Lucan Public Realm

Village Green & Main Street

Environmental Impact Assessment Screening

Doherty Environmental Consultants Ltd

December 2021

Lucan Public Realm

Village Green & Main Street

EIA Screening

Document Stage	Document Version	Prepared by
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This report has been prepared by Doherty Environmental Consultants Ltd. with all reasonable skill, care and diligence. Information report herein is based on the interpretation of data collected and has been accepted in good faith as being accurate and valid.

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1.0 INTRODUCTION

South Dublin County Council have commission Doherty Environmental Consultants (DEC) Ltd. to complete a Screening for Environmental Impact Assessment (EIA) for proposed public realm enhancement works to the village green and Main Street at Lucan, Co. Dublin. The location of the village green and Main Street is shown on Figure 1.1 below while an aerial image of the locations is shown on Figure 1.2.

The findings of this Screening for the proposed public realm project at the village green and Main Street 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.

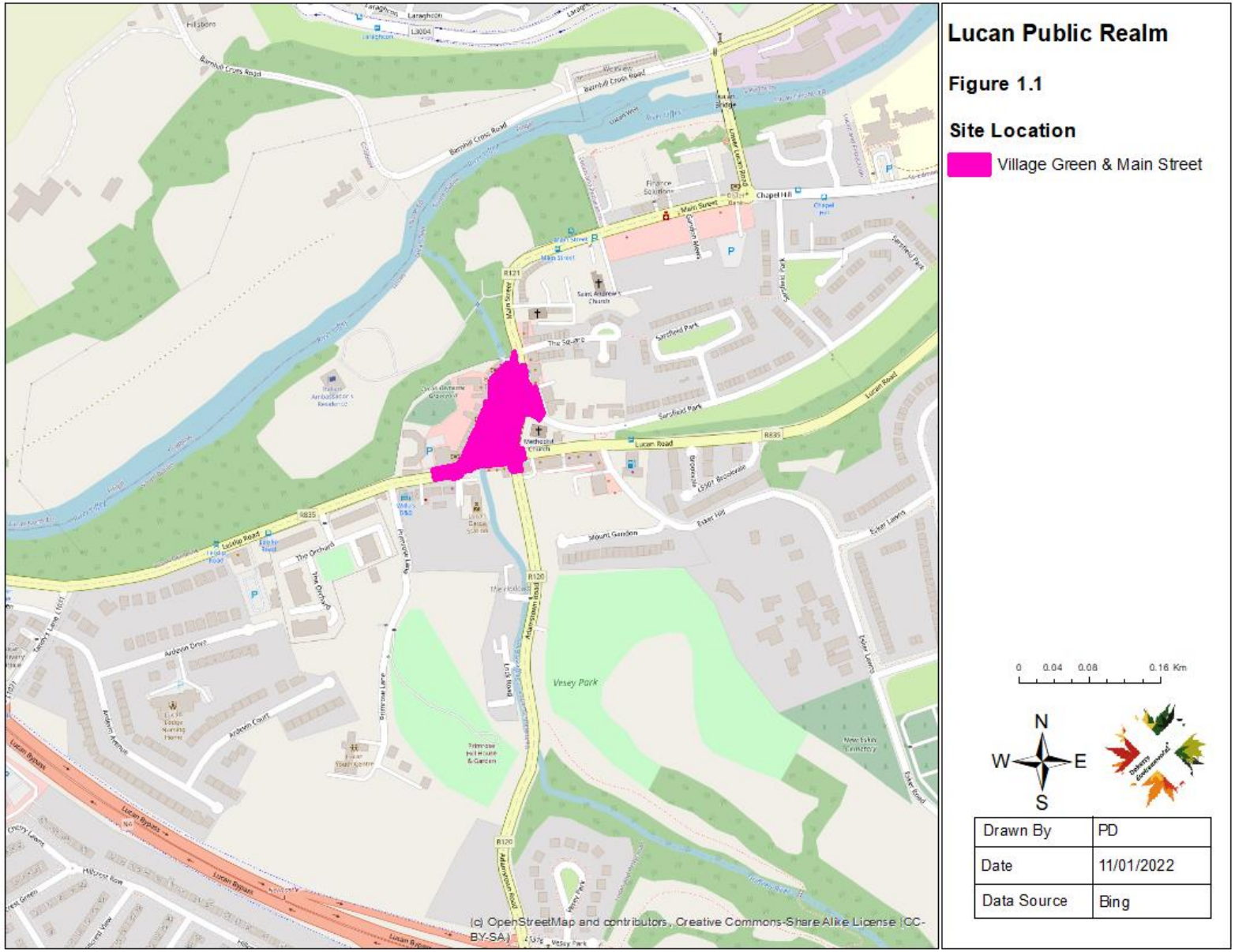
A review of the classes of development listed in Schedule 5, Part 2 was carried out to determine whether the project falls into any of the development classes that are listed in Part 2 and which require an EIA. The proposed urban realm project does not fall under any of the classes of development listed 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

