Ruirside Developments Limited | January 2020

42A Parkgate Street, Dublin 8

Natura Impact Statement



ARUP

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Natura Impact Statement

Appropriate Assessment

Proposed Strategic Housing Development at Parkgate Street, Dublin 8

Prepared by: Moore Group – Environmental Services

2020



On behalf of Ruirside Developments Limited

Project Proponent	Ruirside Development Limited
Project	Proposed Strategic Housing Development at Parkgate Street, Dublin 8
Title	Natura Impact Statement Appropriate Assessment of Proposed Strategic Housing Development at Parkgate Street, Dublin 8

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Abbreviations

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

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1. Introduction

1.1. General Introduction

This Natura Impact Statement (NIS) has been prepared by Moore Group – Environmental Services on behalf of Ruirside Developments Limited. This NIS report contains information to assist the competent authority in carrying out an Appropriate Assessment (AA) on the effects of a proposed Strategic Housing Development at 42A Parkgate Street, Dublin 8 on European sites, to ascertain whether or not the Project would adversely affect European site integrity.

This NIS informs the Appropriate Assessment (AA) process in the determination of the significance of potential impacts on the conservation objectives of European sites. It is necessary that the proposed development has regard to Article 6 of the Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora (as amended) (referred to as the Habitats Directive). This is transposed into Irish Law by Part XAB of the Planning and Development Act 2000 as amended and the European Communities (Birds and Natural Habitats) Regulations, 2011 (S.I. 477) (referred to as the Habitats Regulations). The focus of the assessment is on objectively assessing by reference to the best scientific evidence available as to whether the Project will adversely affect the integrity of the European sites in light of their conservation objectives.

1.2. Legislative Background - The Habitats and Birds Directives

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

The Birds Directive (Council Directive 79/409/EEC, amended by Council Directive 2009/147/EC on the Conservation of Wild Birds), is concerned with the long-term protection and management of all wild bird species and their habitats in the EU. Among other things, the Directive requires that Special Protection Areas (SPAs) be established to protect migratory species and species which are rare, vulnerable, in danger of extinction, or otherwise require special attention.

Special Areas of Conservation (SACs) designated under the Habitats Directive and Special Protection Areas (SPAs), designated under the Birds Directive, form a pan-European network of protected sites

known as Natura 2000. The Habitats Directive sets out a unified system for the protection and management of SACs and SPAs.

Articles 6(3) and 6(4) of the Habitats Directive set out the requirement for an assessment of proposed plans and projects likely to affect Natura 2000 sites (also known as "European Sites").

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

Article 6(3): "Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subjected to an appropriate assessment of its implications for the site in view of the site's conservation objectives. In light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public."

Article 6(4): "If, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature, Member States shall take all compensatory measures necessary to ensure that the overall coherence of the Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted. Where the site concerned hosts a priority natural habitat type and/or a priority species the only considerations which may be raised are those relating to human health or public safety, to the beneficial consequences of primary importance for the environment or, further to an opinion from the Commission, to other imperative reasons of overriding public interest."

These obligations in relation to Appropriate Assessment have been implemented in Ireland under Part XAB of the Planning and Development Act 2000, as amended, and in particular Section 177U and Section 177V thereof.

1.3. Methodology

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

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

Stage 1 Screening: This stage examines the likely effects of a project either alone or in combination with other projects upon a Natura 2000 site and considers whether it can be objectively concluded that there are not likely to be significant effects on a Natura 2000 site. Mitigation measures (i.e., measures intended to avoid or reduce the harmful effects of the project on the site concerned) cannot be taken into account at this stage.

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

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

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

1.4. Guidance

The NIS has been compiled in accordance with guidance contained in the following documents:

- Appropriate Assessment of Plans and Projects in Ireland Guidance for Planning Authorities. (Department of Environment, Heritage and Local Government, 2010 rev.).
- Appropriate Assessment under Article 6 of the Habitats Directive: Guidance for Planning Authorities. Circular NPWS 1/10 & PSSP 2/10.

- Managing Natura 2000 Sites: The Provisions of Article 6 of the Habitats Directive 92/43/EEC (EC Environment Directorate-General, 2000); hereafter referred to as MN2000.
- Managing Natura 2000 Sites: The Provisions of Article 6 of the Habitats Directive 92/43/EEC (EC, 2018).

1.5. Data Sources

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

- The following mapping and Geographical Information Systems (GIS) data sources, as required:
 - National Parks & Wildlife (NPWS) protected site boundary data;
 - Ordnance Survey of Ireland (OSI) mapping and aerial photography;
 - o OSI/Environmental Protection Agency (EPA) rivers and streams, and catchments;
 - Open Street Maps;
 - Digital Elevation Model over Europe (EU-DEM);
 - Google Earth and Bing aerial photography 1995-2019;
- Online data available on Natura 2000 sites as held by the National Parks and Wildlife Service (NPWS) from www.npws.ie including:
 - Natura 2000 Standard Data Form;
 - Conservation Objectives;
 - Site Synopses;
- National Biodiversity Data Centre records;
 - \circ $\,$ $\,$ Online database of rare, threatened and protected species;
 - $\circ \quad \text{Publicly accessible biodiversity datasets.}$
- Status of EU Protected Habitats in Ireland. (National Parks & Wildlife Service, 2019); and
- Dublin City Development Plan 2016-2022

1.6. Statement of Authority

This report was compiled by Ger O'Donohoe (B.Sc. Applied Aquatic Sciences (GMIT, 1993) & M.Sc. Environmental Sciences (TCD, 1999)) who has over 25 years' experience in environmental impact

assessment and has completed over 500 reports for the purposes of Appropriate Assessment Screening and numerous Natura Impact Statements.

Engineering and technical data was supplied by ARUP for the proposed development.

A separate Hydrological & Hydrogeological Qualitative Risk Assessment Report prepared by AWN Consulting is presented as Appendix 1 to this NIS.

1.7. Description of the Project

The proposed development is a mixed use residential and commercial scheme comprising build to rent residential units with associated residential amenities and facilities, commercial office and café/ restaurant floor space. A new public square is provided, along with a public riverside walk and private amenity courtyard.

481 no. residential units with 3698 sqm commercial office space, 214 sqm retail and 444 sqm café/ restaurant space are proposed. The residential units are served by amenity and management areas including a reception area, a post room, a quiet room, gym, business suites, lounge and TV rooms and other bookable rooms. In addition to the above amenity facilities are miscellaneous support facilities including sub/switch room, refuse and waste management areas, electric meters, administrative areas and cycle parking areas. At basement level further bicycle parking is provided, as well as car parking.

At ground floor level the proposed development will largely consist of retail, café/ restaurant and resident's amenity/ancillary facilities which will serve to activate the street level and new open spaces.

The development will be characterised by a landmark 29 storey tower on the eastern corner of the site. The Site Coverage of the proposed development is approximately 42% (based upon entire site area), and the Plot Ratio of the proposed development is 5.8. The new development elements will range in height from 8 to 29 storeys.

To facilitate the proposed development, a number of structures on site will be demolished, including Parkgate House. All structures contained within the Record of Protected structures will be retained, restored and adapted. This includes the riverside stone wall, the turret at the eastern end of the site, the square tower on the riverfront and the entrance stone arch on the Parkgate Street frontage.

In addition to retaining the Protected Structures, it is also proposed to retain the larger of the two gabled industrial buildings on the river front for use as the residents gym and to retain part of the smaller gabled building. All other structures are proposed for demolition, while it is proposed to retain some of the large cast iron structural elements from the warehouse for use in the new development.

The development proposal will include works to the river wall. This is to provide opes to allow light into the newly formed open spaces and create a new internal river walk.

External works comprise minor works along the south footpath on Parkgate Street, including:

- creating dished kerb at proposed vehicular entrance;
- •
- regrading of bus stop kerb;
- relocation of recycling bins;
- relocation of 1 No. street light,
- creating of loading bay;
- relocation of Dublin Bikes Station No. 92, and
- creating dropped kerbs for emergency access to the development, all subject to relevant permits and agreements.

Surface water improvement works proposed along the south kerb on Parkgate Street, subject to Local Authority agreement, comprise:

- new manholes constructed in Parkgate Street pavement;
- new sections of surface water concrete pipework installed to network new manholes and gullies;
- connection into existing surface water outfall;
- diversion of existing road gullies into new surface water sewer; and
- construction of new trapped blockwork road gullies and connection into new surface water sewer.

The proposed development will involve the demolition and excavation of the site at Parkgate Street to facilitate construction of the proposed development.

There will be an open dig to the basement area, with localised retention works at existing structures. The rising perimeter walls will be constructed with two-sided shutters, propped in position, and supported off the basement slab.

The groundworks external to the buildings will comprise installation of precast retaining walls along the existing River Liffey boundary to facilitate build-up of ground to proposed finished levels.

Dewatering may be required for local excavations, such as pile cap or lift pit locations. Any local dewatering is to be discharged to the River Liffey, subject to any necessary agreements or consents. Alternatively, dewatering may be reinjected to the subsurface through a number of wells or injection

points across the site. Local dewatering is likely to be necessary for only a portion of the construction programme, approximately 20 weeks.

The new development will have an estimated maximum hydraulic loading of 227m³ per day of foul effluent generated on completion of the development. This equates to an average flow of 2.63 litres/second (over a 24-hour period). The sewage discharge will be licensed by Irish Water, collected in the public sewer and treated at Irish Water's Wastewater Treatment Plan (WWTP) at Ringsend prior to discharge of treated wastewater to Dublin Bay.

Figure 1 shows the proposed development location and Figure 2 shows a detailed view of the proposed development boundary on recent aerial photography. Figure 3 shows a plan of the proposed development.



Figure 1. Showing the Project location in Dublin City.



Figure 2. Showing the proposed development location on recent aerial photography.



Figure 3. Ground floor layout the proposed development.

2. Stage 1 – Screening for Appropriate Assessment

Screening determines whether appropriate assessment is necessary by examining:

1) Whether a plan or project can be excluded from AA requirements because it is directly connected with or necessary to the management of the site, and;

2) The potential effects of a project or plan, either alone or in combination with other projects or plans, on a Natura 2000 site in view of its conservation objectives and considering whether these effects will be significant.

If the effects are deemed to be significant, potentially significant, or uncertain, or if the screening process in certain circumstances, becomes overly complicated, then the process must proceed to Stage 2 (AA).

DoEHLG (2009) Guidance on Appropriate Assessment recommends an assessment of European sites within a zone of impact of 15 km. This distance is a guidance only and the zone of impact has been identified taking consideration of the nature and location of the proposed Project to ensure all European sites with connectivity to it are considered in terms of a catchment-based assessment.

The zone of impact may be determined by connectivity to the proposed Project in terms of:

- Nature, scale, timing and duration of works and possible impacts, nature and size of excavations, storage of materials, flat/sloping sites;
- Distance and nature of pathways (dilution and dispersion; intervening 'buffer' lands, roads etc.); and
- Sensitivity and location of ecological features.

The guidance provides that, at the screening stage, it is necessary to identify the relevant Natura 2000 Sites and compile information on their qualifying interests and conservation objectives. In preparation for this, the potential for source pathway receptor connectivity is firstly identified and detailed information is then provided on sites with connectivity. European sites that are located within 15 km of the Project are listed in Table 1 and presented in Figures 4 and 5 below. Spatial boundary data on the Natura 2000 network was extracted from the NPWS website (www.npws.ie) on the 18th November 2019.

Site Code	Site name	Distance (km) ²
000199	Baldoyle Bay SAC	11.96
000202	Howth Head SAC	13.22
000205	Malahide Estuary SAC	14.1
000206	North Dublin Bay SAC	7.47
000210	South Dublin Bay SAC	5.41
001209	Glenasmole Valley SAC	10.99
001398	Rye Water Valley/Carton SAC	13.14
002122	Wicklow Mountains SAC	12.02
003000	Rockabill to Dalkey Island SAC	13.48
004006	North Bull Island SPA	7.46
004016	Baldoyle Bay SPA	12.34
004024	South Dublin Bay and River Tolka Estuary SPA	4.37
004025	Malahide Estuary SPA	14.1
004040	Wicklow Mountains SPA	12.11

Table 1 European Sites located within 15km or the potential zone of impact¹ of the Project.

The nearest European sites are those associated with Dublin Bay including South Dublin Bay and River Tolka Estuary SPA (site Code 004024) which is located approximately 4.37 km to the east, South Dublin Bay SAC (Site Code 000210) which is located approximately 5.41 km to the east, North Bull Island SPA (Site Code 004006) which is located approximately 7.46 km to the east, and North Dublin Bay SAC (Site Code 000206) which is located approximately 7.47 km to the east.

As concluded in the report for the purposes of AA Screening, no direct impacts on the Dublin Bay European sites are predicted, and there will be no habitat loss or fragmentation as a result of the proposed development, given the distance from the European sites in Dublin Bay.

Potential direct impacts on SPA bird species can also be ruled out, given the nature of the proposed development within an existing urban zone, with existing levels of human activity, e.g., movement of vehicles and background noise, as well as the distance of the site from Dublin Bay.

Having considered direct impacts and ruling them out, indirect impacts were then considered.

It should be noted that the primary pathway to European sites during the construction phase is hydrologically via the River Liffey and in this way the nearest sites are the South Dublin Bay and River

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¹ All European sites potentially hydrologically connected irrespective of the nature or scale of the proposed Project. ² Distances indicated are the closest geographical distance between the proposed Project and the European site

boundary, as made available by the NPWS. Connectivity along hydrological pathways may be significantly greater.

Tolka Estuary SPA which is located over 6.8 river km downstream and the North Dublin Bay SAC and North Bull Island SPA which are located over 8.4 river km downstream. The South Dublin Bay SAC is located outside the South Bull wall and while hydrologically more disconnected from the River Liffey, it is included as it overlaps the South Dublin Bay and River Tolka Estuary SPA. Those European sites which are hydrologically connected to the proposed development, but which are located a greater distance from the same have been ruled out from further assessment based on the nature of pathway (i.e. dilution potential).

The consideration of source-pathway-receptor connectivity is presented in the Report for AA Screening and the following European Sites were brought forward for further analysis:

- North Dublin Bay SAC 000206
- South Dublin Bay SAC 000210
- North Bull Island SPA 004006
- South Dublin Bay and River Tolka Estuary SPA 004024

A worst-case scenario may be considered whereby the proposed development would be the source of a significant detrimental change in water quality in Dublin Bay either alone or in combination with other projects or plans as a result of indirect pollution via the River Liffey. The effect would have to be considered in terms of changes in water quality which would affect the habitats or food sources of the species for which the Dublin Bay sites are designated.

There will be indirect connectivity to Dublin Bay via the municipal wastewater system to Ringsend Wastewater Treatment Plant during the operational phase. It is noted that the AWN Hydrological & Hydrogeological Qualitative Risk Assessment (hereafter referred to as the AWN Risk Assessment Report- see Appendix 1) determines that that sewage discharge from the proposed development will not impact on the overall water quality, or water body status, of Dublin Bay, due to the calculated level of peak effluent discharge. However, in accordance with the precautionary principle, the potential for indirect impacts on European sites or species from wastewater discharge to Dublin Bay has been brought forward for further assessment in this NIS.

Similarly, it is noted that the AWN Risk Assessment Report (see Appendix 1) determines that, based on the flow within the Liffey, dilution and attenuation, pollution from contamination events would not be measurable >0.5 km from the site or for a duration of longer than c. 5 days i.e. there would be no likely exceedance above statutory guidelines within Dublin Bay, even without mitigation. However, in accordance with the precautionary principle, the potential for indirect impacts on European sites or species from contamination events has been brought forward for further assessment in this NIS.



Figure 4. Showing European sites and NHAs/pNHAs within 15 km of the proposed development.



Figure 5. Detailed view of European sites and NHAs/pNHAs in the vicinity of the proposed development.

3. Stage 2 – Appropriate Assessment

This stage considers whether the Project, alone or in combination with other projects or plans, will have adverse effects on the integrity of a European site, and includes any mitigation measures necessary to avoid, reduce or offset negative effects. The Stage 2 Appropriate Assessment comprises a scientific examination of the plan / project and the relevant European site to identify and characterise any possible implications for the site in view of the site's conservation objectives, structure and function, taking account of in combination effects.

3.1. Description of European Sites Potentially Affected

The Stage 1 AA has concluded that the potential for significant impacts on the following European Sites cannot be excluded:

- North Dublin Bay SAC (Site code 000206)
- South Dublin Bay SAC (Site code 000210)
- North Bull Island SPA (Site code 004006)
- South Dublin Bay and River Tolka Estuary SPA (Site code 004024)

The Qualifying Interests of the North Dublin Bay SAC and South Dublin Bay SAC are set out in Table 2 and the Special Conservation Interests of the North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA are set out in Table 3 below.

Site Code	Site Name	Qualifying Interests	
000206	North Dublin	Habitats:	
	Bay SAC	[1140] Mudflats and sandflats not covered by seawater at low tide	
		[1210] Annual vegetation of drift lines	
		[1310] Salicornia and other annuals colonising mud and sand	
		[1330] Atlantic salt meadows (Glauco-Puccinellietalia maritimae)	
		[1410] Mediterranean salt meadows (Juncetalia maritimi)	
		[2110] Embryonic shifting dunes	
		[2120] Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes)	
		[2130] Fixed coastal dunes with herbaceous vegetation (grey dunes)	
	[2190] Humid dune slacks		
		Species:	
		[1395] Petalwort Petalophyllum ralfsii	
000210	South Dublin Bay SAC	Habitats: [1140] Mudflats and sandflats not covered by seawater at low tide	

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This report is cognisant of the following notes outlined in the Conservation Objectives:

North Dublin Bay SAC - Please note that this SAC overlaps with North Bull Island SPA (004006) and adjoins Howth Head SAC (000203) and South Dublin Bay and River Tolka Estuary SPA (004024). The conservation objectives for this site should be used in conjunction with those for the overlapping and adjacent sites as appropriate.

South Dublin Bay SAC - Please note that this SAC overlaps with South Dublin Bay and River Tolka Estuary SPA (004024). See map 2. The conservation objectives for this site should be used in conjunction with those for the overlapping site as appropriate.

Site Code	Site Name	Qualifying Interests	
004006	North Bull	Habitats:	
	Island SPA	[A999] Wetlands	
		Species:	
		[A046] Light-bellied Brent Goose Branta bernicla hrota	
		[A048] Shelduck Tadorna tadorna	
		[A052] Teal Anas crecca	
		[A054] Pintail Anas acuta	
		[A056] Shoveler Anas clypeata	
		[A130] Oystercatcher Haematopus ostralegus	
		[A140] Golden Plover Pluvialis apricaria	
		[A141] Grey Plover Pluvialis squatarola	
		[A143] Knot Calidris canutus	
		[A144] Sanderling Calidris alba	
		[A149] Dunlin Calidris alpina alpina	
		[A156] Black-tailed Godwit Limosa limosa	

Table 3 SPAs located within the potential zone of impact of the Project.

Site Code	Site Name	Qualifying Interests
		[A157] Bar-tailed Godwit Limosa lapponica
		[A160] Curlew Numenius arquata
		[A162] Redshank Tringa totanus
		[A169] Turnstone Arenaria interpres
		[A179] Black-headed Gull Chroicocephalus ridibundus
004024	South Dublin	Habitats:
Bay and River Tolka Estuary SPA	[A999] Wetlands	
	l olka Estuary	Species:
	5177	[A046] Light-bellied Brent Goose (Branta bernicla hrota)
		[A130] Oystercatcher (Haematopus ostralegus)
		[A137] Ringed Plover Charadrius hiaticula [A141] Grey Plover (<i>Pluvialis squatarola</i>)
		[A143] Knot (<i>Calidris canutus</i>)
		[A144] Sanderling Calidris alba
		[A149] Dunlin (<i>Calidris alpina</i>)
		[A157] Bar-tailed Godwit (Limosa lapponica)
		[A162] Redshank (Tringa totanus)
		[A179] Black-headed Gull Chroicocephalus ridibundus
		[A192] Roseate Tern Sterna dougallii
		[A193] Common Tern Sterna hirundo
		[A194] Arctic Tern Sterna paradisaea

This report is cognisant of the following notes outlined in the Conservation Objectives:

North Bull Island SPA - Please note that this SPA overlaps with North Dublin Bay SAC (000206) and Rockabill to Dalkey Island SAC (003000). It adjoins Howth Head SAC (000202) and South Dublin Bay and River Tolka Estuary SPA (004024). See map 2. The conservation objectives for this site should be used in conjunction with those for overlapping and adjacent sites as appropriate.

South Dublin Bay and River Tolka Estuary SPA - Please note that this SPA overlaps with South Dublin Bay SAC (000210). It adjoins North Bull Island SPA (004006) and North Dublin Bay SAC (000206). See map 2. The conservation objectives for this site should be used in conjunction with those for overlapping and adjacent sites as appropriate.

3.1.1. North Dublin Bay SAC (000206)

The NPWS provides the following Site Synopsis in relation to the North Dublin Bay SAC (Version date 12.08.2013):

This site covers the inner part of north Dublin Bay, the seaward boundary extending from the Bull Wall lighthouse across to the Martello Tower at Howth Head. The North Bull Island is the focal point of this site.

The site is a Special Area of Conservation (SAC) selected for the following habitats and/or species listed on Annex I / II of the E.U. Habitats Directive (* = priority; numbers in brackets are Natura 2000 codes):

- [1140] Tidal Mudflats and Sandflats
- [1210] Annual Vegetation of Drift Lines
- [1310] Salicornia Mud
- [1330] Atlantic Salt Meadows
- [1410] Mediterranean Salt Meadows
- [2110] Embryonic Shifting Dunes
- [2120] Marram Dunes (White Dunes)
- [2130] Fixed Dunes (Grey Dunes)*
- [2190] Humid Dune Slacks
- [1395] Petalwort (Petalophyllum ralfsii)

North Bull Island is a sandy spit which formed after the building of the South Wall and Bull Wall in the 18th and 19th centuries. It now extends for about 5 km in length and is up to 1 km wide in places. A well-developed and dynamic dune system stretches along the seaward side of the island. Various types of dunes occur, from fixed dune grassland to pioneer communities on foredunes. Marram Grass (Ammophila arenaria) is dominant on the outer dune ridges, with Lyme-grass (Leymus arenarius) and Sand Couch (Elymus farctus) on the foredunes. Behind the first dune ridge, plant diversity increases with the appearance of such species as Wild Pansy (Viola tricolor), Kidney Vetch (Anthyllis vulneraria), Common Bird's-foot-trefoil (Lotus corniculatus), Common Restharrow (Ononis repens), Yellow-rattle (Rhinanthus minor) and Pyramidal Orchid (Anacamptis pyramidalis). In these grassy areas and slacks, the scarce Bee Orchid (Ophrys apifera) occurs.

About 1 km from the tip of the island, a large dune slack with a rich flora occurs, usually referred to as the 'Alder Marsh' because of the presence of Alder trees (Alnus glutinosa). The water table is very near the surface and is only slightly brackish. Saltmarsh Rush (Juncus maritimus) is the dominant species, with Meadowsweet (Filipendula ulmaria) and Devil's-bit Scabious (Succisa pratensis) being frequent. The orchid flora is notable and includes Marsh Helleborine (Epipactis palustris), Common Twayblade (Listera ovata), Autumn Lady's-tresses (Spiranthes spiralis) and Marsh Orchids (Dactylorhiza spp.).

Saltmarsh extends along the length of the landward side of the island. The edge of the marsh is marked by an eroding edge which varies from 20 cm to 60 cm high. The marsh can be zoned into different levels according to the vegetation types present. On the lower marsh, Glasswort (Salicornia europaea), Common Saltmarsh-grass (Puccinellia maritima), Annual Sea-blite (Suaeda maritima) and Greater Seaspurrey (Spergularia media) are the main species. Higher up in the middle marsh Sea Plantain (Plantago maritima), Sea Aster (Aster tripolium), Sea Arrowgrass (Triglochin maritima) and Thrift (Armeria maritima) appear. Above the mark of the normal high tide, species such as Common Scurvygrass (Cochlearia officinalis) and Sea Milkwort (Glaux maritima) are found, while on the extreme upper marsh, the rushes Juncus maritimus and J. gerardi are dominant. Towards the tip of the island, the saltmarsh grades naturally into fixed dune vegetation.

The habitat 'annual vegetation of drift lines' is found in places, along the length of Dollymount Strand, with species such as Sea Rocket (Cakile maritima), Oraches (Atriplex spp.) and Prickly Saltwort (Salsola kali).

The island shelters two intertidal lagoons which are divided by a solid causeway. The sediments of the lagoons are mainly sands with a small and varying mixture of silt and clay. The north lagoon has an area known as the "Salicornia flat", which is dominated by Salicornia dolichostachya, a pioneer glasswort species, and covers about 25 ha. Beaked Tasselweed (Ruppia maritima) occurs in this area, along with some Narrow-leaved Eelgrass (Zostera angustifolia). Dwarf Eelgrass (Z. noltii) also occurs in Sutton Creek. Common Cordgrass (Spartina anglica) occurs in places but its growth is controlled by management. Green algal mats (Enteromorpha spp., Ulva lactuca) cover large areas of the flats during summer. These sediments have a rich macrofauna, with high densities of Lugworms (Arenicola marina) in parts of the north lagoon. Mussels (Mytilus edulis) occur in places, along with bivalves such as Cerastoderma edule, Macoma balthica and Scrobicularia plana. The small gastropod Hydrobia ulvae occurs in high densities in places, while the crustaceans Corophium volutator and Carcinus maenas are common. The sediments on the seaward side of North Bull Island are mostly sands. The site extends below the low spring tide mark to include an area of the sublittoral zone.

Three rare plant species which are legally protected under the Flora (Protection) Order, 1999 have been recorded on the North Bull Island. These are Lesser Centaury (Centaurium pulchellum), Red Hemp-nettle (Galeopsis angustifolia) and Meadow Saxifrage (Saxifraga granulata). Two further species listed as threatened in the Red Data Book, Wild Clary/Sage (Salvia verbenaca) and Spring Vetch (Vicia lathyroides), have also been recorded. A rare liverwort, Petalophyllum ralfsii, was first recorded from the North Bull Island in 1874 and has recently been confirmed as still present. This species is of high conservation value as it is listed on Annex II of the E.U. Habitats Directive. The North Bull is the only known extant site for the species in Ireland away from the western seaboard.

North Dublin Bay is of international importance for waterfowl. During the 1994/95 to 1996/97 period the following species occurred in internationally important numbers (figures are average maxima): Brent Goose 2,333; Knot 4,423; Bar-tailed Godwit 1,586. A further 14 species occurred in nationally important concentrations - Shelduck 1505; Wigeon 1,166; Teal 1,512; Pintail 334; Shoveler 239; Oystercatcher 2,190; Ringed Plover 346; Grey Plover 816; Sanderling 357; Dunlin 6,238; Black-tailed Godwit 156; Curlew 1,193; Turnstone 197 and Redshank 1,175. Some of these species frequent South Dublin Bay and the River Tolka Estuary for feeding and/or roosting purposes (mostly Brent Goose, Oystercatcher, Ringed Plover, Sanderling and Dunlin).

The tip of the North Bull Island is a traditional nesting site for Little Tern. A high total of 88 pairs nested in 1987. However, nesting attempts have not been successful since the early 1990s. Ringed Plover, Shelduck, Mallard, Skylark, Meadow Pipit and Stonechat also nest. A well-known population of Irish Hare is resident on the island.

The invertebrates of the North Bull Island have been studied and the island has been shown to contain at least seven species of regional or national importance in Ireland (from the Orders Diptera, Hymenoptera and Hemiptera).

The main land uses of this site are amenity activities and nature conservation. The North Bull Island is the main recreational beach in Co. Dublin and is used throughout the year. Much of the land surface of the island is taken up by two golf courses. Two separate Statutory Nature Reserves cover much of the island east of the Bull Wall and the surrounding intertidal flats. The site is used regularly for educational purposes. North Bull Island has been designated a Special Protection Area under the E.U. Birds Directive and it is also a statutory Wildfowl Sanctuary, a Ramsar Convention site, a Biogenetic Reserve, a Biosphere Reserve and a Special Area Amenity Order site.

This site is an excellent example of a coastal site with all the main habitats represented. The site holds good examples of nine habitats that are listed on Annex I of the E.U. Habitats Directive; one of these is listed with priority status. Several of the wintering bird species have populations of international importance, while some of the invertebrates are of national importance. The site contains a numbers of rare and scarce plants including some which are legally protected. Its proximity to the capital city makes North Dublin Bay an excellent site for educational studies and research.

3.1.2. South Dublin Bay SAC (000210)

The NPWS provides the following Site Synopsis in relation to the South Dublin Bay SAC (Version date 10.12.2015):

This site lies south of the River Liffey in Co. Dublin and extends from the South Wall to the west pier at Dun Laoghaire. It is an intertidal site with extensive areas of sand and mudflats. The sediments are predominantly sands but grade to sandy muds near the shore at Merrion Gates. The main channel which drains the area is Cockle Lake.

The site is a Special Area of Conservation (SAC) selected for the following habitats and/or species listed on Annex I / II of the E.U. Habitats Directive (* = priority; numbers in brackets are Natura 2000 codes):

[1140] Tidal Mudflats and Sandflats [1210] Annual vegetation of drift lines [1310] Salicornia and other annuals colonising mud and sand

[2110] Embryonic shifting dunes

The bed of Dward Eelgrass (Zostera noltii) found below Merrion Gates is the largest stand on the east coast. Green algae (Enteromorpha spp. and Ulva lactuca) are distributed throughout the area at a low density. Fucoid algae occur on the rocky shore in the Maretimo to Dún Laoghaire area. Species include Fucus spiralis, F. vesiculosus, F. serratus, Ascophyllum nodosum and Pelvetia canaliculata.

Several small, sandy beaches with incipient dune formation occur in the northern and western sectors of the site, notably at Poolbeg, Irishtown and Merrion/ Booterstown. The formation at Booterstown is very recent. Drift line vegetation occurs in association with the embryonic and incipient fore dunes. Typically drift lines occur in a band approximately 5 m wide, though at Booterstown this zone is wider in places. The habitat occurs just above the High Water Mark and below the area of embryonic dune. Species present are Sea Rocket (Cakile maritima), Frosted Orache (Atriplex laciniata), Spear-leaved Orache (A. prostrata), Prickly Saltwort (Salsola kali) and Fat Hen (Chenopodium album). Also occurring is Sea Sandwort (Honkenya peploides), Sea Beet (Beta vulgaris subsp. maritima) and Annual Sea-blite (Suaeda maritima). A small area of pioneer saltmarsh now occurs in the lee of an embryonic sand dune just north of Booterstown Station. This early stage of saltmarsh development is here characterised by the presence of pioneer stands of glassworts (Salicornia spp.) occurring below an area of drift line vegetation. As this is of very recent origin, it covers a small area but ample areas of substrate and shelter are available for the further development of this habitat.

Lugworm (Arenicola marina), Cockles (Cerastoderma edule) and annelids and other bivalves are frequent throughout the site. The small gastropod Hydrobia ulvae occurs on the muddy sands off Merrion Gates.

South Dublin Bay is an important site for waterfowl. Although birds regularly commute between the south bay and the north bay, recent studies have shown that certain populations which occur in the south bay spend most of their time there. The principal species are Oystercatcher (1215), Ringed Plover (120), Sanderling (344), Dunlin (2628) and Redshank (356) (average winter peaks 1996/97 and 1997/98). Up to 100 Turnstones are usual in the south bay during winter. Brent Goose regularly occur in numbers of international importance (average peak 299). Bar-tailed Godwit (565), a species listed on Annex I of the E.U. Birds Directive, also occur.

Large numbers of gulls roost in South Dublin Bay, e.g. 4,500 Black-headed Gulls in February 1990; 500 Common Gulls in February 1991. It is also an important tern roost in the autumn, regularly holding 2000-3000 terns including Roseate Terns, a species listed on Annex I of the E.U. Birds Directive. South Dublin Bay is largely protected as a Special Protection Area. At low tide the inner parts of the south bay are used for amenity purposes. Bait-digging is a regular activity on the sandy flats. At high tide some areas have wind-surfing and jet-skiing.

This site is a fine example of a coastal system, with extensive sand and mudflats, and incipient dune formations. South Dublin Bay is also an internationally important bird site.

3.1.3. North Bull Island SPA (004006)

The NPWS provides the following Site Synopsis in relation to the North Bull Island SPA (Version date 25.03.2014):

This site covers all of the inner part of north Dublin Bay, with the seaward boundary extending from the Bull Wall lighthouse across to Drumleck Point at Howth Head. The North Bull Island sand spit is a relatively recent depositional feature, formed as a result of improvements to Dublin Port during the 18th and 19th centuries. It is almost 5 km long and 1 km wide and runs parallel to the coast between Clontarf and Sutton. Part of the interior of the island has been converted to golf courses.

Saltmarsh extends along the length of the landward side of the island and provides the main roost site for wintering birds in Dublin Bay. The island shelters two intertidal lagoons which are divided by a solid causeway. These lagoons provide the main feeding grounds for the wintering waterfowl. The sediments of the lagoons are mainly sands with a small and varying mixture of silt and clay. Green algal mats (Ulva spp.) are a feature of the flats during summer. These sediments have a rich macro-invertebrate fauna, with high densities of Lugworm (Arenicola marina) and Ragworm (Hediste diversicolor).

The site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for the following species: Light-bellied Brent Goose, Shelduck, Teal, Pintail, Shoveler, Oystercatcher, Golden Plover, Grey Plover, Knot, Sanderling, Dunlin, Black-tailed Godwit, Bar-tailed Godwit, Curlew, Redshank, Turnstone and Black-headed Gull. The site is also of special conservation interest for holding an assemblage of over 20,000 wintering waterbirds. The E.U. Birds Directive pays particular attention to wetlands and, as these form part of this SPA, the site and its associated waterbirds are of special conservation interest for Wetland & Waterbirds.

The North Bull Island SPA is of international importance for waterfowl on the basis that it regularly supports in excess of 20,000 waterfowl. The site supports internationally important populations of three species, Light-bellied Brent Goose (1,548), Black-tailed Godwit (367) and Bar-tailed Godwit (1,529) - all figures are mean peaks for the five winters between 1995/96 and 1999/2000. The site is one of the most important in the country for Light-bellied Brent Goose. A further 14 species have populations of national importance – Shelduck (1,259), Teal (953), Pintail (233), Shoveler (141), Oystercatcher (1,784), Grey Plover (517), Golden Plover (2,033), Knot (2,837), Sanderling (141), Dunlin (4,146), Curlew (937),

Redshank (1,431), Turnstone (157) and Black-headed Gull (2,196). The populations of Pintail and Knot are of particular note as they comprise 14% and 10% respectively of the all-Ireland population totals. Other species that occur regularly in winter include Grey Heron, Little Egret, Cormorant, Wigeon, Goldeneye, Red-breasted Merganser, Ringed Plover and Greenshank. Gulls are a feature of the site during winter and, along with the nationally important population of Black-headed Gull (2,196), other species that occur include Common Gull (332) and Herring Gull (331). While some of the birds also frequent South Dublin Bay and the River Tolka Estuary for feeding and/or roosting purposes, the majority remain within the site for much of the winter. The wintering bird populations have been monitored more or less continuously since the late 1960s and the site is now surveyed each winter as part of the larger Dublin Bay complex.

