supporting the species using Natura 2000 sites was undertaken along with GIS investigation of European sites. It was assumed that these supporting roles mainly related to mobile fauna such as mammals and birds which may use pNHAs and NHAs as ecological corridors or "stepping stones" between Natura 2000 sites.

Article 10 of the Habitats Directive and the Habitats Regulations 2011 place a high degree of importance on such non-Natura 2000 areas as features that connect the Natura 2000 network. Features such as ponds, woodlands and important hedgerows were taken into account in the decision process and during the preparation of this AA Screening report.

The NHAs and pNHAs identified in Figure 16 are located outside the Zone of Influence, with the exception of those which share the boundaries of the Galway Bay Complex SAC and Inner Galway Bay SPA. Accordingly, the Galway Bay Complex pNHA is considered under its higher conservation status as a European site.

The River Corrib is not designated as a pNHA for the stretch of river from the Quincentenary Bridge to Wolfe Tone Bridge to the north and south of the Proposed Scheme respectively. However, it is included in the Lough Corrib SAC.

5. Identification of Potential Impacts & Assessment of Significance

The Proposed Scheme is not directly connected with or necessary to the management of the sites considered in the assessment and therefore potential impacts must be identified and considered.

5.1. Assessment of Likely Significant Effects

The majority of proposed works are located on lands located outside and away from European sites and with no planned discharge to surface water, they do not present a concern for potential effects.

Overall there will be no significant impacts on local habitats including artificial surfaces and amenity grassland and no impacts on any Annexed habitats. There will be no loss of habitat or habitat fragmentation as a result of the proposed works. There will be no disturbance of aquatic species such as Otters, Lamprey or Salmonids which are known to occur in the River Corrib and Lough Atalia.

The Proposed Scheme would be constructed in the existing urban areas of Galway City which is predominantly comprised of the existing buildings and hardstanding areas. There are no planned barriers to movement of mobile protected species.

There are no planned discharges to surface water to the River Corrib. However, there is potential connectivity to the River Corrib at proposed works areas adjacent to the Eglinton Canal at University Road and there is planned discharge of treated surface water to Lough Atalia at Lough Atalia playground and proposed roadworks at a proximal section of the Scheme at Lough Atalia on the Dublin Road.

In the absence of mitigation measures to control the potential contamination of surface water from chemical pollution such as a hydrocarbon spill or from riparian habitat disturbance, potential effects on Otters and the priority habitat Coastal Lagoon in Lough Atalia and on Sea Lamprey and Salmon in the River Corrib cannot be excluded.

However, surface water runoff will be controlled by the employment of a Construction Environmental Management Plan (CEMP) during the construction phase of the Proposed Scheme.

The following is an overview of the main habitat types present in proposed works areas. Detailed habitat descriptions are provided in areas that either intersect or have hydrological connectivity with European sites.

The likely significant effects of the Proposed Scheme are presented in Table 6 further below, both in isolation and potentially in combination with other plans and projects.

5.1.1. University Road

Along University Road (from the junction with Newcastle Road to the Salmon Weir Bridge), the proposed scheme works will involve footpath widening, provision of an entry treatment at the entrance to NUIG, provision of two raised tables along the route at Canal Road Upper and Fisheries Field and the provision of two new signalised pedestrian crossings. Between the entrance to Fisheries Field and the Salmon Weir Bridge, it is proposed to install a bus gate and to designate the carriageway as a time-regulated bus lane in both directions.

The predominant habitat present is Buildings and artificial surfaces (BL3). Adjoining lands in NUIG comprise Amenity grassland (GA2), Mixed broadleaved woodland (WD1) and Flower beds and borders (BC4). These latter habitats will not be affected, see Photo 1 below.

The immediate aquatic environment in the Eglinton Canal adjacent to the Proposed Scheme site does not contain any designated habitats but is important in terms of water quality as a habitat for salmonids and otters.

Photo 1. View of University Road (07/04/20) from the Eglinton Canal bridge at Ward's shop looking W.

University Road crosses the Eglinton Canal (FW3) at the intersection of Canal Road Upper and the entrance to NUIG. It has been established that while the canal is not designated as part of the Lough Corrib SAC, it discharges to the River Corrib downstream at Wolf Tone Bridge and at the Claddagh Basin over 800m downstream. There are records for otters at the rear of the Ryan Institute building in NUIG upstream of the bridge at Ward's Shop.

There are no predicted impacts on otters as the existing level of urban disturbance will not be augmented by the proposed works.

Excavation and removal of the existing footpath is proposed over the bridge and replacement with a new concrete footpath. Excavation of the existing footpath and part of the existing road carriageway surface, to a depth of 100mm – 150mm approx. is expected. The existing road surface will be removed using a mechanical planer. Immediately adjacent to the bridge, a new raised table is the be constructed from bituminous products. This will require the removal of a maximum of 100mm of existing road surface and replacement with approximately 200-250mm of new bituminous material.

No trenching is anticipated to be required cross the bridge or in close proximity to the bridge or watercourse.

There are no predicted impacts from surface water on water quality in the canal. However, there are openings from the road to the Eglinton Canal particularly at Ward's Corner and the potential for contaminated surface

water runoff to the canal is uncertain. There are no planned discharges to surface water. However, there is connectivity to the River Corrib downstream.

In the absence of mitigation measures to control the potential contamination of surface water from chemical pollution such as a hydrocarbon spill, potential effects on Otters, Sea Lamprey and Salmon in the River Corrib cannot be excluded.

As a precaution, the Project will require the implementation of a Construction Environmental Management Plan (CEMP) to include mitigation measures to control surface water runoff at this area.

5.1.2. Gaol Road and Galway Cathedral

To the west of Galway Cathedral, on Gaol Road the works involve footpath widening at the junction with University Road and to the south on Gaol Road the works involve re-development of the car and coach parking area to the south of Galway Cathedral. To the east of Galway Cathedral the works involve the closure of the existing carriageway and creation of a pedestrianised public space.

