



REPORT

Tack Sandyford SHD EIAR

Non-Technical Summary

Submitted to:

An Bord Pleanála

64 Marlborough Street

Rotunda

Dublin 1

D01 V902

Submitted by:

Golder Associates Ireland Limited - WSP Ireland Consulting Ltd

Town Centre House, Dublin Road, Naas,

Co. Kildare, W91 TD0P Ireland

On behalf of Applicant:

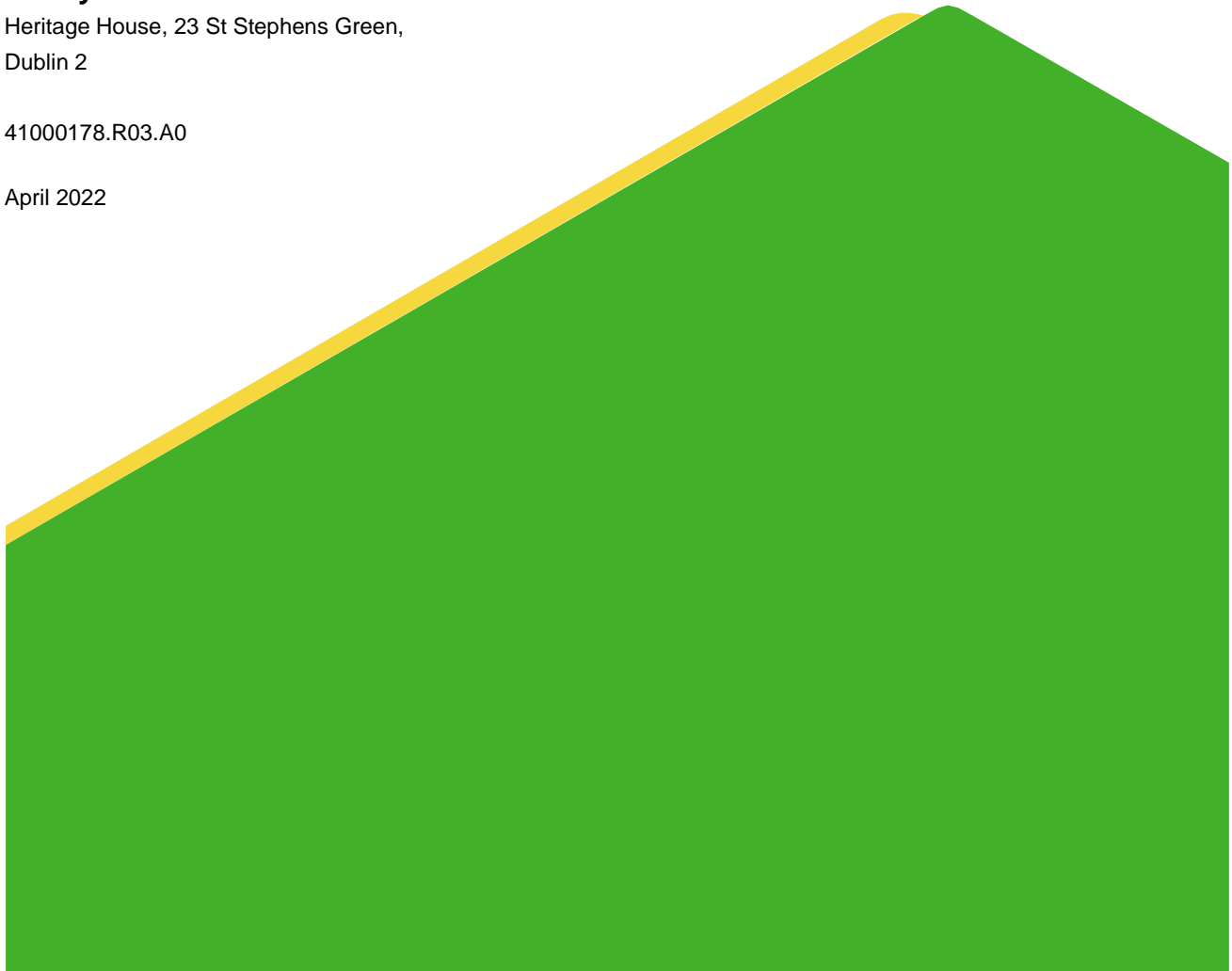
Sandyford Environmental Construction Ltd

Heritage House, 23 St Stephens Green,

Dublin 2

41000178.R03.A0

April 2022



Distribution List

Sandyford Environmental Construction Ltd - 1 Copy

Golder Associates Ireland (a member of WSP) - 1 Copy

Table of Contents

1.0 INTRODUCTION	1
1.1 EIA Context	2
1.2 Need for the Proposed Development.....	3
2.0 ALTERNATIVES AND 'DO NOTHING' OPTION	4
3.0 PROJECT DESCRIPTION	5
3.1 Proposed Development Description	5
3.2 Proposed Development Construction	8
3.3 Major Accidents and Disasters	9
4.0 POPULATION AND HUMAN HEALTH	9
4.1 Impact Assessment/Potential Effects and Mitigation	9
5.0 ECOLOGY AND BIODIVERSITY	10
6.0 LAND, SOILS AND GEOLOGY	11
7.0 WATER.....	12
8.0 AIR QUALITY AND CLIMATE.....	13
8.1 Air Quality.....	13
8.2 Climate Factors	13
9.0 NOISE AND VIBRATION.....	14
10.0 CULTURAL HERITAGE	15
11.0 TRAFFIC AND TRANSPORT	15
12.0 WIND MICROCLIMATE	16
13.0 LANDSCAPE AND VISUAL	17
14.0 MATERIAL ASSETS.....	18
15.0 INTERACTIONS, CUMULATIVE AND COMBINED EFFECTS.....	19
16.0 MITIGATION AND MONITORING MEASURES.....	20
17.0 SUMMARY AND CONCLUSIONS.....	20

FIGURES

Figure 1: Location of the Proposed Development 1

Figure 2: Layout of the Proposed Development 6

Figure 3: Building Height at its highest point in the Proposed Development (North-East Elevation). MDO Architects 7

Figure 4: Former Avid Technology International Site (L) and Masterplan (R) 7

NON-TECHNICAL SUMMARY

1.0 INTRODUCTION

Golder, member of WSP in Ireland (Golder) have been commissioned to undertake an Environmental Impact Assessment (EIA) on behalf of Sandyford Environmental Construction Limited, as Developer and Applicant for the proposed Tack Sandyford Strategic Housing Development (SHD) on lands located at the former Tack Packaging Site, at the junction of Ravens Rock Road and Carmanhall Road at the Sandyford Industrial Estate, Dublin 18. The Environmental Impact Assessment Report (EIAR) sets out the details of the technical assessments that have been carried out as part of the EIA process and identifies the potential for environmental effects to arise as a result of the Proposed Development. This document provides a summary of the key findings of the EIA in non-technical language.

The Application Site to which the EIA/EIAR relates is approximately 0.7 hectares (ha) in size and it is located in the Electoral Division of Dundrum-Balally, in the administrative area of Dún Laoghaire Rathdown County Council (DLRCC), County Dublin (see Figure 1). The Site is located ca. 8.8 km south-east of Dublin City Centre. The Proposed Development Site is located within Zone 5 (Residential) of the Sandyford Urban Framework Plan and DLRCC have identified Specific objectives in relation to the creation of Sustainable Residential Neighbourhoods.