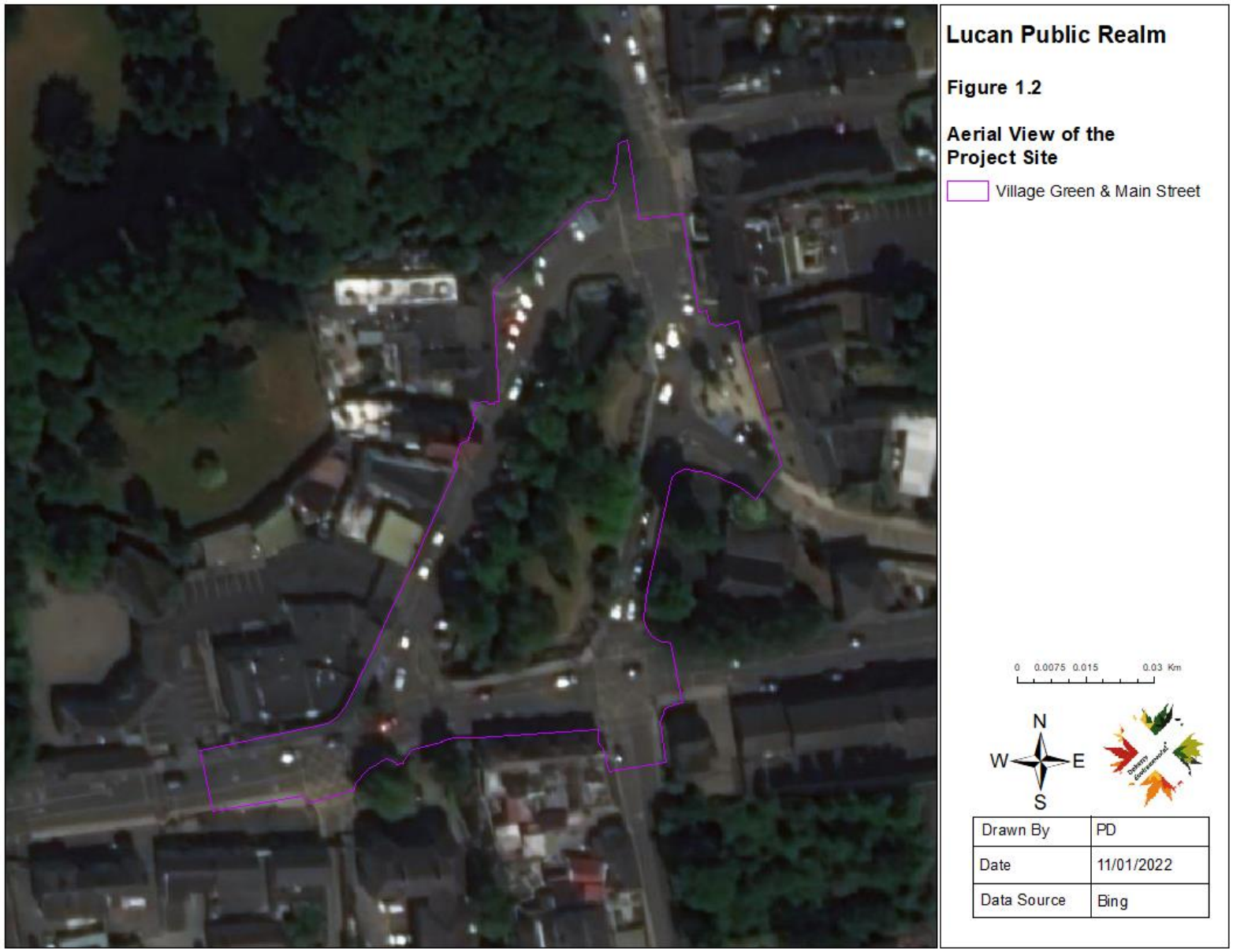
a built-up area and 20 hectares elsewhere". Given that the urban realm project is located within a built-up area that is not a business district and amounts to a total of 0.45 Ha in size it does not exceed the 10 Ha threshold set for urban development project is such areas and as such it does not fall under Class 10(b)(iv).

Given that the project will also comprise demolition works associated with the removal of existing tarmac at Main St. and a section of wall at the village green 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 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 public realm works do 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 1.1
Site Location
Village Green & Main Street
0 0.04 0.08 0.16 Km
N
W
E
S
Drawn By PD
Date 11/01/2022
Data Source Bing
(c) OpenStreetMap and contributors, Creative Commons-Share Alike License (CC-BY-SA)
Vesey Park
Lucan Road
Main Street
Sarsfield Park
Chapel Hill
Lucan Bypass


Lucan Public Realm
Figure 1.2
Aerial View of the Project Site
Village Green & Main Street
0 0.0075 0.015 0.03 Km
N
W
E
S
Drawn By PD
Date 11/01/2022
Data Source Bing

According to European Commission Guidance (2017[1])

"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.

