



Lucan Public Realm

Liffey Promenade & Demesne Park
Entrance

Environmental Impact Assessment
Screening

Doherty Environmental Consultants Ltd

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Lucan Public Realm

Liffey Promenade & Demesne Park Entrance

EIA Screening

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1.0 INTRODUCTION

South Dublin County Council have commissioned Doherty Environmental Consultants (DEC) Ltd. to complete a Screening for Environmental Impact Assessment (EIA) for proposed public realm enhancement works to the Liffey Promenade and the Demesne Park Entrance at Lucan, Co. Dublin. The location of the Liffey Promenade and the Demesne Park Entrance are shown on Figure 1.1 below while an aerial image of both locations are shown on Figure 1.2 and 1.3.

The findings of this Screening for the proposed public realm project are presented in this report.

2.0 LEGISLATIVE CONTEXT

EIA requirements derive from EU Directive 85/337/EEC (as amended by Directive 97/11/EC, Directive 2014/52/EU and S.I. 454 of 2011; S.I. 464 of 2011; S.I. 456 of 2011; S.I. No. 296 of 2018) on the assessment of the effects of certain public and private projects on the environment. The purpose of this EIA Screening Report is to determine whether this proposed development has the potential to result in likely significant effects to the environment.

The prescribed classes of development and thresholds or criteria that trigger the need for an EIA are set out in Schedule 5 of the Planning and Development Regulations, 2001, as amended. A review of the classes of development listed in Schedule 5, Part 1 was carried out to determine whether the project falls into any of the development classes that are listed in Part 1 and which require an EIA. The project does not fall into any of the classes described in Schedule 5, Part 1 of the Planning and Development Regulations, 2001, as amended.

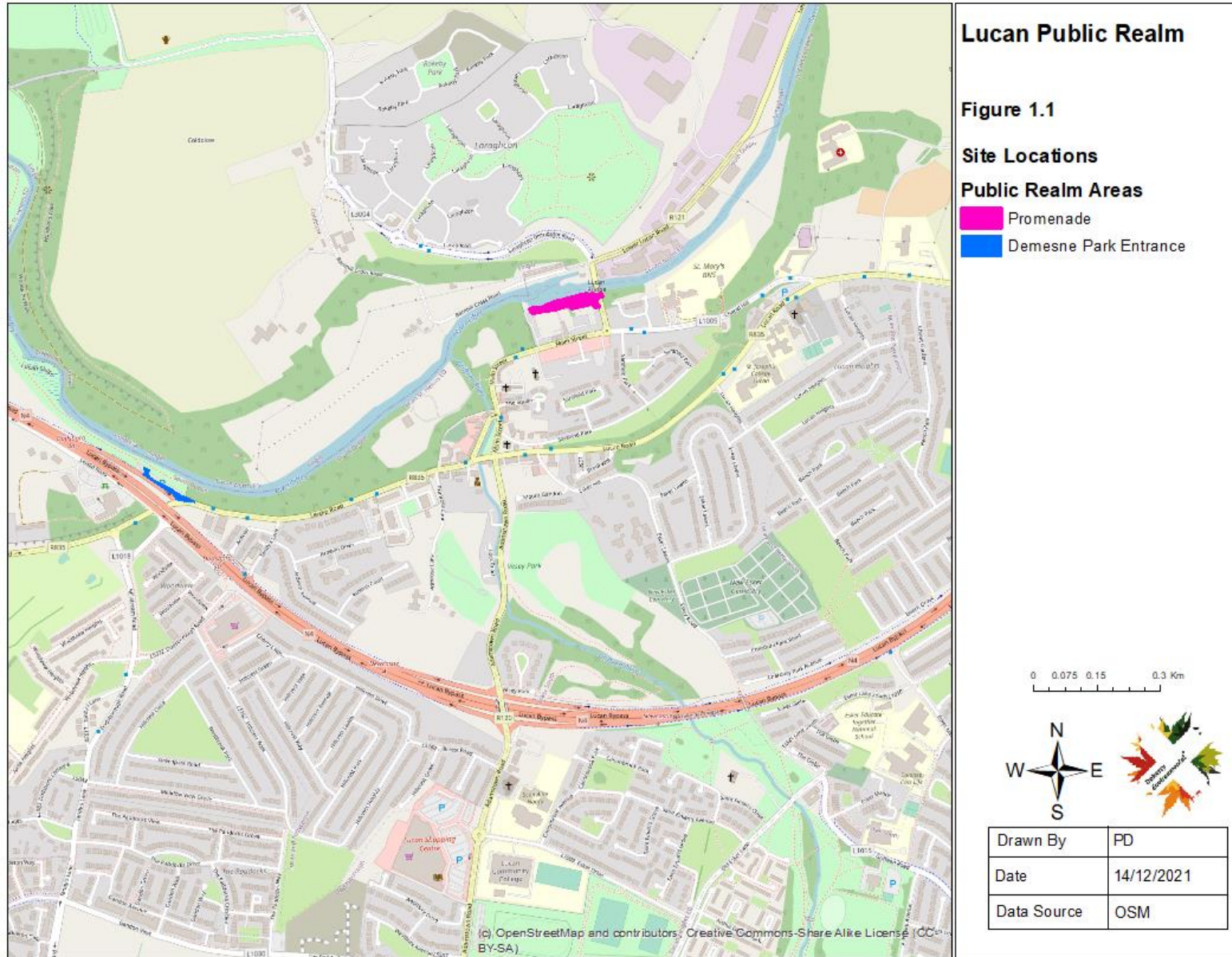
A review of the classes of development listed in Schedule 5, Part 2 was carried out to determine whether the project falls into any of the development classes that are listed in Part 2 and which require an EIA. The proposed urban realm project does not fall under any of the classes of development listed under Class 1 to 9 of Part 2. Particular attention was given to establish whether the project falls under any of the development types described under Class 10 Infrastructure projects or Class 11 Other Projects. Of the infrastructure project described under Class 10, the project is most closely linked to the description of “urban development” which is described under Class 10(b)(iv) as follows “Urban Development which would involve an area greater than 2 hectares in the case of a business district, 10 hectares in the case of other parts of a built-up area and 20 hectares elsewhere”. Given that the urban realm project is located within

a built-up area that is not a business district and amounts to a total of 0.45 Ha in size it does not exceed the 10 Ha threshold set for urban development project is such areas and as such it does not fall under Class 10(b)(iv).