The area to the east of Galway Cathedral is to be closed to vehicular traffic and designated as a public pedestrian space, and the carriageway and footpaths that will ultimately become part of the public space will be removed and/or regraded, with a new paved area installed to connect with the existing walls both to the east (adjacent to the Canal) and to the west (adjacent to the boundary wall of Galway Cathedral). This will require the removal of the existing bituminous layers on the road and replacement with new materials.

University Road crosses the Gaol River which is a branch of the Eglinton Canal (FW3), Photo 2. The predominant habitat present around the Cathedral is Buildings and artificial surfaces (BL3). Adjoining lands in NUIG comprise Amenity grassland (GA2) of the Fisheries Field, Mixed broadleaved woodland (WD1) along the Persse's Distillery River and Flower beds and borders (BC4). These latter habitats will not be affected.

There are no predicted impacts on otters or birdlife in the Gaol River as the existing level of urban disturbance will not be augmented by the proposed works.

The bridge over the canal is elevated and surface water drainage falls away from the canal. There are no predicted impacts from surface water on water quality in the canal.

Photo 2. View of Gaol River looking N toward the Ryan Institute NUIG (07/04/20) from Beggars Bridge.

5.1.3. Salmon Weir Bridge

On the Salmon Weir Bridge, the works include widening the existing footpath on the northern side of the bridge and the removal of the footpath on the southern side of the bridge and replacing it with a rubbing strip. Footpath widening works will require the existing footpaths to be broken out, and the bituminous layers of the road carriageway where widening is proposed to be removed, and the new widened footpath installed. This will require excavations of approximately 300mm of the existing road and footpaths.

The main channel of the River Corrib at the Salmon Weir Bridge sampling point returned a Q4 value for the most recent sampling period, 2018, indicating Good water quality status. There are no planned discharges to surface water and it is unlikely that the minor works proposed would generate any significant emissions to water or air.

At the time of writing (August 2022) preparation work had commenced on the Salmon Weir Pedestrian Bridge at the Cathedral side of the river and several trees visible in the aerial photo (Figure 19 below) had been removed as part of that approved Project.

5.1.4. Newtownsmith/Waterside

The works at this location will involve the permanent closure of Waterside as it approaches St. Vincent's Avenue from the north (with the resultant space used to create a public space), and the narrowing of Newtownsmith as

it approaches St. Vincent's Avenue from the south (reduced to a single northbound traffic lane, with resultant wider footpaths). The project boundary takes in a small area of Amenity Grassland (GA2) adjacent to the river at Waterside, see Figure 20 below. The adjacent area of the River Corrib is part of the Lough Corrib SAC. However, there will be no direct impacts here.

The predominant habitat present Newtownsmith is Buildings and artificial surfaces (BL3) and a small patch of Amenity Grassland (GA2) adjacent to the river at Waterside, see Photo 3 below. One newly sprouting London Plane (*Platanus x hispanica*) (c.f. photo insert from 07/04/20) and a compromised Rowan (*Sorbus aucuparia*) are the only trees in this area which will be removed.

A single Lime tree at the northern end of a line of semi-mature Lime trees has been removed as part of the Salmon Weir Pedestrian Bridge Project. There are no plans to remove the remaining trees for the subject application.

Neither the old Horse Chestnut at the corner of the Salmon Weir Bridge or the Fig tree growing from the embankment wall will be affected and will be conserved *in-situ*. There are no predicted impacts from surface water on water quality in the adjacent Friar's River.

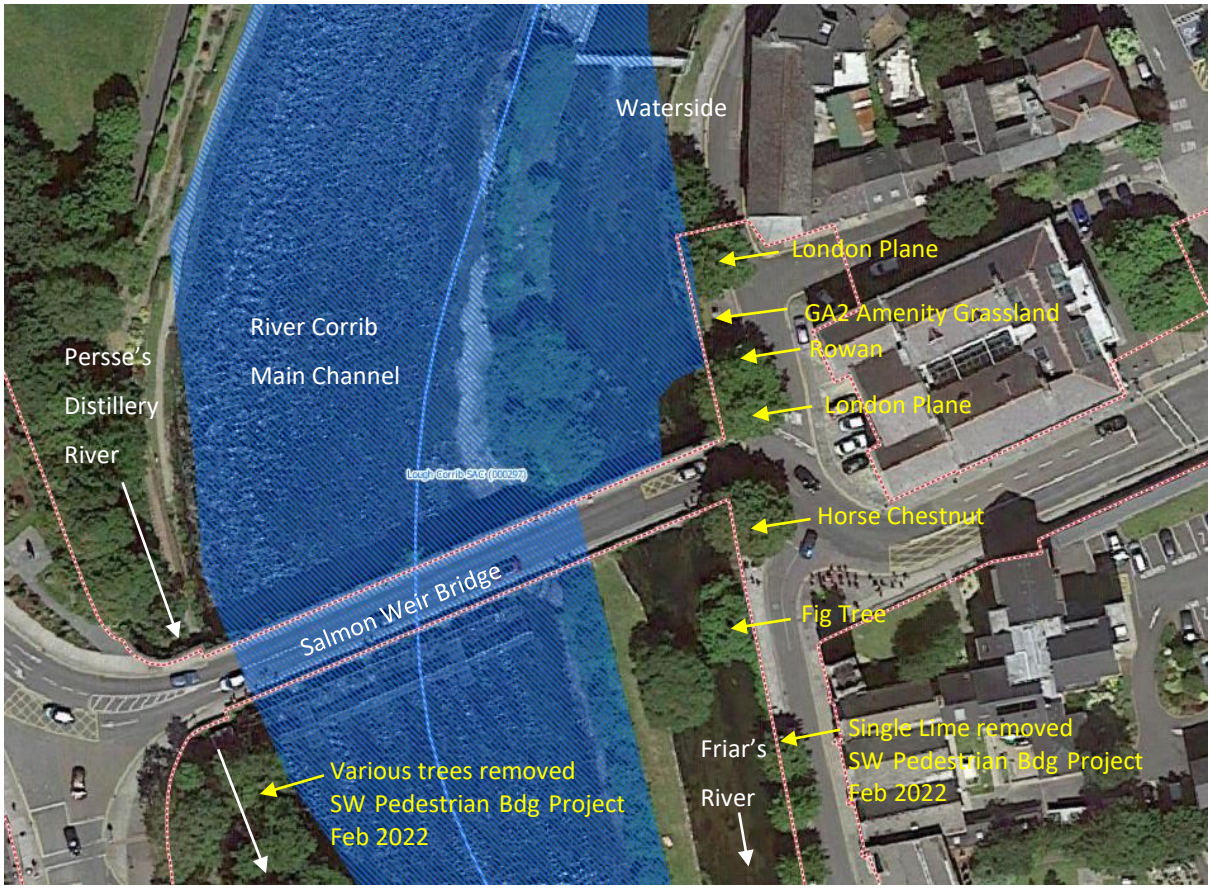

Figure 20. Showing the project boundary in detail and habitats at Waterside with Lough Corrib SAC hatched in blue.