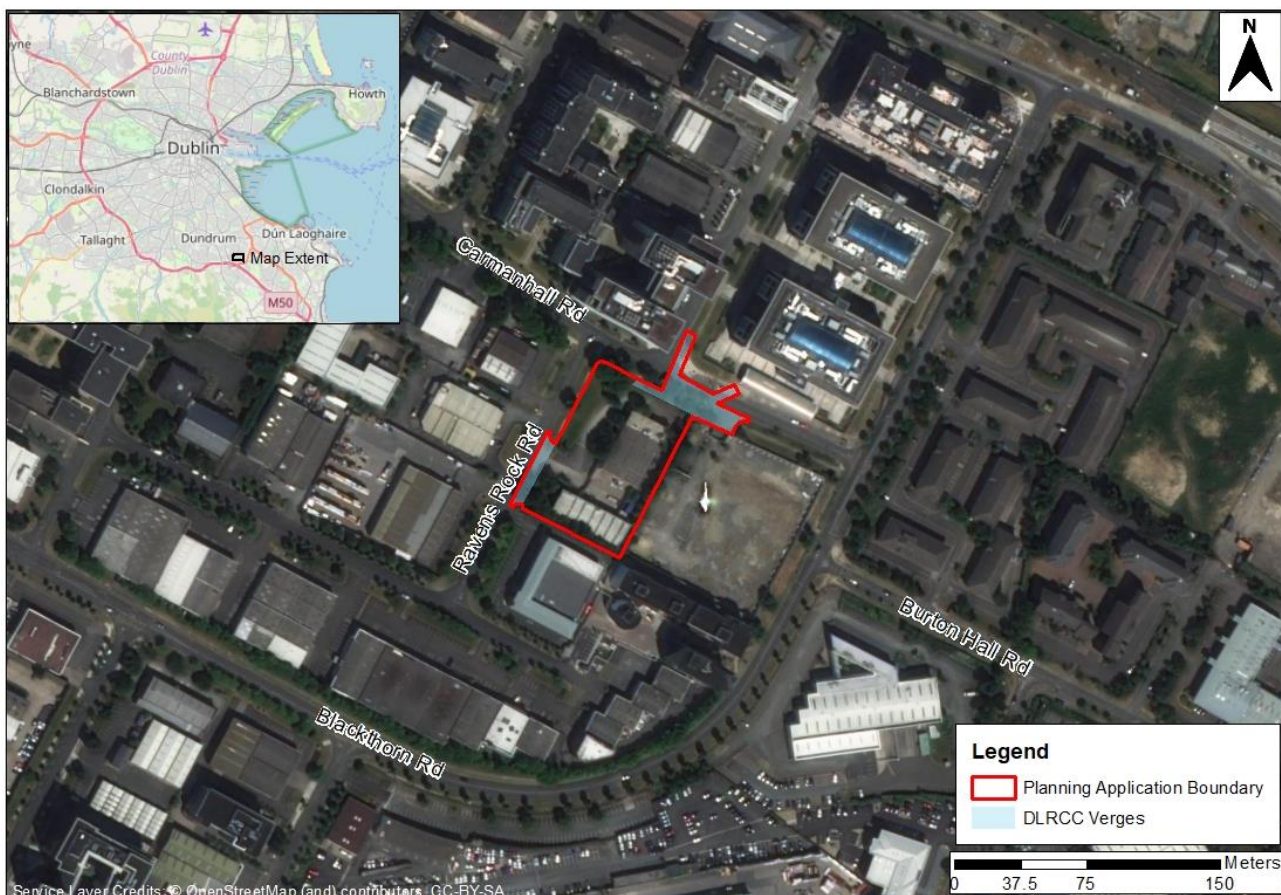


Figure 1: Location of the Proposed Development

The Application Site currently consists predominantly of two office/light industry warehouse-like two-storey structures with hardstanding between the structures. Vehicular access is currently provided into the Application Site via an entrance from Ravens Rock Road to the west. The Site slopes from south to north, with a difference in elevation of approximately 4 m across the Site. The Proposed Development consists of 207 'Build-to-Rent' residential apartment units within 3 no. apartment blocks and associated infrastructure.

1.1 EIA Context

EIA is a process undertaken for certain types of development. It provides a means of drawing together the findings from a systematic analysis of the likely significant environmental effects of a scheme to assist planning authorities, statutory consultees and other key stakeholders in their understanding of the impacts arising from the development.

The aim of EIA is to protect the environment by ensuring that when a responsible authority decides whether to grant permission for a Proposed Development, which is likely to have significant effects on the environment, it does so with full knowledge of the likely significant effects. It is then able to take these into account in the decision-making process. The Tack Sandyford SHD EIAR is submitted to An Bord Pleanála ('ABP'/'the Board') in support of the SHD application, in order to assist the Board in its own EIA for the Proposed Development.

The aim of EIA is also to ensure that the public are given early and effective opportunities to participate in the decision-making procedures.

A review of the Planning and Development Regulations (2001, as amended) Schedule 5 Part 1 thresholds (Developments for the purposes of Part 10), indicates that the Proposed Development is not of a size which requires a mandatory EIA.

Furthermore, with regards to Schedule 5 Part 2 of the Planning and Development Regulations (2001, as amended) the Proposed Development is not classified as an Infrastructure Project under Class 10, as it comprises less than 500 dwelling units, (Class 10(b)(i)); and it does not involve an area greater than 2 hectares within a business district, (Class 10(b)(iv)).

Notwithstanding the above thresholds and having regard to the specific characteristics and nature of this site, its size, and the quantum of development proposed, an EIAR has been prepared on a precautionary basis to accompany this SHD application to An Bord Pleanála. An EIA scoping process determined that the following topics would be covered in the EIA, as it was considered that there was potential for significant environmental effects to arise as a result of the Proposed Development:

- Population and Human Health;
- Ecology and Biodiversity;
- Land, Soils and Geology;
- Water;
- Air Quality and Climate;
- Noise and Vibration;
- Cultural Heritage;
- Traffic and Transport;
- Landscape and Visual;
- Wind Microclimate;
- Material Assets;
- Major Accidents and Disasters; and
- Interactions, Cumulative and Combined Effects.

The EIA has been prepared in line with relevant legislation and national and international guidance and the methodology followed by each of the technical environmental specialists is set out within the EIAR. In accordance with Article 5(3)(a) of the EIA Directive, ('the developer shall ensure that the environmental impact assessment report is prepared by competent experts'), the chosen EIA project team are deemed "competent experts" and their credentials are set out in the EIAR.

The Proposed Development is a stand-alone application however, the development has been designed as part of a masterplan in combination with an adjacent site, referred to as the 'Avid Sandyford SHD'. The scope of this EIAR is for the Tack Sandyford SHD development and a separate EIAR has been prepared for the Avid Sandyford SHD development. Within this EIAR, the likely significant cumulative impacts for the development of the Tack Sandyford SHD in combination with the Avid Sandyford SHD are considered.

1.2 Need for the Proposed Development

The Department of Public Expenditure and Reform's 2018, National Development Plan (NDP) 2018 - 2027 identifies that the population of Ireland is expected to grow by over 1 million to 5.7 million people by the year 2040. The NDP also recognises the urgent requirement for a major uplift of the delivery of housing within existing built-up areas of cities. The NDP notes there should be a particular focus on previously built land development which targets derelict and vacant sites that may have been developed before but have fallen into disuse.

The Department of Housing, Planning and Local Government published the 'Project Ireland 2040 - National Planning Framework' policy document in 2018. This Framework seeks a more balanced and concentrated growth, particularly within the five major cities in Ireland. Strategies included in the above mentioned Framework will seek to target a greater proportion (40%) of future housing development to be within and close to the existing 'footprint' of built-up areas. This target is to be achieved by developing underutilised land and buildings with higher housing and jobs densities, better serviced by existing facilities and public transport; such as Sandyford as per the following commentary from the Project Ireland 2040 document:

'A major new policy emphasis on renewing and developing existing settlements will be required, rather than continual expansion and sprawl of cities and towns out into the countryside, at the expense of town centres and smaller villages. The target is for at least 40% of all new housing to be delivered within the existing built up areas of cities, towns and villages on infill and/or brownfield sites. The rest of our homes will continue to be delivered at the edge of settlements and in rural areas'

The Dún Laoghaire Rathdown County Council (DLRCC) County Development Plan 2016-2022 prescribes the Core Strategies for the medium to long term for the various towns, villages and rural areas within the overall administrative area. The central focus of the Core Strategy is on residential development and in ensuring that there is an acceptable balance between the supply of zoned, serviced land for residential development and the projected demand for new housing, over the lifetime of the Plan. The project accords with Objective A2 of the newly adopted DLRCC County Development Plan 2022-2028 for Land Use Zoning, which denotes areas to provide for new residential communities and Sustainable Neighbourhood infrastructure in accordance with approved local area plans. DLRCC have identified Specific objectives in relation to the creation of Sustainable Residential Neighbourhoods, that preserve and protect residential services.