Given that the project will also comprise demolition works associated with the removal of an existing stairs at the Liffey Promenade and the removal of existing tarmac and walls at the Demesne Park Entrance attention was also given to establishing whether or not the project falls under Part 2, Class 14 Works of Demolition. The demolition works associated with the project are minor in scale and comprise the demolition of the existing stairs at the Liffey Promenade and the removal of small areas of tarmac as well as a small section of wall. The works associated with the demolition activities will be small in scale and will be completed over a short timeframe and will not result in significant effects on the environment and as such the requirement for EIA is not triggered under Class 14 from Part 2 of Schedule 5 of the Regulations.

Given that the project does not fall under a class of development listed in Part 1 or Part 2 of Schedule 5 the need for a mandatory EIA has therefore not been triggered under the requirements of the Planning and Development Regulations, 2001, as amended.

In light of the above it is clear that the proposed development does not fall under any of the thresholds specified in the Regulations and is therefore a “sub-threshold” development project. The purposes of this screening report is to provide information to assist with a determination as to whether or not the project falls under Part 2, Class 15 of Schedule 5. Class 15 requires EIA for any project listed in Part 2 that does not exceed a quantity, area or other limit specified in this Part in respect of the relevant class of development but which would be likely to have a significant effect on the environment, having regard to the criteria set out in Schedule 7.






Lucan Public Realm

Figure 1.3

Aerial View of the Demesne Park Entrance Public Realm Areas

 Demesne Park Entrance

0 0.0075 0.015 0.03 Km



Drawn By	PD
Date	14/12/2021
Data Source	Bing

According to European Commission Guidance (2017¹)

“Screening has to implement the Directive’s overall aim, i.e. to determine if a Project listed in Annex II is likely to have significant effects on the environment and, therefore, be made subject to a requirement for Development Consent and an assessment, with regards to its effects on the environment. At the same time, Screening should ensure that an EIA is carried out only for those Projects for which it is thought that a significant impact on the environment is possible, thereby ensuring a more efficient use of both public and private resources. Hence, Screening has to strike the right balance between the above two objectives.”

Recent guidelines from the Department of Housing, Planning and Local Government (2019)² in relation to EIA screening state:

“3.1. Screening is the initial stage in the EIA process and determines whether or not specified public or private developments are likely to have significant effects on the environment and, as such, require EIA to be carried out prior to a decision on a development consent application being made. A screening determination is a matter of professional judgement, based on objective information relating to the proposed project and its receiving environment. Environmental effects can, in principle, be either positive or negative.

3.2. Screening must consider the whole development. This includes likely significant effects arising from any demolition works which must be carried out in order to facilitate the proposed development. In the case of transboundary developments, screening must consider the likely significant effects arising from the whole project both sides of the boundary. A screening determination that EIA is not required must not undermine the objective of the Directive that

¹ **Environmental Impact Assessment of Projects Guidance on Screening (Directive 2011/92/EU as amended by 2014/52/EU). European Commission 2017. Page 23.**

² **Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment**

no project likely to have significant effects on the environment, within the meaning of the Directive, should be exempt from assessment.”

The Environmental Protection Agency (EPA) Guidelines on the Information to be Contained in Environmental Impact Assessment Reports (2017) also provide guidance with respect to the screening of projects for EIA. This guidance noted that “where a project is of a specified type but does not meet, or exceed, the applicable threshold then the likelihood of the project having significant effects on the environment needs to be considered.....This is done by reference to the criteria specified in Annex III of the amended Directive”.

Annex III of the EIA Directive (as amended)/Schedule 7 to the Planning and Development Regulations 2001, as amended, lists the criteria for determining whether a project should be subject to EIA.

Annex IIA of the EIA Directive (as amended)/Schedule 7A to the Planning and Development Regulations, 2001, as amended, set out the information to be provided for the purposes of EIA Screening. The information set out in Schedule 7A is grouped together under 3 main headings:

Annex IIA requirements	Relevant section of this screening report
A description of the project, including in particular – a description of the physical characteristics of the whole project and, where relevant, of demolition works, and a description of the location of the project, with particular regard to the environmental sensitivity of geographical areas likely to be affected	Section 3 of this Report describes the characteristics of the project and provides an assessment against the criteria contained in Schedule 7A under this category heading
A description of the aspects of the environment likely to be significantly affected by the project	Section 4 of this Report describes the aspects of the environment that may be affected by the project
A description of any likely significant effects, to the extent of the information available on such effects, of the project on the environment resulting from— (a) the	Section 5 of this Report describes the characteristics of the project and provides an

expected residues and emissions and the production of waste, where relevant, and (b) the use of natural resources, in particular soil, land, water and biodiversity	assessment against the criteria contained in Schedule 7A under this category heading.
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3.0 CHARACTERISTICS OF THE PROPOSED DEVELOPMENT

3.1 OVERVIEW

3.2 LIFFEY PROMENADE

3.2.1 *Extent of the works:*

The site area extends from Lucan Bridge to the east to the steps and landing at the end of Watery Lane on the western end, and from the Liffey edge to the site boundary on the southern side, including the access route to the river edge from the rear of the Mall properties. It includes a related but separate area at the junction of Watery Lane and the Mall/Main Street.

No changes are proposed to the existing promenade pathway and river edge steps.

Most of the changes being proposed relate to additional landscaping and planting apart from the addition of a new external stairway from the Bridge to the river level. The works for this stairway and for the Watery Lane junction have already been approved under a previous Part 8 and therefore do not form part of this assessment.

3.2.2 *Nature of Works*

1. The construction of a set of landscaped steps, retaining walls and railings from the current access point at bridge level to the end of the bridge wall at river level. The stairway is configured as a series of short flights with landings along its lower half followed by a longer flight and dog-leg return for the upper half. Retaining walls and seating are clad in black limestone and the steps and landings are concrete with a resinbond finish (as per Part 8 drawing 01 by SDCC/2015).
2. New concrete paving to the footpath ends and carriageway at the entrance to Watery Lane, and a new tree on its western side (as per Part 8 drawing 01 by SDCC/2015).

3. Some modifications to the steps at the western end of the Promenade will be made to form a series of seats facing the weir. These seats will be finished in black marble, just like the seats along the steps at the Bridge end.
4. The relandscaping of the area between the existing promenade path and the southern boundary. All existing trees are being retained and approx. 25 no. new trees and shrubs are being planted along this edge. These are native deciduous varieties such as Elm, Birch and Alder, in keeping with existing and traditional species found in this Liffey Valley habitat.
5. A number of natural stone benches are proposed along the edge of the Promenade, sitting on a reinforced grass finish having a backdrop of wildflower meadow.
6. An adjustment of the arrival point of the access route beside the Promenade is proposed in order to allow the construction of the landscaped steps at their connection with the promenade path. Any connection between the bottom of these steps and the Promenade will be made using the same materials and finish as the Promenade path.
7. One of the existing lighting poles is being moved a few metres to the east where it clashes with this redirected access path. It is proposed to add a series of service point pop-ups along the southern edge of the Promenade path to enable to space to function as an open-air market, or for organized community events, performances etc.