3.0 CHARACTERISTICS OF THE PROPOSED DEVELOPMENT

3.1 EXTENT OF THE WORKS, MAIN STREET:

All the area from its southern junction at Lucan Road/Griffeen bridge as far as its northern junction at Dispensary Lane/Vesey bridge and from the building line on its western side to the flood wall along the Griffeen river on its eastern side.

3.2 NATURE OF THE WORKS:

1. The demolition and removal of the current street finishes consisting of Tarmacadam, concrete and pre-cast paviours, along with the concrete kerbing and sundry street furniture are to be removed. This will be done with great care where the finishes meet the buildings and walls etc., and around the existing trees along the Griffeen river wall.
2. The removal of two trees on the western side, one outside the Bank of Ireland at the northern and the other outside AIB at the southern end.
3. The overhead power lines are to be removed and rerouted through underground ducting and a new street drainage system is to be installed. New ducting will be provided for public lighting and utilities. Existing manhole covers and services chambers will be reset and levelled. Natural drainage will be installed along the existing tree line beside the Griffeen river where feasible, depending on root conditions and direction.
4. Ducting will be provided to the new carparking spaces for their potential conversion to EV charging spaces if required.
5. A concrete slab will be placed over the utilities layer and new finishes provided to the finished levels. These finishes will include asphalted areas, stone and paving and will be to ‘shared surface’ standards, i.e. generally without kerbs or changes in level.
6. The reduction of parking spaces from 37 to 26 bays in the Main Street area, the addition of a bus stop.

7. The addition of new lighting poles, of benches, bins, and fixed and removable bollards and bicycle parking stands at various locations as shown on the drawings.
8. The removal of the stone infill between the piers of the former horses' watering point beside the weir and its replacement with a toughened glass screen.

3.3 DESIGN RATIONALE:

At present this street is predominantly weighted towards car use. It serves primarily as a public carpark and the double line of parking (arguably two-and-a half lines because of the 45˚parking on the eastern side) is a deterrent to pedestrian movement across the thoroughfare towards the Griffeen river side. As a result the Green park generally goes unnoticed and there is no amenity incentive to the street.

The design intent is to make this end of Main Street a better place for all of its users. This means reducing the number of car journeys and reducing the number of carparking spaces so that more space can be provided for pedestrians and cyclists. The reduced number of car spaces can have a higher turnover by reducing the staying time so that the nett loss in space numbers will be compensated. Additional spaces are being proposed within a minute's walk of the area, as per the wider parking map provided with this submission.

By eliminating overparking and through rationalizing street furniture, lighting and services, the street can be largely decluttered. This will encourage more pedestrian interaction with the wider urban environment and will make the street feel safer, particularly for the elderly, small children etc.

By proposing a shared surface to eliminate kerbs and abrupt changes to levels and surfaces we can make the street more universally accessible, for wheelchair users, for the seeing-impaired and for those of reduced mobility. By providing the same surface for all users, drivers, pedestrians, cyclists and so on, there is a shared sense of responsibility towards safely inhabiting a shared space, where no user group has the upper hand and all have equal status.

3.4 EXTENT OF THE WORKS, VILLAGE GREEN:

All of the current area of the Green between the Griffeen river, Lucan Road and Dispensary Lane including the footpath to the Lucan Road on its southern end and the footpath at the Vesey bridge/Dispensary Lane junction at its northern end.

3.5 NATURE OF THE WORKS:

The removal of 7 no. existing trees, the retention of 2 no. existing trees (one of which - the Christmas tree - is to be replanted) and the addition of 5 no. new trees along with approx. 45m of new flowering hedge along Dispensary Lane, and new planting throughout, including an area of wildflower meadow and an area of reinforced grass.

The excavation to a maximum depth of approx. 1.8m of new amphitheatre steps and seating providing access to the Griffeen river. The retention of the existing bankside on the river side of the amphitheatre footprint or other such barrier until all substantive excavation works and amphitheatre installation works are implemented. The retention of such a barrier between the footprint of the amphitheatre excavations and installation works will eliminate the potential for interactions between these works and the Griffeen River.

The excavation to approx. 1.2m of a new seating area beside the Griffeen river facing Vesey weir and bridge.

The widening of the footpath at the southern end of the Green with new steps into the Park.

The construction of a metal frame bandstand structure capable of taking a temporary roof covering.

The rerouting of the footpath on Dispensary Lane through the Green by means of a ramped path running inside the planted boundary and connecting to the extended footpath on the southern end.

The replacement of the metal guarding and handrail along the Griffeen River edge with a glass and metal guarding, including the protection of the amphitheater seating ends.

