SITE-SPECIFIC FLOOD RISK ASSESSMENT

ST. VINCENT'S HOSPITAL FAIRVIEW REDEVELOPMENT

For St. Vincent's Hospital Fairview
R517
24 March 2023

OCSC
O'CONNOR | SUTTON | CRONIN
Multidisciplinary
Consulting Engineers

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St. Vincent's Hospital Fairview Redevelopment,

Richmond Road and Convent Avenue, Fairview,

Dublin 3

PROJECT NO. R517

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NOTICE

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SITE-SPECIFIC FLOOD RISK ASSESSMENT

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APPENDICES

1 INTRODUCTION

1.1 Appointment

O'Connor Sutton Cronin & Associates (OCSC) have been appointed by *St. Vincent's Hospital Fairview* to carry out a Site-Specific Flood Risk Assessment (SSFRA) associated with the site at St. Vincent's Hospital, Richmond Road and Convent Avenue, Fairview, Dublin 3.

1.2 Administrative Jurisdiction

The proposed development is located in the jurisdiction of Dublin City Council (DCC), and therefore this SSFRA was carried out with reference to the following:

- Dublin City Council Development Plan (2022 – 2028);
- Greater Dublin Strategic Drainage Study (GDSDS);
- The Planning System and Flood Risk Management Guidelines for Planning Authorities (Department of Environment, Heritage and Local Government and the Office of Public Works).
- Circular PL2/2014 (13th August 2014)

1.3 Site Location

The subject site is located at and surrounding St. Vincent's Hospital, Richmond Road and Convent Avenue, Fairview, Dublin 3. The site contains protected structures under RPS Ref.: 2032 (St. Vincent's Hospital), 8788 (Richmond House) and 8789 (Brooklawn). The application site includes an area of the public road/footpaths (extending for approximately 0.8km) to facilitate service connections via Griffith Court, Phillipsburgh Avenue and Griffith Avenue, part of the An Post service yard and part of the open space within Grace Park Wood to facilitate pedestrian/cycle connections, and part of Richmond Road to facilitate service connections and associated upgrades.

The site is bound by the Grace Park Wood residential development to the northwest; Griffith Court, the 'Fairview Community Unit' nursing home, Fairview Day Centre, Gheel Autism Services and a graveyard to the north; the An Post Fairview Delivery Service Unit on Lomond Avenue and residential properties on Inverness Road to the east; existing residential and commercial properties on Richmond Road and Convent Avenue to the south and Charthouse Business Centre, Dublin Port Stadium / Stella Maris FC, and Ierne Sports and Social Club to the west of the site.

- Overall Application Site Area: 9.46 hectares
- Land in applicant's ownership: 8.71 hectares
- Residential Site Area: 6.04 ha
- Hospital Site Area: 2.67 ha

Figure 1-1: Site Location

1.4 Information Consulted

This flood risk assessment has been prepared on the information available from the following sources:

- OPW Flood Maps www.floodinfo.ie;
- DECLG website www.myplan.ie;
- OPW website www.floodmaps.ie;
- Geological Survey of Ireland Maps (GSI);
- Architectural drawings;
- Topographical survey.

2 SITE CONTEXT

2.1 Existing Site Overview

The subject site is approximately 9.46 hectares, and the site is a mix of greenfield and existing hardstanding, see Figure 2-1.

Figure 2-1: Existing site overview

The site falls from north to south with levels along the northern boundary approximately 11 mAOD falling to 4.5 mAOD in the south, see Figure 2-2.

Figure 2-2: Site contour map (source: https://contourmapcreator.urgr8.ch/)

There is a sharp drop in elevation at the centre of the site as can be seen from Figure 2-3 where the elevation drops from 11 mAOD to 5 mAOD.

Figure 2-3: Section A-A

2.2 Site Zoning

The overall site area is 9.46 hectares and is a mix of lands zoned as: 'Z12 Institutional Land (Future Development Potential), Z15 Community and Social Infrastructure'.

2.3 Proposed Development Description

In summary, the proposed development can be described as follows:

A ten-year planning permission is sought for the proposed development comprising the following:

- Provision of a new part two and part three storey hospital building, providing mental health services, accommodating 73 no. beds, associated facilities, a single storey facilities management building, plant rooms and service areas, associated car and cycle parking, access roads, and open space, all on a proposed hospital site of c. 2.67 ha.
- Refurbishment and repurposing of existing buildings on site including Brooklawn (RPS Ref.: 8789), Richmond House, including chapel and outbuildings (RPS Ref.: 8788), the Laundry building and Rose Cottage for ancillary uses associated with the new hospital. The existing gate lodge building will remain in residential use and used by visiting members of staff to the new hospital.
- Change of use, refurbishment, alterations and extensions, to the existing hospital building (part protected structure under RPS Ref.: 2032), to provide residential amenity areas, a gym, a café, co-working space, a library, a childcare facility, and a community hall (referred to as Block K).
- The proposal includes the demolition of existing structures on site with a GFA of 5,872 sq.m, including the (1) westernmost range of the hospital building, which includes St. Teresa's and the Freeman Wing, (2) extensions to the south and north of the main hospital building, including the conservatory extension, toilet block extension, an external corridor, toilet core, lift core, and stair core (which are all part of / within the curtilage of RPS Ref.: 2032), (3)

hospital buildings and outbuildings located to the north of the existing main hospital building, (4) St. Joseph's Adolescent School located in the southeast of the site, (5) Crannog Day Hospital located in the southwest of the site, and (6) extensions to the Old Laundry Building and Rose Cottage.

- Provision of 9 no. residential buildings (Blocks A, B, C, D-E, F, G, H, J, and L) providing a total of 811 no. residential units, including 494 no. standard designed apartments (in Blocks A, B, C, G, H, J, and L) and 317 no. Build to Rent apartments (in Blocks D-E and F). Residential amenities and facilities are proposed in Block C, D-E, J and K. A retail unit is proposed in Block A and a café in Block F. Block J is proposed as an extension of the existing hospital buildings (protected structure RPS Ref.: 2032- referred to as Block K).

- The building heights of the proposed residential blocks range from part 2 to part 13 storeys. A proposed basement / lower ground level, containing car and cycle parking and plant areas, is located below and accessed via Blocks C, D-E and F.

- Access to the new hospital and associated grounds is provided from Richmond Road and Convent Avenue, with separate internal access points. A separate vehicular access to the residential development is provided from Richmond Road. The development includes a proposed pedestrian / cycle connection to Griffith Court, requiring alterations to the service yard of the Fairview Community Unit, pedestrian / cycle connections to the Fairview Community Unit campus to the north (providing an onward connection to Griffith Court), a pedestrian / cycle connection to Grace Park Wood, and makes provision internally within the site for a potential future connection to Lomond Avenue / Inverness Road.

- The proposal includes public open space, including allotments, children's play areas, a central park, a linear park and an entrance plaza, with a set down area at Richmond Road, and communal open space at surface level. The proposal includes communal roof terraces on Block C and Blocks D-E and private balconies / terraces for the apartments.

- The proposal also includes provision of internal access roads, car and cycle parking, pedestrian and cycle infrastructure, associated set down areas, alterations to existing landscape features, landscaping, boundary treatments, lighting, telecommunications infrastructure at roof level of Block B, green roofs, lift overruns and plant at roof level, site services, including a watermain connection / upgrade via Griffith Court, Philipsburgh Avenue and Griffith Avenue, site clearance, and all associated site works.

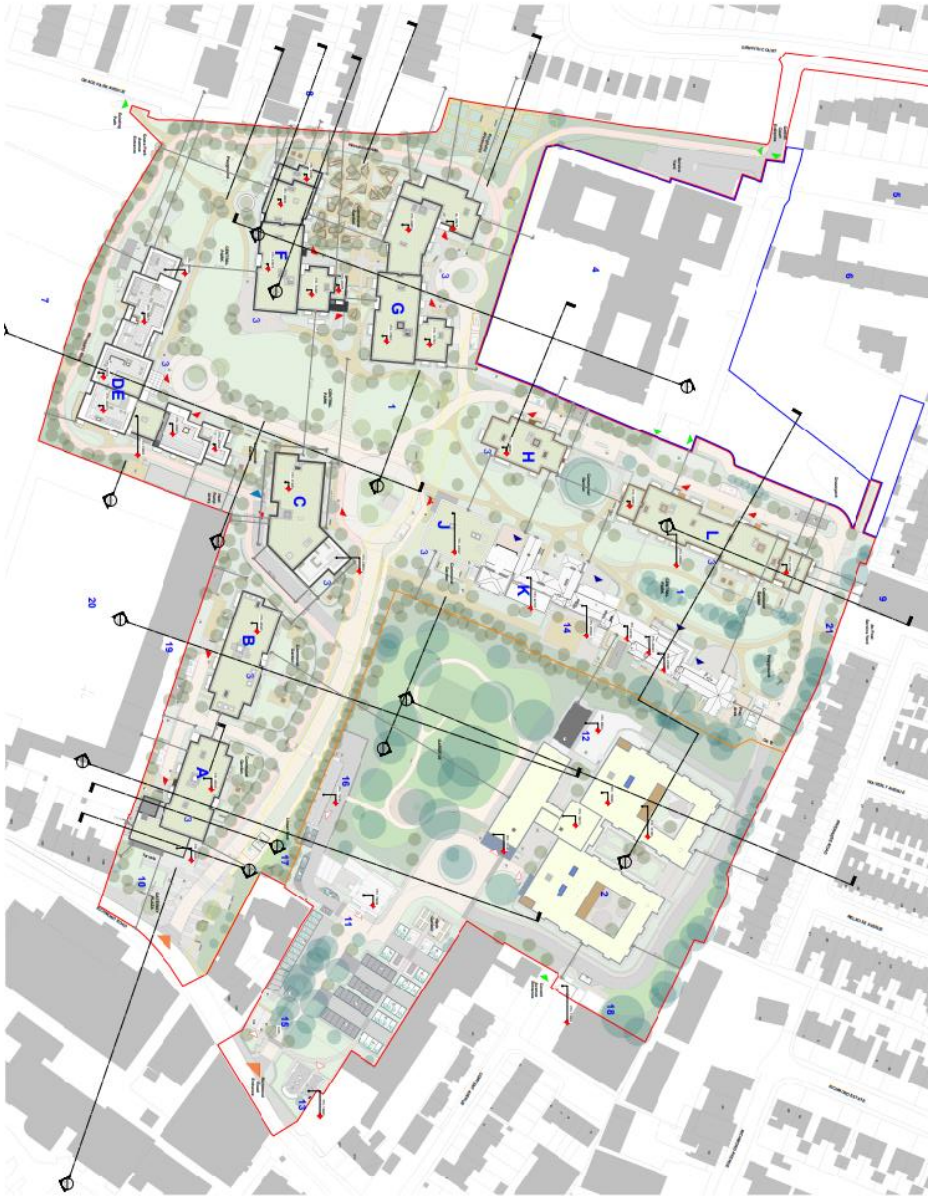

Figure 2.4 – Proposed Site Layout

Duration of Permission

A ten-year permission for the proposed development will be sought. This is considered appropriate given the scale and nature of the proposed development, notwithstanding that based on the best-case scenario the project is expected to be completed within c. 5 to 6 years from receipt of a final grant of permission (allowing for tender and construction phases). Furthermore, following legislation in 2021[1], Section 42(8) of the Planning and Development (Housing) and Residential Tenancies Act 2016, as amended, provides that a planning authority shall not extend planning permission where an EIAR or Natura Impact Statement would be required for the project to be extended, and accordingly it is considered appropriate to request a duration beyond the typical five-year permission for this application.

