

5.0 POPULATION AND HUMAN HEALTH

5.1 Introduction

This chapter of the EIAR was prepared by Sadhbh O'Connor (BA) (MRUP), Director of Thornton O'Connor Town Planning. Sadhbh is a Corporate member of the Irish Planning Institute and has 13 No. years post-qualification experience.

The Environmental Protection Agency (EPA) *Draft Guidelines on the Information to be Contained in Environmental Impact Assessment Reports*, August 2017 states that:

'In an EIAR the assessment of impacts on population & human health should refer to the assessment of those factors under which human health effects might occur, as addressed elsewhere in the EIAR e.g. under the environmental factors of air, water, soil, etc..'

The chapter considers any likely impacts that the proposed development may have on population and human health. Any impacts on population and human health which may potentially arise as a result of a proposed development must be comprehensively addressed. The potential impacts can arise from many factors such as:

- Air;
- Noise;
- Water;
- Traffic;
- Visual Impact;
- Biodiversity; and
- Social Services and Amenities.

These factors are dealt with in specific chapters in this EIAR and have been prepared by the relevant specialist consultant. Therefore, this chapter entitled 'Population and Human Health' will predominately cover any potential impacts not specifically covered in the other chapters of this EIAR. We note that some potential impacts can be inter-related with impacts contained in the other chapters and this will be set out where relevant. The specific potential impacts discussed within this chapter of the EIAR will relate to the following:

- Population Profile and Trends;
- Housing;
- Employment/Economy;
- Local Services and Amenities;
- Traffic;
- Health and Safety; and
- Human Health (Environmental)

5.2 Methodology

The design team carried out a number of site visits at different stages throughout the design process, in addition extensive desk based research was conducted. The preparation of the Population and Human Health EIAR chapter has been prepared in accordance with the guidance set out within the following sources:

- *Guidelines on the Information to be Contained in Environmental Impact Statements (Environmental Protection Agency (EPA), draft August 2017);*
- *Advice Notes for Preparing Environmental Impact Statements (EPA, draft September 2015);*
- *Advice Notes on Current Practice in the Preparation of Environmental Impact Statements (EPA, 2003); and*
- *Guidelines on the Information to be Contained in Environmental Impact Statements (EPA, 2002).*

In addition to these Guideline documents, the following policy documents and data sources were consulted in the preparation of this EIAR chapter:

- *Dún Laoghaire- Rathdown County Development Plan 2016 – 2022;*
- *Rebuilding Ireland – Action Plan for Housing and Homelessness, 2017;*
- Central Statistics Office (CSO) Census Data 2016 & 2011;
- Central Statistics Office (2018) – CSO Statbank;
- Dublin Economic Monitor;
- ERSI Quarterly Economic Commentary, Autumn 2019;
- Housing Observatory;
- Ordnance Survey Ireland; and
- Labour Force Surveys.

5.3 Description of Development

A comprehensive description of the proposed development is presented in Chapter 3 of this EIAR.

The development, which will have a Gross Floor Area of 49,342 sq m will principally consist of: the demolition of the existing structures on site and the provision of a Build-to-Rent residential development comprising 564 No. apartments (46 No. studio apartments, 205 No. one bed apartments, 295 No. two bed apartments and 18 No. three bed apartments) in 6 No. blocks as follows: Block A (144 No. apartments) is part 10 to part 11 No. storeys over basement; Block B (68 No. apartments) is 8 No. storeys over basement; Block C (33 No. apartments) is 5 No. storeys over lower ground; Block D (103 No. apartments) is part 16 to part 17 No. storeys over lower ground; Block E (48 No. apartments) is 10 No. storeys over semi-basement; and Block F (168 No. apartments) is 14 No. storeys over semi basement.

The development provides resident amenity spaces (1,095 sq m) in Blocks A, C and D including concierge, gymnasium, lounges, games room and a panoramic function room at Roof Level of Block D; a creche (354 sq m); café (141 sq m); a pedestrian thoroughfare from Carmanhall Road to Blackthorn Drive also connecting into the boulevard at Rockbrook to the west; principal vehicular access off Carmanhall Road with servicing and bicycle access also provided off Blackthorn Drive; 285 No. car parking spaces (254 No. at basement level and 31 No. at ground level); 21 No. motorcycle spaces; set-down areas; bicycle parking; bin storage; boundary treatments; hard and soft landscaping; lighting; plant; ESB substations and switchrooms; sedum roofs; and all other associated site works above and below ground.

