ATKINS

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Carrigaline UDF and Public Realm

Screening for Appropriate Assessment

Cork County Council

16-02-24

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Client signoff

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Project	Carrigaline UDF and Public Realm
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1. Introduction

Atkins Ireland have been commissioned by Cork County Council (CCC) to prepare a Screening for Appropriate Assessment report for the proposed project 'Carrigaline Village Public Realm and Waterfront River Park' in Carrigaline town off the R611 County Cork. Cork County Council aim to provide a public realm project along the Owenboy / Owenabue River (hereafter referred to as the Owenboy River). The latter shall be referred to as the 'proposed project' for the purposes of this report.

1.1. Project Context

The Carrigaline Village Public Realm and Waterfront River Park will be situated within the urban fabric of Carrigaline town, located on the north side of the Owenboy River between the regional roads of main street R611 and the Cork road R612. At present an existing car park is located at this site and is in use as such. CCC propose the development of Carrigaline Village Public Realm and Waterfront River Project along the northern bank of the Owenboy River as a space that will provide the public with an area of civic identity strongly connected with the water and river ecology.

In June 2022, the Carrigaline Transport and Public Realm Enhancement Project was published by CCC for Public Consultation. One of the primary aims of the Transport and Public Realm Enhancement Project is concerned with the town of Carrigaline, specifically to rejuvenate Carrigaline's Main Street so it can fully function as the community focus of the town. The proposed Public Realm and Waterfront River Park will complement and successfully enhance the upgraded main street.

Key elements of the project include the provision of River Front and Water Activities including a new waterfront public space (to be reclaimed from the existing carpark) which will encourage recreational activities such as walking, cycling, local festivals and community events. Upgraded landscaping will include Biodiversity/Pollinator Planting and Sustainable Urban Drainage Systems. High quality urban design and material finishes are proposed throughout the surrounding public realm, setting a benchmark for the quality expected from plot designers.

The Carrigaline Village Public Realm and Waterfront River Park will provide an attractive route along the river through the Owenboy Promenade and Public Connection Routes, reinforcing the public transport multimodal central core in this area to attract people from the City and providing sheltered, inviting space for people to arrive, shop and spend more time in the central core of the town and along the river. A Public Pavilion with performance stage will provide a central focus to the new public realm. This multifunctional Pavilion provides a sheltered performance stage for community events, connected to the waterfront. Public Lighting for People and Place will be carefully considered and a coherent lighting strategy that is sensitive to context and human behaviour will look at the quality of light and use it to best articulate the changing urban environment.

Design Drawings are presented in Appendix A.

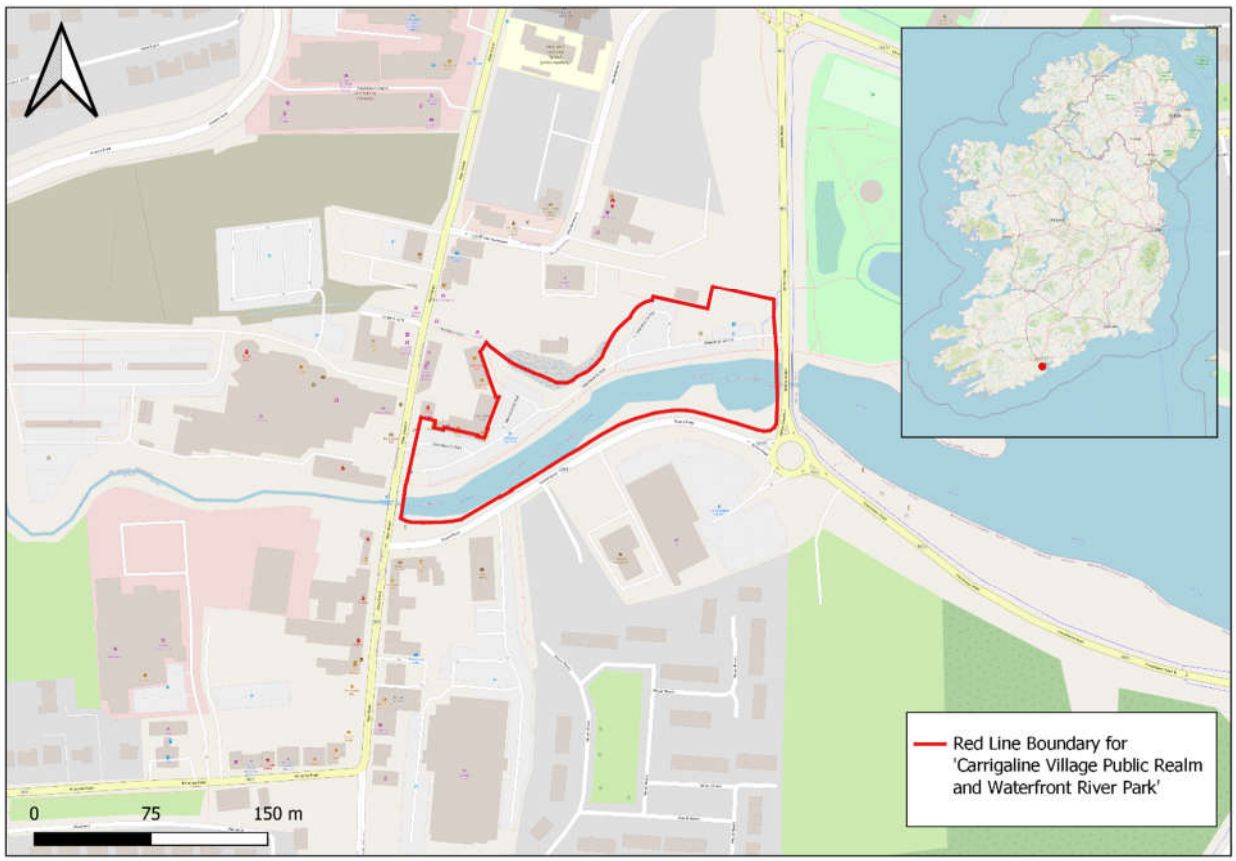

Figure 1.1 Redline boundary of Carrigaline Village Public Realm and Waterfront River Park in Carrigaline, Co. Cork.

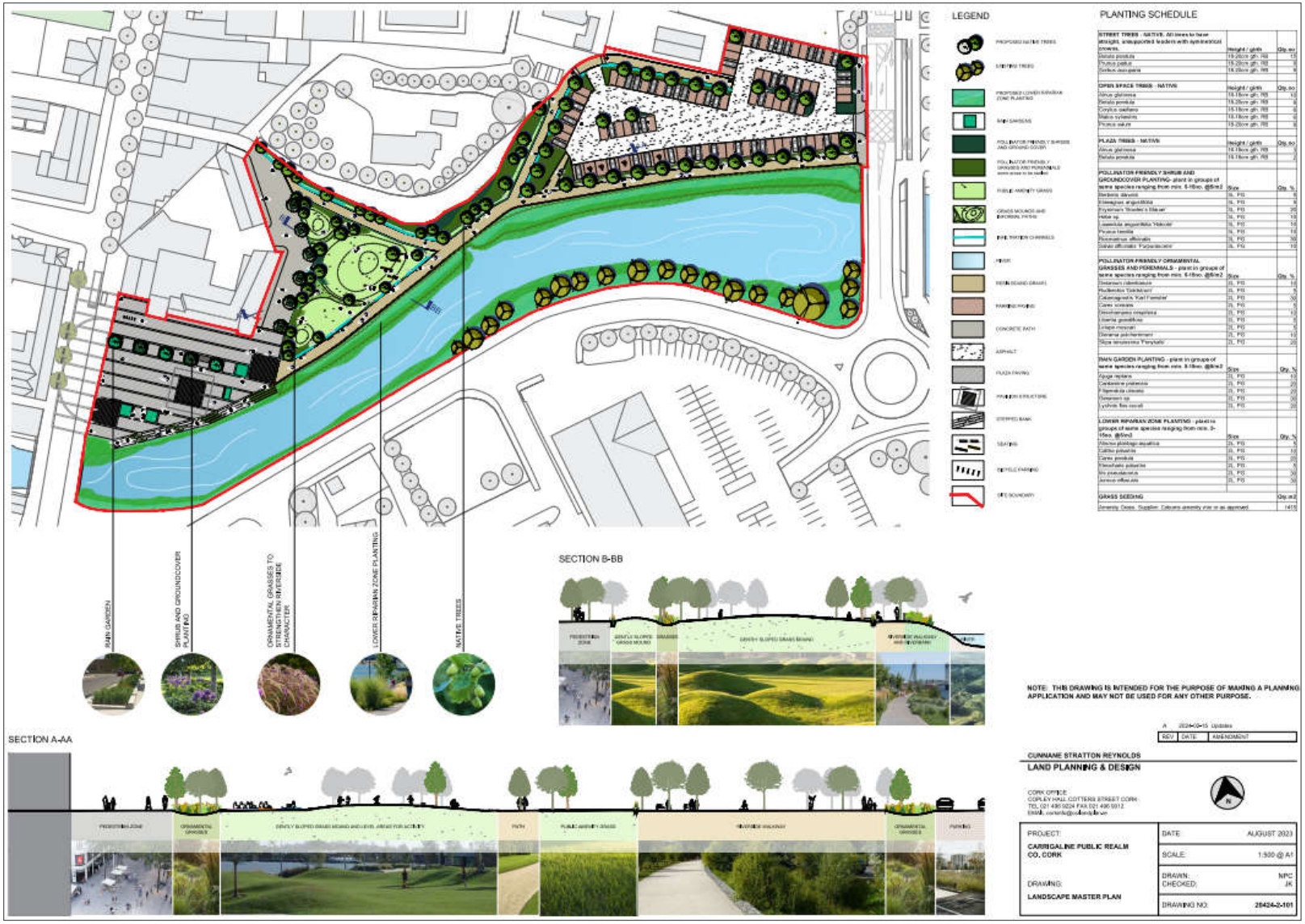

Figure 1.2 Landscape architect drawing for the proposed Carrigaline Village Public Realm and Waterfront River Park [SourceCSR Landscape Architects].

1.2. Project Description

The proposed project will consist of the following: -

- The proposed development at the above location consists of environmental improvement works and enhancement of public realm and outdoor living to provide 'a civic identity to the new public realm strongly connected with the water and the river ecology'.
- New waterfront public space (reclaimed from the existing car park) will encourage community activities and connection to the water.
- Enhanced public space to include inclusive street furniture (universal), waterfront seating, rain gardens, trees and shrubs and a covered pavilion.
- High quality urban design and material finishes are proposed incl. Biodiversity/Pollinator Planting and Sustainable Urban Drainage systems.
- Enhanced pedestrian connectivity and accessibility.
- A multifunctional Public Pavilion will provide a sheltered performance stage for community events, connected to the waterfront.
- Upgrade of public lighting and other ancillary works.
- Additional carparking near the Bóthar Guidel / Lidl Roundabout to replace parking reclaimed from the existing Owenboy car park.
- Alteration of entrance to the carpark near the Bóthar Guidel / Lidl Roundabout to increase pedestrian safety.

The proposed works are outlined in a series of architectural drawings prepared by John McLaughlin Architects and engineering drawings prepared by Atkins and supplied as part of the planning documentation. These should be viewed when considering the Appropriate Assessment Screening report.

The anticipated length of construction in 6-12 months. No temporary works are currently anticipated.

The total size of the area within the red line boundary is 1.6 ha (15,768 m^2). To break it down further, the area of the Owenboy River within the red line boundary area is ~4975 m^2 = 0.5 ha; the rest of the site is 1.1 ha.

The hardstanding area of the proposed development is 6013 m^2. The balance is areas of proposed landscaping / amenity lands.

The maximum depth of construction is anticipated to be less than 1m.

1.3. Construction Methodology

1.3.1. Access

Where possible already established construction entrances, parking, lay down area will be used during construction phase. The Contractors Traffic Management Plan will include construction site offices, the location of which will be agreed with Cork County Council (CCC). Staff parking arrangements will need to form part of the Contractor's Traffic Management Plan, and this will also be subject to agreement with CCC. Construction vehicles will require access to works areas for delivery and removal of materials, but it is anticipated that these will only require parking for a short duration for loading and unloading of material.

A construction compound will be required to store construction vehicles, materials, equipment, fuel etc. The location of the compound will be agreed with CCC, but it is to be located away from the river / waterfront (>20m from the riverbank).

The proposed access has been designed in accordance with the Design Manual for Urban Roads and Streets (DMURS) and the Recommendations for Site Development Works. DMURS aims to aid the design of safer, more attractive, and vibrant streets which will generate and sustain communities and neighbourhoods. As well as cars and other vehicles this encompasses pedestrians, cyclists and those using public transport. Sight lines at the entrance to the site were designed in accordance with DMURS based on existing speed limits. The proposed turning area within the development has been designed in compliance with the Recommendations for Site Developments Works in Housing Areas document and a vehicle tracking analysis has been undertaken to verify the adequacy of this area for turning refuse vehicles.

1.3.2. Surface and Wastewater

The Contractor will ensure that the proposed works are carried out in accordance with the Safety, Health, and Welfare at Work (Construction) Regulations 2013 (S.I. No. 291 of 2013). The probability of accidents or pollution spillages occurring is very low as the construction works are standard in nature and are minor, such as removal of hardcore, resurfacing, some limited service excavations, landscape ground works and landscape planting.

During construction, normal pattens of surface water run-off will be managed using the existing drainage systems, though it will be necessary to relocate a number of gullies within site as part of the works. These will be relocated and connected to the existing surface water drainage network, which ultimately outfalls to the Owenboy River; this does not require the construction of any new outfalls or work close to the river. The existing surface water drainage area is 5,540m². However, where there is a risk of silt laden waters entering the drainage network any such connections will be isolated from the works area for the duration of any tasks that might result in silt laden waters entering such drains.

During the construction phase of the project a construction compound will be established within the development site; this will not be located in proximity to any drains or surface water features through which sediment or other pollutants such as hydrocarbons could be discharged to the Owenboy River and ultimately to Cork Harbour (it cannot be located within 20m of a watercourse).

While it is proposed to construct river side seating in the plaza, the stepped seating will be pre-cast concrete elements in order to minimise the need to pour concrete on site, as well as to avoid any damage to the riverbank and any spillage runs into the river.

In this area the first step will be to remove any debris, vegetation, and topsoil. This will include the felling of between 15-20 riverside trees. Replacement planting is set out in the accompanying Landscape Plan. Excavation will be to a depth of ca. 300mm. This will be followed by the pouring of a 150mm concrete base onto 150mm of hardcore. Oversized shuttering will be used in order to prevent any spillage of wet cement. This will be poured from a truck parked above the river bank; using a man at both the truck and on the pipe, which will also be equipped with an emergency shut-off, in order to prevent any spillage of wet cement. When set, the precast concrete or stone seating units will be bolted in place.

1.3.3. Resources and Waste

1.3.3.1. Labour

The number of construction staff on site will vary throughout the works. Typically, crews would have 4-5 members, plus the operator of an excavator and/or mini-excavator. For paving, a typical crew would consist of 3-4 members plus associated plant, and delivery trucks. At any one time on a typical day no more than 5-6 staff would be on site.

1.3.3.2. Materials

Waste generated from excavation of grass, topsoil and ground layers will be segregated and removed from site for appropriate re-use or disposal. Materials will be re-used where possible.

1.3.3.3. Noise

There will be some localised noise emissions generated by construction works above. Main Street is characterised by commercial and urban use with a high level of traffic including the Cork Road. There are numerous shops along Main Street including Carrigaline shopping centre in proximity to the works which is a significant noise generator. There is no noise data and construction works here is expected to be carried out in daytime hours. Night working is not anticipated.

1.3.3.4. Air

Some localised dust emissions may be generated as a result of the construction works listed above. Any airborne concentrations of particulate matter arising from construction would be small and very local to the construction activity.

1.4. Operation

1.4.1.1. Operation Surface Water

Within the proposed site, surface run-off from the Plaza will be collected via the existing storm water drainage system. The surface water flow route will need to be repositioned to suit the new works including landscaping, but will at least replicate if not potentially improve existing surface water drainage systems. Operational stage surface water drainage will involve less emissions to drainage systems than existing as there will be less vehicles on the road and more bicycles. As can be seen on the landscape plan (see Figure 1.2) a number of Sustainable Drainage Systems (SuDS) measures have been incorporated into the design in order to maximise infiltration of rain water. This includes rain gardens (in the plaza area); infiltration channels bordering the amenity grassland (centre of the site) as well as along the north-western boundary of the redesigned parking; and permeable resin bound gravel paths. Resin bound gravel is a permeable design solution which is SuDS compliant; it should not however be confused with resin bonded gravel surfaces which are not permeable. Further infiltration of rainwater is provided by the area of amenity grassland and proposed planting schemes (which also include e.g. tree pits around trees to help retain water). This is set out in more detail in the accompanying *Landscape Design Rationale* prepared by Cunnane Stratton Reynolds (CSR, 2023) which accompanies this application.

1.4.1.2. Resource and Waste

With increased cycle traffic and pedestrians due to the Proposed Scheme there may be increased waste produced during operation in the form of litter. There will be no significant difference to the existing baseline with regard to resource and waste. There are no implications for operational wastewater arising from the scheme.

1.4.2. Flooding

The site has been assessed in accordance with the "*The Planning System and Flood Risk Management*" Guidelines. As part of the sequential test, the OPW flood hazard maps have been consulted, as have the Catchment Flood Risk Assessment Maps produced by the OPW.

In all cases it was found that there is a high risk of flooding at the development (1 in 10 probability in any given year) and that the development is deemed appropriate within the proposed site location.

1.4.3. Demolition

There is no demolition of building structures associated with the proposed project. Demolition associated with the proposed project involves the removal of asphalt paving and concrete footpath only. The boundary of the project lies within areas of carpark, footpath, hedgerows, and verges therefore removal of the existing tarmacadam and concrete surfaces is necessary. These will be decommissioned, removed from site, and disposed of at an appropriately licenced facility.

1.4.4. Foul Effluent

Uisce Éireann (Irish Water) record drawings and on-site inspections indicate that there is a 300mm uPVC gravity sewer running west to east/ northeast along the southern boundary of the site. This gravity sewer runs in line with the Owenboy River within the red line boundary of the proposed project to ultimately discharge to the Old Waterpark Pumping Station, which is located just north of the carpark on the eastern side of the site.

There will be no change to the existing foul sewer network due to the proposed project and post construction the existing foul sewer network will continue to be used.

1.4.5. Landscaping Plan

The proposed landscaping plan as created by Cunnane Stratton Reynolds includes the following: -

- All existing trees and vegetation on the southern bank of the proposed project are to be retained.
- Lower Riparian Zone planting is proposed along the lower banks of the Owenboy River within the red line boundary of the proposed project.
- Native trees to be planted along the treeline/ within open spaces/ on the plaza. Species include *Betula pendula*, *Prunus padus*, *Sorbus aucuparia*, *Alnus glutinosa*, *Corylus avellana*, *Malus sylvestris*, and *Prunus avium*.
- Pollinator friendly shrub and groundcover planting as well as pollinator friendly ornamental grasses and perennials will occur.
- Lower Riparian Zone will be planted with species including *Alisma plantago-aquatica*, *Caltha palustris*, *Carex pendula*, *Eleocharis palustris*, *Iris pseudacorus* and *Juncus effusus*.
- Enhanced public space includes the inclusion of a pavilion, rain garden and amenity grassland.
- A stepped bank area down to the Owenboy River is proposed on the northern bank at the northwest corner. These steps comprise of precast concrete elements to create steps down to the area adjacent to the water.

This is set out in more detail in the accompanying *Landscape Design Rationale* prepared by Cunnane Stratton Reynolds (CSR, 2023) which accompanies this application.

1.4.6. Biosecurity Protocols

Biosecurity protocols shall be implemented during the construction phase of the proposed project to prevent the introduction of invasive species listed on the 3rd Schedule of the 2011 Natural Habitats Regulations (S.I 477 of 2011) to site.

There were no invasive species listed on the 3rd Schedule of the Natural Habitats Regulations (SI 477 of 2011) recorded on site. However, Japanese knotweed (*Reynoutria japonica*) is present adjacent to the footpath on Bóthar Guidel road to the east of the red line boundary. Proximity to site works will be confirmed as part of an Invasive Species Survey of the site, which is to be undertaken, and any management measures required will be implemented.

Biosecurity measures are required to avoid the spread of species within the site by machinery and operatives on site. The location of the proposed works overlaps with several non-3rd Schedule invasive alien species (IAS) records, recorded in May and July 2020 by Atkins ecologists (Atkins, 2020).

In relation to 3rd Schedule species, but notably Japanese knotweed, the following general biosecurity and containment measures shall be undertaken during the investigative works, where appropriate: -

- Identify and mark out areas of infestation close to works areas.
- Fence or tape off areas of infestation in advance of and during construction of new access link.
- Erect signage identifying restricted areas.
- Avoid, where possible, using plant and machinery in areas of IAS infestation.
- Plant and equipment used within areas if IAS infestation should be inspected post works and washed down in a contained area.
- Site staff should be aware that root zones / control zones for knotweed extends a minimum of 7m from the extent of IAS surface vegetation.

For non-3rd Schedule species, but notably Winter heliotrope (*Petasites pyrenaicus*), Himalayan honeysuckle (*Leycesteria formosa*), Butterfly bush (*Buddleja davidii*), Cherry laurel (*Prunus laurocerasus*) and Traveller's Joy (*Clematis vitalba*) the following recommendations are given: -

- Site staff should be familiarised with the identification of the above-mentioned species, so avoidance can be undertaken.
- Plant and equipment should not encroach onto verges or area infested with Winter heliotrope, Himalayan honeysuckle, or Butterfly bush.
- Winter heliotrope, Himalayan honeysuckle, or Butterfly bush vegetation (both surface and rhizome materials) should not be unknowingly transported around or off-site.
- If verges infested with any of the above listed invasives are to be excavated, the disposal of material should be undertaken with due caution to prevent accidental spread of the plant.

