Omni Plaza SHD

Non Technical Summary

EIAR
August 2022

Dublin Office
The Tecpro Building,
Clonshaugh Business & Technology Park,
Dublin 17, Ireland.
T: + 353 1 847 4220
F: + 353 1 847 4257

AWN Consulting Limited
Registered in Ireland No. 319812
Directors: F Callaghan, C Dilworth,
T Donnelly, T Hayes, D Kelly, E Porter

NON-TECHNICAL SUMMARY

1.0 INTRODUCTION

1 This is the non-technical summary of an Environmental Impact Assessment (EIA) Report prepared by AWN Consulting (AWN) on behalf of Serendale Limited (herein referred as 'Serendale") to accompany a Strategic Housing Directive (SHD) application to An Bord Pleanála (ABP) for the construction of a mixed use residential (457 apartments) and commercial development ranging in height from 4 to 12 storeys over basement in four blocks, with inte rnal residential amenity space, childcare facility, community building and two retail/café/restaurant units.

2 The proposed site is located to the north west corner of the Omni Park Shopping Centre, Santry and at Santry Hall Industrial Estate, Swords Road, Dublin 9 D09FX31 and D09HC84. The lands primarily comprise the former Molloy & Sherry Warehouse premises and lands generally to the north west corner of the Omni Park Shopping Centre including existing carpark. The site is located west of Lidl and to the north and east of the IMC Cinema within the Omni Park Shopping Centre and east of Shanliss Avenue (Figure 1.1).

Figure 1.1 *Location of the proposed development*

Methodology for Preparation of the EIAR

3 The requirement for EIA for certain types and scales of development is set out in the EIA Directives (2011/92/EU and 2014/52/EU), European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018 (the bulk of which came into operation in September 2018), the European Communities (Environmental Impact Assessment) Regulations 1989-2006, Planning and

Development Act 2000 (as amended) and the Planning and Development Regulations 2001-2017.

4 This EIA Report has been prepared in accordance with the requirements of EIA Directives (2011/92/EU and 2014/52/EU), with consideration given to: Environmental Protection Agency (EPA) "*Guidelines on the Information to be Contained in Environmental Impact Assessment Reports*" (2022); *The Department of Housing, Planning and Local Government Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment* (2018); and the *European Commission Guidance on the preparation of the Environmental Impact Assessment Report* (2017).

5 Serendale Ltd. and the project team have liaised with Dublin City Council, and An Bord Pleanála in advance of lodgement of this application. In addition, the relevant specialists have liaised with statutory bodies (including Irish Water, Bord Gais, ESB, NPWS etc.) as required during the course of the EIA Report preparation. The advice and comments received have been incorporated into the relevant chapters of this EIA Report.

Contributors to the EIA Report

6 The preparation and co-ordination of the EIA Report has been completed by AWN in conjunction with experienced specialists. The role and responsibility of each contributor, their qualifications and relevant experience are detailed in Chapter 1 (Introduction) of the EIA Report.

2.0 DESCRIPTION OF THE PROPOSED DEVELOPMENT

7 The Description of the Proposed Development Chapter (Chapter 2) of the EIA Report describes the site location and the characteristics of the proposed development.

8 This chapter summarises the existing site, the proposed development, and the existence of the project as set out within the Guidelines on the Information to be Contained in Environmental Impact Assessment Reports (EPA, 2022). This guidance advises that description of the existence of the project should define all aspects of the proposed lifecycle of the facility, including:

- Description of Construction;
- Description of Commissioning;
- Operation of the Project;
- Changes to the Project; and
- Description of Other Related Projects.

9 The proposed development covers an area c. 2.5 hectares and is located primarily to the north west corner of Omni Park Shopping Centre, Santry and at Santry Hall Industrial Estate, Swords Road, Dublin 9 D09FX31 and D09HC84.

10 The lands primarily comprise the former Molloy & Sherry Warehouse premises and lands generally to the northwest corner of the Omni Park Shopping Centre including existing carpark. The site is located west of Lidl and to the north and east of the IMC Cinema within the Omni Park Shopping Centre and east of Shanliss Avenue.

11 The application site includes lands within the existing Omni Park Shopping Centre and the primary access is proposed from same. Service access will be from the Swords Road along the access road south of AIB, Swords Road, Santry.

12 Figure 2.1 presents the site layout for the proposed development.

Figure 2.1 *Proposed Site Layout*

13 Permission for a 7 year duration is sought by Serendale Limited for a Strategic Housing Development which comprises the demolition of the existing industrial / warehouse buildings northwest of Omni Park Shopping Centre, Santry, Dublin 9 and the construction of 457 no. apartments across 4 no. blocks, ranging in height from 4-12 storeys (over basement). The proposal includes 2 no. retail/café/restaurant units, 1 no. community building, 1 no. childcare facility, 1no. residential amenity space and 5 no. ESB substations.

14 The development also provides for a basement carpark of 213 no. spaces and 7 no. motorcycle spaces with 7 no. creche drop-off parking spaces and 6 no. carshare parking spaces located in newly reconfigured surface carpark. The proposal provides for 768 no. bicycle parking spaces.

15 The proposal includes the provision of a new public open space plaza, with consequential revisions to existing commercial car parking areas, to integrate the proposals with the wider District Centre.

16 The proposal includes the provision of pedestrian and cycle connections and improvements through Omni Park Shopping Centre, including a plaza and cycle/pedestrian link substantially in the form permitted as part of the Omni Living Strategic Housing Development (Ref. ABP-307011-20).

17 Access to the proposed 213 no. basement car parking spaces is via the existing Omni Park Shopping Centre. A secondary servicing and emergency access is via the existing service road to the rear of existing retail premises at Omni Park Shopping Centre and accessed from the Swords Road.