The North Bull Island SPA is a regular site for passage waders, especially Ruff, Curlew Sandpiper and Spotted Redshank. These are mostly observed in single figures in autumn but occasionally in spring or winter.

The site formerly had an important colony of Little Tern but breeding has not occurred in recent years. Several pairs of Ringed Plover breed, along with Shelduck in some years. Breeding passerines include Skylark, Meadow Pipit, Stonechat and Reed Bunting. The island is a regular wintering site for Shorteared Owl, with up to 5 present in some winters.

The North Bull Island SPA is an excellent example of an estuarine complex and is one of the top sites in Ireland for wintering waterfowl. It is of international importance on account of both the total number of waterfowl and the individual populations of Light-bellied Brent Goose, Black-tailed Godwit and Bartailed Godwit that use it. Also of significance is the regular presence of several species that are listed on Annex I of the E.U. Birds Directive, notably Golden Plover and Bar-tailed Godwit, but also Ruff and Shorteared Owl. North Bull Island is a Ramsar Convention site, and part of the North Bull Island SPA is a Statutory Nature Reserve and a Wildfowl Sanctuary.

3.1.4. South Dublin Bay and River Tolka Estuary SPA (Site code 004024)

The NPWS provides the following Site Synopsis in relation to the South Dublin Bay and River Tolka Estuary SPA (Version date 30.05.2015):

The South Dublin Bay and River Tolka Estuary SPA comprises a substantial part of Dublin Bay. It includes the intertidal area between the River Liffey and Dun Laoghaire, and the estuary of the River Tolka to the north of the River Liffey, as well as Booterstown Marsh. A portion of the shallow marine waters of the bay is also included. In the south bay, the intertidal flats extend for almost 3 km at their widest. The sediments are predominantly well-aerated sands. Several permanent channels exist, the largest being Cockle Lake. A small sandy beach occurs at Merrion Gates, while some bedrock shore occurs near Dun Laoghaire. The landward boundary is now almost entirely artificially embanked. There is a bed of Dwarf Eelgrass (Zostera noltii) below Merrion Gates which is the largest stand on the east coast. Green algae (Ulva spp.) are distributed throughout the area at a low density. The macro-invertebrate fauna is well-developed, and is characterised by annelids such as Lugworm (Arenicola marina), Nephthys spp. and Sand Mason (Lanice conchilega), and bivalves, especially Cockle (Cerastoderma edule) and Baltic Tellin (Macoma balthica). The small gastropod Spire Shell (Hydrobia ulvae) occurs on the muddy sands off Merrion Gates, along with the crustacean Corophium volutator. Sediments in the Tolka Estuary vary from soft thixotrophic muds with a high organic content in the inner estuary to exposed, well-aerated sands off the Bull Wall. The site includes Booterstown Marsh, an enclosed area of saltmarsh and muds that is cut off from the sea by the Dublin/Wexford railway line, being linked only by a channel to the east, the Nutley stream. Sea water incursions into the marsh occur along this stream at high tide. An area of grassland at Poolbeg, north of Irishtown Nature Park, is also included in the site.

The site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for the following species: Light-bellied Brent Goose, Oystercatcher, Ringed Plover, Grey Plover, Knot, Sanderling, Dunlin, Bar-tailed Godwit, Redshank, Black-headed Gull, Roseate Tern, Common Tern and Arctic Tern. The E.U. Birds Directive pays particular attention to wetlands, and as these form part of the SPA, the site and its associated waterbirds are of special conservation interest for Wetland & Waterbirds.

The site is an important site for wintering waterfowl, being an integral part of the internationally important Dublin Bay complex – all counts for wintering waterbirds are five year mean peaks for the period 1995/96 to 1999/2000. Although birds regularly commute between the south bay and the north bay, recent studies have shown that certain populations which occur in the south bay spend most of their time there. An internationally important population of Light-bellied Brent Goose (368) occurs regularly and newly arrived birds in the autumn feed on the Eelgrass bed at Merrion. At the time of designation the site supported nationally important numbers of a further nine species: Oystercatcher (1,145), Ringed Plover (161), Grey Plover (45), Knot (548), Sanderling (321), Dunlin (1,923), Bar-tailed Godwit (766), Redshank (260) and Black-headed Gull (3,040). Other species occurring in smaller numbers include Great Crested Grebe (21), Curlew (127) and Turnstone (52). Little Egret, a species which has recently colonised Ireland, also occurs at this site.

South Dublin Bay is a significant site for wintering gulls, with a nationally important population of Blackheaded Gull, but also Common Gull (330) and Herring Gull (348). Mediterranean Gull is also recorded from here, occurring through much of the year, but especially in late winter/spring and again in late summer into winter. Both Common Tern and Arctic Tern breed in Dublin Docks, on a man-made mooring structure known as the E.S.B. dolphin – this is included within the site. Small numbers of Common Tern and Arctic Tern were recorded nesting on this dolphin in the 1980s. A survey in 1995 recorded nationally important numbers of Common Tern nesting here (52 pairs). The breeding population of Common Tern at this site has increased, with 216 pairs recorded in 2000. This increase was largely due to the ongoing management of the site for breeding terns. More recent data highlights this site as one of the most important Common Tern sites in the country with over 400 pairs recorded here in 2007.

South Dublin Bay is an important staging/passage site for a number of tern species in the autumn (mostly late July to September). The origin of many of the birds is likely to be the Dublin breeding sites (Rockabill and the Dublin Docks) though numbers suggest that the site is also used by birds from other sites, perhaps outside the state. This site is selected for designation for its autumn tern populations: Roseate Tern (2,000 in 1999), Common Tern (5,000 in 1999) and Arctic Tern (20,000 in 1996).

The South Dublin Bay and River Tolka Estuary SPA is of ornithological importance as it supports an internationally important population of Light-bellied Brent Goose and nationally important populations of a further nine wintering species. Furthermore, the site supports a nationally important colony of breeding Common Tern and is an internationally important passage/staging site for three tern species. It is of note that four of the species that regularly occur at this site are listed on Annex I of the E.U. Birds Directive, i.e. Bar-tailed Godwit, Common Tern, Arctic Tern and Roseate Tern. Sandymount Strand/Tolka Estuary is also a Ramsar Convention site.

3.2. Conservation Objectives of European Sites

3.2.1. North Dublin Bay SAC (000206) – Version 1, 6th November 2013

The following Conservation Objectives are set out for the North Dublin Bay SAC. Specific attributes, measures and targets are presented in the relevant Conservation Objectives documents and will be addressed in more detail if required after potential impacts have been determined.

1140 Mudflats and sandflats not covered by seawater at low tide

To maintain the favourable conservation condition of Mudflats and sandflats not covered by seawater at low tide in North Dublin Bay SAC, which is defined by the following list of attributes and targets:

Attribute	Measure	Target
Habitat area	Hectares	The permanent habitat area is stable or increasing, subject to natural processes
Community extent	Hectares	Maintain the extent of the <i>Mytilus edulis</i> - dominated community, subject to natural processes

Attribute	Measure	Target
Community structure: <i>Mytilus</i> <i>edulis</i> density	Individuals/m ²	Conserve the high quality of the <i>Mytilus edulis</i> - dominated community, subject to natural processes
Community distribution	Hectares	Conserve the following community types in a natural condition: Fine sand to sandy mud with <i>Pygospio elegans</i> and <i>Crangon crangon</i> community complex; Fine sand with <i>Spio</i> <i>martinensis</i> community complex.

1210 Annual vegetation of drift lines

To restore the favourable conservation condition of Annual vegetation of drift lines in North Dublin Bay SAC, which is defined by the following list of attributes and targets:

Attribute	Measure	Target
Habitat area	Hectares	Area increasing, subject to natural processes, including erosion and succession. Total area mapped: South Bull - 0.11ha.
Habitat distribution	Occurrence	No decline, or change in habitat distribution, subject to natural processes
Physical structure: functionality and sediment supply	Presence/ absence of physical barriers	Maintain the natural circulation of sediment and organic matter, without any physical obstructions
Vegetation structure: zonation	Occurrence	Maintain the range of coastal habitats including transitional zones, subject to natural processes including erosion and succession
Vegetation composition: typical species and sub-communities	Percentage cover at a representative number of monitoring stops	Maintain the presence of species-poor communities with typical species: sea rocket (<i>Cakile maritima</i>), sea sandwort (<i>Honckenya peploides</i>), prickly saltwort (<i>Salsola kali</i>) and oraches (<i>Atriplex spp</i> .)
Vegetation structure: negative indicator species	Hectares	Negative indicator species (including non- natives) to represent less than 5% cover

1310 Salicornia and other annuals colonising mud and sand

To restore the favourable conservation condition of *Salicornia* and other annuals colonizing mud and sand in North Dublin Bay SAC, which is defined by the following list of attributes and targets:

Attribute	Measure	Target
Habitat area	Hectares	Area stable or increasing, subject to natural processes, including erosion and succession. For sub-site mapped: North Bull Island - 29.10ha.
Habitat distribution	Occurrence	No decline, or change in habitat distribution, subject to natural processes
Physical structure: sediment supply	Presence/ absence of physical barriers	Maintain, or where necessary restore, natural circulation of sediments and organic matter, without any physical obstructions

Physical structure: creeks and pans	Occurrence	Maintain creek and pan structure, subject to natural processes, including erosion and succession
Physical structure: flooding regime	Hectares flooded; frequency	Maintain natural tidal regime
Vegetation structure: zonation	Occurrence	Maintain the range of coastal habitats including transitional zones, subject to natural processes including erosion and succession
Vegetation structure: vegetation height	Centimetres	Maintain structural variation within sward
Vegetation structure: vegetation cover	Percentage cover at a representative sample of monitoring stops	Maintain more than 90% of area outside creeks vegetated
Vegetation composition: typical species and sub-communities	Percentage cover	Maintain the presence of species-poor communities listed in SMP (McCorry and Ryle, 2009)
Vegetation structure: negative indicator species - <i>Spartina anglica</i>	Hectares	No significant expansion of common cordgrass (<i>Spartina anglica</i>). No new sites for this species and an annual spread of less than 1%

1330 Atlantic salt meadows (Glauco-Puccinellietalia maritimae)

To restore the favourable conservation condition of Atlantic salt meadows (*GlaucoPuccinellietalia maritimae*) in North Dublin Bay SAC, which is defined by the following list of attributes and targets:

Attribute	Measure	Target
Habitat area	Hectares	Area stable or increasing, subject to natural processes, including erosion and succession. For sub-site mapped: North Bull Island - 81.84ha.
Habitat distribution	Occurrence	No decline, or change in habitat distribution, subject to natural processes
Physical structure: sediment supply	Presence/ absence of physical barriers	Maintain natural circulation of sediments and organic matter, without any physical obstructions
Physical structure: creeks and pans	Occurrence	Maintain creek and pan structure, subject to natural processes, including erosion and succession
Physical structure: flooding regime	Hectares flooded; frequency	Maintain natural tidal regime
Vegetation structure: zonation	Occurrence	Maintain the range of coastal habitats including transitional zones, subject to natural processes including erosion and succession
Vegetation structure: vegetation height	Centimetres	Maintain structural variation within sward
Vegetation structure: vegetation cover	Percentage cover at a representative sample of monitoring stops	Maintain more than 90% of area outside creeks vegetated
Vegetation composition: typical species and sub- communities	Percentage cover at a representative sample of monitoring stops	Maintain range of subcommunities with typical species listed in SMP (McCorry and Ryle, 2009)

Attribute	Measure	Target
Vegetation structure: negative indicator species - Spartina anglica	Hectares	No significant expansion of common cordgrass (<i>Spartina anglica</i>), with an annual spread of less than 1%

1410 Mediterranean salt meadows (Juncetalia maritimi)

To maintain the favourable conservation condition of Mediterranean salt meadows (*Juncetalia maritimi*) in North Dublin Bay SAC, which is defined by the following list of attributes and targets:

Attribute	Measure	Target
Habitat area	Hectares	Area stable or increasing, subject to natural processes, including erosion and succession. For sub-site mapped: North Bull Island - 7.98ha.
Habitat distribution	Occurrence	No decline or change in habitat distribution, subject to natural processes.
Physical structure: sediment supply	Presence/ absence of physical barriers	Maintain/restore natural circulation of sediments and organic matter, without any physical obstructions
Physical structure: creeks and pans	Occurrence	Maintain creek and pan structure, subject to natural processes, including erosion and succession
Physical structure: flooding regime	Hectares flooded; frequency	Maintain natural tidal regime
Vegetation structure: zonation	Occurrence	Maintain range of coastal habitats including transitional zones, subject to natural processes including erosion and succession
Vegetation structure: vegetation height	Centimetres	Maintain structural variation within sward
Vegetation structure: vegetation cover	Percentage cover at a representative sample of monitoring stops	Maintain more than 90% of area outside creeks vegetated
Vegetation composition: typical species and sub- communities	Percentage cover at a representative sample of monitoring stops	Maintain range of sub-communities with characteristic species listed in SMP (McCorry and Ryle, 2009)
Vegetation structure: negative indicator species - Spartina anglica	Hectares	No significant expansion of common cordgrass (<i>Spartina anglica</i>), with an annual spread of less than 1%

2110 Embryonic shifting dunes

To restore the favourable conservation condition of Embryonic shifting dunes in North Dublin Bay SAC, which is defined by the following list of attributes and targets:

Attribute	Measure	Target
Habitat area	Hectares	Area stable or increasing, subject to natural processes, including erosion and succession. For sub-sites mapped: North Bull - 2.64ha; South Bull - 3.43ha.

Attribute	Measure	Target
Habitat distribution	Occurrence	No decline, or change in habitat distribution, subject to natural processes.
Physical structure: functionality and sediment supply	Presence/ absence of physical barriers	Maintain the natural circulation of sediment and organic matter, without any physical obstructions
Vegetation structure: zonation	Occurrence	Maintain range of coastal habitats, including transitional zones, subject to natural processes including erosion and succession
Vegetation composition: plant health of foredune grasses	Percentage cover	More than 95% of sand couch (<i>Elytrigia juncea</i>) and/or lyme-grass (<i>Leymus arenarius</i>) should be healthy (i.e. green plant parts above ground and flowering heads present)
Vegetation composition: typical species and sub- communities	Percentage cover at a representative number of monitoring stops	Maintain the presence of species-poor communities with typical species: sand couch (<i>Elytrigia juncea</i>) and/or lyme-grass (<i>Leymus</i> arenarius)
Vegetation composition: negative indicator species	Percentage cover	Negative indicator species (including non-natives) to represent less than 5% cover

2120 Shifting dunes along the shoreline with Ammophila arenaria (white dunes)

To restore the favourable conservation condition of Shifting dunes along the shoreline with *Ammophila arenaria* ('white dunes') in North Dublin Bay SAC, which is defined by the following list of attributes and targets:

Attribute	Measure	Target
Habitat area	Hectares	Area stable or increasing, subject to natural processes including erosion and succession. North Bull - 2.20ha; South Bull - 0.97ha.
Habitat distribution	Occurrence	No decline, or change in habitat distribution, subject to natural processes.
Physical structure: functionality and sediment supply	Presence/ absence of physical barriers	Maintain the natural circulation of sediment and organic matter, without any physical obstructions
Vegetation structure: zonation	Occurrence	Maintain range of coastal habitats, including transitional zones, subject to natural processes including erosion and succession
Vegetation composition: plant health of dune grasses	Percentage cover	95% of marram grass (<i>Ammophila arenaria</i>) and/or lyme-grass (<i>Leymus arenarius</i>) should be healthy (i.e. green plant parts above ground and flowering heads present)
Vegetation composition: typical species and sub- communities	Percentage cover at a representative number of monitoring stops	Maintain the presence of species-poor communities dominated by marram grass (<i>Ammophila arenaria</i>) and/or lymegrass (<i>Leymus</i> <i>arenarius</i>)
Vegetation composition: negative indicator species	Percentage cover	Negative indicator species (including non-natives) to represent less than 5% cover
2130 Fixed coastal dunes with herbaceous vegetation (grey dunes)

To restore the favourable conservation condition of Fixed coastal dunes with herbaceous vegetation ('grey dunes') in North Dublin Bay SAC, which is defined by the following list of attributes and targets:

Attribute	Measure	Target
Habitat area	Hectares	Area stable or increasing, subject to natural processes including erosion and succession. For subsites mapped: North Bull - 40.29ha; South Bull - 64.56ha.
Habitat distribution	Occurrence	No decline, or change in habitat distribution, subject to natural processes
Physical structure: functionality and sediment supply	Presence/ absence of physical barriers	Maintain the natural circulation of sediment and organic matter, without any physical obstructions
Vegetation structure: zonation	Occurrence	Maintain the range of coastal habitats including transitional zones, subject to natural processes including erosion and succession
Vegetation structure: bare ground	Percentage cover	Bare ground should not exceed 10% of fixed dune habitat, subject to natural processes
Vegetation structure: sward height	Centimetres	Maintain structural variation within sward
Vegetation composition: typical species and sub- communities	Percentage cover at a representative sample of monitoring stops	Maintain range of sub-communities with typical species listed in Delaney et al. (2013)
Vegetation composition: negative indicator species (including <i>Hippophae</i> <i>rhamnoides</i>)	Percentage Cover	Negative indicator species (including non-natives) to represent less than 5% cover
Vegetation composition: scrub/trees	Percentage Cover	No more than 5% cover or under control

2190 Humid dune slacks

To restore the favourable conservation condition of Humid dune slacks in North Dublin Bay SAC, which

is defined by the following list of attributes and targets:

Attribute	Measure	Target
Habitat area	Hectares	Area increasing, subject to natural processes including erosion and succession. For sub-sites mapped: North Bull - 2.96ha; South Bull - 9.15ha.
Habitat distribution	Occurrence	No decline, or change in habitat distribution, subject to natural processes
Physical structure: functionality and sediment supply	Presence/ absence of physical barriers	Maintain the natural circulation of sediment and organic matter, without any physical obstructions
Physical structure: hydrological and flooding regime	Water table levels; groundwater fluctuations (metres)	Maintain natural hydrological regime

Attribute

zonation

ground

Vegetation structure:

Vegetation structure: bare

Measure	Target
Occurrence	Maintain the range of coastal habitats including transitional zones, subject to natural processes including erosion and succession
Percentage cover	Bare ground should not exceed 5% of dune slack habitat, with the exception of pioneer slacks which can have up to 20% bare ground
Centimetres	Maintain structural variation within sward

Vegetation structure: vegetation height	Centimetres	Maintain structural variation within sward
Vegetation composition: typical species and sub- communities	Percentage cover at a representative sample of monitoring stops	Maintain range of sub-communities with typical species listed in Delaney et al. (2013)
Vegetation composition: cover of <i>Salix repens</i>	Percentage cover; centimetres	Maintain less than 40% cover of creeping willow (<i>Salix repens</i>)
Vegetation composition: negative indicator species	Percentage Cover	Negative indicator species (including non-natives) to represent less than 5% cover
Vegetation composition: scrub/trees	Percentage Cover	No more than 5% cover or under control

1395 Petalwort Petalophyllum ralfsii

To maintain the favourable conservation condition of Petalwort in North Dublin Bay SAC, which is defined by the following list of attributes and targets:

Attribute	Measure	Target
Distribution of populations	Number and geographical spread of populations	No decline.
Population size	Number of individuals	No decline. Population at Bull Island estimated at a maximum of 5,824 thalli. Actual population is more likely to be 5% of this, or c. 300 thalli
Area of suitable habitat	Hectares	No decline. Area of suitable habitat at Bull Island is estimated at c. 0.04ha.
Hydrological conditions: soil moisture	Occurrence	Maintain hydrological conditions so that substrate is kept moist and damp throughout the year, but not subject to prolonged inundation by flooding in winter
Vegetation structure: height and cover	Centimetres and percentage	Maintain open, low vegetation with a high percentage of bryophytes (small acrocarps and liverwort turf) and bare ground

3.2.2. South Dublin Bay SAC (000210) - Version 1, 22nd August 2013

The following Conservation Objective is set out for the South Dublin Bay SAC. Specific attributes, measures and targets are presented in the relevant Conservation Objectives documents and will be addressed in more detail if required after potential impacts have been determined.

1140 Mudflats and sandflats not covered by seawater at low tide

To maintain the favourable conservation condition of Mudflats and sandflats not covered by seawater at low tide in South Dublin Bay SAC, which is defined by the following list of attributes and targets.

Attribute	Measure	Target
Habitat area	Hectares	The permanent habitat area is stable or increasing, subject to natural processes
Community extent	Hectares	Maintain the extent of the <i>Zostera</i> -dominated community, subject to natural processes
Community structure: <i>Mytilus edulis</i> density	Individuals/m ²	Conserve the high quality of the <i>Zostera</i> - dominated community, subject to natural processes
Community distribution	Hectares	Conserve the following community types in a natural condition: Fine sands with <i>Angulus tenuis</i> community complex.

3.2.3. North Bull Island SPA (004006) – Version 1, 9th March 2015

The following Conservation Objectives are set out for the North Bull Island SPA. Specific attributes, measures and targets are presented in the relevant Conservation Objectives documents and will be addressed in more detail if required after potential impacts have been determined.

Generic Conservation Objectives

In the absence of specific conservation objectives, the following generic conservation objectives can be applied to each qualifying species listed. Species with specific conservation objectives are listed below.

To maintain the favourable conservation condition of [each qualifying species] in North Bull Island SPA, which is defined by the following list of attributes and targets:

[Qualifying Bird Species]

Attribute	Measure	Target
Population trend	Percentage change	Long term population trend stable or increasing
Distribution	Range, timing and intensity of use of areas	No significant decrease in the range, timing or intensity of use of areas by [each qualifying species], other than that occurring from natural patterns of variation

Specific Conservation Objectives

A99 Wetlands

To maintain the favourable conservation condition of the Wetland habitat in North Bull Island SPA as a resource for the regularly occurring migratory waterbirds that utilise it. This is defined by the following attribute and target:

Attribute	Measure	Target
Habitat area	Hectares	The permanent area occupied by the wetland habitat should be stable and not significantly less than the area of 1,713 hectares, other than that occurring from natural patterns of variation.

3.2.4. South Dublin Bay and River Tolka Estuary SPA (004024) - Version 1, 9th March 2015

The following Conservation Objectives are set out for the South Dublin Bay and River Tolka Estuary SPA. Specific attributes, measures and targets are presented in the relevant Conservation Objectives documents and will be addressed in more detail if required after potential impacts have been determined.

Specific Conservation Objectives and Target Notes are set by the NPWS (Vers 1; 9th March 2015) for the South Dublin Bay and River Tolka Estuary SPA (004025) as follows.

Generic Conservation Objectives

In the absence of specific conservation objectives, the following generic conservation objectives can be applied to each qualifying species listed. Species with specific conservation objectives are listed below.

To maintain the favourable conservation condition of [each qualifying species] in Malahide Estuary SPA, which is defined by the following list of attributes and targets:

[Qualifying Bird Species]

Attribute	Measure	Target
Population trend	Percentage change	Long term population trend stable or increasing
Distribution	Range, timing and intensity of use of areas	No significant decrease in the range, timing or intensity of use of areas by redshank, other than that occurring from natural patterns of variation

Specific Conservation Objectives

A141 Grey Plover Pluvialis squatarola

Grey Plover is proposed for removal from the list of Special Conservation Interests for South Dublin Bay and River Tolka Estuary SPA. As a result, a site-specific conservation objective has not been set for this species.

A192 Roseate Tern Sterna dougallii

To maintain the favourable conservation condition of Roseate Tern in South Dublin Bay and River Tolka Estuary SPA, which is defined by the following list of attributes and targets:

Attribute	Measure	Target
Passage population: individuals	Number	No significant decline
Distribution: roosting areas	Number; location; area (hectares)	No significant decline
Prey biomass available	Kilogrammes	No significant decline
Barriers to connectivity	Number; location; shape; area (hectares)	No significant decline
Disturbance at roosting site	Level of impact	Human activities should occur at levels that do not adversely affect the numbers of roseate tern among the post-breeding aggregation of terns

A193 Common Tern Sterna hirundo

To maintain the favourable conservation condition of Common Tern in South Dublin Bay and River Tolka Estuary SPA, which is defined by the following list of attributes and targets:

Attribute	Measure	Target
Breeding population abundance: Apparently occupied nests (AONs)	Number	No significant decline
Productivity rate: fledged young per breeding pair	Mean number	No significant decline
Passage population: individuals	Number	No significant decline
Distribution: breeding colonies	Number; location; area (Hectares)	No significant decline
Distribution: roosting areas	Number; location; area (Hectares)	No significant decline
Prey biomass available	Kilogrammes	No significant decline
Barriers to connectivity	Number; location; shape; area (hectares)	No significant increase
Disturbance at breeding site	Level of impact	Human activities should occur at levels that do not adversely affect the breeding common tern population
Disturbance at roosting site	Level of impact	Human activities should occur at levels that do not adversely affect

Attribute	Measure	Target
		the numbers of common tern among the post-breeding aggregation of terns

A194 Arctic Tern Sterna paradisaea

To maintain the favourable conservation condition of Arctic Tern in South Dublin Bay and River Tolka Estuary SPA, which is defined by the following list of attributes and targets:

Attribute	Measure	Target
Passage population	Number of individuals	No significant decline
Distribution: roosting areas	Number; location; area (Hectares)	No significant decline
Prey biomass available	Kilogrammes	No significant decline
Barriers to connectivity	Number; location; shape; area (hectares)	No significant increase
Disturbance at roosting site	Level of impact	Human activities should occur at levels that do not adversely affect the numbers of Arctic tern among the post-breeding aggregation of terns

A99 Wetlands

To maintain the favourable conservation condition of the wetland habitat in South Dublin Bay and River Tolka Estuary SPA as a resource for the regularly-occurring migratory water birds that utilise it. This is defined by the following attribute and target:

Attribute	Measure	Target
Habitat area	Hectares	The permanent area occupied by the wetland habitat should be stable and not significantly less than the area of 2,192 hectares, other than that occurring from natural patterns of variation.

3.3. Description of the Existing Environment

The predominant habitat on site is 'Buildings and artificial surfaces' (BL3) which comprise the existing buildings and hardstanding areas of the site and adjacent Parkgate Street where upgrading drainage is proposed. A boundary stone and concrete wall (BL1) encompasses much of the site both by Parkgate Street and to the rear of the site, by the River Liffey.

There were no rare or protected flora recorded in the Project area.

There are two 'green' areas; one internal small patch of grass which is scrubby in appearance to the south centre of the hardstanding area. The area is recolonised (ED3) by ruderal species such as Dandelion (*Taraxacum* agg.) and Dock (*Rumex obtusifolius*), Petty spurge (*Euphorbia peplus*),

Germander speedwell (Veronica chamaedrys), Rye grass (Lolium spp.), Daisy (Bellis perennis), Ribwort plantain (Plantago lanceolata), Red clover (Trifolium pratense), Rosebay willowherb (Chamerion angustifolium) along with Cow parsley (Anthriscus sylvestris), Yorkshire fog (Holcus lanatus), Ragwort (Senecio jacobaea), False oat-grass (Arrhenatherum elatius), Juvenile Sycamore (Acer pseudoplatanus), Bramble (Rubus fruticosus agg.), Cleavers (Galium aparine) and with Ivy (Hedera helix) growing onto the adjacent wall. A few Butterfly bushes (Buddleia davidii) give the area a scrubby appearance. Buddleia is considered an invasive species on road projects but is widespread in abandoned urban sites and is easily removed.

Outside the site, the eastern corner of the site is bordered by a small landscaped area at the corner of Parkgate Street and Heuston Bridge; separated from the internal site by the boundary wall and from the urban street by metal railings. It is comprised of a patch of rough grass planted with four cultivar Lime trees (*Tilia cordata*).

Sections between the buildings consist primarily of concrete, with a very sparse cover of plant species found in cracks and flower beds. Species recorded include: dandelion (*Taraxacum vulgaria*), mouse-ear chickweed (*Cerastium*), Herb Robert (*Geranium robertianum*), Ladies smock (*Cardamine pratensis*), Shepherds purse (*Capsella bursa-pastoris*), Smooth sow-thistle (*Sonchus oleraceus*), Willowherb (*Epilobium hirsutum*), Creeping bent (*Agrostis stolonifera*) and Oxeye daisy (*Leucanthemum vulgare*). A small flowerbed has non-native holly and ornamental willow scrub.

The boundary wall to the River Liffey is colonised by patches of Ivy with small amounts of Ivy growing on the outer river side along with occasional Buddleia plants and Broad-leaved dock (*Rumex obtusifolius*) at lower levels.

The River Liffey (FW2) is tidal at the point of the proposed development site at Heuston Bridge with the Islandbridge weir upstream of Sarah Bridge (Islandbridge) historically referred to as the 'highest point to which ordinary tides flow'. Thus, downstream of the weir the waters become brackish or have saltwater intrusion, depending on the level of the tide. Shortly after the weir and 'Sarah Bridge' downstream, the river enters its urban course through Dublin City. It discharges to Dublin Bay and feeds into the designated European sites which comprise the Dublin Bay Biosphere.

Upstream of Chapelizod, the river has a more natural course and is designated at a proposed Natural Heritage Area; the Liffey Valley pNHA and also holds the status of a Special Amenity Area. The River Liffey is a Salmon river and the river valley upstream is designated for mixed deciduous woodlands which occur on both sides of the river, normally consisting of old estate woodlands.

The immediate riverine environment adjacent to the proposed development site does not contain any designated habitats but is important in terms of water quality as a habitat for salmonids and otters.

3.4.Consideration of Potential for Impacts on European Sites before Mitigation

As described in Section 2, and as per the findings of the report for the purposes of AA Screening, no direct effects on European sites or species have been identified. However, in accordance with the precautionary principle, the potential for indirect effects on European sites or species from wastewater discharge to Dublin Bay and from contamination events have been brought forward for further assessment in this NIS.

3.4.1. Habitats Directive Annex I Habitats

Construction Phase Effects before mitigation

As previously stated, no direct impacts on European sites are predicted during the construction phase of the proposed development. Having considered direct impacts and ruled them out, indirect impacts are considered.

The AWN Risk Assessment Report (see Appendix 1) presents the following sources (hazards) considered plausible for the proposed construction site:

- (i) Leakage could occur from construction site equipment. As a worst-case scenario an unmitigated leak from a temporary refuelling tank which would typically have a maximum capacity of 300 litres is considered. This would be a single short-term event i.e. if not adequately mitigated.
- (ii) Use of wet cement is a requirement during construction. Run-off water from recent cemented areas will result in highly alkaline water with high pH. As this would only occur during particular phases of work this is again considered as a single short-term potential event rather than an ongoing event.
- (iii) The demolition of the existing building units and construction requires soil excavation and removal and import. Unmitigated run-off could contain a high concentration of suspended solids during earthworks. This could be considered an intermittent shortterm event i.e. if proposed mitigation measures to control sediment laden run-off were to fail.

Further, in the absence of pollution control measures, there is the potential for suspended solids, from dewatering activities, demolition or excavation, to enter the adjacent River Liffey during the construction phase of the proposed development.

Operational Phase Effects before mitigation

As previously stated, no direct impacts on European sites are predicted during the operational phase of the proposed development. The AWN Risk Assessment Report (see Appendix 1) presents the following sources (hazards) considered plausible for the operational phase of the proposed development:

- Leakage of petrol/ diesel fuel may occur from individual cars in parking areas, run-off may contain a worst-case scenario of 70 litres for example.
- (ii) The foul discharge from the site will outfall to the public sewer and will be treated at the Irish Water Ringsend WWTP prior to subsequent discharge following treatment to Dublin Bay.
- (iii) All [attenuated] stormwater will be discharged into the River Liffey after being processed through surface water management measures which incorporates removal of silt/pollutants and debris by the installation of SuDS measures and a two-stage treatment train approach to the drainage strategy to improve the quality of water discharging to the Liffey.

3.4.2. Birds Directive Annex I Species

Construction Phase Impacts before mitigation

Potential direct disturbance impacts on SPA bird species can be ruled out given the nature of the proposed development, within an existing urban zone, with existing levels of human activity, e.g., movement of vehicles and background noise, and given the distance of the proposed development site from Dublin Bay and the bird populations located therein.

Chemical spills can result in fish mortality and could affect feeding habitats for bird species that rely on the sand and mudflats downstream in Dublin Bay for food sources.

In the absence of standard mitigation incorporated in the design, there is the potential for silt-laden stormwater from construction to enter the public stormwater sewer. However, the suspended solids will naturally settle within c. 0.5 km stretch of the Liffey. As such short-term discharge of sediment laden water will have no detrimental impact on the habitat requirements of Dublin Bay which are located over 6.8 km downstream.

Operational Phase Impacts before mitigation

The foul wastewater from the proposed development will be collected and discharged to the municipal sewer, which in turn discharges to the Ringsend Wastewater Treatment Plant, for appropriate treatment, prior to discharge to Dublin Bay. As previously determined there is a potential for eutrophication to occur as a result of a change in trophic status of the water quality of Dublin Bay from the discharge of wastewater from Ringsend WWTP.

3.4.3. Ecological Network Supporting Natura 2000 Sites

An analysis of the proposed Natural Heritage Areas and designated Natural Heritage Areas in terms of their role in supporting the species using Natura 2000 sites was undertaken. These supporting roles mainly relate to mobile fauna such as mammals and birds which may use pNHAs and NHAs as "stepping stones" between Natura 2000 sites.

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

There are no other designated or proposed designated sites or areas of semi-natural habitat that would be affected by the proposed development.

3.5. Impacts on the Qualifying Interests of European Sites, Without Mitigation

Construction Phase Impacts, Without Mitigation

Leakage, unmitigated run-off, or chemical spills can result in fish mortality and could affect feeding habitats for bird species that rely on the sand and mudflats downstream in Dublin Bay for food sources.

Wet concrete and cement are very alkaline and corrosive and, in the absence of mitigation, have the potential to cause serious pollution to watercourses and receiving water bodies in this case Dublin Bay.

Elevated suspended solids may be harmful to salmonids resulting in reduced oxygenation of surface waters due to settlement and the formation of deposits on the river bed which in turn can give rise to septic and offensive conditions. Elevated suspended solids can clog salmonid gills and potentially cause mortality.

Operational Phase Impacts, Without Mitigation

Leakage or unmitigated run-off, or chemical spills can result in fish mortality and could affect feeding habitats for bird species that rely on the sand and mudflats downstream in Dublin Bay for food sources.