2. Scope of Study

2.1. Legislative Context

Natura 2000

Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora ("the Habitats Directive") is a legislative instrument of the European Union (EU) which provides legal protection for habitats and species of Community interest. Article 2 of the Directive requires the maintenance or restoration of such habitats and species at a favourable conservation status, while Articles 3 to 9, inclusive, provide for the establishment and conservation of an EU-wide network of special areas of conservation (SACs), known as Natura 2000, which also includes special protection areas (SPAs) designated under Article 4 of Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds ("the Birds Directive"). Both SACs and SPAs are commonly referred to as "European sites" or "Natura 2000 sites".

SACs are selected for natural habitat types listed on Annex I to the Habitats Directive and the habitats of species listed on Annex II to the Habitats Directive. SPAs are selected for species listed on Annex I to the Birds Directive and other regularly occurring migratory species. The habitats and species for which a Natura 2000 site is selected are referred to as the "qualifying interests" of that site and each is assigned a "conservation objective" aimed at maintaining or restoring its "favourable conservation condition" at the site, which contributes to the maintenance or restoration of its "favourable conservation status" at national and European levels.

Appropriate Assessment

Article 6 of the Habitats Directive deals with the management and protection of Natura 2000 sites. Articles 6(3) and (4) set out the decision-making process, known as "Appropriate Assessment" (AA), for plans or projects in relation to Natura 2000 sites. Article 6(3) states: -

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

The first sentence of Article 6(3) provides a basis for determining which plans and projects require AA, i.e. those "*not directly connected with or necessary to the management of [one or more Natura 2000 sites] but likely to have a significant effect thereon, either individually or in combination with other plans or projects*". In *Waddenzee* (C-127/02), the Court of Justice of the European Union (CJEU) ruled that significant effects must be considered "likely" if "*it cannot be excluded, on the basis of objective information*", that they would occur. This clearly sets a low threshold, such that AA is required wherever there is a reasonable possibility of significant effects on a Natura 2000 site. In the same judgment, the CJEU established that the test of significance relates specifically to the conservation objectives of the site concerned, i.e. "significant effects" are those which, "*in the light, inter alia, of the characteristics and specific environmental conditions of the site*", could undermine the site's conservation objectives. In addition to the effects of the plan or project on its own, the combined effects arising from the plan or project under consideration and other plans and projects must also be assessed (see Section 5.4 for more details).

The last part of the first sentence of Article 6(3) defines AA as an assessment of the "*implications [of the plan or project] for the site in view of the site's conservation objectives*". In the second sentence, Article 6(3) requires that, prior to agreeing to a plan or project, the competent authority must "ascertain" that "*it will not adversely affect the integrity of the site concerned*". In *Sweetman v. An Bord Pleanála* (C-258/11), the CJEU ruled that a plan or project "*will adversely affect the integrity of that site if it is liable to prevent the lasting preservation of the constitutive characteristics of the site that are connected to the presence of a priority natural habitat whose conservation was the objective justifying the designation of the site in the list of sites*". On that basis, EC (2018)

described the "integrity of the site" as "*the coherent sum of the site's ecological structure, function and ecological processes, across its whole area, which enables it to sustain the habitats, complex of habitats and/or populations of species for which the site is designated*". As such, the "integrity" of a specific site is defined by its conservation objectives and is "adversely affected" when those objectives are undermined. In *Waddenzee*, the CJEU ruled that the absence of adverse effects can only be ascertained "*where no reasonable scientific doubt remains*".

The "precautionary principle" applies to all of the legal tests in AA, i.e., in the absence of objective information to demonstrate otherwise, the worst-case scenario is assumed. Where the tests established by Article 6(3) cannot be satisfied, Article 6(4) applies (see explanation in Section 2.2, below).

Competent authority

The requirements of Articles 6(3) and (4) are transposed into Irish law by, inter alia, Part 5 of the European Communities (Birds and Natura Habitats) Regulations, 2011 (as amended) ("the Habitats Regulations") and Part XAB of the Planning and Development Act, 2000 (as amended) ("the Planning and Development Acts"). As per the second sentence of Article 6(3), it is the "competent national authorities" who are responsible for carrying out AA and, by extension, for determining which plans and projects require AA. The competent authority in each case is the authority responsible for consenting to or licensing a plan or project, e.g., local authorities, An Bord Pleanála, Transport Infrastructure Ireland (TII) or a Government Minister. In all cases, it is the competent authority who is ultimately responsible for determining whether or not a plan or project requires AA and for carrying out the AA, where required.

2.2. Appropriate Assessment Process

The AA process can be described as being made up of three distinct stages, as described below, the need to progress to each stage being determined by the outcome of the preceding stage.

Stage 1: Screening – This stage involves a determination by the competent authority as to whether or not a given plan or project required AA. As explained in Section 2.1, AA is required in respect of any plan or project not directly connected with or necessary to the management of a Natura 2000 site, but for which the possibility of likely significant effects on one or more Natura 2000 sites cannot be excluded. In *People Over Wind* (C-323/17), the CJEU ruled that measures intended to avoid or minimise harmful effects on a Natura 2000 site cannot be considered in making this determination. Consideration of the potential for in-combination effects is also required at this stage.

Stage 2: Appropriate Assessment – This stage involves a detailed assessment of the implications of the plan or project, individually and in combination with other plans and projects, for the integrity of the Natura 2000 site(s) concerned. This stage also involves the development of appropriate mitigation to address any adverse effects and an assessment of the significance of any residual impacts following the inclusion of mitigation. In *Kelly v. An Bord Pleanála* (IEHC 400), the High Court ruled that a lawful AA must contain complete, precise and definitive findings based on examination and analysis, and conclusions and a final determination based on an evaluation of the findings. In the same judgment, the High Court stressed that, in order for the findings to be complete, precise and definitive, the AA must be carried out in light of best scientific knowledge in the field and cannot have gaps or lacunae. In *Holohan v. An Bord Pleanála* (C-461/17), the CJEU clarified that AA must "*catalogue the entirety of habitat types and species for which a site is protected*" (i.e. the qualifying interests of the site) and assess the implications of the plan or project for the qualifying interests, both within and outside the site boundaries, and other, non-qualifying interest habitats and species, whether inside or outside the site boundaries, "*provided that those implications are liable to affect the conservation objectives of the site*". The proposer of a plan or project requiring AA is furnishes the competent authority with the scientific evidence upon which to base its AA by way of a Natura Impact Statement (NIS) or Natura Impact Report (NIR). If it is not possible to ascertain that the plan or project will not adversely affect one or more Natura 2000 sites, authorisation can only be granted subject to Article 6(4).

Stage 3: Article 6(4) – If a plan or project does not pass the legal test at Stage 2, alternative solutions to achieve its aims must be considered and themselves subject to Article 6(3). If no feasible alternatives exist, authorisation can only be granted where it can be demonstrated that there are imperative reasons of overriding public interest (IROPI) justifying its implementation. Where this is the case, all compensatory measures must be taken to protect the overall coherence of Natura 2000.

The three stages described above are illustrated in Figure 2.1.

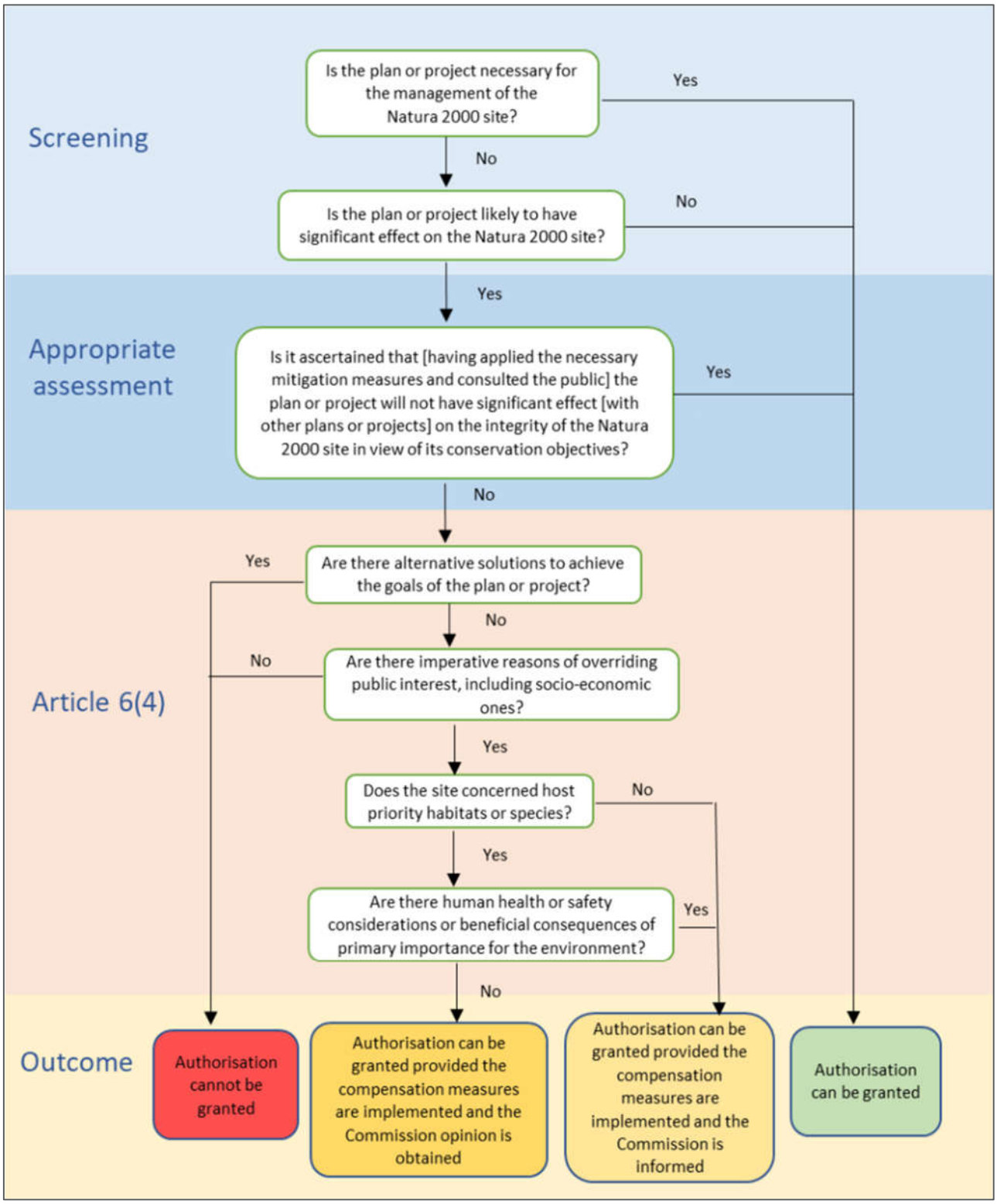

Figure 2.1 Stages of the Appropriate Assessment process (EC, 2021a).

3. Methods

3.1. Legislation & Guidance Documents

This report was prepared with due regard to the relevant European and Irish legislation, case law and guidance, including but not limited to: -

- Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild flora and fauna. *Official Journal of the European Communities* L 206/7-50.
- Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds. *Official Journal of the European Union* L 20/7-25.
- European Communities (Birds and Natural Habitats) Regulations, 2011. *S.I. No. 77/2011* (as amended) ("the Habitats Regulations").
- Planning and Development Act, 2000. *No. 30 of 2000* (as amended) ("the Planning and Development Acts").
- Planning and Development Regulations, 2001. S.I. No. 600/2001 (as amended) ("the Planning Regulations").
- EC (2018) *Managing Natura 2000 sites: The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC.* European Commission, Brussels.
- EC (2021a) *Assessment of plans and projects in relation to Natura 2000 sites: Methodological guidance on the provisions of Articles 6(3) and (4) of the Habitats Directive 92/43/EEC. C(2021) 6913.* European Commission, Brussels.
- EC (2021b) *Guidance document on the strict protection of animal species of Community interest under the Habitats Directive. C(2021) 7301.* European Commission, Brussels.
- DEHLG (2010a) *Appropriate Assessment of Plans and Projects in Ireland: Guidance for Planning Authorities. Revised 11/02/2010.* Department of the Environment, Heritage and Local Government, Dublin.
- DEHLG (2010b) *Circular NPW 1/10 & PSSP 2/10. Dated 11/03/2010.* Department of the Environment, Heritage and Local Government, Dublin.
- NPWS (2012a) *Marine Natura Impact Statements in Irish Special Areas of Conservation. A Working Document. April 2012.* National Parks & Wildlife Service, Department of Arts, Heritage and the Gaeltacht, Dublin.
- NPWS (2021) Guidance on the Strict Protection of Certain Animal and Plant Species under the Habitats Directive in Ireland. *National Parks & Wildlife Service Guidance Series* 1, Department of Housing, Local Government and Heritage, Dublin.
- Mullen, E., Marnell, F. and Nelson, B. (2021) Strict Protection of Animal Species – Guidance for Public authorities on the Application of Articles 12 and 16 of the EU Habitats Directive to development/works undertaken by or on behalf of a Public authority. *National Parks & Wildlife Service Guidance Series* 2, Department of Housing, Local Government and Heritage, Dublin.
- OPR (2021) *Appropriate Assessment Screening for Development Management. OPR Practice Note PN01.* Office of the Planning Regulator, Dublin.
- *Applications for Approval for Local Authority Developments made to An Bord Pleanála under 177AE of the Planning and Development Act, 2000, as amended (Appropriate Assessment) – Guidelines for Local*

Authorities <https://www.pleanala.ie/getmedia/0f385f48-7e84-43e3-b405-1201e490740a/Applications-for-approval-for-LA-Developments-S177AE-EN.pdf>. An Bord Pleanála, Dublin.

- Case law, including *Waddenzee* (C-127/02), *Sweetman v. An Bord Pleanála* (C-258/11), *Kelly v. An Bord Pleanála* (IEHC 400), *Commission v. Germany* (C-142/16), *People Over Wind* (C-323/17), *Holohan v. An Bord Pleanála* (C-461/17), *Eoin Kelly v. An Bord Pleanála* (IEHC 84) and *Heather Hill* (IEHC 450).

- Sundseth, K. and Roth, P. (2014) *Article 6 of the Habitats Directive – Rulings of the European Court of Justice.* Ecosystems LTD (N2K Group), Brussels.

3.2. Desk Study

A desk study was carried out to collate information available on European sites in the vicinity of the proposed project. These areas were viewed using Google Earth, Google maps[1] and Bing maps[2].

The National Parks and Wildlife Service (NPWS) online databases were reviewed concerning European sites and their features of interest in the vicinity of the proposed project. The Environmental Protection Agency (EPA) mapping[3] system was used to identify any hydrological connection between the proposed project and European sites, this information was supported by site walkover surveys.

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

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

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

3.3. Site Visit

A site visit was undertaken on the 12th of July 2023 by Atkins ecologists Caroline Downey and Alec Schmidt (intern). The purpose of this visit was to compile a photo essay of the site, and to identify key habitats and associated species.

While on site, semi-natural habitats present were recorded following *Best Practice Guidance for Habitat Survey and Mapping* (Smith *et al.*, 2011); *A Guide to Habitats in Ireland* (Fossitt, 2000); and *Ecological Surveying Techniques for Protected Flora and Fauna during the Planning of National Road Schemes* (NRA, 2009).

Potential sensitive ecological receptors present within the survey area were recorded, including the presence of protected species and habitats or habitats that would support protected species, in addition to noting connectivity to European sites. The presence of non-native invasive species was also recorded.

As detailed in Section 5.1, the zone of influence will vary for different ecological features depending on their sensitivity to an environmental change (CIEEM, 2018). The survey area included the lands within the red line boundary.

[1] https://www.google.ie/maps
[2] http://www.bing.com/maps/
[3] https://gis.epa.ie/EPAMaps/

3.4. Statement of Authority

The Screening for Appropriate Assessment report was prepared by Caroline Downey and Paul O'Donoghue. Peer review was undertaken by Paul O'Donoghue.

Caroline Downey is a Graduate Ecologist at Atkins holding a BSc (Hons) in Ecology and Environmental Biology from University College Cork. Caroline has worked in ecological consultancy since 2023, with a broad knowledge of Appropriate Assessment, Natura Impact Statements, Ecological Impact Statements and ecological theory and legislation, resultant of her BSc. A focus of Caroline's work to date has been assisting Appropriate Assessment Screenings and supporting the preparation of AA and NIS.

Paul O'Donoghue has a BSc (Zoology), MSc (Behavioural Ecology) and a PhD in avian ecology and genetics. His is a chartered member of the Society for the Environment (CEnv) and a full member of the Chartered Institute of Ecology and Environmental Management (MCIEEM). Paul has over 20 years' experience in ecology; including extensive experience in the preparation of Habitat Directive Assessments / Natura Impact Statements (i.e., Appropriate Assessment under Article 6(3) of the EU Habitats Directive).

4. Existing Environment

4.1. Desktop review

The proposed project is situated in the Owenboy Car Park off the Main Street to the east, in Carrigaline, Co. Cork. Lands immediately adjacent to and bordering the proposed project include commercial and retail units and residential housing units.

The Owenboy River is located within the Lee, Cork Harbour and Youghal Bay catchment (19) and further the sub catchment Owenboy[Cork]_SC_010. The Owenboy flows for approximately 32km eastwards from its source to where it joins Cork Harbour. The proposed project does not lie within any Natura 2000 site; however, it does lie within 50m of the boundary of Cork Harbour SPA. Cork Harbour is also designated as a Ramsar Convention site due to its status as a wetland of international importance, and section of Cork Harbour SPA is designated as a Wildfowl Sanctuary by the NPWS.

There are no protected structures within the boundary of the proposed site. The closest protected structure to the proposed works site lies within 50m and is an unclassified Mill (ID code: CO087-033--). There are no works proposed by this project that may impact this structure.

Upstream, the Owenboy River (IE_SW_19O011400) has been assigned a "*Moderate*" ecological status under the Water Framework Directive (WFD) and with the nearest Q-value sampling point at Ballea Bridge, ca. 2.3km upstream. The river has also been determined as being "*at risk*" of not attaining 'Good' status under the WFD.

The river adjoining the proposed site is tidal in character. As well as the Owenboy River to the south of the site, there is also a small tidal channel which runs through the middle of the site (see details of site description below). While not assigned a code on EPA Maps, it is illustrated as rising west of Main Street; it flows east under Main Street and is culverted under Mill House Lane from where it enters the Owenboy River (see Plate 4.11).

Information on aquifers was not available at the site of the proposed development. Locally Important aquifers are found immediately to the north and south of the proposed development (GSI 2023). Groundwater vulnerability beneath the development has not been classified and is bordered by "*high*" vulnerability to the north (GSI 2023). There is no evidence of any karst features being present within the general vicinity of the proposed development. The closest karst landform is a cave located ca. 3km northeast (GSI, 2023).

There are no records on NBDC of invasive plant species such as Japanese knotweed (*Fallopia (Reynoutria) japonica*); Himalayan knotweed (*Persicaria wallichii*), Himalayan balsam (*Impatiens glandulifera*); Giant hogweed (*Heracleum mantegazzianum*) (Source: NBDC mapviewer).

Otter (*Lutra lutra*) has been sighted just downstream of the works area (downstream of the R612 bridge) in May, 2018 (W732623) and in June 2018 (W733623) (Source: NBDC, Mammals of Ireland 2016-2025), with Otter also frequently noted along the Owenboy River (upstream) and Owenboy Estuary (downstream). The latter include spraints and sightings of live animals. While there are also records of Badger (*Meles meles*) from the environs of Carrigaline there are no records from within or close to the study area (i.e. red line boundary). A live West European Hedgehog (*Erinaceus europaeus*) was sighted close to the study area in August 2022 (Source: NBDC, Hedgehogs of Ireland).

While there are also records of Common Frog (*Rana temporaria*) from 1km grid square W7362 there is no suitable habitat within the current site boundaries (as noted waters are tidally influenced). There are also records of Leisler's Bat (*Nyctalus leisleri*) and Soprano Pipistrelle (*Pipistrellus pygmaeus*) within the 1km grid square W7362.

All bat species in Ireland, and their roosts, are protected under the Wildlife Act, 1976 (as amended) and are also afforded strict protection under Article 12 of the Habitats Directive (as they are listed on Annex IV). Landscape association models have been constructed to provide a landscape conservation guide for Irish bats (Lundy et al., 2011). The environs of the proposed project has a bat suitability score of 34.22% for all bat species. Across the area, the highest suitability scores were for Common Pipistrelle (*Pipistrellus pipistrellus*), Soprano Pipistrelle (*Pipistrellus pygmaeus*), Brown Long-eared Bat (*Plecotus auritus*), and Leisler's Bat (*Nyctalus leisleri*) – scoring

a 45%, 53%, 45% and 49% respectively. Therefore, bats are likely to use the study area for foraging and commuting purposes, notably the river corridor. Mature trees at the site of the proposed project provide limited potential for roosting bats. There are no structures in the immediate vicinity of the proposed works which have potential for roosting bats. Vegetation along the riverbanks provides a corridor through the wider landscape and is of value to commuting and foraging bats. The removal of some areas of this vegetation is proposed, however, impacts will be temporary due to replanting and the nature of the vegetation to be removed. As such there will be no loss of habitat, disturbance, or restrictions to movement of bats.

4.2. Site Visit

The site of proposed works was visited on the 12th of July 2023 by Atkins ecologists. The baseline weather conditions at the time of the survey were 19°C, dry and sunny with a light breeze and approximately 60% cloud cover. The survey commenced at 10:20 am and was completed at 12:00 pm. The state of the tide was rising, with high tide on the day of the survey peaking at 1:43pm. The site is currently in use as a public car park which connects the R611 and the R612 regional roads. Areas of grassy verge that have been landscaped are present, as is a planted treeline along the border of the river and footpath. The habitat composition within the red line boundary of the site is primarily composed of artificial surfaces (BL3), flower beds and borders (BC4), scrub (WS1), dry meadows and grassy verges (GS2), and ornamental/non-native shrub (WS3) (Fossitt, 2000). There are no derelict buildings in the vicinity of the red line boundary – all are in use. The boundaries of the site comprise of concrete walls, fencing, hedging, and riverbanks.

Plate 4.1 View into the existing Owenboy Carpark from the R612 road in Carrigaline, Co. Cork.