Photo 3. View of Amenity grassland at Waterside 18/10/21 (inset 07/04/20).

5.1.5. Dyke Road/Headford Road

The project boundary extends for a short distance north along the Dyke Road past the former Clifden Railway Line embankment. The works proposed are pavement improvement and there will be no direct impacts on the section of Lough Corrib SAC which encompasses the reedbed to the east of the Commercial Boat Club, c. 9m from the Dyke Road, see Figure 21 below.

The locations of two residences to be demolished are indicated at the Headford Road and St. Brendan's Avenue.

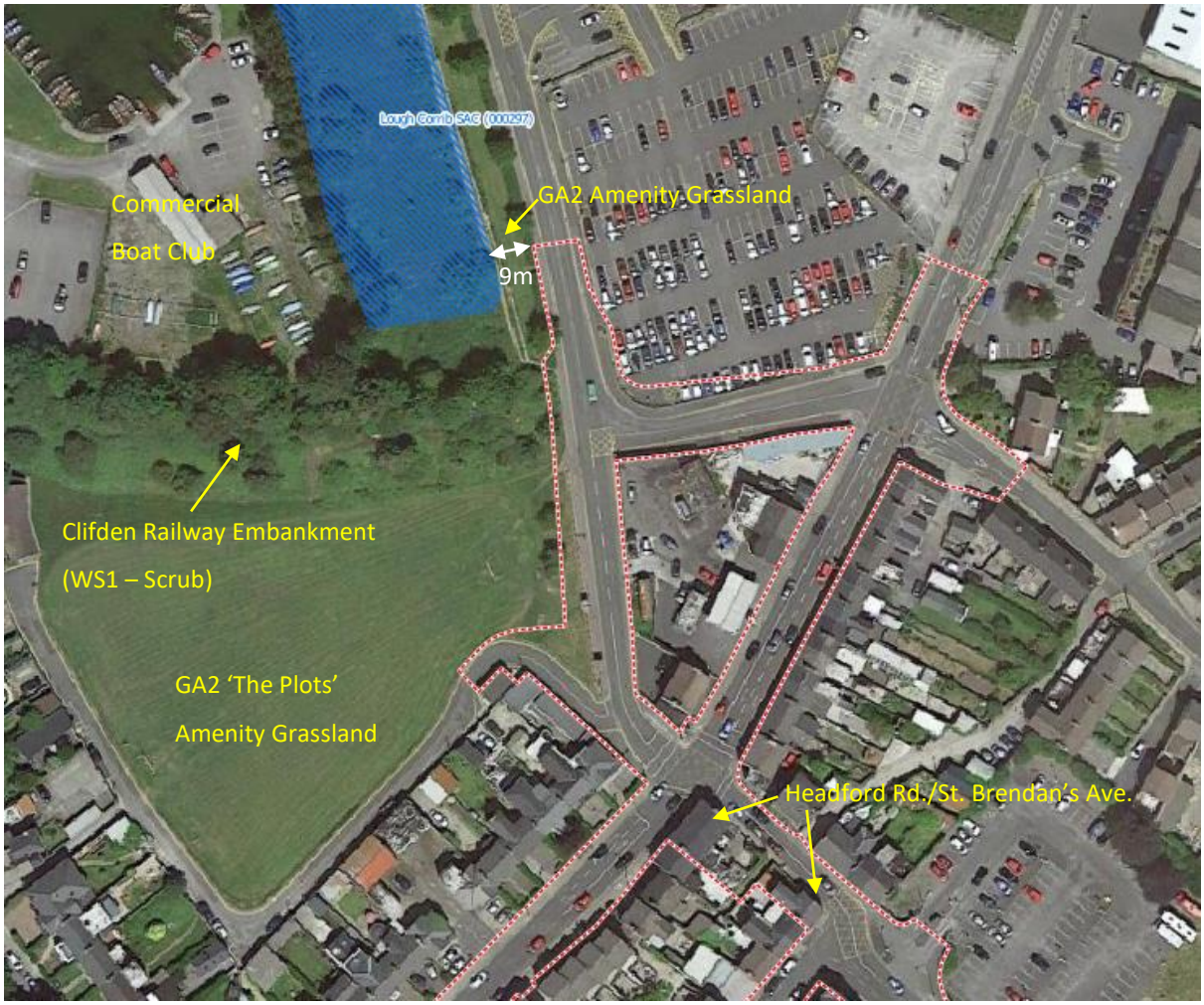

Figure 21. Showing the project boundary in detail and habitats at the Dyke Road with Lough Corrib SAC hatched in blue.

Photo 4. View of Amenity grassland at the Dyke Road adjacent to the SAC area (07/04/20).

5.1.6. City Centre

The predominant habitat present in the following areas is Buildings and artificial surfaces (BL3). There are no natural habitats and there are no predicted impacts on ecology in these areas:

- St. Vincent's Avenue/Walsh's Terrace;
- St. Francis Street/Eglinton Street/Williamsgate Street;
- Woodquay/Daly's Place/Mary Street;
- Bóthar na mBan/St. Brendan's Avenue;
- Prospect Hill;
- Eyre Square North/Eyre Square East/Eyre Square South;
- Victoria Place/Merchant's Road/Queen Street;
- Forster Street;
- College Road/Forster Street/Fairgreen Road/Bóthar Uí hEithir junction;
- Bóthar Uí hEithir;
- Fairgreen Road;
  (The project boundary extends to the eastern end of Fairgreen Road at the junction of Lough Atalia Road. The Galway Bay Complex SAC and Inner Galway Bay SPA extend into Lough Atalia in this area but the SAC/SPA site boundaries are 30m from the project boundary and there will be no direct or indirect effects in this area).