5.4 Description of the Receiving Environment

5.4.1 Baseline Scenario: Population Profile and Trends

Dún Laoghaire – Rathdown County has a population of 217,274 No. persons. CSO data is analysed on a number of levels to provide greater information. This section will examine the subject site in the context of the Electoral Division and the 'Small Area' data.

According to the 2016 Census, the subject site is located within the Electoral Division (ED) of Dundrum – Balally (ED No.05037). The population for this area (SAPMAP) was recorded to be 8,035 No. persons. However, we note that the number of persons accommodated in the 3,119 No. households in this Electoral Area is 7,895 No. persons (i.e. 139 No. additional persons were present on the night of the census who are not normally resident in the electoral area). The extent of the ED is illustrated at Figure 5.1 below.

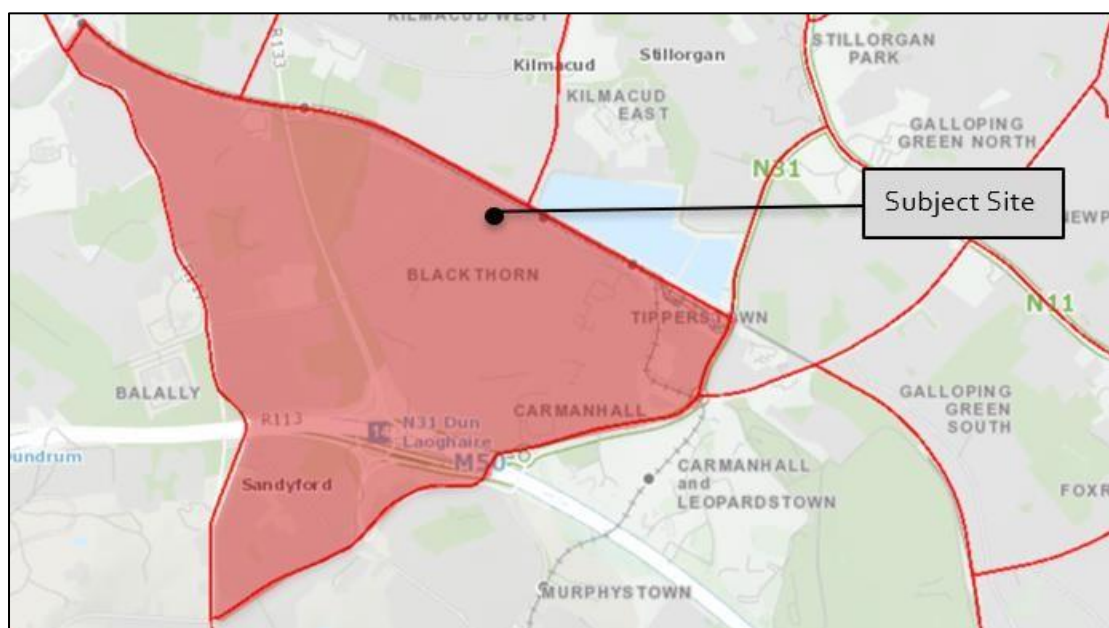


Figure 5.1: Map Demonstrating the Electoral Division of Dundrum – Balally (Shaded Red).

Source: Census 2016, Annotated by Thornton O'Connor Town Planning, 2019.

The 2011 Census recorded a population of 7,049 No. persons with a resident population of 6,907 No. persons which represents a 14.3% increase in the number of persons usually resident within the Dundrum – Balally Electoral Division.

The table below provides a breakdown of population trends:

Population Trends in Dundrum – Balally ED ¹			
	Census 2011	Census 2016	Change
Population	7,049	8,035	+13.98%
Resident Population	6,907	7,895	+14.3%
No. of Households	2,716	3,119	+14.83%

Table 5.1: Population Trends in the Dundrum – Balally ED.