The new development will have an estimated maximum hydraulic loading of 227m³ per day of foul effluent generated on completion of the development. This equates to an average flow of 2.63 litres/second (over a 24-hour period). The sewage discharge will be licensed by Irish Water, collected in the public sewer and treated at Irish Water's WWTP at Ringsend prior to treated discharge to Dublin Bay. This WWTP is required to operate under an EPA licence (D0034-01) and to meet environmental legislative requirements. Even without treatment at the Ringsend WWTP, the peak effluent discharge, calculated for the proposed development, would equate to 0.023% of the licensed discharge (peak hydraulic capacity) at Ringsend WWTP and would not impact on the overall water quality within Dublin Bay and therefore would not have an impact on the current Water Body Status (as defined within the Water Framework Directive). Recent water quality assessment of Dublin Bay also shows that Dublin Bay on the whole, currently has an 'Unpolluted' water quality status (EPA, 2019).

Unmitigated stormwater can result in fish mortality and could affect feeding habitats for bird species that rely on the sand and mudflats downstream in Dublin Bay for food sources.

3.6. Mitigation Measures

3.6.1. Construction Phase

Protection of Surface Water

Construction management measures including specific measures to prevent pollution of the River Liffey will be incorporated into the CEMP, see **Appendix 2**, which will ensure that there are no likely effects on the River Liffey from surface water runoff.

Any stockpiles of demolition material will be temporarily stored on impermeable surfaces and covered using tarpaulin to avoid any contaminated run off entering the surface water system. Any stockpiles of excavated material will be covered using tarpaulin. Silt traps will be placed in gullies to capture any excess silt in the run-off. All silos will be bunded appropriately.

In terms of mitigation by prevention, settlement tanks and silt traps will be incorporated to capture any excess silt in the run-off during the construction phase.

Surface water from the proposed development will discharge to the River Liffey. A foreshore consent will be sought for this discharge. Surface water management measures will be implemented, which incorporates removal of silt/pollutants and debris by the installation of SuDS measures and a 2-stage

treatment train approach to the drainage strategy to improve the quality of water discharging to the Liffey. SUDs measures include greenroofs, filter strips, filter drains, bio-retention rain-gardens and catchpits installed along the drainage system prior to outfall. In addition, as not all hardstanding can be intercepted and treated by SuDS measures, it is proposed to install a proprietary surface water treatment system (First Defence or Downstream Defender) which will have removal efficiency rates of 50% for suspended solids and 80% for hydrocarbons prior to discharge.

Any local dewatering is to be discharged to the River Liffey by agreement with the Local Authority and will include necessary treatment as required, such as silt traps and settlement tanks. Alternatively, dewatering may be reinjected to the subsurface through a number of wells or injection points across the site. Similar treatment measures will be adopted prior to reinjection

In addition to these specific measures with regard to the River Liffey, the following general measures are included in the CEMP:

<u>General</u>

Prior to any works, all personnel involved will receive an on-site induction relating to operations adjacent to watercourses and the environmentally sensitive nature of the River Liffey and reemphasise the precautions that are required as well as the construction management measures to be implemented.

The project proponent will ensure that the engineer setting out the works is fully aware of the ecological constraints and construction management requirements.

Fuel/Lubricant spillage from equipment

- Chemicals used will be stored in sealed containers.
- Chemicals shall be applied in such a way as to avoid any spillage or leakage.
- All refuelling, oiling and greasing will take place above drip trays or on an impermeable surface which provides protection to underground strata and watercourses and away from drains and watercourses as far as reasonably practicable. Vehicles will not be left unattended during refuelling.
- It is proposed that the construction compound will be located within the site boundary.
- Storage areas, machinery depots and site offices will be located within the site boundary.
- Spill kits will be made available and all staff will be properly trained on correct use.

- All fuels, lubricants and hydraulic fluids required to be stored on site will be kept in secure bunded areas at a minimum of 10m from the River Liffey. The bunded area will accommodate 110% of the total capacity of the containers within it.
- Containers will be properly secured to prevent unauthorised access and misuse. An
 effective spillage procedure will be put in place with all staff properly briefed. Any waste
 oils or hydraulic fluids will be collected, stored in appropriate containers and disposed of
 offsite in an appropriate manner.
- All plant shall be well maintained with any fuel or oil drips attended to on an ongoing basis.
- Any minor spillage during this process will be cleaned up immediately.
- Should any incident occur, the situation will be dealt with and coordinated by the nearest supervisor who will be responsible for instructions by the Local Authority.

<u>Concrete</u>

- Wet concrete and cement are very alkaline and corrosive and can cause serious pollution to watercourses. Disposal of raw or uncured waste concrete will be controlled during delivery or by removal by the contractor to ensure that the River Liffey will not be impacted.
- Careful management of bulk-liquid concrete will be implemented during the construction phase, including careful and controlled pouring and handling, secure shuttering / form-work and adequate curing times.
- Wash water from cleaning ready mix concrete lorries and mixers may be contaminated with cement and is therefore highly alkaline, therefore, washing will not be permitted on site.

Mitigation measures out in the CEMP in accordance with CIRIA Good Practice Guidelines (C532 – Control of Water Pollution from Construction Sites)³ will be implemented during the construction phase of the proposed development.

The majority of the works to the River Liffey wall will be land based. However, some works from the River Liffey may be necessary, such as vegetation removal and pointing repair of mortar. The

³ CIRIA (2001) C532 Control of water pollution from construction sites: guidance for consultants and contractors

Contractor will obtain the relevant foreshore consent for temporary scaffolding erection in the River Liffey to facilitate the works, should this be necessary.

3.6.1. Operational Phase

The proposed development will be fully serviced with (separate) foul and storm sewers which will have adequate capacity for the likely discharge from the development, as required by Irish Water.

The design of the proposed development will incorporate Sustainable urban Drainage Systems (SuDS) features in order to improve water quality and reduce the quantity of surface water discharging into the receiving system. The water supply network will include low flow devices with the aim of minimising water usage.

It is noted that the design of the proposed development will also include a proposed oil/ petrol interceptor on the stormwater drainage infrastructure.

The design of the proposed development will also incorporate a foul drainage system which, as per other urban developments in Dublin region, will outfall to the public sewer and will be treated at the Irish Water Ringsend WWTP prior to subsequent discharge following treatment to Dublin Bay. This WWTP is required to operate under an EPA licence and must meet environmental legislative requirements as set out in such licence. It is noted that an application for a new upgrade to this facility (2018) has received planning and upgrade works are scheduled to increase the treatment capacity from 1.64 million p.e. (population equivalent) to 2.4million p.e. This upgrade is currently programmed to be complete in 2025.

3.7. Impacts on the Qualifying Interests of European Sites, With Mitigation

Construction Phase Impacts, With Mitigation Measures

Having regard to the mitigation measures outlined in Section 3.6, no impacts on European sites or species are predicted to occur during the construction phase of the proposed development.

Operational Phase Impacts, Without Mitigation Measures

Having regard to the mitigation measures outlined in Section 3.6, no impacts on European sites or species are predicted to occur during the operational phase of the proposed development.

3.8. Assessment of In-Combination Effects

The Commission services' interpretation document 'Managing Natura 2000 sites', makes clear that the phrase 'in combination with other plans or projects' in Article 3(3) refers to cumulative effects caused by the projects or plans that are currently under consideration together with the effects of any existing

or proposed projects or plans. When impacts are assessed in combination in this way, it can be established whether or not there may be, overall, an impact which may have significant effects on a Natura 2000 site or which may adversely affect the integrity of a site.

As part of the Appropriate Assessment, in addition to the proposed works, other relevant projects and plans in the region must also be considered. This step aims to identify at this early stage any possible significant in-combination or cumulative effects / impacts of the proposed development with other such plans and projects on European sites.

3.8.1. Consideration of Plans

The following Plans were considered in terms of potential in-combination effects.

Regional Planning Guidelines for the Greater Dublin Area 2010- 2022

Regional planning authorities are required, under the Planning and Development (Regional Planning Guidelines) Regulations 2003 (SI No. 175 of 2003), to draw up Regional Planning Guidelines (RPGs), long term strategic planning frameworks, for their relevant region.

An appropriate assessment was carried out and mitigation measures highlighted as they interact with or set a precedent for the approach taken SHD Planning Schemes.

Dublin City Development Plan 2016 - 2022 Policies

The local authority for the proposed development at Parkgate Street is Dublin City Council (DCC). Plans and developments within Dublin City County must comply with the policies and objectives of the Dublin City Development Plan 2016 – 2022 (DCC, 2016), which in turn references the National Biodiversity Plan 2017-2021. (DAHG, 2017), and the Dublin City Biodiversity Action Plan 2015-2020 (DCC, 2015).

The following policies from the Dublin City Development Plan 2016 – 2022 (DCC, 2016) are relevant to the proposed development as several designated sites are within the downstream receiving environment, and due to the potential for the site to host protected species, and/or invasive species.

• GI23: "To protect flora, fauna and habitats, which have been identified by Articles 10 and 12 of Habitats Directive, Birds Directive, Wildlife Acts 1976–2012, the Flora (Protection) Order 2015 S.I No. 356 of 2015, European Communities (Birds and Natural Habitats) Regulations 2011 to 2015."

• GI24: "To conserve and manage all Natural Heritage Areas, Special Areas of Conservation and Special Protection Areas designated, or proposed to be designated, by the Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs."

• GIO24: "To develop Biosecurity Codes of Practice to deal with invasive species and ensure compliance with EU (Birds and Natural Habitats) Regulations 2011 and EU Regulations 2014 on the prevention and management of the introduction and spread of invasive alien species."

3.8.2. Consideration of Projects

For the purposes of this report, all planning applications recorded on the National Planning Applications Database (DoHPLG) and which were either Granted or Not Yet Decided within a 1km radius of the planning boundary on 8th October 2019 were identified.

Planning applications within 1km of the planning boundary were identified in October 2019 as they were determined to constitute new development of a commercial, industrial, agricultural or residential nature which may have the potential to exacerbate environmental effects and thus be of significance to the cumulative assessment. Please note that the following types of applications have been excluded from the final listing in Table 4 below:

- Minor change of use applications;
- Residential applications of less than 10 no. units;
- Minor amendments to permitted applications;
- Retention applications;
- Minor signage applications;
- ESB infrastructure (i.e. substations, switch rooms and towers); and
- Minor utilities works including lighting and junction upgrades.

Of the 67 applications to Dublin City Council listed in Appendix 3 those referring to building extensions and/or changes of use have been eliminated and the focus moved to those applications for residential development that could have in combination effects in terms of wastewater, see Table 4.

Table 4 Consideration of in-combination impacts.

Pl. Ref.	Project Description	Comments
2744/14	The development will consist of the demolition of existing house and commercial sheds and construction of a mixed-use building ranging from 4 to 5 stories with: 12x2 bedroom apartments with 16 private balconies and 1 shared roof garden; 1 cafe / commercial / retail unit at ground floor level; ground level car park with 7 parking spaces accessed from Pim St.; Ancillary site-works including bicycle parking, bin storage,	The application was accompanied by a Report for AA Screening which determined that there would be no significant impact on the European sites considered. This conclusion was accepted by the Competent Authority in carrying out its own AA Screening and permission was

	pedestrian entrances on Newport St. and service connections	subsequently granted by the Competent
	at 17, 18, & 19, Newport Street, at Corner Of Newport Street	Authority.
	and Pim Street, Dublin 8.	
4179/15	The proposed development comprises a part 2, part 4 and part 6-storey building over lower ground floor level to provide 14 no. residential dwellings (comprising 12 x 3 bedroom houses (with integrated car parking provision)) and c. 1,971 sq.m (GFA) of office accommodation. An ancillary roof terrace is proposed at first floor level to the rear (east) of the proposed office block and is enclosed by high level obscured glass balustrading. Ancillary roof terraces/balconies with glass balustrading are proposed at third floor level to the western elevation of the building serving the 6 no. duplex residential units at second and third floor level. Car parking in connection with the duplex units and the office accommodation are provided at lower ground level (22 No. car parking spaces) together with associated and ancillary bicycle and refuse storage areas. Vehicular access to the lower ground level is proposed at the northern end of the site off Brookfield Road. Communal landscaped open space and private gardens are provided to the rear of the proposed building at podium and ground floor levels at The Printworks, Brookfield Road, Kilmainham, Dublin 8.	ABP noted that a screening report was not included and an assessment does not appear to have been conducted by the planning authority. There are seventeen European sites within fifteen kilometres of the site and the four in closest proximity are The South Dublin Bay SAC (0002100, South Dublin Bay and River Tolka Estuary SPA (004024), The North Dublin Bay SAC (00206) and the North Bull Island SPA (04006) The sites are designated for tor the tidal and estuarine habitats and wintering and water bird species which include roosting birds. Having regard to the location in the inner city and to the nature and scale of the development which comprises redevelopment of a brownfield site which was formerly in industrial use, to the proposed development of an office block and residential units incorporating satisfactory SUDS drainage measures, and to the nature of the receiving environment no appropriate assessment issues arise [sic ABP]. This conclusion was accepted by the Competent Authority in carrying out its own AA Screening and permission was subsequently granted by the Competent Authority.
3163/16	The development will consist of the removal of all existing buildings on the site, and the construction of a commercial unit and 33 apartments in 2 buildings; Block A facing onto North Brunswick Street is a 6-storey building including a recessed	ABP determination: The subject site is located in an established city area on a brownfield site and is not located adjacent to nor in close proximity to any European

	penthouse floor, and comprises 17 apartments; and Bock B facing onto North King Street is a 5-storey building, including a recessed penthouse floor, and comprises 16 apartments and 1 commercial unit. The overall development comprises 4 no. 3- bedroomed units, 18 no. 2-bedroomed units, 11 one- bedroomed units, all with balconies, one ground-floor	sites, as defined in Section 177R of the Habitats Directive. Having regard to the nature and scale of the proposed development and/or the nature of the receiving environment and/or proximity to the nearest European site, no appropriate
	commercial unit, bin store, internal landscaped courtyard, photovoltaic solar panels on support grids on roofs, and all associated site works at 84 North King Street and between George's Court and Red Mill Apartments on North Brunswick Street, Dublin 7. The site adjoins 85 North King Street (a Protected Structure).	assessment issues arise and it is not considered that the proposed development would be likely to have a significant effect individually or in combination with other plans or projects on a European site. Permission was subsequently granted by the Competent Authority.
3503/16	The proposed development consists of demolition of existing structures comprising disused buildings and sheds, construction of 10 x 2 bedroom apartments with balconies in two 6 storey blocks with associated facilities at ground floor including: 10 storage rooms with cycle parking, communal facilities, caretaker's room bin storage, plant & service rooms, service connections and a raised courtyard garden at 1st floor level, services enclosures on roofs, landscaping, railings and all associated site works at 10, Usher's Island, And 32 Island Street, Dublin 8.	The application was accompanied by a Report for AA Screening which determined that there would be no significant impact on the European sites considered. This conclusion was accepted by the Competent Authority in carrying out its own AA Screening and permission was subsequently granted by the Competent Authority.
4261/16	The development will consist of the demolition of all existing structures including no. 20 Stoneybatter and the construction of a part 1, 3, 4 and 5 storey student accommodation development of 2,980.8 sqm. Also proposed are all ancillary site and services accommodation works at the rear of nos. 20 to 23a, Stoneybatter and nos. 1 and 2 Manor street, Stoneybatter, Dublin 7.	Information submitted with the application determined that the proposed development will not impact upon any designated Natura 2000 sites and therefore further AA consideration is not necessary. This conclusion was accepted by the Competent Authority in carrying out its own AA Screening and permission was subsequently granted by the Competent Authority.

3885/17	The development will consist of the refurbishment and deep retrofit of the existing 4-storey Block A and 2-storey Block B; the total area of the completed development is c. 2,023 sq.m over 4 storeys and 2 storeys respectively, providing a total of 22 unitsand all associated ancillary site development works at Ellis Court, Benburb Street, Dublin 7.	There is no record of Appropriate Assessment with the case file.
3014/18	Development comprising: (i) Demolition of the existing two- storey, flat roof, commercial building; (ii) Construction of a new seven-storey (22 metres in height) apartment building comprising 41 apartments (19 no. one-bedroom and 22 no. two-bedroom apartments) fronting Blackhall Street and Oxmantown Lane.	There is no record of Appropriate Assessment with the case file.
3328/18	The proposed development will involve the demolition of all existing structures onsite (c. 1,028 sqm) to provide for a new 6- 8 storey residential over ground floor commercial development (c.3,166.7 sqm GFA),in one block accommodating 28 no. apartmentsboundary treatments; PV panels; SuDS measures including blue roof surface water attenuation; and all other associated site excavation and site development works above and below ground. Access to the residential units will be provided via a private entrance lobby off Usher Street, with access to the commercial unit provided off Usher's Quay. Site at Nos. 1, 1A and 2 Usher Street and Nos. 29/30, Usher's Quay, Dublin 8.	There is no record of Appropriate Assessment with the case file.
2290/19	Permission for a residential development on this overall site of c. 0.07 ha. The proposed development shall comprise the demolition of the on site vacant 2-storey dwelling unit and vacant 1-storey shed, and provide for the construction of 29 no. residential units in the form of 1 no. 2 to 6 storey apartment buildinglandscaped communal open space area at ground level; all boundary treatment and landscaping works and all associated site development works at 6, 6A and 7, Pim Street, Dublin 8.	The application was screened for Appropriate Assessment and it was considered that significant effects are not likely to arise, either alone or in combination with other plans and projects that will result in significant effects to any Natura 2000 area. A full Appropriate Assessment of this project is therefore not required. This conclusion was accepted by the Competent Authority in carrying out its own AA Screening and permission was

	subsequently granted by the Competent
	Authority.

3.8.3. Conclusion of In-combination Effects

On the basis of the implementation of Mitigation Measures to be included and enforced through a Construction Environmental Management Plan, the proposed development will have no predicted impacts on local ecology and biodiversity or on European sites, so that in-combination impacts can be ruled out.

The Dublin City Development Plan, in complying with the requirements of the Habitats Directive requires that all Projects and Plans that could affect the Natura 2000 sites in the same zone of impact of the Project site would be initially screened for Appropriate Assessment and if requiring Stage 2 AA, that appropriate employable mitigation measures would be put in place to avoid, reduce or ameliorate negative impacts. Similar policies are followed under other plans for the area of county Dublin. In this way any, in-combination impacts of Plans or Projects for the development area and surrounding townlands in which the development site is located, would be avoided.

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

4. Natura Impact Statement & Conclusion

It is the conclusion of this NIS, on the basis of the best scientific knowledge available, and subject to the implementation of the mitigation measures set out under Section 3.6, that the possibility of any adverse effects on the integrity of the European Sites considered in this NIS, or on the integrity of any other European Site (having regard to their conservation objectives,) arising from the proposed development, either alone or in combination with other plans or projects, can be excluded beyond a reasonable scientific doubt.

5. References

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42A Parkgate Street, Dublin 8

Appendix 1: Hydrological & Hydrogeological Qualitative Risk Assessment Report—Prepared by AWN Consulting

ARUP

265381-00



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HYDROLOGICAL &

HYDROGEOLOGICAL

QUALITATIVE RISK

ASSESSMENT

FOR

PROPOSED STRATEGIC HOUSING DEVELOPMENT AT PARKGATE STREET.

Technical Report Prepared For

Lafferty Project Managers

Technical Report Prepared By

Jessie Loft BSc MSc Teri Hayes Director BSc MSc PGeo

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1.0 INTRODUCTION

1.1 Site Location & Hydrological Setting

The proposed Strategic Housing Development is located at 42A Parkgate Street, Dublin 8 (refer site location in Figure 1.1 below). 481 no. residential units with 3698 sqm commercial office space, 214 sqm retail and 444 sqm café/ restaurant space is being proposed. The development proposal will include works to the existing river wall and a sealed basement. The Liffey river channel is already modified along this stretch of its course. The proposed works on the river wall is to provide opes to allow light into the newly formed open spaces and create a new internal river walk.

The site is currently used as a commercial site and the lands surrounding the site consist of urban and commercial buildings. The topography ranges from approx. +5mOD (north) to +2mOD (south).



Figure 1.1 Site location in relation to regional drainage (hydrological setting)

As shown in Figure 1.1 above, and discussed further in Section 1.3 below, the proposed development site is adjacent to the Liffey River which is located immediately south of the development boundary and drains in an easterly direction to Dublin Bay (c.8km downstream).

Based on a hydrological pathway along the Liffey, the South Dublin Bay and River Tolka Estuary SPA is located over 6.8 river km downstream and the North Dublin Bay SAC and North Bull Island SPA which are located over 8.4 river km downstream. The South Dublin Bay SAC is located outside the South Bull wall and while hydrologically more disconnected from the River Liffey, it overlaps the South Dublin Bay and River Tolka Estuary SPA.

1.2 Objective of Report

The scope of this desk top review is to confirm any hydrological pathway to a Natura 2000 site and determine any risk of impact on water body status or habitat requirements to any Natura 2000 sites based on the construction and operation of the proposed development.

In particular, this review considers the likely impact of construction run-off and foul sewage and storm run-off from the proposed development on water quality and overall water body status within the Liffey (EPA code: 09L01) and downgradient Dublin Bay habitats. Figure 1.2 present the European sites and NHAs/pNHAs within the bay and Tolka estuary.



Figure 1.2 Site location in relation to European sites and NHAs/pNHAs in the vicinity of the proposed development (source : Moore Group biodiversity report)

The assessment relies on information regarding construction and design provided by ARUP Consulting Engineers (ARUP, 2019) for the site as outlined in their *Parkgate Street Redevelopment* (Report ref: 265381-00., dated 13 December 2019.).

This report is prepared by *Jessie Loft* (BSc and MSc) and *Teri Hayes* (BSc MSc PGeol EurGeol). Teri is a hydrogeologist with over 25 years of experience in water resource management and impact assessment. She has a Masters in Hydrogeology and is a former President of the Irish Group of the Association of Hydrogeologists (IAH) and has provided advisory services on water related environmental and planning issues to both public and private sector bodies. She is qualified as a *competent person* as recognised by the EPA in relation to contaminated land assessment (IGI Register of competent persons <u>www.igi.ie</u>). Her specialist area of expertise is water resource management eco-hydrogeology, hydrological assessment and environmental impact assessment.

1.3 Description of Drainage

Currently stormwater discharges into the River Liffey without any treatment. The proposed development will incorporate a stormwater drainage system incorporating sustainable urban drainage systems (SuDs) to manage runoff and improve run-off water quality. The design includes a minimum of a two-stage treatment train process and primary and secondary treatment of surface water run-off prior to discharge by gravity to the River Liffey.

Examples of the two-stage treatment train system include:

- The green roofs will absorb a portion of the rainfall and the remaining rainfall will filtrate through substrate and geotextile filter fabric;
- Raingardens will allow surface water run-off to pond before filtration happens
- Filter strips will provide interception from impermeable areas before; discharging into the filter drains or surface water drainage system; and
- Filter drains will reduce peak run-off rates prior to discharge into the surface water drainage system

The two-stage treatment train system and the landscape works including vegetation on the roofs, will minimise water run-off from impermeable areas and encourage stormwater to soak into the soft landscaping while filtering pollutants.

The development has been susceptible to floods in the past (Arup 2019) and flood mitigation measures have been implemented for this project.

The proposed development will have a separate foul sewer collection system which will discharge by gravity to the existing 450mm foul sewer on Parkgate Street.

The foul sewer eventually discharges to Ringsend (WWTP) where secondary and tertiary treatment is undertaken.

2.0 ASSESSMENT OF BASELINE WATER QUALITY, RIVER FLOW AND WATER BODY STATUS

A reliable Conceptual Site Model (CSM) requires an understanding of the existing hydrological and hydrogeological setting. This is described below for the proposed development site and surrounding hydrological and hydrogeological environs.

2.1 Hydrological Catchment Description

The proposed development site lies within the River Liffey and Dublin Bay Catchment 09. The Liffey River (EPA, 2019) begins in Liffey Head bog (Wicklow mountains) and flow generally north-eastwards before finally discharging to Dublin Bay. The Liffey is tidal up to Islandbridge i.e. upgradient of the site and as such the water can be brackish in nature. The river is also within an urban environment between Heuston Station and Dublin Bay and receives a significant proportion of urban run -off within this section. The Liffey Estuary upper transitional waterbody has a WFD risk score of '*At risk*' and has a 'good' status. The recent (2019) EPA report on water quality shows the ecological status of this transitional and adjacent coastal water bodies during 2013-2018 as "moderate" quality.

Dublin Bay has a WFD status of 'Good' and has a WFD risk score of 'Not at risk'. The ecological status of transitional and coastal water bodies during 2013-2018 for Dublin Bay is classed as 'good' (taken from Map 4.1 EPA, 2019). The most recent surface water quality data for the Dublin Bay for the 2015–2017 assessment on trophic status of estuarine and coastal waters indicate that they are 'Unpolluted' (based on Map 10, EPA, 2018). Under the 2015 'Trophic Status Assessment Scheme' classification of the EPA, 'Unpolluted' means there have been no breaches of the EPA's threshold values for nutrient enrichment, accelerated plant growth, or disturbance of the level of dissolved oxygen normally present.

2.2 Aquifer Description & Superficial Deposits

The Geological Survey of Ireland GSI (2019) classifies the bedrock beneath the overall site and the surrounding area as Lucan Formation which comprises limestone and shale.

The GSI also classifies the principal aquifer types in Ireland as:

- Lk Locally Important Aquifer Karstified
- LI Locally Important Aquifer Bedrock which is Moderately Productive only in Local Zones
- Lm Locally Important Aquifer Bedrock which is Generally Moderately Productive
- PI Poor Aquifer Bedrock which is Generally Unproductive except for Local Zones
- Pu Poor Aquifer Bedrock which is Generally Unproductive
- Rkd Regionally Important Aquifer (karstified diffuse)

Presently, from the GSI (2019) National Bedrock Aquifer Map, the GSI classifies the bedrock aquifer beneath the subject site as a *Locally Important Aquifer (LI), i.e. 'Bedrock which is Moderately Productive only in Local Zones'.*

The proposed development lies within the Dublin Groundwater Body (GWB, IE_EA_G_008), classified as '*Moderately Productive*'. Presently, the groundwater body in the region of the site (Dublin GWB) is classified under the WFD Status 2010-2015 (EPA, 2019) as 'good'. The WFD Risk Score system indicates the GWB as '*Not at risk*'.

Aquifer vulnerability is a term used to represent the intrinsic geological and hydrological characteristics that determine the ease with which groundwater may be contaminated generally by human activities. The GSI (2019) guidance presently classifies the bedrock aquifer vulnerability in the northern region of the subject site as '*Low*' which indicates a general thick overburden depth potential of >10m, indicating good protection of the underlying aquifer by low permeability subsoil. The southern region of the site is classified as '*Moderate*' generally indicating 5-10 metres of overburden material overlying the bedrock aquifer. This desk study data was confirmed by drilling on site showing bedrock was encountered at 6.40m below ground level (BGL) to 8.50m BGL. The aquifer vulnerability class in the region of the site is presented as Figure 2.1 below.



Figure 2.1 Aquifer Vulnerability

The GSI/ Teagasc (2019) mapping database of the quaternary sediments in the area of the subject site indicates the principal subsoil type in the study area, underlying namely Made Ground which reflects the urbanised land use in the immediate area.

3.0 CONCEPTUAL SITE MODEL

A conceptual site model (CSM) is developed based on a good understanding of the hydrological and hydrogeological environment, plausible sources of impact and knowledge of receptor requirements. This in turn allows possible Source Pathway Receptor (S-P-R) linkages to be identified. If no S-P-R linkages are identified, then there is no risk to identified receptors.

3.1 Assessment of Plausible Sources

Potential sources during both the construction and operational phases are considered. For the purposes of undertaking the potential of any hydrological/ hydrogeological S-P-R linkages, all potential sources of contamination are considered without taking account of any measures intended to avoid or reduce harmful effects of the proposed project (mitigation measures) i.e. a worst-case scenario. Construction sources (temporary to short-term) and operational sources (long-term) are considered below.

Construction Phase

The following sources (hazards) are considered plausible for the proposed construction site:

(i) Leakage could occur from construction site equipment. As a worst-case scenario an unmitigated leak from a temporary refuelling tank which would typically have a maximum capacity of 300 litres is considered. This would be a single short-term event i.e. if not adequately mitigated.

- (ii) Use of wet cement is a requirement during construction. Run-off water from recent cemented areas will result in highly alkaline water with high pH. As this would only occur during particular phases of work this is again considered as a single short-term potential event rather than an ongoing event.
- (iii) The demolition of the existing building units and construction requires soil excavation and removal and import. Unmitigated run-off could contain a high concentration of suspended solids during earthworks. This could be considered an intermittent short-term event i.e. if proposed mitigation measures to control sediment laden run-off were to fail.

Operational Phase

The following sources are considered plausible post construction:

- (i) Leakage of petrol/ diesel fuel may occur from individual cars in parking areas, run-off may contain a worst-case scenario of 70 litres for example. The risk of a short-term release of a larger volume of hydrocarbons is already considered under the construction scenario above i.e. without mitigation. It is noted that mitigation will be provided within the design of the proposed development by a proposed oil/ petrol interceptor on the stormwater drainage infrastructure.
- (ii) The proposed development will be fully serviced with [separate] foul and storm sewers which will have adequate capacity for the facility likely discharge, as required by Irish Water licencing. The foul discharge from the site will outfall to the public sewer and will be treated at the Irish Water Ringsend WWTP prior to subsequent discharge following treatment to Dublin Bay. This WWTP is required to operate under an EPA licence and must meet environmental legislative requirements as set out in such licence. It is noted that an application for a new upgrade to this facility (2018) has received planning and upgrade works are scheduled to increase the treatment capacity from 1.64 million p.e. to 2.4million p.e. This upgrade is currently programmed to be complete in 2025.
- (iii) All [attenuated] stormwater will be discharged into the River Liffey after being processed through a Surface Water Management Plan which incorporates removal of silt/pollutants and debris by the installation of SuDS measures and a two-stage treatment train approach to the drainage strategy to improve the quality of water discharging to the Liffey.

3.2 Assessment of Pathways

The following pathways have been considered within this assessment with impact assessment presented in Section 3.4:

- (i) The potential for vertical migration to the bedrock aquifer is minor due to the recorded low and moderate vulnerability present at the site, there is a thick subsoil which will encourage excess stormwater to soak into the soft landscaping while filtering pollutants. The site is underlain by a *Locally important Aquifer (LI)* GSI classifies as a *Bedrock which is Moderately Productive only in Local Zones.*
- Under the new proposed development, drainage will be through separate foul and surface water drains connecting to the foul sewer on Parkgate Street (which will then drain to the WWTP) and the River Liffey respectively (ARUP, 2019)
- (iii) Stormwater from the site discharges to the Liffey and ultimately discharges to Dublin Bay following considerable dilution within the c. 8 km stretch of between the site outfall and Dublin Bay.

(iv) There is no 'direct' pathway for foul sewage to the Liffey or the underlying aquifer. There is however an 'indirect pathway' through the public sewer which ultimately discharges to the Irish Water WWTP at Ringsend prior to final discharge of treated effluent to Dublin Bay post treatment.

3.3 Assessment of Receptors

The receptors considered in this assessment include the following:

- (i) Underlying "locally important" limestone bedrock aquifer;
- (ii) River Liffey- transitional waterbody;
- (iii) Dublin Bay and the Natura 2000 sites.

3.4 Assessment of Source Pathway Receptor Linkages

3.4.1 Assessment Without Mitigation

Table 3.1 below summarises the plausible pollutant linkages (S-P-R) considered as part of the assessment and a review of the assessed risk is also summarised below.

The overburden thickness (Moderate – Low vulnerability) together with manmade hardstand and drainage (following construction) will minimise the potential for any indirect discharges to impact on groundwater quality.

Standard mitigation will be incorporated into the construction plan design to minimise any impacts on stormwater drains (see section 3.4.2). However, should any silt-laden stormwater from construction manage to enter the public stormwater sewer i.e. without on-site mitigation, the suspended solids will naturally settle within c. 0.5 km stretch of the Liffey. As such short-term discharge of sediment laden water will have no detrimental impact on the habitat requirements of Dublin Bay which are located over 6.8 km downstream.

Best practice in bulk-liquid concrete management will be implemented due to the high alkaline wash water from cleaning concrete laden equipment (see section 3.4.2). Wash down of equipment which is contaminated by ready mix concrete will be taken off site. However, should any wash water from construction manage to enter the public stormwater sewer the short term effect of this will have no detrimental impact due to the distance and dilution to Dublin Bay.

In the event of a [theoretical] 300 litre [worst case scenario used] hydrocarbon leak fully discharging to the stormwater sewer without mitigation, there is potential for some short-term impact above water quality objectives as outlined in S.I. No. 272 of 2009/ Surface Water Amendment Regs in the Liffey. Based on the flow within the Liffey, dilution and attenuation from the impact would not be measurable >0.5 km from the site or for a duration of longer than c. 5 days i.e. there would be no likely exceedance above statutory guidelines within Dublin Bay. However, with the presence of an oil/ petrol interceptor during operation there is no likely impact above statutory thresholds in the Liffey from a car leak on site.

The new development will have an estimated maximum hydraulic loading of 227m³ per day of foul effluent generated on completion of the development. This equates to an average flow of 2.63 litres/second (over a 24-hour period). The sewage discharge will be licensed by Irish Water, collected in the public sewer and treated at Irish Water's WWTP at Ringsend prior to treated discharge to Dublin Bay. This WWTP is required to operate under an EPA licence (D0034-01) and to meet environmental legislative requirements. Even without treatment at the Ringsend WWTP, the peak effluent discharge, calculated for the proposed development, would equate to

0.023% of the licensed discharge (peak hydraulic capacity) at Ringsend WWTP and would not impact on the overall water quality within Dublin Bay and therefore would not have an impact on the current Water Body Status (as defined within the Water Framework Directive). Recent water quality assessment of Dublin Bay also shows that Dublin Bay on the whole, currently has an '*Unpolluted*' water quality status (EPA, 2019).

The assessment has also considered the *effect of cumulative events, such as* release of sediment-laden water combined with a minor hydrocarbon leak on site. As the potential hazard loading is low and short term in nature, it is concluded that no perceptible impact on water quality would occur. It can also be concluded that the cumulative or in-combination effects of effluent arising from the proposed development with that of other developments discharging to Ringsend WWTP will not be significant having regard to the size of the calculated discharge from the proposal.

There have been a number of breaches of the EPA licence for the Ringsend WWTP, due to stormwater overflows etc. However, recent water quality assessment shows that these overflows have not had a longterm detrimental impact on the water body status. Map 4.1 in the 2019 EPA Water quality in Ireland (2013-2018) shows that the ecological status of transitional and coastal water bodies during 2013-2018 for Dublin Bay is classed as 'good'. The water quality status information for Dublin Bay has a WFD status of 'Good' (2013-2018). The WFD risk score is 'Not at risk', and the surface water quality data for the Dublin Bay (2015-2017) indicate that they are 'Unpolluted' based on Map 10 in the 2018 EPA Indicators Report.