3.2.3 Design Rationale

These proposals are an attempt to do as little as possible but just as much as is necessary to this popular amenity spot. The improved planting and landscaping will provide some inflection of the very artificial lines of the Promenade path while defining informal ‘break-out’ areas for small group gatherings or intimate conversation. These spaces still face out towards the Promenade and are quite visible from it as well as from the Bridge so that overlooking discourages anti-social behaviour.

The provision of service points for seasonal markets or performances etc. aims to provide more flexibility of uses. There is sufficient width on the Promenade (approx. 6m) to accommodate the space for stalls. Figure 3.1 illustrate the proposed works to be completed at the Liffey Promenade.

Figure 3.1: View of extent of public realm works at the Liffey Promenade



3.3 DEMESNE PARK ENTRANCE

3.3.1 Extent of the works

The site stretches from its connection with the footpath (from Lucan) at its eastern end to the demesne park access gates at the western end. It is bordered by the N4 slip road and its junction with the Lucan Road on its southern side and by the Demesne park boundary wall and woodland on its northern edge. It is worth adding that this boundary wall, in rubble stone, forms a continuous line from Lucan town centre to the demesne entrance although it is replaced with block and then block with stone facing from the point where it meets the Tobermaclugg stream (which is culverted under the site). A waste water pumping station is located along this boundary immediately to the west of this stream.

3.3.2 Description of the works

1. Releveling of the landing/entrance area outside the pedestrian access gates to the Park to provide a continuous, consistent level across the works area (the level rises steadily from east to west). This landing area is to be paved in concrete paviours or similar.
2. Construction and installation of a box-section painted steel portal to mark this pedestrian entrance from the eastern approaches.
3. Construction of a circular paved area (diam. 17.5m approx.) at the widest point of the site (opposite N4 Underpass). A length of existing wall in plastered block which the circle intersects on the northern side is to be removed and replaced with a circular

concrete wall and seat. A foundation is to be provided towards the centre of the circular area for a piece of public art (to be commissioned separately to this Part 8).

4. A length of existing wall in block with stone facing (approx. 12.5m) immediately to the east of the pedestrian entrance is to be removed.
5. Fabrication and installation of a painted steel railing the same height as the existing demesne wall, from the circular paved area as far as the pedestrian entrance.
6. The provision of masonry bench-seating to both paved areas.
7. The provision of landscaping to the N4 boundary consisting of shrubs and hedges, a pair of deciduous trees and an area of wildflower meadow.
8. The removal of existing tarmac surfacing and the resurfacing of the non-paved areas in a Ballylusk gravel or similar.
9. The installation of 3 no. retractable bollards at the eastern end of the site, the installation of a series of bicycle stands at this location too.

3.3.3 Design rationale

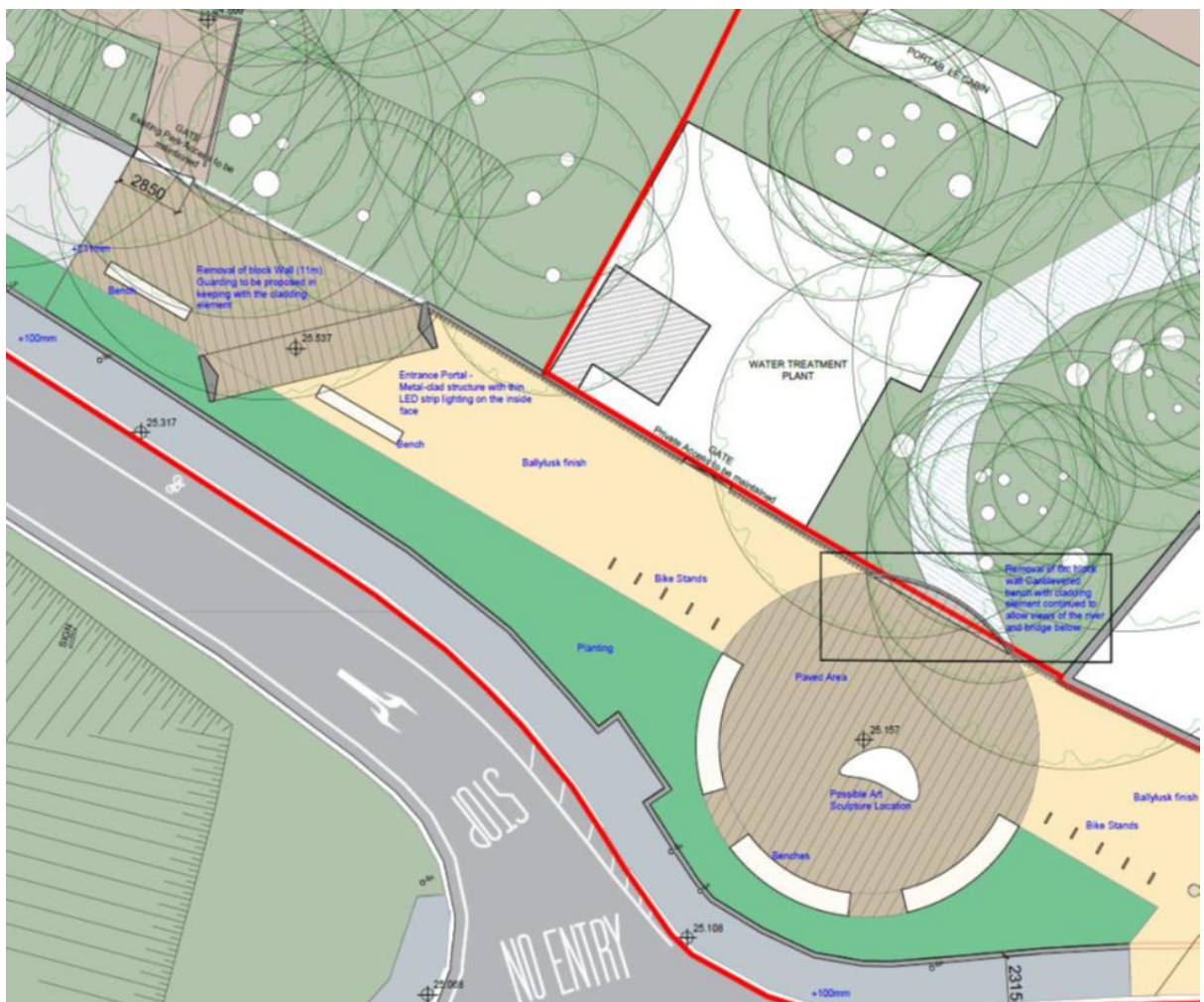
The design intention here is to create a sense of place in contrast to the relative anonymity of the current receiving environment, as well as a wayfinding point that marks both the Demesne Park entrance and the western ‘gateway’ to Lucan village. The ad-hoc car park currently occupying the site is being moved across the Lucan Road (as a separate Part 8 application) so that pedestrian, cycle and canoe/kayak users will have unrestricted access to the Park entrance. A set-down area for club vans and trailers is provided at the eastern end of the site. Maintenance and emergency vehicle access is provided by means of a line of removable bollards and by the clear dimensions of the steel portal (4.5 x 4.5m).