The removal of the rubble stone wall and capping forming the boundary to the southern end of the Green and its reconstruction in a changed configuration to form a new western boundary to the widened footpath under these proposals, as well as stone retaining walls to the new amphitheatre seating within the park.

3.6 DESIGN RATIONALE

This pocket park known as Lucan's Village Green is currently isolated in the middle of some very trafficked thoroughfares with little sense of connection to its surroundings. Its most immediate urban counterpoint on the far side of the Griffeen river, Main Street, is cut off from it visually through two lines of trees, and two rows of parking. On the Dispensary Lane side and towards Lucan road on the southern end the park level is lower and a boundary wall and planted borders serve to further isolate it physically and visually from these surroundings. The footpath on the Dispensary Lane side is narrow and feels unsafe in heavy traffic. On the southern end the footpath is a bit wider and the park is visible but no direct access is possible. From the Main Street side, even when standing along the flood wall between the trees, the Green is obscured by a mix of planting and trees, mostly unplanned which further removes it from any connection to the environment of Main Street. Within the park itself, the pergola with its Wisteria overgrowth tends to create a further barrier both visual and physical. The Green's strengths are those qualities that have become obscured in recent times: its continuous frontage to the river Griffeen and Main Street; its sense of openness towards Vesey bridge and its sunken sense of intimacy with its back turned to the traffic.

The design proposals seek to restore the Green's more direct relationship to Main Street. This separation started with the need for parking followed more recently by the requirement for flood defences. To overcome these barriers to connection the design proposes first to encourage people to cross Main Street to be closer to the Green and the river and then to provide opportunities for those on the park side to engage with the river. The activities of one group can be observed by the other, and the Green's rediscovered presence and proximity will encourage those using the Centra to bring their sandwich to the river's edge or those on Main Street to lean on the flood wall while watching the ducks in the park.

In the interests of increasing the visual connections between both elements it is proposed to remove a number of trees which currently screen the park from Main Street. These trees are a mature weeping willow and a semi-mature Chestnut at the southern end, and along the river

bank, a young Sycamore and a number of relatively young birches. A mature Birch is being retained and the Coniferous 'Christmas tree' is being moved to a new location a few metres away. In lieu of these it is proposed to plant a Sweetgum, a Hawthorn and a number of Wild Plum trees. These are trees that change appearance and colours throughout the year, adding a strong seasonal flavour to the Green.

The Green will become a necessary route for pedestrians from Sarsfield Park or the upper end of Main Street because of the displacing of the footpath on the western side of Dispensary Lane. The widening of the footpath on the southern end just beside Griffeen bridge will provide a welcoming platform for entry to the park as well as a gateway arrival point to Lucan village for cyclists and for public transport. Figure 3.1 provide an illustration of the extent of the works at Main St. while Figure 3.2 provides a section of the amphitheatre seating.