Estimated Duration of Construction

As set out in the EIAR and CEMP, based on the associated durations of the respective construction stages, which are dependent on a number of factors, at a high level a preliminary estimate would suggest the construction works, including infrastructural works, will take approximately 48 months from commencement of development. In addition, a c. 6-month period would be required for the tender process from receipt of the final grant. Thus, based on the best-case scenario the development could be completed within c. 5 years from a final grant of permission. However, as noted elsewhere a ten-year permission is sought for this project, which is considered appropriate given the residential, hospital and protected structure aspects of the project and the need to allow sufficient time to address any unforeseen delays during the construction process.

3 RELEVANT GUIDANCE

3.1 The Planning System and Flood Risk Management Guidelines

In September 2008, "The Planning System and Flood Risk Management" (PSFRM) Guidelines were published by the Department of the Environment, Heritage and Local Government in Draft Format. In November 2009, the adopted version of the document was published.

The Flood Risk Management Guidelines give guidance on flood risk and development. The guidelines recommend a precautionary approach when considering flood risk management in the planning system.

The core principle of the guidelines is to adopt a flood risk sequential approach to managing flood risk and to avoid development in areas that are at risk. The sequential approach is based on the identification of flood zones for river and coastal flooding. The guidelines include definitions of Flood Zones A, B and C. It should be noted that these do not consider the presence of flood defences, as there remain risks of overtopping and breach of the defences.

Table 3-1: Flood Risk Zones

Zone A	**High Probability of Flooding** Where the annual probability of flooding is: greater than 1% for fluvial flooding or greater than 0.5% for coastal flooding
Zone B	**Moderate Probability of Flooding** Where the annual probability of flooding is: between 0.1% and 1% for fluvial flooding or between 0.1% and 0.5% for coastal flooding
Zone C	**Low Probability of Flooding** Where the annual probability of flooding is: less than 0.1% for fluvial flooding and less than 0.1% for coastal flooding

The guidelines set out the different types of development appropriate to each zone. Exceptions to the restriction of development due to potential flood risks are provided for with the Justification Test, where the planning need and the sustainable management of flood risk to an acceptable level must be demonstrated. This recognises that there will be a need for future development

in existing towns and urban centres that lie within flood risk zones and that the avoidance of all future development in these areas would be unsustainable.

3.2 Dublin City Development Plan & Strategic Flood Risk Assessment 2022 – 2028

The Dublin City Development Plan 2022-2028 identifies a number of policies relating to flooding, some are outlined below:

"Policy CA26 – Flood Risk Assessment and Adaption; To address flood risk at a strategic level through the process of Strategic Flood Risk Assessment, and through improvements to the city's flood defences.

Policy CA27 – Natural Flood Risk Mitigation; To encourage the use of natural flood risk mitigation or nature-based solutions including integrated wetlands, green infrastructure, and Sustainable Drainage Systems (SuDS) as part of wider adaptation and mitigation responses to achieve flood resilience

SI13 To minimise the flood risk in Dublin City from all other sources of flooding as far as is practicable, including fluvial, reservoirs and dams, and the piped water system.

SI14 To implement and comply fully with the recommendations of the Strategic Flood Risk Assessment prepared as part of the Dublin City Development Plan 2022-2028 and to have regard to the Flood Risk Management Guidelines (2009), as revised by Circular PL 2/2014, when assessing planning applications and in the preparation of statutory and non-statutory plans.

SI20 That there is a general presumption against the development of basements for residential use below the estimated flood levels for Flood Zones A or B (see Section 15.18.4 and Appendix 9 for further guidance).

SI21 To minimise flood risk arising from pluvial (surface water) flooding in the city by promoting the use of natural or nature-based flood risk management measures as a priority and by requiring the use of sustainable drainage systems (SuDS) to minimise and limit the extent of hard surfacing and paving, and requiring the use of sustainable drainage techniques, where appropriate, for new development or for extensions to existing developments, in order to

reduce the potential impact of existing and predicted flooding risk and to deliver wider environmental and biodiversity benefits."

3.3 Strategic Flood Risk Assessment for Dublin City 2022-2028

A Strategic Flood Risk Assessment (SFRA) was prepared in conjunction with the Dublin City County Development Plan. The SFRA includes flood maps and justification tests for the City. The SFRA that "areas in Flood Zone A & B and areas of Flood Zone C where storm (surface) water or groundwater flooding potential is identified, a "Stage 2 – Initial FRA" will be required and depending on the scale and nature of the risk a "Stage 3 - Detailed FRA" may be required."

3.4 Climate Change

Both the Greater Dublin Strategic Drainage Study (GDSDS) and PSFRM Guidelines require that account be taken of the effects of climate change over the design life of a development, typically 100 years. Design parameters to take account of climate change were established in the *GDSDS* and revised following later studies and Climate Change Sectorial Adaptation Plan Flood Risk Management (2015-2019) Development published by the OPW. These parameters are set out in Table 3-2, below.

Table 3-2: Climate Change - Impact on Design Parameters

Design Category	Impact of Climate Change
Drainage	20% increase in rainfall
Fluvial (River)	20% increase in flood flow
Tidal/Coastal	Sea level rise of 500 mm[1]

4 FLOOD RISK IDENTIFICATION

4.1 Existing Hydrological Environment

The Tolka River is located approximately 100m from the south boundary.

There are no OPW arterial drains located within or adjacent to the site.

4.2 Existing Surface Water Drainage

The existing units and hardstanding areas currently discharge surface water to the local combined infrastructure, with no apparent treatment nor attenuation facilities in place.

Public records indicate an existing 525 mm concrete stormwater sewer within the site boundary. This sewer flows in the southerly direction towards Richmond road before discharging to the 1350 mm sewer on Richmond Road. This sewer discharges to the Tolka River immediately downstream of the site.

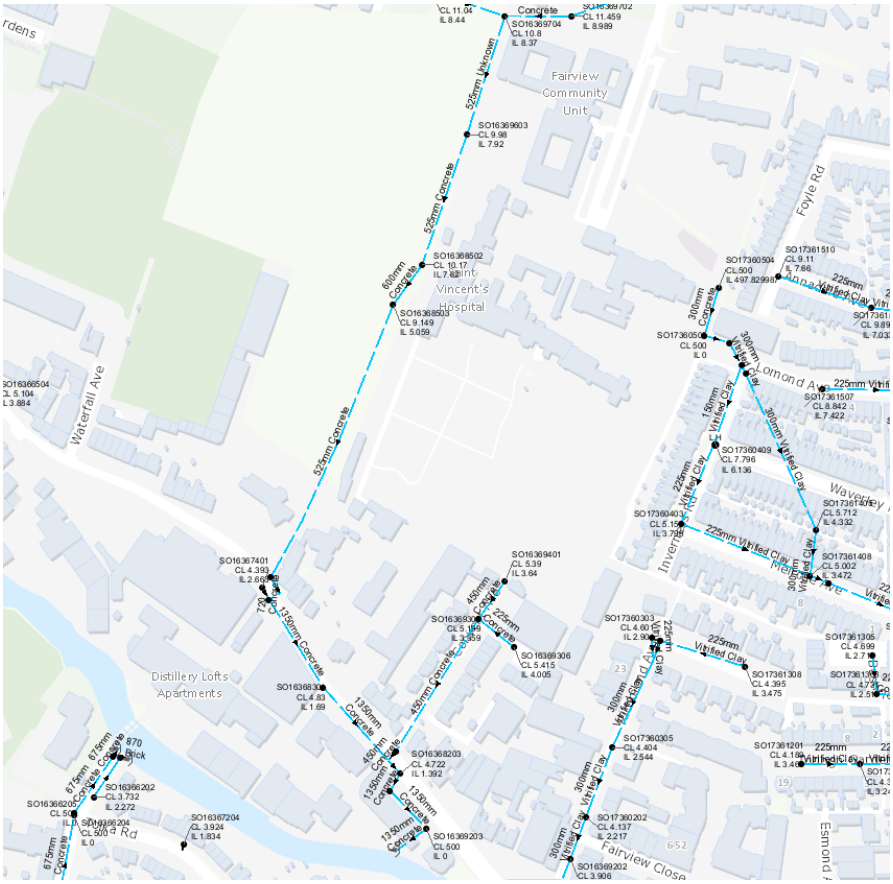

Figure 4-1: Existing surface water records

As part of the proposed development, a new surface water network will be constructed to manage all surface water onsite. Please refer to OCSC Engineering Services Report for details.

The proposed gravity network for the development is to discharge treated and attenuated flows to the existing public surface water infrastructure.

4.3 Topographical Survey

The existing 9.46 hectares is a mix of greenfield and existing hardstanding. The site falls from north to south with levels along the northern boundary of approximately 11 mAOD falling to 4.5 mAOD in the south.

4.4 Historical Maps

The historical 6" (1837 – 1842) and the 25" (1888 – 1913) mapping have been examined. Historical mapping is often a very useful source of information for assessing the flood history of an area. The historical maps examined do not indicate flooding in the area proposed for this development.

4.5 Historical Flooding

The Office of Public Works (OPW) gathers and collates data from reported flood events throughout the country. From a review of the OPW's National Flood Hazard Mapping database (www.floodmaps.ie), there are no reported incidents of flooding inside the site boundary.

Figure 4-2: National Flood Hazard Mapping

Please see the Past Flood Event Local Area Summary Report included in Appendix C which summarises all past flood events within 2.5 kilometres of the site.

From a review of additional information provided by Dublin City Council, it's noted that in October 2011 an extreme rainfall event caused extensive flooding in Dublin including flooding in St. Vincent's lands (subject site), where Grace park Stream West and East were culverted through the lands in a 525mm diameter surface water pipe. Dublin City Council carried out emergency works in 2012 within St. Joseph's site to manage the flood risk downstream in St. Vincent's lands. Those works included the construction of new infrastructure upstream of St. Vincent's land (900 mm surface pipe) that eventually connects to the 525mm diameter surface water sewer that runs through St. Vincent's lands and connects to the existing drainage system on Richmond Road. Monitoring of the performance of this revised drainage arrangement by DCC, Water Services Section resulted in the 900mm diameter pipe in St. Joseph's lands being throttled to only allow low flows through the pipe.

As part of a new development that was constructed at St Joseph's lands (planning ref. 2991/15) the existing 525mm diameter surface water sewer that runs through St. Vincent's lands was replaced with a 900mm diameter surface water sewer and connects to the existing drainage system on Richmond Rd. Refer to figure 4.3. below for an overview of existing stormwater sewer infrastructure.

This proposal has removed the existing throttles and can accommodate flows up to the 1%AEP event in accordance with the recommendations of the GDSDS. No recorded flooding has occurred in the area since upgrade works have been carried out.