The demesne wall which is such an important link to Lucan village centre becomes a visual barrier to as one approaches the entrance. It also serves to hide occasional anti-social behaviour around the Tobarnaclugg bridge and water treatment plant within the Park area below. By removing portions of the wall here the intention is to make park users feel safe as they approach it by providing overlooking of the woodland from the entrance approaches. This is achieved by removing the wall where the circular plaza cuts into it and by replacing it from the entrance portal onwards by means of a metal lath fence which provides good visibility into the woodland. This metal fence is used to screen the existing surfaces of wall to the treatment plant area where

it is not proposed to open up the views. In this way the same element as a fence or as a screen will provide a sense of unity and continuity to this boundary.

This circular plaza will be framed by a pair of trees facing the N4 Underpass (R835) and is intended to accommodate a piece of public art. It will act as a staging point for groups of cyclists, walkers and river users. Car parking is available across the road and accessed via a controlled crossing. A dense band of vegetation consisting of Hydrangea, Cherry Laurel and Wild Plum screens the site area from the slip road. Figure 3.2 provides an illustration of the proposed works at the Demesne Park Entrance.

Figure 3.2: View of the extent of public realm works at the Demesne Park Entrance



3.4 ASSESSMENT OF THE CHARACTERISTICS OF THE PROPOSED DEVELOPMENT

An assessment of the potential characteristics of the Proposed Development as described above against the criteria outlined in Schedule 7 of the Planning and Development Regulations 2001 to 2018 are outlined in Table 2.1 below and conclusion and rationale is provided to determine whether these characteristics have the potential to result in likely significant effects to the environment.

Table 3.1: Characteristics of the Proposed Development

Screening Question	Response
1. Characteristics of projects The characteristics of projects must be considered, with particular regard to:	
(a) the size and design of the whole project	<p>The project is less than 0.5 Ha in size. All construction works will be restricted to the footprint of the project site and are expected to be completed over a short-term duration.</p> <p>The project site is urban in nature and is comprised of existing streets and footpaths. The project will refurbish paved/tarmac areas within the project footprint with the aim of enhancing the overall aesthetic quality of the area. The project will provide upgrades for landscaping that will enhance the visual amenity of the Liffey Promenade and the Demesne Park Entrance. Once completed the land cover within the project footprint will be comprised of a similar nature i.e. paving, stairs and soft landscaping, to the existing land cover.</p>
(b) cumulation with other existing and/or approved projects;	<p>The project works are very minor in scale. There are no other projects occurring in the immediate vicinity of the public realm works and given the minor scale of the project there will be no potential for the project to result in cumulative negative impacts to the receiving environment.</p>

Screening Question	Response
<p>1. Characteristics of projects The characteristics of projects must be considered, with particular regard to:</p>	
<p>(c) the nature of any associated demolition works</p>	<p>Demolition works will comprise the removal of the existing stairs from the bridge at the Liffey Promenade to the promenade level. The demolition works at the Liffey Promenade have been grant planning permission under a previous Part VIII planning application. Demolition works at the Demesne Park Entrance will comprise the removal of tarmac and the removal for small sections of stone walls.</p> <p>The demolition will be minor in scale and will not have the potential to generate emissions such as noise, vibration, air or water that will be perceptible in the surrounding environment or that will have potential to result in significant negative environment effects.</p> <p>The demolitions works at both the Liffey Promenade and the Demesne Park Entrance will be completed over a short timeframe.</p>
<p>(d) the use of natural resources, in particular land, soil, water and biodiversity;</p>	<p>Construction related activities will be restricted to the footprint of the project site. Minor amounts of soil will be required for landscaping elements (i.e. tree boxes etc.) associated with the project. Only inert soil, that is guaranteed to be free of contaminants, will be used for landscaping.</p> <p>Any water required for the construction phase and operation phase of the project will be supplied by the existing mains water supply. Irish Water has confirmed that there is adequate water to meet the future needs of the project.</p> <p>Natural resources in the form of hydrocarbons will be required for energy and electricity during the construction phase and operation phase of the project. Other building raw materials will be required during the construction phase. However the natural resources required will be small in scale and are typical of those required for public realm improvement project and there provision will not have the potential to result in significant negative effects.</p>

Screening Question	Response
<p>1. Characteristics of projects The characteristics of projects must be considered, with particular regard to:</p>	
<p>(e) the production of waste;</p>	<p>Solid inert waste in the form of soil and stone will be produced during construction. Any wastes from the construction process will either be reused within the scheme, or recycled/disposed of at an authorised waste facility. During the construction phase the waste management hierarchy will be implemented onsite, which prioritises the prevention and minimisation of waste generation.</p>
<p>(f) pollution and nuisances;</p>	<p>The works at the stairs will not have the potential to result in the generation of contaminated surface water runoff that could undermine the water quality of the River Liffey. Only minor quantities of fuels and other aqueous construction solutions will be held on site and these will be contained in bunded and secured containers held within a mobile COSHH store on site.</p> <p>All concrete materials to be used will be precast while only minor quantities of mortar will be used and will be mixed in small quantities as necessary and applied by hand.</p> <p>Given the small scale nature of the urban realm works and the location of the works which will be buffered from the River Liffey at the Liffey Promenade by a minimum distance of 5m and will be buffered from the river at the Demesne Park Entrance by a minimum distance of 20m there will be no potential for the project works to result in interactions with the river.</p> <p>The public realm works will not have the potential to result in nuisance to surrounding receptors as a result of noise, vibrations and dust generated during works.</p> <p>All works at the Liffey Promenade will be minor in scale. The demolition of the existing stairs is predicted to be completed over short timeframe and will involve low number of plant equipment and personnel..</p>

Screening Question	Response
<p>1. Characteristics of projects The characteristics of projects must be considered, with particular regard to:</p>	<p>The construction of the new stair is predicted to be completed over short timeframe and will involve low number of plant equipment and personnel.</p> <p>The works at the Demesne Park Entrance are predicted to be completed over short timeframe and will involve low number of plant equipment and personnel.</p> <p>These works will not result in the generation of noise, vibration or dust that could pose a nuisance to surrounding receptors or a change in baseline noise, vibration or air quality conditions.</p> <p>In addition and in order to further minimise any potential for noise and vibration nuisance mitigation measures will be implemented during the construction phase. These measures will adhere to the best practice guidelines outlined in BS5228: Code of Practice for Noise and Vibration Control on Construction and Open Sites – Part 1 Noise (2009 + A1 2014). These standard guidelines offer detailed guidelines on the control of noise and vibration from construction activities. The following mitigation measures will be implemented during the construction phase of the proposed development to ensure noise and vibration limit values are complied with:</p> <ul style="list-style-type: none"> • The hours during which site activities are likely to create high levels of noise will be limited to a set time period; • During the construction phase a clear line of communication will be established between the contractor/developer, Local Authority, businesses and residents; • A site representative will be appointed to take responsibility of all matters relating to noise and vibration; • Plant and machinery with low inherent potential for generating noise and/ or vibration will be selected for construction.