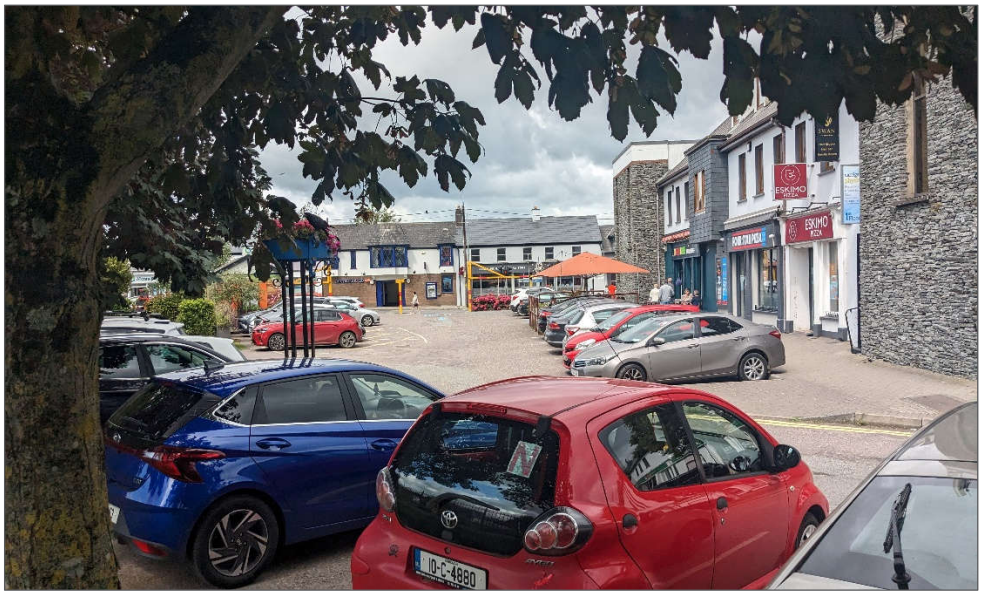

Plate 4.2 View from within the Owenboy Carpark facing west towards the R611 road in Carrigaline, Co. Cork.

The Owenboy River which flows in an easterly direction towards the Owenboy estuary and subsequently Cork Harbour, has a wetted width of approximately 20m within the red line boundary of the proposed site. The section of the Owenboy within the proposed area of works is subject to tidal influence. A backchannel is located directly to the north of the Owenboy (at grid reference 51.813916, -8.390864), which backs onto several residential and commercial structures. This tidal backchannel area is located largely outside within the red line boundary of the proposed project; it is however, culverted under Mill House Lane, in order to discharge to the Owenboy River. The banks of the Owenboy within the red line boundary are comprised of large loose boulders offering some potential for movement of mammals, with solid stone walls towards the western boundary (upstream) along the southern bank.

Plate 4.3 Bridge at western boundary of the proposed works site on which the R611 lies (Main Street, Carrigaline) – foraging Mute Swan present.

Plate 4.4 View downstream of the proposed works area from R611 bridge.

Plate 4.5 Bridge at eastern boundary of the proposed works site on which the R612 lies (TII Bridge ID: CC-R612-001.00).

Plate 4.6 View upstream from CC-R612-001.00 of the proposed works area.

Plate 4.7 Smaller tidal creek within the red line boundary.

No invasive plant species listed on the 3rd Schedule of the Natural Habitats Regulations S.I (477/2011) were recorded within the red line boundary. However, an infestation of young Japanese Knotweed (*Fallopia japonica*) is present immediately adjacent to the eastern boundary in the verge along Bóthar Guidel road ('Do not cut' sign present). Other invasives present at the site include Butterfly bush (*Buddleja davidii*), Winter heliotrope (*Petasites pyrenaicus*), Cherry laurel (*Prunus laurocerasus*) and Traveller's Joy (*Clematis vitalba*); Cherry laurel is classed as a High Impact invasive; Butterfly bush and Traveller's Joy are classed as Medium Impact invasives while Winter heliotrope is a Low Impact invasive. All of the aforementioned species are noted to be prevalent within the red line boundary, along the riverbanks and within hedgerows. A single area of Medium Impact invasive, Himalayan Honeysuckle (*Leycesteria formosa*) was recorded on the southern bank of the Owenboy, approximately 1.5m x 1.5m close to the south-eastern corner of the red line boundary.

Plate 4.8 Himalayan Honeysuckle (1.5m x 1.5m) growing on the southern bank of the Owenboy within the red line boundary of the proposed works area.

Plate 4.9 Young Japanese Knotweed infestation to the east of the red line boundary in the verge along Bóthar Guidel Road (growing in small ditch with running water present).

There are several areas within the site of proposed works that have been planted for aesthetic purposes within the public parking area and along verges including a cultivated garden area on the southern bank of the Owenboy in the eastern corner. Non-native garden plant species including Lavender (*Lavandula* sp.), Blueberry (*Vaccinium* sp.), *Hydrangea* sp., Red valerian (*Centranthus ruber*), *Agapanthus* sp., Snapdragon (*Antirrhinum majus*), and St. John's Wort 'Hidcote' (*Hypericum x hidcoteense Hidcote*).

Plate 4.10 Planted verge within the Owenboy Carpark, Carrigaline, Co. Cork.

There was no evidence of mammal activity at the site (mammal tracks, spraint, paths) and given the nature of the site and the high level of disturbance associated with its current use as a public car park and walkthrough area, the site does not provide suitable resting or breeding places for animals. The bridges at either end of the red line boundary (bridge ID CC-R612-001.00 at the eastern boundary and the bridge on Main Street at the western boundary) are concrete structures with little to no potential for roosting bats. Along the lower banks of the Owenboy River within the red line boundary of proposed works, there is, as noted above, some potential within vegetation and loose stonework for mammals such as otter and rodents.

Plate 4.11 View of the northern bank of the Owenboy within the red line boundary of the proposed project. (Bridge to tidal back channel in the centre middle ground).

Plate 4.12 View of the southern bank of the Owenboy River within the red line boundary of the proposed project.

At the western end of proposed works site at the bridge, a kingfisher (*Alcedo atthis*) was recorded, as where two foraging mute swans (*Cygnus olor*) (see Figure 4.3). A grey wagtail (*Motacilla cinerea*) was also seen at the water's edge. Within the channel of the Owenboy within the red line boundary, other bird species identified include little egret (*Egretta garzetta*), mallard (*Anas platyrhynchos*), magpie (*Pica pica*), herring gull (*Larus argentatus*), grey heron (*Ardea cinerea*) and black headed gull (*Larus ridibundus*); the latter two of which are species of Qualifying Interest for Cork Harbour SPA.

Plate 4.13 View of the Owenboy River facing downstream – to the right middle ground of the photograph several species of seabirds are noted.

Plate 4.14 Juvenile Black headed gull (a Qualifying Interest of the SPA) at the Owenboy River, Carrigaline).

An unmanaged area along the northern boundary of the site towards the northeast corner contained habitat GS2 (Dry meadows and grassy verges) which was noted to support several pollinator and invertebrate species including Red Admiral (*Vanessa atalanta*), 14-Spot Ladybird (*Propylea quatuordecimpunctata*), Red-Tailed Bumblebee (*Bombus lapidaries*), Cinnabar Moth Caterpillar (*Tyria jacobaeae*), Brown-Lipped Snail (*Cepaea nemoralis*), Green-Veined White (*Pieris napi*), Seven-Spot Ladybird (*Coccinella septempunctata*), White-Tailed Bumblebee (*Bombus lucorum*), Small Copper (*Lycaena phlaeas*), and Small Tortoishell (*Aglais urticae*).

Within the river channel, there was no floating river vegetation identified. However, the area of the Owenboy River within the red line boundary is tidal and therefore estuarine in nature and in water composition.

5. Appropriate Assessment Screening

5.1. Connectivity to European Sites

The 'zone of influence' (ZoI) for a project is the area over which ecological features may be subject to significant effects as a result of the proposed project and associated activities. This is likely to extend beyond the project site, for example where there are ecological or hydrological links beyond the site boundaries. The zone of influence will vary for different ecological features depending on their sensitivity to an environmental change (CIEEM, 2018).

While in the past a distance of 15km was recommended when considering the potential zone of influence (derived from Scott Wilson *et al*., 2006), National Parks and Wildlife Service (DoEHLG, 2009) and Office of the Planning Regulator (OPR, 2021) guidance advises that this must be evaluated on a case-by-case basis with reference to the nature, size and location of the project, the sensitivities of the ecological receptors, and the potential for in-combination effects. In such cases the zone of influence could be as little as 100m.

Thus, given the nature, scale and extent of the proposed project, the potential zone of influence will consider European sites with regard to the location of a European site, the QIs of the site and their potential mobility outside that European site, the Cause-Pathway-Effect model and potential environment effects of the proposed project. In the case of the Westside site this includes consideration of potential overlap with European sites and the potential for hydrological connectivity with European sites.

There are two European designated sites potentially within the zone of influence of the proposed project; Cork Harbour SPA (004030), which adjoins the site, and Great Island Channel SAC (001058).

Cork Harbour SPA is comprised of a number of discrete elements distributed throughout the harbour. The nearest elements are Owenboy Estuary, which is immediately downstream of the proposed project within 25m via the Owenboy River. There is suitable habitat within the proposed site which could support the qualifying interests of the SPA within the Owenboy River channel. Great Island Channel is located just over 8.5km to the north on the eastern side of Lough Mahon and to the north of Great Island.

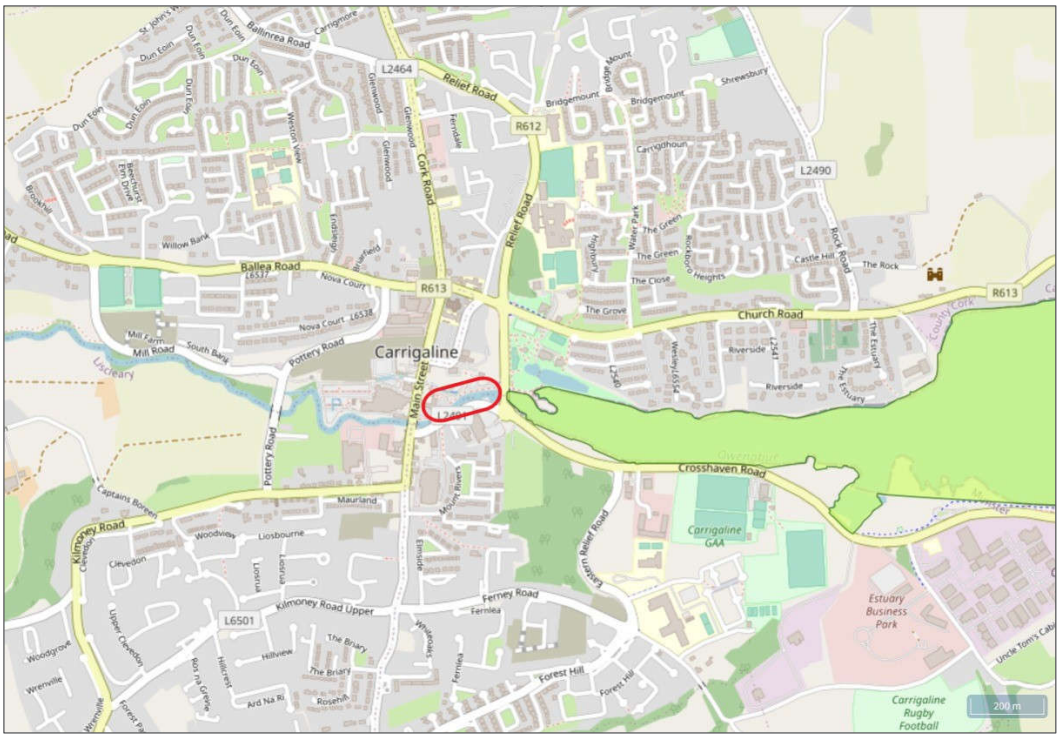

Figure 5.1 Location of proposed works (red oval) and Cork Harbour SPA (green polygon).

5.2. Special Area of Conservation

The Great Island Channel SAC is located just over 8.5km north of the proposed project. Table 5.1 below details qualifying interests of Great Island Channel SAC.

The only other Special Areas of Conservation in the wider landscape are as follows. The River Blackwater (Cork/Waterford) SAC (002170) is located just over 25.4km from the site at Carrigaline. The proposed site at Carrigaline not, however, within the catchment of the River Blackwater.

Along the coast Ballymacoda (Clonpriest and Pillmore) SAC (000077) is located at the mouth of the Womanagh River approximately 31km to the east of Jacobs Island. Like the Blackwater River, the estuary at Ballymacoda is not within the same catchment as the proposed development at Jacobs Island. In a similar way Courtmacsherry Estuary SAC (001230) is located ca. 30km to the southwest, again outside the catchment within which Jacobs Island is located.

These SACs are not deemed to be within the zone of influence of the Cloghroe site and are not discussed further (see Table 5.1 for qualifying interests of these sites).

Table 5.1 Special Areas of Conservation.

Site Name	Approximate distance	Features of Interest	Within ZoI
Great Island Chanel SAC[4] (001058)	8.5km north	• Mudflats and sandflats not covered by seawater at low tide [1140] • Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330]	Yes
River Blackwater (Cork/Waterford) SAC[5] (002170)	ca. 25.4km north	• Estuaries [1130] • Mudflats and sandflats not covered by seawater at low tide [1140] • Perennial vegetation of stony banks [1220] • Salicornia and other annuals colonising mud and sand [1310] • Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330] • Mediterranean salt meadows (Juncetalia maritimi) [1410] • Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation [3260] • Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles [91A0] • Alluvial forests with *Alnus glutinosa* and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) [91E0] • *Margaritifera margaritifera* (Freshwater Pearl Mussel) [1029]	No

[4] NPWS (2014). Conservation Objectives: Great Island Channel SAC 001058. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
[5] NPWS (2012). Conservation Objectives: Blackwater River (Cork/Waterford) SAC 002170. Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

Site Name	Approximate distance	Features of Interest	Within ZoI
		• *Austropotamobius pallipes* (White-clawed Crayfish) [1092] • *Petromyzon marinus* (Sea Lamprey) [1095] • *Lampetra planeri* (Brook Lamprey) [1096] • *Lampetra fluviatilis* (River Lamprey) [1099] • *Alosa fallax fallax* (Twaite Shad) [1103] • *Salmo salar* (Salmon) [1106] • *Lutra lutra* (Otter) [1355] • *Trichomanes speciosum* (Killarney Fern) [1421]	
Ballymacoda (Clonpriest and Pillmore) SAC[6] (000077)	ca. 31km	• Estuaries [1130] • Mudflats and sandflats not covered by seawater at low tide [1140] • Salicornia and other annuals colonising mud and sand [1310] • Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330] • Mediterranean salt meadows (Juncetalia maritimi) [1410]	No
Courtmacsherry Estuary SAC[7] (001230)	ca. 30km	• Estuaries [1130] • Mudflats and sandflats not covered by seawater at low tide [1140] • Annual vegetation of drift lines [1210] • Perennial vegetation of stony banks [1220] • Salicornia and other annuals colonising mud and sand [1310] • Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330] • Mediterranean salt meadows (Juncetalia maritimi) [1410] • Embryonic shifting dunes [2110] • Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes) [2120] • Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130]	No

[6] NPWS (2015). Conservation Objectives: Ballymacoda (Clonpriest and Pillmore) SAC 000077. Version 2. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
[7] NPWS (2014). Conservation Objectives: Courtmacsherry Estuary SAC 001230. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

5.2.1. Description of Great Island Channel SAC

Great Island Channel SAC is described as follows in the NPWS site synopsis (NPWS, 2013a): -

> *"The Great Island Channel stretches from Little Island to Midleton, with its southern boundary being formed by Great Island. It is an integral part of Cork Harbour which contains several other sites of conservation interest. Geologically, Cork Harbour consists of two large areas of open water in a limestone basin, separated from each other and the open sea by ridges of Old Red Sandstone. Within this system, Great Island Channel forms the eastern stretch of the river basin and, compared to the rest of Cork Harbour, is relatively undisturbed. Within the site is the estuary of the Owenacurra and Dungourney Rivers. These rivers, which flow through Midleton, provide the main source of freshwater to the North Channel.*
>
> *The main habitats of conservation interest in Great Island Channel SAC are the sheltered tidal sand and mudflats and the Atlantic salt meadows. Owing to the sheltered conditions, the intertidal flats are composed mainly of soft muds. These muds support a range of macro-invertebrates, notably* Macoma balthica*,* Scrobicularia plana*,* Hydrobia ulvae*,* Nepthys hombergi*,* Nereis diversicolor *and* Corophium volutator*. Green algal species occur on the flats, especially* Ulva lactuca *and* Enteromorpha *spp. Cordgrass (*Spartina *spp.) has colonised the intertidal flats in places, especially at Rossleague and Belvelly. The saltmarshes are scattered through the site and are all of the estuarine type on mud substrate. Species present include Sea Purslane (*Halimione portulacoides*), Sea Aster (*Aster tripolium*), Thrift (*Armeria maritima*), Common Saltmarsh-grass (*Puccinellia maritima*), Sea Plantain (*Plantago maritima*), Greater Sea-spurrey (*Spergularia media*), Lax-flowered Sea-lavender (*Limonium humile*), Sea Arrowgrass (*Triglochin maritimum*), Sea Mayweed (*Matricaria maritima*) and Red Fescue (*Festuca rubra*)."*

5.2.2. Conservation Objectives

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

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

Favourable conservation status of a habitat is achieved when:

- Its natural range, and area it covers within that range, are stable or increasing.
- The specific structure and functions which are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future; and
- The conservation status of its typical species is favourable.

The favourable conservation status of a species is achieved when:

- Population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats.
- The natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future.
- There is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.

The conservation objectives for Great Island Channel SAC, to maintain or restore the favourable conservation condition for each of the qualifying interests of the site, were published by NPWS (2014a) and are as follows: -

- To maintain the favourable conservation condition of Mudflats and sandflats not covered by seawater at low tide in Great Island Channel SAC.
- To restore the favourable conservation condition of Atlantic salt meadows in Great Island Channel SAC.

5.2.3. Potential Threats

The site synopsis for the Great Island Channel SAC describes the land use and threats to the SAC as follows; *'While the main land use within the site is aquaculture (oyster farming), the greatest threats to its conservation significance come from road works, infilling, sewage outflows and possible marina developments.'*

The threats, pressures and activities with impacts on the SAC (NPWS, 2019) are itemised in Table 5.2.

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

Rank	Threats and pressures (code)	Threats and pressure (type)	Inside/outside/both (i/o/b)
M	A08	Fertilisation	o
H	F01	Marine and freshwater aquaculture	i
H	J02.01.02	Suppression of natural fires	i
H	D01.02	Roads and motorways	i
H	E01	Urbanised areas and human habitation	o
M	I01	Invasive non-native species	i
M	A04	Grazing	i
M	K02.03	Eutrophication (natural)	i

5.3. Special Protection Areas for birds

There is 1 no. SPA located close to the site at Carrigaline; Cork Harbour SPA (004030). The site is designated for waterbirds that are dependent on the wetlands within the harbour for feeding and roosting. As the proposed site hydrologically connected to the SPA, Cork Harbour SPA is within the zone of influence of the proposed works.

The details of the SPA, including qualifying interests, are detailed in Table 5.3, while Figure 5.1 displays the distribution of Cork Harbour SPA in relation to the proposed site at Carrigaline.

Other SPAs in the wider environment include: -

- Sovereign Islands SPA[8] (004124) – ca. 14km to the southwest.
- Ballycotton Bay SPA[9] (004022) – ca. 24.3km to the east.

All other sites are at a considerable distance from Carrigaline and are not within the zone of influence; they include for example: -

- Old Head of Kinsale SPA[10] (004021) – ca. 24km to the southwest.
- Ballymacoda Bay SPA[11] (004023) – ca. 33km to the east.
- Blackwater Callows SPA[12] (004094) – ca. 38km to the northeast.
- Blackwater Estuary SPA[13] (004028) -ca. 40km to the east.
- The Gearagh SPA[14] (004109) – ca. 41.5km to the west.
- Mullaghanish to Musheramore Mountains SPA[15] (004162) - 44km to the northwest.

In summary, these SPAs are >24km from the site at Carrigaline. These SPAs are not deemed to be within the zone of influence of the Carrigaline site and are not discussed further.

[8] NPWS (2022). Conservation objectives for Sovereign Islands SPA [004124]. First Order Site specific Conservation Objectives Version 1.0. Department of Housing, Local Government and Heritage.
[9] NPWS (2014). Conservation Objectives: Ballycotton Bay SPA 004022. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
[10] NPWS (2022) Conservation objectives for Old Head of Kinsale SPA [004021]. First Order Site specific Conservation Objectives Version 1.0. Department of Housing, Local Government and Heritage.
[11] NPWS (2015). Conservation Objectives: Ballymacoda Bay SPA 004023. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
[12] NPWS (2022). Conservation objectives for Blackwater Callows SPA [004094]. First Order Site specific Conservation Objectives Version 1.0. Department of Housing, Local Government and Heritage.
[13] NPWS (2012). Conservation Objectives: Blackwater Estuary SPA 004028. Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
[14] NPWS (2022). Conservation objectives for The Gearagh SPA [004109]. First Order Site specific Conservation Objectives Version 1.0. Department of Housing, Local Government and Heritage.
[15] NPWS (2022). Conservation Objectives: Mullaghanish to Musheramore Mountains SPA 004162. Version 1. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage.

Table 5.3 Special Protection Areas for birds.