This subject development includes the construction of an independent surface water network that discharges directly to the existing drainage system on Richmond Rd. and is designed to accommodate rainfall runoff up to the 1%AEP

event as described in the Engineering services report, refer to document R517-OCSC-XX-XX-RP-C-0002**.**

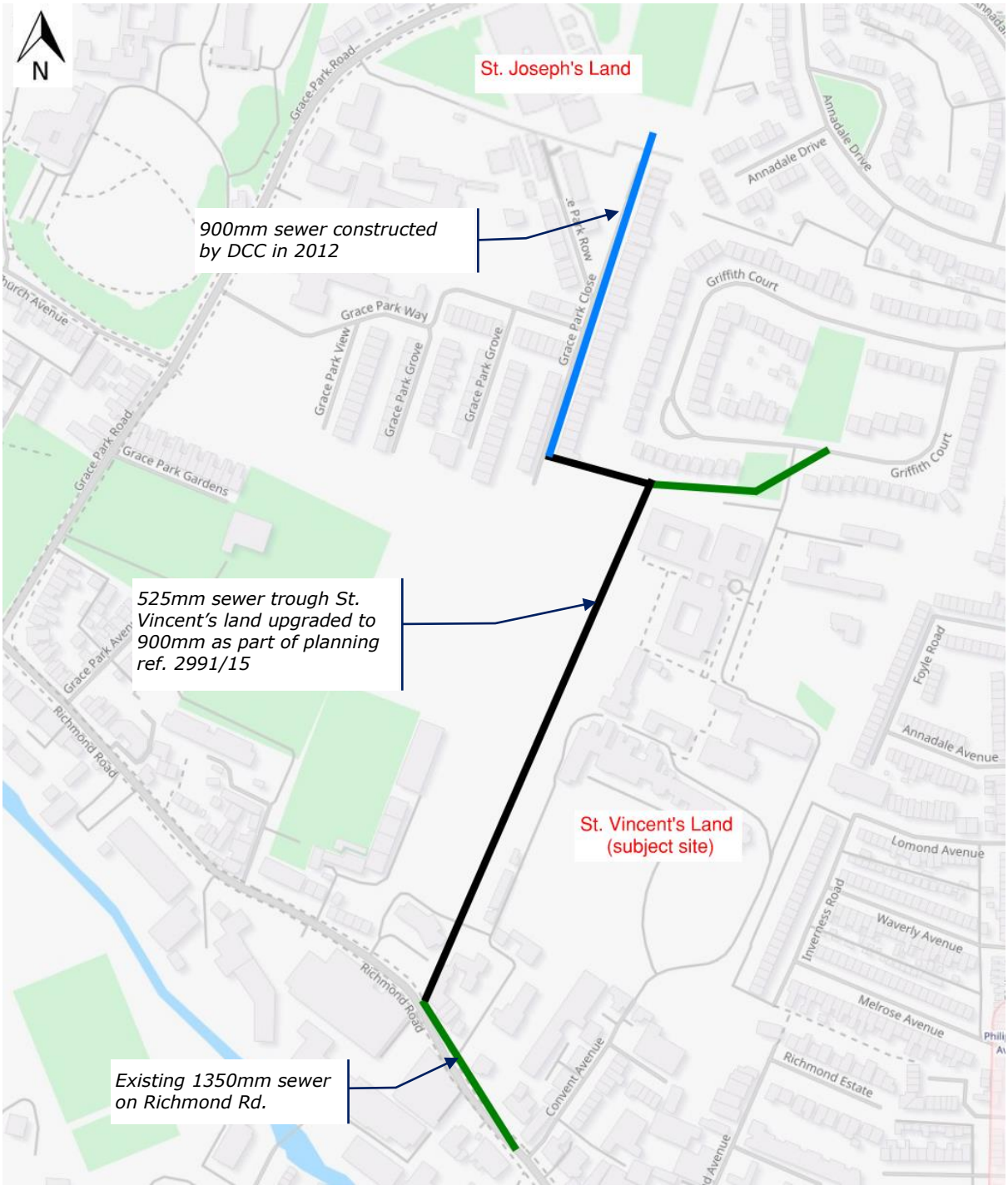

Figure 4-3: Indicative overview of existing storm sewer

4.6 Groundwater Flooding

An assessment of the flood risk posed by groundwater is currently generated by Geological Survey Ireland (GSI) and will be openly available information when published. There are no reported incidents of groundwater flooding in the vicinity of the site, see Figure 4-4.

Figure 4-4: Extract from the GSI Groundwater Flooding Data Viewer

According to data obtained from the GSI, the subject site is located on subsoil consisting primarily of made ground with a part of the site being labelled as Limestone till (Carboniferous). Refer to Figure 4-6.

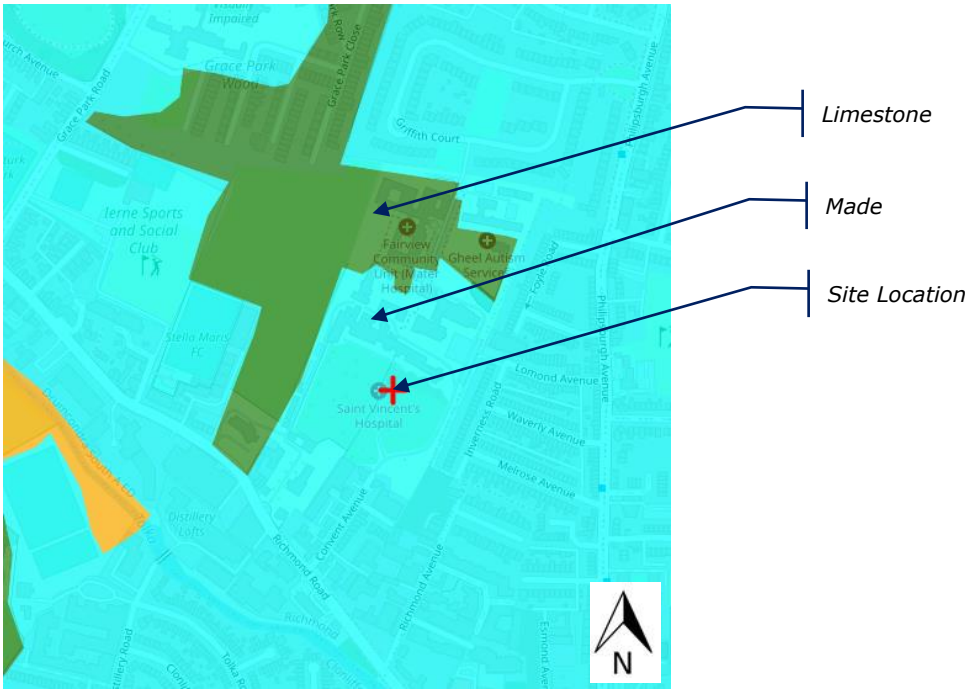

Figure 4-5: Extract from the EPA maps - subsoils

The site is located on a Locally Important Aquifer - Bedrock which is Generally Moderately Productive (refer to Figure 4-6).

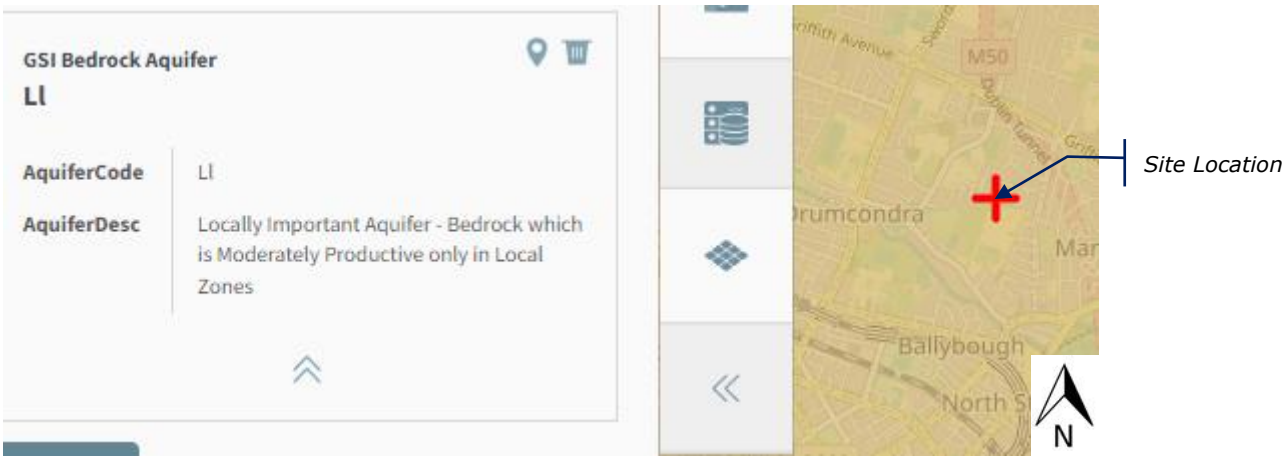

Figure 4-6: Extract from the EPA maps – GSI Bedrock Aquifer

The groundwater vulnerability assessment of the site shows that the vulnerability of groundwater in the area is Low (refer to Figure 4-7).

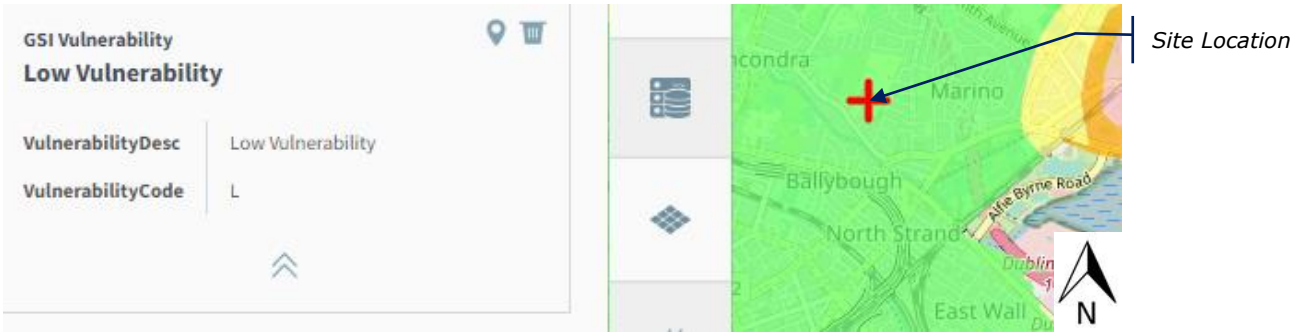

Figure 4-7: Extract from the EPA maps – GSI Vulnerability

4.7 Dublin Pluvial Study

The Dublin Pluvial Study include predictive flood maps showing areas predicted to be inundated during a theoretical or 'design' flood event with an estimated probability of occurrence. The site of the proposed development has been included in the Dublin Pluvial Study.

Figure 4-8 below is an extract from the pluvial flood map for the area surrounding the proposed development site. The full Dublin Pluvial Study map for the area is included in Appendix D of this report. The flood map indicates that a portion of the site lies within the 10% AEP pluvial flood extent.

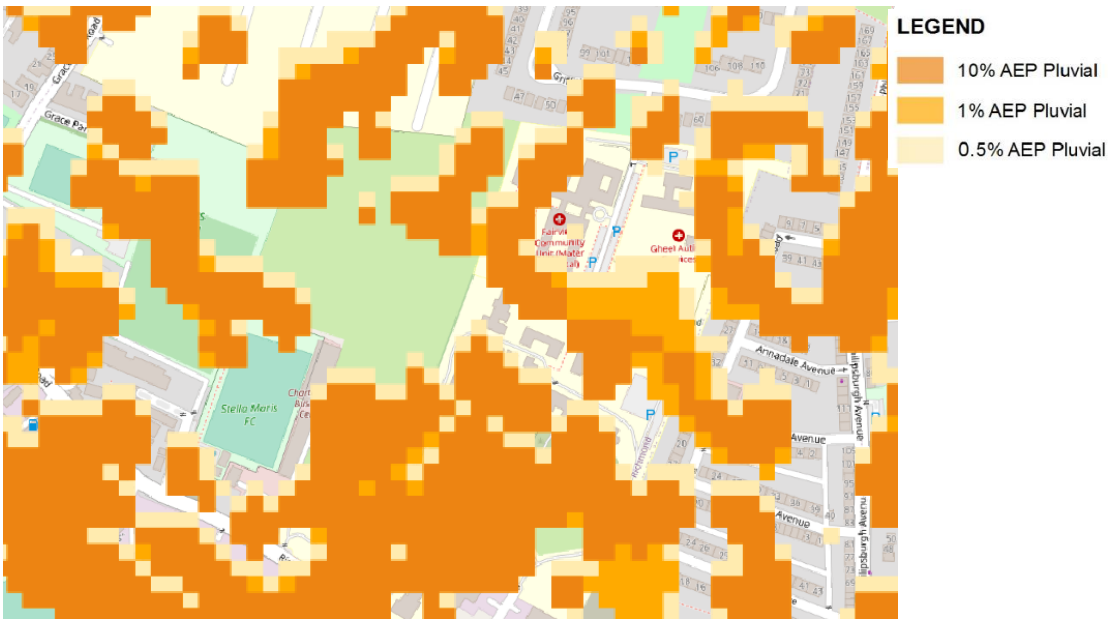

Figure 4-8: Extract from Dublin Pluvial Study extent map (excerpt from www.floodinfo.ie)

The pluvial flood risk to the site will be mitigated as the proposed development includes a new surface water network which will manage the surface water on site, therefore mitigating the risk of pluvial flooding onsite.