Source: Census 2016, Central Statistics Office.

In projecting population growth (2016-2031), CSO data indicates that the Greater Dublin Area will see its population increase by just over 1,000,000 by 2031 if internal migration patterns return to the traditional pattern observed in the mid-1990s.

5.4.2 Description of the Existing Population

There are a range of age groups living in the Dundrum-Balally ED according to the 2016 Census as demonstrated in Table 5.2 below, the highest concentration of persons are of working age between 19 and 64 No. years old (5,456 No. persons or 67.9% of the ED population), which is higher than the figures for the State (2,872,502 No. persons representing 60.3% of the population) and for County Dún Laoghaire – Rathdown (132,586 No. persons or 60.8 % of the population).

Due to the high number of persons living in the area who are aged between 19 and 64 No. years old, the Dependency Ratio for the Dundrum – Balally ED is ultimately lower than recorded for the County and the State (Dependency Ratio relates to those not of working age i.e. 0 – 18 years old and 65+).

Population by Sex and Age ²			
Age Group (Years)	Male (No.)	Female (No.)	Total (No.)
0-4	273	287	560
5-12	320	322	642
13-18	221	178	399

¹http://census.cso.ie/sapmap2016/Results.aspx?Geog_Type=ED3409&Geog_Code=2AE196291D5A13A3E05500000000001#SAPMAP_T5_500

²http://census.cso.ie/sapmap2016/Results.aspx?Geog_Type=ED3409&Geog_Code=2AE196291D5A13A3E05500000000001#SAPMAP_T5_500

19-24	354	325	679
25-29	470	452	922
30-34	546	496	1,042
35-39	477	409	886
40-44	265	274	539
45-49	207	168	375
50-54	167	185	352
55-59	159	160	319
60-64	173	169	342
65-69	131	177	308
70-74	147	181	328
75-79	99	97	196
80-84	42	54	96
85+	22	28	50
Total	4,073	3,962	8,035

Table 5.2: Population by Sex and Age.

Source: Census 2016, Central Statistics Office.

As the highest concentration of the Dundrum – Balally ED population are of working age, the proposed scheme will provide a choice in tenure in the area, giving greater flexibility to those who may be seeking to rent an apartment in the area.

We note that the scheme will also significantly benefit the existing population who are not in the workforce e.g. retirement age and cohort. There is a significant cohort of persons aged 65+ (12.1 %) in the Dundrum – Balally Electoral Area who may welcome the opportunity to downsize to a rented apartment in their local area. This will relieve pressure on the market sector by opening up larger family dwellings for sale in the surrounding areas.

We also note that 6.9 % of the ED population were aged 0 – 4 years old at the time of the 2016 Census. The proposed development includes the provision of a creche which will cater for the younger cohort of persons that will be accommodated in the proposed development. The creche will also cater for the younger cohort in the wider ED area.

The proposed development will cater for all age groups as the development will provide a mix of Build-to-Rent unit types comprising studios, 1, 2 and 3 No. bedrooms units facilitating a variety of household formations. In summary the following age groups will be principally catered for:

- Persons within the working age group looking to rent a home;
- Persons older than the working age group seeking to trade down; and
- Families who may wish to rent a home which contains a creche within the development.

5.4.3 Baseline Scenario: Housing

Average Household Size

As noted previously, the Dundrum – Balally ED recorded a population of 8,035 in the 2016 Census with a resident population of 7,888. The ED recorded an average of 2.5 No. persons per private household in 2016 which is lower than the national state average of 2.7 No. persons as set out in Table 5.3.

Area/ED	No. of Households	No. of Persons Accommodated	Average Household Size
Dundrum – Balally ED	3,118	7,888	2.5
South Dublin County	78,601	213,468	2.8
Ireland	1,702,289	4,676,648	2.7

Table 5.3: Average Household Size.

Source: CSO, Interpreted by Thornton O'Connor Town Planning, 2019.

Therefore, the ED is predominated by smaller households and it is important to provide tenure choice for such household formations.