The purpose of the Proposed Development is to provide a high-density residential development with residential and local community amenity spaces within the environs of the Sandyford Industrial Estate. The subject site is designed to 'provide for the creation of sustainable residential neighbourhoods and preserve and protect residential amenity' which is the applicable A2 zoning objective for the lands. It is considered that the extent of Proposed Development allows for the efficient use of the site with the associated amenities provided at ground floor level and providing an active frontage for the benefit of the adjoining public realm along Carmanhall Road and Blackthorn Avenue.

2.0 ALTERNATIVES AND 'DO NOTHING' OPTION

The main alternatives assessed during the design and planning of the Proposed Development were alternative design layouts for a residential development at the Application Site. There is one previously granted alternative development which was consented for the Application Site in 2005. It has since expired but the details are as follows:

- **Reg. Ref. D05A/0566** - Permission granted by An Bord Pleanála, following appeal, on 5 September 2005 for a retail/commercial development and 182 no. apartments in three blocks ranging in height from 10 to 14 storeys. The previously granted development at the Application Site was not built due to the effects of the economic recession that occurred in Ireland shortly following the receipt of planning permission.

Alternative locations for the Proposed Development were not considered during the development stage of this Project. The justification for this is owing to the zoning and local residential objectives for the Site identified in the DLRC Urban Framework Plan (SUFP) 2016-2022 and the newly adopted SUFP 2022-2028.

Alternative design of the Proposed Development and **alternative size and scale** were considered throughout the design process and revised and altered accordingly. Environmental considerations have been incorporated at the core of the design with weekly design team meetings being held to ensure that feedback from all the environmental specialists would be continually taken into the evolution of the proposals. The integration of the existing mature oak trees in the north-west of the Application Site into the proposals through the incorporation of the Pocket Park as a key aspect of the design has involved the co-ordination between civil engineers, architects, landscape architects and arboriculture specialists. The proposed design of the lower ground floor and basement elements of the proposals has been responsive to existing level differences, seeking to reduce the need for excavation and disposal of material from the Site. Opportunities to enhance the environmental value of the Site have been sought through the incorporation of embedded mitigation measures as set out in each of the technical chapters. The Proposed Development itself seeks to be a coherent response to enhance brownfield land use, maximising its potential for residential and communal use and designing for positive wind microclimate and daylighting/sun lighting relationships with neighbouring buildings.

The Proposed Development is expected to be constructed in one phase over approximately 24 months. Given the scale of the Application Site's area, completing the entire development in a number of phases would not be a practical alternative, and therefore **alternative phasing** has not been considered further. It is anticipated that the most environmentally and economically advantageous option would be to carry out development in a single phase, thereby not introducing new receptors within construction areas.

The mitigation measures identified in the chapters of the EIAR and consolidated in Chapter 16 (Mitigation and Monitoring Measures) are deemed appropriate for the Proposed Development. Therefore, consideration to **alternative mitigation** was not given as the measures represent commonly employed best-practice for similar developments.

Given the specific local area objectives for the Site, if the Application Site was not developed (i.e. the 'Do-Nothing' Alternative), it is assumed that it would remain as an undeveloped vacant site. It is considered that the potential negative environmental impacts would be nil and the current baseline conditions would prevail. The socio-economic benefits of the Proposed Development, however, would not be realised and the need for this Project, in line with the requirements of the County Development Plan and the Sandyford Urban Framework Plan would not be met. Should the Application Site become occupied by a replacement commercial user it would represent an opportunity for low density use of the Site with limited opportunities for employment creation and landscaping.

3.0 PROJECT DESCRIPTION

3.1 Proposed Development Description

The Proposed Development comprises the construction of a 'Build-to-Rent' housing development, accommodating a total of 207 no. residential units in three apartment blocks ranging from six storey to a maximum height of ten storey as follows:

- 48 No. Studio.
- 103 No. 1 bed.
- 55 No. 2 bed.
- 1 No. 3 bed.
- All residential units provided with private balconies/terraces to the north/south/east and west elevations.
- Crèche 306 sqm.
- Residential amenity spaces 415 sqm.
- Height ranging from 6 to 10 storeys (over basement)
- A public pocket park on the corner of Carmanhall Road and Ravens Rock Road and landscaped communal space in the central courtyard.
- Provision of a new vehicular entrance from Ravens Rock Road and egress to Carmanhall Road.
- Provision of pedestrian and cycle connections.
- Demolition of two light industry/office structures (total 1,613.49 m²).
- 79 parking spaces and 288 cycle spaces at ground floor/undercroft and basement car park levels.
- Plant and telecoms mitigation infrastructure at roof level.

The development also includes two ESB substations, lighting, plant, storage, site drainage works and all ancillary site development works above and below ground. All dwellings are designed to maximise daylight and prevent heat loss.

A layout of the Proposed Development is presented in Figure 2. It will be accessed from a new vehicular entrance from Ravens Rock Road. A new vehicular egress will also be provided to Carmanhall Road from an internal green street that is proposed to run along the east of the Application Site, along the boundary with the former Avid Technology site to the east of the Application Site. Vehicle access to the proposed car park is provided from this new access from Ravens Rock Road. A one-way traffic system is proposed on site, with the entry of Ravens Rock Road and exit to Carmanhall Road to reduce the size and impact of the proposed junctions. The design has taken account of the existing topography of the Site to provide a discrete, undercroft car park. The Proposed Development will provide for a total of 79 no. vehicular parking spaces at lower ground floor level and basement level. Bicycle parking with 288 no. bicycle parking spaces will be provided at lower ground floor level. Plant and storage will be accommodated at basement level. A Landscape Plan has also been prepared aiming to enhance pedestrian permeability through the Site and provide multi-level amenity areas and the road, pedestrian and cycle proposals include improvements to street frontages and the public realm of Carmanhall Road and Ravens Rock Road which will be integrated with the proposals for the Sandyford Business District Pedestrian and Cycle Improvement Scheme.