Figure 3.1: View of village green and Main Street public realm enhancements

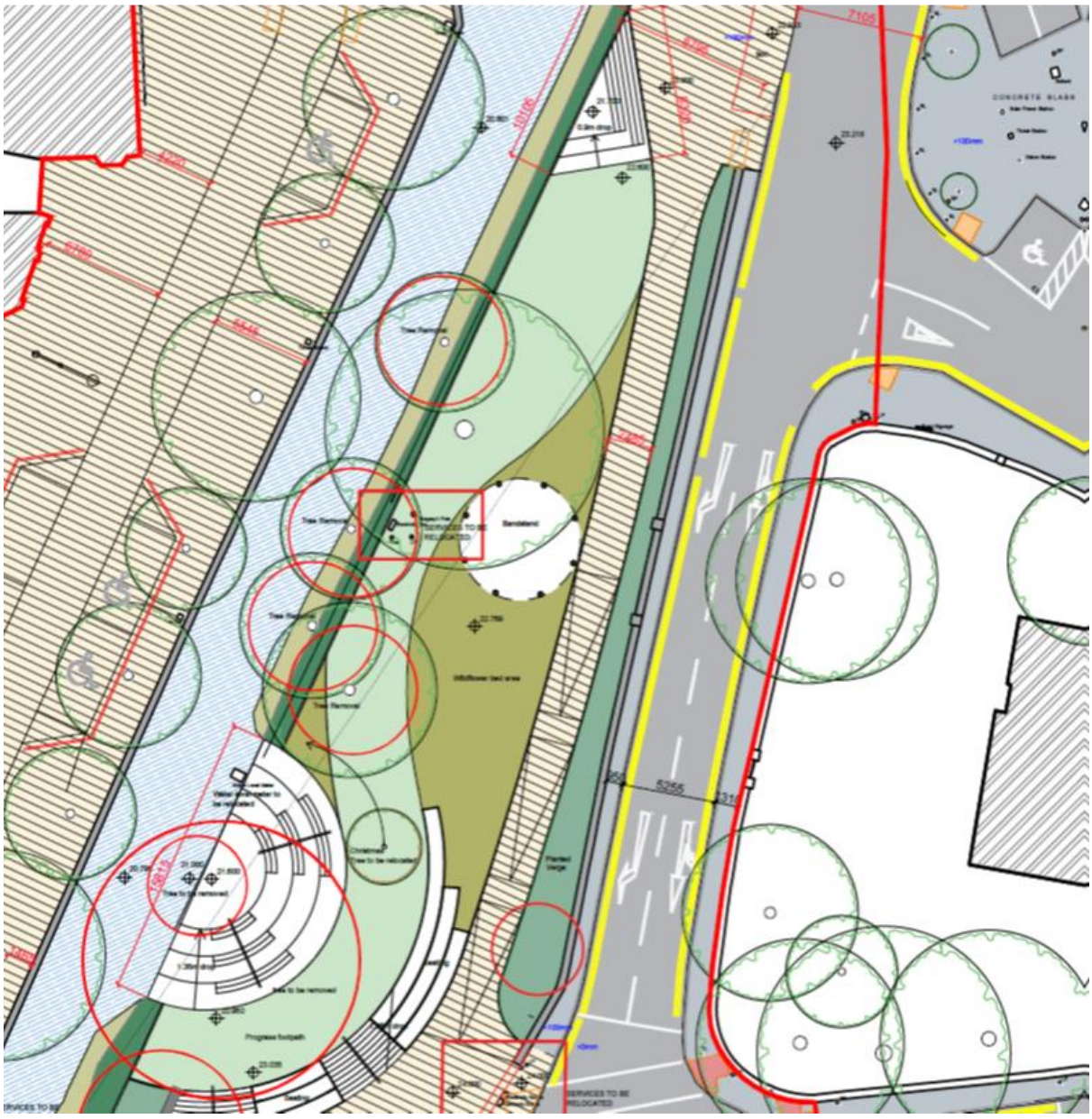
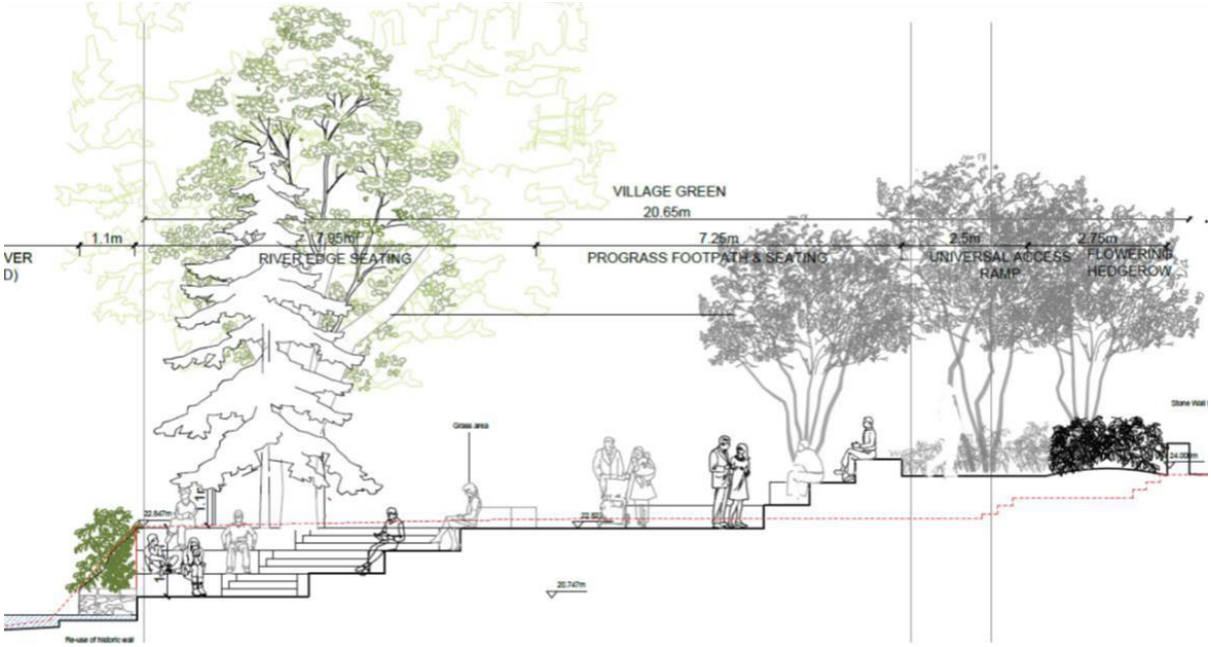