Screening Question	Response
<p>1. Characteristics of projects The characteristics of projects must be considered, with particular regard to:</p>	
	<p>Best practice mitigation measures will be put in place to minimise adverse effects. All relevant best practice measures outlined in the guideline prepared by Dublin City Council's Air Quality Monitoring and Noise Control Unit's Good Practice Guide for Construction and Demolition³ will be implemented during the construction phase of the project.</p> <p>In light of the above and the implementation of these measures it is predicted that the nuisance impact of noise, vibration and air generated during the construction phase will be of a short-term, imperceptible, negative nature.</p>
<p>(g) the risk of major accidents and/or disasters which are relevant to the project concerned, including those caused by climate change, in accordance with scientific knowledge;</p>	<p>The construction phase of the project will operate to standard HSE operating procedures and guidelines. The risk of a major accident or disaster occurring is considered to be negligible. Provided that all measures outlined in this report for the project are implemented and that all associated building and environmental regulations are adhered to it is not that the project will not have the potential to result in a major accident or disaster.</p>
<p>(h) the risks to human health (for example due to water</p>	<p>Project is considered to be small in scale and will require only minimal quantities of potentially polluting substances during the construction phase. These substances will be largely comprised of typical construction materials such as hydrocarbons, cements, lubricants etc. Such materials will be held in securely banded containers in a mobile</p>

³ **Guide** available at <http://www.dublincity.ie/sites/default/files/content/WaterWasteEnvironment/AirQualityMonitoringandNoiseControl/Documents/Construction%20and%20Demolition%20Good%20Practice%20Guide.pdf>

Screening Question	Response
1. Characteristics of projects The characteristics of projects must be considered, with particular regard to:	
contamination or air pollution).	COSHH store. In addition the quantities of these materials on site will be restricted to that required for ongoing site operations.

Conclusion: No significant effects likely to arise associated with the characteristics of the proposed development.

4.0 LOCATION OF THE PROPOSED DEVELOPMENT

4.1 INTRODUCTION

The location of the proposed development is described in accordance to the aspects of the environment likely to be significantly affected by a proposed development as outlined in Schedule 6 of the Planning and Development Regulations, 2001 to 2018. These aspects of the environment are:

- Population & Human Health
- Biodiversity
- Soil & Geology
- Water
- Air/climatic factors
- Landscape
- Cultural heritage, including the architectural and archaeological heritage and cultural heritage
- Material assets

- The inter-relationship between the above factors.

A summary of each of the above topics as they relate to the location of the proposed development is provided in the following sub-sections.

4.1.1 Population & Human Health

The Liffey Promenade is located within Lucan Heights electoral division while the Demesne Park Entrance is located within the Lucan-St. Helens electoral division

Human health impacts will be primarily considered through an assessment of the environmental pathways by which health can be affected such as air, noise, water or soil.

4.1.2 Land

The land cover within the site is representative of artificial land in the form of urban land cover.

4.1.3 Biodiversity

The Liffey Promenade is entirely comprised of artificial land habitat, of low ecological value and nature conservation importance and ornamental landscaping planting of low nature conservation value. No protected flora or mammals occur within the project site. The River Liffey to the north of the Liffey Promenade is of national nature conservation value and is listed as a proposed Natural Heritage Area. To the north of the promenade fringing hydrophilous vegetation occurs with stands of *Phalaris arundinacea*, *Phragmites australis* and *Eleocharis palustris*. Stands of the non-native invasive plant species *Impatiens glandulifera* (Himalayan Balsam) have infested the bankside vegetation. A second non-native plant species *Erythranthe guttata* (Monkey Flower) was also noted along the bankside of the river.

There are no otter holts or resting places occurring along the river bankside and no field signs indicating the presence of otters was identified along the river. The river is used as foraging corridor by bats with commonly occurring Soprano pipistrelle being the dominant species. Mallard and mute swan frequent occur along the rivers bankside adjacent to the promenade. The river is also an important habitat for salmonid fish species.

4.1.4 Soils & Geology

4.1.4.1 Land & Subsoils

The bedrock is characterised by Dark-grey argillaceous & cherty limestone & shale. The quaternary sediments underlying the project site are classified as urban and alluvium.

The project site is located within the Dublin groundwater catchment which is classified as a poorly productive aquifer.

4.1.4.2 Geological Heritage Sites and Protected Habitats

There are no recorded geological heritage sites in the close proximity to the study area.

4.1.4.3 Historic Landfills and Illegal Dumping

A review of EPA data on waste licence and unlicensed sites has confirmed that there are no known historic landfills or illegal landfills in the area of the study area.

4.1.4.4 Quarrying

There are no quarries within 5km of the study area.

4.1.5 Water

4.1.5.1 Surface Water

The project site is located within the lower River Liffey catchment.

The study area is located within Hydrometric Area 09 (HA 09) which is the EPA classification for the catchments flowing into Dublin Bay. This hydrometric area falls within the Eastern River Basin District (ERBD). The principal catchments are the Liffey, Tolka and Dodder River catchments and their associated sub- catchments.

Hydrometric Area 09 is 1,616 km in size with a maximum elevation of 338 m OD and a mean slope of 2.9% and is the most densely populated hydrometric area in Ireland.

The Liffey is classified as a nutrient sensitive water body and is considered to be at high risk from diffuse pollution through groundwater and urban run-off and from point sources located within its catchment (ERBDA, 2005).

The water quality of the river at Lucan Bridge where an EPA monitoring location is stationed is classed as Q 3-4 which is representative of moderate water quality status.

According to EPA mapping, the River Liffey at the project site (Water Framework Directive name Liffey_170) has been classified as being “*at risk of not achieving good status*”.