5.1.7. College Road/Lough Atalia Road junction

A new drainage pipe and non-return valve to be installed at discharge point into Lough Atalia at this location adjacent to the eastern perimeter of Lough Atalia Playground. The maximum depth of trench excavation required to install the new pipe, gully post and new connection pipes is 2.2m. Additionally, new attenuation tank and petrol interceptor will need to be installed, which will require excavation of approximately 3.5m -3.75m for installation.

The playground, adjacent amenity grassland and rock armour shoreline were surveyed and are not considered SAC habitat, notwithstanding that they are located partly within the NPWS mapping for the SAC.

The ecological boundary of this SAC may be considered to be co-aligned with the Inner Galway Bay SPA boundary in this area which in coastal areas corresponds to the Mean High Water Mark.

Lough Atalia is included in the Galway Bay Complex SAC as a Coastal Lagoon [1150]. Coastal lagoons are priority habitats under the Habitats Directive.

The existing habitat on the western perimeter of Lough Atalia Playground surveyed on 20-21 January 2022 is Amenity grassland (GA2) which surrounds the Playground area (BL3). The shoreline curves around to a bend in

the rock armour corresponding to the end of the propriety garden or plot at the eastern end of Lough Atalia Road where the existing outfall is located. As mentioned, the shoreline is comprised of rock armour, an artificial shoreline placed in the late 1990's, see Figure 22 and Photo 5 below.

The site was surveyed for otters and a trail camera was deployed from 20-24 January 2022 (4 days/3 nights) viewing the proposed new outfall area opposite the rock armour. No otters were recorded during this period. The site was surveyed during this time also for any signs of spraints and none were recorded.

The lower shore is covered by seawater at hightide and at low tide presents as soft mud with occasional weed covered rocks corresponding to Mixed sediment shore (LS5). The rock armour was searched for possible otter holt or resting habitat during surveys in March 2022 but found to be based on poured concrete with no potential in this regard.

Figure 22. Showing the project boundary in detail and habitats at the proposed surface water discharge point at Lough Atalia Playground and trees marked for removal (S = Sycamore, R = Rowan).

Photo 5. Showing the habitat types at Lough Atalia Playground and adjacent amenity grassland adjacent to Lough Atalia.

5.1.8. R338 Dublin Road

The predominant habitat present on the R338 Dublin Road is Buildings and artificial surfaces (BL3). Lough Atalia is included in the Galway Bay Complex SAC as a Coastal Lagoon [1150]. Coastal lagoons are priority habitats under the Habitats Directive.

Carriageway widening works on the Lough Atalia side of Dublin Road, between Brothers of Charity and the existing billboard adjacent to the Huntsman Inn comprises a new 4.0 m wide footway/cycleway offset approximately 0.9m from the SPA boundary. Due to the uncertainty of the existing wall, it is proposed to install a new retaining wall through here to support the footway/cycleway, which is approximately 1.3m above the depressed bay level. To avoid encroachment into the SPA boundary, it is proposed to retain the existing stone wall/embankment by constructing a mass concrete gravity wall in behind it. This requires the material in behind the wall to be excavated out and then backfilled with mass concrete. Due to the potential instability of the stone wall, care is required during construction to protect the existing stone wall/embankment. The area behind the wall is designated as an SPA and hence all efforts will be made to avoid collapse of the existing wall/slope. This may require the installation of a temporary/sacrificial support to maintain the integrity of the slope and contain the concrete from seeping through the stone wall and into the SPA beyond. Protection from construction run-off into the SPA will also need to be implemented during construction along this section, see Figure 23.

The boundary of the SAC is adjacent to the southern side of the road and the artificial surfaces of the road and footpath in this area and the overlapping section of the Proposed Scheme and the SAC comprises bramble scrub over a retaining wall. The seaward side of this scrub boundary is located within the Inner Galway Bay SPA and comprises components of upper salt marsh. However, the salt marsh does not correspond with any of the Annexed Qualifying Interests of the SAC; (1310 Salicornia and other annuals colonising mud and sand; 1330

Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) or 1410 Mediterranean salt meadows (*Juncetalia maritimi*).

The Project boundary is located adjacent to and outside the boundary of the Inner Galway Bay SPA at this point at Lough Atalia