Households by Number of Rooms

As shown below in Figure 4.3, there is a significant concentration of permanent private households (1,567 No.) with 5 No. rooms or more within the Dundrum – Balally ED and consequently a lesser number of 1–4 No. room households (1,652 No.) (see Figure 4.3 below).

Number of Rooms	Households (No.)	Persons (No.)
1 No. Room	74	116
2 No. Rooms	473	1,000
3 No. Rooms	781	1,800
4 No. Rooms	239	627
5 No. Rooms	516	1,378
6 No. Rooms	396	1,223
7 No. Rooms	274	804

8 No Rooms +	227	731
Not Stated	138	309
Total	3,118	7,888

Table 5.4: Permanent Private Households by Number of Rooms for the Dundrum – Balally Electoral Area.

Source: Census 2016, Central Statistics Office.

It can be concluded that the correlation between household sizes and house sizes are disproportionate as the data demonstrates that despite the smaller than average household sizes, a greater number of households live in dwelling units with 5–8+ rooms. It is our opinion that there is a significant opportunity to densify this area of South Dublin with a mix of studio, 1, 2 and 3 No. bedroom units. The Build-to-Rent scheme will address the lack of high quality rental accommodation in Sandyford and will as such cater for a wider cohort of persons.

The 2016 Census figures recorded 3,118 No households in the Dundrum – Balally ED, an increase of 402 No. households from the 2011 Census i.e. 14% increase.

We refer to the Dublin Housing Observatory³ which published that:

- *Some 30% of housing in Dublin City is in private rental accommodation;*
- *The Average Rent in Dublin City is €1,480 per calendar month (pcm);*
- *The most expensive areas to rent in the metropolitan area are in Stillorgan (€2,054 pcm) and Dundrum Local Electoral Areas (LEA's) (€1,941); and*
- *Housing in Dublin's suburbs are primarily owner-occupied (68%).*

We note that within the Dundrum-Balally ED, some 1,156 No. households are privately rented. This equates to 37% of the overall housing provision in the area, thus marginally higher than the average for Dublin. We note that 47.1 % of households are owner occupied.

Household Completions

The CSO New Dwelling Completions from Q1 2012 to Q1 2018 is illustrated on the map below. The map demonstrated that greater than 1,520 No. units have been completed in the Dublin 18 area.

The *Sustainable Urban Housing: Design Standards for New Apartments, 2018* stipulates that:

'... a need for a minimum of 550,000 new homes, at least half of which are targeted for provision in Ireland's five cities...In broad terms, this means a need for an absolute minimum of 275,000 new homes in Ireland's cities to 2040, with half of these located in already built-up areas.'

As result of the undersupply of housing completions during the economic downturn, recently adopted planning policy has emphasised the critical need to meet the housing needs of the

³ <https://www.osi.ie/blog/dublin-housing-observatory/>

State by increasing the number of homes provided each year. As such *Rebuilding Ireland An Action Plan for Housing and Homelessness* sets out:

'to ramp up delivery of housing from its current under-supply across all tenures to help individuals and families meet their housing needs, and to help those who are currently housed to remain in their homes or be provided with appropriate options of alternative accommodation, especially those families in emergency accommodation.'

The relatively high number of completions at Stillorgan and Sandyford as shown at Figure 5.2 above demonstrates the desire by persons to live in such locations that benefit from high capacity public infrastructure with services, facilities and amenities within walking distance of their homes.