4.8 Preliminary Flood Risk Assessment

The Catchment Flood Risk Assessment and Management Study (CFRAMS) is a national programme which to date has produced both a series of Preliminary Flood Risk Assessments (PFRA) which cover the entire country, as well as more detailed flood maps in certain catchments across the country.

Prior to the publication of the detailed CFRAMS flood mapping, a series of Preliminary Flood Risk Assessment (PFRA) maps were published. These maps indicated preliminary tidal and fluvial flood extents along with pluvial and groundwater risks.

These maps have been superseded by the more detailed CFRAMS maps in the area surrounding the site.

4.9 Catchment Flood Assessment and Management

The CFRAMS maps for the area are currently under review. The Preliminary Flood Risk Maps for the area were reviewed, and do not identify a fluvial or coastal flood risk at the site, see Figure 4-9.

Figure 4-9: Extract from PFRA Maps

As the CFRAMS maps are unavailable, the DCC SFRA maps are presented below. The maps show the site and the immediate road network are within Flood Zone C. The site is also not located in an area which benefits from a flood defence

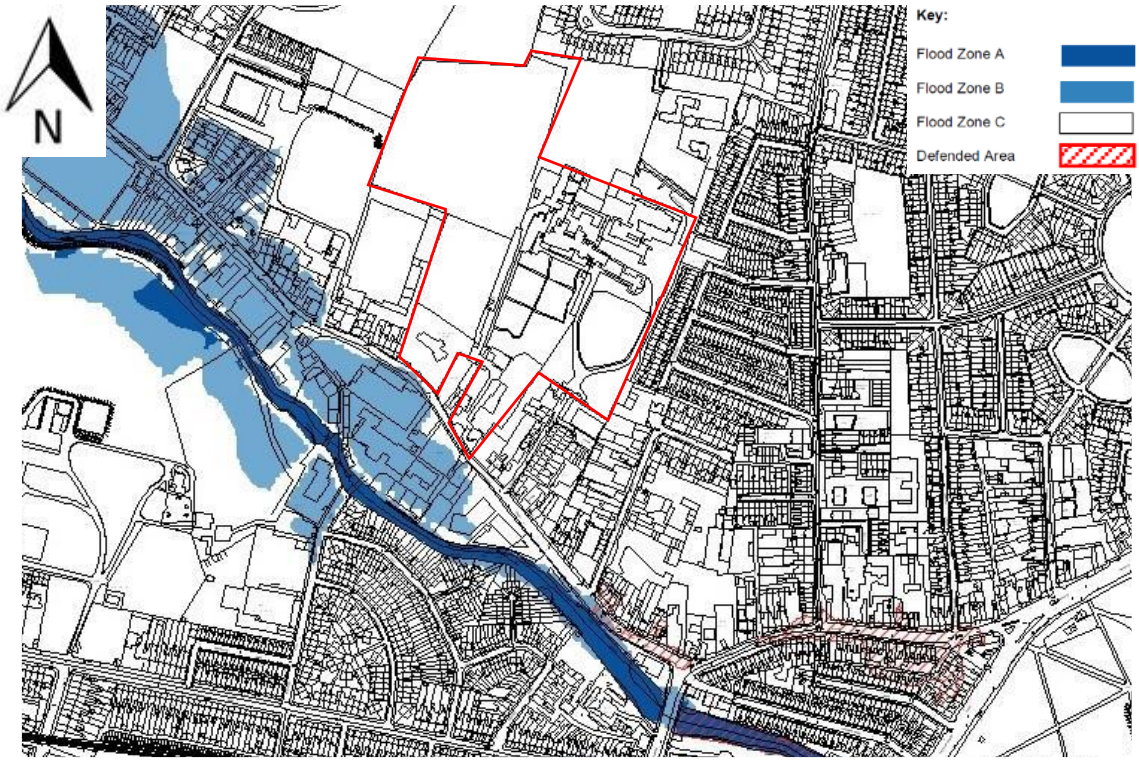

Figure 4-10: Extract from DCC SFRA

The SFRA notes that the site of the proposed development is in an area where flood levels are tidally influenced.

5 FLOOD RISK ASSESSMENT

5.1 Sources of Flooding

Fluvial Flooding

Fluvial flooding is the result of a river exceeding its capacity and excess water spilling out onto the adjacent floodplain. The proposed site is located close to the Tolka River. The SFRA maps indicate that a part of the site is located in Flood Zone C.

Pluvial Flooding

Pluvial flooding is the result of rainfall-generated overland flows which arise before run-off can enter any watercourse or sewer. It is usually associated with high-intensity rainfall.

The Dublin Pluvial Study identify a portion of the site as being at risk of pluvial flooding. The proposed development includes the construction of a new surface water network which will manage surface water runoff onsite and mitigate the risk of pluvial flooding onsite.

Coastal Flooding

Coastal flooding is the result of sea levels which are higher than normal and result in sea water overflowing onto the land during high tides or storm surges. Given the elevation and location of the site of the proposed development, we consider that tidal flooding does not pose a flood risk in the area.

Groundwater Flooding

Groundwater flooding occurs when the level of the water stored in the ground rises as a result of prolonged rainfall. From a review of the available information, there is no risk of groundwater flooding at the site. There is a basement car park as part of the proposed development and therefore, the risk of groundwater must be considered.

5.2 Development Vulnerability

The *PSFRM Guidelines* classify potential development in terms of its vulnerability to flooding. The types of development falling within each vulnerability class are described in *Table 3.1* of the *PSFRM Guidelines*, which is reproduced in Table 5-1.

Table 5-1: Development Vulnerability Class

Vulnerability Class	Land uses and types of development which include:
Highly vulnerable development (including essential infrastructure)	Garda, ambulance and fire stations and command centres are required to be operational during flooding; Hospitals; Emergency access and egress points; Schools; ***Dwelling houses***, student halls of residence and hostels; Residential institutions such as residential care homes, children's homes and social services homes; Caravans and mobile home parks; Dwelling houses designed, constructed or adapted for the elderly or, other people with impaired mobility; and Essential infrastructure, such as primary transport and utility distribution, including electricity generating power stations and sub-stations, water and sewage treatment, and potential significant sources of pollution (SEVESO sites, IPPC sites, etc.) in the event of flooding
Less vulnerable development	Buildings used for: retail, leisure, warehousing, commercial, industrial and non-residential institutions; Land and buildings used for holiday or short-let caravans and camping, subject to specific warning and evacuation plans; Land and buildings used for agriculture and forestry; Waste treatment (except landfill and hazardous waste); Mineral working and processing; and Local transport infrastructure.
Water-compatible development	Flood control infrastructure; Docks, marinas and wharves; Navigation facilities; Ship building, repairing and dismantling, dockside fish processing and refrigeration and compatible activities requiring a waterside location; Water-based recreation and tourism (excluding sleeping accommodation); Lifeguard and coastguard stations; Amenity open space, outdoor sports and recreation and essential facilities such as changing rooms; and Essential ancillary sleeping or residential accommodation for staff required by uses in this category (subject to a specific warning and evacuation plan).

The proposed development comprises of residential units and a hospital building and therefore, is considered to be a ***Highly Vulnerable Development***.

The *PSFRM Guidelines* define the zones in which each class of development is appropriate – this is summarised in Table 5-2. The *PSFRM Guidelines* recognise that flood risks should not be the only deciding factor in zoning for development. They also recognise that circumstances will exist where the development of a site within a floodplain is desirable; in order to achieve compact and sustainable development of the core of urban settlements. In order to allow consideration of such development, the *PSFRM Guidelines* provide a **Justification Test**, which establishes the criteria under which desirable development of a site in a floodplain may be warranted.

Table 5-2: "Appropriateness" Matrix

	Flood Zone A	**Flood Zone B**	**Flood Zone C**
Highly Vulnerable Development	Justification Test	Justification Test	**Appropriate**
Less Vulnerable Development	Justification Test	Appropriate	Appropriate
Water-compatible Development	Appropriate	Appropriate	Appropriate

As the site is located in Flood Zone C, a Justification Test is not required for the proposed development as 'Highly-Vulnerable Development' is considered appropriate in Flood Zone C.

5.3 Flood Mitigation Measures

With reference to the above, a review of flood maps produced as part of the CFRAMS and SFRA indicates that the site of the proposed development falls within Flood Zone C. The critical flooding mechanism for this site will be fluvial flooding.

As noted previously, a portion of the site is at risk of pluvial flooding. The proposed development will include a new surface water network which will manage the surface water onsite.

5.3.1 Emergency Access & Egress

It is necessary to ensure that access and egress will remain possible to the development in the event of an emergency during an extreme flood event. It is proposed to provide access to the development through the existing entrance at Richmond Road.

The access route and surrounding road network are located in Flood Zone C, and access will be maintained in the event of an emergency.

5.3.2 Infrastructure

The proposed development includes the construction of a surface water network which consists of SuDS measures which will minimize the impact on the receiving environment and manage the pluvial flood risk at the site. Please refer to OCSC Engineering Services Report for details.

The proposed surface water network has been designed with an allowance for climate change as per the GDSDS.

5.4 Flood Risk Management

Flood risk management under the EU Floods Directive aims to minimise the risks arising from flooding to people, property and the environment. Minimising risk can be achieved through structural measures that block or restrict the pathways of floodwaters, such as river defences or non-structural measures that are often aimed at reducing the vulnerability of people and communities such as flood warning, effective emergency response, or resilience measures for communities or individual properties.

As noted above, all emergency access can be maintained to and from the site from the main entrance. The proposed buildings are located outside the flood extents.

6 CONCLUSIONS AND RECOMMENDATIONS

The assessment is carried out in full compliance with the requirements of "The Planning System & Flood Risk Management Guidelines" published by the Department of the Environment, Heritage and Local Government in November 2009.

As detailed in the previous sections of this report, the proposed buildings for this development are located within Flood Zone C.

Pluvial and groundwater flooding will be managed through the implementation of the mitigation measures outlined in Section 5.3. Therefore, in accordance with the Planning System and Flood Risk Management Guidelines for Planning Authorities, there is no significant risk for flooding in the proposed development and it is appropriate for use.

6.1 Recommendations

It has been demonstrated in the earlier sections that the site is not at risk of flooding from external sources, or as a result of the proposed development.

In order to minimise the risk of flooding within the development, it is recommended that all drainage infrastructure is designed and installed in accordance with the relevant standards.

As the proposed units are located outside the 1 in 100 and 1 in 1000-year fluvial flood extents. The Dublin Pluvial Study identified a portion of the site as being at risk of pluvial flooding. The proposed development includes a new surface water network which will mitigate the pluvial risk to the site.

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APPENDIX A. PROPOSED SITE LAYOUT

Appendix A

Proposed Site Layout

Levels and contours are relative to an Ordnance Survey Datum

Figured dimensions in millimetres.