Source	Pathways	Receptors considered	Risk of Impact (without mitigation)
<u>Construction</u> <u>Impacts</u> Unmitigated leak from a construction vehicle/. refuelling tank (300l capacity)	Vertical pathway through subsoils (Low and moderate vulnerability)	Limestone bedrock aquifer (Locally Important aquifer)	Negligible risk of localised impact to the underlying bedrock aquifer based on hazard loading and the thickness of the protective overburden. No likely impact on the status of the aquifer. Moderate risk of a temporary exceedance of statutory water quality concentrations (without mitigation) on the Liffey River. No likely exceedance
Discharge to ground of runoff water with High pH from cement process	Indirect pathway through stormwater drainage to Dublin Bay	Liffey and Dublin Bay	of statutory concentrations after 0.5 km from the discharge point. No likely impact on the status of the river as temporary in nature. No perceptible risk to water quality in Dublin Bay due to low contaminant
Unmitigated run-off containing a high concentration of suspended solids			loading and distance allowing attenuation and dilution near source area.
<u>Operational</u> <u>Impacts</u> Foul effluent discharge to sewer	Indirect pathway to Dublin Bay through public sewer via Ringsend WWTP	Dublin Bay (SAC/ SPA/ pNHA)	No perceptible risk – Even without treatment at Ringsend WWTP, the avg. effluent discharge from the site would equate to 0.02% of the measured discharge at Ringsend WWTP ^{Note 1} . This would not impact on overall water quality within Dublin Bay and therefore would not have an impact on the current Water Redu Status (co. defined within
Discharge to ground of hydrocarbons from car leak	Indirect pathway through stormwater drainage to Liffey water course	Liffey and Dublin Bay (SAC/ SPA/ pNHA)	No likely impact due to low contaminant loading and short-term nature of same.

Table 3.1Pollutant Linkage Assessment (without mitigation)

Note 1: This assessment is based on the current licenced discharge from the Ringsend WWTP. Irish Water (IW) have a number of projects which have receive planning or are within the planning process which will result in greater capacity for wastewater treatment for the greater Dublin area. In particular, the following key projects are applicable:

- (i) Ringsend WWTP upgrade An application for the upgrade was lodged with An Bord Pleanála in June 2018 and planning permission was granted in April 2019. Upgrade works are scheduled to increase the treatment capacity from 1.64 million p.e. to 2.4million p.e. This upgrade is currently programmed to be complete in 2025.
- (ii) Greater Dublin Drainage Project A planning application was lodged with An Bord Pleanála in June 2018, an oral hearing held in March 2019 and a decision is currently awaited.

- (iii) 9C sewer duplication. A planning application for this project was lodged with FCC on 11th May 2017 and FCC granted planning permission on 5th July 2017. Construction has commenced in summer 2019 and will be completed by September 2022.
- (iv) The Liffey Siphons refurbishment project Construction of this project commenced in May 2018 and is expected to be completed in December of this year.

3.4.2 Summary of Mitigation Measures

The proposed development incorporates mitigation to manage any accidental discharges to the Liffey river which could present on site during construction. These measures are outlined in the CEMP which is included with the EIAR (Appendix 4.1). These include:

- Any stockpiles of demolition material will be temporarily stored on impermeable surfaces and covered using tarpaulin to avoid any contaminated run off entering the surface water system. Any stockpiles of excavated material will be covered using tarpaulin. Silt traps will be placed in gullies to capture any excess silt in the run-off. All silos will be bunded appropriately.
- Settlement tanks and silt traps will be incorporated in the stormwater management system to capture any excess silt in the run-off during the construction phase.
- A Surface Water Management Plan will be implemented, which incorporates removal of silt/pollutants and debris by the installation of SuDS measures and a 2-stage treatment train approach to improve the quality of water discharging to the Liffey. SUDs measures include greenroofs, filter strips, filter drains, bio-retention rain-gardens and catchpits installed along the drainage system prior to outfall. In addition, as not all hardstanding can be intercepted and treated by SuDS measures, it is proposed to install a proprietary surface water treatment system (First Defence or Downstream Defender) which will have removal efficiency rates of 50% for suspended solids and 80% for hydrocarbons prior to discharge.
- All construction staff will receive an on-site induction relating to operations adjacent to watercourses and the environmentally sensitive nature of the River Liffey and re-emphasise the precautions that are required as well as the construction management measures to be implemented. Spill kits will be made available and all staff will be properly trained on correct use.
- All fuels, lubricants and hydraulic fluids required to be stored on site will be kept in secure bunded areas at a minimum of 10m from the River Liffey. The bunded area will accommodate 110% of the total capacity of the containers within it.
- All refuelling, oiling and greasing will take place above drip trays or on an impermeable surface which provides protection to underground strata and watercourses and away from drains and watercourses as far as reasonably practicable. Vehicles will not be left unattended during refuelling.

• Best practice in bulk-liquid concrete management addressing pouring and handling, secure shuttering / form-work, adequate curing times will be implemented. Wash water from cleaning ready mix concrete lorries and mixers may be contaminated with cement and is therefore highly alkaline, therefore, washing will not be permitted on site.

4.0 CONCLUSIONS

A conceptual site model (CSM) has been prepared following a desk top review of the site and surrounding environs. A source pathway linkage exists between the site and Dublin Bay through the Liffey river and through the IW foul sewer via Ringsend WWTP.

Based on this CSM, plausible Source-Pathway-Receptor linkages have been assessed for a worst case scenario during the construction and operation phase i.e. 'assuming an absence of any measures' intended to avoid or reduce harmful effects of the proposed project (i.e. mitigation measures) in place at the proposed development site.

It is concluded that there is no resultant direct or indirect source pathway linkage from the proposed development through public sewers which could result in any change to the current water regime (water quality or quantity) with Dublin Bay which could have an impact on the habitat requirements of the Natura 2000 sites

Finally, as outlined in the report prepared by ARUP (2019), and in line with good practice, mitigation measures have been included in the construction design and during operation of the proposed development. These specific measures will provide further protection to the receiving soil and water environments.
5.0 **REFERENCES**

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Ruirside Developments Limited January 2020

42A Parkgate Street, Dublin 8

Appendix 2: Construction Environmental Management Plan

ARUP

265381-00

Ruirside Developments Limited

42A Parkgate Street

Construction and Environmental Management Plan (CEMP)

265381/EIAR/1

Issue | January 2020

This report takes into account the particular instructions and requirements of our client. It is not intended for and should not be relied upon by any third party and no responsibility is undertaken to any third party.

Job number 265381

Ove Arup & Partners Ireland Ltd

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ARUP

1 Introduction

Ruirside Developments Ltd. intend to apply for permission to develop apartments, commercial office, retail and café/restaurant floorspace at the Hickey's site, 42A Parkgate Street, Dublin 8.

The proposed development is a mixed-use residential and commercial scheme comprising 'Build to Rent' residential units with associated residential amenities and facilities, commercial office and café/ restaurant floor space. The proposed development involves demolition and retention of a number of existing structures at the site, and construction of the mixed use residential and commercial scheme, which will include a 29-storey tower on the eastern corner of the site.

Arup has prepared this Construction Environmental Management Plan (CEMP) for the proposed development at the Hickey's site. The purpose of this CEMP is to provide a framework that outlines how Ruirside and any contractor appointed will manage and, where practicable, minimise negative environmental effects during the construction of the proposed development. Construction is considered to include all site preparation, enabling works, materials delivery, materials and waste removal, construction activities and associated engineering works.

This CEMP identifies the minimum requirements with regard to the appropriate mitigation, monitoring, inspection and reporting mechanisms that need to be implemented throughout construction. Compliance with this CEMP does not absolve the contractor or its sub-contractors from compliance with all legislation and bylaws relating to their construction activities.

This CEMP has been produced as part of the Environmental Impact Assessment Report (EIAR).

2 Overview

This CEMP provides a framework to:

- Provide an overview description of the construction strategy (Section 3)
- Outline an indicative programme for construction (Section 4);
- Describe the land-use requirements of the construction phase (Section 5);
- Outline the employment requirements, roles and responsibilities associated with the construction phase of the proposed development (Section 6 and Section 7);

• Outline all the measures which shall be implemented by the appointed contractor to ensure that no significant effects on the environment occur during the construction phase of the proposed development (Section 8 and Section 9).

It is intended that this CEMP would be expanded and updated by the contractor prior to the commencement of any construction activities on site.

Following appointment, the contractor will be required to develop more specific Method Statements and submit a more detailed (bespoke, contract-specific) CEMP that is cognisant of the proposed construction activities, equipment and plant usage and environmental monitoring plan for the proposed development. This CEMP should not be considered a detailed Construction Method Statement as it would be the responsibility of the contractor, appointed to undertake the individual works, in association with Ruirside Developments Ltd., to implement the mitigation measures described in the CEMP in more detail, by adopting appropriate procedures and in progressing this documentation prior to commencement of construction.

This CEMP outlines the range of potential types of construction methods, plant and equipment which may be used by any contractor appointed in order to enable their impacts to be assessed by the competent authority for the purposes of the environmental impact assessment and appropriate assessment prior to determining whether to grant planning permission.

3 Construction Strategy

As described in **Section 1**, the proposed development involves demolition of a number of existing structures at the site, and construction of the mixed-use scheme, which will include a 29-storey tower on the eastern corner of the site.

This section describes the key elements of the construction phase of the proposed development.

3.1 Phase 1- Enabling Works and Demolition

3.1.1 **Preparation Works**

A survey of the buildings and local surroundings will be carried out. This will identify the detail of the buildings' construction and all services on the site. Site investigation pits and boreholes will be excavated to establish the soil condition.

Movement, vibration, and dust monitors will be put in place.

Refer to **Section 4.1** below for further information on site preparation works.

3.1.2 Service Disconnections and Diversions

Utilities such as ESB, Gas, IT, and water will be disconnected, and the services terminated from entering the site. Disconnections will be phased corresponding to the proposed progress of demolition and construction works on site.

The existing sprinkler system within the Hickey's warehouse will be emptied with the water contained therein discharged to sewer at a controlled rate in agreement with Irish Water.

There are a number of above and under-ground fuel tanks located around the site. The tanks will be disconnected, and all associated pipework made defunct and stripped out during the demolition phase. Any fuel contained within the tanks and associated pipework will be emptied and disposed of appropriately.

The site is relatively free of services, with the services encountered within the site curtilage serving the buildings to be demolished. These services will be made defunct and stripped out during the demolition phase. Primary services and utilities are beneath the adjoining road network and not in direct proximity to the site.

Where the excavation strategy or temporary works require any temporary diversion of local services or utilities on the site perimeter, this would be undertaken with prior agreement of the relevant service provider.

The Contractor may seek agreement with Irish Water for a foul connection on Parkgate Street for the site compounds and welfare facilities. Alternatively, foul waste may be removed by tanker and disposed of off-site at an appropriately licensed facility.

3.1.3 Asbestos removal

An asbestos audit will be carried out on the buildings scheduled for demolition prior to demolition works. Any asbestos discovered will be removed by a Specialist Contractor in accordance with *Safety, Health, and Welfare at Work (Exposure to Asbestos) Regulations 2006/2013¹*, and disposed of by specialist contractors to an appropriately licensed facility. Traceable records of this activity, including the disposal licence, will be kept. Following the asbestos removal, a soft strip of the building will be carried out to remove wiring, ceiling tiles, electrical fittings, mechanical plant, fixtures, etc.

3.1.4 Erection of scaffolding along demolition perimeter

Scaffolding will be erected around each building to be demolished. This scaffolding will be clad in Monarflex to control dust, light debris, and light from the site.

¹ Safety, Health and Welfare at Work (Construction) Regulations 2013 (S.I. No. 291 of 2013). Available: <u>https://www.hsa.ie/eng/Legislation/New_Legislation/SI_291_2013.pdf</u> Accessed: 29/10/19.

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There will be consultation with neighbouring stakeholders to agree measures along the western boundary and near the eastern boundary, where there may be certain requirements, e.g. type of netting to be used in lieu of Monarflex for visual impact.

3.1.5 Demolition of the existing structures

A detailed demolition plan will be developed in due course by the appointed specialist demolition contractor which will take account of any particular requirements of the planning permission. Detailed proposals will depend on the expertise and plant available to the demolition specialists selected to undertake the demolition and will be set out in the Demolition Specification during the project delivery phase. It is envisaged that existing structures will be demolished in the reverse order from how they were constructed.

Following a soft strip of the building comprising removal of finishes, electrical fittings, wiring, mechanical plant, fixtures, fittings, etc., the structural frame will be demolished. All substructures and foundations will be grubbed up to an approximate depth of 1.8m below existing ground level. Underground tanks and other buried structures shall be removed in advance of piling mat construction.

3.1.6 Demolition waste generation

Demolition waste is expected to comprise of concrete, masonry, stone, metals and glass. These wastes will be segregated where possible for reuse or recycling in accordance with the relevant legislation and guidelines. In addition, it is likely that some plastics, cabling, and mixed non-hazardous demolition waste will also be generated.

3.1 Phase 2- Piling and Groundworks

3.1.1 Piling Mat

The piling mat will be formed at existing site levels and will comprise of a combination of imported granular material and site-won crushed concrete and rock material. The piling specialist shall clearly delineate the areas of pile mat constructed in the different sourced materials to enable appropriate removal in future.

Prior to construction of the pile mat, the formation shall be prepared, and a separation geotextile membrane installed. The pile mat material shall be appropriately compacted in layers in accordance with the Piling Specialist requirements.

3.1.2 Piling

The foundations are envisaged to be continuous flight auger (CFA) piles to Buildings B and C, and bored rock socketed piles to Building A. The piles shall support reinforced concrete pile caps and piled rafts under the stability cores. It is anticipated that the respective piling rig shall install piles from a pile mat datum close to existing ground level. Arisings from the pile installation shall be appropriately disposed off-site to a licensed facility.

A temporary retention structure is required in the vicinity of the existing Protected Arch to facilitate the bulk excavation of the basement. This will comprise of either sheet piles or king-post construction and will be monitored for movement throughout the substructure works. The retention structure shall be removed upon achievement of the appropriate concrete strength in the ground floor slab construction.

Subsequent to the bulk excavation of the basement, the constructed piles in this area will be broken down to proposed foundation datum level using an excavator with hydraulic breaker attachment.

3.1.3 Groundworks

The outline Construction Waste Management Plan (CWMP) contains more detailed information regarding the minimising of stockpiling of excavated material on site. Excavated material generated by the construction works shall be appropriately assessed for possible re-use on site, where possible, through various accommodation works. Surplus material will be immediately removed from site. The groundworks external to the buildings will comprise installation of precast retaining walls along the existing River Liffey boundary to facilitate build-up of ground to proposed finished levels.

Refer to Sections 6 and 7 for information on vehicle movements during the bulk excavation.

Refer to Section 6 for information on stockpiling of site-won material.

3.1.4 Dewatering

Dewatering may be required for local excavations, such as pile cap or lift pit locations. Any local dewatering is to be discharged to the River Liffey by agreement with the Local Authority and will include necessary treatment as required, such as silt traps and settlement tanks. Alternatively, dewatering may be reinjected to the subsurface through a number of wells or injection points across the site. Similar treatment measures will be adopted prior to reinjection. Local dewatering is likely to be necessary for only a portion of the construction programme, approximately 20 weeks.

3.1.5 Surface Water Run-Off

Existing surface water drainage on the site discharges to the River Liffey. It is envisaged that one of the existing surface water discharge points shall be maintained for the duration of the works, subject to Local Authority agreement. All other existing surface water discharge points to the River Liffey shall be decommissioned. Appropriate settlement tanks and silt traps shall be incorporated to capture any excess silt in the run-off. Refer to **Section 10.1.9** for further detail on surface water management measures.

The Contractor shall employ measures to ensure surface water run-off from Parkgate Street does not enter the site.

3.2 Phase 3- Main Construction Works

3.2.1 Substructure

The substructure generally consists of a reinforced concrete slab supported on reinforced concrete pile-caps. The stability core walls are supported on reinforced concrete piled raft foundations. The pile-caps and piled rafts for works at grade will be shuttered with formwork and the concrete cast. Upon removal of the formwork, the areas between the foundations will be built-up with site-won material.

In the basement area, the bulk dig datum will be the formation level of the foundations. This will mean the method of constructing the pile-caps and piled rafts in the basement will be similar to that at grade.

There will be an open dig to the basement area, with localised retention works at existing structures. The rising perimeter walls will be constructed with two-sided shutters, propped in position, and supported off the basement slab.

3.2.2 Superstructure

The superstructure of Building A is cast in-situ concrete. The stability core walls will be constructed by jump-formwork technique. Columns and slabs will be conventional reinforced concrete flat slab construction. The proposed external envelope comprises either prefabricated or precast panels, hence most of the fabrication will occur off-site at supplier premises.

The superstructures of Buildings B and C are in-situ concrete up to and including Level 1. Thereafter, the superstructure is precast concrete. The proposed façade comprises lightweight cold form steel sections to the inner leaf façade, with the external leaf constructed in masonry and supported from relieving angles and lintels. Scaffolding around the building exterior shall be necessary for construction of the masonry outer leaf and will remain in place until completion of the façade. Prefabricated balcony structures shall be lifted into position and fixed into cast-in connection points.

The precast elements are large components and require substantial vehicle movement on site for deliveries. Vehicles will be standard multi-axle flat back trucks delivering less than 40 tonnes each trip and typical for a building of this scale. There will be in-situ concrete work requiring regular deliveries of premixed concrete and formwork materials. The construction works will require the use of tower cranes on site. The cranes will be required for the moving of building materials on site, such as formwork for concrete, reinforcement, precast concrete, steelwork, façade, plant, and general building materials. The use of mobile cranes may be adopted to assist in the installation of the façade and plant.

3.2.3 Existing Structures

The following structures are included in the Record of Protected Structures (RPS 6320) and are to be retained as part of the new development: riverside stone wall; turret at eastern end of site; square tower on the riverfront; and entrance stone arch on the Parkgate Street frontage. The River Liffey Building to the west of the River Liffey wall (not a protected structure) is also to be retained and adapted for re-use within the scheme.

The majority of the works to the River Liffey wall will be land based. However, some works from the River Liffey may be necessary, such as vegetation removal and pointing repair of mortar. The Contractor will obtain a Foreshore Licence for temporary scaffolding erection in the River Liffey to facilitate the works, should this be necessary, and the associated Stakeholder engagement shall include liaison with Inland Fisheries Ireland (IFI). The Foreshore Application will involve submission of a Method Statement for the works, which will be prepared with input from a suitably qualified Ecologist.

Entrance Stone Arch

The existing arch is a stonework arch structure. Refurbishment works will comprise stonework repair and pointing repair of mortar. In some instances, the stonework is delaminating at the surface and localised replacement will be necessary. All superfluous embedded metal work shall be removed, and the substrate made good with matching stonework and mortar.

Scaffolding shall be erected to all sides of the arch to facilitate refurbishment works.

Turret

The existing turret is a stonework structure. All vegetation growth will be removed. Refurbishment works will comprise local stonework repair and pointing repair of mortar. In some instances, the stonework will require local stitching with helical ties. All superfluous embedded metal work shall be removed, and the substrate made good with matching stonework and mortar. Some of the capping at parapet level may need replacement.

Square Tower

The existing tower structure comprises stonework construction at lower level and brickwork at upper level. All vegetation growth will be removed. Refurbishment works will comprise local structural fabric repair and pointing repair of mortar. In some instances, the structural fabric is delaminating at the surface and localised replacement will be necessary. All superfluous embedded metal work shall be removed, and the substrate made good with matching stonework and mortar.

The internal metal work to be retained shall be shot blasted in situ and a new protective paint finish applied. The existing timber roof structure shall be retained, subject to condition assessment, but new roof finishes shall be installed.

Riverside Stone Wall

The existing riverside stone wall comprises stonework above high-tide level, and colloidal concrete below. The foundations of the river wall are also comprised of stonework. There is a separate internal brick wall that constitutes part of the adjacent Warehouse structure to the north of the riverside stone wall; this separate wall being shorter than the riverside stone wall and stopping short of its eastern end.

The quay wall supports timber rafters from the edge of the roof of the adjacent warehouse building, which span from the adjacent internal Warehouse brick wall described above.

The existing riverside stone wall will be fully propped by temporary works, which will be removed upon installation of the permanent lateral restraint (after the Level 1 slab construction has been cast). The build-up in ground levels will result in new retaining structures installed at the north side of the riverside stone wall.

The proposed elevation of the wall comprises new opening modifications, which will be either broken-out or saw-cut. Some re-building of the openings will be necessary, and the openings will be redressed and strengthened as required with new structural framing to align with the final design features described in the Alternative Chapter of the EIAR which accompanies this planning application.

All vegetation growth on the River Liffey side will be removed. In some instances, the stonework will require local stitching with helical ties. All superfluous embedded metal work shall be removed, and the substrate made good with matching stonework and mortar. Some of the capping at parapet level may need replacement.

A new surface water discharge point for the development will be constructed in the wall. The proposed surface water management measures have been agreed with Dublin City Council (DCC) Drainage Division, with various SuDS measures incorporated to satisfy their drainage requirements for a minimum two-stage treatment train approach. The majority of the works to the wall will be land based.

Gabled Industrial Buildings on the River Front

The existing gabled industrial buildings on the River front are double height structure comprising a combination of stonework and brickwork walls. It is intended to retain the larger of the two gabled buildings and the River façade of the smaller gabled building In the larger gabled building there is a mezzanine floor at differing levels. The original mezzanine structure over part of the building consists of concrete floors supported by steel and cast iron beams. It appears that the remaining mezzanine was infilled with timber construction at a later date. The roof finishes are supported on timber sarking boards, which are supported by ironwork trusses. Window and door heads are generally supported by concrete lintels, but some comprise of steel or cast-iron beams.

Modifications to the existing structural fabric for larger openings have been formed by a combination of wrought iron and steelwork members, depending on the time of interventions.

The works to the larger gabled building will comprise the removal of the existing roof finishes, demolition of mezzanine structures, removal of most internal walls and removal of the existing ground bearing concrete floor slab. Any made ground below the slab will be removed and new fill material placed and compacted for supporting a new ground bearing concrete slab. New lightweight mezzanine structures comprising timber floor construction supported on steelwork will be installed. The existing ironwork roof trusses will be refurbished in-situ (shot blast and new paint protection applied), with new roof finishes also installed. There will be minor modifications to the structural fabric to form new openings and widen existing openings. Temporary pinning of the walls will be necessary for the installation of new supporting beams and padstones.

All vegetation growth to the exterior walls will be removed, in particular the gable wall facing the River Liffey. In some instances, the walls will require local stitching with helical ties. All superfluous embedded metal work shall be removed, and the substrate made good with matching stonework and mortar. Some of the capping at parapet level may need replacement.

The works to the gabled industrial buildings on the River front will provide an improved setting that opens the building up to both the river walk and the residential courtyard. The design will remove previous unsympathetic work to open the ground floor level to the residential community behind. These works are intended to provide an increase in natural light levels, to give a better connection to the River walk as a though route.

The Large Main Warehouse at the east of the Site

Most of the eastern half of the site is occupied by a large single storey warehouse. It is proposed to demolish this large warehouse including its curving north wall, which runs along Parkgate Street. However, the large cast-iron elements within the warehouse, including columns and beams, are to be removed for re-use as advised by the Conservative Specialist.

3.2.4 Parkgate Street Interfaces

Works along the south footpath on Parkgate Street will be carried out in phases. Refer to **Section 4.3.2.3** for proposed activities. The Contractor will obtain road closure licences on at least two occasions for the Works. The first will be at the start of Phase 3 to facilitate construction arrangements, and later licences will be necessary for minor reconfigurations of the south footpath on Parkgate Street.

Works associated with the surface water improvement works will take place on public property, including public roads and footpaths. The scheme will be installed by trench excavations. Approximately 20m of trenching will be open at any one time. Installation of pipework shall be carried out under traffic management at night, with all traffic lanes returned to traffic each morning. Manholes shall be constructed under traffic management at weekends.

Gullies and local pavement resurfacing works may be completed under lane restriction during daytime hours.

The duration of the proposed works will be approximately five weeks and will commence in Q4 2020. Excavated material will be removed off site to a registered waste facility. There will be no storage of chemicals on lands outside of the ownership boundary, and refuelling will take place at the Contractor's base compound.

4 Duration and Sequencing

It is envisaged that construction of the proposed development will take approximately 34 months. Phase 1 and phase 2 will run concurrently and are expected to take approximately 4 months. Phase 3 as the main construction works will take approximately 30 months. All construction works will be carried out during day time hours (Refer to **Section 6.6**).

The Main Contractor(s), once appointed, will ultimately be responsible for the sequencing and implementation of the works in a safe and secure manner, and in accordance with all statutory requirements and the mitigation measures proposed in the EIAR.

An indicative construction methodology is described in Section 3.

The main stages of construction will proceed in a general sequence as follows:

- Phase 1: Enabling Works and Demolition
- Phase 2: Piling and Groundworks
- Phase 3: Main Construction Works

There will be some overlap in phasing activities, as outlined in the sections below.

4.1 **Phase 1: Enabling Works and Demolition**

Phase 1 will take approximately 4 months. The following is a list of the main activities that are planned to be undertaken in the first phase.

4.1.1 Enabling Works Site Set Up

- Site set up for the enabling works contract, including construction compound and erection of secure site hoarding and fencing along Parkgate Street and the neighbouring premises;
- Implementation of Contractor's Health & Safety Plan for the enabling works and demolition contract;
- Identification and cut-off, as required, to existing services;

- Protection of existing site features to be retained (See Section 6.10 for further information); and
- Removal and disposal of asbestos, based on survey and site investigations, and in accordance with statutory requirements (See Chapter 17, Resource and Waste Management, for greater detail on construction and demolition waste).

4.1.2 **Demolitions and Site Preparation**

- Undertaking of condition surveys of existing buildings/structures that will be retained (see structures highlighted in blue in Figure 1);
- Erection of temporary structures for retention of existing structures around protected archway and quay wall;
- Erection of permanent works for retention of proposed fill to back of existing quay wall and to interface with existing River Building;
- Demolition of existing structures (see structures highlighted in red in Figure 1), with the exception of those to be incorporated in the development;
- Excavation and removal of all substructures and foundations to an approximate depth of 1.8m below existing ground level;
- Removal of all underground tanks and other buried structures in advance of piling mat construction;
- Maintenance of protection measures to existing site features to be retained;
- Removal of waste materials off-site in accordance with statutory permitting requirements and retention of selected material for re-use on site as fill; and
- Possible re-use of some demolition waste material (subject to suitability testing) to be crushed and graded on site for re-use in building sub-bases and landscaping.

The Contractor shall coordinate the Works with the Archaeologist.

4.2 Phase 2: Piling and Groundworks

The piling works undertaken in Phase 2 consist of the installation of all piles across the site. The works may also include the installation of temporary retention structures to facilitate bulk excavation. The works will run concurrently with Phase 1 and are expected to last 4 months.

4.2.1 Piling

The Piling Specialist will liaise with the separate Phase 1 and Phase 3 Contractors to:

- Develop the preferred sequencing of the works;
- Conduct condition surveys of sensitive boundary structures and existing buildings that will be retained;

- Co-ordinate the design and installation of the temporary works required to implement the Main Contractor's preferred sequence of works;
- Relocate construction compound and welfare facilities within the site boundary; and
- Agree on the optimum location for stockpiling of material for re-use on site.

The Piling Specialist will also undertake the following list of activities:

- Installation, and later removal, of pile working platform (possible re-use of site won material);
- Construction of permanent piles across the site;
- Conduction of working load pile tests on a number of production piles;
- Conduction of integrity testing of all piles;
- Installation and removal of temporary piles; and
- Breaking down of piles within basement area.

4.2.2 Groundworks

The following is a list of the main groundworks activities that are planned to be undertaken in this phase:

- Bulk excavation for basement;
- Removal of surplus excavated material for off-site disposal;
- Stockpiling of site-won material (to be stockpiled for a maximum of 6 months) and appropriate temporary covering (refer to Section 6.11 for further information); and
- Placement of site-won material in areas at grade for build-up in site levels and as backfill to basement substructure, if appropriate for re-use.

4.3 **Phase 3: Main Construction Works**

The Phase 3 construction works include the construction of the new buildings, the refurbishment of the existing structures, and the external site works. The works will take approximately 30 months. The footpath will remain open throughout the construction phase, with the exception of short road closure licences necessary to complete service tie-ins.

4.3.1 Site Set Up and Preparation

- Mobilisation and site set up for the main contract works, including the erection of the construction compound and secure site hoarding and fencing (note: possible retention and re-configuration of hoarding erected as part of Phase 1);
- Closure of the existing vehicular entrance and construction of a new site entrance between Building A and B for construction movements;

- Conduction of minor works along the south footpath on Parkgate Street, including:
 - Creation of a dished kerb at proposed vehicular entrance;
 - Relocation of the westbound bus stop and shelter;
 - Regrading of the bus stop kerb;
 - Relocation of recycling bins;
 - Creation of loading bay;
 - o Relocation of Dublin Bikes Station No. 92; and
 - Creation of dropped kerbs for emergency access to the development, all subject to relevant permits and agreements.
- Improvement works for surface water along the south kerb on Parkgate Street, subject to Local Authority agreement, comprising:
 - Installation of new manholes constructed in Parkgate Street pavement;
 - Installation of new sections of surface water concrete pipework to connect new manholes and gullies;
 - Connection into existing surface water outfall;
 - o Diversion of existing road gullies into new surface water sewer; and
 - Construction of new trapped blockwork road gullies and connection into new surface water sewer.
- Protection of existing site features to be retained, including Protected Structures (See Section 6.10 for details);
- Condition surveys of existing buildings and boundary structures that will be retained; and
- Preparation of site area for the construction of the new buildings.

4.3.2 Construction of New Development

It is envisaged that a number of construction activities will progress concurrently at the start of Phase 3 works, including:

- Installation of temporary structures, including tower cranes, needling, and stability measures to existing structures;
- Construction of pile-caps and piled raft foundations in areas at grade;
- Installation of radon barrier/damp proof membrane/waterproof membrane, where appropriate;
- Construction of basement substructure, including retaining walls;
- Construction of all new site services;
- Connection to new foul drainage infrastructure;
- Connection to surface water drainage for discharge to River Liffey;

- Connection to new site services, including Gas, Electricity Supply Board, and Telecoms; and
- Construction of reinforced concrete ground floor slabs.

The rising superstructure is likely to be concrete frame but will comprise different construction methods across the different buildings, as explained below. The various buildings shall be constructed at a similar rate, apart from the Building A main stability core. The following is a list of the main activities that are planned to be undertaken in this phase.

- Building A main stability core to be slip-form or jump-form construction, meaning the core will be constructed for the full building height in advance of the rest of the superstructure;
- Building A superstructure to be cast-in situ reinforced concrete columns up to first floor. There shall be a thickened slab structure at Level 1 where columns shall change in profile and comprise either precast concrete or in situ reinforced concrete structural form for the remaining building height. The floor slabs shall be flat slab construction, which requires formwork and temporary propping, to roof level;
- Buildings B and C superstructure to be cast-in situ reinforced concrete columns and flat slab construction up to Level 2, which requires formwork and temporary propping;
- Buildings B and C superstructure to be precast concrete from Level 2 to roof, consisting of precast load-bearing stability and non-stability walls supporting precast floor panels with in situ concrete topping. Associated temporary propping to be provided as necessary;
- Installation of temporary works in area between Building A and Building B to maintain construction traffic movements during construction of superstructure overhead;
- Installation of precast construction stair flights and landings, with associated temporary propping as necessary;
- Installation of prefabricated bathroom ensuite pod units;
- Completion of external envelope to Buildings B and C once the concrete frame is near completion and the groundworks is clear. The façade comprises masonry construction with associated relieving angle and lintel supports to the external leaf. Scaffolding around the building exterior to be provided and to remain in place until completion of the façade;
- Completion of external envelope to Building A. The façade comprises either stone faced precast concrete panels or individual fixed stone, and erection will start once groundworks is clear;
- Installation of prefabricated balconies to fixing points cast into the concrete frame to Buildings B and C;
- Completion of reinforced concrete balconies to Building A, which shall comprise Special Finish to the soffit and include a drip check;

- External envelope insulation and detail to ensure air tightness in accordance with the Building Regulations;
- Installation of building services;
- Internal fit out, including partition walls, doors, joinery, and fire rated enclosures as required;
- Toilet and sanitary facilities installation, including disabled/accessible provision in accordance with the Building Regulations;
- Internal finishes (floors, walls, and ceilings) to various areas; and
- Fitted furniture installation.

Other site related works not listed above include:

- Provision of permanent lateral restraint to existing stonework wall along River Liffey upon completion of Level 1 of Building A, and removal of temporary retention structure;
- Construction of appropriate sub-base to non-trafficable and trafficable areas;
- Refurbishment and strengthening to existing structures retained on site;
- New substructure and internal superstructure to existing River Building at west end of river wall;
- Removal of vegetation, pointing repair to localised sections of stonework, and construction of a surface water outfall point to the existing quay wall; and
- Landscaping works, beginning at Building A and progressing westward.



Figure 1: Overall sequencing of Works (1 of 6)



Figure 2: Overall sequencing of Works (2 of 6)



Figure 3 Overall sequencing of Works (3 of 6)



Figure 4 Overall sequencing of Works (4 of 6)



Figure 5 Overall sequencing of Works (5 of 6)



Figure 6 Overall sequencing of Works (6 of 6)

5 Land-Use Requirements

The site of the proposed development is owned by the developer, Ruirside Developments Limited. No acquisition of land will be required during the construction phase of the proposed development. The development area will also include the portion of landscaped area east of the existing ESB substation on Parkgate Street, and an area of footpath and pavement along Parkgate Street. All areas outside the site ownership boundary but within the red line boundary are owned or controlled by Dublin City Council.

The site is currently occupied by Hickeys fabric company and has been since the 1970s. As part of a leasing agreement, Hickeys will vacate the site in December 2019. These lands are in the ownership of Ruirside Developments Limited, so no change in land ownership is required.

The works to take place outside the site boundary (but within the red line planning boundary), for which the necessary licences and consents shall be obtained, include:

- Minor works along the south footpath on Parkgate Street;
- Surface water improvement works along the south kerb on Parkgate Street;
- Foul drainage connection on Parkgate Street;
- Vegetation removal, pointing repair of existing stonework, and the construction of a surface water discharge point to the River Wall; and
- Set up of site offices on the south footway on Parkgate Street, adjacent to the existing ESB Substation.