18 The development provides for all associated and ancillary site development, demolition and clearance works, hoarding during construction, revisions to car parking within the Omni Park Shopping Centre, soft and hard landscaping, public realm works, public lighting and signage, ancillary spaces, plant including photovoltaic panels, water infrastructure, utilities and services.

19 The proposed apartments are arranged in individual blocks (Blocks A, Block B, Block C and Block D. Blocks A, and Block B is proposed to range in height from 4-8 storeys, Block C is proposed to be 9 - 12 storeys and Block D is proposed to be 10 - 11 storeys.

20 The proposed development has been designed by skilled personnel in accordance with internationally recognised standards, design codes, legislation, good practice and experience. At design stage, each unit has been assessed for energy efficiency.

3.0 ALTERNATIVES

21 The Alternatives Chapter (Chapter 4) of the EIA Report describes reasonable 'alternatives' for projects with regard to their environmental effects addressing:

- Do Nothing Alternative;
- Alternative project locations;
- Alternative designs/layouts;
- Alternative processes; and
- Alternative mitigation.

22 This chapter describes the alternatives that were considered for the proposed development, where applicable, under each of these headings and the reasons for the selection of the chosen option including consideration of environmental effects.

Do Nothing Alternative

23 In the event that the Proposed Development does not proceed, the specific need for this commercial, amenity and residential development would still exist for the site, and as such the Proposed Development would need to be built elsewhere.

Alternative Project Locations

3.1 Given the current zoning of the site, the surrounding land uses, the proximity to similar associated developments, and the availability of necessary services and infrastructure, the Proposed Development is the most appropriate use for the site.

Alternative Design/Layouts

3.2 Since the project outset the design has undergone a number of changes in terms of layout, massing, height, design and magnitude in response to the following:

- Consultation feedback arising from a meeting with Dublin City Council (DCC) which discussed setbacks, height, pedestrian access, vehicular access, the plaza, mix of uses, and daylight/sunlight.
- Desire to minimise the impact upon the residential houses on Shanliss Avenue (increased setbacks, reduced building height, amendments to windows to prevent overlooking, movement of playground, increased planting).
- Need to integrate with surrounding cumulative developments (alterations to building rhythm, building height and massing, façade, balconies and materials,

landscaping, integration of access, prioritisation of pedestrian and cyclists, traffic patterns, orientation and accessibility of open space, sunlight & daylight).

Alternative Processes

3.3 The flexibility to select alternative processes is limited for this type of development as opposed to an activity that has more complex equipment and processes. Notwithstanding this the applicant did include a number of renewable energy measures in the design of the site.

Alternative Mitigation

24 The most appropriate mitigation has been decided through an analysis of the existing environment, likely impacts of the proposed development, relevant guidance, legislation, and the range of mitigation measures available to address the potential impact.

4.0 PLANNING AND DEVELOPMENT CONTEXT

25 The Planning and Development Context Chapter (Chapter 3) identifies the national, regional and local planning policy and context applicable to the proposed development. The installation is located within the administrative area of Dublin City Council ("DCC").

26 The chapter concludes that the facility is in accordance with the policies and objectives of the National Spatial Strategy, Regional Spatial and Economic Strategy for the Eastern and Midlands Regional Assembly and the Dublin City Development Plan. As part of the assessment of the impact of the proposed development, account has been taken of local committed developments that are currently permitted or under construction within the vicinity of the proposed site.

5.0 POPULATION AND HUMAN HEALTH

27 This chapter has been prepared to assess the likely impacts associated with Human Health for the proposed development. In accordance with the Draft Guidelines on the Information to be Contained in Environmental Impact Assessment Reports (EPA, 2022), Draft Advice Notes for Preparing Environmental Impact Statements (EPA, 2015), and European Commission (EC), Environmental Impact Assessment of Projects: Guidance on the preparation of the Environmental Impact Assessment Report (EU, 2017) this chapter has considered the "existence, activities and health of people" with respect to "topics which are manifested in the environment such as employment and housing areas, amenities, extended infrastructure or resource utilisation and associated emissions".

28 Issues examined in this chapter include demography; population; employment; social infrastructure; landscape, amenity and tourism; natural resources; land, soil, geology and hydrogeology; hydrology; air quality; noise and vibration; material assets; microclimate; traffic and health and safety.

29 The assessment of significance is a professional appraisal based on the sensitivity of the receptor and the magnitude of effect.

30 The proposed development site is located in County Dublin, and in the electoral district of Whitehall C (ED 2092).

31 The development site is located next to the existing Omni Shopping Centre and is not located near any areas of significance or local tourism. The site is also in close proximity the residential properties (20 metres to the west). Santry Park is located to the north 1.3km away and is the closest source of local tourism in the surrounding area. Tourism is not a major industry in the immediate environs of the site.

32 The proposed development is located within a *Z4* zone as noted in the Dublin City Development Plan 2016 – 2022. *Z4* zones are identified *'To provide for and approve mixed-services facilities'*. The development is in line with the goals of the zoning.

33 There will be a temporary, slight, positive effect on local business as a result of the impact of construction workers using local facilities during the construction phase. However, the main potential negative impacts on human beings associated with the proposed development will be in relation to air quality, noise, visual effects and traffic during the construction stage. These are temporary effects. Noise and vibration in particular has the potential to have a significant impact in the absence of mitigation measures due to the proximity of the construction to nearby residential properties. The long-term impact on air quality, vibration, visual effects and traffic during operation is assessed as imperceptible/not significant, i.e. in line with emerging trends for a mixed-use development area. The outdoor play area in the crèche is a potential noise source. The facades adjacent to the area are considered likely to experience a significant effect. Due to the location of the outdoor play area, it is considered there will be no impact on locations outside of the proposed development.