Figure 3.2: Section of the proposed amphitheatre at the village green



3.7 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 3.1 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	The project is less than 0.67 Ha in size. All public realm works will be restricted to the footprint of the project site and are expected to be completed over a short-term duration. The project site is urban in nature and is comprised of existing streets and footpaths and a small urban pocket park. The Griffeen River flows through the site. The project will remove a small number of trees of whose condition has been categorised as U trees, which are trees in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years. None of these trees are of biodiversity value. The main elements of the public realm works in terms of scale are the removal of the existing street surface along Main St. and the provision of the amphitheatre providing access to the right-hand bankside of the Griffeen River at the southern end of the village green. The works for both these elements are will completed over separate time-frames that will be of a short-term duration. The project will provide upgrades for landscaping that will enhance the visual amenity of the village green and Main Street. Once completed the land cover within the project footprint will be comprised of a similar nature i.e. urban street and pocket park.
(b) cumulation with other existing and/or approved projects;	The project works involve localised public realm works that will be completed over a short-term duration that will not have the potential to interact with other projects or land uses in the surrounding area. Given the localised and short-term nature of the elements of work required for the delivery of the public realm enhancement there will be no potential for these works to combine with other land uses in the vicinity of the village green and Main Street to result in cumulative negative impacts to the environment.

Screening Question	**Response**
1. Characteristics of projects The characteristics of projects must be considered, with particular regard to:	
(c) the nature of any associated demolition works	Demolition works will comprise the removal of the current tarmac, concrete and pre-cast paviours along with the concrete kerbing and sundry street furniture along Main St. These demolition works are representative of minor works that will be completed over a short-term duration and will not result in significant effects to the environment.
(d) the use of natural resources, in particular land, soil, water and biodiversity;	Public realm works 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. 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. 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.
(e) the production of waste;	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.
(f) pollution and nuisances;	With regard to the Griffeen River the main element of the works in the vicinity of the Griffeen River is the provision of the amphitheatre at the right-hand bankside of the river towards the south of the village

Screening Question	**Response**
1. Characteristics of projects The characteristics of projects must be considered, with particular regard to:	
	green. This will be installed along a c. 15m stretch of the right-hand bankside of the river. The lower Griffeen River is already channelised at this location and the works will involve changes to levels to the east of the river so that they grade gently towards river. During the excavations and installation of the amphitheatre an impermeable barrier will be maintained between the footprint of the amphitheatre and the association excavations and installation works. This will eliminate the potential for interactions between the amphitheatre works and the river until it is in place. Once in place the barrier will be removed and the amphitheatre will be connected to the river bank. In addition to this all works for this element of the project will adhere to Inland Fisheries Ireland best practice construction works at watercourses. The works associated with the amphitheatre will be undertaken during the and summer months, July to September, during drier conditions when river flows are expected to be lower. It is predicted that the works associated with the provision of the amphitheatre will be completed within a maximum 2-month period during the July to September time-frame. The works will be undertaken in as short a timeframe as possible to minimise disturbance and the exposure of denuded soil material adjacent to the river. Material removed during excavations (which will be to a maximum depth of 1.8m) for the amphitheatre will not be stored within 10m of the river. It is anticipated that the excavations for the footprint of the amphitheatre will be completed within XXX days. Once completed the excavated base will be immediately lined prior to the installation of the new amphitheatre. All material to be use for the provision of the amphitheatre will be pre-cast, dry materials and will be fitted in place on site. This will avoid the need for the use of wet concrete and will in turn eliminate the risk of emission of cement-based materials to the river. Prior to commencing the works associated with the installation of the amphitheatre the contractor will be required to prepare a method

Screening Question	**Response**
1. Characteristics of projects The characteristics of projects must be considered, with particular regard to:	
	statement. The method statement will be reviewed by a construction phase Ecological Clerk of Works, who will be appointed by South Dublin County Council to oversee these works. The contractor will be required to liaise with Inland Fisheries Ireland (IFI) and to ensure that the IFI are satisfied with the approach to the works prior to their commencement. The works at the river bankside associated with the amphitheatre installation will be overseen by a Ecological Clerk of Works who will be responsible for ensuring that all works are implemented as per the approach agreed to in the method statement. The removal of the low number of trees along the bankside of the river will be undertaken by hand by tree surgeons, thereby ensuring that a sensitive approach to tree removal that avoids disturbance to the bankside is put in place. 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. The above measures will form part of the method statement of works associated with the public realm works and particularly those associated with the installation of the amphitheatre. The completion of works in line with IFI guidelines and the requirement to liaise with and satisfy all IFI requirements with regard to these works prior to their commencement will ensure that a robust approach to the works is implemented such that they do not pose a risk to water quality and fisheries supported by the Griffeen River. 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. 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

Screening Question	**Response**
1. Characteristics of projects The characteristics of projects must be considered, with particular regard to:	
	following mitigation measures will be implemented during the construction phase of the proposed development to ensure noise and vibration limit values are complied with: • 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. 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 Demolition[3] will be implemented during the construction phase of the project.