NOTES:

Residential Surface Car Parking Schedule	
Standard car park spaces	-
Accesible car park spaces	7

Commercial Surface Car Parking Schedule	
Standard car park spaces	7
Accesible car park spaces	2

Hospital Surface Car Parking Schedule	
Standard car park spaces	69
Accesible car park spaces	4
Motorbike Spaces	4

Overall Site Development Legend

1 Central Park
2 New Hospital
3 Residential Development
4 Fairview Community Unit
5 Gheel Autism Services
6 Fairview Day Centre
7 Pitch and Putt
8 Grace Park Development
9 An Post Fairview Delivery Service Unit
10 Gateway Plaza
11 Richmond House Admin
12 FM Buildings
13 Brooklawn House
14 Historic Structure Retained / Refurbished
15 Gate Lodge
16 Refurbished Laundry Building
17 Linear Park
18 Rose Cottage
19 Charthouse Business Centre
20 Stella Maris F.C.
21 Historic Gate Piers Relocation

- New Hospital Entrance
- Apartment Building Entrance
- Main Vehicular Site Entrance
- Site Entrance
- Basement Car Park Entrance
- Residential / Community Amenity Entrance

Landscape Key Plan

- (W) Bin Waste Collection
- (W) Bin Waste Storage
- (B) Bike Parking Racks
- (B) Secure Covered Bike Parking
- (V) Basement Vent
- (M) Motorcycle Parking
- (P) Surface Car Parking
- (D) Drop Off Parking
- (EV) EV Parking
- Surface Car Parking
- Accesible Car Parking

Site Boundary Legend

- Application Site Boundary
- Lands in Legal Ownership of the Applicant
- Boundary between Proposed Residential and Proposed New Hospital Sites
- Wayleave over Underground Services

NOTE: See Landscape Design DWGs and Report by NMP

REVISION SCHEDULE

NO.	DATE	ISSUED BY	DESCRIPTION
P01	21/10/2022	PB	LRD Pre-App
P02	03/03/2023	PB	LRD Application

ST.VINCENTS HOSPITAL FAIRVIEW REDEVELOPMENT

PROJECT ADDRESS
St.Vincent's Hospital, Fairview, Dublin 3

CLIENT
St.Vincent's Hospital Fairview

STW Scott Tallon Walker ARCHITECTS
19 Merrion Square, Dublin 2, Ireland
Tel: +353 (0)1 669 3000
Email: mail@stwarchitects.com
Web: www.stwarchitects.com

DRAWING
Proposed Site Plan - Roof Level

SCALE @A0	ISSUED:
1:500	21/10/2022
DRAWN BY:	CHECKED BY:
PB	RP
PROJECT NO.	PROJECT ARCHITECT:
20006	Paul Barry
DRAWING NO.	REVISION
SVRD-STW-ST-ZZ-DR-A-022005	P01

22/03/2023 13:10:54

1 Proposed Site Plan - Roof Level
SCALE: 1 : 500

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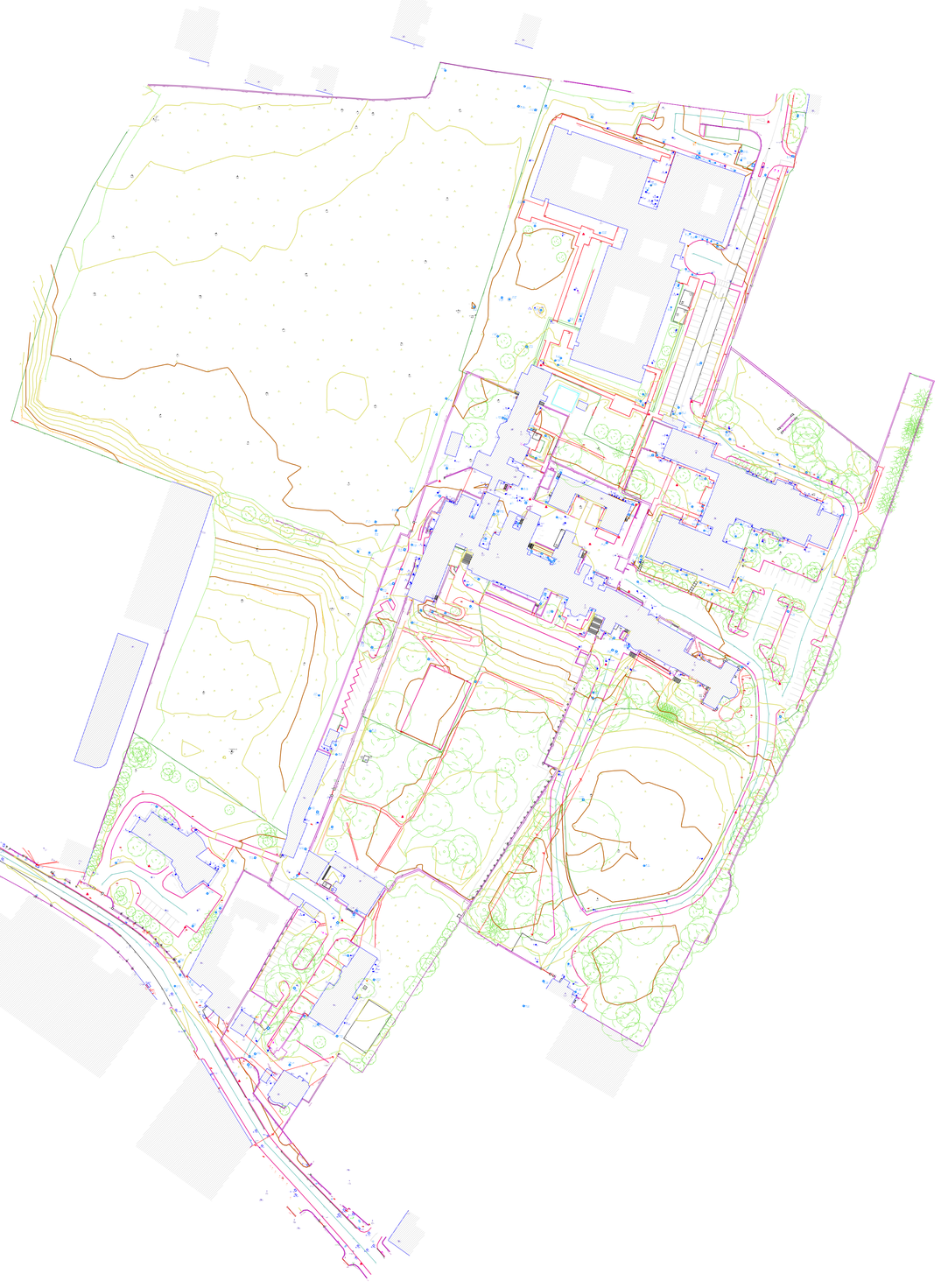
APPENDIX B. TOPOGRAPHICAL SURVEY

Appendix B

Topographical Survey



LEGEND

Street furniture & Services

- Over Head Wires (UAS) - Pylon ESB
- Flowerbed
- Pipe
- Lft
- Barrier
- Pump
- Trial Pit
- Bus/Tram Shelter
- Postbox
- Valve - General
- Water Valve
- Gas Valve
- Sluice Valve
- Air Valve
- Stop Cock
- C P Post
- Marker Post
- Traffic light
- Parking Meter
- Plane Aerial Mark
- Smart Card Validator
- Unknown Valve
- Road Sign
- Bus Stop
- Bollard
- Beacon
- Coalhole Cover
- Bore Hole
- Electricity Pole
- Telegraph pole
- OCS Pole
- CCTV Camera Pole
- Lamp Post
- Foul Manhole
- Surface Water MH
- Manholes
- Air Conditioning Vents
- Services Inspection Cover
- Traffic Inspecton Cover
- Cable TV Inspection Cover
- ESAT inspection Cover
- NTL Inspection Cover
- Eircom Inspection Cover
- Rodding Eye
- Phone Box
- Bench Seat
- Kiosk
- Gully
- Waste Bin
- Hydrant
- Fire Hydrant
- ESB Box
- ESB Inspection Cover
- Traffic Control Box
- LUAS Technical Cubicle
- Ticket Vending Machine
- Water Meter Cover
- Telecom Inspection Cover
- Monument / Toilets
- Tank Storage
- Basement: MH, Cover & Pipe
- Dished Aerial Mark
- Stay for pole
- Pipe Protection
- Washout

Natural Features

- Surface Change
- Land Drain
- Bottom of Slope
- Top of Slope
- Ditch
- Water Edge / Lake / Pond
- Hedge / Trees Drip Line / Vegetation
- Tree Coniferous
- Water Level
- Crown Level
- Invert level
- Bed Level
- Spotheight
- Tree Deciduous

Golf

- Fair Way
- Green
- Tee Box

Other

- Survey Station
- Photo point
- Top of Tree

Built Features

Roads & Road Markings

- Building
- Edge of Road
- Kerb Bottom
- Kerb Top
- Bridge Abutment
- Bridge Deck
- Bridge Parapet
- Building Façade
- Fence
- Gate
- Road Centreline
- Top of Wall
- Hoarding
- Property Line
- Road Scar
- Top of Fence
- Floor Level
- Apex Height
- Eaves Height
- Parapet Height
- Soffit Elevation
- Step Level
- Concrete Pad
- Track
- Footpath / Platform Train & Tram
- Damp Proof Course / Verge
- Bridge Pier / Wall & Gate Pillar / LUAS Trackbed
- Cycleway / Private Landing Area
- Wall / Retaining Wall
- Railway / Tram Rail / Grating / Ramp
- Building Canopy / Roof / Overhang

North

Site Location

Map Sheet Layout:

Surveyed by : MC	Date: May 2021	Datum : Malin Head	
Drawn by : MC	Date: May 2021	Grid System:	
Checked by : PK	Date: 31.05.2021	Irish National Grid ☐ ITM ■	

Revisions

No	Date	Description
0	31.05.2021	First Drawing
1	26.07.2021	Utility Cover Updated Data

Murphy GEOSPATIAL

Topographic surveys, Measured Building Surveys, Setting-Out, As-Built Surveys, Hydrographic Surveys, Legal Mapping, Pipeline Surveys, Services Location, Ground Penetrating Radar, Laser Scanning, Rectified Photography

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Email: info@murphygs.ie

Client :	Mitchell McDermott
Project :	St Vincent's Hospital, Fairview
Date : 31.05.2021	Scale : NTS
Description :	Topographical survey
Drawing Number :	MGL41422_T_ITM_Rev1-00

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APPENDIX C. OPW FLOOD HISTORY

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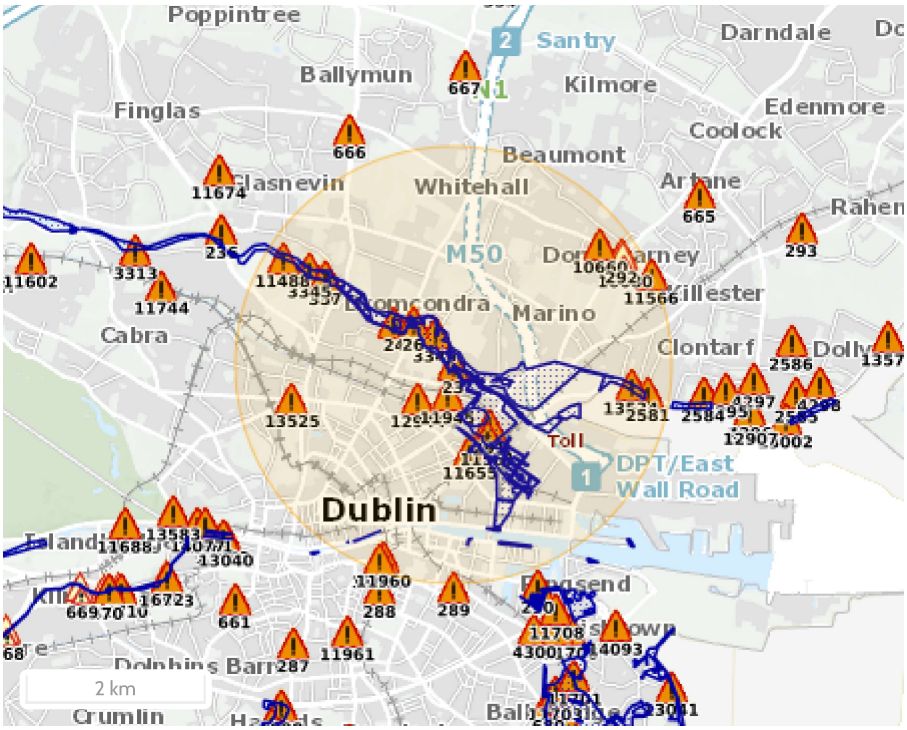
Appendix C

OPW Flood History

Past Flood Event Local Area Summary Report

Report Produced: **30/9/2022 14:23**

This Past Flood Event Summary Report summarises all past flood events within 2.5 kilometres of the map centre.