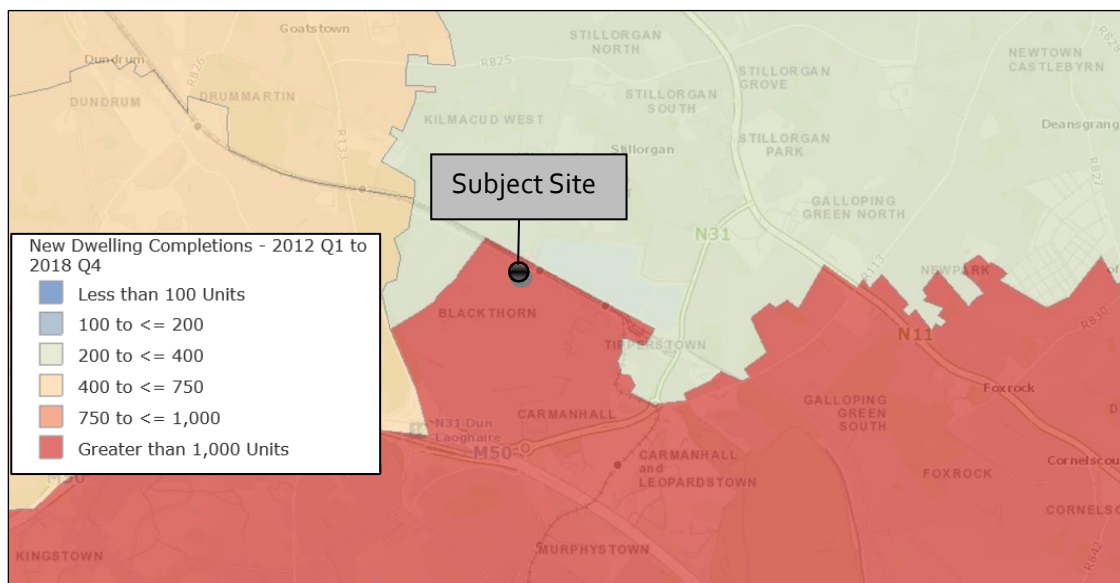


Figure 5.2: New Dwelling Completions 2012 Q1 to 2018 Q4.

Source: AiroMaps Annotated by Thornton O'Connor Town Planning, 2019.

5.4.4 Baseline Scenario: Employment and Commuter

Patterns Employment in the Local Area

The subject site is excellently located in close proximity to the Green Luas line and a number of bus stops. In addition, we note that the Sandyford Business District is the primary node of employment in the Dún Laoghaire- Rathdown municipality (as demonstrated by Figure 2.6 of Chapter 2 of this EIAR).

There are 3,999 No. employed persons in the Dundrum – Balally ED (73% of the resident population), which is on par with the number of employed persons in the Dún Laoghaire – Rathdown County which represents 72% of the population (95,925 No. persons). The sustainable location of Sandyford as an employment hub is emphasised through the examination of commuting patterns below.

Commuter Patterns

A comparison between the 2016 census data for the Dundrum- Balally ED and the national statistics is provided below:

Population aged 5 years and over by means of travel to work				
Means of Travel	Dundrum – Balally ED	%	Nationally	%
On foot	694	17.7	6,875	7.2
Bicycle	160	4.0	5,770	6.1
Bus, minibus or coach	131	3.3	7,781	8.24
Train, DART or LUAS	1,017	25.9	14,094	14.9
Motorcycle or scooter	24	0.6	805	0.85
Car driver	1,518	38.7	47,577	50.4
Car passenger	65	1.6	2,155	2.2
Van	95	2.4	2,260	2.3
Other (incl. lorry)	8	0.2	173	0.18
Work mainly at or from home	100	2.5	3,935	4.16
Not stated	103	2.6	2,972	3.1
Total	3,915		94,397	

Table 5.5: Population aged 5 Years and Over by Means of Travel to Work.

Source: CSO 2016.

We note that of the 3,915 No. persons in the Dundrum – Balally ED travelling to work, some 1,148 No. persons utilise the bus, train, DART, Luas, or either walk or cycle to work. Some 100 No. persons mainly work from home and 103 No. persons did not state how they travel to work. A further 24 No. persons use a motorbike or scooter and 95 No. persons travel by van. Some 1,516 No. persons travel by car representing 38.7% of commuters and an additional 65 No. persons travel to work as a car passenger. In comparison, national statistics denote that 50.4% of commuters travel to work by car nationally.

Of the 3,915 No. persons travelling to work, school or college, some 23% travel by foot or cycle, 25% take a Train, Luas or Dart and 5% take a Bus, Minibus or Coach. The Dundrum-Balally ED sees a significantly higher percentage of persons commuting to work, school or college by foot or by cycling (21.7 %) than the national average of 13.3% of persons. In addition, travel to work by Train, DART or Luas is significantly higher than the national average demonstrating that the proximity to the Luas line is influencing commuter choices.