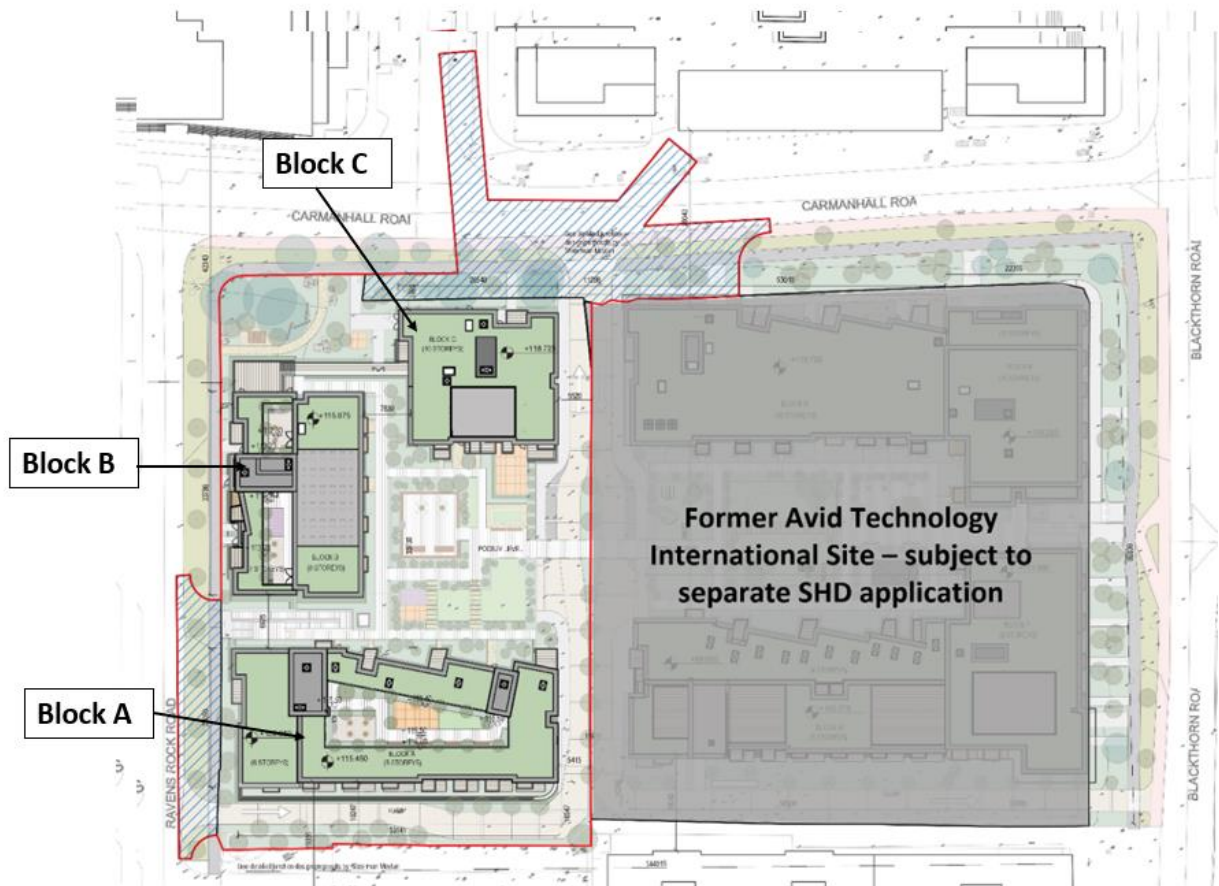


Figure 2: Layout of the Proposed Development

The building height of the Proposed Development ranges from six to ten storeys. Roof, communal terraces and roof garden heights will vary across the Proposed Development depending on the number of storeys and location. The total height of the tallest element of the proposals, located along Carmanhall Road, at the northeast of the Application Site, will be ca. 120.4 m OD (see Figure 3).

The massing of buildings has been broken down into smaller volumes via vertical splits, material alteration, setbacks of building lines and stepping of building heights. These measures are intended to minimise the visual impact of the blocks whilst creating generous, outdoor terraces for communal use.



Figure 3: Building Height at its highest point in the Proposed Development (North-East Elevation). MDO Architects

3.1.1 Relationship between Proposed Development and Wider Masterplan

McCauley Daye O’Connell (MDO) Architects have developed a masterplan for the Application Site and an adjacent site to the east, which is the former Avid Technology International site. A separate SHD application is being prepared for the Avid Technology site, which is identified below, alongside an image of the masterplan for the two sites. It is important to note that a separate EIAR will be submitted with a planning application for the proposed Avid Sandyford SHD. The EIAR for the Proposed Development considers the potential for cumulative effects with the proposed Avid Sandyford SHD where appropriate.

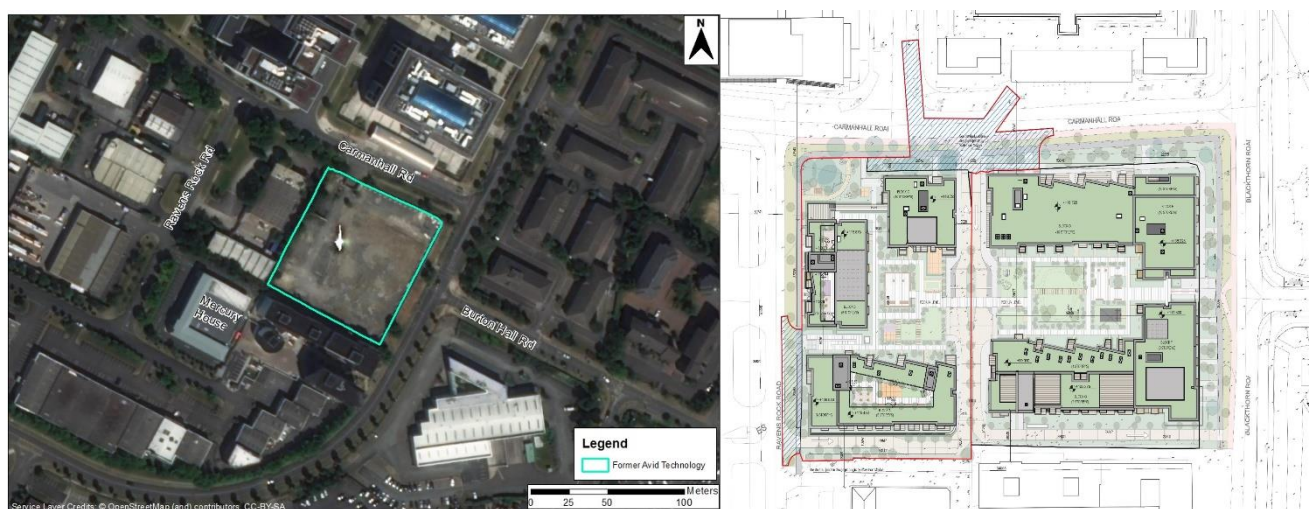


Figure 4: Former Avid Technology International Site (L) and Masterplan (R)

Further details on the Proposed Development are provided in Chapter 3 of the EIAR.

3.2 Proposed Development Construction

Construction Duration

It is anticipated that the construction of the Proposed Development will be conducted in a single phase over a period of approximately 24 months, from the start of the construction works to final completion. Should the SHD application for the Tack Sandyford SHD and the SHD application for the Avid Sandyford SHD be successful, the two sites would be developed in tandem in a single phase also of approximately 24 months. It is expected that a detailed Construction Programme will be prepared by the main contractor for the works.

The proposed sequencing of the construction phase of the Proposed Development is as follows:

- Initial set-up of Site, including security and construction compound;
- Identifying and locating above and below ground utilities and services at the Site and its surroundings;
- Removing limited on site vegetation and demolition of existing buildings;
- Site preparation, including the stripping of soils, tarmac/asphalt surfaces, segregation, stockpiling and export from site;
- Development of the Proposed Development's foundations and substructure. Activities at this stage include the use of rebar, concrete formwork and pour;
- Development of the Proposed Development's superstructure. Activities at this stage include the use of rebar, concrete formwork, pour and blockwork;
- Construction of the superstructure's external envelope and façade;
- Internal finishing, including the mechanical and electrical fit out; and
- External landscaping, including roof top gardens and perimeter planting.

It is anticipated that no driven (percussive) piling will be undertaken. Secant piling are expected to be required around the basement construction and will be installed by rotary methods or by Continuous Flight Auger methods (CFA) of piling.

Construction Management

Operational plans including a Construction Management Plan (CMP), Construction and Environment Management Plan (CEMP), Construction Traffic Management Plan (CTMP), and Resource Waste Management Plan (RWMP) have been prepared to accompany the SHD Application. These documents set out obligations and controls and will be developed by the Main Contractor.