34 In terms of noise and air (dust) during the construction phase impacts on noise-sensitive locations are not expected to exceed the significance thresholds that have been set based on the existing environment and appropriate mitigation during construction. The mitigation measures that will be put in place at the proposed development will ensure that the impact of the proposed development complies with all ambient air quality legislative limits and therefore the predicted impact is short-term, negative and imperceptible with respect to the construction phase and long-term, neutral and imperceptible with respect to the operational phase in terms of human health impacts.

35 In relation to the operational phase of the proposed development, potential impacts from building services plant, additional traffic on surrounding roads, truck deliveries and collections and the outdoor play area associated with the crèche have been assessed. No likely significant impacts have been identified in the course of these assessments.

36 The cumulative impact of the proposed development together with the permitted proposed and existing developments in the area have been assessed based on a thorough traffic survey of the affected road network, and it has been determined to be negligible in the context of the established network. The residual impacts are actually expected to be positive, with increased residential capacity and effect upon businesses, consistent with the Dublin County Development Plan.

6.0 LAND, SOILS, GEOLOGY AND HYDROGEOLOGY

37 This chapter of the EIA Report assesses and evaluates the potential impacts of the development on the land, soil, geological and hydrogeological aspects of the site and surrounding area.

38 Inspection of the available GSI maps show that the bedrock geology underlying the site belongs to Lucan Formation consisting of dark-grey to black, fine-grained, occasionally cherty and micritic limestones that. Historical site investigations and GSI information indicate that bedrock would be located at depths even deeper than 20 mbgl in the vicinity of the subject site. The GSI categorise the bedrock aquifer underlying the site as having a 'Low' vulnerability (>10 m of overburden thickness).

39 The GSI/Teagasc subsoil mapping database of the quaternary sediments in the area of the subject site indicates that the majority of the site and surrounding area is underlain limestone Tills which is made up of glacial clay which are less permeable than alluvium subsoils. This has been confirmed by the site specific investigations.

40 The Groundwater Body (GWB) underlying the site is the Dublin GWB. Currently, this GWB is classified under the WFD Risk Score system (EPA, 2021) as 'under review'. The Dublin GWB was given a classification of "Good" for the last WFD cycle (2013-2018).

41 Overall, the soil quality results were all below the most conservative threshold value for the LQM/CIEH for HHRA (Human Health Risk Assessment) Residential and Commercial Threshold at 1% SOM for almost all parameters and all sample points, with some exceptions only for residential use. WAC analysis identified that the representative samples (with some few exceptions) are suitable for classification as Category A – Inert. During the site investigation no groundwater was encountered.

42 Based on the TII criteria (refer to Appendix 6.1) for rating the importance of geological features, the importance of the bedrock and soil features at this site is rated as Low Importance with low quality, significance or value on a local scale.

43 The importance of the hydrogeological features at this site is rated as Medium Importance based on the assessment that the attribute has a medium quality significance or value on a local scale. The aquifer is a Locally Important but is not widely used for public water supply or generally for potable use. In addition, there would not be direct or indirect hydrogeological connection between the site and any protected sites (SAC, SPA, NHA).

44 The activities required for the construction phase of the proposed development represents the greatest risk of potential impact on the hydrogeological environment. These activities primarily pertain to the site preparation, excavation, levelling and infilling activities required to facilitate construction of the proposed development.

45 Excavations across the site are required for the site preparation and levelling works, to achieve foundation level and facilitate construction. The project engineers have estimated that c. 44,213 m^3 of material will require excavation for the basement, attenuation tank and foundations. This volume comprises topsoil (made ground) and cohesive deposits. It is envisaged that bedrock will not be exposed as part of the excavation works. In addition to this there is a net import of suitable engineering fill up to c. 4,000 m^3 under basement slabs, and for attenuation tank, hardstanding's fire tender access, plazas, walkways, etc. These estimates will be refined prior to commencement of construction.

46 The potential impacts of construction and operation and mitigation measures proposed have been identified and will be included in the Construction Environmental Management Plan (CEMP) for the Proposed Development.

47 Temporary storage of soil will be carefully managed in such a way as to prevent any potential negative impact on the receiving environment and the material will be stored away from any open surface water drains. Further soil sampling will be undertaken during pre-development works however, it is anticipated that all excavated material will be reused on site. In the event that potentially contaminated soils are encountered, they should be segregated, tested and classified as hazardous or non-hazardous in accordance with the EPA Guidance Document: Waste Classification – List of Waste and Determining if Waste is Hazardous or Non-Hazardous (2015) and Council Decision 2003/33/EC. It should then be removed from site by a suitably permitted waste contractor to an authorised waste facility.

48 All fill and aggregate for the Proposed Development will be sourced from reputable suppliers. All suppliers will be vetted for the appropriate certificates, management status and regulatory compliance standards.

49 All fuel tanks shall be stored in designated areas, and bunded to a volume of 110% of the capacity of the tank within the bund (plus an allowance of 30 mm for rainwater ingress). Refuelling of construction vehicles and the addition of hydraulic oils or lubricants to vehicles, will take place in a designated area (or where possible off the site) which will be away from surface water gulley's or drains.

50 Following implementation of mitigation measures detailed in Chapter 6 of the EIA Report, the predicted impact during construction of the Proposed Development will be short-term, imperceptible and neutral.

51 During the Operational phase, there are limited activities that could potentially impact on the land soils, geological and hydrogeological environment. There are no discharges to ground included in the design and no abstractions from the aquifer. In the event of an accidental leakage of oil from the parking areas, this will be intercepted by the drainage infrastructure proposed.

52 The predicted impact during operation of the Proposed Development, following implementation of mitigation measures detailed in Chapter 6 of the EIA Report will be long-term, imperceptible and neutral.

7.0 HYDROLOGY

53 This chapter of the EIA Report assesses and evaluates the potential impacts of the development on the hydrological aspects of the site and surrounding area.