Population aged 5 years and over by journey time to work, school or college	
Journey Time	Persons
Under 15 mins	1,164
¼ hour – under ½ hour	1,684
½ hour – under ¾ hour	1,350
¾ hour – under 1 hour	531
1 hour – under 1 ½ hour	324
1 ½ hour and over	89
Not stated	271
Total	5,413

Table 5.6: Population Aged 5 Years and Over by Journey Time to Work, School or College

Source: CSO 2016.

In addition, over 50% of those travelling to work, school or college commute for less than 30 minutes, which demonstrates the sustainable and accessible location of the Dundrum-Balally ED.

Unemployment

Some 340 No. persons in the ED stated that they were unemployed in the 2016 Census. It is therefore assumed that the low unemployment rate of 8.6% in comparison to the national rate of 12.9% is a direct reflection of the range of employers located within the Sandyford Business District and in areas accessible to the ED.

The *Labour Force Survey*⁴ Quarter 2 2019 indicated that:

'There was an annual increase in employment of 2.0% or 45,000 in the year to the second quarter of 2019, bringing total employment to 230,000. This compares with an annual increase of 3.7% or 81,200 in employment in the previous quarter and an increase of 3.4% or 4,100 in the year to Q2 2018.'

Furthermore, the *Quarter 2 2019 Labour Force Survey* stipulates that:

'Employment decreased by 13,600 (-9.4%) in the year to Q2 2019 bringing the total number of persons unemployed to 130,800. This is the twenty eight quarter in succession where unemployment has declined on an annual basis.'

⁴ <https://www.cso.ie/en/releasesandpublications/er/lfs/labourforcesurveyquarter22019/>

Economic Environment

The Economic and Social Research Institute (ESRI) *Quarterly Economic Commentary Autumn 2019*⁵ provides a forecast overview of the Irish economy. The publication anticipates that:

'The Irish economy looks set to perform robustly in 2019 with the headline GDP rate forecast to increase by 4.9 per cent. In 2020 the economy is expected to grow by 3.1 per cent.'

The ESRI acknowledged the uncertainties arising in respect of housing completions:

'In the present commentary, we have revised downwards our forecast for housing completions in 2019 to 21,500 units. We had expected earlier in the year that completions would reach 23,500 units. This apparent slowdown in housing construction is somewhat disappointing given the strong underlying structural demand for housing in the economy. A number of reasons have been offered for the slowdown including the moderation in the rate of house price inflation resulting in a slowing level of output in the construction sector as well as uncertainty due to Brexit. The observed slowdown in house price increases observed over the past few years eventually curtailing effective demand in the Irish residential market'

Furthermore, setting out that:

'Ultimately a greater level of housing supply is required for the given level of house prices. This is particularly the case when one observes the recent work by Bricongne et al. (2019), which indicates that Irish house prices, when adjusting for dwelling size, are amongst the highest in the European Union.'

The aforementioned data analysis is not available at the scale of the Electoral Division. The Build-to-Rent development will provide suitable accommodation for those who do not have the financial means and/or desire to purchase a dwelling unit.

5.4.5 Baseline Scenario: Local Services and Amenities

There are a broad spectrum of existing services and facilities available in close proximity to the subject site. The immediate area is also well served by commercial and community offerings as illustrated at Figure 5.3 below.