In accordance with the DLRCC County Development Plan (CDP) 2016-2022 and newly adopted 2022-208 CDP, the working hours of the construction site would be: 08h00 hours to 19h00 hours Monday to Friday; and 08h00 hours to 14h00 hours on Saturdays. No work will be carried out on Sundays or bank holidays and the Site will remain secure when construction is not taking place. No work, or other activity that could reasonably be expected to cause annoyance to residents in the vicinity (including deliveries), will take place on site between 19h00 hours and 08h00 hours.

Special construction operations may be identified by the Main Contractor as the Project progresses and may need to be carried out outside these hours to minimise disruption to the surrounding area. The Main Contractor will consult on and agree such construction operations with DLRCC in advance.

3.3 Major Accidents and Disasters

It is required by EU EIA Directive that an assessment is made to *'the expected effects deriving from the vulnerability of the project to risks of major accidents and/or disasters that are relevant to the project concerned'*. The EIAR sets out an assessment of potential vulnerability to major accidents and disasters at the Application Site, and potential for such to arise as a result of the Proposed Development.

No likely risks of a major accident or disaster have been identified in respect of the Proposed Development.

4.0 POPULATION AND HUMAN HEALTH

Population and human health describes the human environment and identifies and assesses any construction and operational related impacts from the activities on lands located on the Site and within a wider 'zone of influence', as predicted impacts on the human environment can extend beyond the immediate Site boundary. The human environment and potential impacts on the 'quality of life' as a consequence of the Proposed Development are examined under the following headings:

- Populations and social patterns;
- Economic patterns (activity and employment);
- Amenity;
- Land-use;
- Human health; and
- Health and safety.

4.1 Impact Assessment/Potential Effects and Mitigation

Potential construction impacts from the Proposed Development include nuisance from noise, construction dusts (from site activities and bare ground), landscape and visuals impacts, and impacts to groundwater and surface waters. The potential extent of these will have a limited zone of influence surrounding the Site and are considered to have short-term impacts on the amenity of the local population. They have been considered in the each of the relevant technical chapters of the EIAR.

Potential air quality impacts to human health from the Proposed Development have been assessed. The factors relevant to human health considered in the assessment are the generation of construction dust, NO₂, PM₁₀ and PM_{2.5}. The air quality assessments have been carried out using appropriate guidance and methods. PM₁₀ concentration in the vicinity of the development site may become elevated as a result of dust generating activities, including exhaust emissions from non-road mobile machinery and vehicles accessing the Site. The assessment identified that there are residential properties located within 350 m of the development boundary, but due to their distance from the boundary these are considered to have low sensitivity. The effects of construction dust are expected to have a short-term adverse effect.

The potential effects of NO₂, PM₁₀ and PM_{2.5} at nearby sensitive receptors as a result of traffic generated by the Proposed Development have been considered and the predicted change in air quality concentrations of NO₂, PM₁₀ and PM_{2.5} is negligible.

The closest residential receptor is located 100 m to the north of the Proposed Development. However, noise effects arising at off-site Noise Sensitive Receptors (NSRs) have been evaluated using Bloom Health as a worst-case proxy. With appropriate construction mitigation measures it has been concluded that the short-term construction activities will result in a slight short-term adverse effect and is therefore not significant.

During the night-time period, predicted noise levels within most-exposed proposed dwellings on first-floor level meet BS8233 target internal noise levels, via closed-window transmission. During the daytime period, predicted levels within most-exposed proposed dwellings resultant impact magnitude is no change to the current situation.

Impacts on neighbouring buildings was also considered in a Sunlight and Daylight Analysis that has been undertaken for the Proposed Development. The assessment identified no residences within the neighbouring surrounds. Buildings surrounding the Proposed Development are commercial in nature and could continue to operate relatively unharmed if affected by a disruption in to form of reduced daylight/sunlight. An internal daylight analysis was also undertaken for all units across the Proposed Development. The analysis determined that 95% of rooms are expected to be in excess of the BRE guidelines for average daylight factors

During the operational and occupational phases of the Proposed Development it is considered that the creation of 207 residential dwelling units and public and communal open space in the Proposed Development will have a positive effect on the local population. The inclusion of public space in the Proposed Development has advantages in terms of creating areas of the development that can be used by the wider local area.

The construction phase of the development is expected to provide short-term, beneficial effects in local economic activity through the creation of direct employment in the construction sector, which is anticipated to result in the employment of ca. 250-450 construction staff. Long-term, the increase in residents will result in the contribution of additional revenue to the local economy through these residents' demand for local services. The provision of additional accommodation within the local area will also have indirect benefits for the Sandyford Business District as an employment centre.

Construction works will take place in accordance with an agreed Construction Management Plan (CMP) and associated Construction Environmental Management Plan (CEMP) to be prepared by the Main Contractor and will be short-term in duration.

National and local government planning policy performs an important role in guiding and facilitating changes in land-use which can influence settlement patterns, thus affecting populations. Planning policy ensures these changes are appropriate to the existing and emerging social, economic and environmental conditions of a given area. The primary consideration relating to land-use change is whether the Proposed Development conforms with land-use policy in the DLRCC County Development Plan (2016-2022) and the incoming 2022-2028 County Development Plan.

The provision of the residential land-use is an effect that alters the character of the environment in a manner that is consistent with existing and emerging baseline trends, which is consistent with the DLRCC Objective for the lands and the emergence of similar developments in the local area in recent years.

5.0 ECOLOGY AND BIODIVERSITY

This chapter has evaluated the importance of the ecological resources present and assessed the potential for impacts on biodiversity resulting from the Proposed Development. The assessment approach has followed best practice methodologies including the Chartered Institute of Ecology and Environmental Management (CIEEM) guidance (2018).

A desktop assessment of available information and habitats and species information (including invasive plant species survey), tree survey, bat survey has been undertaken as well as a site visit by ecologists to undertake habitat mapping and identify any areas of ecological sensitivity. The dominant habitats present within the boundary of the Application Site are of low to negligible ecological value. The urban setting, high density of people and traffic plus lack of ecological connectivity with natural or semi-natural features all detract from the suitability of the Site for non-volent mammal species. The structures and trees present on Site were considered

to be of negligible suitability for bats and the Site does not provide optimal or even sub-optimal bat foraging habitat. The bat roosts were observed on Site during the Site survey.

The Application Site does not support an adequate nesting, foraging and shelter habitat for birds. An absence of woodland, trees or even unmanaged grasslands dictates that the Site is relatively sterile for bird species.

There is no available resource on Site for aquatic fauna and the nearest potential resource (Carrickmines Stream) is offsite and located approximately 350 m to the south of the Site.

There are a number of trees within the Application Site, which have been assessed by an arboricultural specialist. The general condition of the trees is classed as moderate to good, however, the removal or damage of trees is more likely to have an aesthetic impact in contrast to a measurable impact on biodiversity e.g. nesting birds or the tree itself. Tree species recorded on the Tack Sandford Site and adjacent sections of DLRCC verges are Birch, Alder, Sycamore, Field Maple, Norway Maple, Oak, Ash, and Beech. The highest value trees recognised are the mature oak and beech located in the north-west corner of the surveyed site and will be retained in a Pocket Park¹. There are no Tree Protection Orders (TPOs) on any of the trees on the Site.

Impact Assessment and Mitigation Measures

An Appropriate Assessment Screening Report has been prepared as part of the SHD submission pack for the Proposed Development. No significant potential significant impacts from the Proposed Development been identified on the North Dublin Bay SAC, South Dublin Bay SAC, South Dublin Bay and River Tolka Estuary SPA, and North Bull Island SPA, Rockabill to Dalkey Island SAC, Wicklow Mountains SAC and SPA, or on the North Bull Island Nature Reserve.

The Site is essentially impoverished when considering habitats or species per se regardless of conservation status. Risks to off-Site aquatic receptors will be minimised through the adherence to construction best practice policy and the upgrade of the Ringsend wastewater treatment plant.