Map Legend

- Single Flood Event
- Recurring Flood Event
- Past Flood Event Extents
- Drainage Districts Benefited Lands*
- Land Commission Benefited Lands*
- Arterial Drainage Schemes Benefited Lands*

* Important: These maps do not indicate flood hazard or flood extent. Their purpose and scope is explained on Floodinfo.ie

33 Results

	Name (Flood_ID)	Start Date	Event Location
1.	Tolka September 1931 (ID-26) **Additional Information:** Reports (12) Press Archive (1)	02/09/1931	Approximate Point
2.	Tolka Nov 1965 (ID-23) **Additional Information:** Reports (9) Press Archive (2)	25/11/1965	Approximate Point
3.	Report of flooding at Jones Road, Dublin 3 on 26th July 2013 (ID-11945) **Additional Information:** Reports (1) Press Archive (0)	25/07/2013	Approximate Point
4.	Flooding at Trinity College, Dublin 2, 26th July 2013 (ID-11960) **Additional Information:** Reports (1) Press Archive (0)	25/07/2013	Approximate Point
5.	Flooding at Dublin City on 30/07/2019 (ID-13659) **Additional Information:** Reports (0) Press Archive (0)	30/07/2019	Approximate Point
6.	Clontarf Rd Seaview Avenue August 2004 (ID-2581) **Additional Information:** Reports (4) Press Archive (0)	23/08/2004	Exact Point

	Name (Flood_ID)	Start Date	Event Location
7.	Tolka November 1901 (ID-25) Additional Information: Reports (9) Press Archive (0)	12/11/1901	Approximate Point
8.	Flooding at Clontarf on 02/02/2017 (ID-13534) Additional Information: Reports (0) Press Archive (0)	02/02/2017	Approximate Point
9.	Tolka November 1915 (ID-30) Additional Information: Reports (11) Press Archive (0)	12/11/1915	Approximate Point
10.	Tolka April 1909 (ID-31) Additional Information: Reports (5) Press Archive (0)	03/04/1909	Approximate Point
11.	Tolka Richmond Road August 1986 (ID-3346) Additional Information: Reports (4) Press Archive (0)	24/08/1986	Approximate Point
12.	Tolka Botanic Ave area August 1986 (ID-24) Additional Information: Reports (11) Press Archive (1)	24/08/1986	Approximate Point
13.	Tolka November 1898 (ID-29) Additional Information: Reports (10) Press Archive (0)	23/11/1898	Approximate Point
14.	Tolka October 1880 (ID-21) Additional Information: Reports (8) Press Archive (0)	28/10/1880	Approximate Point
15.	Tolka River 24th Oct 2011 Botanic Gardens (ID-11488) Additional Information: Reports (1) Press Archive (0)	23/10/2011	Approximate Point
16.	North Strand Road June 1963 (ID-291) Additional Information: Reports (4) Press Archive (2)	10/06/1963	Exact Point
17.	Donnycarney Wad June 1963 (ID-292) Additional Information: Reports (4) Press Archive (2)	10/06/1963	Exact Point
18.	Tolka September 1946 (ID-28) Additional Information: Reports (11) Press Archive (0)	19/09/1946	Approximate Point
19.	Tolka Glasnevin August 1986 (ID-3345) Additional Information: Reports (2) Press Archive (0)	24/08/1986	Approximate Point
20.	Donnycarney Dublin Recurring (ID-10680) Additional Information: Reports (4) Press Archive (0)	n/a	Approximate Point
21.	Flooding at Dublin City on 15/06/2016 (ID-13525) Additional Information: Reports (0) Press Archive (0)	15/06/2016	Approximate Point
22.	Tolka November 2002 (ID-5) Additional Information: Reports (143) Press Archive (13)	13/11/2002	Area
23.	Dublin City Tidal Feb 2002 (ID-456) Additional Information: Reports (45) Press Archive (27)	01/02/2002	Area

	Name (Flood_ID)	Start Date	Event Location
24.	Dublin Area 020709 (ID-10660) **Additional Information:** Reports (1) Press Archive (0)	02/07/2009	Approximate Point
25.	Tolka December 1954 (ID-4) **Additional Information:** Reports (16) Press Archive (9)	08/12/1954	Area
26.	Flooding at Bessborough Avenue, North Strand, Dublin 3 on 24th Oct 2011 (ID-11561) **Additional Information:** Reports (1) Press Archive (0)	23/10/2011	Exact Point
27.	Flooding at Clanmoyle Road, Donnycarney, Dublin 5 on 24th Oct 2011 (ID-11566) **Additional Information:** Reports (1) Press Archive (0)	23/10/2011	Approximate Point
28.	Flooding at Shamrock Place, Cottages and Terrace, Dublin 3 on 24th Oct 2011 (ID-11655) **Additional Information:** Reports (1) Press Archive (0)	23/10/2011	Exact Point
29.	Flood report for Shamrock Cottages on the 24th October 2011 (ID-12684) **Additional Information:** Reports (1) Press Archive (0)	23/10/2011	Approximate Point
30.	Tolka Richmond Road Drumcondra Nov 2000 (ID-20) **Additional Information:** Reports (6) Press Archive (5)	05/11/2000	Approximate Point
31.	Tolka Jan 2005 (ID-357) **Additional Information:** Reports (1) Press Archive (0)	07/01/2005	Approximate Point
32.	Tolka Nov 1968 (ID-27) **Additional Information:** Reports (5) Press Archive (1)	24/11/1968	Approximate Point
33.	Flooding at Dublin City on 25/07/2013 (ID-12944) **Additional Information:** Reports (0) Press Archive (0)	25/07/2013	Approximate Point

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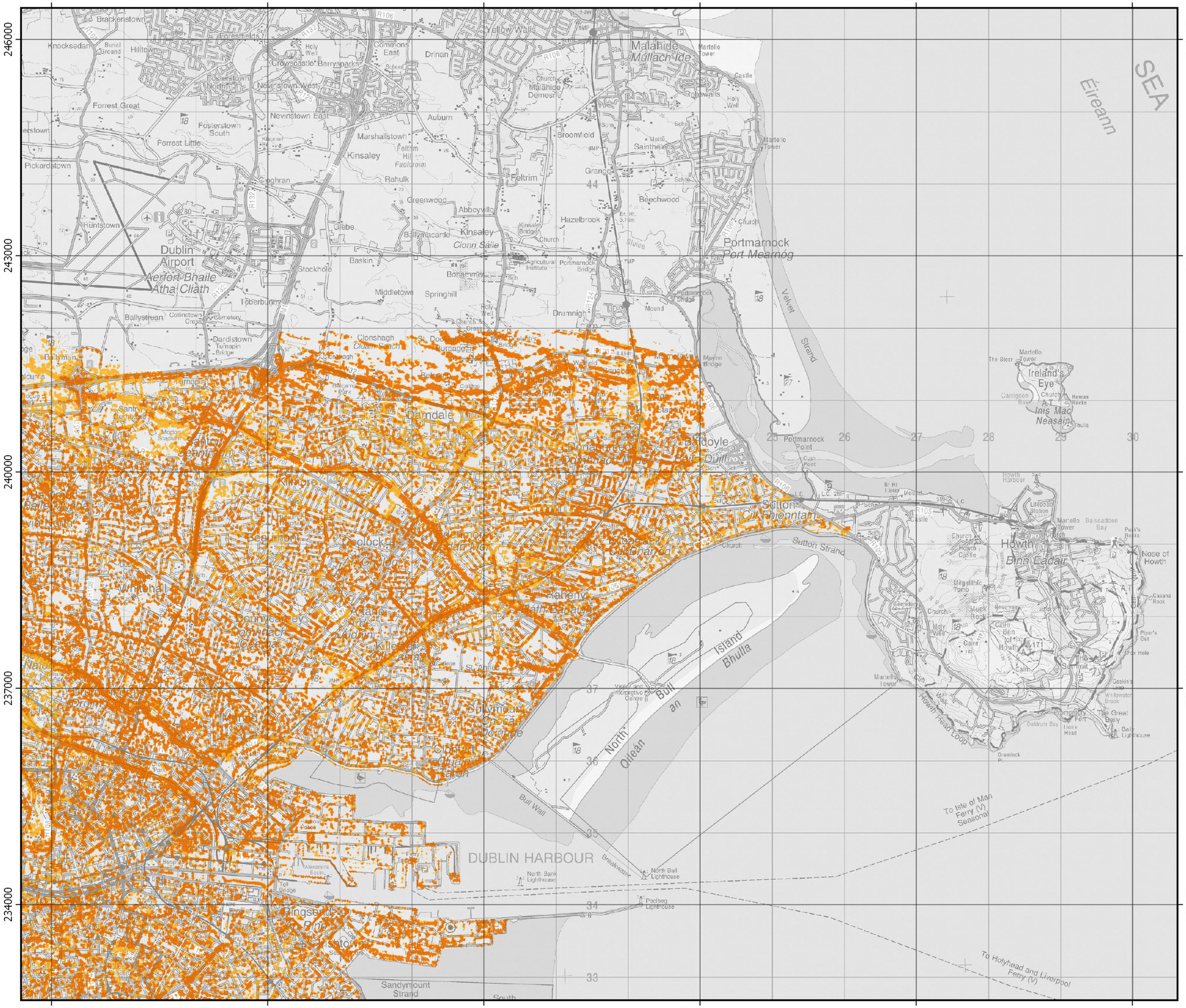
APPENDIX D. DUBLIN PLUVIAL STUDY MAP

Appendix D

Dublin Pluvial Study Map



Location Plan:

LEGEND

- 10% AEP Pluvial
- 1% AEP Pluvial
- 0.5% AEP Pluvial

IMPORTANT USER NOTE:
THE VIEWER OF THIS MAP SHOULD REFER TO THE DISCLAIMER, GUIDANCE NOTES AND CONDITIONS OF USE THAT ACCOMPANY THIS MAP.