4.1.5.1.1 Flooding

The Catchment Flood Risk Assessment and Management (CFRAM) study maps available (Halcrow, 2012) show that the project site does lie within a flood zone.

4.1.6 Air & Climatic Factors

4.1.6.1 Air

The latest annual report on Air Quality in Ireland 2014 (EPA 2014) states that overall air quality in the country is good. Measured values of sulphur dioxide (SO₂), nitrogen dioxide (NO₂), carbon monoxide (CO), Ozone (O₃), particulate matter (PM₁₀ and PM_{2.5}), heavy metals, benzene and polycyclic aromatic hydrocarbons (PAH) were all below limit and target values set out in the CAFE Directive and 4th Daughter Directive. However, when some of these parameters are compared to the tighter WHO Air Quality Guideline values, it highlights some potential issues. Ireland is above these guideline values with respect to PM₁₀, PM_{2.5}, ozone and PAH.

The primary sources of pollutants are traffic (source of nitrogen dioxide and particulate matter), and domestic solid fuel use (particulate matter). The project site is located within Air Zone B and within the Dublin City Air Quality Index Region and the current air quality in this region has been classified as “Good” by the EPA (<http://www.epa.ie/air/quality/>).

4.1.6.2 Climate

Ireland has signed up to several Climate agreements including the “2030 Climate and Energy Policy Framework” which aims to reduce GHG emissions by 40% compared with 1990 levels by 2030. 2013 and 2014 saw a decreasing trend in Ireland’s GHG emissions, this can be attributed to a decrease in economic activity. The agriculture and transport sectors make up the majority of non-ETS emissions making up 72.4% of emissions in 2014. Energy production using fossil fuels is continually decreasing in recent years with renewable energy production increasing. Renewable energy production increased by 6.6% on 2012 levels in 2013 and by 12.6% based on 2013 levels in 2014. This increasing trend continued into 2015 with a 4% increase in renewable energy production based on 2014 levels. However in 2016 renewables accounted for 25.5% of electricity generated in 2016 (down from 27.3% in 2015).

Between 2014 and 2016, national total emissions have increased by 7.4% or 4.23 Mt CO₂eq. In the same period, emissions in the ETS sector have increased by 11.2% or 1.78 Mt CO₂eq and in the non-ETS sector by 5.9% or 2.45 Mt CO₂eq.

This change in trend is a result of increasing economic growth and employment. While Ireland has been in compliance with its EU 2020 target up to 2015 however 2016 figures indicate that Ireland exceeded its 2016 annual limit set under the EU’s Effort Sharing Decision (ESD), 406/2009/EC3 by 0.3 Mt CO₂eq.

4.1.7 Landscape & Visual

The proposed project site is located within an urban setting or townscape. A townscape is defined in Guidelines for Landscape and Visual Impact Assessment’ (2013) the as:

“ ‘Townscape’ refers to areas where the built environment is dominant. Villages, towns and cities often make important contributions as elements in wider-open landscapes but townscape means the landscape within the built-up area, including the buildings, the relationships between them, the different types of urban spaces, including green spaces, and the relationship between buildings and open spaces. There are important relationships with historic dimensions of landscape and townscape, since evidence of the way the villages, towns and cities change and develop over time contributes to their current form and character.”

The value and sensitivity of the townscape occurring within the project area is considered to be high.

4.1.8 Cultural Heritage

The Liffey Promenade is within the designated zone of potential (ZAP) of the historic town of Lucan (RMP Ref. DU017-019/001-006). It lies in proximity to Lucan Bridge which is on the site of an earlier medieval bridge (RMP Ref: DU017-019006). There has been a bridge over the River Liffey at Lucan since medieval times and over the centuries there appears to have been at least five. The earliest seems to have been close to Lucan House, the remnants of which survive on the northern side of the river (RMP DU017-016). Bounding the park to the west is the southernmost spring arch of the penultimate 18th century bridge (NIAH 11201145). The site of a 13/14th century fish weir (DU017-019005) is located c. 60m west of Lucan Bridge. It is likely, that the large-scale works undertaken in the 19th century for the large weir and sluice, and for the construction of the present Lucan Bridge, caused significant disturbance. In addition, southern river banks have been significantly altered by the landscaping of the park. North of the river is the site of a holy well (DU017-017), and the site of a castle (DU017-018) upon which later iron mills were developed. A former river revetment (CH1) of unknown date comprising large boulders in a linear alignment define the river in places on the southern bank. It runs parallel to and approximately 2m back from the recently constructed promenade step. Former stone property walls (CH2) also survive to the south.

There are no recorded archaeological monuments in the vicinity of the Demesne Park site. The closest registered monument is an oratory (DU017-020), an 18th-century bathhouse; the proposed public realm improvement works will not impact this. The proposed improvement of the Demesne Park site focuses on the 'upper level' of the existing car park only, and as such, the river valley and river, which are of inherent archaeological potential, will not be subject to development impact. In addition, the cultural heritage features identified in the valley (C4; footbridge and CH5; steps) will not be impacted by the public realm proposals. Given the site's current use, cartographic sources, result of archaeological monitoring carried out in the area, and the nature of the RMP sites in the vicinity of the site, it is suggested that the archaeological potential of the Demesne Park carpark area is low.

4.1.9 Material Assets

A review of all utility constraints within the surrounding area has been completed. This review identified the following utilities in the wider area surrounding the project site:

- ESBI & ESB – Power Supply
- Gas Networks Ireland (GNI) - Gas Supply
- Telecommunications
- Irish Water - Storm Water & Foul Wastewater
- Irish Water – Water Supply and Sewerage

Other material assets within and adjacent to the project site are dominated by assets utilised for retail, hospitality and services industry. Residential properties also occur within and adjacent to the project site.

4.1.10 Inter-relationship of Parameters & Environmental Sensitivity

The proposed development at the project site will provide continuity of existing land use within the project site. The key sensitivities occurring at the project site are the existing townscape, the cultural heritage and the material assets. The aim of the project is to enhance the townscape setting at both project sites location and upon completion of the public realm works it is predicted that the overall townscape along the Liffey Promenade and the at the Demesne Park Entrance will be enhanced.

4.2 ASSESSMENT OF THE LOCATION OF THE PROPOSED DEVELOPMENT

Table 4.1 below provides information on the location of the proposed development with respect to the assessment criteria provided in Schedule 7 of the Planning and Development Regulations 2001 to 2018.