The opportunity has been taken to incorporate a number of enhancement measures within the Proposed Project, to improve habitat quality over and above the current situation, together with creating new opportunities for improved biodiversity within the Site. When cumulatively considering the mitigation and enhancement measures outlined within this chapter, it is considered that a net gain for biodiversity will be afforded over the medium to long term.

Trees that are to be retained in the landscape design will be protected in accordance with best practice guidance (BS5837, trees in relation to construction) as detailed in Tree Protection Strategy prepared by CMK (2022).

Best practice construction management practices will be employed to ensure protection of the aquatic environment and safeguard against the spread of any invasive non-native species (such as Japanese knotweed or Cotoneaster).

6.0 LAND, SOILS AND GEOLOGY

Chapter 6 of the EIAR considers and assesses any potential impacts and effects on land, soils and geology that can be reasonably foreseen as a consequence of the construction and operation of the Proposed Development during the construction and after-use phases.

¹ CMK (2022) have recommend the felling/removal of one of the oaks due to its condition.

The main receptors identified that required to be assessed were land (soil/sub-soils) at and immediately adjacent to the Proposed Development and human health (workers during construction and after-use occupiers), that could be secondarily affected by changes to soils/sub-soils.

Impact Assessment and Mitigation Measures

No geological heritage sites or mineral sites have been identified as part of the baseline. The superficial tills are unlikely to represent a future resource and the bedrock geology beneath the Site that could be used as a crushed rock resource is ubiquitous across Ireland. Therefore, the impacts to, and effects on, geological sites and mineral or aggregate reserves were not considered further in this assessment.

There is no indication that the Proposed Development would sterilise any limited geological resources and there are no soils (agricultural or not) mapped at the Site, so the use or sterilisation of natural resources, loss of organic matter, soil erosion, or soil compaction were not considered further in this assessment.

Known design and construction management mitigation measures were accounted for in an assessment of initial impacts and effects. Where additional mitigation measures could be incorporated to reduce the initial impacts and effects, these were identified and included in an assessment of residual impacts and effects.

In summary, the significance of residual effects on soils and geology (and on human health from soils and geology) resulting from the different potential sources of change are predicted to be not significant in terms of this assessment.

7.0 WATER

This assessment has considered the potential impacts and effects on the water environment that can be reasonably foreseen as consequences of the normal construction and operation of the Proposed Development during the construction and after-use phases.

The main receptors that required to be assessed were groundwater, surface water, on-site plant and infrastructure, infrastructure immediately adjacent to and downstream of the Proposed Development and human health (specifically existing water users) that could be secondarily affected by changes to the water environment.

Impact Assessment and Mitigation Measures

There are no surface water features on the Site, the closest being Stillorgan Reservoirs just over 200 m to the north. The Site is classified as being at low flood risk. There is only one well or spring mapped within 2 km of the Site, a borehole located over 1.7 km to the north-east. There are no internationally designated sites at, or within 2 km, of the Site.

During the construction and operational phases, the Proposed Development could introduce a range of sources that on their own or in combination have the potential to impact water quality or availability. During the construction phase disturbance of unidentified previously contaminated material could introduce substances to groundwater resulting in poorer groundwater quality for groundwater users. Also wheel wash waste discharges to surface water could result in poorer water quality.

Known design and construction management mitigation measures were accounted for in an assessment of initial impacts and effects; this included the management of all construction activities in line with the final Construction Management Plan and Construction Environmental Management Plan. Where additional mitigation measures were proposed to reduce the initial impacts and effects further, these were identified and included in an assessment of residual impacts and effects.

In summary, the significance of residual effects on water (and on human health from water) resulting from the different potential sources of impact are predicted to be no greater than slight adverse and, therefore, not significant.

8.0 AIR QUALITY AND CLIMATE

8.1 Air Quality

This assessment has considered the potential air quality effects associated with the Proposed Development. The effects have been assessed in the context of relevant national, regional and local air quality policies. The assessment considered the construction and operational phases of the Proposed Development.

Impact Assessment and Mitigation Measures

A qualitative assessment of dust impact from the construction phase has been undertaken in line with Institute of Air Quality Management (IAQM) 'Guidance on the assessment of dust from demolition and construction' (IAQM, 2014). In line with the guidance, the study area for the construction phase assessment extends up to 350 m from the boundary of the Site and within 50 m of the routes used by construction vehicles on the public highway, up to 500 m from the Site entrances. Human receptors have been identified within the study area and assessed accordingly. No relevant ecological receptors such as Natura 2000 Sites (e.g. Special Protection Areas (SPAs) and Special Areas of Conservation (SACs)) are located within the study area; therefore, assessment of potential effects on ecological receptors was scoped out of the assessment.

A full qualitative construction phase dust assessment was carried out. The potential changes that could occur from the Proposed Development were considered and the magnitude of that change assigned. Taking into consideration the mitigation associated with the Proposed Development design, good practice construction methods and pollution prevention measures that will be followed as part of the construction phase, the magnitudes of all predicted changes to air quality during construction are not significant. Therefore, it is concluded that there are no significant effects on air quality from dust arising during the construction phase of the Proposed Development. Detailed mitigation measures have been provided in full in the EIAR Air Quality chapter.

A quantitative operational phase assessment of effects from road traffic emissions was undertaken in accordance with Environmental Protection UK/Institute of Air Quality Management guidance document 'Land – Use Planning & Development Control: Planning for Air Quality' (EPUK/IAQM 2017). Detailed dispersion modelling using ADMS-Roads was undertaken to determine the effect of the Proposed Development on traffic derived pollutants, nitrogen dioxide (NO₂) and particulate matter, at nearby sensitive receptors. During this operational phase, the study area for human receptors extends to 200 m either side of all 'affected roads' – i.e. those meeting the criteria set out in the guidance. Human receptors were identified within the study area and therefore assessed. However, as no Natura 2000 Sites (e.g. SPAs and SACs) were identified within the study area the assessment of impacts on ecological receptors was scoped out of the assessment. The magnitudes of all predicted changes to air quality during the operational phase are negligible. Therefore, it is concluded that there are no significant effects on air quality from traffic arising from the operation of the Proposed Development.

8.2 Climate Factors

The climate assessment has considered climate change resilience and adaptation, i.e. how the Proposed Development may interact with a changing climate and whether this interaction could result in significant environmental effects. The contribution of the Proposed Development to climate change is also a requirement of the assessment of climate change resilience and adaptation of a development. The assessment considers the potential climate impacts during construction and the operational phases.

Impact Assessment and Mitigation Measures

The assessment considered aspects of the Proposed Development that are potentially vulnerable to the effects of climate change. Factors assessed included changes in air quality; noise; landscape and visual; water and flood risk; geology, ground conditions and groundwater; and ecology and biodiversity. Where relevant aspects have been identified, these can be mitigated through embedded mitigation, monitoring or other measures. The assessment reviewed the EPA's Greenhouse Gas Projections 2019-2040 and the Climate Action Plan (2021) and identified that there is not likely to be a significant contribution from the Proposed Development to climate change during the construction and operational phases. There are also no significant effects predicted on the Proposed Development due to climate change (e.g., flooding).

9.0 NOISE AND VIBRATION

This assessment has considered potential noise impacts associated with the construction and occupation of the Proposed Development. The assessment comprised characterisation of the baseline noise environment, adoption of appropriate evaluation criteria, prediction of noise levels at identified Noise Sensitive Receptors (NSRs) and specification of appropriate mitigation.

The assessment included a desk study to determine an appropriate study area and identify potentially sensitive receptors, characterisation of the baseline noise environment, prediction of worst-case construction and operational / occupation phase noise levels and evaluation against appropriate criteria. The Proposed Development lies within a predominantly commercial and light industrial area, with no high-sensitivity NSRs nearby.