5.1 Construction Compound

The construction compound will be located on site within the planning boundary for the duration of the project. On-site accommodation will consist of:

- Adequate materials drop-off and storage area;
- Set down areas for trucks;
- Site offices; and
- Staff welfare facilities (i.e. toilets etc.).

As construction progresses, it will be necessary to move the location of the construction compound within the site. **Error! Reference source not found.**Figures 1 to 6 indicate the location of the construction compound in the context of the proposed development site.

The construction compound will be engineered with appropriate services and will be hoarded or fenced off for security purposes. The compound will be used as the primary location for the storage of materials, plant, and equipment, site offices (which may be two to three stories in height), and worker welfare facilities.

An access control facility will be provided to restrict compound access to site personnel and authorised visitors only.

Materials to be stored on site will be stored in a safe manner and will minimise the risk of any negative environmental effects and will be managed on a 'just-in-time' basis. All fuel storage areas will be bunded in the compound and will be clearly marked. Fuel will be transported from the offsite compound to the plant and equipment, on the Parkgate Street worksite, in mobile units based on need. A dedicated fuel filling point will be set up on site with all plant brought to this point for filling.

Temporary toilets and wash facilities will be provided for construction workers. These facilities may require periodic waste pumping and waste offsite haulage, which will be carried out by an authorised sanitary waste contractor. Alternatively, the Contractor may utilise an existing foul drainage connection for site welfare facilities, subject to license agreement with Irish Water.

Appropriate lighting will be provided as necessary at the construction compound. All lighting will be installed to minimise light spillage from the site and will be temporary, i.e. confined to use during construction only. The Contractor may utilise existing electrical ducting at the boundary, with connection to be agreed with ESB Networks.

No car parking is envisaged to be provided within the site. Staff and visitors to the site will be encouraged to utilise non-vehicular means. Otherwise, there is on-street Pay & Display public parking in the environs of the site.

6 Site Management

6.1 Good Housekeeping

The Contractor will employ a "good housekeeping" policy at all times. This will include, but not necessarily be limited to, the following requirements:

- General maintenance of working areas and cleanliness of welfare facilities and storage areas;
- Provision of site layout map showing key areas such as first aid posts, material storage, spill kits, material and waste storage, welfare facilities etc;
- Maintain all plant, material and equipment required to complete the construction work in good order, clean, and tidy;
- Keep construction compounds, access routes and designated parking areas free and clear of excess dirt, rubbish piles, scrap wood, etc. at all times;
- Details of site managers, contact numbers (including out of hours) and public information signs (including warning signs) will be provided at the boundaries of the working areas;

- Provision of adequate welfare facilities for site personnel;
- Installation of appropriate security, lighting, fencing and hoarding at each working area;
- Effective prevention of oil, grease or other objectionable matter being discharged from any working area;
- Provision of appropriate waste management at each working area and regular collections to be arranged;
- Excavated material generated during construction will be reused on site as far as practicable and surplus materials/soil shall be recovered or disposed of to a suitably authorised waste facility site;
- Effective prevention of infestation from pests or vermin including arrangements for regular disposal of food and material attractive to pests will be implemented. If infestation occurs the contractor will take appropriate action to eliminate and prevent further occurrence;
- Maintenance of wheel washing facilities and other contaminant measures as required in each working area;
- No discharge of site runoff or water discharge without agreement of the relevant authorities;
- Open fires will be prohibited at all times;
- The use of less intrusive noise alarms which meet the safety requirements, such as broadband reversing warnings, or proximity sensors to reduce the requirement for traditional reversing alarms;
- Maintenance of public rights of way, diversions and entry/ exit areas around working areas for pedestrians and cyclists where practicable and to achieve inclusive access;
- All loading and unloading of vehicles will take place off the public highway wherever this is practicable; and
- Material handling and/or stockpiling of materials, where permitted, will be appropriately located to minimise exposure to wind. Water misting or sprays shall be used as required if particularly dusty activities are necessary during dry or windy periods.

6.2 Site Management and Security

A construction management team will be established for the duration of the construction phase. The team will manage the construction of the works including monitoring the contractor's performance to ensure that the proposed construction phase mitigation measures are implemented, and that construction effects and nuisance are minimised.

The primary function of site security will be to ensure that no unauthorised entry to site occurs. There will be hoarding around the construction areas to minimise the risk of vandalism and unauthorised access.

6.3 Site Hoarding

The Demolition and Enabling Works Contractor will establish a site boundary with the provision of appropriate signage, construction of hoarding, and welfare facilities, site office, and establishment of appropriate access and egress.

The site hoarding (or fencing where appropriate) will be established around the work area before any significant construction activity commences and will be 1.8m in height.

Construction site hoarding is used to provide a secure site boundary to what can be a dangerous environment for people who have not received the proper training and are unfamiliar with construction operations. Site hoarding also performs an important function in relation to minimising some of the potential environmental impacts associated with construction, namely:

- Noise;
- Visual impact; and
- Dust.

The Contractor will be required to ensure at all times a clear demarcation with a safe and secure enclosure between areas in use as public facilities and areas of the construction site. Where possible, hoarding and fencing will be retained and re-configured from the Phase 1 works, and re-used for subsequent work phases.

The extent of compound and facilities required by the Contractor will vary throughout the duration of the works. The Contractor will likely require a smallscale compound and facilities located within the site compound. It is proposed that the hoarding line will incorporate part of the footpath during the works along Parkgate Street, where the appropriate licences will be obtained from the Local Authority in advance of the works.

The footpath will be closed for short periods to facilitate service connections, where minor diversion for pedestrians shall be provided along the carriageway of the road immediately adjacent to the footpath, closing off one lane of traffic to westbound vehicles.

Controlled access points to the site, in the form of gates or doors, will be kept locked for any time that these areas are not monitored (e.g. outside working hours).

The hoarding will be well maintained and painted and may contain graphics portraying project information.

6.4 Lighting

• Site lighting would typically be provided by tower mounted 1000W metal halide floodlights. The floodlights would be cowled and angled downwards to minimise spillage to surrounding properties. The following measures will be applied in relation to site lighting:

- Lighting will be provided with the minimum luminosity sufficient for safety and security purposes. Where practicable, precautions will be taken to avoid shadows cast by the site hoarding on surrounding footpaths, roads and amenity areas;
- Motion sensor lighting and low energy consumption fittings will be installed to reduce usage and energy consumption; and
- Lighting will be positioned and directed so as not to unnecessarily intrude on adjacent buildings and land uses, ecological receptors and structures used by protected species, nor to cause distraction or confusion to passing motorists, river users or navigation lights for air or water traffic.

6.5 Hours of Working

Normal working hours during the construction phase will typically be as follows:

Start	Finish	
0700	1800	Monday to Friday
0800	1400	Saturday

However, it may be necessary, in exceptional circumstances, to work outside of these hours at night and at weekends during certain activities and stages of the development. These will be agreed in advance with DCC and advertised in advance to relevant stakeholders.

6.6 Employment

The construction workforce numbers will vary depending on the construction stage of the project. However, it is anticipated that at the peak of construction there will be an average construction workforce of approximately 600-700 people employed on site.

6.7 Construction Health and Safety

The appointed Contractor will be required to ensure all Health & Safety requirements are agreed with Ruirside.

All construction staff and operatives will be inducted into the security, health and safety and logistic requirements on site prior to commencing work.

All contractors will be required to progress their works with reasonable skill, care and diligence and to proactively manage the works in a manner most likely to ensure the safety, health and welfare of those carrying out construction works, all other persons accessing the subject site and interacting stakeholders.

Contractors will have to implement all mitigation measures relevant to construction activity described in the EIAR. Contractors will also have to ensure that, as a minimum, all aspects of their works and project facilities comply with legislation, good industry practice and all necessary consents. Particular cognisance will be taken by the contractor to managing the use of machinery in a public environment.

The requirements of the Safety, Health and Welfare at Work Act 2005, the Safety, Health and Welfare at Work (Construction) Regulations, 2006 and other relevant Irish and EU safety legislation will be complied with at all times.

As required by the Regulations, a Health and Safety Plan will be formulated which will address health and safety issues from the design stages through to completion of the construction and maintenance phases. This plan will be reviewed and updated as required, as the development progresses.

In accordance with the Regulations, a "Project Supervisor Construction Stage" will be appointed as appropriate. The Project Supervisor Construction Stage will assemble the Safety File as the project progresses.

Further, any requirements of the Irish Aviation Authority (IAA) with regards to lighting, crane operation etc. will be fully complied with.

6.8 Emergency Response Provision

The Contractor will maintain an emergency response action plan which will cover all foreseeable risks, i.e. fire, spill, flood, etc. The response plan will be developed in accordance with the site emergency plan. Appropriate site personnel will be trained as first aiders and fire marshals. In addition, appropriate staff will be trained in environmental issues and spill response procedures.

Equipment and vehicles will be locked, have keys removed and be stored securely in the works area.

6.9 **Protection of Sensitive Structures**

The Contractor will carry out condition surveys of all neighbouring structures and Protected Structures on the site and will erect protective hoarding to the existing Arch on Parkgate Street and the Turret at the eastern corner of the site. Temporary works will be put in place to protect sensitive structures, and a cordoned off zone of influence will be maintained at all times, in particular to the River Wall, Arch, Turret, and Tower. The Contractor(s) of subsequent construction phases will keep all protection measures in good order for the duration of the works.

The Contractor's Demolition and Construction Management Plan shall include a section on the Luas interface, dealing with and mitigating the specific risks to Luas infrastructure and operational services. All works shall be carried out in strict accordance with *Code of Practice for Works on, Near or Adjacent to the Luas Light Rail System* which is available to download from https://luas.ie/work-safety-permits.html. The Demolition and Construction Management Plan shall demonstrate compliance with the code of engineering practice, and particularly:

• Working safely in the vicinity of the Overhead Conducting System danger zone and the general Luas corridor;

- Demonstrating settlement and vibration remains within the limits set in the code of practice;
- Ensuring the Demolition and Construction Traffic Management Plan does not impact Luas operations, and;
- Compliance with the requirements of the Transdev (Luas operators) permit system for works in the area.

6.10 Waste Management

The handling and storage of construction wastes arising will be conducted in full compliance with the recommended guidelines.

6.10.1 Excavated Materials

Excavated materials as part of the construction works will generally consist of:

- Service yard and ground floor slab (i.e. asphalt and concrete);
- Topsoil and soil;
- Made ground; and
- Underground structures of various materials.

It is estimated that c. 14,400 m³ of bulk excavation will result from the works, including c. 220 m³ of excavation outside the ownership boundary for the proposed surface water improvement works. It is estimated that c. 6,100 m³ of fill material will be required, assuming some re-use of excavated materials will be allowed.

6.10.2 Demolition Materials

Materials will arise from the demolition and refurbishment of structures on the site. These will include concrete, steel, timber, and other materials that typically arise from the demolition of structures.

Any stockpiles of demolition material shall be temporarily stored on impermeable surfaces and covered using tarpaulin to avoid any contaminated run off entering the surface water system. Any stockpiles of excavated material will be covered using tarpaulin. Silt traps shall be placed in gullies to capture any excess silt in the run-off. All silos shall be bunded appropriately. Construction activities will have regard to CIRIA Good Practice Guidelines (C543 – Control of Water Pollution from Construction Sites).

The Main Contractor(s) will be required to establish and implement a detailed Construction and Demolition Waste Management Plan as part of their Quality Assurance System.

6.10.3 Construction Materials Requirements

The proposed development will have a requirement for imported materials, primarily concrete, and steel for the new proposed construction.

It is estimated that the following approximate quantities of the main construction materials will be imported during the construction works:

- Concrete In-Situ (superstructure only)– 15,100 m³;
- Concrete Precast (superstructure and landscape paving)- 51,700m³
- Concrete (Substructure only)- 5,100m³
- Reinforcing Steel 4,700 tonnes;
- Façade Glazing 11,500 m²;
- Solid Façade 13,100 m²; and
- Brickwork 6,200 m².

6.10.4 Construction and Demolition Waste Management Plan

Resource and waste generation during construction will be mitigated and managed where possible. In this regard, Contractors will be required to produce a Construction and Demolition Waste Management Plan (CDWMP) for DCC approval prior to commencing any works on site. The CDWMP will address waste generation and arrangements made for prevention, reuse, recycling disposal and collection of recyclables and wastes.

The CDWMP which accompanies this planning application was prepared in line with the DoEHLG Best Practice Guidelines on the Preparation of Waste Management Plans for Construction & Demolition Projects.

The following is an indicative list of the contents of a CDWMP:

- Description of the Project;
- Wastes Arising Including Proposals for Minimisation/Reuse/Recycling;
- Procedures for prevention, reuse and recycling of wastes
- Estimated Cost of Waste Management;
- Roles including Training and Responsibilities for C&D Waste;
- Procedures for education of workforce and plan dissemination programme
- Record Keeping Procedures;
- Waste Collectors, Recycling and Disposal Sites Including Copies of Relevant Permits or Licences; and
- Waste auditing protocols.

Using the information identified in this section the Contractor will be required to develop, implement and maintain the CDWMP for the construction phase of the proposed development. The Construction and Demolition Waste Management planning application.

Plan can be found in **Appendix 17.1** of the EIAR which accompanies this

6.11 Water Management

Site drainage will be provided to collect surface runoff prior to discharge to the local drainage network – all in accordance with the necessary Dublin City Council approval.

7 Construction Traffic Management Plan

7.1 Site Access

It is anticipated that, subject to the grant of planning permission, construction will commence in Q4 2020.

The site is currently accessed from Parkgate Street via an existing vehicular entrance. For the duration of the Phase 1 and 2 works, all construction traffic will enter and leave the site using this existing entrance. A temporary lay-by may be required for truck set down for management of deliveries to site.

Phase 3 will require closure of the existing vehicular entrance and construction of a new site entrance between Building A and B for access and egress construction movements. This will require the relocation of the Dublin Bike Station No. 92.

Pedestrian Access

During certain stages of construction, it may be necessary to close part of the footpath along Parkgate Street. If this were to occur, a minor diversion for pedestrians would be provided along the carriageway of the road immediately adjacent to the footpath, closing off one lane of traffic to westbound vehicles. There are two vehicle lanes in the westbound direction, so no detours would be required for vehicles. All details of this Construction Traffic Management Plan will be agreed with Dublin City Council and An Garda Síochána in advance of the works.

Cycle Facilities

Cycle parking spaces will be provided on site for construction staff and in addition lockers will be provided to provide necessary storage for cyclist's personal belongings. There are also several Dublin Bikes stations in the vicinity of the site near Heuston Station.

As part of the proposed development it will be necessary to permanently re-locate Dublin Bikes Station No. 92 on Parkgate due to the provision of a loading bay in the current location of the station. It is likely that the relocation will occur early in the construction phase. The new location for the Dublin Bikes Station will be confirmed by DCC.

Public Transport

It is not envisaged that there will be any impact on public transport infrastructure or services during the construction of this development.

Car parking

No car parking is being provided on site for staff as the location of the proposed development is in the centre of Dublin and can be easily accessed by public transport, walking and cycling. If staff drive, they will have to park in the wider area such as Phoenix Park, Royal Hospital Kilmainham, or the various city centre car parks. However, the majority of these trips will likely occur before 7:00 and thus will not impact the network during the peak period of traffic volume.

7.1.1 Removal of Materials from Site

Demolition of existing buildings and bulk excavation arisings will be the most intensive period for removal of materials off site. Removal of materials off site will be managed effectively to ensure that there will be no queuing of trucks on the public roadways around the site. All trucks will have a built-in tarpaulin that will cover the excavated material as it is being hauled off site, and wheel wash facilities will be provided at all site egress points.

7.1.2 Deliveries to Site

Deliveries of materials will be planned and programmed to ensure that the materials are delivered only as they are required on site. Works requiring multiple vehicle deliveries to site, such as concrete pours, will be planned to ensure there will be no queuing on the public roadways around the site.

7.2 Construction Traffic Trip Generation

The level of construction traffic directly associated with the construction of the proposed development will vary over the course of the construction project. The construction works will generate traffic during the following phases:

- Phase 1 Enabling Works and Demolition;
- Phase 2 Piling and Groundworks; and
- Phase 3 Main Construction Works

The following section presents the projected volume of traffic generated during the peak period of construction activity.

It is expected that the most onerous phase of construction activity is during Phases 1 and 2 which may potentially run concurrently over a period of 4 months. For the purposes of this assessment and its robustness, it has been assumed that the entirety of the construction works for these phases will occur over a period of 2 months. This means an assumption of the same volume of trips but distributed by a shorter time period, thus resulting in more trips per day or hour.

Removal of Excavated and Demolished Material: The largest number of HGV movements will be associated with the excavation and demolition stage. It has been robustly assumed that approximately 14,500m³ of bulk excavation material and approximately 2,250m³ of demolition waste (based on estimate of 2,695 tonnes, at 1.2T/m³) will require removal from the site, and this is assumed to occur over a 2-month period. It is unlikely that demolition and excavation will happen at the same time. However, for robustness, this assessment assumes that they will occur at the same time.

On the basis of a 10m³ truck capacity, approximately 28 trucks per day are needed over the 2-month period. This equates to less than 2.5 trucks per hour on average. During peak construction periods this number could potentially double to 5 trucks per hour.

Imported Fill Material: It has been robustly assumed that 6,500m³ of fill material will be imported to the site, and again, it is assumed that this will occur over a 2-month period.

On the basis of a 10m³ truck capacity, approximately 11 trucks per day are needed over the 2-month period. This equates to less than one truck per hour on average. During peak construction periods this number could double to 2 trucks per hour.

Total Construction Traffic Generation: The total traffic generation for construction activities based on the assumptions set out above is presented in Table 1 below. Note these are 2-way movements (i.e. one truck = two movements).

Construction Aspect	2-Way Trips in Peak Hour
Removal of Excavated Material	10
Imported Fill Material	4
Total	14

 Table 1: Traffic Generated During the Construction Period

A total of 14 two-way trips in a peak construction hour will not have any significant impact on the local traffic network.

7.3 Construction Traffic Distribution

It is anticipated that all construction vehicles accessing and egressing the site will do so from a construction access point on Parkgate Street. Construction traffic travelling to and from the site will do so via the Conyngham Road, South Circular Road, and Con Colbert Road/Chapelizod Bypass from where they will access the M50 and the national road network. This will keep trucks to an established HGV route, minimising their impact on residential areas.. The CTMP will be agreed with Dublin City council and An Garda Síochána in advance of the works.

Figure 7 shows the designated construction traffic route to/from the site.



Figure 7 Designated Construction Traffic Route

7.4 Construction Stage Traffic Impact Mitigation

7.4.1 Construction Vehicle Movements

Construction vehicle movements will be minimised through:

- Consolidation of delivery loads to/from the site and management of large deliveries on site to occur outside of peak periods;
- Use of precast/prefabricated materials where possible;
- Assessment of 'cut' material generated by the construction works for possible re-use on site through various accommodation works. This will reduce the amount of material for removal offsite.
- Provision of adequate storage space on site;
- Development of a strategy to minimise construction material quantities as much as possible; and
- Minimisation of construction staff vehicle movements by offering Travel to Work Scheme benefits to encourage car sharing and public transport use.

7.4.2 Mobility Management Measures

A framework Mobility Management Plan (MMP) has been included with the planning application documentation, as part of the Transport Statement.

The Contractor will be required to introduce a MMP for its workforce to encourage access to the site by means other than private car.
The following section identifies some of the measures the Contractor will provide as part of the MMP. The MMP will be agreed with Dublin City Council prior to works beginning on site.

There is good connectivity between the site and public transport links.

There are buses within walking distance including Parkgate Street, Heuston Station, and St. John's Road West. The Luas Red-Line stop at Heuston Station is also within walking distance. The Contractor will issue an information leaflet to all staff as part of their induction on site highlighting the location of the various public transport services in the vicinity of the construction site.

Cycle parking spaces will be provided on the site for construction staff. In addition, lockers will be provided to allow cyclists store their cycling clothes. There are several Dublin Bike stations in the vicinity, on Parkgate Street and near Heuston Station.

Car sharing among the construction staff should be encouraged, especially from areas where construction staff may be clustered. The Contractor will aim to organise shifts in accordance with staff origins, thereby enabling higher levels of car sharing. Such a measure offers a significant opportunity to reduce the proportion of construction staff driving to the wider site area and will minimise the potential traffic impact on the road network surrounding this facility.

To oversee and implement the Mobility Management Plan for the construction works, the following mechanisms will be put in place:

- The appointment of a Mobility Manager to implement the Plan; and
- The establishment of a group to oversee the implementation and ongoing implementation of the Plan.

7.4.3 Temporary Traffic Management

Despite the limited impact on traffic capacity, the construction activities may require temporary modifications to the existing road network, particularly on Parkgate Street adjacent to the site.

The exact nature of the modifications and the time periods over which they will be in place will be a matter for the Construction Management Plan to be submitted by the appointed Contractor to Dublin City Council for agreement prior to commencement of works.

As part of the temporary traffic management, it may be necessary to interrupt the pedestrian footpath on the southern side of Parkgate Street to facilitate construction activities such as piling works along the northern boundary of the site. If this were to occur, a minor diversion for pedestrians would be provided along the carriageway of the road immediately adjacent to the footpath, closing off one lane of traffic to westbound vehicles. There are two vehicle lanes in the westbound direction, so no detours would be required for vehicles.

The Contractor will liaise with DCC and Dublin Bus to ensure the impact is adequately mitigated during construction.

8 Environmental Management Framework

8.1 Overview

The contract(s) awarded for the proposed development will include a requirement for the contractor to comply with relevant documentation including the EIAR, planning (and other statutory consent) conditions received, this CEMP and subsequent further development of this CEMP.

As part of the environmental management framework contractors will need to comply with all relevant environmental legislation and take account of published standards, accepted industry practice, national guidelines and codes of practice appropriate to the proposed development. Due regard should be given to the guidance and advice given by ISO14001 standard² and Construction Industry Research and Information Association (CIRIA) guidance^{3,4,5}.

The contractor will be required to develop and implement an Environmental Management System (EMS) that follows the principles of ISO14001. Further, the contractor's EMS should include an environmental policy, operational, monitoring and auditing procedures to ensure compliance with all environmental requirements and to monitor compliance with environmental legislation and the environmental management provisions outlined in the relevant documentation.

8.2 Roles and Responsibilities

8.2.1 Employer

Ruirside Developments Limited ('Ruirside') will be the employer responsible for ensuring that competent parties are appointed to undertake construction and that sufficient resources are made available to facilitate the appropriate management of risks to the environment.

8.2.2 Employers Representative

Ruirside and/or the Employers Representative (ER) appointed by Ruirside will be responsible for monitoring compliance with the CEMP. The ER may be required to appoint temporary or permanent specialists with appropriate skills and experience as required to implement on site procedures and monitor construction on behalf of Ruirside, i.e. competent experts in noise, vibration, dust, waste etc.

² ISO (2015) ISO 14001:2015 Environmental management systems -- Requirements with guidance for use

³ CIRIA (2015) Environmental Good Practice on Site C692 (fourth edition) (C762)

⁴ CIRIA (2015) Coastal and marine environmental site guide (second edition) (C744)

⁵ CIRIA (2002) Brownfield development sites: ground-related risks for buildings (X263)

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8.2.3 The Contractor

The contractor(s) appointed will be responsible for the organisation, direction and execution of environmental related activities during the detailed design and construction of the proposed development. The contractor is required to undertake all activities in accordance with the relevant environmental requirements including the consent documentation and other regulatory and contractual requirements.

8.2.4 Site Manager

A Site Manager will be appointed by the contractor to oversee the day-to-day management of working areas within the site and ensure that effective, safe, planned construction activities are delivered on an ongoing basis to the highest standards. The Site Manager will be a suitably qualified, competent and experienced professional that will oversee site logistics, communicate regularly with construction staff, accommodate project-specific inductions for staff on site and ensure that all work is compliant with the relevant design standards and health and safety legislation.

9 Environmental Management Procedures

9.1 Monitoring, Inspections and Audits

For the duration of the contract(s), the environmental performance of the contractor will be monitored through site inspections and audits. The programme for monitoring, inspections and audits shall be specified in the contract and it is likely to be a combination of internal inspections and independent external audits that may be either random or routine.

Records of all inspections carried out should be recorded on standard forms and all actions should be closed out in a reasonable time. The CEMP will be developed further by the appointed Contractor(s) to include further details of inspection procedures.

10 Environmental Management

The contractor will be required to comply with any conditions imposed as part of the granted planning approval including any environmental commitments i.e. mitigation and monitoring measures set out in the EIAR.

A summary of the mitigation and monitoring measures for each aspect of the proposed development are set out in Chapter 22 of the EIAR which accompanies this planning application.

As stated previously, the CEMP will be developed by the appointed contractor and updated with regard to the environmental commitments including all mitigation as set out in the EIAR which accompanies this planning application. These mitigation measures are also included in this CEMP for each environmental factor. See below for a list of the environmental factors considered in this CEMP and the corresponding EIAR chapter.

- Traffic and Transport EIAR Ch 6
- Air Quality EIAR Ch 7
- Climate EIAR Ch 8
- Noise and Vibration EIAR Ch 9
- Biodiversity EIAR Ch 10
- Archaeology EIAR Ch 11
- Architectural Heritage EIAR Ch 12
- Landscape and Visual EIAR Ch 13
- Water EIAR Ch 14
- Land and Soils EIAR Ch 15
- Hydrogeology EIAR Ch 16
- Resource and Waste Management EIAR Ch 17
- Population & Human Health EIAR Ch 18
- Material Assets EIAR Ch 19
- Major Accidents and Disasters EIAR Ch 20

Potential environmental effects during construction will be mitigated or reduced where possible. This section summarises all those construction related mitigation and monitoring measures that must be implemented by the appointed contractor during the construction phase of the proposed development, in accordance with the EIAR for the proposed development.

10.1 Mitigation Measures

10.1.1 Traffic & Transport

A Construction Traffic Management Plan has been included as Section 7 of this CEMP. The contractor will develop this CEMP and Construction Traffic Management Plan (CTMP) in order to implement the requirements of the CEMP prepared as part of this application. This will be developed by the appointed contractor in advance of the works and will be agreed with Dublin City Council and An Garda Síochána.

10.1.2 Air Quality

The assessment of likely significant effects during construction includes for the implementation of 'standard mitigation', as stated in the TII guidance⁶. The measures which are appropriate to the proposed development and which will be implemented include:

- Spraying of exposed earthwork activities and site haul roads during dry weather;
- Provision of wheel washes at exit points;
- Covering of stockpiles;
- Control of vehicle speeds, speed restrictions and vehicle access; and
- Sweeping of hard surface roads.

In addition, the following measures will be implemented for during the construction phase of the proposed development:

- Facades of buildings will be covered and sprayed with water while being demolished;
- A c. 1.8m hoarding will be provided around the site works to minimise the dispersion of dust from the working areas;
- Any generators will be located away from sensitive receptors in so far as practicable; and
- Stockpiles will be located as far as possible from sensitive receptors and covered and/or dampened during dry weather.

Employee awareness is also an important way that dust may be controlled on any site. Staff training and the management of operations will ensure that all dust suppression methods are implemented and continuously inspected.

During the construction phase of the proposed development it is possible that disturbance of ACMs on site could cause asbestos fibres to be released into the ambient environment. An asbestos audit will be carried out on the buildings scheduled for demolition prior to demolition works. Any asbestos discovered will be removed by a Specialist Contractor in accordance with Safety, Health, and Welfare at Work (exposure to Asbestos) Regulations 2006/20137, and disposed of by specialist contractors to an appropriately licensed facility. Traceable records of this activity, including the disposal licence, will be kept.

⁶ TII, 2011. Guideline for the Treatment of Air Quality During the Planning and Construction of National Road Schemes. Available at: *https://www.tii.ie/technical-*

services/environment/planning/Guidelines-for-the-Treatment-of-Air-Quality-during-the-Planningand-Construction-of-National-Road-Schemes.pdf

⁷ Safety, Health and Welfare at Work (Construction) Regulations 2013 (S.I. No. 291 of 2013). Available at: <u>https://www.hsa.ie/eng/Legislation/New_Legislation/SI_291_2013.pdf</u>

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10.1.3 Climate

Carbon emissions

Due to the nature of effects predicted, no mitigation measures are proposed during the construction phase of the proposed development.

Wind

As no significant impacts are predicted during the construction phase, no mitigation measures are proposed.

Daylight and Sunlight

As no significant impacts are predicted during the construction phase, no mitigation measures are proposed.

10.1.4 Noise & Vibration

Noise

The impact assessment conducted for the construction activity during the construction phase has highlighted that the predicted construction noise levels are above the adopted criteria at distances of 20m or less, and that a negative impact on nearby receivers will occur.

The following mitigation measures will be implemented during construction activities in order to reduce the noise and vibration impact to nearby noise sensitive areas. The contractor will provide proactive community relations and will notify the public and vibration sensitive premises before the commencement of any works forecast to generate appreciable levels of noise or vibration, explaining the nature and duration of the works. The contractor will distribute information circulars informing people of the progress of works and any likely periods of significant noise and vibration.

With regard to potential mitigation measures during construction activities, the standard planning condition typically issued by Dublin City Council states:

"During the construction and demolition phases, the proposal development shall comply with British Standard 5228 "Noise Control on Construction and open sites Part 1. Code of practice for basic information and procedures for noise control."

BS5228 includes guidance on several aspects of construction site mitigation measures, including, but not limited to:

- selection of quiet plant;
- control of noise sources;
- screening;
- hours of work, and;
- liaison with the public.

Thus, the following noise mitigation will be adhered to during construction:

Selection of Quiet Plant

The potential for any item of plant to generate noise will be assessed prior to the item being brought onto the site. The least noisy item should be selected wherever possible. Should a particular item of plant already on the site be found to generate high noise levels, the first action should be to identify whether or not said item can be replaced with a quieter alternative.

Noise Control at Source

If replacing a noisy item of plant is not a viable or practical option, consideration will be given to noise control "at source". This refers to the modification of an item of plant or the application of improved sound reduction methods in consultation with the supplier. For example, resonance effects in panel work or cover plates can be reduced through stiffening or application of damping compounds; rattling and grinding noises can often be controlled by fixing resilient materials in between the surfaces in contact.

Referring to the potential noise generating sources for the works under consideration, the following best practice migration measures should be considered:

- Site compounds will be located away from noise sensitive receptors within the site constraints. The use lifting bulky items, dropping and loading of materials within these areas will be restricted to normal working hours.
- Mobile plant should be switched off when not in use and not left idling.
- For piling plant, noise reduction can be achieved by enclosing the driving system in an acoustic shroud. For steady continuous noise, such as that generated by diesel engines, it may be possible to reduce the noise emitted by fitting a more effective exhaust silencer system or utilising an acoustic canopy to replace the normal engine cover.
- For concrete mixers, control measures will be employed during cleaning to ensure no impulsive hammering is undertaken at the mixer drum.
- For all materials handling ensure that materials are not dropped from excessive heights, lining drops chutes and dump trucks with resilient materials.
- Demountable enclosures can also be used to screen operatives using hand tools and will be moved around site as necessary.
- All items of plant will be subject to regular maintenance. Such maintenance can prevent unnecessary increases in plant noise and can serve to prolong the effectiveness of noise control measures.

Piling

Piling is the construction activity which is most likely to cause disturbance. Mitigation in relation to piling is outlined in the following paragraphs.

Piling programmes will be arranged so as to control the amount of disturbance in noise and vibration sensitive areas at times that are considered of greatest sensitivity. If piling works are in progress on a site at the same time as other works of construction or demolition that themselves may generate significant noise and vibration, the working programme will be phased so as to prevent unacceptable disturbance at any time.

During consultation the planner, developer, architect and engineer, as well as the local authority, should be made aware of the proposed method of working of the piling contractor. The piling contractor will in turn have evaluated any practicable and more acceptable alternatives that would economically achieve, in the given ground conditions, equivalent structural results.

Noise reduction will be achieved by enclosing the driving system in an acoustic shroud.

Screening by barriers and hoardings is less effective than total enclosure but can be a useful adjunct to other noise control measures. For maximum benefit, screens should be close either to the source of noise (as with stationary plant) or to the listener. Removal of a direct line of sight between source and listener can be advantageous both physically and psychologically. In certain types of piling works there will be ancillary mechanical plant and equipment that may be stationary, in which case, care should be taken in location, having due regard also for access routes. When appropriate, screens or enclosures will be provided for such equipment.

Contributions to the total site noise can also be anticipated from mobile ancillary equipment, such as handling cranes, dumpers, front end loaders etc. These machines may only have to work intermittently, and when safety permits, their engines will be switched off (or during short breaks from duty reduced to idling speed) when not in use.

Screening

Screening is an effective method of reducing the noise level at a receiver location and can be used successfully as an additional measure to all other forms of noise control. Construction site hoarding will be constructed around the site boundaries as standard. The hoarding will be constructed of a material with a mass per unit of surface area greater than 7 kg/m2 to provide adequate sound insulation.

In addition, careful planning of the site layout will also be considered. The placement of site buildings such as offices and stores will be used, where feasible, to provide noise screening when placed between the source and the receiver.

Liaison with the Public

A designated environmental liaison officer will be appointed to site during construction works. Any noise complaints should be logged and followed up in a prompt fashion by the liaison officer. In addition, where a particularly noisy construction activity is planned or other works with the potential to generate high levels of noise, or where noisy works are expected to operate outside of normal working hours etc., the liaison officer will inform the nearest noise sensitive locations of the time and expected duration of the noisy works.

Monitoring

Construction noise monitoring will be undertaken at periodic sample periods at the nearest noise sensitive locations to the development works to check compliance with the construction noise criterion.

Noise monitoring should be conducted in accordance with the International Standard ISO 1996: 2017: *Acoustics – Description, measurement and assessment of environmental noise*.

Project Programme

The phasing programme will be arranged so as to control the amount of disturbance in noise and vibration sensitive areas at times that are considered of greatest sensitivity. During excavation/ piling or other high noise generating works are in progress on a site at the same time as other works of construction that themselves may generate significant noise and vibration, the working programme will be phased so as to prevent unacceptable disturbance at any time.

Vibration

Any construction activities undertaken on the site will be required to operate below the recommended vibration criteria set out in *BS* 7385-2 (1993).⁸

10.1.5 Biodiversity

Terrestrial Environment

Mammals

The buildings on site present roosting potential to bats. However, none were recorded in two separate surveys at the appropriate time of the year. There are no proposed mitigation measures for bats with regard to the demolition of buildings.

There will be no direct lighting of the river during the construction period. All arc or flood lighting will be directed into the site and away from the river to reduce potential effects on commuting otters and bats during night time hours.

Birds

There are no specific measures required for birds during construction.

Aquatic Environment

Surface Water

Surface water from the proposed development will discharge to the River Liffey. A foreshore consent will be sought for this discharge. Mitigation measures relating to the protection of surface water quality and status are described in **Chapter 14**, Water and Hydrology and are summarised below.