Table 4.1: Location of the Proposed Development

<p>Screening Criteria</p> <p><i>The environmental sensitivity of geographical areas likely to be affected by projects must be considered, with particular regard to:</i></p>	<p>Response</p>
<p>(a) the existing and approved land use;</p>	<p>The project will not result in any changes in land use within the project site.</p>
<p>(b) the relative abundance, availability, quality and regenerative capacity of natural resources (including soil, land, water and biodiversity) in the area and its underground</p>	<p>The project site is currently representative of urban and artificial land cover and is not sensitive in terms of natural resources.</p> <p>The proposed development will not have a significant effect on the relative abundance, availability, quality and regenerative capacity of natural resources.</p>
<p>(c) the absorption capacity of the natural environment, paying particular attention to the following areas:</p> <p>(i) wetlands, riparian areas, river mouths;</p> <p>(ii) coastal zones and the marine environment;</p>	<p>The potential for the proposed development to significantly effect the absorption capacity of the environment, with respect to the parameters listed in Column 1 opposite are outlined below.</p> <p>(i) no works are proposed that will affect wetlands, riparian areas or river mouths.</p> <p>(ii) not applicable, the project is located in the immediate vicinity of a coastal zone.</p> <p>(iii) not applicable, the project is located at a remote distance from mountainous and forested areas.</p>

<p>Screening Criteria</p> <p><i>The environmental sensitivity of geographical areas likely to be affected by projects must be considered, with particular regard to:</i></p>	<p>Response</p>
<p>(iii) mountain and forest areas;</p> <p>(iv) nature reserves and parks;</p> <p>(v) areas classified or protected under national legislation; Natura 2000 areas designated by Member States pursuant to Directive 92/43/EEC and Directive 2009/147/EC;</p>	<p>(iv) not application, the project is located at a remote distance from any nature reserves and parks.</p> <p>(v) The Screening Report for Appropriate Assessment that accompanies the proposed development application has assessed the likely significant effects of the proposal on the conservation objectives of European Sites in the wider area surrounding the project and has concluded in a finding of no likely significant effects.</p>
<p>(vi) areas in which there has already been a failure to meet the environmental quality standards, laid down in Union legislation and relevant to the project, or in which it is considered that there is such a failure;</p>	<p>(vi) Surface water quality within the wider area has been assessed by the EPA to be of moderate status and the River Liffey at Lucan is currently identified as being at risk of not achieving good status.</p> <p>Environmental Quality Standards for Noise and Air have been reviewed as part of this EIA Screening and no existing exceedances in these standards have been reported.</p> <p>The design of the project and the best practice mitigation measures that will be required to be implemented during the construction phase will ensure that the project does not perturb the long-term quality of the environment in the wider area surrounding the project site.</p>
<p>(vii) densely populated areas;</p>	<p>The area surrounding the project sites does support a dense residential population.</p>

<p>Screening Criteria</p> <p><i>The environmental sensitivity of geographical areas likely to be affected by projects must be considered, with particular regard to:</i></p>	<p>Response</p>
<p>(viii) landscapes and sites of historical, cultural or archaeological significance</p>	<p>The project site is representative of a high value townscape. It is predicted that, upon completion of the project, the project will enhance the value of Lucan townscape at the Liffey Promenade and the Demesne Park Entrance.</p> <p>An Archaeological Impact Assessment (AIA) of the proposed public realm works at the Liffey Promenade has been completed and is provided under separate cover. The AIA has found that the public realm works at the Liffey Promenade are minor and relate to the provision of additional landscaping and planting. There are no changes proposed to the existing promenade pathway and river edge steps and therefore will be no impact on the recorded archaeological features within the river or on its northern banks or on the cultural heritage features identified.</p> <p>The level of disturbance within area as a result of the development of the existing promenade has greatly reduced, if not entirely negated, any potential that previously unknown archaeological features or deposits may survive intact within the site. Considering the 'light touch' nature of the improvements proposed and the fact that this area was previously developed and landscaped in the recent past, the potential to reveal in-situ archaeological sites, soils or features is considered to be negligible.</p> <p>The public realm works at the Demesne Park Entrance focuses on the 'upper level' of the existing car park only, and as such, the river valley</p>

Screening Criteria	Response
<i>The environmental sensitivity of geographical areas likely to be affected by projects must be considered, with particular regard to:</i>	and river, which are of inherent archaeological potential, will not be subject to development impact.

Conclusion: No significant effects likely to arise associated with the location of the proposed development.

5.0 CHARACTERISTICS OF POTENTIAL IMPACTS

Having considered the above environmental factors the aim of this section is to address likely impact, if any, that the project will have on the environment. Whether an EIA would be deemed necessary relevant to the scale of the project and the environment will then be determined.

The 2014 EIA Directive requires that an assessment of the likely significant effects of a project on the environment must be considered with regard to the factors specified in Article 3(1) of the Directive and Section 171A(b)(i)(I) to (V) of the Planning and Development Regulations 2001 to 2018, taking into account:

- (a) the magnitude and spatial extent of the impact (for example geographical area and size of the population likely to be affected);
- (b) the nature of the impact;
- (c) the transboundary nature of the impact;
- (d) the intensity and complexity of the impact;

- (e) the probability of the impact;
- (f) the expected onset, duration, frequency and reversibility of the impact;
- (g) the cumulation of the impact with the impact of other existing and/or approved projects;
- (h) the possibility of effectively reducing the impact.

The factors outlined in Article 3(1) of the Directive are presented in Table 5.1 below under the heading of “Environmental Factor”. The results of the assessment provided in Table 5.1 are then used to inform an assessment against the criteria evaluating the characteristics of potential impacts.

Table 5.1: Characteristics of Potential Impacts on Environmental Factors

Environmental Topic	Potential Impact
Populations & Human Health	<p>The project will involve the use of minor quantities of substances such as hydrocarbons, cement mortar and lubricants that can be injurious to human health. The project will also have the potential to generate noise and dust during the construction phase. Given the scale of the works any noise and dust generated at the project site will be minor in scale and of negligible impact to population and human health.</p> <p>In addition best practice measures relating to the use and storage of potentially polluting substances will minimise the potential impact posed by these substances to humans. All relevant best practice mitigation measures required for avoiding likely significant effects to populations and human health through potential effects to soils, water, noise, air etc will be required to be implemented as part of the project.</p>
Biodiversity	<p>The project is located within an existing urban setting and is small in scale. No sensitive biodiversity receptors are located within the project site. Potential impacts relating to water quality and the River Liffey are addressed under Water below. Given the absence of sensitive receptors within the footprint of the project sites and the small scale of the project</p>