Construction activities are not anticipated to generate significant off-site vibration, and no receptors with high sensitivity have been identified within close proximity to the Proposed Development, therefore evaluation of construction phase vibration was scoped out of the assessment. The Proposed Development is not anticipated to generate vibration during the operational phase, therefore vibration impacts during the operational/occupation phase were scoped out of the assessment.

Impact Assessment and Mitigation Measures

The noise environment in the vicinity of the Site was dominated by road traffic on Carmanhall Road, Ravens Rock Road and Blackthorn Road, with a lesser contribution from the M50.

Predicted construction phase noise effects were examined for a 'worst-case' scenario (site clearance and preparation activities), and were determined to be not significant at the closest NSRs as they meet the noise threshold during the proposed construction hours (weekday daytimes, Saturday mornings), therefore no specific mitigation is required to prevent the occurrence of significant impacts.

Following the completion of a detailed construction programme by the appointed Main Contractor, and once any requirements for out-of-hours activities have been identified, detailed noise predictions will be undertaken for these activities to determine any specific mitigation measures required such that the noise thresholds are met at NSRs.

Best practice noise control measures, scheduling of works within appropriate time periods, strict construction noise limits and noise monitoring will be used during the construction phase. This will ensure effects are controlled and will meet threshold criteria derived from measured baseline noise levels.

Noise associated with changes to traffic flows on the local road network has been predicted using noise modelling software. Noise levels from road traffic have been predicted for the future scenario with the Proposed Development. The development years for which traffic flows were predicted and provided were 2026 and 2031.

Noise impacts from the road traffic have been assessed within internal areas of the Proposed Development, and also the external amenity areas, which were identified as NSRs.

Operational / occupation phase noise impacts at proposed NSRs will be mitigated through appropriate specification of alternative ventilation within residential units, such that internal target noise levels will be met using closed-window attenuation. As a result effects to proposed NSRs arising from road traffic on Carmanhall Road and Blackhall Road, and noise from commercial / industrial sources, has been assessed to be not significant.

10.0 CULTURAL HERITAGE

This assessment has considered the potential effects of the Proposed Development on cultural heritage during both the construction and operational phases. The term 'cultural heritage' is used collectively to refer to all assets of archaeological, architectural and historical or cultural value. The assessment included a detailed baseline study to establish the existing conditions, and an effects analysis and impact assessment that considered both direct effects (e.g. physical disturbance) and indirect effects (e.g. changes to setting due to dust and visual changes). The assessment of indirect effects has been informed by the results of other assessments, including the Air Quality and Climate, Noise and Vibration and Landscape and Visual technical assessments. Where required, appropriate mitigation measures have been proposed to avoid or reduce identified impacts.

In lieu of specific guidance from the Institute of Archaeologists of Ireland (IAI), the impact assessment conformed to the guidelines set out by the Chartered Institute for Archaeologists.

Impact Assessment and Mitigation Measures

It is considered that the Proposed Development will have no direct or indirect impacts upon known archaeological monuments or other items of cultural interest that enjoy statutory protection within the study area. This report has demonstrated the agricultural nature of the Site until its development in recent years, one associated with the larger Sandyford Industrial Estate. Where historical mapping depicts a townland boundary across the Site, which dates at least to the 1750s, if not considerably earlier there are no surface indications of historical settlement.

Although the construction of the existing structure would not have occasioned significant disturbance to substrates, it is likely that there was some ground reduction undertaken across the general area to create a level surface for construction. This, in all likelihood, truncated any evidence for historical agricultural development, where it is nonetheless possible that the historic townland boundary presents as a cut feature. There is little further potential for the survival of unrecorded monuments.

In mitigation, it is recommended that archaeological test trenching be undertaken under appropriate licence. This will specifically target the survival or otherwise of the townland boundary across the Site. Should there be significant survival, a representative extent of the alignment will be preserved by record.

11.0 TRAFFIC AND TRANSPORT

This assessment has considered the potential impacts and effects of the Proposed Development on the surrounding road network. The receiving environment has been assessed in terms of walking, cycling, public transport and road infrastructure. The environmental effects associated with the increased traffic have been assessed elsewhere in the EIAR, the Air Quality and Climate and Noise and Vibration technical assessments.

The Proposed Development is proposed to be accessed by way of a new entrance from Ravens Rock Road and egress is proposed through a new road within the east of the Application Site, which will exit to Carmanhall Road. Car parking with a total of 79 car spaces will be provided at Lower Ground Level and Basement. Cycle parking with 288 spaces will be provided at Lower Ground Level.

Impact Assessment and Mitigation Measures

The public realm around the site will incorporate an upgrade of the pedestrian and cycle environment including integration with the Sandyford Business District Pedestrian and Cycle Improvement Scheme. The development includes all associated infrastructure to service the development including access junctions, footpaths and cycle paths together with a network of watermains, foul water drains and surface water drains.

The proposed Avid Sandyford SHD proposals are understood to comprise 336 'Build-to-Rent' residential units and 118 car parking spaces, with access is proposed from Carmanhall Road and egress onto Blackthorn Road. In order to provide best practice assessment, the cumulative traffic impact from the adjacent proposed Avid Sandyford SHD has been considered in the assessment of the impacts of the Proposed Development subject to this EIAR.

The results of the assessment confirmed that the junctions on the surrounding road network would remain within in capacity post development in in the Opening Year 2026 through the Design Year in 2031 to the Future Year 2041.

The assessment also confirmed that the public transport serving the Proposed Development., both bus and light rail would remain within capacity into the future.

It also confirms that the Proposed Development will be consistent with the objectives for Sustainable Travel and Transport set out in both the 2016-2022 and the newly adopted 2022-2028 DLR County Development Plan and the Sandyford Urban Framework Plan.

12.0 WIND MICROCLIMATE

A wind and micro-climate assessment has been conducted to identify the possible wind patterns around the Proposed Carmanhall Road Development considering mean and peak wind conditions typically occurring in Dublin. The criteria of Lawson's Wind Comfort and Distress have been adopted to determine if a specific area of the Proposed Development should be comfortable and safe to pedestrians for its designated activity (i.e. standing/walking/strolling).

Results of the wind analysis were discussed with the design team so as to configure the optimal layout of the Proposed Development for the objective of achieving a high-quality environment for the scope of use intended for each area/building (i.e. comfortable and pleasant for potential pedestrians) and without compromising the wind impact on the surrounding areas and on the existing buildings.

Impact Assessment and Mitigation Measures

The wind profile of the baseline environment has been built using the annual average meteorology data collected at Dublin Airport Weather Station. The prevailing wind directions for the site are identified as West, South-East and West-South-West, with magnitude of approximately 6m/s. A CFD numerical model was built, where the typical winds conditions were applied on the area around the Proposed Development.

The results of the wind speeds and patterns formed under the different simulated wind conditions were combined with the frequency of occurrence of the same and an overall wind map was produced (Lawson map) which has shown the suitability of each area to a specific pedestrian activity.

The following conclusions can be made observing the results of the wind microclimate analysis and comparing the results obtained, under the same wind conditions for the baseline scenario versus the Proposed Development scenario in a cumulative assessment:

The Proposed Development does not impact or give rise to negative or critical wind speed profiles at the nearby adjacent roads, or nearby buildings. Moreover, in terms of distress, no critical conditions were found for “Frail persons or cyclists” and for members of the” General Public” in the surroundings of the development;

The Proposed Development is designed to be a high-quality environment for the scope of use intended of each areas/building (i.e. comfortable, and pleasant for potential pedestrian);

The assessment of the proposed scenario has shown that no area is unsafe, and no conditions of distress are created by the Proposed Development.

An assessment of the Proposed Development on the on-site receptors (pedestrian areas, roads, entrances) and on the off-site receptors (roads/ pedestrian areas off-site on the north, south, west and east directions) and the impact has concluded that conditions will be suitable or calmer than required for the intended use of the receptors.