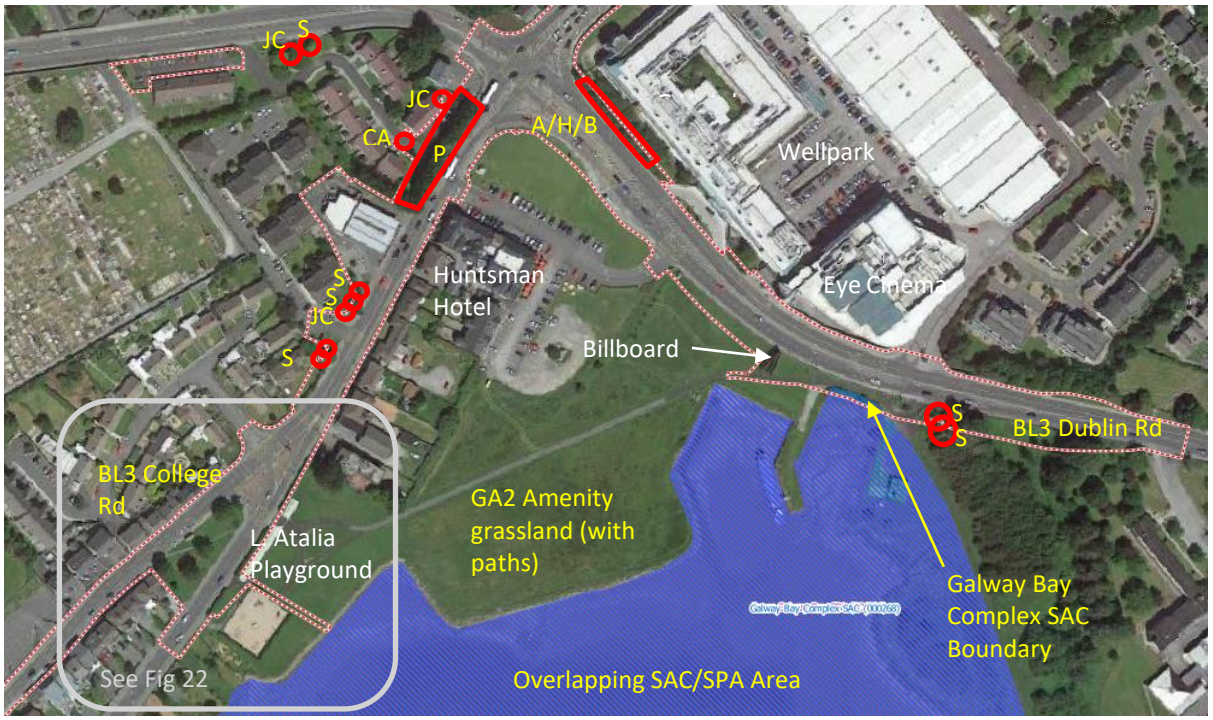

Figure 23. Showing the project boundary in detail and habitats at the Dublin Road and trees marked for removal (S = Sycamore, P = Poplar treeline, A/H/B = Alder/Holly/Birch mix, JC = Japanese cherry, CA = Crab Apple).

The site was surveyed in August 2019 and April 2020 and in September and October 2020, in September 2021 and again in August 2022 by the author and ground truthing shows that there are no Annexed habitats or no qualifying habitats under the footprint of the intersecting areas.

The upper area of intersecting SAC habitat at the inner extent of Lough Atalia adjacent to the Dublin Road comprises bramble scrub with Lilac bushes (*Syringa vulgaris*) and large patches of Winter heliotrope (*Petasites pyrenaicus*) along the roadside boundary wall (see Photo 6 below), under the billboard (to be removed) and surrounding the Huntsman car park. The indicated SAC boundary area (Figure 23) does not correspond to an Annexed habitat.

Many of the fringing habitats around this section of Lough Atalia have been modified by modern development such as private gardens lining the Lough, the Playground area to the west of the Huntsman Inn, and amenity grassland which is managed by Galway City Council. To this end, they are of reduced value to Wintering birds which prefer the intertidal and aquatic habitats of the lagoon itself.

Unmanaged areas recorded in July and August 2019 correspond to rough neutral grassland (GS1) managed for biodiversity. Species recorded in site visits in July includes abundant False oat grass (*Arrhenatherum elatius*), Common knapweed (*Centaurea nigra*), Tufted vetch (*Vicia cracca*), Red clover (*Trifolium pratense*), Creeping cinquefoil (*Potentilla reptans*), Black medick (*Medicago lupulina*), Ribwort plantain (*Plantago lanceolata*), Broad dock (Rumex obtusifolius), Thistles (*Cirsium arvense & C. vulgare*), Common sorrel (*Rumex acetosa*) with Meadowsweet (*Ulmaria filipendula*), Hard rush (*Juncus inflexus*) in wetter patches along with abundant Great willowherb (*Epilobium hirsutum*). Silverweed (*Potentilla anserina*) was common in the areas closer to the Huntsman along with frequent Red Bartsia (*Odontites verna*).

These areas were mown by the time the site visit was undertaken in April 2020 and again in Autumn 2020. Additionally, some repairs had been made to the boundary wall in the vicinity of the proposed path side works outside the SAC area, see Photo 6. Surveys undertaken on 20 & 24 January and 12 March 2022 showed little change in habitat type.

Photo 6. Showing the approach to Moneenageisha junction on the Dublin Road. Note the disturbed ground and wall repairs.

5.1.9. Galway Harbour Enterprise Park

It is proposed to use two sections of the Galway Harbour Enterprise Park as site compounds see Figure 24 and Photo 7 below. The areas comprise existing rough ground compounds with Recolonising bare ground (ED3) being the predominant habitat. Species present include typical ruderals such as Nipplewort (*Lapsana communis*), Dandelion (*Taraxacum* agg.), Ragwort (*Senecio jacobaea*), Bucks-horn plantain (*Plantago coronopus*)

and Daisy (*Bellis perennis*). Sea radish (*Raphanus raphanistrum ssp.maritimus*) is also common throughout the area with Broad dock (*Rumex obtusifolius*), Coltsfoot (*Tussilago farfara*), Nettle (*Urtica diocia*) and Red valerian (*Centranthus ruber*). Two plants of Japanese Knotweed (*Reynoutria japonica*)(JKW) are located c. 32m from the site boundary in this area (ITM 530713 725014).