OPW
Oifig na nOibreacha Poiblí
The Office of Public Works

The Office Of Public Works
Jonathan Swift Street
Trim
Co. Meath

Comhairle Cathrach Bhaile Átha Cliath
Dublin City Council

Dublin City Council
Civic Offices
Wood Quay
Dublin 8

Project:

DUBLIN PLUVIAL STUDY (FloodResilienCity)

Map:	**DUBLIN CITY - PLUVIAL FLOOD EXTENT MAP**		
Map Type:	EXTENT - 180min Rainfall		
Source:	PLUVIAL		
Map Area:	URBAN		
Scenario:	CURRENT		
Drawn by:	IH	Date:	Aug - 2016
Checked by:	MC	Date:	Aug - 2016
Approved by:	JM	Date:	Aug - 2016
Map No.:	E09DCC_EXPCD_F0_02		
Revision: F0			
Map Scale: 1:50,000		Plot Scale: 1:1 @ A3	

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APPENDIX E. OPW CFRAMS MAPS

Appendix E

OPW CFRAMS Maps

315000 318000 321000 324000 327000 330000

246000 243000 240000 237000 234000

Location Plan:

LEGEND

10% AEP Pluvial Flood Depth

- 0.0 - 0.1m
- 0.1 - 0.25m
- 0.25 - 0.5m
- 0.5 - 1.0m
- 1.0 - 1.5m
- 1.5 - 2.0m
- > 2.0m

IMPORTANT USER NOTE:
THE VIEWER OF THIS MAP SHOULD REFER TO THE DISCLAIMER, GUIDANCE NOTES AND CONDITIONS OF USE THAT ACCOMPANY THIS MAP.

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Dublin City Council

Dublin City Council
Civic Offices
Wood Quay
Dublin 8

Project:

DUBLIN PLUVIAL STUDY (FloodResilienCity)

Map: **DUBLIN CITY - PLUVIAL FLOOD DEPTH MAP**

Map Type:	DEPTH - 180min Rainfall		
Source:	10% AEP PLUVIAL		
Map Area:	URBAN		
Scenario:	CURRENT		
Drawn by:	IH	Date:	Aug - 2016
Checked by:	MC	Date:	Aug - 2016
Approved by:	JM	Date:	Aug - 2016

Map No.: E09DCC_DPPCD100_F0_02

Revision: F0

Map Scale: 1:50,000 Plot Scale: 1:1 @ A3

1000 0 1000 2000 3000 4000 Meters

315000 318000 321000 324000 327000 330000

246000 243000 240000 237000 234000

1000 0 1000 2000 3000 4000 Meters

Location Plan:

LEGEND

1% AEP Pluvial Flood Depth

- 0.0 - 0.1m
- 0.1 - 0.25m
- 0.25 - 0.5m
- 0.5 - 1.0m
- 1.0 - 1.5m
- 1.5 - 2.0m
- > 2.0m

IMPORTANT USER NOTE:
THE VIEWER OF THIS MAP SHOULD REFER TO THE DISCLAIMER, GUIDANCE NOTES AND CONDITIONS OF USE THAT ACCOMPANY THIS MAP.

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Dublin City Council

Dublin City Council
Civic Offices
Wood Quay
Dublin 8

Project:

DUBLIN PLUVIAL STUDY (FloodResilienCity)

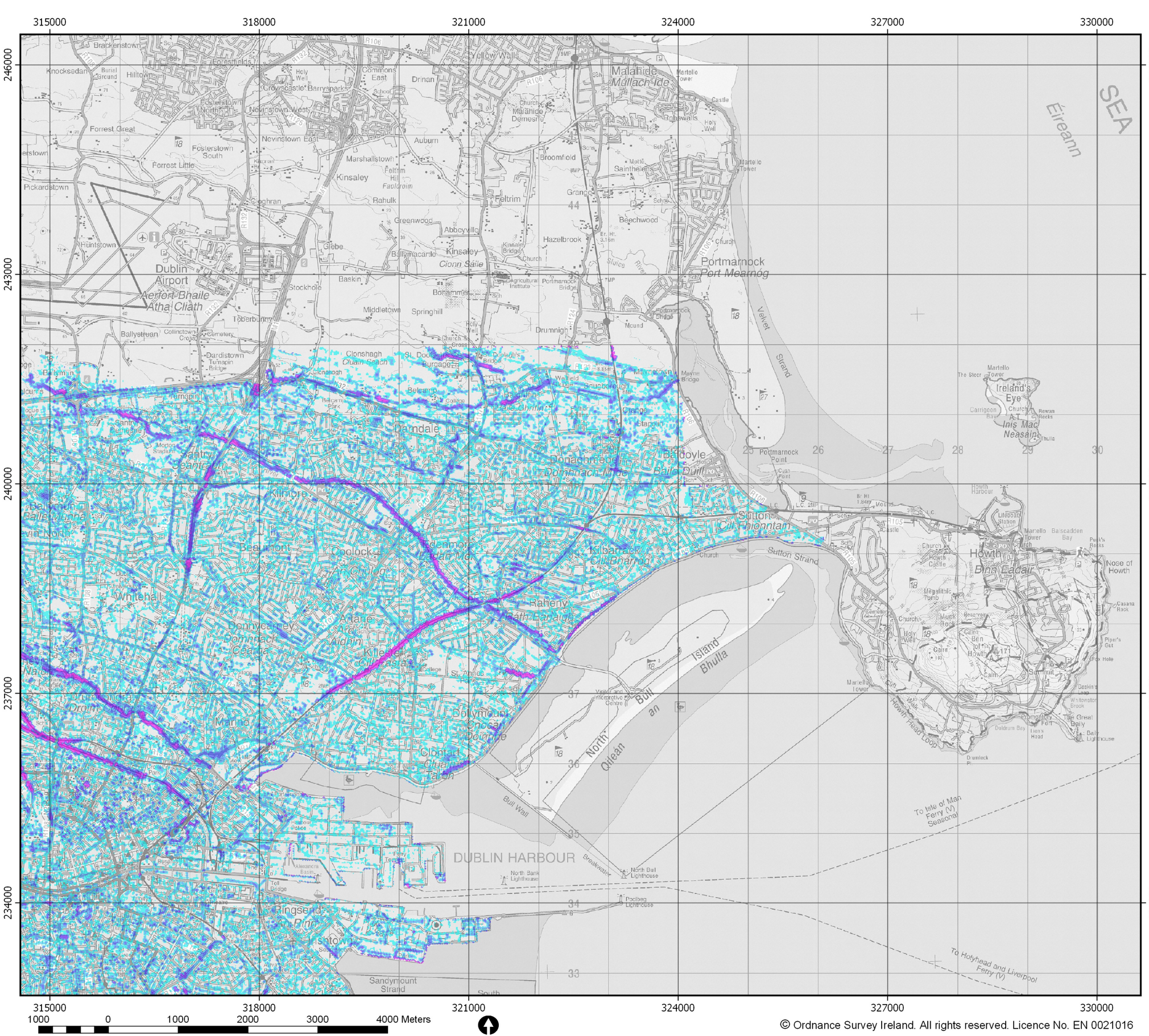
Map: **DUBLIN CITY - PLUVIAL FLOOD DEPTH MAP**

Map Type:	DEPTH - 180min Rainfall		
Source:	1% AEP PLUVIAL		
Map Area:	URBAN		
Scenario:	CURRENT		
Drawn by:	IH	Date:	Aug - 2016
Checked by:	MC	Date:	Aug - 2016
Approved by:	JM	Date:	Aug - 2016

Map No.:
E09DCC_DPPCD010_F0_02

Revision: F0

Map Scale: 1:50,000 Plot Scale: 1:1 @ A3



Location Plan:

LEGEND

0.5% AEP Pluvial Flood Depth

- 0.0 - 0.1m
- 0.1 - 0.25m
- 0.25 - 0.5m
- 0.5 - 1.0m
- 1.0 - 1.5m
- 1.5 - 2.0m
- > 2.0m

IMPORTANT USER NOTE:
THE VIEWER OF THIS MAP SHOULD REFER TO THE DISCLAIMER, GUIDANCE NOTES AND CONDITIONS OF USE THAT ACCOMPANY THIS MAP.

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Dublin City Council

Dublin City Council
Civic Offices
Wood Quay
Dublin 8

Project:

DUBLIN PLUVIAL STUDY (FloodResilienCity)

Map: **DUBLIN CITY - PLUVIAL FLOOD DEPTH MAP**

Map Type:	DEPTH - 180min Rainfall		
Source:	0.5% AEP PLUVIAL		
Map Area:	URBAN		
Scenario:	CURRENT		
Drawn by:	IH	Date:	Aug - 2016
Checked by:	MC	Date:	Aug - 2016
Approved by:	JM	Date:	Aug - 2016

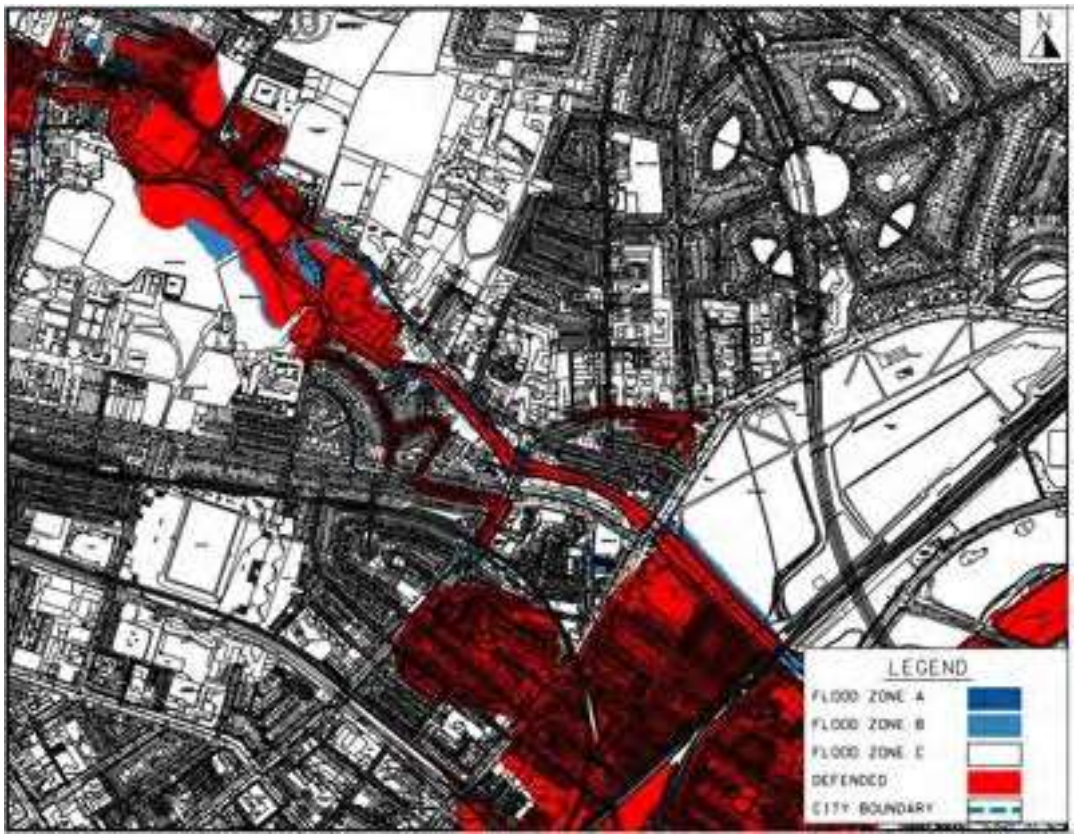
Map No.:
E09DCC_DPPCD005_F0_02

Revision: F0

Map Scale: 1:50,000 Plot Scale: 1:1 @ A3

Appendix F

Dublin City Development Plan Strategic Flood Risk Assessment

Area: 20 Tolka: Dublin Port to Drumcondra Bridge	
	
For Land Use Zoning Maps Overlaid with Flood Zones see Dublin City Council Development Plan 2022 - 2028, Flood Map E.	
Area Description	The area on the Tolka Estuary goes from East Wall to Drumcondra Bridge. It crosses under Alfie Byrne Road, the Dublin – Belfast Railway line and Annesley Bridge. It is adjacent to East Wall Road from Alfie Byrne Road, the western end of Fairview Park, Poplar Row, Cadogan Road, Luke Kelly Bridge, Orchard Road, Tolka Road, Distillery Road and Bridge. It is also adjacent to Richmond Road, Tolka Park, the Arch Bishop's House and Cian Park. It is currently tidal to approximately 100m below Drumcondra Bridge. Development in this area is a mixture of high and low density commercial and residential with infill development of both. There are a number of parks beside the Tolka River which are natural flood plains.
SDRAs within this Area	Strategic Development and Regeneration Area (SDRA) 6 Docklands. Strategic Development and Regeneration Area (SDRA) 10 North East Inner City.
Benefitting from	Flood defences incorporating 200-year tide