13.0 LANDSCAPE AND VISUAL

The impact of the Proposed Development on Landscape / Townscape has been considered at both construction stage and operational stage of the Proposed Development. It has also been considered in respect of physical effects on the landform and land cover of the Site as well as the contribution of the Proposed Development to wider townscape fabric and character.

Impact Assessment and Mitigation Measures

There will be permanent physical effects to the land cover of the site resulting from the demolition of the existing industrial warehouses and office building, but these are of low quality and do not make a distinctive or positive contribution to the urban fabric of Sandyford. The landscape impacts during the short-term construction stage will be limited as it is within a medium to high density urban business district where such activity is a regular, on-going, occurrence. The Proposed Development will add a noticeably increased scale and intensity of built development to this site and its immediate surroundings, but in the context of other tall and bulky buildings fronting the western side of Blackthorn road and northern side of Carmanhall Road. Indeed, it will generate an infill link between these clusters of taller buildings, where currently there is something of a latent, perceptual void in the urban fabric of the Sandyford Core area.

The visual impact of the Proposed Development was assessed from 14 viewpoints representing a range of receptors, viewing distances and directions within and around the Sandyford Business District. The range of receptor sensitivity at viewpoints varied between Low within the business district, medium-low within surrounding residential areas where the business district already influences views and High-medium from two designated scenic routes within the foothills of the Dublin Mountains. It should be noted that there are not considered to be any issues with potential overlooking from the Proposed Development as it is surrounded on two sides by business park roads and on other sides by mid-rise commercial developments and a vacant site. Thus, there are no low-rise residential developments in the vicinity, where residential amenity could be significantly impacted by potential overlooking from the Proposed Development.

The significance and quality of visual impacts ranged across the viewpoint set between Slight-imperceptible/Negative at one location (VP7) and Moderate-slight / Positive at one location (VP3). At all other VP locations the significance ranged between Slight / Positive and Imperceptible / Neutral. Only from the elevated VP7 at Leopardstown Rise on the opposite side of the M50 is the Proposed Development considered to contribute a negative visual impact, where it is expected to result in the marginal loss of a further window of view across Dublin Bay in the direction of Sutton.

From those viewpoints within the Sandyford Business District, the development is generally considered to contribute a Positive quality of change and represents the physical manifestation of the zoning and policy context for this locality.

Overall, it is considered that the Proposed Development will not give rise to any significant townscape or visual effects. Instead, such effects will generally be imperceptible or result in enhancement of the townscape and visual setting. It is important to reiterate, particularly for this scale of development, that 'Imperceptible' significance is not tantamount to a barely discernible degree of visual change. In its own right the Proposed Development is not particularly prominent or distinctive, but it is considered to have a positive influence on the adjacent street scenes.

14.0 MATERIAL ASSETS

This assessment has addressed the construction and operational related impacts of the Proposed Development on material assets located in the vicinity of the Application Site. Material assets comprise the physical resources in the environment, which may be of human or natural origin. Material Assets in the vicinity of the Site comprise of built services and infrastructure such as surface water drainage, telecommunications (including microwave linkages), electricity, gas, water supply infrastructure and sewerage. Other Material Assets include traffic and transport which have been assessed in a separate assessment.

Impact Assessment and Mitigation Measures

All works to the electrical, gas and telecommunication lines during the construction phase will be carried out in accordance with appropriate requirements and Electricity Supply Board (ESB) Network, Gas Networks Ireland (GNI) and telecommunication service provider guidelines. Locations and capacity of the network services will be agreed in consultation with ESB Networks. There will be 2 no new ESB sub-stations provided within the footprint of the development. The development will also include Electric Vehicle charging points to 6 no. spaces. There will be an increased demand in electricity supply required during the operational phase of the Proposed Development. Demands will be agreed and authorised by ESB Networks and will ensure there will be no significant effects. ESB Networks were consulted with and it was identified that there are currently no issues with the provision of the required power to the Proposed Development.

For the operational phase GNI have provisionally confirmed that sufficient capacity exists in the local gas network to serve the Proposed Development and it is considered that there will be no significant effects during this phase.

Eir and Virgin Media have also confirmed that their infrastructure to the surrounding area is sufficient to service the Proposed Development, subject to final agreement. The microwave links surrounding the Site (operated by Three and Vodafone) will experience impact or diffraction due to the presence of the Proposed Development. The proposed design provides for infrastructure located on the roof to mitigate any impacts on these microwave links.

Water supply for the Proposed Development is intended to be from the mains and Irish Water has indicated that this is possible without an upgrade to the existing infrastructure (Irish Water, letter reference CDS21008079, dated 25 January 2022). The storm and foul water connections have also been confirmed by Irish Water as being feasible (Irish Water, letter reference CDS21008079, dated 25 January 2022). The surface and storm water from the site will be discharged into the existing storm water network. Foul water will be discharged via a new connection to the existing 225 mm diameter clay wastewater sewer in Arkle Road, as recommended in the confirmation of feasibility from Irish Water (Irish Water, letter reference CDS21008079, dated 25 January 2022).

15.0 INTERACTIONS, CUMULATIVE AND COMBINED EFFECTS

This chapter of the EIAR describes interactions/inter-relationships between environmental effects and also effects of the Proposed Development in combination with other appropriate committed development in the region of the Site. The overall objective of this assessment is to identify, through a review of these issues, whether additional mitigation is required that would not otherwise have been identified in the individual study areas for these interacting or cumulative effects.

Interactions and Inter-relationships

Interactions of EIA study topic areas are typically displayed visually in a matrix table which identifies potential interactions which are likely to occur between the various disciplines. The assessment did not identify any additional potential for impacts further to those that had been identified in previous chapters of the EIAR.

Cumulative and Combined Effects

This section of the EIAR identified the potential for environmental effects and impacts of the Proposed Development in combination with other relevant committed development surrounding the Site.

Cumulative effects are defined as the addition of many non-significant or significant effects, including the effects of other projects, to create larger, more significant effects. Singular activities may have a non-significant effect in isolation, however when combined with other effects these can be collectively significant and therefore must be included in the EIA process.

Relevant committed proposed developments in the region of the Application Site were examined to assess the likelihood and magnitude of combined environmental effects with the Proposed Development.

Although not committed development (i.e. not already in receipt of planning permission), the Avid Sandyford SHD proposals have also been considered within the cumulative assessment. Given that the Proposed Development which is considered in this EIAR is subject to a masterplan that covers the adjacent Avid Sandyford SHD site, this is considered to be an appropriate approach.

With the adoption of standard best practice construction management, no significant cumulative effects were noted further to those that had been identified in preceding chapters of the EIAR. The potential for beneficial conditions, in terms of population and human health and landscape and visual effects, were identified in relation to the combination of the Proposed Development and the proposed Avid Sandyford SHD.

16.0 MITIGATION AND MONITORING MEASURES

The purpose of this chapter is to collate the mitigation and monitoring measures identified in the EIAR that are considered necessary to protect the environment prior to, and during the construction and operational phases of the Proposed Development. Where environmental impacts cannot be avoided by embedded mitigation, additional mitigation and monitoring measures have been recommended in the EIAR. The presentation of additional mitigation measures in the tables presented in Chapter 16 of the EIAR is intended to assist the planning authority in its decision making role.

Where appropriate, environmental monitoring activities have been proposed for the construction and operational phases. Monitoring will take place after the consent is granted for the Proposed Development to provide assurance that aspects of the design and management are functioning as intended and therefore not generating significant effects.

17.0 SUMMARY AND CONCLUSIONS

The findings of the EIA process are fully documented in the EIAR accompanying the planning application.

Measures have been identified to avoid or reduce environmental impacts during construction and operation of the Proposed Development. Some of these form part of the design of the Proposed Development itself. Others, such as management plans, will be secured by provisions in planning conditions of the final grant.



golder.com