54 There are no open watercourses at the site or in the immediate vicinity of the site. The nearest watercourse to the site is the Santry River which resides c. 1 Km to the north of the site although the site lies within the Tolka River sub-catchment; the Tolka River is located c.2.5 Km to the south. The Dublin Bay coastal waterbody is the nearest water receptor and is located c. 9 Km southeast of the proposed development. Historical watercourses used to flow in the vicinity of the site (Naniken and Wad rivers); however, these streams are currently culverted and therefore the subject site has no hydrological connection to them. The site would have an indirect hydrological connection with the North Dublin Bay SAC/pNHA and North Bull Island SPA through the local drainage networks.

55 At local level, the existing site is currently drained via gravity into 2 no. private surface water drainage networks which connect into other private surface water networks within the site. The private sewer network flows east where it connects into a public surface

water sewer located within Swords Road. This network and their connections will be decommissioned.

56 The water quality at the nearest gauging stations in the Tolka and Santry rivers which were tested in 2019 (Violet Hill Drive Finglas and Clonshaugh Road Bridge, respectively) were classified as 'Moderately polluted'. The Tolka River has an 'Unassigned' WFD status and is 'At risk of not achieving good status'. The Santry river is classified as having 'Poor' status and is also 'At risk of not achieving good status'.

57 The importance of the hydrological features at this site is rated as 'Low Importance'. based on the assessment that the attribute has a low quality significance or value on a local scale. Although there would be an indirect hydrological connection between the site and Dublin Bay protected sites (SAC, SPA, NHA), this is considered imperceptible due to the significant distance from the site (South Dublin Bay and River Tolka Estuary SPA and North Dublin Bay pNHA are c.3.8 km).

58 The potential risk of flooding on the site was also assessed by a Flood Risk Assessment that was completed for the site (refer to Appendix 7.2). There is no risk of flooding affecting the site from fluvial or coastal sources, since the site lies within Flood Zone C (i.e., where the probability of flooding from rivers is less than 0.1% or 1 in 1000). The site is considered to be a risk of pluvial flooding based on the aforementioned risk assessment. However, the design SUDS measures, and surface water drainage network including attenuation storage are considered to be sufficient measures to provide protection to the development from the potential pluvial flooding risk. As such, the proposed development will have no measurable increase on the flood risk to neighbouring lands.

59 The potential impacts of construction and mitigation measures proposed have been identified and are included in the CEMP for the proposed development. The implementation of mitigation measures detailed in Chapter 7 of the EIA Report will ensure that the potential impacts on the surface water environment do not occur during the construction phase and that the residual impact will be short-term, imperceptible and neutral.

60 During the Operational phase, there are limited activities that could potentially impact on the hydrological environment. The proposed development will provide a significant improvement to the local drainage catchment as it is proposed to provide full attenuation in compliance with the requirements of the Greater Dublin Strategic Drainage Study. A number of measures will be put in place to minimise the likelihood of any spills entering the water environment to include the design of the car park with hydrocarbon interceptors. In the event of an accidental leakage of oil from the parking areas, this will be intercepted by the drainage infrastructure proposed.

61 The predicted impact during operation of the Proposed Development, following implementation of mitigation measures detailed in Chapter 7 of the EIA Report will be long-term, imperceptible and neutral.

8.0 BIODIVERSITY

62 The Biodiversity assessment within this Chapter assesses the biodiversity value of the proposed development area and the potential impacts of the development on the ecology of the surrounding area and within the potential zone of influence (ZOI). Standard construction and operational phase control measures, in addition to monitoring measures are proposed, to minimise potential impacts of the proposed

development and to improve the biodiversity potential of the proposed development site post construction. It should be noted that the proposed development site is a brownfield site and consists primarily of built land including warehouses and hard standing and as such is of low biodiversity importance.

63 A habitat survey of the site was undertaken within the appropriate seasonal timeframe for terrestrial, bat and habitat assessment fieldwork. The designated conservation sites within 15km of the site were examined for potential impact. Sites beyond 15km had no direct or indirect pathways. The potential ZOI of the project was deemed to be the site within the site outline with potential for downstream impacts via the proposed foul and surface water drainage strategy. No conservation sites are within the potential zone of influence. There is an indirect pathway to North Dublin Bay SAC/pNHA and North Bull Island SPA via the surface water network and Santry River.

64 The vast majority of the proposed development site consists of Built Land). A bat survey (inspection and emergent survey) was carried out on site. The exterior and interior of the buildings were brightly lit. No bats or evidence of bat presence/use of the building/structures was noted. No bats were noted flying within the proposed development site. No flora or terrestrial fauna species or habitats of National or international conservation importance were noted during the survey.

65 Standard construction and operational mitigation measures are outlined in the EIAR. These would ensure that surface water entering the existing public surface water drainage network and the and uncontaminated. However, it should be noted that the early implementation of ecological supervision on site at initial mobilisation and enabling works is seen as an important element to the project, particularly in relation to the implementation of protection of nesting gulls, pre construction surveys for bats and surface water runoff mitigation.

66 With the successful implementation of standard mitigation measures to limit surface water impacts and biodiversity mitigation/supervision, no significant impacts are foreseen from the construction or operation of the proposed project. Residual impacts of the proposed project will be localised to the immediate vicinity of the proposed works. Positive impacts would be seen through the implementation of a landscape strategy with greater potential for biodiversity than currently exists on site.