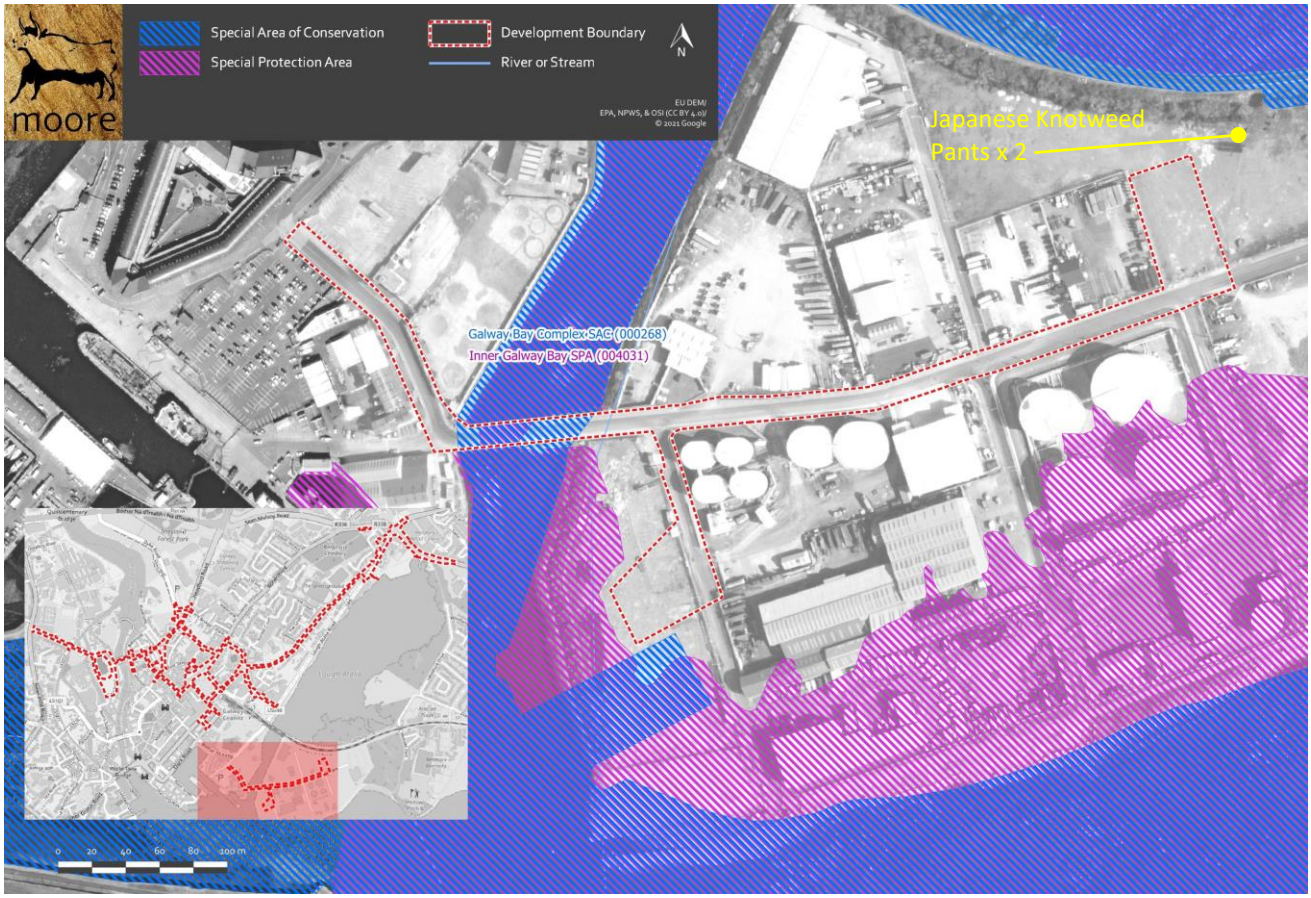

Figure 24. Showing the project boundary in the Galway Harbour Enterprise Park area.

5.1.10. Invasive Species

There are no records of Third Schedule[3] invasive species within in the Project redline boundary.

There is one record of two relatively small bushes of Japanese Knotweed located c.32m to the east of the proposed site compound at Galway Harbour Enterprise Park, see Photo 7 below.

There are two known records of Japanese Knotweed currently undergoing treatment by GCC in close proximity to the Project:

[3] The European Communities (Birds and Natural Habitats) Regulations 2011 contain provisions to address the problem of invasive species. These are listed in the Third Schedule of the Regulations.

A record at Beggars Bridge, University Road, on the south side adjacent to the Millennium Children's Park appears to have been successfully treated with no signs of regrowth in March 2022.

A record at Lough Atalia Playground, adjacent to the bike park appears to have been successfully treated with no signs of regrowth in March 2022.

Photo 7. Showing two Japanese Knotweed plants in the Galway Harbour Enterprise Park.

The consideration of all potential direct and indirect impacts that may result in significant effects on the conservation objectives of a European site, taking into account the size and scale of the Proposed Scheme are presented in Table 3.

Table 3 Assessment of Likely Significant Effects.

Identification of all potential direct and indirect impacts that may result in significant effects on the conservation objectives of a European site, taking into account the size and scale of the project.	
Impacts:	**Significance of Impacts:**
Construction phase e.g. Vegetation clearance Demolition Surface water runoff from soil excavation/infill/landscaping (including borrow pits) Dust, noise, vibration Lighting disturbance Impact on groundwater/dewatering Storage of excavated/construction materials Access to site Pests	Part of the widening works at the Dublin Road at the eastern extent of Lough Atalia is located within a designated Special Area of Conservation. The appointed contractor will be required to ensure no runoff from the proposed works will enter Lough Atalia during the construction stage. Drainage gullies will be relocated to the new kerb edge and will connect back to the new drainage network. A new drainage pipe and non-return valve to be installed at discharge point into Lough Atalia. The maximum depth of trench excavation required to install the new pipe, gully post and new connection pipes is 2.2m. Additionally, new attenuation tank and petrol interceptor will need to be installed, which will require excavation of approximately 3.5m -3.75m for installation. These works will require timing restrictions in terms of avoidance of disturbance to wintering birds and the avoidance of impacts on water quality during construction.
Operational phase e.g. Direct emission to air and water Surface water runoff containing contaminant or sediment Lighting disturbance Noise/vibration Changes to water/groundwater due to drainage or abstraction Presence of people, vehicles and activities Physical presence of structures (e.g. collision risks) Potential for accidents or incidents	All foul and surface water runoff, once the facility is operational, will be contained on site and discharged to urban drainage systems. There is no real likelihood of any significant effects on European Sites in the wider catchment area. The interception of surface water presently untreated and flowing to Lough Atalia in the vicinity of the College Road and Lough Atalia Road Junction, Moneenageisha Junction and Dublin Road will result in a marginal improvement in the quality of surface water entering Lough Atalia in this area which is a positive effect.
In-combination/Other	Refer to Section 5.2.