[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:	
	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.
(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;	The public realm works 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.
(h) the risks to human health (for example due to water contamination or air pollution).	Project 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 bunded containers in a mobile 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 village green and Main Street is located within Lucan Heights 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 village green and Main Street is comprised of artificial man-made surfaces. The Village Green area includes artificial surfaces in the form of paved areas, amenity grassland, treelines, scattered trees and landscaped verges and flower beds. Both Mains St and the Village Green

are of low ecological value and nature conservation importance. The Griffeen River that flows through this site is of local ecological value and nature conservation importance. This watercourse is an important linear habitat corridor. It is known to function as a commuting corridor for otters between the River Liffey and the Grand Canal to the south. The river supports salmonids as well as the Annex 2 species white-clawed crayfish. A range of bat species are support by the Griffeen River corridor upstream of Lucan town centre. Birds, and particularly mallard, rely on the section of the river at village green and Main Street. The river drains into the River Liffey to the north which is of national nature conservation value and is listed as a proposed Natural Heritage Area.

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 Framework Directive status of the lower Griffeen River at the project site (Water Framework Directive name Griffeen Lower) has been classified as bad and 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 (SO_2), nitrogen dioxide (NO_2), carbon monoxide (CO), Ozone (O_3), particulate matter (PM10 and PM2.5), 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, PM2.5, 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 CO_2eq. In the same period, emissions in the ETS sector have increased by 11.2% or 1.78 Mt CO_2eq 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 CO_2eq.

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

An Archaeological Impact Assessment (AIA) has been completed for the public realm works. The AIA identified Main Street and Village Green as lying within the designated zone of potential (ZAP) of the historic town of Lucan (RMP Ref. DU017-019/001-006) and is where the greatest archaeological potential lies. West of the Village Green Park, there is a recorded church, associated graveyard, cross site and a possible tower house, these group of sites are located to the rear of the early 19th century shops fronting Main Street (RMP Ref. DU017-019/001-004). Features associated with this medieval complex are however very likely to have extended east to the Griffeen River. The canalisation of the river in the 18th century and the development of the Main Street may have removed or truncated any archaeological features that might have been present, for example Rocque (1760) and Scale's (1772) maps show that there may have been up to two crossings of the river that predate the present bridges within the village today, which were likely to have been removed.

The public realm in Lucan has not been subjected to sequential development impacts comprising deep excavations; instead, it is most likely that material build-up occurred in these areas. In addition, the Village Green area has remained for the most part undeveloped, and it is not known how much disturbance was carried out in this area during the 18th century canalisation of the Griffeen River. There is a potential that intact archaeological features lie beneath the village's parks, roads, and footpaths. Therefore, the works proposed along Main Street and within the Village Green will have a significant potential to reveal subsurface archaeological features, even where existing services are present, some of which may lie just below the existing ground surface. Should such remains survive they would be very vulnerable to development impacts associated with the public realm improvement works.

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 the village green and Main Street 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

Screening Criteria ***The environmental sensitivity of geographical areas likely to be affected by projects must be considered, with particular regard to:***	**Response**
(a) the existing and approved land use;	The project will not result in any changes in land use within the project site.
(b) the relative abundance, availability, quality and regenerative capacity of natural resources (including soil, land, water and biodiversity) in the area and its underground	The project site is currently representative of urban and artificial land cover and is not sensitive in terms of natural resources. The proposed development will not have a significant effect on the relative abundance, availability, quality and regenerative capacity of natural resources.
(c) the absorption capacity of the natural environment, paying particular attention to the following areas: (i) wetlands, riparian areas, river mouths; (ii) coastal zones and the marine environment;	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. (i) public realm works will be undertaken along the right-hand bankside of the Griffeen River. These works are associated with the removal of a low number of trees along the right-hand bankside as well as the provision of an amphitheatre towards the southern side of the village green. These works will be undertaken in line with the approach set out in Table 3.1 above that will ensure the works are undertaken in a sensitive manner that will minimise risk to the water quality and fisheries of the Griffeen River. The works are not predicted require instream works and all works will be undertaken in dry conditions using only dry materials. The works will be undertaken subsequent to consultations with the IFI and will

Screening Criteria ***The environmental sensitivity of geographical areas likely to be affected by projects must be considered, with particular regard to:***	**Response**
(iii) mountain and forest areas; (iv) nature reserves and parks; (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;	implement all necessary IFI requirements to ensure that they proceed on a low-risk basis. The works will be overseen on site by a project Ecological Clerk of Works to be appointed by South Dublin County Council. This approach will ensure that the public realm works do not result in likely significant effects to the lower Griffeen River. (ii) not applicable, the project is located in the immediate vicinity of a coastal zone. (iii) not applicable, the project is located at a remote distance from mountainous and forested areas. (iv) not application, the project is located at a remote distance from any nature reserves and parks. (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.
(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;	(vi) Surface water quality within the wider area has been assessed by the EPA to be of poor status and the lower Griffeen at Lucan is currently identified as being at risk of not achieving good status. 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. The design of the project, the nature of the works associated with the public realm enhancement and the best practice measures that will be