Site Name	Approximate distance	Features of Interest	Within ZoI
Cork Harbour SPA (004030)	ca. 25m east.	• Little Grebe (*Tachybaptus ruficollis*) [A004] • Great Crested Grebe (*Podiceps cristatus*) [A005] • Cormorant (*Phalacrocorax carbo*) [A017] • Grey Heron (*Ardea cinerea*) [A028] • Shelduck *(Tadorna tadorna*) [A048] • Wigeon (*Anas penelope*) [A050] • Teal *(Anas crecca*) [A052] • Pintail (*Anas acuta*) [A054] • Shoveler (*Anas clypeata*) [A056] • Red-breasted Merganser (*Mergus serrator*) [A069] • Oystercatcher (*Haematopus ostralegus*) [A130] • Golden Plover (*Pluvialis apricaria*) [A140] • Grey Plover (*Pluvialis squatarola*) [A141] • Lapwing (*Vanellus vanellus*) [A142] • Dunlin *(Calidris alpina*) [A149] • Black-tailed Godwit (*Limosa limosa*) [A156] • Bar-tailed Godwit (*Limosa lapponica*) [A157] • Curlew (*Numenius arquata*) [A160] • Redshank (*Tringa totanus*) [A162] • Black-headed Gull (*Chroicocephalus ridibundus*) [A179] • Common Gull (*Larus canus*) [A182] • Lesser Black-backed Gull (*Larus fuscus*) [A183] • Common Tern (*Sterna hirundo*) [A193] • Wetland and Waterbirds [A999]	Yes
Sovereign Islands SPA (004124)	ca. 23km to southwest	• Cormorant (*Phalacrocorax carbo*) [A017]	No
Ballycotton Bay SPA (004022)	ca. 25km to the east	• Teal (*Anas crecca*) [A052] • Ringed Plover (*Charadrius hiaticula*) [A137] • Golden Plover (*Pluvialis apricaria*) [A140] • Grey Plover (*Pluvialis squatarola*) [A141] • Lapwing (*Vanellus vanellus*) [A142] • Black-tailed Godwit (*Limosa limosa*) [A156] • Bar-tailed Godwit (*Limosa lapponica*) [A157] • Curlew (*Numenius arquata*) [A160] • Turnstone (*Arenaria interpres*) [A169] • Common Gull (*Larus canus*) [A182]	No

Site Name	Approximate distance	Features of Interest	Within ZoI
		• Lesser Black-backed Gull (*Larus fuscus*) [A183] • Wetland and Waterbirds [A999]	

5.3.1. Description of Cork Harbour SPA

Cork Harbour SPA is described as follows in the NPWS site synopsis[16]:

> *"Cork Harbour is a large, sheltered bay system, with several river estuaries - principally those of the Rivers Lee, Douglas, Owenboy and Owennacurra. The SPA site comprises most of the main intertidal areas of Cork Harbour, including all of the North Channel, the Douglas River Estuary, inner Lough Mahon, Monkstown Creek, Lough Beg, the Owenboy River Estuary, Whitegate Bay, Ringabella Creek and the Rostellan and Poulnabibe inlets.*
>
> *Owing to the sheltered conditions, the intertidal flats are often muddy in character. These muds support a range of macro-invertebrates, notably* Macoma balthica, Scrobicularia plana, Hydrobia ulvae, Nepthys hombergi, Nereis diversicolor *and* Corophium volutator. *Green algae species occur on the flats, especially* Ulva *spp. Cordgrass (*Spartina *spp.) has colonised the intertidal flats in places, especially where good shelter exists, such as at Rossleague and Belvelly in the North Channel. Salt marshes are scattered through the site, and these provide high tide roosts for the birds. Some shallow bay water is included in the site. Rostellan Lake is a small brackish lake that is used by swans throughout the winter. The site also includes some marginal wet grassland areas used by feeding and roosting birds.*
>
> *Cork Harbour is of major ornithological significance, being of international importance both for the total numbers of wintering birds (i.e., > 20,000) and also for its populations of Black-tailed Godwit and Redshank. In addition, it supports nationally important wintering populations of 22 species, as well as a nationally important breeding colony of Common Tern. Several of the species which occur regularly are listed on Annex I of the E.U. Birds Directive, i.e., Whooper Swan, Little Egret, Golden Plover, Bar-tailed Godwit, Ruff, Mediterranean Gull, and Common Tern. The site provides both feeding and roosting sites for the various bird species that use it. Cork Harbour is also a Ramsar Convention site and part of Cork Harbour SPA is a Wildfowl Sanctuary."*

5.3.2. Conservation Objectives of Cork Harbour SPA

The Conservation Objectives for Cork Harbour SPA are to maintain the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA[17] (last accessed 06/07/2023).

The favourable conservation status of a species is achieved when:

- population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats.
- the natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future.
- there is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.

The conservation objective for non-breeding birds Special Conservation Interests of Cork Harbour SPA[18] are summarised in Table 5.2.

[16] https://www.npws.ie/sites/default/files/protected-sites/synopsis/SY004030.pdf
[17] https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO004030.pdf
[18] https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO004030.pdf

Table 5.4 Conservation Objectives of Cork Harbour SPA.

Objective 1: To maintain the favourable conservation condition of the waterbird Special Conservation Interest species listed for Cork Harbour SPA, which is defined by the following list of attributes and targets:			
Parameter	**Attribute**	**Measure**	**Target**
Population	Population Trend	Percentage change as per population trend assessment using waterbird count data collected through the Irish Wetland Bird Survey and other surveys	The long-term population trend should be stable or increasing
Range	Distribution	Range, timing, or intensity of use of areas used by waterbirds, as determined by regular low tide and other waterbird surveys	There should be no significant decrease in the range, timing or intensity of use of areas by the waterbird species of Special Conservation Interest other than that occurring from natural patterns of variation.
Area	Wetland habitat	Area (Ha)	The permanent area occupied by the wetland habitat should be stable and not significantly less than the area of 2,587 Ha, other than that occurring from natural patterns of variation.

5.3.3. Potential Threats

The threats, pressures, and activities[19] with impact on Cork Harbour SPA are itemised in Table 5.3.

Table 5.5 Threats, pressures, and activities with impacts on the SPA.

Rank	Threats and pressures (code)	Threats and pressures (type)	Inside/outside/both (i/o/b)
M	F02.03	Leisure fishing	i
H	E02	Industrial or commercial areas	o
M	G01.01	Nautical sports	i
M	D03.02	Shipping lanes	i
M	G01.02	Walking, horse riding and non-motorised vehicles	i
H	D01.02	Roads, motorways	o
H	E01	Urbanised areas, human habitation	o
L	E01.03	Dispersed habitation	o
H	F01	Marine and Freshwater Aquaculture	i
M	G01.06	Skiing, off-piste	i
M	A08	Fertilisation	o
H	D03.01	Port areas	o

[19] https://www.npws.ie/sites/default/files/protected-sites/natura2000/NF004030.pdf

5.4. Likelihood of Significant Effects on European sites

The available information on European sites was reviewed to establish whether or not the proposed project is likely to have a significant effect on the conservation objectives of the designated sites. The likelihood of impacts on the qualifying interests of the European sites identified in this report is based on information collated from the desk study, site visit, site plans, design information and reports and other available existing information.

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

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

- Direct impacts refer to habitat loss or fragmentation arising from land-take requirements for development or agricultural purposes. Direct impacts can be as a result of a change in land use or management, such as the removal of agricultural practices that prevent scrub encroachment.

- Indirect impacts refer to those which can arise through remote connectivity, for example by means of a watercourse, via groundwater, via air (e.g., dust) or via other emissions from a project site (e.g. noise and light). Indirect and secondary impacts do not have a straight-line route between cause and effect. It is potentially more challenging to ensure that all the possible indirect impacts of the project – in combination with other plans and projects - have been established. These can arise, for example, when a development alters the hydrology of a catchment area, which in turn affects the movement of groundwater to a site and the qualifying interests that rely on the maintenance of water levels. Deterioration in water quality can occur as an indirect consequence of development, which in turn changes the aquatic environment and reduces its capacity to support certain plants and animals. The introduction of invasive species can also be defined as an indirect impact. Disturbance to fauna can arise directly through the loss of habitat (e.g., displacement of roosting bats) or indirectly through noise, vibration and increased activity associated with construction and operation.

5.4.1. Identification of Potential Impacts

5.4.1.1. Indirect impacts via surface water run-off during construction and operational phase

Construction

The proposed works area is not located within a European site. The stretch of river which adjoins the works area is not within a European site.

Cork Harbour SPA is located to the east of the R612, approximately 25m east of the site. There will be no works within the SPA and hence no direct impacts, such as through habitat loss or alteration, within the SPA.

The works area is located approximately 8.5km from Great Island Channel SAC. There will be no direct impacts to the SAC or to habitats or species within it.

The works area is currently characterised as built land with areas of planting / amenity grassland. It will be necessary to remove vegetation and fell a number of trees along the waterfront. These are mostly non-native species and form part of landscape planting along the river front. Landscape Plans, including plans for replacement planting are set out in the accompanying Landscape Plan. The scheme will not involve the demolition of any buildings. Excavation of the proposed site will involve the removal of the existing hardstanding material. Excavated material will be temporarily stored at suitable locations only (not within 20m of the river bank) and then removed from site to appropriately licenced waste facilities. No negative impacts to European sites are anticipated from these activities. As excavations are not anticipated to be more than 1m in depth and are within the urban fabric of Carrigaline negative impacts to ground water are not anticipated.

The works area is bordered by the Owenboy River, which downstream of the R612 discharges to the Owenboy Estuary, which is part of Cork Harbour SPA. The river is tidal in this area. There will be no works within the river or in the intertidal habitats it supports. The riverbank is formed by a low stone wall which as noted is backed by

amenity grassland and landscape planting – this will not be impacted. Throughout much of the scheme, while existing landscape planting will be impacted, replacement planting is set out in the accompanying Landscape Plan.

An exception is the north-west corner where it is proposed to construct a series of tiered seats along the waterfront. There will be no pouring of concrete to create the steps as precast units are to be used in construction. Following ground preparation, an area of shuttering will be built. This will receive 150mm of base material, followed by the pouring of 150mm of cement (with the truck parked on the road above the works). The precast steps will then be craned into position and bolted in place. The steps will run down to the top of the riverbank. There will be no works to alter the low stone riverbank wall – all works will be located behind this wall and in the area of riverbank above and behind it. Strict adherence to good work practice when working close to water will be used to prevent loss of any wet cement to the river (see e.g. IFI, 2016[20], 2021[21]). However, given the tidal character of the river at this location small scale loss of silty waters, were this to occur, would not negatively impact on European sites within Cork Harbour.

During the construction phase of the project, and as set out above, a construction compound will be established within the development site; this will not be located in proximity to any drains or surface water features through which sediment or other pollutants such as hydrocarbons could be discharged to the Owenboy River and ultimately to Cork Harbour. Where any such connections are identified during works, these will be isolated from the works area for the duration of any tasks that might result in silt laden waters entering such drains.

Should it be necessary to store any fuels on site or to undertake refuelling these activities can only take place within the Site Compound, which must be located at a minimum of 20m from the riverbank. Any fuels or other chemicals to be stored on site will also be appropriately bunded.

Operation

Cork Harbour SPA is designated for several wintering waterbirds. The Owenboy River bordering the site is not within the SPA. Black headed Gull (*Chroicocephalus ridibundus*) are commonly encountered along this stretch of river with occasional Cormorant (*Phalcrocorax carbo*), Herring gull (*Larus argentatus*), Grey heron (*Ardea cinerea*) and Mute Swan (*Cygnus olor*). A single Kingfisher (*Alcedo atthis*) was noted during the site visit. The works area is separated from the SPA by the busy R612 road which links Carrigaline with Crosshaven. The northern bank of the estuary closest to the bridge is part of the public park (which includes a large lagoon); to the south Strand Road is screened along its first 350m from the estuary by a wall and narrow vegetated strip of land.

While large numbers of waterbirds do occur in the upper Owenboy Estuary the main areas of note are all east of a small island, which partially screens the estuary from the proposed works; over 160m from the works area. The nearer part of the estuary tends to be dominated by gulls, notably Black headed Gull (which are often seeing roosting in this area at low tide); along with Grey heron and Little egret (*Egretta gazetta*) in small numbers. Black-tailed Godwits (*Limosa limosa*), which occur in large numbers within the Owenboy Estuary favour the open mudflat and tidal channels which at their nearest point are located over 160m from the works area and would not be disturbed by the works within the site, which as noted is screened from the estuary by the R612. Black headed Gull in particular commonly occur in areas characterised by high levels of human activity, to which they readily acclimate. The construction works will be within the existing urban fabric of Carrigaline in an area already subject to significant levels of human disturbance.

Apart from gulls which often roost in the upper estuary at low tide, the nearest notable high tide roosts are to the east of the works area; in Kilnaglery. This are screened from proposed works and are sufficiently distant that no negative impacts through disturbance arising from construction or operation activities are anticipated.

Birds noted to use the tidal river adjoining the works are all species which frequently occur in watercourses adjoining busy urban areas. While the proposed plaza and seating would increase the level of activity along the river front this is not expected to negatively impact species for which Cork Harbour SPA has been designated.

[20] IFI (2016). Guidelines on Protection of Fisheries during Construction Works in and Adjacent to Waters. Inland Fisheries Ireland, Dublin.

[21] IFI (2021). *Planning for Watercourses in the Urban Environment. A Guide to the Protection of Watercourses through the use of Buffer Zones, Sustainable Drainage Systems, Instream Rehabilitation, Climate / Flood Risk and Recreational Planning*. A Guideline Developed by Inland Fisheries Ireland.

As noted, there is no overlap with the SPA, but the public realm works is located immediately adjacent to the SPA. While several species for which the SPA has been designated do feed in fields outside of the SPA (e.g., Curlew, Oystercatcher, and Black-tailed Godwit) the proposed works area does not support suitable field feeding opportunities for these species. The SPA is also designated for Wetland and Waterbirds [A999]; however, no impact to wetland habitats within the SPA are anticipated.

No impacts are therefore anticipated during the operational phase of the proposed project as this project will not significantly affect water quality or the hydrological regime of the Owenboy River. Existing water drainage systems will be used. There will be a small-scale reduction in existing quantity of hard standing areas through the proposed increase in areas of soft landscaping (e.g., lawns, flower beds etc.) which could result in a reduction in surface water emissions to the drainage network.

In summary, due to the nature of proposed works, i.e., no in-stream works within the Owenboy River; the distance between the proposed works and Cork Harbour SPA, as well as the extent and duration of the proposed works; no negative impacts to European sites, notably Cork Harbour SPA through surface waters or via disturbance are anticipated during operation of this scheme.

5.4.1.2. Potential Indirect impact / damage through discharge of treated foul effluent.

No changes to the existing sewer network are proposed. Therefore, no adverse effects on Cork Harbour SPA o Great Island Channel SAC are anticipated.

5.4.1.3. Proposed Indirect habitat/species loss/damage via spread of invasive species (if present at the study site).

The introduction and spread of invasive species can also result in negative impacts within a designated site. As noted, no species listed on the 3rd Schedule of the EC (Bird and Natural Habitats) Regulations, 2011 (S.I. 477/ 2011), have been recorded on site. No 3rd Schedule species were recorded within the site boundaries as illustrated on Figure 1.1.

No invasive species listed on the 3rd Schedule of the EC (Bird and Natural Habitats) Regulations, 2011 have been identified within the red line boundary. As a result, no adverse effects shall occur on Cork Harbour SPA as a result of the potential spread of invasive species. However, as is good practice strict biosecurity measures will be implemented on site.

However, an infestation of young Japanese Knotweed (*Fallopia japonica*) is present immediately adjacent to the eastern boundary in the verge along Bóthar Guidel road (‘Do not cut’ sign present). The extent of the area is to be confirmed and appropriate biosecurity measures will be implemented to isolate this from proposed works.

5.5. In-Combination Impacts

In-combination impacts with the following plans and projects were considered during the preparation of this report. The search of Cork County Council's planning database was map-based.

The Cork County Development Plan 2022 - 2028[22] categorises the area of the proposed project as 'Business and Technology', with adjacent areas of 'Residential, Local Services and Institutional Uses'.

A Natura Impact Report was prepared in support of the Appropriate Assessment of the Development Plan; this assessed the Plan and its potential to adversely affect the integrity of European sites. The findings of the NIS were integrated into the Plan, ensuring that potential impacts were avoided, reduced, or offset. Thus, an AA determination was made by the Council that the Plan will not adversely affect the integrity of European sites due to the incorporation of mitigation measures into the Plan as a result of the AA process.

A search of Cork County Council Planning Applications has been undertaken for applications submitted within the last 5 years in the vicinity of the proposed development (last reviewed 13/07/2023). Some of the granted applications have already been completed and of those which are not completed, most are generally of small scale in nature (i.e., residential extension works, or property improvement works). Completed or granted applications of such small scale (such as residential improvements) have not been considered further in terms of potential for cumulative impacts.

6 no. projects are committed developments, which have not yet been built or are currently under construction. These developments have been further evaluated for the potential of cumulative impacts and are presented in Table 5.6. It is considered unlikely that the granted projects occurring within any sites surrounding the proposed Westside development will act in combination with the proposed project to give rise to significant cumulative impacts on the receiving environment.

Elsewhere in Carrigaline the Carrigaline Transportation and Public Realm Enhancement Plan is also being implemented. Details of this can be viewed on Cork County Council's dedicated webpage[23]. This project has been subject to its own Screening for Appropriate Assessment (Arup, 2021); it was determined that proposed works would screen out and did not need to proceed to Stage 2 – Appropriate Assessment.

A proposal for Strategic Housing Development is located to the west of the works areas was subject to EIAR – "*Consists of Strategic Housing Development providing 224 no. residential units, a creche/childcare facility and 3 no. retail units & all associated works*". [Competent Authority - An Bord Pleanála; reference no. ABP-313720-22]. This is located off Kilmoney Road, Carrigaline; its northern boundary adjoins the Owenboy River upstream of the current project. The case is listed as due for decision in September 2022; no decision is included on the EIA Portal. This application was accompanied by an AA Screening and NIS (EnviroGuide Consultants, 2022a & b).

Given the nature, extent, and scale of the proposed project, it is not anticipated that it will act in-combination with the plans or projects outlined above, or other plans or projects, to give rise to cumulative impacts on European sites, including Cork Harbour SPA.

[22] https://www.corkcoco.ie/en/resident/planning-and-development/cork-county-development-plan-2022-2028/

[23] https://www.corkcoco.ie/en/resident/planning-and-development/completed-transportation-studies/carrigaline-transportation-and-public-realm-enhancement-plan

Table 5.6 Developments in the vicinity of the proposed Carrigaline Village Public Realm and Waterfront River Park.

Planning Ref.	Decision Date	Applicant Name	Location	Description	Assessment
226505	03/01/2023	Ruden Homes Ltd.	Mill Farm Carrigaline West Carrigaline Co. Cork	Permission for retention and completion of 72 number dwelling houses currently under construction and permitted under planning reference no. 15/6753 and extended under planning reference no. 21/4818. The development is located on land at Mill Farm, Carrigaline West, Carrigaline, Co. Cork. and is accessed via Ballea roundabout and Mill Road (LS6572). The modifications include alterations to the type, design, size, elevations, and materials of the proposed dwellings including changes to the finished floor levels, eaves and ridge heights of same and all ancillary site development works.	This development is located approximately 520m west of the proposed site. Based on the location, scale and nature of this project, cumulative impacts associated with the proposed residential development on the receiving environment are unlikely.
215966	04/10/2022	Lidl Ireland GmbH	The existing Carrigaline Lidl Licenced Discount, Foodstore & Council Yard/Circus Field, Kilnaglery, R612, Crosshaven Road and Roundabout, Carrigaline, Co. Cork	The development to total 2,540.42 sq m gross floor space will consist of: The demolition of the existing Lidl Licenced Discount Foodstore (1,768 sqm gross floor space with 1,334 sqm net retail sales area), removing/closing of the existing entrance to the Lidl Foodstore at the R612 Crosshaven Road Roundabout, and the construction of a public town car park facility to comprise the following: 212 no. surface car parking spaces (8 no. disabled and 204 no. regular) and 20 no. bicycle parking spaces; site lighting and new electricity substation (32.71 sqm); primary vehicular and pedestrian access to the proposed public car park will be via an enhanced access/new access from the R612 Strand Road; secondary vehicular and pedestrian access to the proposed public car park will be via a controlled road access link to a proposed replacement Licenced Discount Foodstore; and dedicated pedestrian access from the R612 Crosshaven Road Roundabout will further enhance pedestrian permeability through the site. The construction upgrade/widening of approximately 200 metre section of the R612 Crosshaven Road and Road Roundabout to comprise the following: upgrade/widening along the Southern side of the existing R612 Crosshaven Road carriage way to include a new dedicated pedestrian footpath; upgrading of R612 Crosshaven Road Roundabout; and public road lighting along both sides of the upgraded/widened section of the R612 Crosshaven Road. Removing of the existing entrance at R612 Crosshaven Road to council yard/circus field and the construction of the proposed replacement mono-pitched Licenced Discount Foodstore (2,475 sq m Gross Floor Space) to comprise the following: a retail sales area with ancillary off-licence use and bakery (total net sales area of	This development is located approximately 20m south of the proposed site. Based on the location, scale and nature of this project, cumulative impacts associated with the proposed commercial development on the receiving environment are unlikely.

Planning Ref.	Decision Date	Applicant Name	Location	Description	Assessment
				1,670 sq m), entrance pod, public facilities (incl. lobby and toilets), staff facilities (incl. lobbies, operations office, meeting room, staff room, showers and toilets),storage (incl. Cold storage), IT room, plant room, plant deck, delivery area and external plant compound; rooftop photovoltaic solar panel array totalling 800 sq m, corporate signage consisting of 2 no. building mounted corporate internally illuminated sign, 1 no. free standing internally illuminated flag pole sign at new access road from the R612 Crosshaven Road, 3 no. wall mounted externally illuminated poster panel display boards and 1 no. free standing external illuminated poster display board, covered trolley bay and 10. No bicycle parking spaces area (49	
217464	19/05/2022	Aldi Stores (Ireland) Ltd	Carrigaline Town Centre, Carrigaline, Carrigaline West, Carrigaline, Co. Cork	The construction of a single storey discount food store (1,819sq/m gross floor area, 1,315 sq/m net floor area) including the sale of alcohol for consumption off the premises; loading bay; rooftop solar panels; external plant enclosure; bin store; trolley bay; signage; single storey café unit; single storey DRS unit; substation; plaza areas; sculpture; security barriers; 119 no. car parking spaces (including EV, disabled and parent and child spaces), of which 30 no. spaces will function as a public car park; new junction with the Carrigaline Western Relief Road (under construction) and internal access road; pedestrian and cycle connection to Main Street; and all associated boundary treatment, landscaping, drainage and site development works.	This development is located approximately 110m northwest of the proposed site. Based on the location, scale and nature of this project, cumulative impacts associated with the proposed commercial development on the receiving environment are unlikely.
225205	04/11/2022	Dwellings Developments Carrigaline Limited	Garrán Ferney (Ferney Grove), Kilnaglery, Carrigaline, Co Cork	Construction of Garrán Ferney Phase 2, consisting of 33 no. dwelling houses (8 no. house type A, 4 bed semi-detached units; 2 no. house type A1, 4 bed detached units; 9 no. house type B, 3 bed terrace units; 4 no. house type C, 3 bed terrace units and 10 no. house type D, 3 bed semi-detached units) landscaping, boundary treatments, lighting, services, pedestrian access onto Ferney Road and vehicular access via the entrance of Garran Ferney permitted and constructed under Pl.Reg.No 18/5993 and all associated development works.	This development is located approximately 730m south of the proposed site. Based on the location, scale and nature of this project, cumulative impacts associated with the proposed residential development on the receiving environment are unlikely.
195761	23/10/2019	Carrigaline Muin Ltd.	Carrigaline GAA Club, Carrigaline Road, Kilnaglery, Carrigaline, Co. Cork	To demolish 1 no. existing portacabin, and install 2 no. new portacabins, for use as a preschool, together with all associated site development works.	This development is located approximately 540m southeast of the proposed site. Based on the location, scale and nature of this project, cumulative impacts associated with the proposed recreational development on the receiving environment are unlikely.