Area: 20 Tolka: Dublin Port to Drumcondra Bridge	
Defences (flood relief scheme works)	level, plus 300mm freeboard, plus allowance for fluvial surcharge at high tide have been constructed from East Wall Road to Drumcondra Bridge. These defences incorporate the latest design and together with a flood gate at the pedestrian bridge on East Wall Road to Fairview Park provide the statutory level of protection.
Sensitivity to Climate Change	Significant, particularly where likely sea level rise exceeds the height of existing defences.
Residual Risk	An appropriate assessment of residual risk of defence failure should be carried out. A structural inspection of all new defences is carried out each year.
Historical Flooding	The flood maps attached are consistent with previous flooding of this section of the River Tolka in 1954 and 2002. The highest recorded tide (3rd January 2014) was contained by the new flood defences. These maps are under review by the OPW.
Surface Water	All surface water in this area needs to be carefully managed and provision made for significant rainfall events during high tides. A five year high tide event should be assumed during a 100-year rainfall event. Should development be permitted, best practice with regard to surface water management should be implemented across the development area, to limit surface water run-off to current values. Separation of surface water and foul sewage flows should be carried out where possible. Assume 2 year rainfall with the 200 year tidal flood event. All developments shall have regard to the Pluvial Flood Maps in their Site Specific Flood Risk Assessment, see FloodResilienCity Project, Volume 2 City Wide Pluvial Flood Risk Assessment at http://www.dublincity.ie/main-menu-services-water-waste-and-environment-drains-sewers-and-waste-water/flood-prevention-plans.
Commentary on Flood Risk: The flood extents indicate flow paths generally coming directly out of the tidal region. These can be compounded with local pluvial flooding if heavy rainfall coincides with a high tide. Wave action is not deemed significant in this section of the Tolka Estuary.	

Area: 20 Tolka: Dublin Port to Drumcondra Bridge

The flood maps were produced based on the OPW CFRAM Plan and checked against historic flooding in the area.

Development Options:

Commercial and residential development (some infill) would be a natural extension of existing development. South of Poplar Row and East Wall Road the lands form part of the North East Inner City Strategic Development and Regeneration Area (SDRA No. 10), and also the Docklands SDRA (No. 6), see sections 13.12 and 13.8 of the Written Statement of the Development Plan.

Justification Test for Development Plans

1. **Part 1 of the Justification Test is covered under Section 3.2.1 in the main body of the SFRA report.**

2. **The zoning or designation of the lands for the particular use or development type is required to achieve the proper planning and sustainable development of the urban settlement and, in particular:**

    (i) Is essential to facilitate regeneration and/or expansion of the centre of the urban settlement.

Answer: Yes: This area is an established residential and mixed-use part of the inner suburbs. The Tolka River flows from Drumcondra Bridge through the Tolka Estuary to Dublin Port. It crosses under Alfie Byrne Road, Dublin – Belfast Railway Line and Annesley Bridge. It flows adjacent to East Wall Road from Alfie Byrne Road, the western end of Fairview Park, Poplar Row, Cadogan Road, Luke Kelly Bridge, Orchard Road, Tolka Road, Distillery Road and Bridge. It is also adjacent to Richmond Road, Tolka Park, the Arch Bishop's House and Cian Park. The area is essential for the expansion of Dublin City and comprises a mixture of high and low density commercial and residential with infill development of both. There are a number of parks which are natural flood plains also in this area.

(ii) Comprises significant previously developed and/or under-utilised lands.

Answer: Yes: Most of the lands within Flood Zone A and B are already built-up or comprise of brownfield sites. The Tolka River also flows through a number of parks which act as natural flood plains.

(iii) Is within or adjoining the core of an established or designated urban settlement.

Area: 20 Tolka: Dublin Port to Drumcondra Bridge

Answer: Yes: The lands form part of the established / designated urban settlement of Dublin City.

.

(iv) Will be essential in achieving compact and sustainable urban growth.

Answer: **Yes:** (see response to (iii) above).

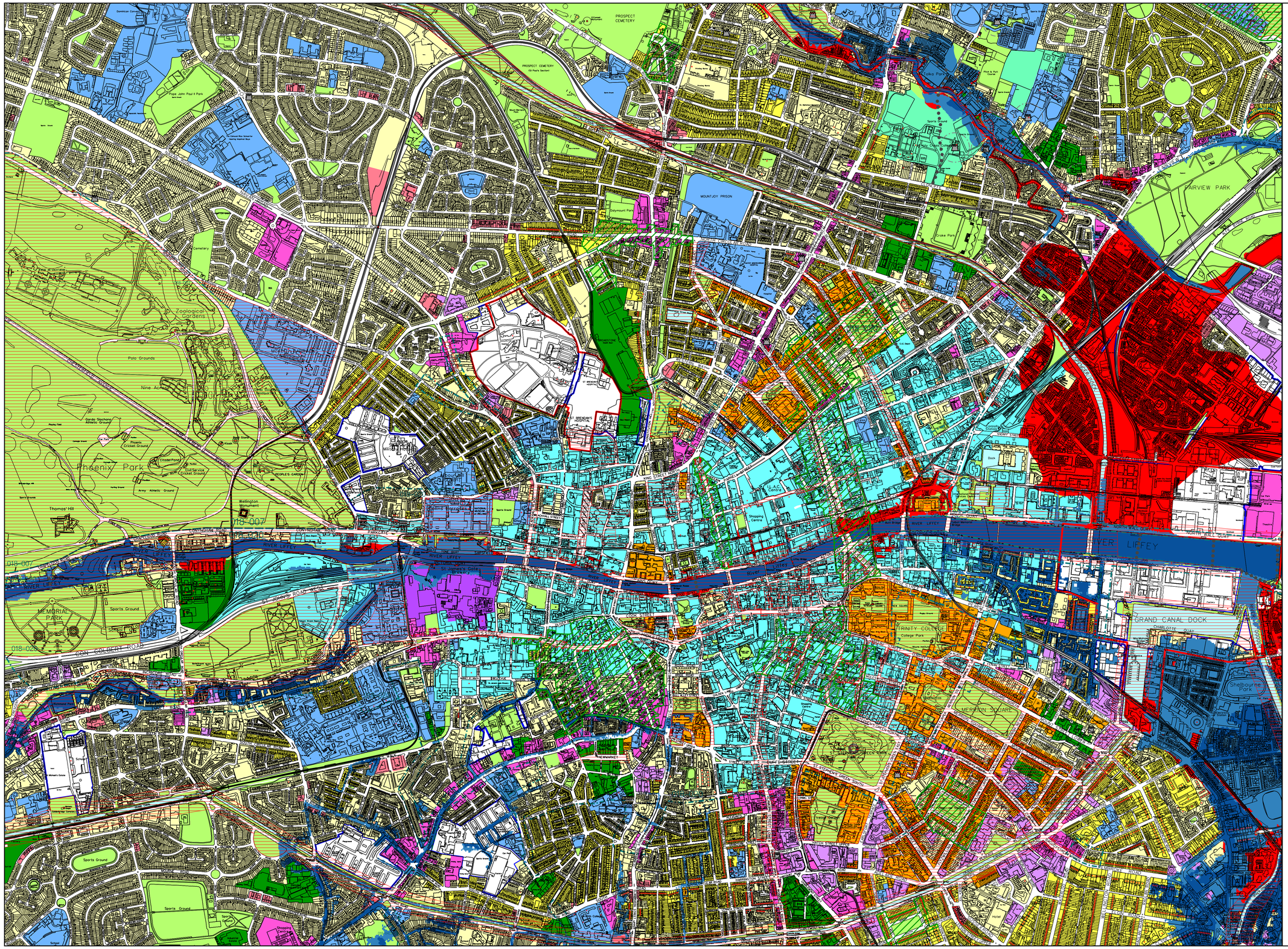
(v) There are no suitable alternative lands for the particular use or development type, in areas at lower risk of flooding within or adjoining the core of the urban settlement.

Answer: There are no suitable alternative lands for the particular uses or development type in areas at lower risk of flooding, within or adjoining the urban settlement. Areas idenitifed as being in Flood Zones A and B are considered essential to achieving a consolidated urban centre and to comply with the NPF and RSES.

3. Specific Flood Risk Assessment

- See also Area Assessment No. 3 Liffey: O'Connell Bridge to Tom Clarke Bridge.
- See Justification Test for Strategic Development and Regeneration Area No. 6 Docklands in Appendix C2 for specific recommendations in relation to that area.
- Areas of open space within Flood Zones A and B must be preserved as they supplement the flood defences to provide protection.
- Climate change risks are significant and need to be assessed under the site specific FRA with guidance on finished floor levels applied as detailed in the SFRA.
- Development behind flood defences should proceed in line with the general recommendations flood assessment and management in this SFRA.

Conclusion: The subject area passes the Justification Test for Development Plans.

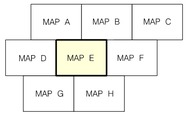


Comhairle Cathrach Bhaile Átha Cliath
Dublin City Council

Dublin City Development Plan 2022-2028

DRAFT

Map E



LAND USE ZONING OBJECTIVES[4]

- Zone Z1 Sustainable Residential Neighbourhoods
- Zone Z2 Residential Neighbourhoods (Conservation Areas)
- Zone Z3 Neighbourhood Centres
- Zone Z4 Key Urban Villages / Urban Villages
- Zone Z5 City Centre
- Zone Z6 Employment/Enterprise
- Zone Z7 Employment (Heavy)
- Zone Z8 Georgian Conservation Areas
- Zone Z9 Amenity /Open Space Lands /Green Network
- Zone Z10 Inner Suburban and Inner City Sustainable Mixed-Uses
- Zone Z11 Waterways Protection
- Zone Z12 Institutional Land (Future Development Potential)
- Zone Z14 Strategic Development and Regeneration Areas (SDRAs)
- Zone Z15 Community and Social Infrastructure

SPECIFIC OBJECTIVES

- Conservation Areas
- Architectural Conservation Areas
- Protected Structures, (RPS takes precedence) ***
- Record of Monuments and Places (RMP)*
- Record of Monuments and Places (RMP)*
- National Monuments*
- COMAH establishments (SEVESO establishments)
- LAP (Local Area Plan) & SDZ (Special Development Zone)
- Dublin Airport Outer Public Safety Zone

ROADS
- Roads, Street and Bridge Schemes

FLOOD ZONES
- Flood Zone A
- Flood Zone B
- Defended

Refer to OPW website – FloodMaps

1. Map to be read in conjunction with the written statement
2. Roads objectives are shown diagrammatically
3. *See Record of Monuments and Places (RMP) at https://www.archaeology.ie/publication-forms-legislation/record-of-monuments-and-places.ie For updated information see the Historic Environment Viewer at https://maps.archaeology.ie/HistoricEnvironment/
4. See written statement (Chapter 14) for full zoning text

City Boundary

Scale: 0 100 200 300 400 500 metres

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Dublin City Planner

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