67 A separate AA Screening, in accordance with the requirements of Article 6(3) of the EU Habitats Directive, has been produced to identify potential impacts of the development on Natura 2000 sites, Annex species or Annex habitats. It concludes that '*No Natura 2000 sites are within the zone of influence of this development. Having taken into consideration the effluent discharge from the proposed development works, the distance between the proposed development site to designated conservation sites, lack of direct hydrological pathway or biodiversity corridor link to conservation sites and the dilution effect with other effluent and surface runoff, it is concluded that this development would not give rise to any significant effects to designated sites. The construction and operation of the proposed development will not impact on the conservation objectives of features of interest of Natura 2000 sites*.'

9.0 AIR QUALITY AND CLIMATE

68 This chapter (Chapter 9) evaluates the impacts which the proposed development may have on air quality and climate.

69 Impacts to air quality and climate can occur during both the construction and operational phases of the proposed development. With regard to the construction stage the greatest potential for air quality impacts is from fugitive dust emissions impacting nearby sensitive receptors. Impacts to climate can occur as a result of vehicle and machinery emissions. In terms of the operational stage air quality and climate impacts will predominantly occur as a result of the change in traffic flows in the local areas associated with the proposed development.

70 The UK Institute of Air Quality Management guidance was used to assign a medium level of sensitivity to dust soiling impacts to the area in the immediate vicinity of the proposed development. The local area is considered of low sensitivity to human health impacts from dust emissions. The scale and nature of the demolition and construction works were reviewed, and it was determined that a high level of dust control was required for the demolition and construction phases of the proposed development. Once the dust mitigation measures outlined in Appendix 9.2 of Chapter 9 are implemented, dust emissions are predicted to be short-term, negative and imperceptible and will not cause a nuisance at nearby sensitive receptors. Construction phase traffic can also impact air quality, particularly due to the number of HGVs accessing the site. Demolition and Construction phase traffic levels were reviewed and it was found that the change in traffic was not of the magnitude to require a detailed assessment, therefore the impact is considered short-term and neutral. It is not predicted that significant impacts to climate will occur during the demolition and construction stage, impacts to climate are predicted to be short-term, neutral and imperceptible.

71 Potential impacts to air quality and climate during the operational phase of the proposed development are as a result of increased traffic volumes on the local road network. The changes in traffic flows (including local committed developments) were assessed against the UK Design Manual for Roads and Bridges (DMRB) screening criteria for an air quality and climate assessment. As the changes in traffic did not meet the screening criteria no air quality or climate assessment was required, and it can be determined that the operational phase of the proposed development will have an imperceptible, neutral and long-term impact on air quality and climate. In addition, the proposed development has been designed to minimise the impact to climate where possible during operation.

72 The best practice dust mitigation measures that will be put in place during demolition and construction of the proposed development will ensure that the impact of the development complies with all EU ambient air quality legislative limit values which are based on the protection of human health. Therefore, the impact of construction of the proposed development is likely to be short-term, localised, negative and imperceptible with respect to human health. Operational phase predicted concentrations of pollutants are predicted to be significantly below the EU standards, the impact to human health is predicted to be imperceptible, neutral and long term.

73 No significant impacts to either air quality or climate are predicted during the construction or operational phases of the proposed development.

10.0 NOISE AND VIBRATION

74 The Noise and Vibration Chapter (Chapter 10) of the EIA Report assesses the potential noise and vibration impacts of the facility during operation.

75 The existing noise climate has been surveyed during both daytime and night-time periods and has been found to be typical of an urban area. Prevailing noise levels are primarily due to local road traffic movements.

76 The potential noise and vibration impact on the nearest noise sensitive locations was assessed for the short-term construction phase and the long-term operational phase.

77 Provided that the mitigation measures provided in the chapter are employed and subject to good working practice during the construction phase and not exceeding any limits proposed within Chapter 10 of the EIAR, it is anticipated that noise and vibration will not cause any significant impact or noise and vibration nuisance. During the operational phase, the key potential noise sources, including increased road traffic and mechanical plant noise emissions, have been assessed and commented upon. The assessment has indicated that, subject to the implementation of the mitigation measures proposed within Chapter 10 of the EIAR, the proposed development will not increase the existing noise climate sufficiently so as to cause a likely significant impact during the operational phase.

78 There is potential for the construction phase of the proposed development to coincide with that of other proposed developments in the area. However, due to the location of these other proposed developments with respect to the noise-sensitive locations of concern, there will not be likely significant impacts due to cumulative effects during the construction phase. In relation to the operational phase, the assessment of additional traffic took account of traffic due to committed developments in the area and no likely significant impacts were identified.

11.0 MICROCLIMATE

79 The proposed development comprises 4 main blocks; Blocks A, and Block B is proposed to range in height from 4-8 storeys, Block C is proposed to be 9 - 12 storeys and Block D is proposed to be 10 - 11 storeys. According to the “Sustainable Design and Construction, The London Plan Supplementary Planning Guidance, 2006, Mayor of London’s Office” the proposed development is not classed as a tall building however it is considered appropriate to examine the wind effects with regard to microclimate as a precautionary measure.

80 It is acknowledged that the construction of new buildings can lead to changes to the local wind environment around the building. Generally elevated wind speeds around tall buildings are generated at three main points; either at ground level in the space behind a lower building and in front of a tall building, at an opening within the building envelope at ground level such as a tunnel or mall through the building, or at building corners. Elevated wind speed can also be generated where a street runs between two tall buildings, leading to a “canyon effect”.

81 When wind approaches a built-up area it is displaced upwards to roof level and generally flows across the landscape at roof level, with gusts down to street level that are a function of the relative height to width of the street canyon.

82 As the predominant wind directions are from the west and from the south west, wind striking the proposed development will therefore already have travelled across the built-up landscape of the north western environs of Dublin City and therefore wind-flow across the landscape will be tend to be predominantly at 2-storey roof level.

83 As mentioned above, The Height to Width Ratio (buildings to street canyons) is a key indicator in characteristics of wind flow. For H to W ratios greater than 0.7, the Skimming Flow Regime tends to predominate, with little in the way of wind flow down to street level.