Planning Ref.	Decision Date	Applicant Name	Location	Description	Assessment
185993	27/03/2019	Emlod Limited	Kilnagleary (Kilnaglery), Carrigaline, Co. Cork	Construction of 58 no. dwelling units comprising of 8 no. 4 bed semi detected units, 32 no. 3 bed terraced/end of terrace units and 18 no. 3 bed duplex units [across 3 no. 3 storey blocks]. The existing vehicular and pedestrian access serving the site is being moved eastwards and is located to the north of the site onto Ferney Road. A new vehicular access onto Ferney Road is also proposed to facilitate the existing dwelling known as 'The Meadows'. Permission is sought for the demolition of the existing farming related structures/sheds comprising a total area of 790.9sq.m. Permission is also sought for 128 no. car parking spaces. Permission is sought for the development outlined herein including but not limited to associated landscaping, play areas, bicycle parking, drainage, and associated site works.	This development is located approximately 560m south of the proposed site. Based on the location, scale and nature of this project, cumulative impacts associated with the proposed residential development on the receiving environment are unlikely.

5.6. Consideration of Findings

This Screening for Appropriate Assessment report is based on the best available scientific information. It is concluded by the authors of this report that it can be excluded, on the basis of objective information, that the proposed project, individually or in combination with other plans or projects, will not have likely significant effects on Cork Harbour SPA or Great Island Channel SAC in view of their conservation objectives. Thus, it is concluded that the proposed project does not need to proceed to Appropriate Assessment.

Should the scope of the proposed project change, a new screening report for Appropriate Assessment shall be required.

6. Conclusions

This Appropriate Assessment Screening Report has examined the details of the proposed public realm works in Carrigaline, Co. Cork; and the Natura 2000 sites in their Zone of Influence. It has analysed the potential impacts of the proposed works on the receiving natural environment and evaluated their effects, both individually and in combination with other plans and projects, in view of the conservation objectives of the relevant Natura 2000 sites. This report has been prepared in line with the Habitats Directive, as transposed into Irish law by the Habitats Regulations, relevant case law and guidance from the European Commission, the Department of the Environment, Heritage and Local Government and the Office of the Planning Regulator, on the basis of objective information and adhering to the precautionary principle.

Following the assessment detailed in this report, it can be concluded beyond reasonable scientific doubt that the proposed works will not, either individually or in combination with other plans or projects, give rise to any impacts which would constitute significant effects on Cork Harbour SPA or Great Island Channel SAC or any other Natura 2000 site, in view of their conservation objectives. Therefore, it is the recommendation of the authors of this report that Cork County Council, as the competent authority in this case, may determine that Appropriate Assessment is not required in respect of the proposed works at Carrigaline, Co. Cork.

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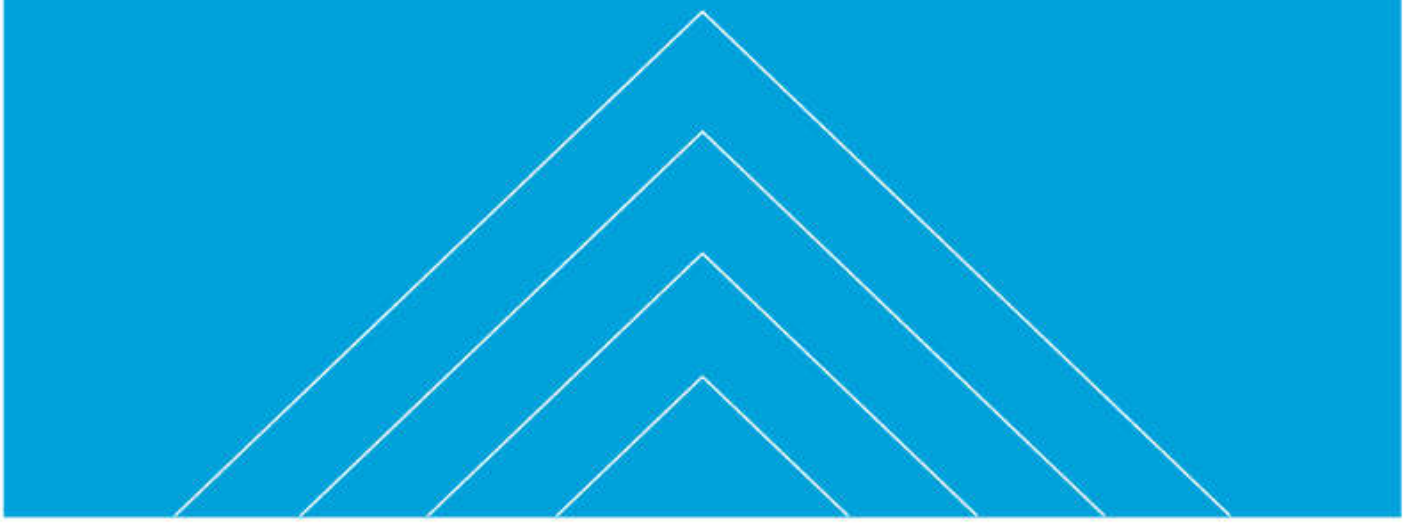
Appendices



Appendix A. Drawing Pack

Carrigaline Village - Public Realm - Waterfront River Park

Drawings Pursuant to the Requirements of Part 8, Article 83 of the Planning and Development Regulations, 2001, as amended.

1) Overall Project Objectives:

- To establish an uplifting, distinctive public realm at the heart of Carrigaline;
- To provide a new waterfront public space (reclaimed from the existing car park) which will encourage activities such as cycling, walking, local festivals, community events, etc;
- To enhance public space to include inclusive street furniture, waterfront seating, rain gardens, trees, shrubs and a covered pavilion;
- To provide upgraded landscaping that will include Biodiversity / Pollinator Planting and Sustainable Urban Drainage System;
- To provide an attractive route along the river through the Owenabue Promenade + Public Connection Routes
- To reinforce the public transport multimodal central core in this area to attract people from the City and providing sheltered, inviting space for people to arrive, shop and spend more time in the central core of the town;
- To have a sheltered performance stage that will provide a central focus to the new public realm and host community events.

2) Scheme Includes:

- 1 no. covered Public Pavilion.
- 7 no. rain gardens.
- Shrub and groundcover planting.
- Benches and stepped seating.
- 95 no. new off-street car parking spaces to replace parking reclaimed from the existing Owenabue car park.
- Shared walking area.

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DRAWING LIST		
DRAWING NUMBER	DRAWING TITLE	REV
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5199585-ATK-ZZ-XX-DR-CS-95801	DRAWING INDEX SHEET	1
5199585-ATK-ZZ-XX-DR-CS-95802	SITE LOCATION MAP	-
5199585-ATK-ZZ-XX-DR-CS-95803	SITE NOTICE LOCATION PLAN	-
101	EXISTING SITE LOCATION PLAN	B
102	PROPOSED SITE LOCATION PLAN	E
103	PROPOSED SITE MOVEMENT ROUTES	E
104	PROPOSED RIVERPARK TOWN SQUARE	C
105	CAR PARKING PROPOSED PLAN	E
106	PROPOSED TOWN SQUARE PLAN	B
201	USE AND DETAIL - SMALLER EVENTS	B
203	USE AND DETAIL - PROPOSED SEATING	A
204	PROPOSED TOWN SQUARE GROUND FINISHES	A
205	PROPOSED LIGHTING PLAN	C
301	EXISTING & PROPOSED SECTION AA	C
302	EXISTING & PROPOSED SECTION BB	B
303	EXISTING & PROPOSED SECTION CC	B
401	ISOMETRIC VIEWED FROM NORTH EAST	A
402	PERSPECTIVE VIEW OF MAIN STREET FROM BRIDGE	-
403	PERSPECTIVE VIEW FROM SOUTH BANK	-
404	DAYTIME VIEW OF NEW TOWN SQUARE	-
405	NIGHT-TIME VIEW OF NEW TOWN SQUARE	-
20424-2-101	LANDSCAPE MASTERPLAN	A
20424-2-901	RAIN GARDEN DETAIL	-

GENERAL NOTES

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

A1

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Risk Level		
	X	Atkins Base Line - Low Risk
		Atkins Sensitive - Medium Risk
		Atkins Private - High Risk
		Client Critical - Already Marked

CUNNANE STRATTON REYNOLDS LAND PLANNING & DESIGN

John McLaughlin Architects

Rev	Description	By	Date	Chk'd	Rev'd	Auth
1	ISSUED FOR PART 8 PLANNING	GC	02/24	FMD	BJ	RAN
0	ISSUED FOR PART 8 PLANNING	GC	09/23	FMD	BJ	RAN

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Client: CORK COUNTY COUNCIL

Project: CARRIGALINE VILLAGE, WATERFRONT PUBLIC REALM ENHANCEMENT PROJECT

Purpose: ISSUED FOR PLANNING

Title: DRAWING INDEX SHEET

Original Scale	Drawn	Checked	Reviewed	Authorised
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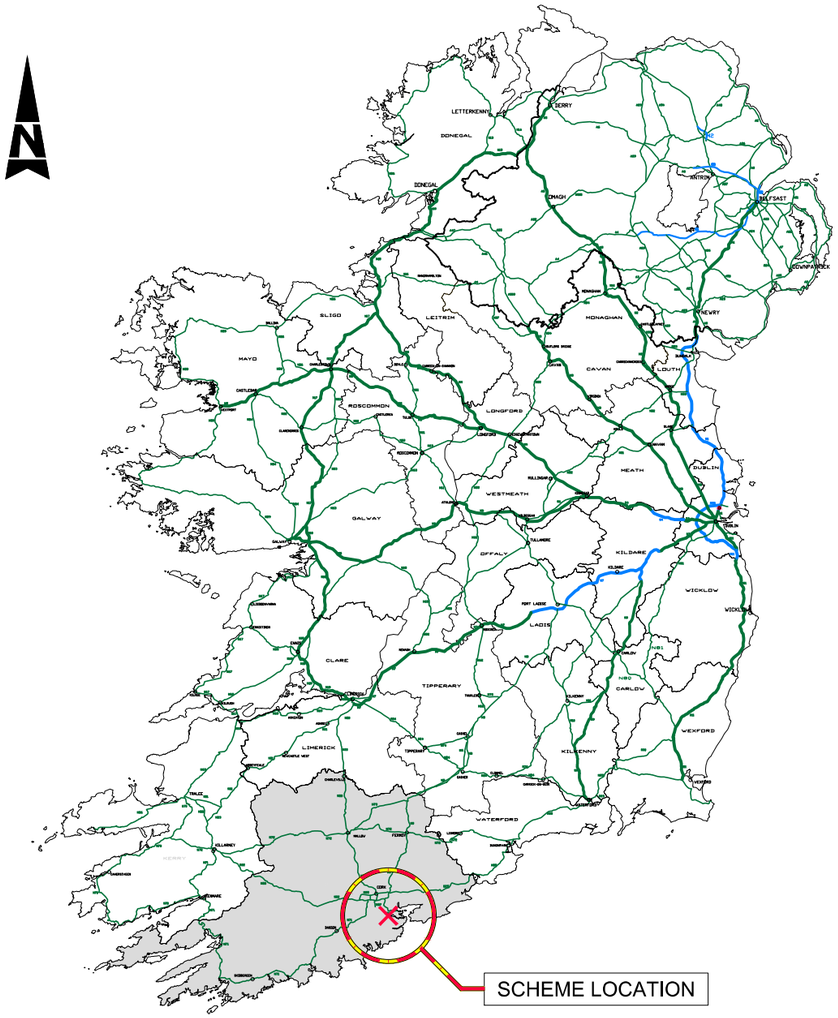
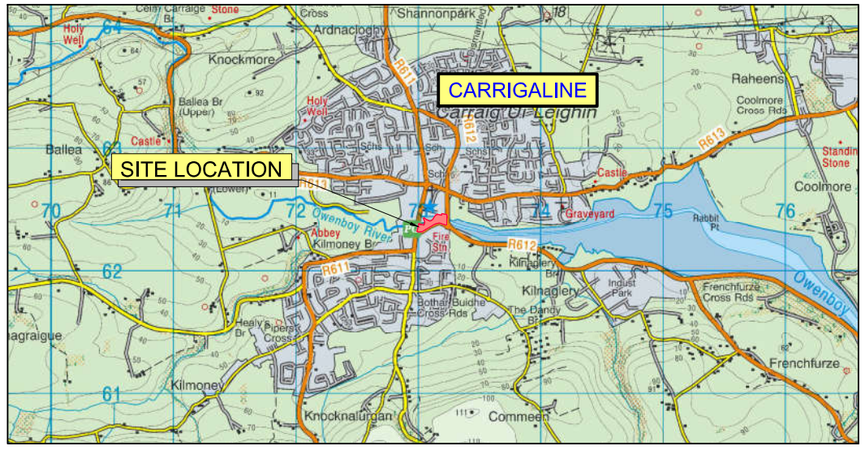


CONTEXTUAL MAP

NTS



SITE LOCATION MAP

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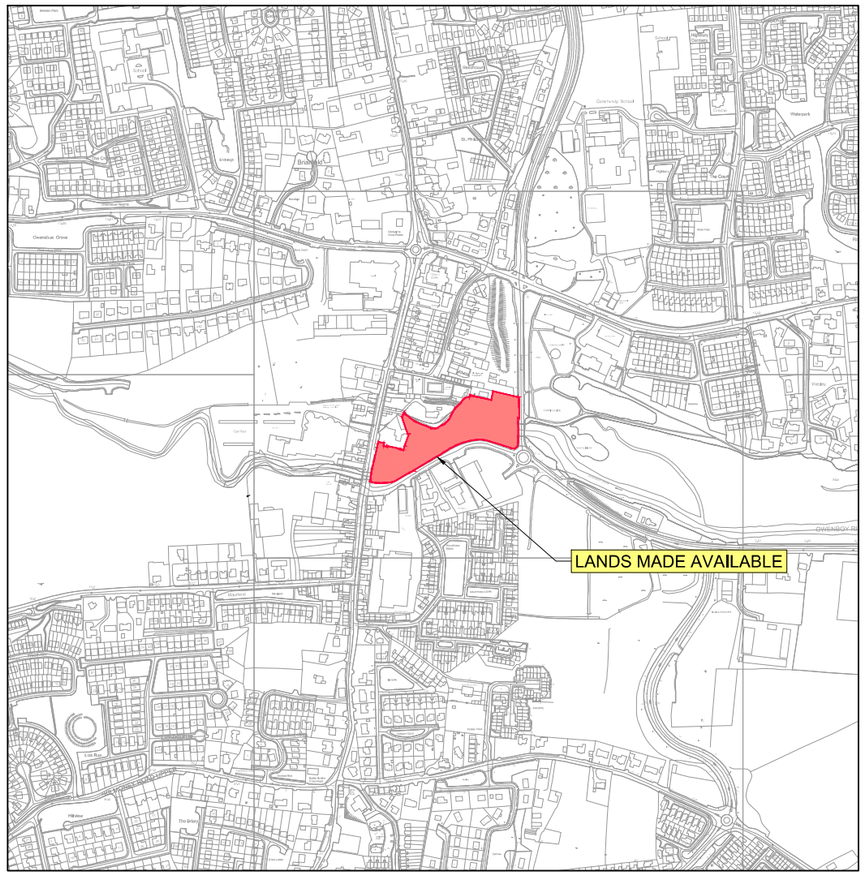
Scale at A3 1:50,000



SITE LOCATION PLAN

Scale at A1 1:5,000
Scale at A3 1:10,000

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DRAWING NOTES

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		Atkins Sensitive - Medium Risk
		Atkins Private - High Risk
		Client Critical - Already Marked

CUNNANE STRATTON REYNOLDS LAND PLANNING & DESIGN

John McLaughlin Architects

Rev	Description	By	Date	Chk'd	Rev'd	Auth
-	ISSUED FOR PART 8 PLANNING	FMD	02/24	BJ	BJ	RAN

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Client: CORK COUNTY COUNCIL

Project: CARRIGALINE VILLAGE, WATERFRONT PUBLIC REALM ENHANCEMENT PROJECT

Purpose: ISSUED FOR PLANNING

Title: SITE LOCATION MAP

Original Scale	Drawn	Checked	Reviewed	Authorised
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File: 5199585-ATK-ZZ-XX-DR-CS-950803.dwg Plotted by: GCsorba
Date: Feb 15, 2024 - 12:10pm

Site Notice 1

Site Notice 2

Cork Road
Main Street
Bothar Guidel
Church Road
Cresshaven Road
OWENBOY RIVER
Old Waterpark Court (A - D)
CARRIGALINE
Swans Island
Mountrivers Estate
Kilmoney Road Lower
Carrigaline Bridge
Highest Point to which Medium Tides Flow
Play Ground
Sports Ground
Community Complex
Park
Car Park
Fire Station
Library
Bank
School
Hall
Funeral Home
Toilet
Mud

GENERAL NOTES

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LEGEND:

PART 8 SITE BOUNDARY

SITE NOTICE LOCATION

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		Atkins Sensitive - Medium Risk
		Atkins Private - High Risk
		Client Critical - Already Marked

CUNNANE STRATTON REYNOLDS
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Rev	Description	By	Date	Chk'd	Rev'd	Auth
-	ISSUED FOR PART 8 PLANNING	GC	02/24	BJ	BJ	RAN

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Client: CORK COUNTY COUNCIL

Project: CARRIGALINE VILLAGE, WATERFRONT PUBLIC REALM ENHANCEMENT PROJECT

Purpose: ISSUED FOR PLANNING

Title: SITE NOTICE LOCATION PLAN

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	Date 16/02/24	Date 16/02/24	Date 16/02/24	Date 16/02/24

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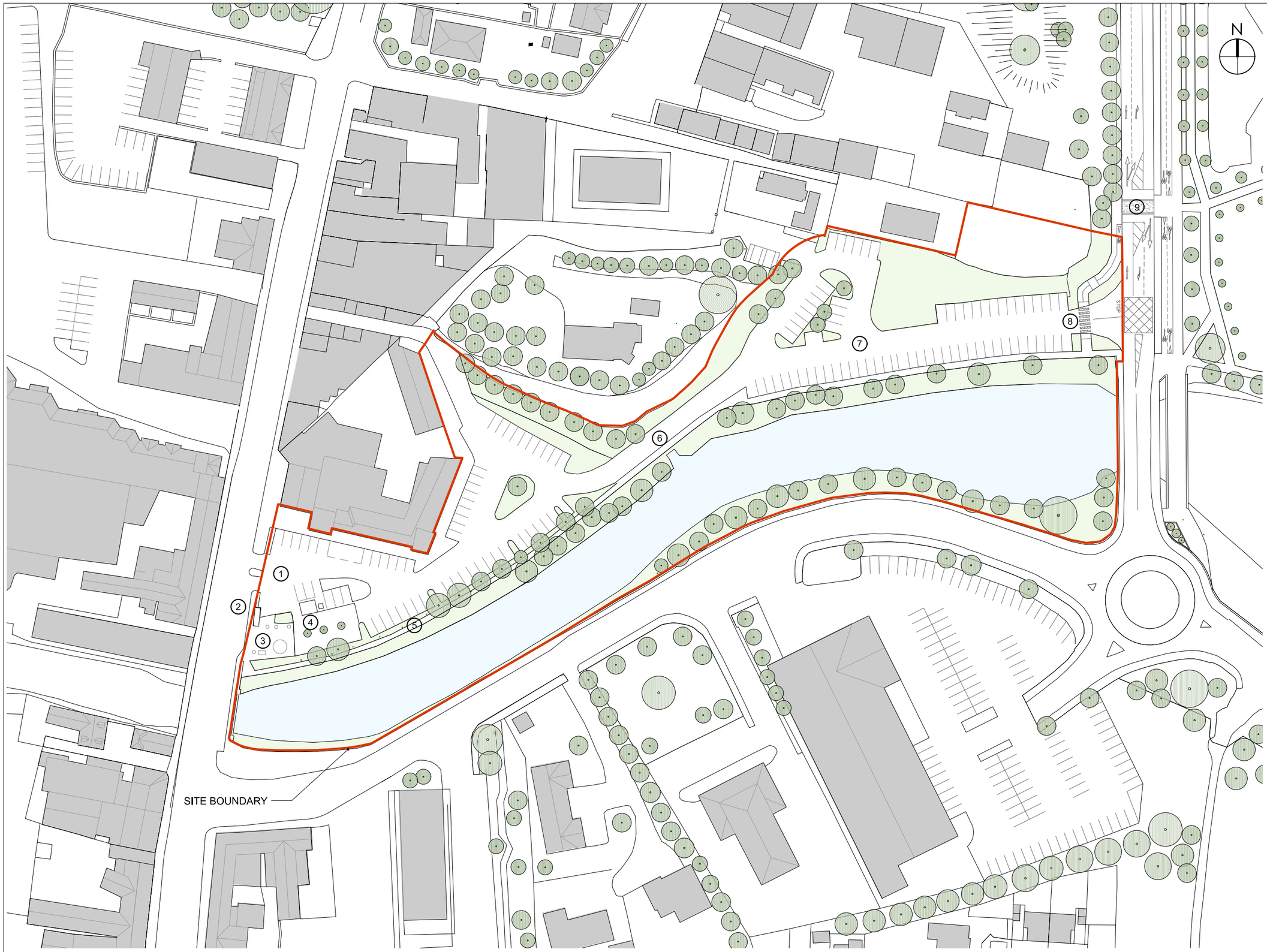