⁸ BS 7385-2:1993 Evaluation and measurement for vibration in buildings. Guide to damage levels from ground borne vibration.

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"The employment of good construction management practices will minimise the risk of pollution of soil, surface water and groundwater. The following sitespecific measures will be implemented for the proposed development which will include:

- Earthworks operations shall be carried out such that surfaces shall be designed with adequate falls, profiling and drainage to promote safe run-off and prevent ponding and flooding;
- *Run-off will be controlled to minimise the water effects in outfall areas;*
- All concrete mixing and batching activities will be located in areas away from watercourses and drains; and
- Good housekeeping (site clean-ups, use of disposal bins, etc.) will be implemented on the site.

In order to prevent the accidental release of hazardous materials (fuels, cleaning agents, etc.) during construction site activity, all hazardous materials will be stored within secondary containment designed to retain at least 110% of the storage contents. Temporary bunds for oil/diesel storage tanks will be used on the site during the construction phase of the project. Safe materials handling of all potentially hazardous materials will be emphasised to all construction personnel employed during this phase of the proposed development. The contractor's sanitary facilities will discharge into the existing combined sewer on Parkgate Street or as otherwise agreed with Dublin City Council."

Construction management measures including specific measures to prevent pollution of the River Liffey have also been incorporated into the CEMP, see **Appendix 4.1**, which will ensure that there are no likely effects on the River Liffey from surface water runoff.

The CEMP has been formulated in consideration of standard best practice and, as expanded on by the contractor, will align with the guidance set out in the following documents:

- CIRIA Guideline Document C532 Control of Water Pollution from Construction Sites (CIRIA, 2001)⁹; and
- CIRIA Guideline Document C624 Development and Flood Risk guidance for the construction industry (CIRIA, 2004)¹⁰; and
- CIRIA (2015) Environmental Good Practice on Site C692 (4th Edition) (C762)¹¹.

⁹ CIRIA, 2001. Guidance Document C532 Control of Water Pollution from Construction Site: https://www.ciria.org [Accessed October 2018]

¹⁰ CIRIA, 2004. Guidance Document C624 Development and Floor Risk – guidance for the construction industry: https://www.ciria.org [Accessed October 2018

¹¹ CIRIA, 2015. Environmental Good Practice on Site C692 (4th Edition): https://www.ciria.org [Accessed October 2018]

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10.1.6 Archaeology

All archaeological and cultural heritage issues will be resolved during the preconstruction phase, or in advance of the main construction stage, during the site clearance / ground reduction / demolition stage.

10.1.7 Architectural Heritage

As is detailed above, repair and refurbishment works are proposed in the case of all the protected structures on the site and the retained historic structures. No other mitigation measures have been proposed with respect to effects from the construction of the proposed development.

10.1.8 Landscape & Visual

The subject application proposes the development of site designated as a Strategic Development and Regeneration Area under the *Dublin City Development Plan 2016-2022*, which was the subject of major re-development in order to accommodate medium and high density residential development in recent years. In these circumstances, during the construction or operational phases scope for mitigation measures, which would preserve a sustainable level of density, is limited.

10.1.9 Water

The employment of good construction management practices will minimise the risk of pollution of soil, surface water and groundwater. The following site-specific measures will be implemented for the proposed development which will include:

- Earthworks operations shall be carried out such that surfaces shall be designed with adequate falls, profiling and drainage to promote safe run-off and prevent ponding and flooding; and
- Run-off will be controlled to minimise the water effects in outfall areas; and
- All concrete mixing and batching activities will be located in areas away from watercourses and drains; and
- Good housekeeping (site clean-ups, use of disposal bins, etc.) will be implemented on the site.

In order to prevent the accidental release of hazardous materials (fuels, cleaning agents, etc.) during construction site activity, all hazardous materials will be stored within secondary containment designed to retain at least 110% of the storage contents. Temporary bunds for oil/diesel storage tanks will be used on the site during the construction phase of the project. Safe materials handling of all potentially hazardous materials will be emphasised to all construction personnel employed during this phase of the proposed development. The contractor's sanitary facilities will discharge into the existing combined sewer on Parkgate Street or as otherwise agreed with Dublin City Council.

These mitigation measures will be in accordance with:

- ICE (2015) Earthworks, A Guide (2nd Edition)¹³; and
- *TII (2013) Specification for Road Works Series 600 Earthworks.*¹⁴

This CEMP will be developed and implemented by the Contractor for the duration of the construction phase, in accordance with the guidance set out in the following documents:

- CIRIA Guideline Document C532 Control of Water Pollution from Construction Sites (CIRIA, 2001)¹⁵; and
- CIRIA Guideline Document C624 Development and Flood Risk guidance for the construction industry (CIRIA, 2004)¹⁶; and
- CIRIA (2015. All personnel working on the site will be trained in the implementation of the procedures.
- Environmental Good Practice on Site C692 (4th Edition) (C762)¹⁷.

10.1.10 Land & Soils

General

Precautionary measures will be taken to contain any areas within the planning boundary at risk of contaminated run-off.

- Potential pollutants shall be adequately secured against vandalism and will be provided with proper containment according to the relevant codes of practice. Any spillages will be immediately contained, and contaminated soil shall be removed from the proposed development and properly disposed of in an appropriately licensed facility;
- Dust generation shall be kept to a minimum through the wetting down of haul roads as required and other dust suppression measures;
- Any stockpiles of earthworks and site clearance material shall be stored on impermeable surfaces and covered with appropriate materials;
- Silt traps shall be placed in gullies to capture any excess silt in the run-off from working areas;

¹³ Institute of Civil Engineers ICE, 2015. Earthworks, A Guide (2nd Edition) <u>https://www.icevirtuallibrary.com/isbn/9780727741851 [Accessed</u> October 2018]

¹⁴ Transport Infrastructure Ireland, 2013. Specification for Road Works Series 600 – Earthworks (including Erratum No. 1, dated June 2013) <u>http://www.tiipublications.ie/library/CC-SPW-00600-03.pdf</u> [Accessed October 2018]

¹⁵ CIRIA, 2001. Guidance Document C532 Control of Water Pollution from Construction Site: https://www.ciria.org [Accessed October 2018]

¹⁶ CIRIA, 2004. Guidance Document C624 Development and Floor Risk – guidance for the construction industry: https://www.ciria.org [Accessed October 2018

¹⁷ CIRIA, 2015. Environmental Good Practice on Site C692 (4th Edition): https://www.ciria.org [Accessed October 2018]

• Soil and water pollution will be minimised by the implementation of good housekeeping (daily site clean-ups, use of disposal bins, etc.) and the proper use, storage and disposal of these substances and their containers as well as good construction practices; and

This CEMP includes good housekeeping and emergency response measures to be implemented during the construction phase of the project, including actions for dealing with any potential pollution incidents, in accordance with the following measures which are detailed in CIRIA Guidance 37:

- Containment measures;
- Emergency discharge routes;
- List of appropriate equipment and clean-up materials;
- Maintenance schedule for equipment;
- Details of trained staff, location and provision for 24-hour cover;
- Details of staff responsibilities;
- Notification procedures to inform the EPA or Environmental Department of the Dublin City Council;
- Audit and review schedule;
- Telephone numbers of statutory water consultees; and
- List of specialist pollution clean-up companies and their telephone numbers.

Compression of Substrata

• Excavations shall be kept to a minimum, using shoring or trench boxes where appropriate. For more extensive excavations, a temporary works designer shall be appointed to design excavation support measures in accordance with all relevant guidelines and standards.

Loss of Overburden

- All excavated material will, where possible, be reused as construction fill. The appointed contractor will ensure acceptability of the material for reuse for the proposed development with appropriate handling, processing and segregation of the material. This material would have to be shown to be suitable for such use and subject to appropriate control and testing according to the Earthworks Specification(s);
- These excavated soil materials will be stockpiled using an appropriate method to minimise the impacts of weathering. Care will be taken in reworking this material to minimise dust generation, groundwater infiltration and generation of runoff; and
- Any surplus suitable material excavated that is not required elsewhere for the proposed development, shall be used for other projects where possible, subject to appropriate approvals/notifications.

Earthworks Haulage

- Earthworks haulage will be along agreed predetermined routes along existing national, regional and local routes. Where compaction occurs due to truck movements and other construction activities on unfinished surfaces, remediation works will be undertaken to reinstate the ground to an acceptable condition. Where practicable, compaction of any soil or subsoil which is to remain in situ will be avoided; and
- Earthworks operations shall be carried out such that surfaces shall be designed with adequate falls, profiling and drainage to promote safe runoff and prevent ponding and flooding. Runoff will be controlled through erosion and sediment control structures appropriate to minimise the possible impacts.

Impact on surrounding ground:

- Ground settlement, horizontal movement and vibration monitoring will be implemented during construction activities to ensure that the construction does not exceed the design limitations; and
- Ground settlements will be controlled through the selection of a foundation type and construction methods which are suitable for the particular ground conditions.

10.1.11 Hydrogeology

Pollution from Construction Activities

The employment of good construction management practices will minimise the risk of pollution of soil, storm water run-off, adjacent watercourses and groundwater. The construction management of the site will take account of the recommendations of the CIRIA guidance Control of Water Pollution from Construction Sites – Guidance for consultants and contractors (Masters-Williams et al., 2001) to minimise as far as possible the risk of soil, groundwater and surface water contamination.

Measures that will be implemented to minimise the risk of spills and contamination of soils and waters, will include:

- Where feasible all excavated spoil will be treated to remove excess fluid prior to stockpiling and transportation;
- Where feasible transfer of excess soil materials from stockpile areas off-site will be undertaken during dry periods;
- Stockpile and transfer of excess soil material will be restricted to specified and impermeable areas that are isolated from the surrounding environment;
- Wheel washes will be provided at site entrances to clean vehicles prior to exiting the work site;
- All staff will be trained and follow vehicle cleaning procedures. Details of these procedures will be posted in all work sites for easy reference; and

- The implementation of the above measures will ensure that the risk of pollution of groundwater and nearby water bodies resulting from the construction activities will be minimised.
- Training of site managers, foremen and workforce, including all subcontractors, in pollution risks and preventative measures;
- Careful consideration will be given to the location of any fuel storage facilities. These will be designed in accordance with guidelines produced by CIRIA, and will be fully bunded;
- All vehicles and plant will be regularly inspected for fuel, oil and hydraulic fluid leaks. Suitable equipment to deal with spills will be maintained on site;
- Ensure that all areas where liquids are stored, or cleaning is carried out are in designated impermeable areas that are isolated from the surrounding area e.g. by a roll-over bund, raised kerb, ramps or stepped access;
- Minimise the use of cleaning chemicals; and
- Use trigger-operated spray guns, with automatic water-supply cut-off.

10.1.12 Resource & Waste Management

As previously stated, a project specific C&D WMP has been prepared in line with the requirements of the guidance document issued by the DoEHLG and is included as **Appendix 17.1** to the EIAR which accompanies this application. Adherence to the high-level strategy presented in this C&D WMP will ensure effective waste management and minimisation, reuse, recycling, recovery and disposal of waste material generated during the demolition, excavation and construction phases of the proposed development. Prior to commencement, the contractor(s) will be required to refine/update the C&D WMP or submit an addendum to the C&D WMP to DCC to detail specific measures to minimise waste generation and resource consumption and provide details of the proposed waste contractors and destinations of each waste stream.

Correct classification and segregation of the excavated material is required to ensure that any potentially contaminated materials are identified and handled in a way that will not impact negatively on workers as well as on water and soil environments, both on and off-site.

In addition, the following mitigation measures will be implemented:

- Building materials will be chosen with an aim to 'design out waste';
- On-site segregation of waste materials will be carried out where practical to increase opportunities for off-site reuse, recycling and recovery the following waste types, at a minimum, will be segregated:
 - Concrete rubble (including ceramics, tiles and bricks);
 - Plasterboard;
 - o Metals;
 - o Glass; and

- Timber.
- Left over materials (e.g. timber off-cuts, broken concrete blocks/bricks) and any suitable construction materials will be re-used on-site, where possible;
- All waste materials will be stored in skips or other suitable receptacles in designated areas of the site;
- Any hazardous wastes generated (such as chemicals, solvents, glues, fuels, oils) will also be segregated and will be stored in appropriate receptacles (in suitably bunded areas, where required);
- A waste manager will be appointed by the main contractor(s) to ensure effective management of waste during the excavation and construction works;
- All construction staff will be provided with training regarding the waste management procedures;
- All waste leaving site will be reused, recycled or recovered where possible to avoid material designated for disposal;
- All waste leaving the site will be transported by suitable permitted contractors and taken to suitably registered, permitted or licenced facilities; and
- All waste leaving the site will be recorded and copies of relevant documentation maintained.

Nearby sites requiring clean fill material will be contacted to investigate reuse opportunities for clean and inert material, if required. If any of the material is to be reused on another site as by-product (and not as a waste), this will be done in accordance with *Article 27 of the EC (Waste Directive) Regulations (2011)*¹⁸. EPA approval will be obtained prior to moving material as a by-product.

These mitigation measures will ensure that the waste arising from the construction phase of the development is dealt with in compliance with the provisions of the *Waste Management Act 1996, as amended*, associated Regulations, the *Litter Pollution Act 1997*¹⁹ and the *EMR Waste Management Plan (2015-2021)*. It will also ensure optimum levels of waste reduction, reuse, recycling and recovery are achieved and will encourage sustainable consumption of resources.

10.1.13 Population & Human Health

A Site Manager will be appointed to ensure the proper running of the site, and the minimisation of community disturbance and the implementation of "good housekeeping" policy at all times. Potential effects on air quality, and consequently human health, will be mitigated during the construction phase and full account will be taken of the Transport Infrastructure Ireland (TII) guidance and the development of employee awareness. Measures that will be implemented for the proposed development will include:

¹⁸ EC (2011) Article 27 of the EC (Waste Directive) Regulations

¹⁹ Litter Pollution Act 1997 (S.I. No. 12 of 1997) as amended

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- A c. 1.8m hoarding will be provided around the site works to minimise the dispersion of dust from the working areas;
- Any generators will be located away from sensitive receptors in so far as practicable;
- Stockpiles will be located as far as possible from sensitive receptors and covered and/or dampened during dry weather.

Where asbestos is uncovered on site during construction, the ACM will be double-bagged and removed from the site by a competent contractor and disposed of in accordance with the relevant procedures and legislation.

The use of best practice noise control measures, hours of operation, scheduling of works within appropriate time periods, strict construction noise limits and noise monitoring during the construction phase will ensure any potential human health effects from noise are controlled to within the adopted criteria.

In order to offset any potential effects on water, and consequently human health, earthworks operations shall be carried out such that surfaces shall be designed with adequate falls, profiling and drainage to promote safe run-off and prevent ponding and flooding. Good housekeeping (site clean-ups, use of disposal bins, etc.) will be enforced by the contractor on the site to mitigate against the risk of spillages.

The potential risk of river wall collapse during construction will be mitigated by standard best practice construction measures, and lateral steel restraints will be provided to the existing stonework along the river, throughout construction.

Should any utility/service diversions or disturbances be required, these will only be carried out in agreement with the relevant service providers, and with notice to the affected public.

10.1.14 Material Assets

The Contractor will be obliged to put measures in place to ensure that there are no interruptions to existing services and that all services and utilities are maintained, unless this has been agreed in advance with the relevant service provider and local authority.

All works in the vicinity of utilities apparatus will be carried out in ongoing consultation with the relevant utility company and/or local authority and will be in compliance with any requirements or guidelines they may have.

Where new services are required, the Contractor will apply to the relevant utility company for a connection permit where appropriate and will adhere to their requirements.

The proposed development is likely to give rise to a minor adverse effect on transmission links, once developed.

During the construction phase of the proposed development, Vodafone and Three will re-align the identified microwave links to new hop sites.

In the unlikely event that the proposed development continues to impact on existing or new microwave channels, Ruirside Developments Ltd. is committed to assisting in mitigating the issues as illustrated in Figure 8 below.



Figure 8 Potential Mitigation

10.1.15 Major Accidents & Disasters

As previously discussed, the construction phase of the proposed development will be carried out in compliance with best practice construction measures.

Lateral steel restraints will be provided to the existing stonework along the river, throughout construction, to avoid risk of collapse. Asbestos will be removed from site and disposed of prior to construction/ demolition in accordance with statutory requirements.

10.2 Monitoring Measures

10.2.1 Traffic & Transportation

No monitoring has been proposed with respect to effects from construction traffic associated with the proposed development.

10.2.2 Air Quality

Dust monitoring will be undertaken at a range of nearest sensitive receptors during the demolition and construction phases. The TA Luft dust deposition limit values of $350 \text{ mg/m}^2/\text{day}$ (averaged over one year) will be applied as a 30-day average

10.2.3 Climate

As no significant impact is predicted to occur during the construction phase of the proposed development, no monitoring measures are required.

10.2.4 Noise & Vibration

Where required, construction noise monitoring will be undertaken at periodic sample periods at the nearest noise sensitive locations to the development works to check compliance with the construction noise criteria. Noise monitoring should be conducted in accordance with the International Standard ISO 1996: 2017: Acoustics – Description, measurement and assessment of environmental noise.

Vibration monitoring will be implemented during construction activities to ensure that vibration levels are in accordance with criteria set out in Section 9.2.7.2. Monitoring will be more rigorous in the proximity of any protected structures; including more frequent monitoring and additional monitoring points. Monitoring points will be located on the face of the structures and centred every 1m.

10.2.5 Biodiversity

During the construction phase when and if dewatering of excavations is required, the Contractor will be responsible for monitoring the suspended solids content of the adjacent River Liffey water. The discharge of treated surface water from construction activities will be monitored to ensure that the discharged treated water will be in accordance to the Dublin City Council Discharge Licence if required.

The settlement tank and silt bag will be monitored by a Site Environmental Manager who will direct the control of settlement and whether a silt bag needs to be changed.

10.2.6 Archaeology

No construction phase monitoring measures are proposed with respect to archaeology.

10.2.7 Architectural Heritage

No monitoring has been proposed with respect to effects from construction of the proposed development.

10.2.8 Landscape & Visual

No monitoring has been proposed with respect to visual effects from of the proposed development.

10.2.9 Water

Hydrology, Water Quality and Drainage

Visual monitoring will be undertaken as part of the regular site audits during the construction of the proposed development to ensure existing surface water runoff is draining from the site and is not exposed to any contaminants.

Wastewater

The contractor will be required to ensure that the sanitary facilities for the site personnel are maintained and effluent storage is regularly emptied and disposed of.

Water Supply

The contractor will be required to ensure that the water supply to the site is maintained and free of contaminants.

Flood Risk

The contractor is required to monitor the weather forecasts to inform the programming of earthworks and stockpiling of materials.

10.2.10 Land & Soils

Excavations in made ground will be monitored by an appropriately qualified person to ensure that any contaminated material is identified, segregated and disposed of appropriately. Any identified hotspots shall be segregated and stored in an area where there is no possibility of runoff generation or infiltration to ground or surface water drainage. Care will be taken to ensure that the hotspot does not cross-contaminate clean soils elsewhere.

Any excavation shall be monitored during earthworks to ensure the stability of side slopes and to ensure that the soils excavated for disposal are consistent with the descriptions and classifications according to the waste acceptance criteria testing carried out as part of the site investigations.

Ground settlement, horizontal movement and vibration monitoring will be implemented during construction activities to ensure that the construction does not exceed the design limitations. Monitoring will be more rigorous in the proximity of any protected structures. This will include more frequent monitoring and additional monitoring points. Monitoring points will be located on the face of the structures and centred every 1m. Horizontal, vertical and rotational displacement in all directions will be monitored.

Movement monitoring shall be carried out during any activities which may result in ground movements or movements of any nearby structures.

10.2.11 Hydrogeology

In relation to soils contamination a suitably experienced environmental consultant will be required to oversee the excavation works for the proposed development so that potential contamination can be segregated, classified and suitably disposed.

The works will be monitored by a Resident Engineer.

Visual monitoring will be undertaken as part of the regular site audits during the construction of the proposed development to ensure the groundwater resource is not impacted by the proposed development.

10.2.12 Resource & Waste Management

The management of waste during the construction phase will be monitored by the site manager to ensure compliance with relevant local authority requirements and effective implementation of the C&D WMP including maintenance of waste documentation.

The objective of setting targets for waste management is only achieved if the actual waste generation volumes are calculated and compared. The C&D WMP specifies the need for a waste manager to appointed who will have responsibility to monitor the actual waste volumes being generated and to ensure that contractors and sub-contractors are segregating waste as required. Where targets are not being met, the waste manager should identify the reasons for targets not being achieved and work to resolve any issues. Recording of waste generation during the project will enable better management of waste contractor requirements and the identification of trends. The data will be maintained to advise on future projects.

10.2.13 Population & Human Health

Dust monitoring will be undertaken at a range of nearest sensitive receptors during the demolition and construction phases. The TA Luft dust deposition limit values of $350 \text{ mg/m}^2/\text{day}$ (averaged over one year) will be applied as a 30-day average.

Where required, construction noise monitoring will be undertaken at periodic sample periods at the nearest noise sensitive locations to the development works to check compliance with the construction noise criteria. Noise monitoring will be conducted in accordance with the International Standard ISO 1996: 2017: Acoustics – Description, measurement and assessment of environmental noise.

Visual monitoring will be undertaken as part of the regular site audits during the construction of the proposed development to ensure existing surface water runoff is draining from the site and is not exposed to any contaminants. The contractor will be required to ensure that the sanitary facilities for the site personnel are maintained and effluent storage is regularly emptied and disposed of. The contractor will be required to ensure that the water supply to the site is maintained and free of contaminants.

The contractor is required to monitor the weather forecasts to inform the programming of earthworks and stockpiling of materials.

The management of waste during the construction phase will be monitored by the site manager to ensure compliance with relevant local authority requirements and effective implementation of the Construction & Demolition Waste Management Plan including maintenance of waste documentation.

10.2.14 Material Assets

Construction phase mitigation measures have been proposed to ensure that significant negative effects on material assets will be avoided, prevented or reduced during the construction of the proposed development. As such, no monitoring measures are proposed during the construction phase.

10.2.15 Major Accidents & Disasters

No monitoring is proposed specific to reducing the risk of major accidents/disasters during construction.

Ruirside Developments Limited | January 2020

42A Parkgate Street, Dublin 8

Appendix 3: Proposed & Permitted Developments in the Local Area

ARUP

265381-00

Number	Name	Location	Planning Ref.	Appeal Ref.	Description	Status
1	Atlas GP Ltd	Grand Canal Harbour, Grand Canal Place, Dublin 8	3209/19		The proposed development will supersede the previously permitted development, Reg. Ref. 3855/09, which provided for the demolition of existing structures on site (total GFA of 9,330sqm); retention, renovation, refurbishment and extension of the protected structure (RPS No. 3275) as part of a mixed-use development in six blocks, over basement. Similarly, the proposed development will consist of a mixed-use development in five blocks, over basement. Block 3/4 shall divide into two blocks at upper levels. The residential component shall be 'Build to Rent' scheme of 550 no. residential units with associated resident support facilities and resident services and amenities. Of the 550 no. residential units, 428 no. will be one-bedroom units and 122 no. two bedroom units. Other uses (7,289 sqm) within the proposed development shall be retail, medical, cafes, restaurant, childcare facility and co-working spaces. The proposed development will provide for a water feature to the south of the protected structure to represent the historic use of Grand Canal Harbour. Building height shall range from three storeys to thirteen storeys. Communal terraces, roof gardens shall be provided at roof level on Block 1, Block 2, Block 3/4 and Block 6. Balconies will be provided on all external elevations, save for Block 5 where the protected structure is located. Basement: the basement will be reduced in size from the permitted 8,149sqm to 5,572sqm with water attenuation tank as proposed. The basement will include 50 no. car parking spaces, 737 no. cycle parking spaces, and associated repair areas, plant and services, bin storage, waste compactor and other storage areas for residents' support facilities. Block 1: shall provide for a	Application received June 2019 Additional Information Requested August 2019

Table 21.1: Proposed and permitted developments in the local area.

		696sqm retail unit, a cafe of 144sqm, ESB substation and switch room,	
		and 84 sqm of residents' support services at ground floor to 126 no.	
		residential units. The block shall be 11 storeys, with maximum parapet	
		height of 57.10mOD. A communal roof garden for residents shall be	
		provide along with an internal atrium feature and a semi open winter	
		garden. Block 2: shall provide for residents' amenities (1,187sqm),	
		childcare facility(224sqm) with dedicated outdoor space of 123sqm,	
		ESB substation and switch room, and 2 no. lobby entrances to 170 no.	
		residential units. The block shall be 11 storeys with a maximum parapet	
		height of 59.4mOD. At the 8th & 9th floors, the floor area is reduced to	
		provide for communal terraces. A communal roof garden for residents	
		shall be provided above the 11th storey with a semi open winter garden.	
		Block 3/4: shall provide for a restaurant (454sqm), 157sqm of	
		retail/non-retail service, ESB substation and switch room, and two no.	
		lobbies providing access to 133 residential units at ground floor,	
		1,707sqm of office space at ground and first floor. At 6th floor, the	
		floorplate reduces to allow 2 smaller footprint blocks to emerge. Block	
		3 shall continue to 9 storeys while Block 4 shall continue to 13 storeys,	
		with maximum height of 64.08mOD. Communal roof gardens for	
		residents will be accessed from floor 6,9, and above the final storey. A	
		semi open winter garden will be provided on the roof of Block 4. Block	
		5: works to an existing four-storey warehouse building (c.1396sqm), a	
		protected structure (RPS no. 3275), including the demolition of an	
		existing single storey structure (c.255sqm) adjoining the building to the	
		west & the removal of 6 no. dormer roof windows, metal bars to first	
		floor window opes on north and south elevations, roller shutter door on	
		north elevation, 1 no. window ope on north elevation, all internal stairs	
		& the reinstatement of window opes on north, south and west elevations	
		& the alteration of roof rafters & the refurbishment of external and	
		internal stone/brick work, internal timber floors, internal timber doors	

		and structural steelwork & the refurbishment/ replacement of slate roof	
		finishes, roof vents, eaves rail guardings, rainwater goods, windows &	
		the re-positioning of internal timber hoppers & the addition of 10no.	
		roof dormer windows, 3 no. new window opes on north elevation and 4	
		no. new window opes on south elevation, 1 no. stair/lift core, 2 no. new	
		entrances on north elevation including the excavation of the entire	
		ground floor, new floor plate to section of second floor level	
		(c.181sqm), new internal partition walls, new door opes to internal	
		stone/brick work walls & the construction of 1 no. new three-storey	
		extension (c.698sqm) adjoining the building to the west. The building	
		will have a total gross floor area of c.2277sqm and will provide 1 no.	
		retail unit (c.154sqm), 1 no. cafe unit (c.215sqm), 1 no. co-working	
		office unit (c.1,376sqm) and 1 no. medical centre (c.532sqm). Block 6:	
		shall provide for the basement access ramp which runs underneath the	
		building, resident support facility (104sqm) use, ESB substation and	
		switch room, and two lobbies to residential units (111 no.) at ground	
		floor. Medical use (1,630sqm) over ground and first floor, with	
		apartments also to be provided at first floor. Apartments shall be	
		provided for the rest of the building, which is seven storeys in total. A	
		communal roof garden with semi open winter garden shall be provided	
		for residents. The parapet height of Block 6 is 45.40 OD, with a corner	
		at south at 46.075OD. Ancillary works, servicing and plant, pedestrian	
		circulation, landscaping, cycle parking (118 at ground level to give a	
		total of 855 spaces), vehicular set down, waste marshalling area,	
		ventilation opes, and all associated site works. Total gross floor area of	
		proposed redevelopment is 49,710sq.m. An Environmental Impact	
		Assessment Report and Natura Impact Statement will be submitted to	
		the planning authority with the application and we be made available for	

					inspection or purchase at a fee not exceeding the reasonable cost of making a copy at the offices of the Planning Authority.	
2	Balark Investments Ltd.	84-87 Prussia Street, Stoneybatter, Dublin 7	4035/16	PL29N.247939	Development at a 0.5 hectares site. The proposed development comprises of the demolition of the existing vacant single storey commercial building and the construction of a student accommodation development with 203 no. bed spaces in 32 no. student accommodation units. The proposed development comprises of the construction of a series of 1, 2, 3 and 4 storey buildings, including a 4-storey building (3 storey plus 4th storey set-back) fronting Prussia Street. The proposed development is proposed to be used for student accommodation or accommodation related to a Higher Education Institute only during the academic year and student accommodation or accommodation related to a Higher Education Institute or tourist/ visitor accommodation only during academic holiday periods. The proposed development includes a number of outdoor amenity areas throughout the site to serve the student accommodation development. The proposed development also provides for ancillary services including a lounge, gym, concierge and social room all at ground floor level with laundry room, bin store area, plant room accommodated in a small basement area. 3 no. set-down/ drop-off car parking spaces are proposed, and 120 no. sheltered bicycle spaces are proposed at surface level. Access to the development is to be via controlled pedestrian access from Prussia Street with access for service vehicles also provided from Prussia Street. Permission is also sought for all ancillary engineering, landscaping and site development works necessary to facilitate the development, including the provision of an ESB substation. The proposed development comprises of a total of 4,778 sq. m gross floorspace.	Granted May 2017

3	Bartra Real Estate Ltd.	40-41 Stoneybatter, & 1-3 Blackhall Place, Dublin 7	3538/17	ABP-300466- 17	The development comprising the construction of a seven storey/ four storey building consisting of a total 23 No. apartments, (6 No. 1 bedroom units; 14 No. 2 bedroom units 3 no. 3 bedroom units); with balconies (2no.) at first floor level; balconies (3 no.) at second and third floor levels; balconies (2no.) at fourth, fifth and sixth floor levels, all on the eastern elevation; ground floor terraces (3no.); balconies (3no.)at first, second and third floor levels, and balconies (2 no.) at fourth, fifth and sixth floor levels. all on the western elevation; a total of 24 no. bicycle spaces; a bin store; an area of communal open space (175m2), including a play space, and associated site development works.	Granted October 2018
4	Board of Management, Canal Way Educate Together National School	Canal Way Educate Together, Basin View, Dublin, 8	3843/19		The development will consist of: 1) the demolition of the existing cycle shelter to the north of the site; 2) the provision of a new temporary, two storey prefabricated block - approx. 475 sqm total area - comprising 6 no. mainstream classrooms, ancillary accommodation and sanitary facilities with obscured glazing to the windows on the first floor northern elevation; 3) the repositioning and widening of the entrance gates from Basin View and; 4) all associated site and drainage works.	Application received August 2019
5	Board of St James's Hospital	St James's Hospital, James's Street, Dublin 8	2625/15		The development will consist of the construction of a two-storey building to the north of the approved Mercer's Institute for Successful Aging Building consisting of a pedestrian link to the Hospital 1 building and clinical facilities at ground floor and treatment facilities and offices at first floor as a replacement of the single storey link building previously approved under Register Reference 3607/12.	Granted July 2015

6	Board of St James's Hospital	St James's Hospital, James's Street, Dublin 8	2761/15	T B en U en th en d d f 7 7	The development, within Courtyard 10, Phase 1C of the Main Hospital Block, will consist of the removal of a temporary storage unit and the erection of a modular building, comprising an Aseptic Compounding Unit facility 4.3m high, with ancillary office and storage facilities, an enclosed pedestrian corridor and lobby linking the proposed building to he hospital at two points, a cycle parking shelter and conversion of an existing store room 43 sq. m in area, at ground level, with all other site levelopment works above and below ground required to facilitate the levelopment. The proposed modular building will have an integrated plant room, 87sq.m. at its roof level giving a total building height of 7.95m and a total area of 357sq.m.	Granted August 2015
7	Board of St James's Hospital	St James's Hospital, James's Street, Dublin 8	2787/15	P b S P c a a C st a t t a t t	Planning permission for development at the Haemophilia & Hepatology puilding in the southern part of the St James's Hospital site, James's Street, Dublin 8 bounded by the open space known as St James's Linear Park, parallel to St James's Walk to the south. The development will consist of construction of a 575 sq. m additional floor on the building to accommodate the National Centre for Hereditary Coagulation Disorders Dutpatient Clinic; the construction of a 26 sq. m fire escape stairs tructure and an 11 sq. m. plant room on the roof of the proposed additional floor; and the incorporation of the approved terrace garden on the eastern elevation into the building to provide additional patient accommodation and associated alterations to the elevations including the blocking of openings and the insertion of new fenestration.	Granted August 2015
8	Board of St James's Hospital	St James's Hospital,	3069/15	T b P si	The development will consist of the removal of an existing temporary building located along the northern elevation to the existing Central Pathology Laboratory building in the north eastern corner of the hospital ite and the construction of a 467.5 sq. m two storey extension to the	Granted September 2015

		James's Street, Dublin 8		northern elevation to the building to provide laboratory and office accommodation at ground floor and offices and staff facilities at first floor; and all associated temporary works required to facilitate the development.	
9	Board of St James's Hospital	St James's Hospital, James's Street, Dublin 8	3681/15	The development will consist of the erection of temporary modular buildings and structures on an existing car park in the eastern part of the hospital site to the south of Hospital 2 building and to the east of the National Plan for Radiation Oncology building for a temporary period of seven years comprising: i) a two storey building (1,330 sq. m.) containing a staff canteen and offices on the ground and administrative offices on the first floor; ii) a single storey building (246sq.m) providing out-patient facilities; and iii) a pedestrian corridor (50sq.m) to link to other departments on the hospital campus.	Granted January 2016
10	Conneely Construction (New Road) Limited	18 Old Kilmainham, Dublin 8	4005/19	The proposed development will consist of: (i) demolition of existing two storey building fronting Old Kilmainham and double storey offices and sheds to the rear; (ii) construction of a new part six part eight storey apartment building comprising 1 no. commercial unit at ground floor level (56.3 sq. m) and 28 no. apartments (3 no. one bedroom, 22 no. two-bedroom and 3 no. three-bedroom) fronting Old Kilmainham and developed around an internal courtyard. The apartment building is set back from Old Kilmainham at upper floor levels. Apartments are provided with private balconies and access to 2 no. communal roof terraces, communal landscaped courtyard and bicycle parking area; and (iii) landscaping, boundary treatments, SuDS drainage, infrastructural works and all ancillary works necessary to facilitate the development.	Application received September 2019 Decision due date November 2019