Screening Criteria ***The environmental sensitivity of geographical areas likely to be affected by projects must be considered, with particular regard to:***	**Response**
	required to be implemented during the works will ensure that the project does not perturb the long-term quality of the environment in the wider area surrounding the project site.
(vii) densely populated areas;	The area surrounding the project sites does support a dense residential population in the immediate vicinity.
(viii) landscapes and sites of historical, cultural or archaeological significance	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 village green and Main Street. The village green and Main Street are of cultural and archaeological significance. Measures such as the appointment of a project archaeologist and the implementation of best practice guidelines for the protection of architectural heritage will be implemented during the construction phase. Such measures will ensure that the project does not result in significant effects to features of cultural heritage.

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	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. 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.
Biodiversity	The project is located within an existing urban setting. The lower Griffeen River represents the sensitive biodiversity receptors at the project site. the river section adjacent to, upstream and downstream of the village green and Main Street is channelised and artificial in nature. The public realm works will not result in any changes to the natural river banksides or riparian zones. The public realm works will result in the alteration of a section of the right-hand bankside at the south side of the village green through the installation of the amphitheatre. This will result in a change in the existing bankside from a vegetation and a thin treeline occurring over a masonry channel bank to an open amphitheatre for approximately 15m along the right-hand bankside. The current riparian corridor supported by the bankside is not representative of a natural bankside of high nature conservation value and the proposed change is not predicted to the undermine the status of the Griffeen as a habitat for fauna. Potential impacts relating to water quality and the river are addressed under Water below. The footprint of the public realm works will not involve any works within the river and those works occurring adjacent to the river will involve the excavations for and installation of the amphitheatre as well as the removal of a number of category U trees along the eastern bankside of the river. These trees will be felled by hand by

Environmental Topic	**Potential Impact**
	professional tree surgeons and there will be no disturbance to the river during their removal. The remainder of the public realm works will be located on Main St. which is buffered from the river by the existing wall along the left-hand bankside and the within the footprint of the village green.
Soil and Geology	There will be no significant impact to soils or geology.
Water	The lower Griffeen River flows through the village green and Main Street area. In the absence of appropriate safeguards and construction methods works associated with the project will have the potential to result in perturbations to surface waters along the Griffeen and the River Liffey downstream. Such perturbations have been considered as part of the Ecological Impact Assessment (EcIA) that accompanies the Part VII planning application. The approach to the works along the right-hand bankside of the Griffeen have been described in Table 3.1 above and provided all works are implemented in accordance with this approach the works are not predicted to have the potential to result in significant negative effects to the Griffeen River, its water quality and the lotic habitat provided by this watercourse for fauna. 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. The project site is located within a flood zone. The public realm works are not predicted to alter the potential for flooding at the village green and Main Street.
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.

Environmental Topic	**Potential Impact**
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 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. 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.
Cultural Heritage	During the public realm works excavations and earthworks will be required and there will be potential for disturbance to unknown archaeological remains during such excavations. In order to ensure that these excavations do not result in significant effects to any archaeological features a suitably qualified and licenced project archaeologist will be required to monitor earthmoving and excavation works with provision in the programme for the archaeological recording and excavation of any features that are identified. In addition all measures detailed in the accompanying AIA report prepared for the public realm works project will be implemented. The implementation of these measures will ensure that the public realm works proceed in a best practice approach to the protection of any archaeology occurring at the village green and Main Street.
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 village green and Main Street.
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

Environmental Topic	Potential Impact
	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 excavation works of existing tarmac and concrete etc along Main St. and the excavations within the village green. 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.

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;	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 village green and Main Street. 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.
(c) the transboundary nature of the impact;	Given the size, scale and location of the proposed development potential transfrontier impacts will not arise.
(d) the intensity and complexity of the impact;	The elements of the public realm works will be completed in stages to minimise disruption and each will be over a short-term duration. With the implementation of best practice measures such as those outlined in this report and elsewhere (e.g. accompanying AIA report) and associated mitigation it will not result in intense or complex impacts to the receiving environment.
(e) the probability of the impact;	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.
(f) the expected onset, duration, frequency and reversibility of the impact;	It is estimated that the public realm works will commence within 6 months of planning approval and each element will be completed over a short-term duration. No long-term or permanent significant negative impacts are predicted to arise as a result of the construction phase. Once completed the existing urban land cover will be replaced and enhanced by the provision of an improved urban realm.
(g) the cumulation of the impact with the impact of other existing and/or approved projects;	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.

(h) the possibility of effectively reducing the impact.	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. 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.

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 village green and Main Street and that, therefore, the Planning Authority can conclude that an environmental impact assessment report is not required to be submitted with the application.