84 When the H to W ratio drops to 0.4 or less, the wind speed at ground level tends to increase and the street behaves more as if it were in open country, with much more of the wind now gusting down into the street.

85 The BRE DG 520 document notes that H to W ratio of > 0.65 should be a target to minimise any wind related impacts.

86 The area immediately downwind of the proposed development is dominated by commercial residential buildings, predominantly 2-storeys in height.

87 The proposed building heights are from 26 to 41 metres above ground. The distance to the nearby residential and commercial units down-wind is some 30 metres. The lower H to W ratio is therefore is circa (26/30) = 0.86 which is greater than 0.4 and 0.65.

88 The general pattern of wind-flow in the area upwind is likely to be above street-level (predominantly defined by the mainly 2-storey high structures up-wind). The proposed development will be some 4 to 12-storeys in height, so wind incident to this structure will tend to be deflected both upwards and downwards. Based on the H to W ratios derived above it can be expected that the skimming regime will dominate, with little in the way of wind flow down to street level and therefore the proposed development is not expected to lead to elevated windspeeds at street level.

89 The predicted impact upon microclimate will therefore be neutral, not significant and permanent.

12.0 LANDSCAPE AND VISUAL ASSESSMENT

90 Currently the lands are disused and brownfield in nature, with a former industrial unit occupying the space. Various outbuildings are also present, with the remaining site area laid with concrete hardstanding. The site is zoned Z4 – Mixed-services facilities, along with the rest of the Omni Shopping Centre.

91 There are no scenic routes adjacent to the site, neither are there any Tree Preservation Orders. The site is not within an ACA (Architectural Conservation Area) and there are no Natura 2000 sites (statutory protection areas under the Habitats and Birds Directives) on or near the proposed site.

92 The only vegetation of note on the site are the existing trees planted within the car park area to the east. There are also trees located within neighbouring properties adjacent to the west and north-west boundaries.

93 The immediate visual context is dominated by the Omni Shopping Centre and its associated retail and commercial buildings. The area to the south is mainly surface car-parking and roadways, with tree planting along the main access route and within some parking areas. The main part of the site to the north-west is partly screened by an existing concrete block wall and conifer hedge. The existing warehouse unit is partially visible to the boundary with the existing Lidl development.

94 There are direct views northwards to the site from the Omni Shopping Centre environs. Views from the east are partly screened by the existing Lidl store and the First Stop mechanic unit, with open views present from the existing access roadway and car parks to the east also. Further glimpsed views are present through to the site from the residential areas to the east of Swords Road, though these are partial and oblique.

95 The rear of the two storey units of Santry Business Park that directly back onto the northern site boundary have direct views to the site. These commercial units screen the site from the remaining areas to the north.

96 The residential dwellings directly to the west (Shanliss Avenue) have direct views from their upper storey windows across to the site. Other residential properties, further to the west, south-west and north-west have indirect, oblique views towards the site, existing views from residential areas to the south are screened by the shopping centre buildings.

97 There are glimpsed views from along the Sword Roads, but not further than the extent of the shopping centre's surrounding blocks.

98 A number of visual and landscape mitigation measures are proposed including landscaping of the areas to the north and west with substantial planting of native standard trees to aid screening for the residential areas to the west and north-west.

99 There will also be additional tree and shrub planting within the courtyard areas and the new public plaza providing additional visual interest within the plaza, and buffering the ground floor of the development. The development will continue to be softened and screened over time as the trees and planting mature.

100 Following construction the main landscape impacts of the proposed development are associated with the change from a disused partially vacant warehouse with extensive concrete hardstanding areas (with no vegetation on site), to a more intensified residential/mixed use, with associated tree and shrub planting. Within the site, there will be approximately 150 new trees planted and approximately 3,400 sqm. of planting.

101 As a result the effects on the existing landscape of the proposed development would overall be moderately positive.

102 Maturing trees and shrub planting will further integrate the proposed development into the existing landscape, resulting in a long term moderately positive impact on the landscape.

103 The size and quality of the public amenity space and planting along the boundaries and within the public realm will have a small ameliorative effect at ground level, but due to the height of the proposed development, many visual impacts will persist, however the majority while not be significant. Three vantage points will be deemed to have imperceptible visual impacts with one view-point on Shanliss Avenue experiencing a moderate visual impact.

13.0 ARCHAEOLOGY, ARCHITECTURE AND CULTURAL HERITAGE

13.1 The proposed development comprises a fully developed site occupied by industrial buildings, roadways and car parking areas in the townland of Santry.

13.2 There are no recorded monuments, protected structures or NIAH structures located within the study area of 250m. The development area partially occupies the former demesne landscape of Santry Hall/Santry Lodge, which is visible from Rocque's map of 1760 onwards. The house and demesne have been entirely demolished and redeveloped and no trace of the demesne or any associated features survive within the landscape today.

13.3 The proposed development area has been subject to large scale modern disturbance. It is highly likely that any archaeological features that may have been located within the development area have since been removed. As such, no negative impacts upon the archaeological heritage resource are predicted as a result of the construction of the proposed development.

13.4 No sites of specific architectural or cultural heritage significance have been identified in or within the study area of the proposed development. As such, no negative impacts upon the architectural or cultural heritage resource are predicted as a result of the construction of the proposed development.

13.5 No sites of archaeological, architectural or cultural heritage significance have been identified in or within the study area of the proposed development. As such, no negative impacts upon the archaeological, architectural or cultural heritage resource are predicted as a result of the operation of the proposed development.

13.6 No mitigation is required in relation to the archaeological, architectural and cultural heritage resource at construction or operation stage.