	No likely significant in-combination effects are identified.
Describe any likely changes to the European site:	
Examples of the type of changes to give consideration to include: Reduction or fragmentation of habitat area Disturbance to QI species Habitat or species fragmentation Reduction or fragmentation in species density Changes in key indicators of conservation status value (water quality etc.) Changes to areas of sensitivity or threats to QI Interference with the key relationships that define the structure or ecological function of the site Climate change	None. Disturbance to Special Conservation Interests of the Inner Galway Bay SPA will be avoided by timing of construction works. There will be no loss of Qualifying Habitat and no significant effects after appropriate management measures have been employed for the construction phase.
Are 'mitigation' measures necessary to reach a conclusion that likely significant effects can be ruled out at screening?	
Yes	A Construction Environmental Management Plan has been prepared for the Proposed Scheme.

5.2. Assessment of Potential In-Combination Effects

In-combination effects are changes in the environment that result from numerous human-induced, small-scale alterations. In-combination effects can be thought of as occurring through two main pathways: first, through persistent additions or losses of the same materials or resource, and second, through the compounding effects as a result of the coming together of two or more effects.

As part of the Screening for an Appropriate Assessment, in addition to the Proposed Scheme, other relevant plans and projects in the area must also be considered at this stage. This step aims to identify at this early stage any possible significant in-combination effects of the Proposed Scheme with other such plans and projects on European sites.

A review of the National Planning Application Database was undertaken. The first stage of this review confirmed that there were no data gaps in the area where the Proposed Scheme is located . The database was then queried for developments granted planning permission within 50m of the Proposed Scheme within the last three years, these sites where then reviewed for relevant developments in the vicinity of the Proposed Scheme where it is located within the environs of European sites, see Table 4.

In-combination effects were reviewed in terms of;

- Projects completed,
- Projects approved but not started or uncompleted,
- Projects proposed, i.e. for which an application for approval or consent has been made, including refusals subject to appeal and not yet determined,
- Proposals in adopted plans, and
- Proposals in finalised draft plans formally published or submitted for consultation or adoption.

Table 4 Planning applications granted permission in the vicinity of the Proposed Scheme.

Planning Ref.	Description of development	Comments
1912	Permission for a totem sign to replace existing sign pole	No predicted in-combination effects given the nature and scale of the granted development.
19127	Permission for variation to permission ref. no. 14/161 to include demolition of existing conservatory to side of house and for construction of new 2 storey extension, attic conversion, rooflights and the provision of 1 no. on site car space accessed from Canal Road, and all associated site works and services	No predicted in-combination effects given the nature and scale of the granted development.
19254	Planning permission for external alterations. The proposed Project consists of external alterations to the external fabric of the building to incorporate 3 no. widows on the southern elevation of the building as well as all associated works	No predicted in-combination effects given the nature and scale of the granted development.
2095	The application is for the installation of a ground mounted PV solar panel array and associated inverter enclosure in the field to the rear of the Poor Clare's Convent.	No predicted in-combination effects given the nature and scale of the granted development.
20197	The planned expansion of the Galmont Hotel in Galway City Centre. The hotel is located at the junction of Fairgreen and Lough Atalia. The works proposed will be within the existing footprint of the hotel.	No predicted in-combination effects given the nature and scale of the granted development.
20184	The development of land adjacent to the IMC Cinema and Dyke Road Car Park on the Headford Road for a commercial and residential development. The development includes a section of the Headford Road as far as the Dyke Road junction.	An NIS was submitted with this application which included best practice construction management and a determination of no adverse effects on the integrity of any European site there is no potential for in-combination effects.

In-combination effects with these relatively small-scale projects can be ruled out. However, given the requirement for construction management, in combination effects will need to be assessed under Stage 2 AA.

A review of Foreshore Applications and Determinations available from the Gov.ie Foreshore Licence Application webpage was undertaken and the following Foreshore Licence applications in the Zone of Influence were reviewed:

FS007016 Cable route survey and site investigation, Ballyloughane Strand, Renmore, Co Galway (2020).
Description:

Cable route survey and site investigations for a proposed subsea fibre optic cable

Location:

Ballyloughane Strand, Renmore, Co Galway

An Appropriate Assessment Screening & Natura Impact Statement was presented with this application which determined that '*Based on the assessment of the proposed development (survey) alone and in combination with other projects and plans, including the implementation of mitigation measures, it can be concluded that no adverse effects on the site's integrity will arise, in view of the site's conservation objectives*'.

FS007100 Health Service Executive Deployment of 6 Swim Buoys along Salthill Promenade

Description: To deploy 6 swim buoys along Salthill promenade in support of Healthy Galway City programme which is the structure to implement Healthy Ireland at the local level.

Location: Salthill Promenade, County Galway

An Appropriate Assessment Screening Report was presented with this application which determined that '*The Screening report evaluates the objective information presented in the Project Description, taking consideration of the proposed methodology for deployment and retrieval of the buoys; however, the evaluation does not presuppose that the requirements specified in the design, or to be implemented on site, are integral to avoid or reduce harmful effects on any European Site. Therefore, it is considered that in accordance with Article 6(3) of the Habitats Directive, the proposed deployment of buoys in Galway Bay will not have any significant effects and Stage 2 of the Appropriate Assessment process (Natura Impact Statement) is not required*'.

FS007246 Main lay and construction works for installation of the IRIS sub-sea fibre optic cable system, Co Galway

Description:

Main lay and construction works for the installation of the IRIS sub-sea fibre optic cable system from a landfall in Galway to a landfall in Iceland, providing high speed strategic international telecommunications connectivity from Galway on the west coast of Ireland to the capital city of Iceland, Reykjavik

Location:

Landfall at Ballyloughane Strand, Renmore, Galway, route across Galway Bay, through the South Sound to 12mm limit, southwest of the Aran Islands.

An Appropriate Assessment & Natura Impact Statement was presented with this application which determined that '*given the full and proper implementation of the mitigation prescribed in this NIS dated December 2021, the proposed development, either individually or in combination with other plans or projects, will not adversely affect the integrity of Inner Galway Bay SPA, the Galway Bay Complex SAC or any other European Site'*.

The Proposed Scheme may give rise to cumulative effects with regard to other planned or proposed projects. Projects in the urban areas of the city are not considered to have potential for in-combination effects and the following projects have been assessed in terms of connectivity to the European sites considered in the assessment.