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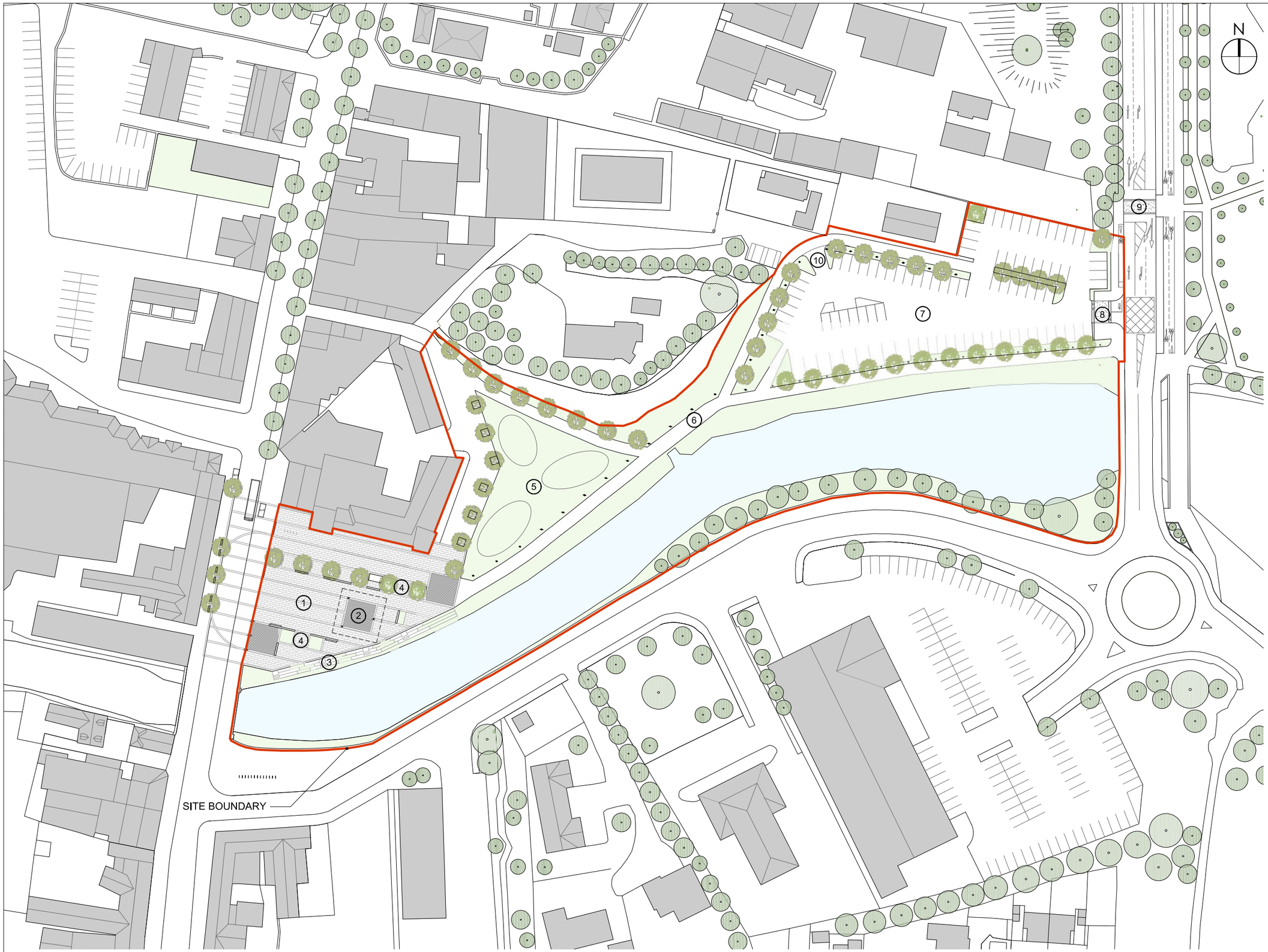
			PROJECT NO.: 2007	STAGE: P8 PART 8	DRAWING NO.: 101	REV NO.: B	



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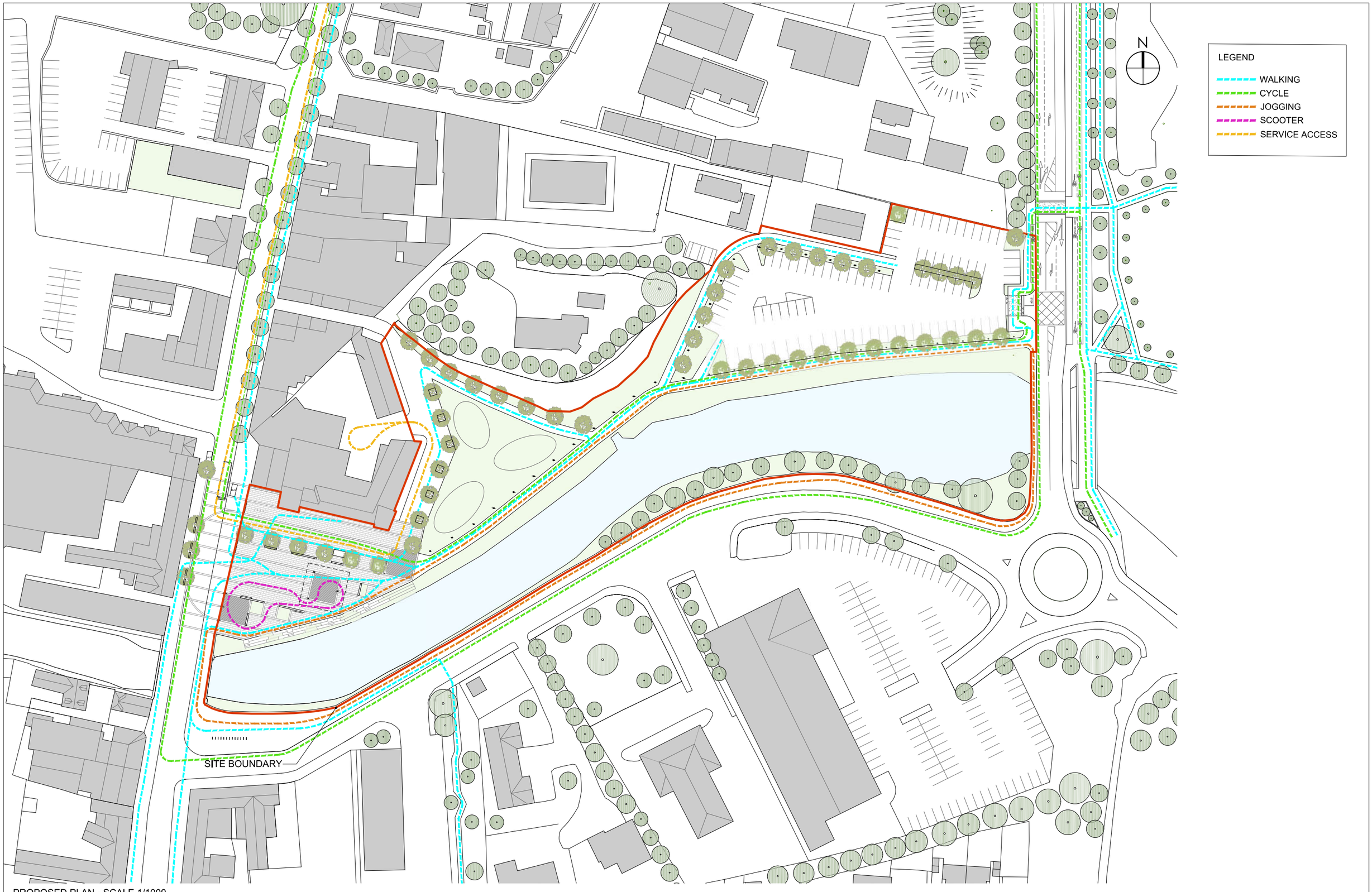

PROPOSED PLAN - SCALE 1/1000

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PROJECT NO.	STAGE	DRAWING NO.	REV NO.
2007	P8 PART 8	103	E

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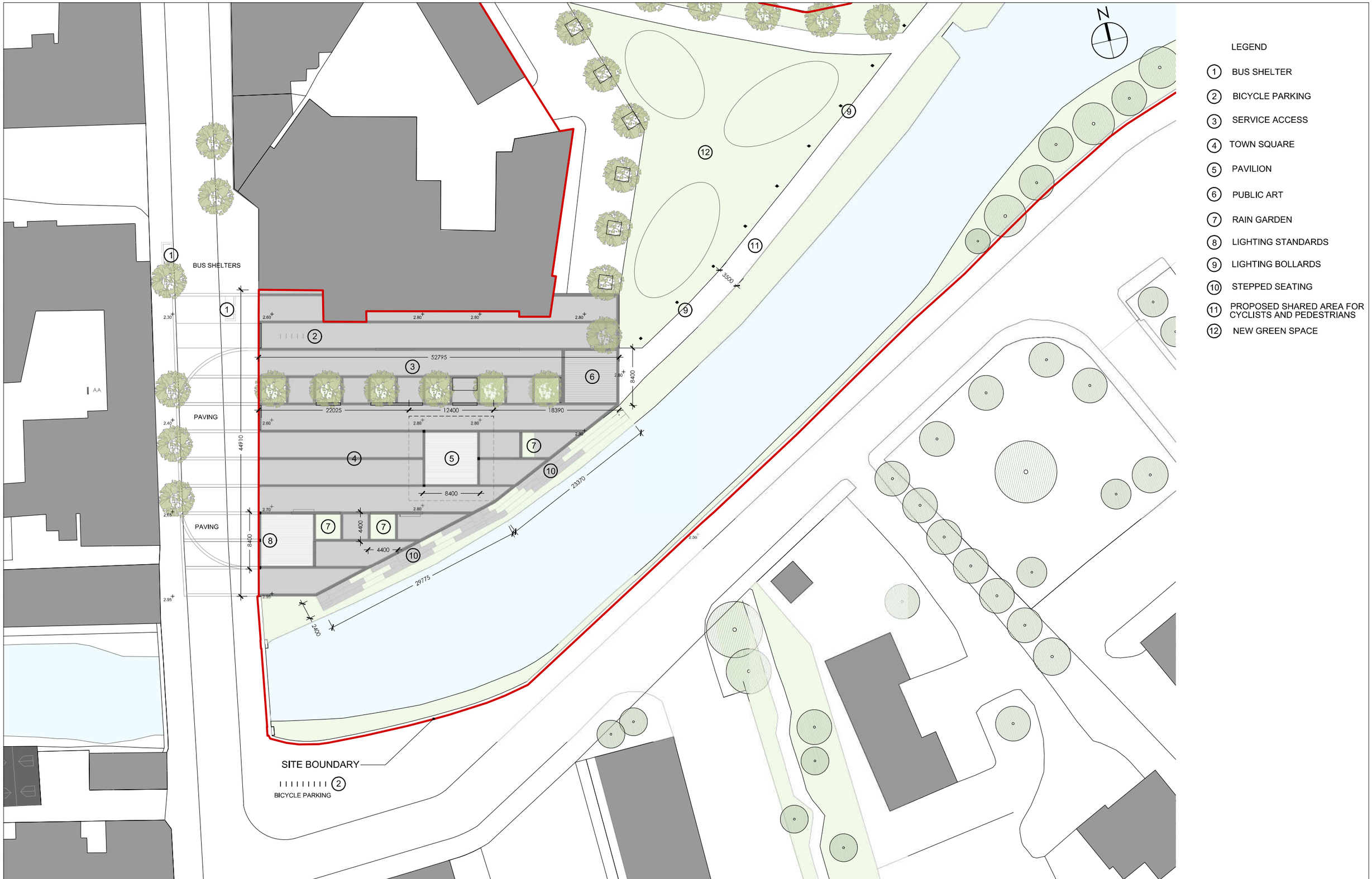

PROPOSED PLAN - SCALE 1/500

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			PROJECT NO. 2007	STAGE PB PART 8	DRAWING NO. 104	REV NO. C	

PROPOSED PLAN - SCALE 1/500

LEGEND

1. **RECONFIGURED CAR PARK B**
   - STANDARD 86 SPACES
   - FAMILY 5 SPACES
   - ACCESSIBLE 4 SPACES
   - TOTAL 95 SPACES

PEDESTRIAN CROSSINGS

2. EXISTING CONTROLLED PEDESTRIAN CROSSING REMOVED (DASHED LINE)
3. PROPOSED UNCONTROLLED PEDESTRIAN CROSSING WITH RAISED TABLE
4. EXISTING SIGNALED PEDESTRIAN CROSSING RETAINED
5. LIGHTING BOLLARD
6. ENTRANCE TO FORDES FUNERAL HOME RETAINED

DRAWING NAME: CAR PARKING PROPOSED PLAN

PROJECT: CARRIGALINE PUBLIC REALM

NOTES
REV A: FOOTBRIDGE OMITTED AND STEPPED BANK ADDED
REV B: TREE POSITION ADJUSTED FOR VEHICLE TRACKING AND STEP TO VERGE EDGE CREATED TO ACCOMMODATE DISABLED & FAMILY CAR PARKING SPACES - 23/06/30
REV C: BOUNDARY LINE AND ENTRANCE AMENDED TO CAR PARK B, DIMENSIONS ADDED - 01/09/23
REV D: PEDESTRIAN CROSSING REVISED TO CAR PARK B ENTRANCE - 25/09/23
REV E: CAR PARK ACCESS TO FUNERAL HOME RETAINED - 07/02/24

DATE	SCALE	CLIENT	
01.09.23	1:500 @A3	CORK COUNTY COUNCIL	
PROJECT NO.	STAGE	DRAWING NO.	REV NO.
2007	P8 PART 8	105	E

ARCHITECT
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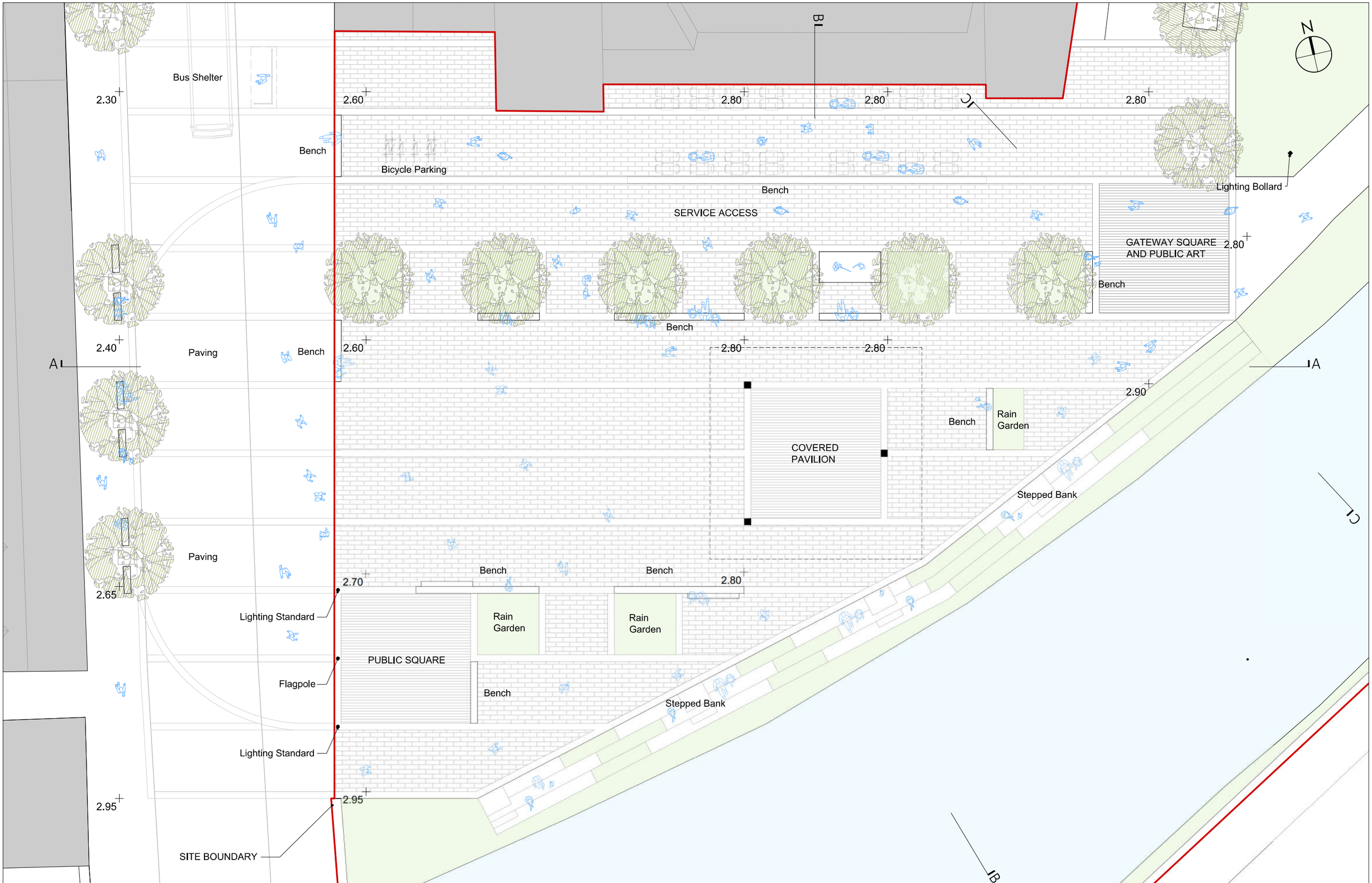

PROPOSED PLAN - SCALE 1/200

DRAWING NAME	PROJECT	NOTES	DATE	SCALE	CLIENT	
PROPOSED TOWN SQUARE PLAN	CARRIGALINE PUBLIC REALM	REV A: FOOTBRIDGE OMITTED AND STEPPED BANK ADDED REV B: TREE POSITION ADJUSTED FOR VEHICLE TRACKING AND STEP TO VERGE EDGE CREATED TO ACCOMMODATE DISABLED & FAMILY CAR PARKING SPACES - 23/06/30	01.09.23	1:200 @ A3	CORK COUNTY COUNCIL	
			PROJECT NO.	STAGE	DRAWING NO.	REV NO.
			2007	P8 PART 8	106	B

ARCHITECT
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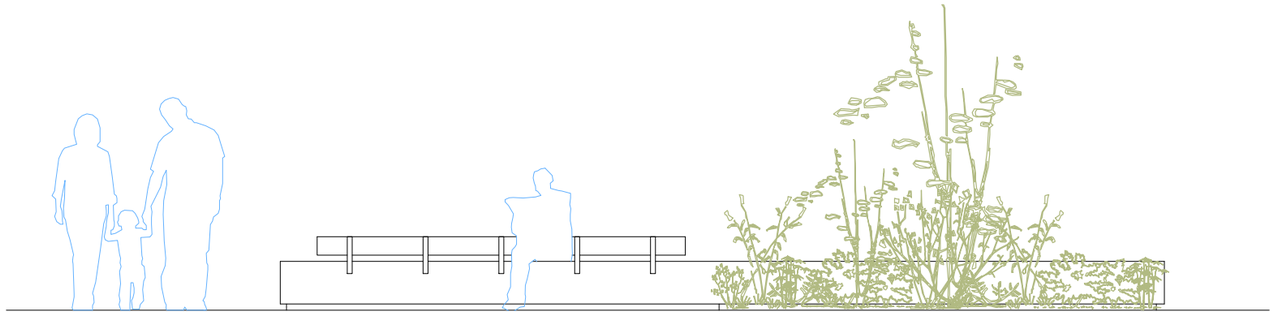
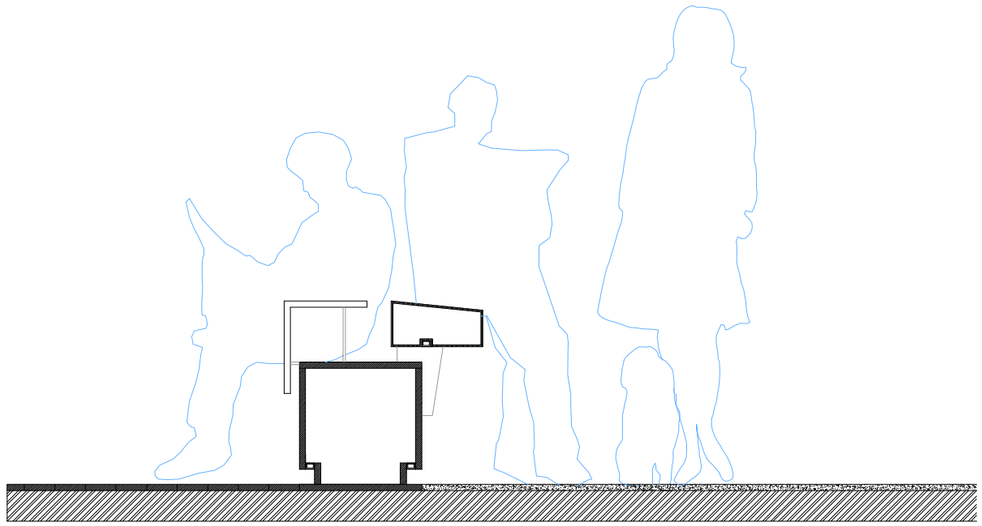
PROPOSED PLAN - SCALE 1/200