14.0 TRAFFIC AND TRANSPORTATION

104 NRB Consulting Engineers Ltd were appointed to address the Traffic & Transportation impact associated with the construction a proposed mixed-use development on lands to the north west corner of the Omni Park Shopping Centre and at Santry Hall Industrial Estate. The development consists of a total of 468 private residential apartment units, 430m^2 Gross Floor Area (GFA) of retail/commercial space, residential amenity and community space and a small ancillary Crèche of 226m^2 GFA on the site. We have assessed the impact of the traffic associated with these proposed elements, together with the established traffic and all local cumulative traffic (Current and proposed) on the adjacent affected road network for the AM Peak and PM Peak Hours.

105 A basement car park is proposed for the scheme and is to be accessed internally from within the Omni Park Shopping Centre site, which also incorporates bicycle and waste storage areas. The parking quantum provided is further considered within the appended TA Report.

106 It should be noted that, as a 'brownfield site' with a previous industrial use, the subject lands historically generated traffic volumes associated with the permitted uses. The now proposed uses should be considered in this context, as the permitted uses would have generated traffic volumes in their own right, including more onerous heavy goods vehicle traffic.. Given the developments location within and adjacent to Omni Park Shopping Centre, its service offerings and employment opportunities, there is significant scope for linked trips and modal shift away from the private car at this site. In these terms this Transportation Assessment is considered conservative and robust in terms of its approach.

107 The Transportation Assessment has been prepared in accordance with the TII's Traffic & Transportation Assessment Guidelines and addresses the traffic impact of the proposals. The assessment is based on comprehensive Weekday AM & Weekday PM Peak classified interval turning movement surveys of the local roads carried out in 2019 during normal school term prior to the Covid 19 Pandemic (Refer to Data included as Appendix B of the enclosed TA Report).

108 The TA Report & analysis includes an assessment of impact of the proposed development traffic during the projected Opening Year 2024 together with an assessment of the Design Year 2039 (15 years following opening). We have also included the traffic generation associated with the significant developments in the local area that have received planning permission but are as-of-yet unbuilt and unoccupied. *With regard to the selected Opening Year of 2024, in the event that the development is completed/occupied at a later date, this will have no implications for the conclusions of the study. The published Greater Dublin Metropolitan Area Annual Traffic Growth Rate (Table 6.1 of PE-PAG-02017 Unit 5.3) is 1.62% Per Annum for light vehicles (cars) during the period 2016 to 2030 (or a growth rate of 1.0162), and even less beyond this time period. Therefore, the selection or use of a later Opening Year by 1-5 years if required for any reason would have the effect of slightly increasing background traffic levels, thereby actually reducing the net effect of any development traffic, but having no real effect or impact on the conclusions of the Study, based on our experience*.

109 This site is within easy walking distance of current high frequency Dublin Bus Services running along Swords Road via Santry Village. The site will also in future benefit from being immediately located on route of the Core Bus Corridor #2 (Swords/City Centre), being a main spine feeder route, thereby ensuring long term multi modal accessibility. This will result in further reduced dependence on car as a primary mode of travel. Based on published preferred routes, there are no Client owned lands for the subject scheme required for Core Bus Corridor #2 and the proposed scheme does not prejudice the future delivery of Bus Connects here.

110 The Transportation Assessment Report confirms that there is a negligible and unnoticeable traffic impact associated with the opening of the proposed subject development, and that it can be accommodated without any adverse traffic impact arising.

111 The Transportation Assessment confirms that the road network and the established traffic signal controlled Swords Road vehicular access junction arrangement is more than adequate to accommodate the worst case traffic associated with the entire development being occupied and operational. The assessment also confirms that the construction and full occupation of the scheme will have a negligible and unnoticeable impact upon the operation of the adjacent road network.

112 The assessment includes a Preliminary Mobility Management Plan (MMP or Travel Plan) for the site which is included and appended as a separate report. We have also prepared a Statement of Consistency with DMURS and confirm that the internal layout is compliant with the requirements, and this is included and appended as a separate report.

113 An independent Stage 1 Road Safety Audit, together with the Designer Feedback form, will be undertaken for the final submission to An Bord Pleanála and will be included and appended as a separate report.

114 Based on our studies, we conclude that there are no adverse traffic/transportation capacity or operational issues associated with the construction and occupation of the proposed development that would prevent a positive determination of the planning application by An Bord Pleanála.

15.0 MATERIAL ASSETS

115 This chapter evaluates the potential impact from the proposed development on Material Assets which are defined in the EPA Guidelines (2022) as "*built services and infrastructure, roads and traffic and waste management"*. The EPA Advice Notes (2015) also gives examples of material assets including assimilative capacity of air and water; ownership and access; and tourism and recreational infrastructure. The European Commission Guidance (2017) refers to several examples of material assets including buildings, other structures, mineral resources and water resources.

116 In this EIA Report, the impacts on some of the material assets described in the above guidance have already been considered in the following chapters and therefore these aspects will not be addressed in specific detail within this chapter. This chapter assesses ownership and access, built services and infrastructure, which have not already been addressed elsewhere in this EIA Report. The subsequent sections address built services and infrastructure. The potential impacts on built services and infrastructure, if any, are assessed in under the following subheadings:

- Land Use, Property, and Access
- Power and Electrical Supply
- Surface water infrastructure
- Foul drainage infrastructure
- Water supply
- Telecommunications

117 The site is presently developed light-industrial land, comprised a large disused warehouse, with associated structures (offices, storage etc.). Lands to the north and of the site are also under light-industrial use, while lands to the east and south provide commercial services. Residential land lies to the west of the subject lands and east are zoned HA High Amenity with an objective to protect and enhance high amenity areas.

118 The proposed development site is zoned as '*Z4 –District Centre'* in the Dublin City Council Development Plan 2016-2022, for which the zoning objective is to "*Provide an* increased *density of development, a viable retail and commercial core, a comprehensive range of high-quality community and social services, and a distinctive spatial identity with a high quality physical environment*".