11	Co-operative Housing Ireland Society Ltd	84 North King Street & North Brunswick Street, Dublin 7	3163/16	PL29N.247811	The development will consist of the removal of all existing buildings on the site, and the construction of a commercial unit and 33 apartments in 2 buildings; Block A facing onto North Brunswick Street is a 6-storey building including a recessed penthouse floor, and comprises 17 apartments; and Bock B facing onto North King Street is a 5-storey building, including a recessed penthouse floor, and comprises 16 apartments and 1 commercial unit. The overall development comprises 4 no. 3-bedroomed units, 18 no. 2-bedroomed units, 11 one-bedroomed units, all with balconies, one ground-floor commercial unit, bin store, internal landscaped courtyard, photovoltaic solar panels on support grids on roofs, and all associated site works.	Granted May 2017
12	Coras Iompair Eireann (CIE)	Heuston Station, Saint John's Road West, Islandbridge, Dublin 8	3711/16		PROTECTED STRUCTURE: The development will consist of construction of a new two storey demountable office building for CIE Group IT, the building will have a total area of 813 sq. m, the ground and first floor each of 400 sq. m with access to screened plant at roof level, associated ground works are also proposed in this application for planning permission for 5 years. The proposed structure is within the curtilage of Protected Structure RPS 7576.	Granted December 2016
13	CSD (Stoneybatter) Limited	20-23a Stoneybatter & 1-2a Manor Street, Stoneybatter, Dublin 7	4734/18	ABP-304715- 19	Permission for development on a 2,160sqm site at No. 20 Stoneybatter and the lands to the rear of Nos. 20-23a Stoneybatter, and Nos. 1-2a Manor Street, Stoneybatter, Dublin 7. The development will consist of the demolition of all existing structures on site including No. 20 Stoneybatter (958.87sqm); and the construction of a part 3 No. storey to part 5 No. storey Student Accommodation development with staircases to roof gardens over, comprising a main block (3,735.2sqm) and a Gatehouse building at No. 20 Stoneybatter (187.7sqm) providing a total of 142 No. student accommodation bed spaces (3,922.9sqm). The 142	Granted July 2019

					 No. bed spaces are provided in (a) 19 No. cluster units comprising of 3 No. four bedroom clusters, 1 No. six bedroom cluster, 6 No. seven bedroom clusters and 9 No. eight bedroom clusters; (b) 4 No. studio units and (c) 6 No. bed spaces within the Gatehouse building. The development also proposes ancillary facilities including internal communal space; reception; office; roof terraces facing north, east, south and west; hard and soft landscaping; boundary treatments; upgraded vehicular access; pedestrian access; bicycle parking; signage; lighting; plant; sub-station and switch room, bin store and all associated works above and below ground. 	
14	Danny O'Malley	10 Usher's Island & 32 Island Street, Dublin 8	3503/16	PL29S.247837	The proposed development consists of demolition of existing structures comprising disused buildings and sheds, construction of 10 x 2 bedroom apartments with balconies in two 6 storey blocks with associated facilities at ground floor including: 10 storage rooms with cycle parking, communal facilities, caretaker's room bin storage, plant & service rooms, service connections and a raised courtyard garden at 1st floor level, services enclosures on roofs, landscaping, railings and all associated site works.	Granted May 2017
15	Derek Beahan Ltd.	23-25 Old Kilmainham Road, Dublin 8	3188/17	ABP-300972- 18	Demolition of existing buildings on site construction of a 26 no. unit apartment development in two blocks over basement car park, with 26 no. car parking spaces and 26 no. bicycle parking spaces, as follows : Block A facing onto Old Kilmainham being 5 storeys with the uppermost storey set back, with projecting and recessed balconies, containing 17 no. Apartments - 3 no. x 1 bed units, 12 no. x 2 bed units, and 2 no. x 3 bed units; Block B situated across an internal landscaped	Granted September 2018

				courtyard and overlooking the river Camac, being 4 storeys with the uppermost storey set back , with recessed balconies, containing 9 no. apartments - 1 no. x 1 bed unit, 5 no. x 2 bed units and 3 no. x 3 bed units; vehicular access to ramp at location of existing site entrance; associated landscaping and site works.	
16	Diageo Ireland	Guinness Brewery Lands, Saint James's Gate Brewery, Dublin 8	2628/16	Development at the new Guinness Brewhouse Building, Victoria Quay, Dublin 8. The subject site is bound by Victoria Quay to the north and existing brewery areas to the south, east and west. The proposed development will consist of two no. grain storage silos (60 tonne capacity each) contained within a cladded enclosure (including stairs for maintenance purposes) providing approximately 51 sq. m in total floor area. The proposed development is functionally linked to existing grain silos contained within the existing Raw Materials Handling (RMH) Tower- Planning Reference 3730/11- facing Victoria Quay. The proposed cladded enclosure is 16.1 m in height above external ground level (20.34 m O.D.) including associated site works. The proposed development relates to an existing brewery operation approved under Diageo Ireland's existing IE (Industrial Emissions) Licence (Ref. No. P0301-04). The proposed development does not increase the output capacity of the brewery.	Granted July 2016
17	Diageo Ireland	Guinness Power House Building, James's Street, Dublin 8	2504/17	Permission for change of use (from former Guinness Power House to Distillery including Visitor experience) of the Guinness Power House Building James's Street, Dublin 8 at lower ground, upper ground and 1st floor levels of the existing building. The proposed development includes a cladded extension at 1st floor level (concealed to James's Street by existing brick parapet) the proposed cladded enclosure is 8.06m in height above external ground level (21.37M O.D.) and shall	Granted June 2017

				accommodate staff facilities and provie vessels (to be located below at upper g (upper ground level) and 3 no. new win facing facade, minor alterations to sout including 1 no. new doorway (south fa facade), removal of existing steel flue lights and up-lighting to existing facad fronting James's Street, hard and soft la parking spaces and associated site wor demolition of existing sheds in deliver and the installation of 2 no. external ve height). The proposed visitor Experien following elements: reception / ticketin over process (distillery area), tasting ba all to be located at upper ground and fi area of the proposed development is ap proposed development is located withi (Industrial Emissions) Licence (Ref No	de a double height space for tall round level), new visitor entrance hdows at 1st floor level to east h and west facing facades cade), 1 no. new doorway (west from roof level, external bollard es, new vehicle set-down area andscaping, 2 no. disabled cs including drainage works, y service yard to north of building ssels (approximately 4 metres in ce shall be composed of the eg, exhibition area, guided tour ar retail area and support facilities rst floor levels - the total internal proximately 3, 133m2. The n a site which has an approved IE p. P0301 - 04).	
18	Diageo Ireland	Guinness Flavour Extract Plant 2, Bellevue & Crane Street, Dublin 8	3634/17	Planning permission for development a Plant 2 (known as GFE2), Bellevue an part of the existing Guinness Brewery Street, Dublin 8. The subject site is bot buildings/areas to the north, Bellevue to Bellevue to the east and existing brewer House 9) to the west. The proposed de demolition (to ground level) of the foll elements and associated services which provision of associated remedial works - The 1 storey Main Fermentation Buil	at the Guinness Flavour Extract d Crane Street, Dublin 8, which is lands to the south of James's and by existing brewery o the south, Crane Street/ ry buildings/areas (including Vat velopment will consist of the owing buildings, structures, a comprise GFE2 and the a s follows: ding (approx. 810 sq. m) and its	Granted November 2017

			,
		23 no. associated storage tanks (overall height of approx. 20.4 m),	
		- The 2 storey office building (approx. 1,060 sq. m, overall height of	
		approx. 11 m) to the west of the Main Fermentation Building,	
		- A 1 storey Clean in Place (CIP) building (approx. 330 sq. m, overall	
		height of approx. 9 m), A 1 storey chemical tank store (approx. 92 sq.	
		m, overall height of approx. 9 m) to the west of the CIP building,	
		- A 1 storey store (approx. 50 sq. m, overall height of approx. 4.7 m) to	
		the south of the Drumstore,	
		- A 1 storey Drumstore (approx. 280 sq. m, overall height of approx. 5.5	
		m) and the associated elevated pipe rack along the facade of VAT	
		House 9 connected to the workshop building (and the making good of	
		the building facade following removal),	
		- The external canopy and associated supports to the east of the parlour	
		building,	
		- An elevated link bridge across Rainsford Street (between the Parlour	
		Building and VAT House 4) (following removal the making good of the	
		points of contact with both buildings),	
		- The propping of the southern boundary wall of the site following	
		removal of the CIP building and the chemical tanks, and	
		- Associated reinstatement works, drainage modifications and all	
		associated site development works on a site of approx. 0.3316 ha. The	
		application related to development which is for the purpose of an	
		activity within the scope of Diageo's existing IE (Industrial emissions)	
		Licence (Ref. No. P0301-04), formerly known as an Integrated	
		Pollution Prevention Control Licence (IPPC Licence). The proposed	
		development does not increase the output capacity of the brewery. The	
		Guinness Brewery lands contain Protected Structures, the proposed	
		development does not comprise works to any Protected Structure.	
		· · · ·	

19	Diageo Ireland	Guinness Flavour Extract Plant 1, Grand Canal Place & Pim Street, Dublin 8	3635/17	The subject site is bound by existing brewery buildings/area to the north, Portland Street West /the Guinness Storehouse (a Protected Structure) and its yard to the south, existing brewery buildings/areas to the east and west. The proposed development will consist of the demolition of the following buildings, structures, elements and all associated services which comprise GFE1 and the provision of associated remedial works as follows: The 1 to 3 storeys main GFE1 buildings (Phase 1 and Phase 2) (approx. 2150 sqm) its 13 no. associated storage tanks and structures (overall height approx. 18.5m, approx. 20.30 OD). This is to be demolished to basement level, which will be backfilled and surfaced to existing yard level. A safety barrier / hand rail (overall height of approx. 1.2m) is proposed at the northern and eastern perimeter of the backfilled basement area, 2 elevated link structures connecting the main GFE1 building and the old Brew house building to the north and east, Services and brackets fixed to the southern facade of the old Brew house (north of the main GFE1 1 building) and the making good of the connection points at this facade, External plant and tank areas to the north west and west of the main GFE1 building and to the north of Gate 4 , Supporting and making good of the exposed edge of the section of wall along Portland Street West following removal of the main GFE 1 building, and Associated reinstatement works, drainage modifications and all associated site development works on a site of approx. 0.2355 ha The application relates to development which is for the purpose of an activity within the scope of Diageo's existing IE (industrial Emissions)Licence (Ref. No.P0301-04	Granted November 2017	
				Diageo's existing IE (industrial Emissions)Licence (Ref. No.P0301-04), Formally known as an Integral Pollution Prevention Control Licence (
					capacity of the brewery . The Guinness brewery lands contain Protected Structure, the proposed development does not comprise work to any protected structure.	
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20	Diageo Ireland	Guinness Brewery Lands, James's Street, Dublin 8	3818/18		The subject site is within the Guinness Brewery Lands to the North of James's Street. Bounded by Victoria Quay to the north, Watling Street to the east, Steven's Lane to the west and James's St. to the south; Saint James's Gate Brewery, Dublin 8. The development will consist of: Application for Permission for the demolition of the existing single storey industrial-use building knows as the Return Beer (RB) Stores Building (1,055m2) including all internal structures. Overall height approx. 11.9m, (approx. 17.45 OD). The building is to be demolished to ground level, which will be backfilled and surfaced to match existing surrounding yard level. The proposed development is located within a site which has an approved IE (Industrial Emissions) Licence (Ref No. P0301-04).	Granted November 2018
21	Diageo Ireland		2313/19	ABP-304474- 19	Planning permission for a 2-storey extension over the existing 3 storey Guinness Enterprise Centre, consisting of 3,735m2 of incubator and co- working space, including the provision of an external stairs and passenger lift and all ancillary site works for the Guinness Enterprise Centre, Taylor's Lane, Dublin 8.	Granted August 2019
22	Digital Hub Development Agency	1 Crane Street & 7-8 Thomas Street, Dublin 8	3770/14		Change of use from former use residential/retail use to office, commercial and retail, cafe/restaurant use of three Protected Structures at 1 Crane Street, 7 Thomas Street and 8 Thomas Street, Dublin 8. The associated development works will consist of: 1. 3 storeys over basement infill extension to the rear of 7 and 8 Thomas Street providing inter connection at each floor level between 7 and 8	Granted March 2015

		I		1
			Thomas Street and 1 Crane Street requiring provision of new openings	
			and alteration of existing window openings in external walls.	
			2. Enlarging existing external open basement area to rear of 1 Crane	
			Street.	
			3. Provision of new basement within 2 storeys return to 7 Thomas	
			Street.	
			4. Provision of new basement within rear of 8 Thomas Street and new	
			connecting stair and platform lift between ground and basement level.	
			5. Pointing renewal works to all external facades.	
			6. Demolition and provision of new boundary wall to 9 Thomas Street.	
			7. Removal of boundary wall between 7 & 8 Thomas Street.	
			8. Repair and alteration of existing shop fronts and fascia signage.	
			9. Lowering of extant basement floor levels with provision of new floor	
			within 1 Crane Street, 7 Thomas Street and 8 Thomas Street.	
			10. Lowering of ground floor level with 1 Crane Street.	
			11. Unblocking of in-filled openings onto Crane Street within 7 Thomas	
			Street.	
			12. Provision of new entrance opening onto Crane Street within rear	
			return to 7 Thomas Street.	
			13. Provision of new opening connections between 7 and 8 Thomas	
			Street at each level.	
			14. Removal of extant stair from ground level to second floor level	
			within 8 Thomas Street.	
			15. Modifications and alterations to internal openings within 7 Thomas	
			Street and 8 Thomas Street.	
			16. Renewal of basement stair within 7 Thomas Street.	
			17. Removal of intermediate floor within 2 storeys return to 7 Thomas	
			Street.	
			18. Modification and alterations to existing roof to 2 storeys return to 7	
			Thomas Street.	

				 19. Alterations to rear wall to two storeys return to 7 Thomas Street. 20. Removal of stair within 1 Crane Street at basement level. 21. Removal of cross wall within 1 Crane Street at ground, first and second floor level. 22. Reordering of layout at basement level within 8 Thomas Street to provide sanitary facilities. 23. Reordering of layout at basement level within 1 Crane Street to provide sanitary facilities. 24. Fabric upgrade work. 25. Integration of electrical and mechanical services and provision of riser ducts within 1 Crane Street and 8 Thomas Street. 26. Associated site ancillary works. 	
23	Dr Pearse Lyons	121-124 James's Street, Dublin 8	3213/14	PROTECTED STRUCTURE: Development of a micro distillery and a visitor centre at a site of c.0.164 ha at Nos. 121-124 James's Street, Dublin 8. Part of the site (Nos. 121-122 James's Street) is occupied by the former St. James's (Church of Ireland) Church, which is a Protected Structure (Ref. 4053), including the front entrance gates, railings and gate piers. (The boundary walls to the adjoining graveyard (located outside the application site) are also a Protected Structure. The remainder of the site (Nos. 123-124 James's Street) is occupied by a two-storey building (which is not a Protected Structure). Nos. 121-122 James's Street, the former St. James's Church: -The development will consist of the refurbishment and adaptive reuse of the former church (c. 740 sq. m) (most recently in use as a lighting showroom and warehouse), as a micro distillery and visitor centre (c. 491 sq. m) (including a tasting area; exhibition and merchandise area (including sale of whiskey for consumption off the premises); distillation equipment; plant; ancillary staff and storage facilities. The works include the construction of a glass spire to match the proportions of the	Granted January 2015

		original spire (maximum height of 36.3 m above ground level) requiring	
		the removal of non-original lead flashing covering the top of the	
		remaining portion of the spire. Removal of non-original internal fabric	
		of the former church including: internal walls; glazed internal lobby;	
		doors and joinery; floors, ceilings and associated structural steelwork;	
		internal stairs; ducts; pipes and plaster. Removal of non-original	
		material including structural supports and panelling around the gallery	
		and modesty screen, to reveal the remaining original fabric. Restoration	
		of the original gallery structure and modesty screen. Construction of a	
		new cast iron column, to match original existing column on the ground	
		floor to support the gallery above. Removal of non-original concrete	
		ramp to west of the former church, restoration of stone steps and	
		provision of new removable ramp. Removable of modern infill from the	
		stone buttresses and, where required, application of new limestone.	
		Removal of concrete block infill from original windows. Repair or, if	
		required, replace stone tracery and leaded glass. Repair external timber	
		doors where possible and remove modern additions. Restore and clean	
		stone exterior of former church, including: walls, dressings, tracery,	
		finials and internal stone stairs cases. Repair or, if required, replace:	
		roof slates, flashing, ridge pieces and rainwater goods. Application of	
		new lime plaster to internal walls. Internal timber trusses to be cleaned	
		and decorated. Construction of new first floor structure (c. 12 sq. m) in	
		the Vestry roof to accommodate plant. Construction of new stone	
		ground floor above the existing non-original floor slab and a new raised	
		stone floor in the Chancel and South Transept to accommodate services	
		below. Construction of new air handling ducting suspended beneath	
		existing trusses and new c. 600 mm diameter opes in internal walls	
		(between the Chancel and the Vestry) to accommodate same.	
		Construction of 2 no. new c. 600 mm diameter opes in the Vestry roof	
		to accommodate air extract exhausts with cowls (c. 600 mm and 1500	

		mm above roof level); 1 no. new c. 800 mm diameter ope to north	
		facade for air intake duct; and 2 no. new c. 300 mm diameter opes in	
		southern facade to allow for grain intake and spent grain extract.	
		Demolition of the existing single storey, partially sunken plant	
		enclosure abutting the northeast walls of the former church (c.12 sq. m)	
		and the construction in its place of a 2-level plant enclosure (c. 58 sq. m	
		across two levels) and internal and external access ladders. Construction	
		of a single storey barrel filling room (c. 11 sq. m) abutting the east wall	
		of the Vestry., including new sump. Relocation of electrical meter to the	
		Vestry. Construction of a detached, screened single storey enclosure for	
		coolers (c. 15 sq. m) located to the south-east of the former church.	
		Remove the oil tank located to the northwest of the former church and	
		demolish the associated walls. The development also consists of the	
		removal of non-original fabric across the site including: internal site	
		fencing and gates; signage; tarmac; modern external light fittings and	
		lamp standards; modern dwarf walls around graves. Railings; Front	
		Entrance Gates; Gate Piers; the development will consist of the repair	
		(and where necessary replacement) and painting of the railings at the	
		front of the site. Removal of the modern gate and its replacement with	
		an automated inward opening gate, to match the railings. Removal of	
		modern light fittings from railings. Repair and clean stone wall, plinth,	
		coping and gate piers. Nos. 123-124 James's Street: - The development	
		will consist of the demolition of the existing two storey building (c. 134	
		sq. m) (including a ground floor commercial unit and a first floor	
		residential apartment (c. 60 sq. m); and the construction of a part-four,	
		part-five storey visitor centre including: reception, exhibition space,	
		ancillary visitor and staff facilities, and ancillary offices (c. 331 sq. m).	
		The development will also consist of: all hard and soft landscaping,	

					including soakaways, changes to levels, signage; external lighting; seating; and all associated development above and below ground.	
24	Dr Pearse Lyons	121-125 James's Street, Dublin 8	3690/15	PL29S.245886	PROTECTED STRUCTURE: Planning permission for development of a Visitor Centre, associated with the adjoining previously permitted micro distillery, at a site of approximately 0.0484 ha, at Nos. 121-125 James's Street, Dublin 8, Eircodes D08 ET27; D08 T284; and D08 R2C3. (No. 125 James's Street includes a rear yard formerly known as Lamb's Court.) The application site includes a part of the graveyard and graveyard boundary wall associated with the former St James's (Church of Ireland) Church, Nos. 121-122 James's Street, which is a Protected Structure (DCC Ref. 4053). (No works are proposed to the former St James's (Church of Ireland) Church through this application.) The remainder of the site (Nos. 123-125 James's Street) comprise two storey buildings (which are not protected structures). The development will consist of: the amendment of the previously permitted development (Dublin City Council Reg. Ref. 3213/14) including the demolition of the existing two storey buildings at Nos. 123/125 James Street (291 sq. m). (No. 123-124 includes a first-floor residential apartment (57 sq. m) which was previously permitted to be used as a Visitor Centre. No. 125 includes a first-floor residential apartment (88 sq. m). The development will also consist of: the construction of a three storey Visitor Centre including reception, exhibition space, ancillary visitor and staff facilities, ancillary offices (575 sq. m) and roof plant. The development will also consist of: all hard and soft landscaping, boundary treatments, green roofs; changes to levels; signage; piped services; and all associated development above and below ground.	Granted February 2016

25	Dublin Corporate Apartments Ltd	28-31 Benburb Street & 6-9 Wood Lane, Dublin 7	2692/16	PL29N.247314	The development will consist of: the demolition of six derelict dwellings plus the remains of two further dwellings (ground floor facade only) measuring a total of 437 sq. m; and the provision of a three to six storey over basement level Hotel (progressively set back at its fourth and sixth storeys); comprising 96 No. bedrooms with a gross floor area of 3,904 sq. m, which includes a basement level of 730 sq. m. The development will also include: the provision of vehicular access to the site from Wood Lane; the provision of 3 No. car parking spaces; 10. No. bicycle parking spaces; loading bay; hard and soft landscaping; an outdoor terrace area at sixth storey level on the southern elevation (17 sq. m); signage; ancillary plant; attenuation; ESB sub-station and all associated site development and site excavation works above and below ground.	Granted February 2017
26	Dublin Simon Community	Dublin Simon Community, 25-26, Usher's Island & Island House, Island Street, Dublin 8	3084/17	PL29S.249110	The site is bound to the north by Ushers Island, to the south by Island Street, to the west by Watling Street and to the east by the Viking Harbour apartments. The c. 1,059 sq. m subject site (includes c. 98.5 sq. m of lands) that are also within the ownership of Dublin City Council. The development will consist of: 1) the demolition of the existing Dublin Simon Community facilities (c. 1,240 sq. m) and 2) the construction of an expanded Medical Residential Treatment and Recovery Centre comprising of a new five/ six storey building over partial basement with a maximum overall height of c. 25.6 m OD (including plant/ lift overrun) and a total gross floor area of c. 4,152 sq. m (excluding basement level). The new building will include: - 70 no. bedrooms en-suite; - meeting rooms and living spaces; - a canteen, kitchen and associated cleaning room;	Granted January 2018

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				 treatment rooms, GP's room, nurse's bases and staff offices; a gym and associated changing facilities; staff, patient and visitor WC's; utility and laundry rooms; storage rooms (including separate bicycle store and waste store); a c. 163 sq. m sedium roof at fifth floor level; and associated circulation spaces, lobby areas, stair and lift cores, plant rooms, substation, switch room, attenuation tank and other ancillary service areas. The development will also include: an enclosed courtyard at lower ground floor level (c.40 sq. m); a courtyard and terrace at ground floor level (c. 51.5 sq. m and c. 19.8 sq. m); a terrace at first floor level (c. 65 sq. m) and associated landscaping, boundary treatments, drainage arrangements and site development works. 	
27	Dublin Simon Community	55B Arbour Hill, Dublin 7	3001/18	Permission for demolition works to existing buildings and the construction of 18 no. one-bedroom apartments in a five-storey building with balconies and bicycle parking, bin store, landscaping, boundary treatments and all associated site and engineering works necessary to facilitate the development.	Granted November 2018
28	Dublin Simon Community	25-26 Ushers Island & Island House & 20-22 Island Street, Dublin 8	4610/18	The development will consist of: the demolition of the existing c. 370sqm two storey Dublin Simon Community building in the eastern portion of the subject site (nos. 20-22, Island Street) to provide for an extension to the permitted Medical Residential Treatment and Recovery Centre (DCC Reg. Ref. 3084/17, ABP Ref. PL 29S.249110). The proposed extension to the permitted facilities will comprise a six-storey building which will connect to the permitted facilities at Levels 2-5, allowing for gated vehicular and pedestrian access from Island Street to the Viking Harbour courtyard to the rear. The proposed extension will	Granted March 2019

		have a maximum overall height of c. 26.06m OD and a total gross floor	
		area of c. 1,151.7sqm. The total floor area of the permitted facility and	
		proposed extension will be c. 5,304sqm. The extension and amendments	
		proposed by the subject planning application will deliver an additional	
		30 no. bedrooms, resulting in an overall total of 100 no. bedrooms	
		between the permitted facility and the proposed extension and	
		alterations. The proposed extension to the permitted facility will	
		include; additional bedrooms; gymnasium; meeting rooms; counselling	
		rooms; utility and laundry rooms; storage rooms (including separate	
		bicycle store); and associated circulation spaces, lobby areas stair and	
		lift core, plant rooms, substation, switch room and other ancillary	
		service areas. The proposed development will include the relocation of	
		permitted stairs, plant room, ESB, ELV switch room and bike store into	
		the proposed extension to allow for: the enlargement of the permitted	
		reception/waiting area and provision of new windows at Level 0; and	
		provision of new bedrooms with windows at Levels 2 - 5. The proposed	
		development also includes other amendments to the permitted facilities	
		including: widening the permitted entrance alcove to Watling Street;	
		removal of a window at Level 2; replacement of 1no. bedroom	
		overlooking the central courtyard at Levels 2 and 4 with external	
		terraces; replacement of permitted support room at Level 1 with 1 no.	
		bedroom; relocation of permitted gym to Level 1 in proposed extension	
		and replacement with a multipurpose room; provision of aluminium fins	
		at 450 & 900mm centres along the eastern and northern facades	
		overlooking the central courtyard in lieu of timber fins; replacement of	
		permitted angled facade to Viking Harbour courtyard with a stepped	
		facade; increase of height of permitted eastern boundary wall; and	
		amendments to the permitted internal layout to improve operational	
		efficiencies and meet fire safety requirements. The proposed	

					development will also include all associated boundary treatments, drainage arrangements and site development works.	
29	Durkan (Pim Street) Ltd.	6, 6A and 7 Pim Street, Dublin 8	2290/19		Permission for a residential development on this overall site of c. 0.07 ha. The proposed development shall comprise the demolition of the onsite vacant 2-storey dwelling unit and vacant 1-storey shed and provide for the construction of 29 no. residential units in the form of 1 no. 2 to 6 storey apartment building. The development shall provide for 11 no. studio apartments, 12 no. 1 bed apartments and 6 no. 2 bed apartments, all with associated private balcony/terrace/roof garden areas. Pedestrian access only is proposed and is provide for 29 no. sheltered bicycle parking spaces, 15 visitor bicycle parking spaces and bin storage at surface level; a 181 sqm landscaped communal open space area at ground level; all boundary treatment and landscaping works and all associated site development works.]	Granted August 2019
30	EWR Investments Ltd	The Printworks, Brookfield Road, Kilmainham, Dublin 8	4179/15	PL29S.247001	The proposed development comprises a part 2, part 4 and part 6-storey building over lower ground floor level to provide 14 no. residential dwellings (comprising 12 x 3-bedroom, double stacked duplex residential units and 2 x 3-bedroom houses (with integrated car parking provision)) and c. 1,971 sq. m (GFA) of office accommodation. An ancillary roof terrace is proposed at first floor level to the rear (east) of the proposed office block and is enclosed by high level obscured glass balustrading. Ancillary roof terraces/balconies with glass balustrading are proposed at third floor level to the western elevation of the building serving the 6-no. duplex residential units at second and third floor level. Car parking in connection with the duplex units and the office accommodation are provided at lower ground level (22 No. car parking	Granted December 2016

				spaces) together with associated and ancillary bicycle and refuse storage areas. Vehicular access to the lower ground level is proposed at the northern end of the site off Brookfield Road. Communal landscaped open space and private gardens are provided to the rear of the proposed building at podium and ground floor levels.	
31	First Ireland Risk Management Ltd	14-16 Parkgate Street, Dublin 8	2168/15	Planning permission sought for a. Proposed demolition of substandard attached two storey building circa 227m2 (formally Kingsbridge Bed & Breakfast) at 14 Parkgate Street, Dublin 8. b. Proposed construction of three storey offices extension circa 368m2 to side (In the place of 14 Parkgate Street, Dublin 8) of existing established three storey offices building (First Ireland House, 15 & 16 Parkgate Street, Dublin 8) with all associated external, internal alterations, ground floor level display signage to match existing and site development works. c. Proposed additional fire escape staircase structure circa 6m (single storey above rear terrace level) to connect existing basement level to rear terrace area with all associated site development works.	Granted May 2015
32	Flair Salon Services Ltd.	26-29 Old Kilmainham Road, Kilmainham, Dublin 8	3078/16	The development will comprise of: - the demolition of an existing two- storey storage building (345 sq. m); - the construction of a new 4-storey office and training centre building (776.5 sq. m) with associated toilets, internal circulation including shared stairway and lift and roof mounted solar panels; - alterations to plans and elevations of the existing rear 2- storey hair academy building incorporating new fire exits located at the rear of the site; - connection to existing site services; - alterations to site boundaries and ancillary site development works. The new building will comprise as follows: - 8 bicycle stands and external amenity space; - 181 sq. m of entrance foyer, offices and training centre with associated signage at ground floor level incorporating a pedestrian link; - 198.5 sq.	Granted September 2016

				m of offices and training centre at first floor level; - 198.5 sq. m of offices and training centre to the second floor; - 198.5 sq. m of offices and training centre at third floor level. The proposed building is set back a minimum of 8m from the existing water edge to the Camac River edge along the north site boundary.	
33	Grangegorman Development Agency	Grangegorman, Dublin 7	GSDZ3926/17	Development at a site within the overall Grangegorman Strategic Development Zone (SDZ) of approx. 28.69 hectare at Grangegorman, Dublin 7. The development will consist of a new one to two storey building comprising energy centre and educational facility (approx. 1,868 sq. m) ranging in height from approx. 8.36 m (34.86 m OD) to approx. 14.08 m (41.45 m OD) including parapet and a flue (approx. 30M (56.5 M. OD) at the north elevation, other elements include: -plant and photo voltaic panels at roof level; -service access road, gated entrance and yard to the west of the building adjoining existing boundary wall (Note: Sections of the existing Grangegorman boundary walls are a Protected Structure); -associated permanent and temporary boundary treatments; -temporary landscaping to the south and north of the building; -and all associated site development works (including drainage works, lighting and building signage) All located at or in proximity to the western boundary of the SDZ lands to the south of the Phoenix Care Centre, west of the Top House and north of St. Brendan's Way.	Granted November 2017
34	Grangegorman Development Agency	Grangegorman, Dublin 7	GSDZ2116/19	Planning permission for development at a site located within a larger development site which is bound to the north by the HSE Phoenix Care Centre; to the south by St. Brendan's Way and sports grounds; and to the west by residential properties at St. Joseph's Court and a number of industrial units fronting onto Prussia Street. The site is located within	Granted March 2019

					the overall Grangegorman Strategic Development Zone (SDZ). The temporary development will consist of an energy centre facility with a cedar clad finish, measuring a total of 220 sq. m. and c.3.8m in height, with flues of c.14m; a temporary access that will facilitate deliveries and maintenance vehicles; a boundary fence around the units; and all ancillary and associated development works; all on a site of c. 0.55ha.	
35	GSA Developments (Ireland) Ltd	3-7 & 9-11 Grangegorman Lower, 1-2 Blake Villas Grangegorman Lower, 8-8a Grangegorman Lower, 22-27 North Brunswick Street, Dublin 7	2830/16		Planning permission for development at this site -No's 3-7 and 9-11 Grangegorman Lower & The Yard, And Buildings To Rear Thereof, 1&2, Blake Villas Grangegorman Lower, 8&8a Grangegorman Lower & 22-27 North Brunswick Street, Dublin 7.The development comprises the demolition of all existing structures and 3 No. houses on site together with site clearance works and the erection of high-level (approximately 3m high) temporary hoardings along the Grangegorman Lower and North Brunswick Street site boundaries.	Granted August 2016
36	GSA Developments (Ireland) ltd	3-7 & 9-11 Grangegorman Lower, 1-2 Blake Villas Grangegorman Lower, 8-8a Grangegorman Lower, 22-27 North	2858/16	PL29N.247008	Planning permission for development at this site -No's 3-7 and 9-11 Grangegorman Lower and the yard and buildings to the rear thereof and No's 1&2, Blake Villas Grangegorman Lower and No's 8&8a Grangegorman Lower and those lands known as 22-27 North Brunswick Street, Dublin 7. The development comprises the demolition of all existing structures on site, including 3 no. houses together with site clearance works and the construction of a new mixed used building of part 4-, part 5- and part 6-storey height with a total Gross Floor Area (GFA) of 20,999 sq. m (all above ground floor level) to include discount	Granted December 2016