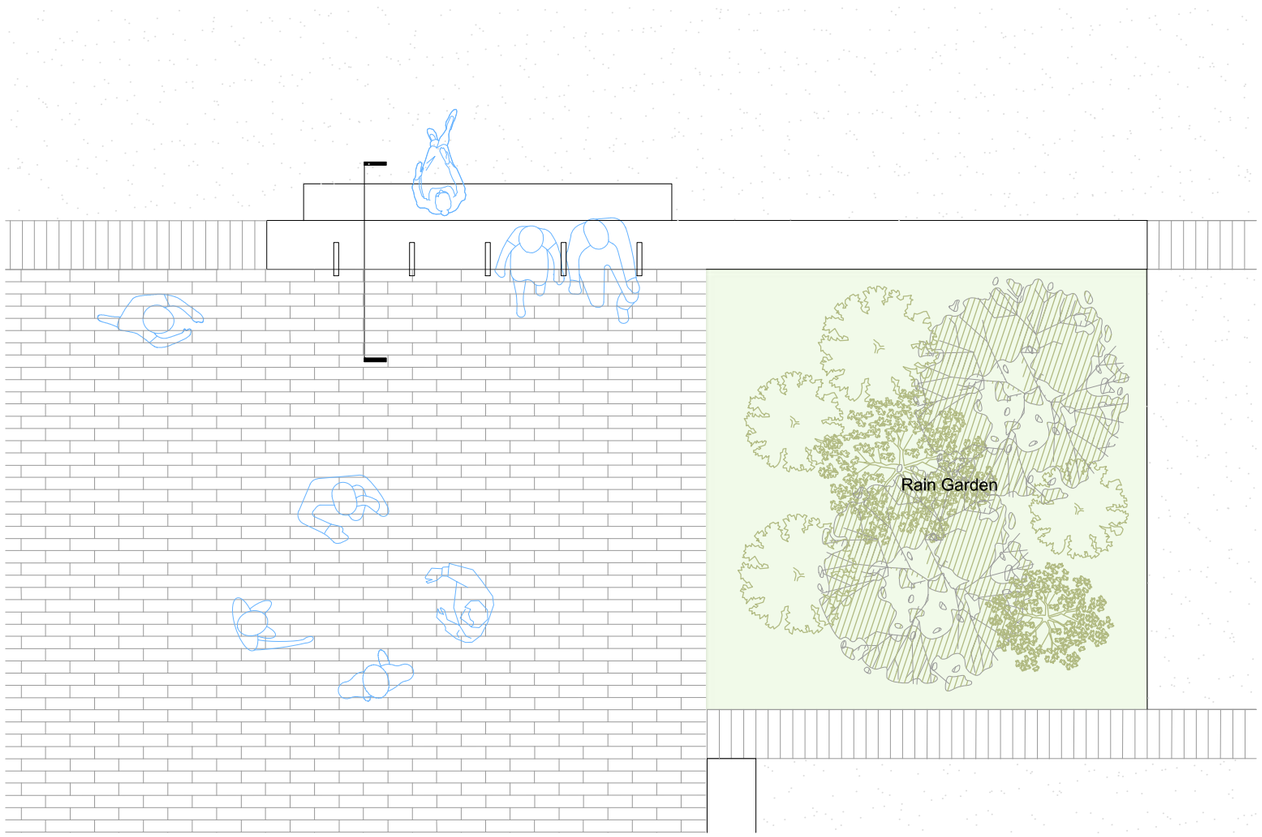
DRAWING NAME: USE AND DETAIL - SMALLER EVENTS	PROJECT: CARRIGALINE PUBLIC REALM	NOTES: REV A: FOOTBRIDGE OMITTED AND STEPPED BANK ADDED REV B: TREE POSITION ADJUSTED FOR VEHICLE TRACKING AND STEP TO VERGE EDGE CREATED TO ACCOMMODATE DISABLED & FAMILY CAR PARKING SPACES - 23/06/30	DATE: 01.09.23	SCALE: 1:200 @ A3	CLIENT: CORK COUNTY COUNCIL		ARCHITECT: John McLaughlin Architects 5 ADELAIDE STREET,DÚN LAOGHAIRE,CO. DUBLIN. www.johnmclaughlin.ie | +353 (01) 284 5175
			PROJECT NO.: 2007	STAGE: P8 PART 8	DRAWING NO.: 201	REV NO.: B	



PROPOSED BENCH ELEVATION - SCALE 1/50



PROPOSED BENCH SECTION - SCALE 1/20



PROPOSED BENCH PLAN - SCALE 1/50

BENCH PRECEDENT

DRAWING NAME	PROJECT	NOTES	DATE	SCALE	CLIENT	
USE AND DETAIL - PROPOSED SEATING	CARRIGALINE PUBLIC REALM	REV A: FOOTBRIDGE OMITTED AND STEPPED BANK ADDED	01.09.23	1:50 @ A3	CORK COUNTY COUNCIL	
			PROJECT NO.	STAGE	DRAWING NO.	REV NO.
			2007	P8 PART 8	203	A

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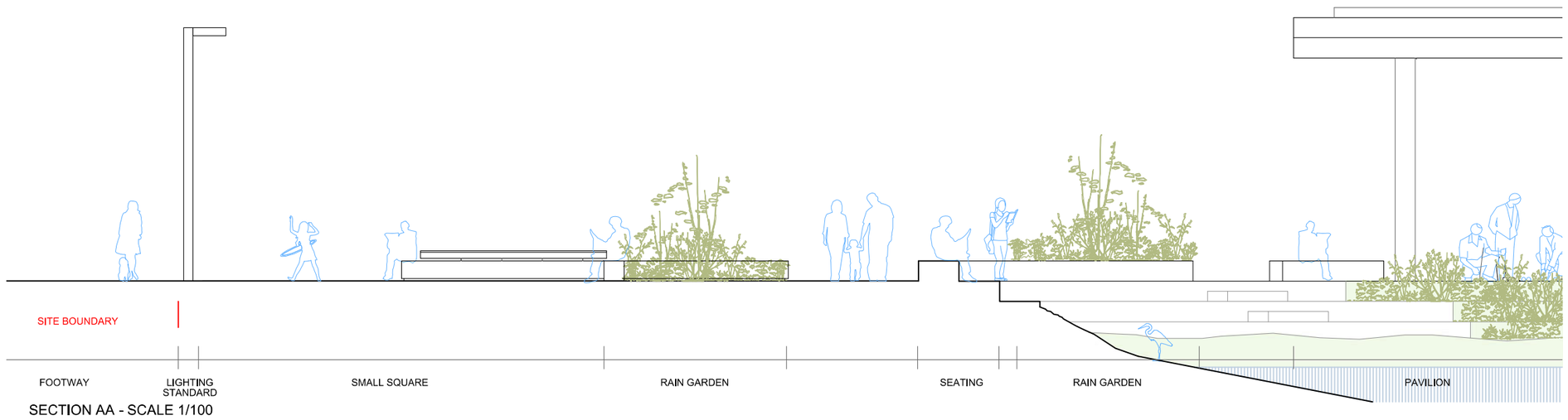
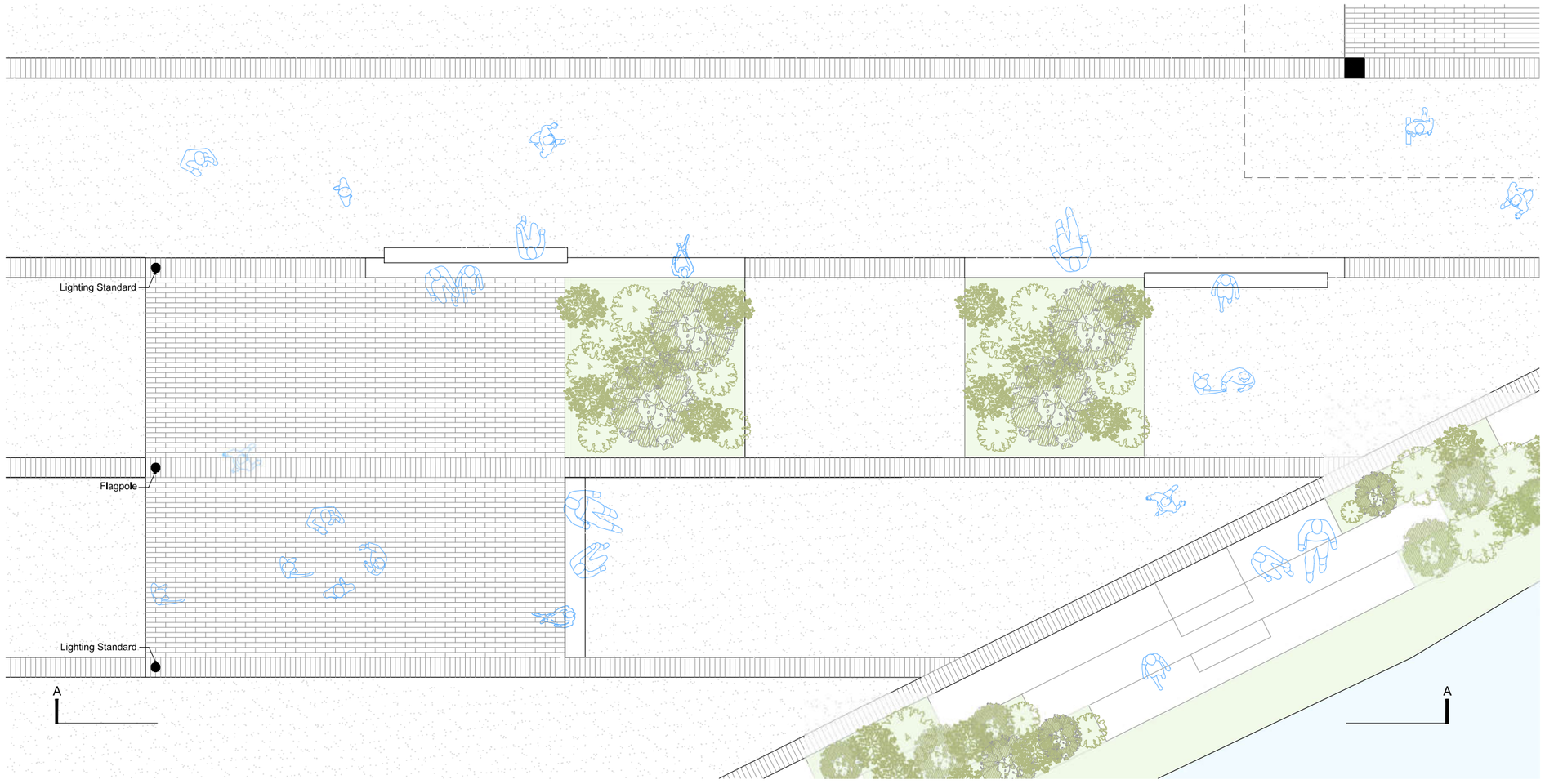
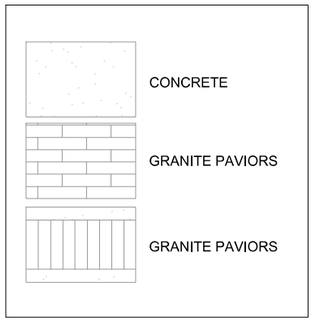


SECTION AA - SCALE 1/100



PROPOSED PLAN - SCALE 1/100



01 - GROUND SURFACES

02 - RAIN GARDEN

03 - CONCRETE / GRANITE

04 - GRANITE PAVERS

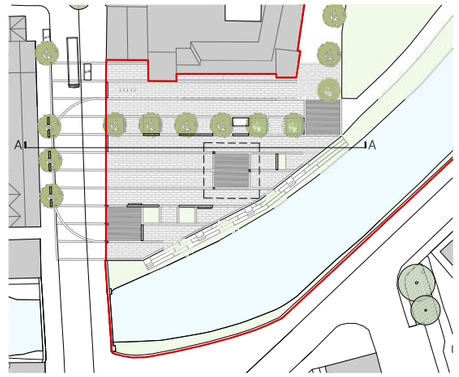
DRAWING NAME: PROPOSED TOWN SQUARE GROUND FINISHES	PROJECT: CARRIGALINE PUBLIC REALM	NOTES: REV A: FOOTBRIDGE OMITTED AND STEPPED BANK ADDED	DATE: 01.09.23	SCALE: 1:50 @ A3	CLIENT: CORK COUNTY COUNCIL		ARCHITECT: John McLaughlin Architects, 5 ADELAIDE STREET,DÚN LAOGHAIRE,CO. DUBLIN. www.johnmclaughlin.ie | +353 (01) 284 5175
			PROJECT NO.: 2007	STAGE: P8 PART 8	DRAWING NO.: 204	REV NO.: A	

LIGHTING STANDARD FOR TOWN SQUARE: WE-EF - AFL100 SERIES

LIGHTING BOLLARD FOR RIVERSIDE WALK: WE-EF - PSY400 SERIES

PROPOSED PLAN - SCALE 1/200

DRAWING NAME	PROJECT	NOTES	DATE	SCALE	CLIENT		ARCHITECT
PROPOSED LIGHTING PLAN	CARRIGALINE PUBLIC REALM	REV A: FOOTBRIDGE OMITTED AND STEPPED BANK ADDED REV B: TREE POSITION ADJUSTED FOR VEHICLE TRACKING AND STEP TO VERGE EDGE CREATED TO ACCOMMODATE DISABLED & FAMILY CAR PARKING SPACES - 23/06/30 REV C: LIGHTING STANDARD / BOLLARD REFERENCE ADDED- 23/09/01	01.09.23	1:200 @ A3	CORK COUNTY COUNCIL		John McLaughlin Architects 5 ADELAIDE STREET,DÚN LAOGHAIRE,CO. DUBLIN. www.johnmclaughlin.ie | +353 (01) 284 5175
			PROJECT NO. 2007	STAGE P8 PART 8	DRAWING NO. 205	REV NO. C	



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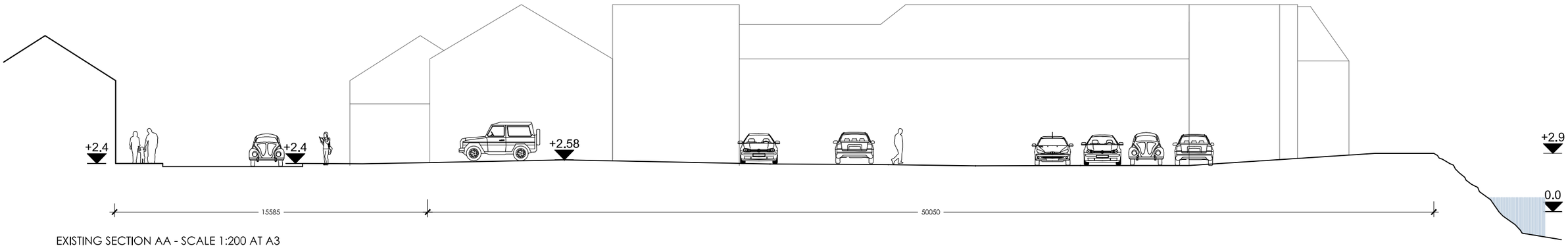
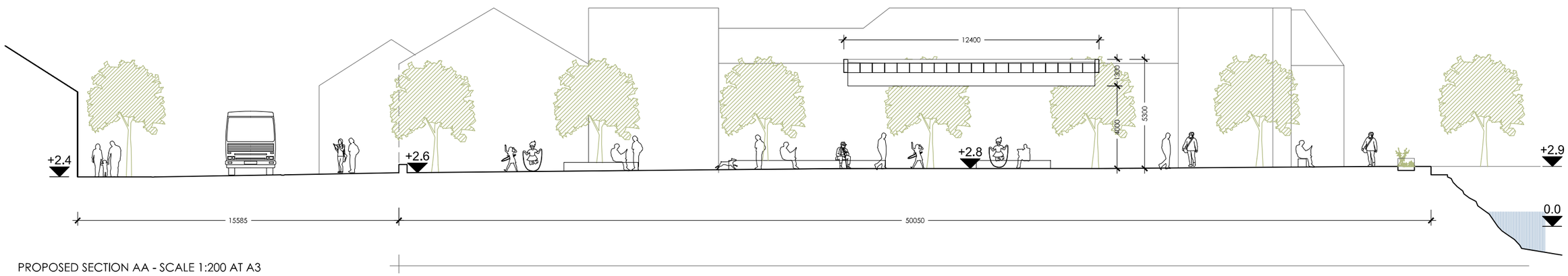


EXISTING SECTION AA - SCALE 1:200 AT A3

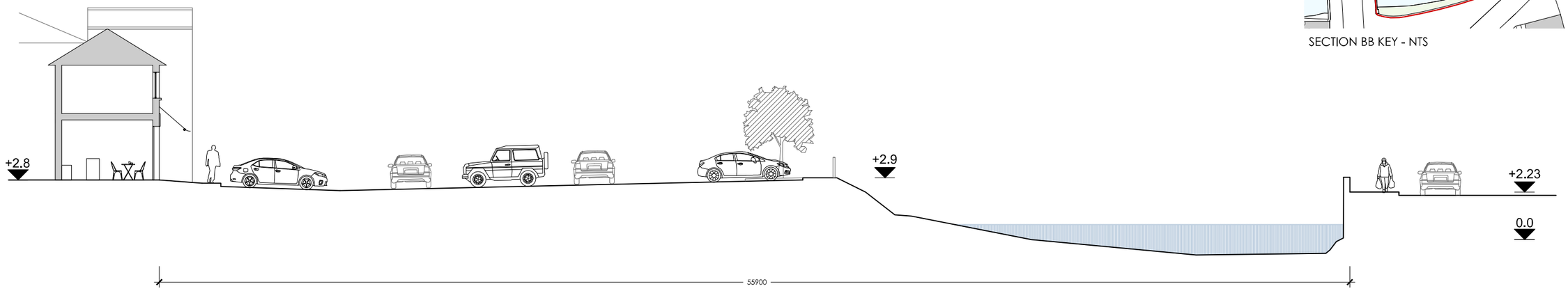


PROPOSED SECTION AA - SCALE 1:200 AT A3

SITE BOUNDARY

DRAWING NAME: EXISTING & PROPOSED SECTION AA	PROJECT: CARRIGALINE PUBLIC REALM	NOTES: REV A: FOOTBRIDGE OMITTED AND STEPPED BANK ADDED REV B: TREE POSITION ADJUSTED FOR VEHICLE TRACKING AND STEP TO VERGE EDGE CREATED TO ACCOMMODATE DISABLED & FAMILY CAR PARKING SPACES - 23/06/30 REV C: DIMENSIONS ADDED - 01/09/30	DATE: 01.09.23	SCALE: 1:200 @ A3	CLIENT: CORK COUNTY COUNCIL		ARCHITECT: John McLaughlin Architects 5 ADELAIDE STREET,DÚN LAOGHAIRE,CO. DUBLIN. www.johnmclaughlin.ie | +353 (01) 284 5175
			PROJECT NO.: 2007	STAGE: P8 PART 8	DRAWING NO.: 301	REV NO.: C	

SECTION BB KEY - NTS



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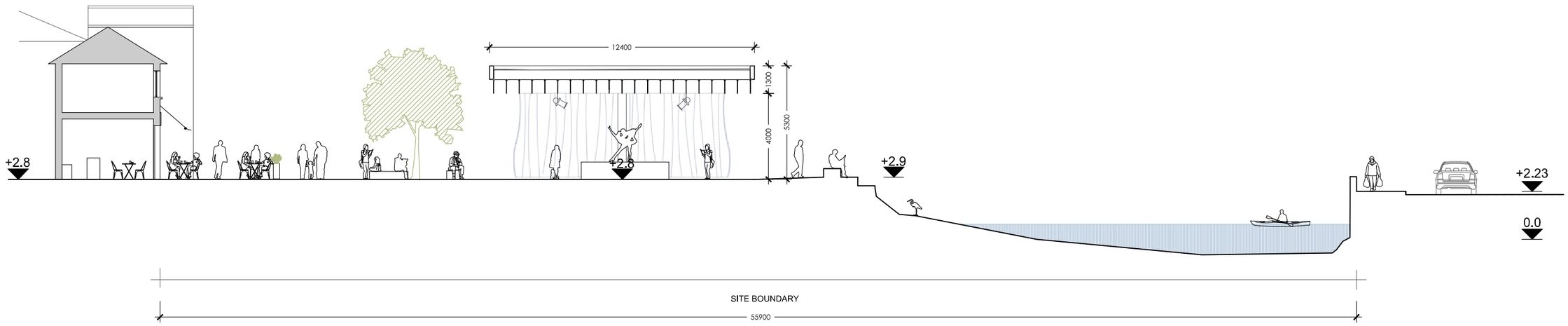
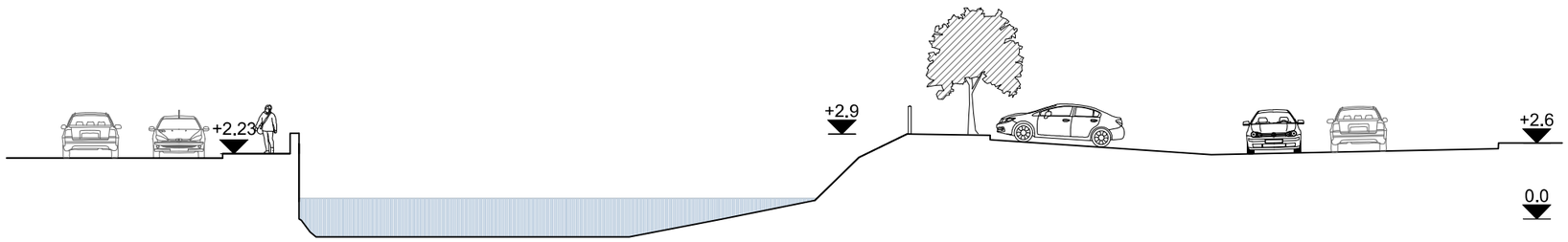


PROPOSED SECTION BB - SCALE 1:200 AT A3

DRAWING NAME: EXISTING & PROPOSED SECTION BB	PROJECT: CARRIGALINE PUBLIC REALM	NOTES: REV A: FOOTBRIDGE OMITTED AND STEPPED BANK ADDED REV B: DIMENSIONS ADDED - 01/09/30	DATE: 01.09.23	SCALE: 1:200 @ A3	CLIENT: CORK COUNTY COUNCIL		ARCHITECT: John McLaughlin Architects 5 ADELAIDE STREET,DÚN LAOGHAIRE,CO. DUBLIN. www.johnmclaughlin.ie | +353 (01) 284 5175
			PROJECT NO.: 2007	STAGE: P8 PART B	DRAWING NO.: 302	REV NO.: B	