119 A construction compound and temporary power supply will be established in consultation with the utility supplier. The power requirements for the construction phase will be relatively minor. Once in operation, electricity will be provided to the site via the national grid tying in with existing infrastructure in neighbouring areas. New electricity and telecommunications services infrastructure will be put in place to serve the various buildings. This will be carried out in accordance with the requirements of the various service providers.

120 The existing commercial units are currently drained via gravity into 2 no. private surface water drainage networks which connect into other private surface water networks within the site. The private sewer network flows east where it connects into a public surface water sewer located within Swords Road.

121 The existing private surface water networks and their connections to the private surface water network will be decommissioned. Surface water run-off from the proposed development will be collected in a new slung surface water drainage network which will connect to an existing 750mm public surface water sewer located in the loading area to the west of OMNI Shopping Centre.

122 Sustainable drainage systems (SuDS) measures will be incorporated into the stormwater drainage network to improve the quality of stormwater leaving the site. SuDS are drainage systems that are environmentally beneficial, causing minimal or no long-term detrimental damage. These measures will include blue/green roofs, attenuation, permeable paving, hydrobrake and permeable reinforced grass. Petrol interceptors will also be provided in car parking areas.

123 The stormwater drainage network has been designed and modelled for the 100-year storm event.

124 Welfare facilities will be provided for the contractors via portable sanitary facilities within the construction compound site during the construction works. It is an anticipated that initially, waste will be collected by tanker and disposed of appropriately, and that temporary connections to the existing services will be established to provide service and utilities subject to relevant applications and approvals.

125 All foul effluent generated at the proposed development site during the operational phase shall be collected in a new foul drainage network for the proposed development designed in accordance with Irish Water Code of Practice for Wastewater Infrastructure.

126 The proposed water supply network will be designed and installed to the requirements and specifications set out in the Irish Water Code of Practice for Water. Measures are proposed to minimise water use during the operational phase, including low consumption sanitary fittings, and leak detection systems and rainwater.

127 There are telecommunication lines in existence for telephone and broadband services in the area. A fibre optic cable distribution network will be installed with a separate incoming fibre infrastructure and provided to each building via underground fibre ducts. There are existing underground carrier ducts adjacent to the site that will be utilised for the development.

128 The works contractor will be obliged to put best practice measures in place and work in accordance with the CEMP. The implementation of mitigation measures within each chapter and detailed in this Chapter (Chapter 15) will ensure that the predicted impacts on the material assets during the demolition/construction phase will be neutral, imperceptible and short-term.

129 Likewise, the implementation of mitigation measures within each chapter and detailed in Chapter 15 will ensure that the predicted impacts on the material assets during the operational phase will be neutral, imperceptible and long-term.

16.0 WASTE MANAGEMENT

130 Chapter 16 has been prepared to address issues associated with waste management during the construction and operational phases of the proposed development. It describes the baseline environment for the development and presents the likely impacts associated with the construction and operational phases of the development

while also considering a 'do-nothing scenario'. Mitigation or remedial measures are presented for the phases (which include monitoring) are included where appropriate alongside predicted residual and cumulative impacts.

131 A site-specific Resource Waste Management Plan (RWMP) accompanying this planning application has been prepared deal with waste generation during the Construction, Demolition & Operation Phases of the project. The document will ensure that the management of waste arising at the development is sustainably managed and is carried out in accordance with relevant standards and legislation.

132 There are a number of waste management facilities serving the Greater Dublin area which are capable of accepting the waste arisings from the construction, demolition and operational Phases of the development. There is a number of other licensed and permitted facilities in operation in the greater Dublin region including waste transfer stations, hazardous waste facilities, soil waste and integrated waste management facilities. There are also numerous authorised bring banks and recycling centres serving the local area.

133 The site is currently occupied by a disused warehouse and two ancillary buildings which occupy a combined footprint of approximately 6,473m^2. The warehouse is constructed mainly from blockwork, steel frame, cladding and roofing sheets. The ancillary buildings are constructed mainly from blockwork, steel frame, cladding and roofing sheets. The external areas of the site are concrete access routes/hardstanding areas.

134 The construction of the proposed development is expected to result in the excavation of approximately 44,213m^3 of soil foundations, sub-structures and the basements. Any suitable excavated topsoil material will be temporarily stockpiled for reuse in landscaping, where possible. A site investigation was carried out the proposed site. All samples were classified as non-hazardous (high presence of hydrocarbons) with the exception of an isolated area just below ground in the northwest of the site. This area was previously used as a vehicle wash area and housed an underground interceptor. In accordance with the relevant regulations the soil will be removed from site and taken to a suitably licensed/permitted waste facility.

135 The operational phase of the development will generate a range of mainly non-hazardous wastes. Mitigation measures proposed to manage waste production will result in c. 7,893Kg of residential waste volumes per week and c. 1,263Kg of commercial waste volumes per week.

136 A thorough and well-designed approach during the operational phase of the development in accordance with the RWMP will ensure the likely impact is imperceptible, with long term neutral effect.

17.0 INTERACTIONS – INTERRELATIONSHIPS BETWEEN THE ASPECTS

137 This chapter of the EIA Report addresses potential interactions and inter-relationships between the environmental factors discussed in the preceding chapters. This covers both the demolition/construction and operational phase of the proposed development.

138 In the main, the interactions between the environmental factors and impacts discussed in this EIAR have been assessed and the majority of interactions are neutral. While there will be a moderate visual impact to some houses on Shanliss Avenue future

visitors to the development will perceive the development in positive terms due to the context and the quality of the public realm and proposed buildings. The proposed development will create significant residential capacity which will have a positive benefit within the hinterland in which the development is located.