Brunswick	supermarket (2,764 sq. m GFA), including part off-licence (95 sq. m) at
Street, Dublin	ground floor level fronting North Brunswick Street; 624.8 sq. m GFA of
7	retail floorspace arranged in two separate retail units fronting
	Grangegorman Lower; an ancillary student/ community group
	recreational facility of 265.99 sq. m GFA (including mezzanine level)
	arranged over two floors and fronting Grangegorman Lower together
	with reception (430.55 sq. m) for Student Accommodation and ancillary
	Student Services (404.69 sq. m) over two floors (inclusive of mezzanine
	levels) and Gym (142.66 sq. m) at ground floor. All of the upper floors
	(first to fifth floor level) are proposed as Student Accommodation to
	provide a total of 126 units, comprising 5x3 bed units (15 bed spaces),
	29x 4 bed units (116 bed spaces), 29x 5 bed units (145 bed spaces), 14 x
	6 bed units (84 bed spaces), 13 x 7 bed units (91 bed spaces), 12 x 8 bed
	units (96 bed spaces) and 24 x studio type units (24 bed spaces)
	resulting in a total provision of 571 no. bed spaces. Balconies are
	proposed at 2nd to 5th floor levels on the internal west facing elevation
	overlooking the internal courtyard. A roof terrace is proposed at 4th
	floor level to the southern elevation onto north Brunswick Street and at
	5th floor level to the western elevation fronting Grangegorman Lower.
	Vehicular access is provided at the eastern end of the site along North
	Brunswick Street frontage to provide access to a loading bay to serve
	the proposed discount supermarket. This access is enclosed by a high
	level (4.5m high) galvanised steel gate. The main pedestrian access to
	the site is provided along the northern part of the Grangegorman Lower
	Street frontage and is formed by a series of high level pivot gates fixed
	to the undercroft of the building. An on-street loading bay is also
	provided in close proximity to the main entrance along the
	Grangegorman Lower frontage. A combination of hard and soft
	landscaping measures are proposed areas of communal open space
	along the northern, eastern and western boundaries of the site (including

					areas of public realm) and the proposed internal courtyard space that is enclosed by the proposed part4-, part5-, part6-storey high perimeter block. Provision is made for 191 no. internally located bicycle parking spaces at ground floor level within the proposed building. Provision is also made for 20 no. visitor's bicycle parking spaces external to the proposed building. The proposed building incorporates sustainable urban drainage measures, including the provision of green roofs (2,612.3 sq. m) and a rainwater harvesting system that drains to a proposed sub-surface level (approximately 0.75 m below ground level) attenuation tank that is situated along the northern boundary of the site together with all associated site development and landscaping works.	
37	Gurtmont Ltd	20-23a Stoneybatter & 1-2 Manor street, Stoneybatter, Dublin 7	4261/16		The development will consist of the demolition of all existing structures including no. 20 Stoneybatter and the construction of a part 1, 3, 4 and 5 storey student accommodation development of 2,980.8 sqm, containing 96 single ensuite study bedrooms arranged in 12 no. 'houses' with shared kitchen/living rooms, 222.6 sqm of indoor recreational facilities, 735 sqm active landscaped garden, 505 sqm landscaped roof terraces, 74 no. covered bicycle parking spaces in addition to replacement of no. 20 Stoneybatter to include upgraded vehicular access and a three bedroom apartment of 168.4 sqm with a rear balcony. Also proposed are all ancillary site and services accommodation works.	Granted September 2017
38	Hattington Student Housing Ltd	30, 32-36 Thomas Street & 10 Hanbury Lane, Dublin 8	2453/15	PL29S.246290	Permission for development of a site of c.0.31ha. at Nos. 30 & 32-36 Thomas Street and 10 Hanbury Lane, Dublin 8. The site is bounded generally to the north by Thomas Street, to the west by St. Catherine's Lane West, to the east by No. 37 Thomas Street, to the south by an existing office building on the corner of Hanbury Lane and St. Catherine's Lane West and the Hanbury Court Apartments on the corner	Granted April 2016

		of Hanbury Lane and Swan Alley. The development comprises a 247-	
		unit (296 student bed spaces) Student Accommodation Facility with	
		ancillary facilities, together with retail uses at the ground floor of the	
		existing Thomas Street properties. The overall proposal includes the	
		conservation and refurbishment of Nos. 30 & 32-36 Thomas Street	
		along with the change of use of these buildings to accommodate the	
		development now being proposed, along with the construction of new	
		buildings that range in height from 3-6 storeys over ground which are	
		set back behind the existing Thomas Street buildings via a newly	
		formed private pedestrian street. The overall development comprises	
		approx. 8625sqm in floor area (existing and new building combined).	
		The main entrance to the student accommodation complex is proposed	
		via No. 32 Thomas Street providing a ground floor reception area and	
		leisure/recreation space with student accommodation on the 1st-3rd	
		floors above Nos. 30, 33, 34-35 and 36 Thomas Street will provide 4 no.	
		ground floor retail units (c. 28 sqm, 54 sqm, 108 sqm, 80 sqm	
		respectively) with student accommodation from 1st floor to 3rd/4th	
		floor above. There is also ancillary student accommodation to the rear	
		of No. 30 at ground floor level. Nos. 30 & 32-36 Thomas Street are	
		being conserved and refurbished as part of this proposal. An additional	
		fourth floor in Nos. 34-35 Thomas Street is being accommodated in the	
		roof space following works to repair/replace the roof. There is a new	
		building proposed set back from the rear of the existing Nos. 30, 32-36	
		Thomas Street buildings which will house the majority of the student	
		accommodation at lower ground, ground floor and upper floors, with	
		communal living/dining accommodation and associated facilities (c.	
		6740 sqm GFA in total). The development proposed is being	
		accommodated in a building that ranges in height as follows; 6 storeys	
		over lower ground at rear of existing Thomas Street buildings, 5 storeys	
		plus roof terrace along St. Catherine's Lane West, 5 storeys plus roof	

					terrace over lower ground floor along eastern site boundary, stepping down to 4 storeys plus roof terrace; the proposal also includes 1 no. 3 storey townhouse (c. 213 sqm) on Hanbury Lane which will accommodate 8 no. student accommodation bed spaces; all associated site development and landscape works, including the demolition of structures at the rear of the site (approx. 2195 sqm), provision of courtyards and roof terraces, a bicycle parking facility and 2 no. controlled pedestrian / cycle entrances are also proposed on St. Catherine's Lane West and 1 no. controlled pedestrian / cycle entrance on Hanbury Lane, 1 no. ESB substation plus switch room. All of a site of c.0.31ha.	
39	Hattington Student Housing Ltd	43, 45, 47, 51, 53 Montpelier Hill & 37, 39, 41, 55 Montpelier Hill, Dublin 7	3772/16	PL29N.248208	PROTECTED STRUCTURE: The proposed development consists of a student accommodation facility (c. 8,834.5 sq. m GFA) with 48 no. student house units provided in 3 no. buildings as follows: Block A consists of a 3-4 storey building above ground fronting Montpelier Hill, containing 5 no. student house units and ancillary facilities to serve the development including a gym, common room, study, laundry, screening room, reception, staff facilities and management suite; Block B consists of a 3-5 storey over partial basement building to the rear of Block A towards the eastern site boundary containing 25 no. student house units, an ESB substation, customer switch room, basement plant room and caretaker room; Block C consists of a 3-4 storey building above ground to the rear of Block A towards the western site boundary containing 18 no. student house units; The proposed student house units comprise of 3 no. 4-bed units, 4 no. 5-bed units, 10 no. 6-bed units, 11 no. 7-bed units and 20 no. 8-bed units (total of 329 bed spaces). Each block will have roof access for maintenance purposes only; and all associated site development, boundary treatments and landscaping works including external amenity space at ground level, 110 cycle parking spaces at	Granted July 2017

				various locations throughout the site, bin storage facilities and a controlled pedestrian / cycle access from Montpelier Hill. The proposed development also includes the demolition of existing structures on the site (c. 2474.6 sq. m) including a 20th century building in the curtilage of No. 41 Montpelier Hill (a Protected structure) and boundary walls within the original curtilage of No. 55 Montpelier Hill (a protected structure).	
40	Hugh McDonnell	19-20 Blackhall Street, Dublin 7	4143/16	The development will consist of the demolition of an existing structure and construction of a circa 2725 square metre part five-storey office building, including toilets, other ancillary accommodation and the necessary circulation space. In addition to this provision of associated cycle parking, ten spaces accessed from Blackhall Street and sixteen internal spaces with access from Oxmantown Lane. The main entrance to the development will be on Blackhall Street, recessed from the street line and protected by a cantilever at second storey level. Fire escape routes will also escape onto Oxmantown Lane at the rear of the proposed building.	Granted February 2017
41	IDV Boyne Future Ltd.	1, 1A, 2 Usher Street & 29-30 Usher's Quay, Dublin 8	3328/18	The proposed development will involve the demolition of all existing structures onsite (c. 1,028 sqm) to provide for a new 6-8 storey residential over ground floor commercial development (c.3,166.7 sqm GFA), in one block accommodating 28 no. apartments: 5 no. 1 bed units; 22 no. 2 bed units; and 1 no. 3 bed unit; with private balconies at each floor level. The parapet height of the proposed development at its highest point is 26.3m and the uppermost floors of the building will be set back fronting onto Usher Street and Usher's quay. at ground floor level, 1 no. commercial unit (c.1 72.7sqm, to accommodate use class 1 and 2 type uses such as retail, professional / financial services) will be	Granted February 2019

					provided along with ancillary laundry room and gym facility; secure bicycle store with 66 no. spaces; store; plant rooms; and ESB substation. The development also includes all hard and soft landscaping including, a communal roof terrace at 6th floor level and private terrace at penthouse level; boundary treatments; PV panels; SuDS measures including blue roof surface water attenuation; and all other associated site excavation and site development works above and below ground. Access to the residential units will be provided via a private entrance lobby off Usher Street, with access to the commercial unit provided off Usher's Quay.	
42	James Street Christian Brothers School	Christian Brothers School, James's Street, Dublin 8	WEB1313/16		The development will consist of the installation of a multi-use games area (MUGA) in artificial turf over an existing macadam playground. The development will comprise of a ball stop fencing system to encapsulate the MUGA. Floodlighting will be incorporated into the development to allow extended use of the facility in the evenings.	Granted November 2016
43	Joburn Holdings Ltd	17-22 Parkgate Street, Dublin 8	3539/17	ABP-300821- 18	 PROTECTED STRUCTURE; Planning permission at this site of c.0.1285 hectares known as 17 to 22 Parkgate Street, Dublin 8 (a Protected Structure). The development will consist of the following: (a) the demolition of the existing single storey shed structure and associated billboard fronting onto Parkgate Street; (b) the construction of a standalone four storey building fronting onto Parkgate Street comprising of café with front and rear terrace areas, office entrance foyer with associated ancillary accommodation, all at ground floor level with office accommodation at upper floor levels (overall area 1156m2); (c) a three storey extension to the rear of the existing central office building fronting onto Parkgate Street with new fourth floor level over 	Granted August 2018

				e: au (d g e: S (d th w A th P ir d	existing building with associated internal alterations overall additional rea 151m2; d) proposed new roof covering with new raised lantern clerestory glazing replacing existing roof finish and associated roof light over existing building located to the east of the site fronting onto Parkgate Street; e) modifications to the existing stone warehouse located to the rear of he site including removal of existing entrance and reinstatement of window to match existing ground floor window arrangement. A landscaped courtyard will be provided between the new building and he existing stone warehouse building with pedestrian access to Parkgate Street. The scheme provides 30 no. bicycle parking spaces, ncluding all associated landscaping, boundary treatment, site levelopment and service works.	
44	KW PRS ICAV, First Floor	The Black and Amber Inn, 778 South Circular Road & Hospital Lane, Islandbridge, Dublin 8	4660/18	T Q au d In C ((sti cu sti cu b au sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti cu sti sti cu sti cu sti sti sti sti sti sti sti sti sti sti	The site is generally bound to the east and south by the existing Clancy Quay mixed-use development, to the west by the South Circular Road, and to the north by Riverbank House apartment building. The proposed levelopment will consist of the demolition of The Black And Amber nn (1-2 storey building, c.602m2 GFA) and basement vault (c.201m2 GFA) and construction of a 6 storey over ground mixed-use building c.1,247m2GFA) to accommodate at 1st to 5th floor levels, 20 no. tudio apartments each with a private balcony; at ground floor level, a commercial unit (c. 88m2 GFA) fronting onto South Circular Road, and all associated and ancillary site development works, landscaping and boundary treatments, including a bin store (c.21m2), bike store (c.17m2 and providing 20 no. covered bicycle parking spaces), 3 no. under croft ar parking spaces; a canopy above the residential entrance on the outhern elevation; at roof level, 49 no. solar PV Panels and lift overrun;	Granted May 2019

				reconfiguration of Hospital Lane east of the access to Riverbank House to provide vehicular access to the proposed car parking spaces, replace the existing footpath (c.0.96m wide) on the southern edge of the carriageway with a wider footpath (c.1.3m wide), and to replace the existing footpath (c.0.8m wide) on the northern edge of the existing carriageway with grass verge (c. 0.5m wide), resulting in a wider carriageway (c.4.8m wide); re-surfacing works to Hospital Lane; a temporary turning head and landscaped area, to be subject of future permanent works under a separate planning permission; new taxi set down/loading area on South Circular Road and associated reconstruction of existing steps and part of wall at south western corner of the site; all on a site c.991.7m2.	
45	KW Real Estate PLC	Clancy Quay, South Circular Road, Islandbridge, Dublin 8	3632/16	PROTECTED STRUCTURE: KW Real Estate Plc acting for and on behalf of its sub fund KW Irish Real Estate Fund XI, intends to apply for planning permission at a site (0.33 ha). The development will consist of: - Change of use from 'Officers' Quarters and Mess Establishment' to a multi-unit residential building (c.1,701 sq. m gross floor area), comprising 13 no. residential units (6 no. 1-bed apartments, 2 no. 2-bed apartments, 3 no. 3-bed apartments and 2 no. 2-bed duplex units) from lower ground to first floor levels within the existing building Associated external and internal conservation, alteration, repair and refurbishment works affecting existing internal walls, floors, stairs, opes and external walls, windows, doors, glazing, roof lantern, shutters, stairs, flues/ vents, chimney stacks, roofs, pipes and gutters Lowering of existing perimeter wall and railing, extension of light wells in some locations, re-use of the original railings and provision of new railings to facilitate the creation of 7 no. private terraces to proposed units at lower ground level. Excavation of external central sunken courtyard, with new stepped access and erection of glass balustrade on top of associated	Granted February 2017

					retaining wall. New temporary landscaped area to the north of the building, to accommodate temporary drop off area at interface with Clancy Quay Phase 2 (under construction), emergency exit route to South Circular Road, 7 no. bike stands and an enclosed bin store, pending separate future planning application for Clancy Quay Phase 3 redevelopment, landscaping and boundary works.	
46	KW Real Estate PLC	Clancy Quay, South Circular Road, Islandbridge, Dublin 8	2850/17		The proposed development is a mixed use residential (246no. units in total) and retail (c.598 sqm gfa) development comprising, 5no. apartment buildings (c. 21,575 sqm gfa) ranging from 6 to 9 storeys, accommodating 241no. apartment units (75no. 1-bed units, 134no. 2-bed units, 32no. 3-bed units) and 1no. ground floor retail unit (c. 598 sqm) in proposed apartment Block 1 abutting South Circular Road. 5no. 2-storey, 3-bed mews units (c. 608 sqm gfa) Balconies and or terraces on all proposed buildings. All ancillary and associated site development works, including, Repair and refurbishment of the former Barrack boundary wall (protected structure) and minor demolition works of 20th Century non-habitable structures. Vehicular access via the existing site entrance on South Circular Road subject to minor modifications. 163no. new undercroft car parking spaces. 56no. new surface car parking spaces. 27no. replacement car parking places previously permitted under planning reference 2593/14 as part of Clancy Quay phase 2. 244 no. bicycle spaces. Bin storage, horizontally fixed solar panels at roof level of all blocks, plant, ESB sub-station, hard and soft landscaping, lighting and boundary treatment works.	Granted October 2017
47	Larkmount Developments Ltd.	Long's Place, Dublin 8	2205/19	ABP-304331- 19	Permission for a Build to Rent residential development on a site at Long's Place, Dublin 8. The application site has an area of c. 0.071 hectares and is bound by Long's Place to the east, C.B.S. James Street to	Granted August 2019

				the south and vacant lands to the north. The proposed development consists of the construction of an eight storey (with single and two- storey element) building, with communal garden terrace, PV panels and plant at roof level. The building will accommodate 28 no. Build to Rent units, comprising 21 no. studio units and 7 no. one-bedroom units. Balconies are provided for the residential apartments on the north and east elevations. The development includes a ground floor gym for residents (70 sq. m), a communal resource room (38 sq. m), a lobby and concierge area, bin store and bike storage are also accommodated at ground floor level. A laundry room is proposed at second floor level. The total GFA of the proposed building is 2188 sq. m. The development includes a total of 92 no. bicycle parking spaces, landscaping, services, ESB substation, private and communal open space and all associated works.	
48	Linders of Smithfield Ltd	1-6 Haymarket & 56-58 Smithfield, Smithfield Chambers, Dublin 7	3475/19	Permission at No's 1-6 Haymarket; No's 56-58 Smithfield, including Smithfield Chamber's, Smithfield, Dublin 7 (the site is bounded by Haymarket to the north; Arran Quay Terrace to the south; Burgess Lane to the west and Smithfield to the east). The proposed development will consist of the completion of the demolition of all existing buildings and structures on site as commenced under Planning Permission DCC Ref. 3271/18 (total gross floor area of the buildings to be demolished c.5,628 sq. m) together with site clearance works, and the construction of a new 6-storey mixed use building over double basement levels with a total Gross Floor Area (GFA) of 8,645 sq. m. (above ground floor level). The proposed development will incorporate 6,006 sq. m (GFA) of office floorspace (ground to fifth floor levels); 335 sq. m of Cafe/Restaurant floorspace (ground floor), and 439 sq. m of Retail/Restaurant floorspace (ground floor). An ESB sub-station and Switch room are proposed at ground floor level along the western elevation of the proposed building.	Application received July 2019 Decision due date September 2019

					A roof terrace with associated balustrading wraps around the northern, eastern and southern part of the projecting rooftop plant room at sixth floor level that also encloses an open rooftop plant area with associated screening to the west. The main lobby and office reception are at ground floor level and are accessed from Smithfield Square. Vehicular access is provided via a ramped access off Burgess Lane to the west with a separate bicycle lobby and lift off Haymarket to the north leading to the basement levels below. Basement level -1 contains 19 no. car parking spaces and plant room. At basement -2 level, provision is made for bicycle storage for 150 no. bicycles; shower and changing facilities; ancillary waste storage areas; plant and storage rooms. The proposed building includes sustainable and renewable energy measures which includes PV panels on green roof on part of rooftop at sixth floor level.	
49	Mullins Investments Limited	180, 182, 183,184 James's Street, Dublin 8	2950/17	ABP-300057- 17	The proposed development comprises site clearance and levelling works, including the demolition of all existing building(s) on site and the construction of a new Aparthotel building that ranges in height between 3 and 7-storeys above two lower ground levels (along the southern part of site) to provide a total Gross Floor Area (GFA) of 6,346.8 sq. m, including ancillary staff and guest facilities, plant, storage and waste/ refuse storage areas and a minimum of 15 no. bicycle parking spaces. An ESB sub-station is proposed at ground floor level at the south-eastern corner of the proposed building. Guest/ pedestrian access is provided along the southern frontage onto James Street leading into the reception area with ancillary Café at ground floor. A combination of hard and soft landscaping measures are proposed along all elevations to enhance areas of public realm and ancillary amenity spaces. The proposed building includes for the provision of sustainable drainage measures together with the provision of green roofs.	Granted May 2018

50	Norman and Alan Prendergast	Benburb Street, Dublin 7	2529/14	Change of use of existing 2no.storey light industrial building (now vacant) to retail/retail warehouse use, including ancillary storage and office space at first floor level (approx. 2,985sq.m overall); provision of 10 no. car parking spaces; 30 no. cycle parking spaces all on a site of 0.3Ha.	Granted January 2015
51	Park Shopping Centre Limited	Park Shopping Centre & 42- 45 Prussia Street, Dublin 7	2038/17	 PROTECTED STRUCTURE: The proposed development shall comprise the following: (1) Demolition of existing Park Shopping Centre and nos. 42-45 Prussia Street, Dublin 7 and creation of portal openings in the former boundary wall (Protected Structure). (2) Construction of new District Shopping Centre to comprise part-licensed supermarket, retail/non-retail service units, licensed restaurants and medical clinic. The District Centre Development will accommodate: Two vehicular entrances from Prussia Street to access deliveries and services (south entrance) and to access undercoft/surface car parking for 117 cars and light van deliveries (north entrance); Areas for deliveries, waste collection in designated service yards (south service yard) and the parking of cars (northern undercoft) and bicycles; All associated ancillary facilities, landscaping and boundary treatments including acoustic attenuation measures where required. (3) Construction of student residential accommodation overhead the district centre buildings (15 no. student houses accommodating 105 no. student residential units and 541 bed spaces) in two buildings ranging from 2 to 6 storeys over ground floor commercial north side and 4 to 6 storeys over ground floor commercial south side of a new pedestrian and bicycle street connecting Prussia Street to the Grangegorman SDZ. The buildings range in height from two-storey over retail (3-storeys) near the existing northern, western and southern boundaries-nearest to 	Granted July 2017

			1			
					Prussia Street-to six-storey over retail (7-storeys) and four-storey over	
					retail (5-storeys) along the new street extending towards the	
					Grangegorman SDZ campus. The northern building comprises the	
					major part of the student residential accommodation with reception and	
					offices at ground floor level and a first-floor level podium garden from	
					which 8 houses of student apartments and various student amenity areas	
					(to include a study centre, a recreation centre, a fitness centre and	
					laundry) are directly accessible. The southern building comprises the	
					minor part of the student residential accommodation with ground floor	
					level foyer and staff accommodation and a first-floor level podium	
					garden from which 4 houses of student apartments, 2 graduate	
					townhouses and various student amenity areas (to include a study centre	
					and laundry) are directly accessible. The proposed new street establishes	
					a new urban plaza designed to provide an appropriate contemporary	
					setting for Jameson House (Protected Structure, located on the opposite	
					side of Prussia Street) and requires insertion of a portal connection	
					though a former boundary wall (Protected Structure) into the	
					development permitted under the approved Grangegorman SDZ	
					Planning Scheme 2012, linking to the permitted Public Realm and Site	
					Infrastructure (DCC Ref. 3373/12), being developed under the auspices	
					of GDA as Development Agency. The new street continues through the	
					portal, with 2 student houses accessed from the street. The development	
					includes upper level balconies/terraces addressing Prussia Street and the	
					new street.	
52	Pure Gym Ltd	Smithfield	2737/16	PL29N.246897	The development will consist of (a) the change of use from	Granted
		Market,			Retail/Commercial/Cultural use to Assembly and Leisure use	October
		Smithfield,			comprising a 24 hour,7 day a week Gymnasium (b) the erection of new	2016
		Dublin 7				
		1	1		1	

				illuminated signage to the front elevation (c) the installation of a new front entrance door and (d) all associated site works.	
53	Red Rock 1920BS Ltd	19/20 Blackhall Street, Smithfield, Dublin 7	3014/18	Development comprising: (i) Demolition of the existing two-storey, flat roof, commercial building; (ii) Construction of a new seven-storey (22 metres in height) apartment building comprising 41 apartments (19 no. one-bedroom and 22 no. two-bedroom apartments) fronting Blackhall Street and Oxmantown Lane and developed around an internal courtyard. The apartment building is setback from the eastern boundary at upper floor levels. Apartments are provided with private balconies and access to a communal landscaped open space area, hot desk room, community room and bicycle parking area; and (iii) landscaping; boundary treatments; SuDs drainage; and all ancillary works necessary to facilitate the development.	Granted November 2018
54	Rosemary Ryan and Rory Burgess	The Hops, 9B/10 Basin View, Dublin 8	4745/18	The development will consist of an extension to provide 10 no. additional apartments to an existing development of a 28-no. apartment block ranging from 4 to 7 stories high over a basement. No work is to be carried out at basement, ground, first, second and third floor levels. The proposed development is comprised of: (1) 2no 1 bed apartments at fourth floor level, (2) 2no 1 bed apartments at fifth floor level, (3) 2no 2 bed duplex apartments at fifth and sixth floor levels, (4) 2no 1 bed apartments at sixth floor level, (5) 2no 1 bed apartments at seventh floor level, (6) Rooftop garden above new seventh floor apartments, (7) Increase in floor area (15m2) of existing apartment 25 at fourth floor level, (8) Connections to all services and (9) All necessary ancillary site development works to facilitate this development.	Granted March 2019

55	Rothco Unlimited Company	Smithfield Market Square, Smithfield, Dublin 7	3913/17	The development will consist of the: change of use of part of ground floor level (2311 sq. m) and part of first floor level (1,941 sq. m) from permitted retail / gym / cultural use to creative industries use. The development will also consist of: the provision of a new entrance door and an entrance canopy to the Haymarket (south) elevation; the replacement of an existing door on Haymarket Way with a fixed light window; the provision of a new facade treatment on part of the Haymarket Square (south) elevation, part of the Haymarket Way (east) elevation and part of the Black Hall Walk (north) elevation including a blackened timber batten wall cladding with integrated openable sections primarily at ground floor level and a living wall primarily at first floor level with a mural to the Haymarket Way (east) elevation; the provision of green roof planting to the existing canopy to the haymarket way (East) elevation; the provision of external lighting, and of illuminated and non-illuminated signage (totalling 1.38 sq. m); the provision of all hard and soft landscaping; and all other associated site excavation, infrastructural and site development works above and below ground including; internal changes in level; boundary treatments; and associated site servicing (foul and surface water drainage and water supply).	Granted January 2018
56	Shoreview Properties Ltd (In Receivership)	Heuston South Quarter, St. John's Road, Kilmainham, Dublin 8	2551/15	The development will consist of change of use from Retail Commercial to Gymnasium for Unit 9 (c.662sqm), located on the Lower Ground Floor/Intermediate Floor Level of Building 9. The works will also comprise minor alterations to the existing South and East elevations, including provision of new access door to South Elevation, provision of new access door to East (Military Road) Elevation. Provision of new	Granted July 2015

				signage above the new access door on East (Military Road) Elevation together with all associated site development works.	
57	The Dublin Loft Company Limited	Arran Street West, Smithfield Square South, Dublin 7	2792/14	Planning permission for a proposed mix-use development at Arran Street West, Smithfield Square South, Dublin 7 (bounded by Arran Quay Terrace and Coke Lane). The site is currently vacant. The development will consist of the demolition of a small existing single storey disused ESB substation and the construction of a new infill six storey apartment building, with a restaurant / cafe / retail unit at groun floor level. The main entrance to the apartments will be from Coke Lane, with the entrance to the restaurant / cafe / retail unit off Arran Street West. Total area of building is 2,599sq.m, inclusive of a restaurant / cafe / retail unit of 226sq.m. The building will contain a total of 18 no. apartments consisting of 1 no. 1bed [55sq.m approx.], no. 2 bed apartments [80-84sq.m approx.] and 5 no. 3 bed apartments [100sq.m approx.]. Application to include entrance lobby, lockers and bike store for 20 no. bikes and a waste management area at ground le with all access from Coke Lane, a landscaped communal garden at le 4, with balcony / winter-gardens to each apartment. At roof level; low level external screen to set-back low external plant [40sq.m approx.] and 2 low banks of solar panels. The application includes 4 no. extern signs in individually mounted lettering; 1 no. building name sign [150 mm wide x 850 mm high], 3 no. retail signs [2600 mm wide x 850 mm high, 500 mm wide x 8000 mm high, 3200 mm wide x 500 mm high] and 3 no. neon illuminated signs mounted internally [2600 mm wide x 850 mm high].	Granted December 2014

	7		of approximately 31.7m OD (including plant) and an overall gross floor area of approximately 5586.48sqm (including roof plant and plant/storage at basement level). The development will consist of: (1) The demolition of the remains of the existing single storey industrial building (approximately 273.17 sqm), the existing single storey commercial building (approximately 535 sqm) and the removal of the existing buttresses at the boundary to no. 12 Hendrick Street (a Protected Structure), (2) The provision of hotel accommodation and all associated ancillary elements including; Ground floor level: lobby, check in area, bar, servery and dining areas, bedroom accommodation, ensuites and ancillary areas, staff facilities (changing areas and canteen), storage areas, refuse store, ancillary offices, lifts and ESB substation and switch room and circulation areas. First to seventh storey - Provision of general bedroom accommodation, ensuites, lifts, associated ancillary areas and circulation areas. Roof level - Provision of setback screened enclosed plant areas (combined are approximately 249sqm and approximately 135.36sqm of Photo Voltaic (PV) Solar Panels, Basement level - Provision of plant area (approximately 130 sqm) and storage (approximately 65sqm) and circulation areas (with an overall basement area of approximately 272.88sqm). (3) The development will also comprise 2no. signage zones on the southern facade (addressing Hendrick Street) approximately 3.43 sqm and approximately 7.83 sqm, an external landscaped courtyard area (approximately 7.83 sqm), an external landscaped courtyard area	
			(approximately 7.55 sqm), an external fandscaped courtyard area (approximately 77.7 sqm), attenuation, rainwater harvesting, and drainage works and all associated site development works (4) Provision	

				of temporary shoring at the boundary of no. 12 Hendrick Street (a Protected Structure), during construction.	
59	The Governors of St. Patrick's Hospital	St Patrick's University Hospital, James's Street, Dublin 8	3609/17	PROTECTED STRUCTURE; The development will consist of a three- storey health care building of c1,093m2 including a screened, partially enclosed plant room of 34 m2 at roof level and an external fire escape on the northern elevation, which will accommodate consultation suites, group therapy suites, administration and ancillary accommodation. The overall height of the building to the top of the plant room at roof level is 13.5 meters. The development will include the diversion of existing on- site services, piped infrastructure and ducting, site landscaping and boundary treatments internal roads and pathways, bicycle parking, signage, changes in level and all associated site development and excavation works above and below ground.	Granted November 2017
60	The Governors of St. Patrick's Hospital	St Patrick's University Hospital, James's Street, Dublin 8	3760/17	PROTECTED STRUCTURE: Development on a site located within St. Patrick's University Hospital campus, James's Street, Dublin 8 (overall site area of c. 4.2 ha, which includes a Protected Structure; Dublin City Council RPS Ref. 856). The development will consist of the provision of additional hospital floorspace comprising a part-two storey over basement in-patient bedroom extension (102 No. bedrooms) with associated staff, clinical support and daily living spaces (5,963 sq. m approximately) linked to the existing historic structures at ground and first floor levels, including secure internal landscaped courtyards and garden, all to the southern and western side of the hospital campus. The development will also include the demolition of an existing single storey clinical services building (568 sq. m); the provision of a single storey ESB substation with associated service rooms adjoining the western boundary and a new single storey energy centre (103 sq. m)	Granted December 2017

				adjoining the south-western boundary. The development will also consist of the provision of a new vehicular and pedestrian entrance from Bow Lane West requiring the removal of a section of the existing site boundary wall to the south-western corner of the campus. The development will include piped infrastructure (including diversions) and ducting, landscaping and boundary treatments, internal roads and pathways, bicycle parking, alterations to car parking layout, changes in level, plant, interfaces with existing historic structures and all associated site development and excavation works above and below ground.	
61	The Governors of St. Patrick's Hospital	St Patrick's University Hospital, James's Street, Dublin 8	2881/19	PROTECTED STRUCTURE: Planning permission for development on this site located within St. Patrick's University Hospital campus, James's Street, Dublin 8 Overall site area of c.4.2 ha, which includes a Protected Structure: Dublin City Council RPS Ref. 856). The development will consist of the provision of additional floor space comprising a part-four storey development to incorporate a ground floor in-patient bedroom extension (13 no. bedrooms) to the existing 'Willow Grove' Adolescent Care Unit with associated recreation hall, staff, clinical support and daily living spaces (956 sq. m). roof mounted plant room (36 sq. m) linked to existing structures at ground and first floor level, including secure internal landscaped courtyards. The development will also include an advocacy and research National Hub for Mentally Healthy Living, located over the proposed Adolescent Unit extension (898 sq. m) all to the south eastern corner of the hospital campus. The development will also include the demolition of an existing single storey recreation hall building (466 sq. m); piped infrastructure and ducting, landscaping and boundary treatments, internal roads and pathways, bicycle parking, changes in level, plant, interfaces with	Granted August 2019

					existing historic structures and all associated site development and excavation works above and below ground.	
62	The Law Society of Ireland	The Law Society of Ireland, Blackhall Place, Dublin 7	2720/16	PL29N.247231	PROTECTED STRUCTURE: Permission for development consisting of a new sports pavilion along the boundary wall to Collins Barracks at Blackhall Place, Dublin 7, both protected structures. The proposed works include the removal of the following: 1no. tennis court and fencing, 2no. self-seeded trees, existing changing room container units, retaining wall and part of existing embankment. The proposed works include the following: new 2 storey sports pavilion (230 sqm) consisting of locker rooms, toilets, storage and plant on ground floor together with an exercise space and balcony on first floor, relocation of flood lights, new fencing to relined multiuse court, new roadway, steps to high level walkway, repair to boundary walls and landscaping to existing green.	Granted January 2017
63	Tuath Housing Association	Ellis Court, Benburb Street, Dublin 7	3885/17		The development will consist of the refurbishment and deep retrofit of the existing 4-storey Block A and 2-storey Block B; the total area of the completed development is c. 2,023 sq. m over 4 storeys and 2 storeys respectively, providing a total of 22 units; 6 no. 1 bed apartments, 13 no. 2 bed apartments, 2 no. 2 bed townhouses and 1 no. 3 bed townhouse; demolition of existing rear return to Block A and construction of a new 4 storey extension to Block A; window alterations to the north facade of Block A onto Benburb Street to provide 2 no. door opes; window alterations to the west facade of Block A to provide door opes; provision of new balconies to the west facade of Block A; new internal lift cores to improve accessibility; pedestrian and service vehicular access off Benburb Street; removal of all existing railings and gates at the entrance to Ellis Court; new brickwork wall with signage comprising wall mounted lettering 300 mm in height, entrance gates and	Granted January 2018

				railings to Benburb Street to provide secure access to the courtyard; no car parking spaces; 22 no. bicycle parking spaces within the courtyard; new brickwork clad single storey ESB meter room and water tank enclosure within the courtyard; new hard and soft landscaping to the courtyard; new foul and surface water drainage infrastructure, mains water supply site lighting and all associated ancillary site development works.	
64	Welthomas Property Limited	151-156 Thomas Street, Dublin 8	4396/18	The proposed development will consist of (1) change of use of existing storage/warehouse space (1,976sq.m) contained within the rear extension of the existing building at first, second and third floor level to office space; (2) change of use of existing office space (328sq.m) at ground floor level fronting Thomas Street to provide a restaurant/cafe (3) internal alterations at ground, first, second and third floor level comprising the removal of existing non-original wall partitions and the installation of new partitions to provide informal meeting booths, offices, perimeter offices, co-working office spaces, breakout spaces, reception areas and staff facilities including WCs; (4) internal alterations at fourth floor level comprising extension of existing staircase by 5sq.m; (5) external alterations comprising (a) removal and replacement of existing double door on front (southern) elevation with new timber entrance door, (b) replacement of existing steel and timber windows with new double glazed UPVC windows, painting and sealing of existing double door, removal of window and replacement with metal door to provide rear access and removal/replacement of existing windows with exit doors leading onto fire staircase on rear (northern) elevation, and (c) removal of existing glazed porch, painting and sealing of existing door, replacement of existing steel and timber windows with	Granted April 2019

					new double glazed UPVC windows on side (eastern) elevation; (6) removal of 5 no. existing rooflights and replacement with 6 no. rooflights; and, (7) all ancillary works necessary to facilitate the development.	
65	West Issuer DAC	9-13 Blackhall Place, Dublin 7.	3979/19		The proposed development comprises of: Change of use from the existing Enterprise Centre use to Student Accommodation at ground, first, second, third and fourth floor levels at Block C; change of use of existing basement areas from Gymnasium use to Student Accommodation use at Block C and below the existing east courtyard; Demolition of existing roof and demolition of existing rear facade wall of Block C; Construction of a new additional fifth floor level as Student Accommodation and new roof to Block C; Construction of extensions/floor area to the rear of Block C at ground, first, second, third and fourth levels as student accommodation. The development will consist of 80 no. new additional student bed spaces and additional ancillary student communal amenity areas (2,511 sqm); Removal of 6 no. existing car parking spaces at basement level and the addition of 94 no. bicycle spaces; All necessary consequent internal, external and facade alteration and; All ancillary landscaping, site development works and services.	Application received September 2019 Decision due date November 2019
66	Yuriy Kychan	17, 18, 19 Newport Street, Dublin 8	2744/14	PL29S.244206	The development will consist of the demolition of existing house and commercial sheds and construction of a mixed-use building ranging from 4 to 5 stories with: 12x2 bedroom apartments with 16 private balconies and 1 shared roof garden; 1 cafe / commercial / retail unit at ground floor level; ground level car park with 7 parking spaces accessed from Pim St.; Ancillary site-works including bicycle parking, bin storage, pedestrian entrances on Newport St. and service connections.	Granted March 2015