Four projects have been identified which have the potential to give rise to cumulative effects during the construction and operation phase.

- **GCC (PL. Ref 20/95):** *Permission to install a ground mounted PV solar panel array and associated inverter enclosure.*

The proposed solar panel project is small in scale, contained in the grounds of the Poor Clares Convent on Nun's Island and there are no predicted impacts on nearby water courses.

The proposed subject development will have a neutral cumulative effect. The subject project application includes a CEMP which will include the mitigation measures outlined in the NIS and EIAR to avoid significant impacts on biodiversity and the Natura network of sites in the zone of impact. If decommissioning were required, similar measures would be employed.

- **GCC Part 8 Planning:** *Carry out upgrade works to Kirwan's Roundabout*.

The Kirwan Junction Upgrade project is in construction and includes standard construction management measures with no potential for in-combination effects.

The proposed subject development will have a neutral cumulative effect. The subject project application includes a CEMP which will include the mitigation measures outlined in the NIS and EIAR to avoid significant impacts on biodiversity and the Natura network of sites in the zone of impact. If decommissioning were

required, similar measures would be employed. At the time of writing (July 2022) works had commenced on the site preparation for this project and are likely to be complete before the Proposed Scheme commences.

- **PL.07 302848 & PL.07 302885, N6 Galway City Ring Road:**

The proposed N6 project application includes a CEMP which will include mitigation measures outlined in the NIS and EIAR to avoid significant impacts on biodiversity and the Natura network of sites in the zone of impact.

The proposed subject development will have a neutral cumulative effect. The subject project application includes a CEMP which will include the mitigation measures outlined in the NIS and EIAR to avoid significant impacts on biodiversity and the Natura network of sites in the zone of impact. If decommissioning were required, similar measures would be employed.

- **Salmon Weir Pedestrian Bridge:**

On the basis of information provided in an Ecological Impact Assessment and NIS for the Salmon Weir Pedestrian Bridge project, also undertaken by Moore Group, it was determined that significant environmental effects are unlikely to arise from the Proposed Scheme in relation to Ecology & Biodiversity.

The proposed subject development will have a neutral cumulative effect. The subject project application includes a CEMP which will include the mitigation measures outlined in the NIS and EIAR to avoid significant impacts on biodiversity and the Natura network of sites in the zone of impact. If decommissioning were required, similar measures would be employed. At the time of writing (July 2022) works had commenced on the site preparation for the Salmon Weir Pedestrian Bridge project and are likely to be complete before the Proposed Scheme commences.

The Galway City Development Plan 2017-2023 in complying with the requirements of the Habitats Directive requires that all Projects and Plans that could affect the Natura 2000 sites in the same potential Zone of Influence of the Proposed Scheme site would be initially screened for Appropriate Assessment and if requiring Stage 2 AA, that appropriate employable mitigation measures would be put in place to avoid, reduce or ameliorate negative impacts. In this way any, in-combination impacts with Plans or Projects for the Proposed Scheme area and surrounding townlands in which the Proposed Scheme site is located, would be avoided.

The listed developments have been granted permission in most cases with conditions relating to sustainable development by the consenting authority in compliance with the relevant Local Authority Development Plan and in compliance with the Local Authority requirements with regard to the Habitats Directive. The development cannot have received planning permission without having met the consenting authority requirement in this regard.

Any new applications for the Project area will be assessed on a case by case basis *initially* by Galway City Council which will determine the requirement for AA Screening as per the requirements of Article 6(3) of the Habitats Directive.

6. Conclusion

Overall there will be no significant impacts on local habitats including artificial surfaces and amenity grassland and no impacts on any Annexed habitats. There will be no loss of habitat or habitat fragmentation as a result of the proposed works. There will be no disturbance of aquatic species such as Otters, Lamprey or Salmonids which are known to occur in the River Corrib and Lough Atalia.

There is connectivity to the River Corrib at proposed works areas adjacent to the Eglinton Canal at University Road and there is planned discharge of treated surface water to Lough Atalia at Lough Atalia playground and proposed roadworks at a proximal section of the Scheme at Lough Atalia on the Dublin Road.

In the absence of mitigation measures to control the potential contamination of surface water from chemical pollution such as a hydrocarbon spill or from riparian habitat disturbance, potential effects on Otters and the priority habitat Coastal Lagoon in Lough Atalia and on Sea Lamprey and Salmon in the River Corrib cannot be ruled out.

The potential for significant adverse effects on the Lough Corrib SAC and/or Galway Bay Complex SAC European sites is uncertain in the absence of control of potential pollution of surface water during construction.

In the absence of mitigation measures, the potential effects on downstream European sites is uncertain. Thus, Stage 2 Appropriate Assessment is required for the following European sites:

- Galway Bay Complex SAC (000268)
- Lough Corrib SAC (000297)
- Inner Galway Bay SPA (004031).

7. References

Department of the Environment, Heritage and Local Government (2009) Guidance on Appropriate Assessment of Plans and Projects in Ireland (as amended February 2010).

European Commission (2018) Managing Natura 2000 sites: the provisions of Article 6 of the 'Habitats' Directive 92/43/EEC.

European Commission (2021) Assessment of plans and projects in relation to Natura 2000 sites - Methodological guidance on Article 6(3) and (4) of the Habitats Directive 92/43/EEC, Brussels 28.9.21.

European Commission (2021) Guidance document on the strict protection of animal species of Community interest under the Habitats Directive, Brussels 12.10.21.

NPWS (2019) The Status of EU Protected Habitats and Species in Ireland. National Parks and Wildlife Service, Department of the Environment, Heritage and Local Government, Dublin.

NPWS (2022) National Parks and Wildlife Service Metadata available online at https://www.npws.ie/maps-and-data

Office-of-the-Planning-Regulator (2021) Appropriate Assessment Screening for Development Management OPR Practice Note PN01. March 2021

NTA
Údarás Náisiúnta Iompair
National Transport Authority

National Transport Authority
Dún Scéine
Harcourt Lane
Dublin 2
D02 WT20

Comhairle Cathrach na Gaillimhe
Galway City Council

Project Ireland 2040
Building Ireland's Future