Environmental Topic	Potential Impact
	there will be no potential for the public realm works to result in significant effects to biodiversity.
Soil and Geology	There will be no significant impact to soils or geology.
Water	<p>The project site is located in close proximity to the River Liffey but is buffered from the river at the Liffey Promenade by a minimum distance of 5m and at the Demesne Park Entrance by a minimum distance of 20m. the public realm works will not involve any works to the bankside of the river at either location.</p> <p>The public realm works will be minor in scale and represent small scale construction and demolition works. Minor quantities of potentially polluting materials will be required for the project. These will be stored in securely bunded containers and in a mobile COSHH store. Given the small scale of the works and the small quantities of potentially polluting substances to be held on site at any one time the risk of the project works generating and releasing contaminated surface water to the River Liffey is predicted to be negligible.</p> <p>In addition best practice pollution control measures will be implemented during all excavations within the project site. These measures include all relevant measures outlined in CIRIA guidelines and the UK statutory environment agencies Pollution Prevention Guidelines (PPG), with particular regard to PPG5.</p> <p>The project site is located within a flood zone. The public realm works are not predicted to alter the potential for flooding at the Liffey Promenade or the Demesne Park Entrance.</p>
Air Quality and climate	For reasons outlined in Section 3 above the project will not have the potential to result in negative impacts to air quality or climate.
Noise and Vibration	For reasons outlined in Section 3 above noise and vibration generated as a result of the public realm works will not have the potential to result in any significant change to baseline noise and vibration levels at

Environmental Topic	Potential Impact
	<p>surrounding receptors. Furthermore noise and vibration will be further minimised through best practice and the implementation of mitigation measures outlined in this screening report. With the implementation of these measures the construction phase will not result in significant noise nuisance to sensitive receptors and will be minimised to a short term, slight negative impact.</p> <p>Traffic noise and vibration associated with the public realm works will be negligible in the context of the existing environment, which is an urban area subject to high levels of traffic.</p>
Cultural Heritage	As set out in Table 4.1 above the public realm works at the Liffey Promenade and the Demesne Park Entrance are not predicted to have the potential to result in negative impacts to archaeology or cultural heritage.
Landscape & Visual	The proposed development is located in a townscape of at least high sensitivity. The public realm works will not result in a significant negative impact to this townscape and once construction completed will have the potential to enhanced the urban amenity and landscape setting of the Liffey Promenade and the Demesne Park Entrance.
Material Assets	Material assets in the form of utilities, business and residential dwellings occur within and adjacent to the project site. Given the scale of the project the potential impact to commercial and residential material assets are not predicted to result in significant effects. Measures will also be put in place during the public realm works to ensure that disturbance to commercial and residential receptors are minimised. These measures will include the provision of high-quality hoarding where necessary such as around the existing stairs at the Liffey Promenade during its demolition and removal and the construction of the replacement stair. Access to all properties, both commercial and residential will be maintained during the public realm works. Signage will be provided as necessary. It is envisaged that once completed the enhanced townscape and urban realm will have a positive impact on the commercial and residential assets occurring within the vicinity of the project sites.

Environmental Topic	Potential Impact

Table 5.2: Characteristics of the potential impacts

Characteristics of potential impacts The potential significant effects of proposed development in relation to criteria set out under Tables 4.3. and 4.2 above, and having regard in particular to:	
(a) the magnitude and spatial extent of the impact (for example geographical area and size of the population likely to be affected);	Negligible and localised temporary impacts are identified.
(b) the nature of the impact;	<p>The nature of the impact associated with the public realm works to environmental parameters have been set out in Table 5.1 above. It has been concluded that the works will not have the potential to result in significant negative impacts to the receiving environment and once complete will have the potential result in positive impacts for the landscape and amenity of the public realm at the Liffey Promenade and Demesne Park Entrance.</p> <p>Furthermore best practice measures, as outlined in the preceding sections of this Screening Report, will implemented to further eliminate the potential for the project to result in significant environmental effects.</p>
(c) the transboundary nature of the impact;	Given the size, scale and location of the proposed development potential transfrontier impacts will not arise.

<p>(d) the intensity and complexity of the impact;</p>	<p>The project is representative of a small-scale project. It will be of a short-term duration with the public realm works being completed over a short-term duration. With the implementation of best practice measures and associated mitigation it will not result in intense or complex impacts to the receiving environment.</p>
<p>(e) the probability of the impact;</p>	<p>With the implementation of all measures as outlined in this Screening Report it is considered unlikely that the project will result in significant effects to the environment.</p>
<p>(f) the expected onset, duration, frequency and reversibility of the impact;</p>	<p>It is estimated that the public realm works will commence within 6 months of planning approval and will be completed over a short-term duration. This will represent a short-term duration. No long-term or permanent significant negative impacts are predicted to arise as a result of the construction phase.</p> <p>Once completed the existing urban land cover will be replaced and enhanced by the provision of an improved urban realm.</p>
<p>(g) the cumulation of the impact with the impact of other existing and/or approved projects;</p>	<p>As outlined in Table 3.1 the project will not combine with other existing, approved or proposed planning applications in the vicinity of the project site.</p>
<p>(h) the possibility of effectively reducing the impact.</p>	<p>Measures are detailed in this screening report, and are derived from best practice guidelines. These measures have been implemented as a best practice approach for the proposed developments and are proven to be effective at reducing the potential for adverse environmental impacts to occur.</p> <p>In addition a range of design measures have been incorporated into the project that will enhance the public realm within the project site with positive impacts for the site's townscape and commercial and residential material assets. The design will also result in an improvement in surface water management and treatment with resultant improvements to the quality of surface water draining from the project site to the River Liffey.</p>

Conclusion: No significant effects likely to arise associated with the characteristics of the potential impacts.

6.0 SCREENING DETERMINATION

Article 4(5) of the EIA Directive states that:

“The competent authority shall make its determination, on the basis of information provided by the developer in accordance with paragraph 4 taking into account, where relevant, the results of preliminary verifications or assessments of the effects on the environment carried out pursuant to Union legislation other than this Directive. The determination shall be made available to the public and:

(a) where it is decided that an environmental impact assessment is required, state the main reasons for requiring such assessment with reference to the relevant criteria listed in Annex III; or

(b) where it is decided that an environmental impact assessment is not required, state the main reasons for not requiring such assessment with reference to the relevant criteria listed in Annex III, and, where proposed by the developer, state any features of the project and/or measures envisaged to avoid or prevent what might otherwise have been significant adverse effects on the environment.”

The proposed development has been assessed as a sub-threshold EIA development. This EIA Screening Assessment has determined that the characteristics of the proposed development are considered potentially not significant due to the size, scale and location of the development, the characteristics and sensitivities of the receiving environment and design and mitigation measures that will be implemented as part of the public realm works.

The conclusion for this screening exercise is that there is no likelihood of significant effects on the environment arising from sub-threshold development that consists of the public realm works at the Liffey Promenade and the Demesne Park Entrance and that, therefore, the Planning Authority can conclude that an environmental impact assessment report is not required to be submitted with the application.