SECTION CC KEY - NTS



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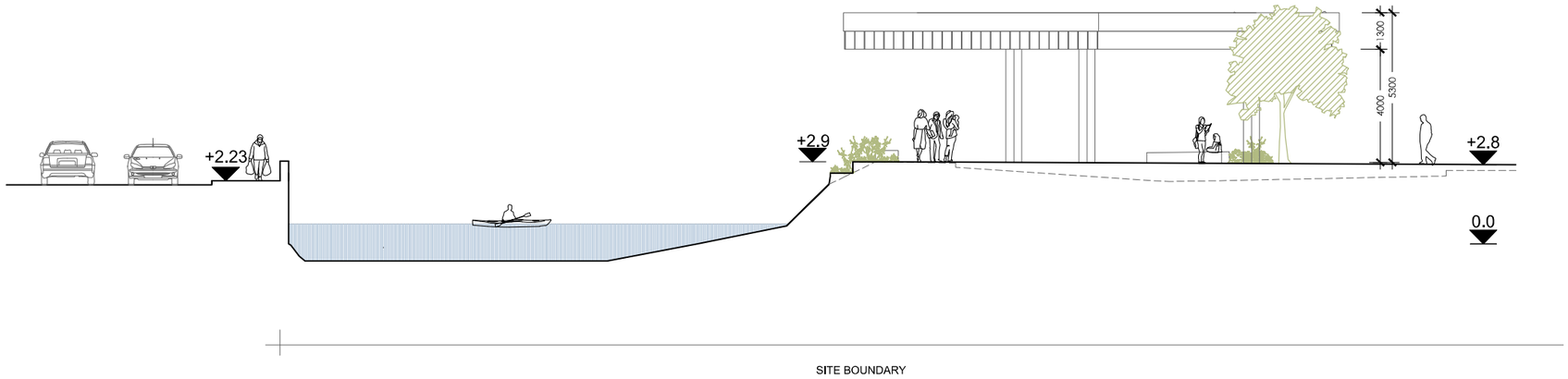

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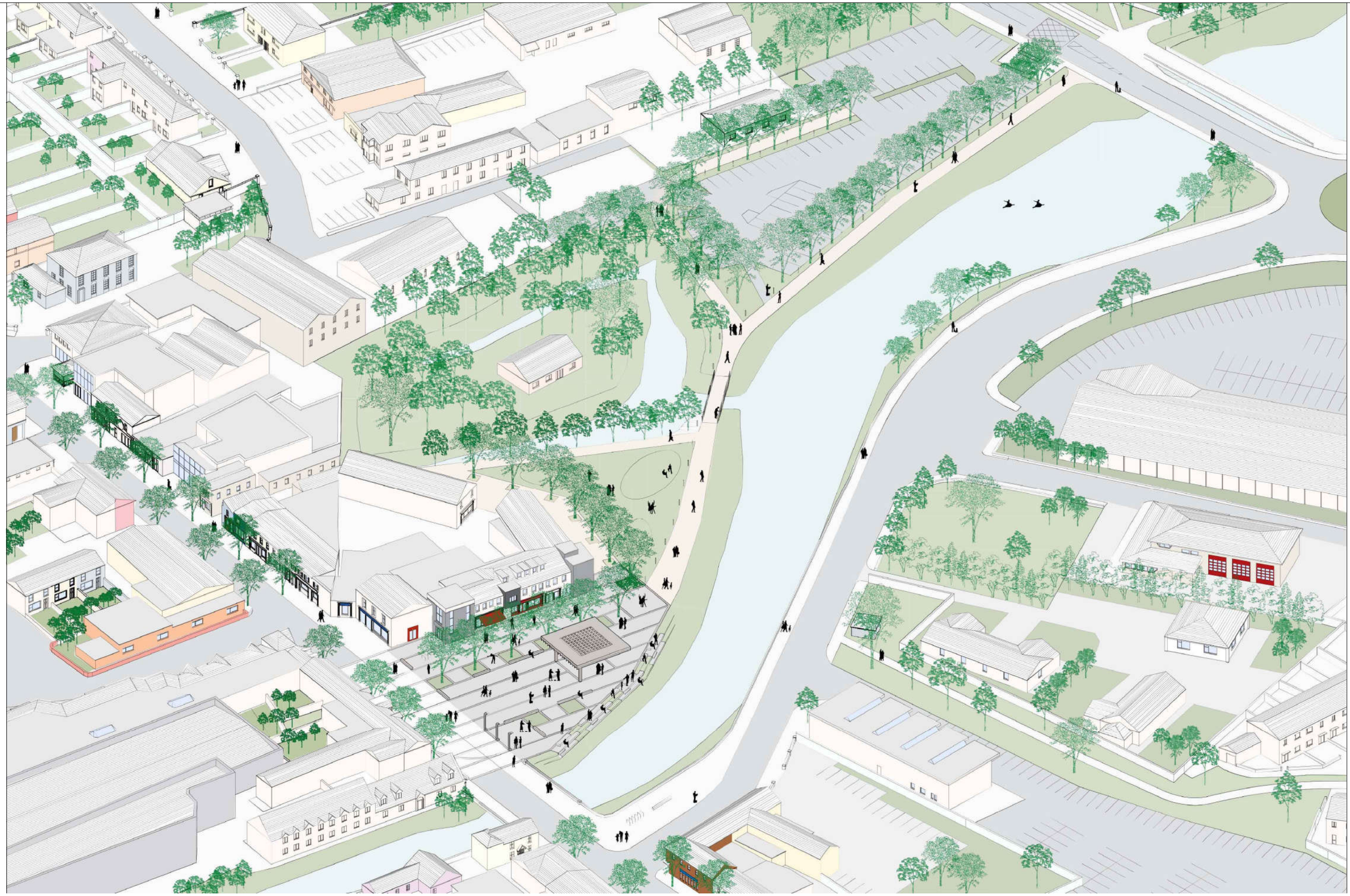
DRAWING NAME: EXISTING & PROPOSED SECTION CC	PROJECT: CARRIGALINE PUBLIC REALM	NOTES: REV A: FOOTBRIDGE OMITTED AND STEPPED BANK ADDED REV B: DIMENSIONS ADDED - 01/09/30	DATE: 01.09.23	SCALE: 1:200 @ A3	CLIENT: CORK COUNTY COUNCIL		ARCHITECT: John McLaughlin Architects 5 ADELAIDE STREET,DÚN LAOGHAIRE,CO. DUBLIN. www.johnmclaughlin.ie | +353 (01) 284 5175
			PROJECT NO.: 2007	STAGE: P8 PART B	DRAWING NO.: 303	REV NO.: B	



ISOMETRIC VIEWED FROM NORTH EAST - SCALE: NTS

DRAWING NAME	PROJECT	NOTES	DATE	SCALE	CLIENT	
ISOMETRIC VIEWED FROM NORTH EAST	CARRIGALINE PUBLIC REALM	REV A: PEDESTRIAN CROSSING REVISED TO CAR PARK B ENTRANCE - 25/09/23	01.09.23	NTS	CORK COUNTY COUNCIL	
			PROJECT NO.	STAGE	DRAWING NO.	REV NO.
			2007	P8 PART 8	401	A

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PERSPECTIVE VIEW OF MAIN STREET FROM BRIDGE - SCALE: NTS

DRAWING NAME	PROJECT	NOTES	DATE	SCALE	CLIENT	ARCHITECT
PERSPECTIVE VIEW OF MAIN STREET FROM BRIDGE	CARRIGALINE PUBLIC REALM		01.09.23	NTS	CORK COUNTY COUNCIL	John McLaughlin Architects 5 ADELAIDE STREET,DÚN LAOGHAIRE,CO. DUBLIN. www.johnmclaughlin.ie | +353 (01) 284 5175
			PROJECT NO. 2007	STAGE P8 PART 8	DRAWING NO. 402	REV NO.

PERSPECTIVE VIEW FROM SOUTH BANK (R612 ROAD) - SCALE: NTS

DRAWING NAME PERSPECTIVE VIEW FROM SOUTH BANK (R612 ROAD)	PROJECT CARRIGALINE PUBLIC REALM	NOTES	DATE 01.09.23	SCALE NTS	CLIENT CORK COUNTY COUNCIL		ARCHITECT John McLaughlin Architects 5 ADELAIDE STREET,DÚN LAOGHAIRE,CO. DUBLIN. www.johnmclaughlin.ie | +353 (01) 284 5175	
			PROJECT NO. 2007	STAGE **P8** PART 8	DRAWING NO. 403	REV NO.		

DAYTIME VIEW OF NEW TOWN SQUARE - SCALE: NTS

DRAWING NAME	PROJECT	NOTES	DATE	SCALE	CLIENT	ARCHITECT
DAYTIME VIEW OF NEW TOWN SQUARE	CARRIGALINE PUBLIC REALM		01.09.23	NTS	CORK COUNTY COUNCIL	John McLaughlin Architects 5 ADELAIDE STREET,DÚN LAOGHAIRE,CO. DUBLIN. www.johnmclaughlin.ie | +353 (01) 284 5175
			PROJECT NO. 2007	STAGE P8 PART 8	DRAWING NO. 404	REV NO.

NIGHT-TIME VIEW OF NEW TOWN SQUARE - SCALE: NTS

DRAWING NAME	PROJECT	NOTES	DATE	SCALE	CLIENT	ARCHITECT
NIGHT-TIME VIEW OF NEW TOWN SQUARE	CARRIGALINE PUBLIC REALM		01.09.23	NTS	CORK COUNTY COUNCIL	John McLaughlin Architects 5 ADELAIDE STREET,DÚN LAOGHAIRE,CO. DUBLIN. www.johnmclaughlin.ie | +353 (01) 284 5175

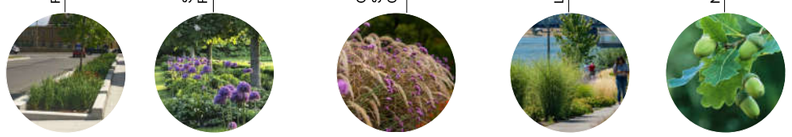
PROJECT NO.	STAGE	DRAWING NO.	REV NO.
2007	**P8** PART 8	405	

LEGEND

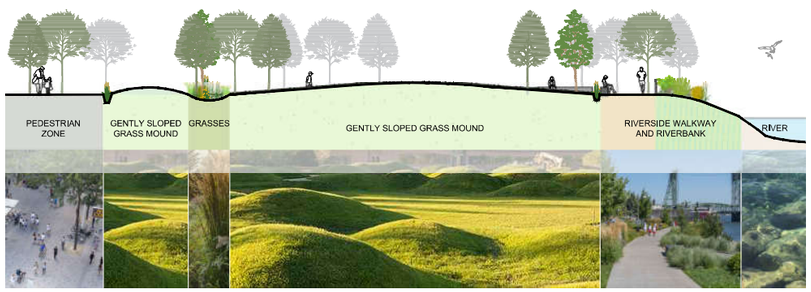
- PROPOSED NATIVE TREES
- EXISTING TREES
- PROPOSED LOWER RIPARIAN ZONE PLANTING
- RAIN GARDENS
- POLLINATOR FRIENDLY SHRUBS AND GROUND COVER
- POLLINATOR FRIENDLY GRASSES AND PERENNIALS some areas to be swaled
- PUBLIC AMENITY GRASS
- GRASS MOUNDS AND INFORMAL PATHS
- INFILTRATION CHANNELS
- RIVER
- RESIN BOUND GRAVEL
- PARKING PAVING
- CONCRETE PATH
- ASPHALT
- PLAZA PAVING
- PAVILION STRUCTURE
- STEPPED BANK
- SEATING
- BICYCLE PARKING
- SITE BOUNDARY

PLANTING SCHEDULE

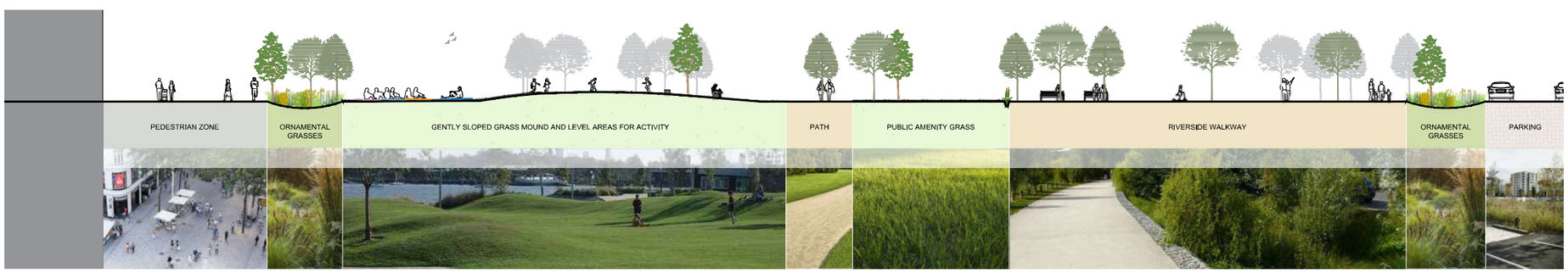
STREET TREES - NATIVE. All trees to have straight, unsupported leaders with symmetrical crowns.	**Height / girth**	**Qty.no**
Betula pendula	18-20cm gth. RB	15
Prunus padus	18-20cm gth. RB	9
Sorbus aucuparia	18-20cm gth. RB	9
OPEN SPACE TREES - NATIVE	**Height / girth**	**Qty.no**
Alnus glutinosa	16-18cm gth. RB	10
Betula pendula	18-20cm gth. RB	8
Corylus avellana	16-18cm gth. RB	6
Malus sylvestris	16-18cm gth. RB	6
Prunus avium	18-20cm gth. RB	8
PLAZA TREES - NATIVE	**Height / girth**	**Qty.no**
Alnus glutinosa	16-18cm gth. RB	3
Betula pendula	16-18cm gth. RB	2
POLLINATOR-FRIENDLY SHRUB AND GROUNDCOVER PLANTING- plant in groups of same species ranging from min. 5-15no. @5/m2	**Size**	**Qty. %**
Berberis darwinii	3L, PG	5
Elaeagnus angustifolia	3L, PG	5
Erysimum 'Bowles's Mauve'	3L, PG	20
Hebe sp.	3L, PG	10
Lavandula angustifolia 'Hidcote'	3L, PG	10
Prunus tenella	3L, PG	10
Rosmarinus officinalis	3L, PG	30
Salvia officinalis 'Purpurascens'	3L, PG	10
POLLINATOR-FRIENDLY ORNAMENTAL GRASSES AND PERENNIALS - plant in groups of same species ranging from min. 5-15no. @5/m2	**Size**	**Qty. %**
Geranium robertianum	2L, PG	10
Rudbeckia 'Goldstrum'	2L, PG	5
Calamagrostis 'Karl Foerster'	2L, PG	30
Carex comans	2L, PG	5
Deschampsia cespitosa	2L, PG	10
Libertia grandiflora	2L, PG	5
Liriope muscari	2L, PG	5
Dierama pulcherrimum	2L, PG	10
Stipa tenuissima 'Ponytails'	2L, PG	20
RAIN GARDEN PLANTING - plant in groups of same species ranging from min. 5-15no. @5/m2	**Size**	**Qty. %**
Ajuga reptans	2L, PG	10
Cardamine pratensis	2L, PG	20
Filipendula ulmaria	2L, PG	20
Geranium sp.	2L, PG	30
Lychnis flos-cuculi	2L, PG	20
LOWER RIPARIAN ZONE PLANTING - plant in groups of same species ranging from min. 5-15no. @5/m2	**Size**	**Qty. %**
Alisma plantago-aquatica	2L, PG	5
Caltha palustris	2L, PG	10
Carex pendula	2L, PG	20
Eleocharis palustris	2L, PG	5
Iris pseudacorus	2L, PG	30
Juncus effususis	2L, PG	30
GRASS SEEDING		**Qty.m2**
Amenity Grass. Supplier: Coburns amenity mix or as approved.		1415



SECTION B-BB



SECTION A-AA



NOTE: THIS DRAWING IS INTENDED FOR THE PURPOSE OF MAKING A PLANNING APPLICATION AND MAY NOT BE USED FOR ANY OTHER PURPOSE.

REV	DATE	AMENDMENT
A	2024-02-15	Updates

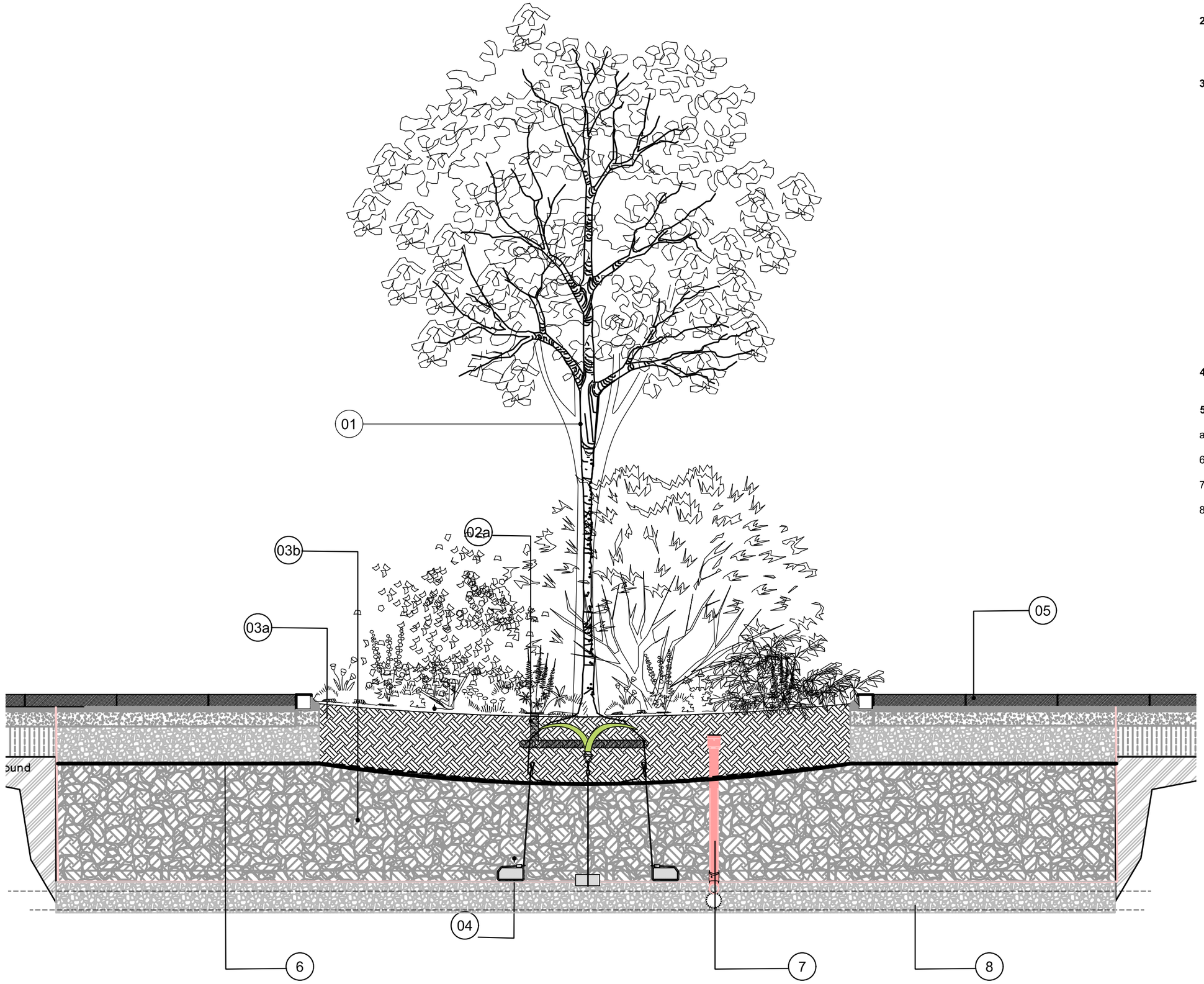
CUNNANE STRATTON REYNOLDS

LAND PLANNING & DESIGN

CORK OFFICE
COPLEY HALL COTTERS STREET CORK
TEL 021 496 9224 FAX 021 496 9012
EMAIL corkinfo@csrlandplan.ie

N

PROJECT: **CARRIGALINE PUBLIC REALM CO. CORK**	DATE: AUGUST 2023
	SCALE: 1:500 @ A1
DRAWING: **LANDSCAPE MASTER PLAN**	DRAWN: NPC CHECKED: JK
	DRAWING NO: **20424-2-101**



Rain Garden Detail 1:25

1. **Tree to have a clear stem height of 2000mm.**

2. **Irrigation**
   b) 6cm diameter perforated flexible plastic drainage pipe positioned as shown over rootball with one end open to surface to facilitate watering.

3. **Tree/shrub Pit**
   a) **Planting soil** composition; approved sandy loam.

   b) **Sturctural soil** composition; crushed rock with planting soil.

- Loosening of subsoil to a depth of 200mm
- The crushed rock (100-150 mm crushed rock) is laid out in 250-300 mm layers and compressed by at least four passes. It is very important that the crushed rock is packed down before the soil is applied
- The soil is applied in layers of 20 mm thickness and watered into the structural volume (crushed rock). Use small amounts of water and high pressure.
- More planting soil is added and watered in until the crushed rock is saturated. Around 25-30%of planting soil can be accommodated in the structural soil volume (10 m3 crushed rock = 2.5-3 m³ soil).
- The crushed rock in the filled layer should still be visible when the next layer of crushed rock is ap plied. This is to avoid compaction of the planting soil.
- Slow-release fertiliser 100 gr/m² (= one handful/m2) is applied on each structural layer.

4. **Tree Support**
   Deadman archor system

5. **Paved Surface**
   edges to rain garden to be flush and haunched in concrete around opening

6. **Geotextile**

7. **Rain garden overflow pipe**

8. **Perforated drainage pipe** to main drainage system

NOTE: THIS DRAWING IS INTENDED FOR THE PURPOSE OF MAKING A PLANNING APPLICATION AND MAY NOT BE USED FOR ANY OTHER PURPOSE.

REV	DATE	AMENDMENT

CUNNANE STRATTON REYNOLDS
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N

PROJECT: **CARRIGALINE PUBLIC REALM CO. CORK**	DATE: AUGUST 2023
	SCALE: 1:25 @ A3
DRAWING: **RAIN GARDEN DETAIL**	DRAWN: MDM CHECKED: DL
	DRAWING NO: **20424-2-901**

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2200 Cork Airport Business Park
Cork
T12 R279

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