5 https://www.esri.ie/system/files/publications/QEC2019AUT_2.pdf

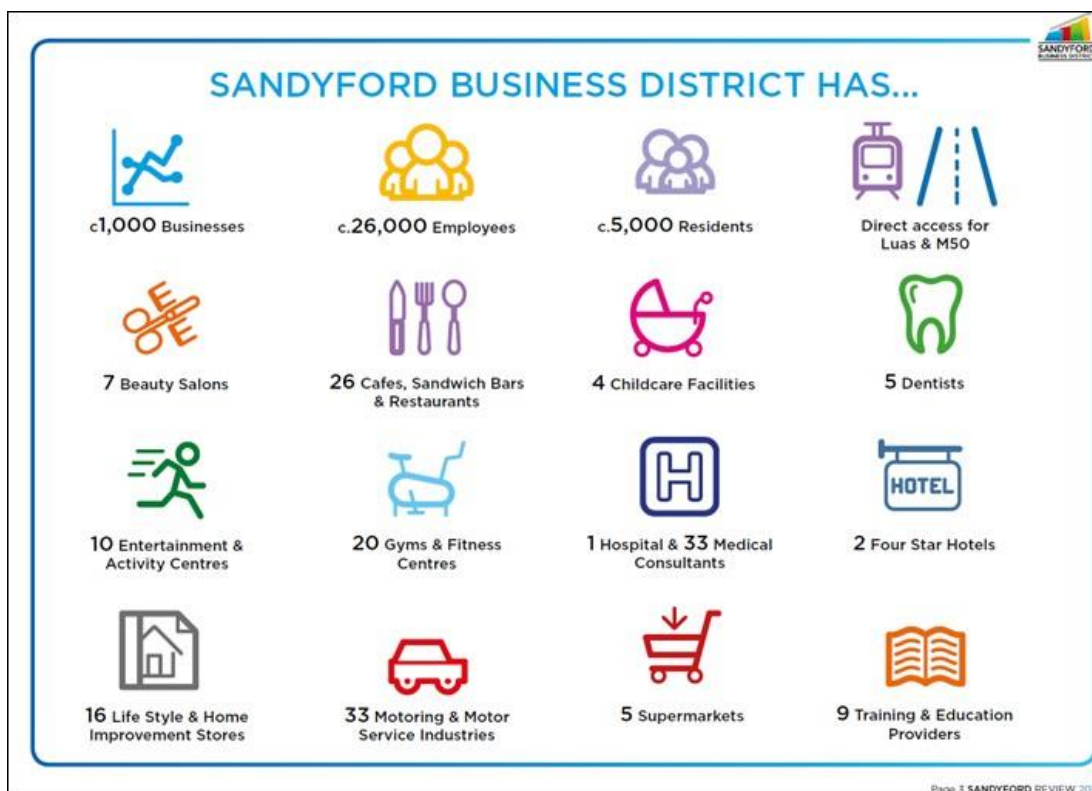


Figure 5.3: Infographic Showing Key Statistics for the Sandyford Business District.

Source: Sandyford Review 2018⁶

The *Dún Laoghaire – Rathdown Development Plan 2016-2021* identifies Sandyford as a Neighbourhood Centre. Neighbourhood centres are classified as:

'one supermarket ranging in size from 1,000 – 2,500 sq m with a limited range of supporting shops and retail services and possibly other services such as post offices, community centres or health clinics grouped together to create a focus for the local population. These centres meet the local day-to-day needs of surrounding residents.'

There are a number of supermarkets, restaurants, cafés and gyms within walking and cycling distance of the subject site. The Beacon South Quarter is located on the south side of Carmanhall Road, c. 100 m from the subject site and comprises a number of services and facilities including health and wellbeing; food and wine; entertainment; and interior and lifestyle as listed below.

⁶<https://www.sandyford.ie/news-events/news/sandyford-business-district-review-2018-out-now>

Beacon South Quarter		
Bo Concept	The Coffee Shot	The Beacon Barber
Dunnes Stores	Mango Tree	Ben Dunne Gyms
Kube	Michie Sushi	Centric Health
Mindy Brownes Interiors	Munchies	Clear Skin
Roche bobois	O'Briens	East Coast
S.O.U.L	Pizza Hut	Functional Training
Imaginosity	Starbucks	Your Local Pharmacy
Park Academy Childcare	Union Café	No H2o Car Valeting
The Children's Practice	Zambrero	

Table 5.7: Provision of Services and Facilities in the Beacon South Quarter.

Source: <https://www.beaconsouthquarter.ie/>

There are a number of sports clubs operating in the area including Sandyford Badminton Club and Kilmacud Crokes GAA. It is evident that there are a variety of facilities and services located in close proximity to the subject site as illustrated at Figure 5.4 that the future residents of the scheme can utilise within walking and cycling distance.



Figure 5.4: Aerial Photograph Demonstrating the Indicative Location of Supermarkets, Restaurants, Cafés and Gym within Close Proximity of the Subject Site.

Source: Google Maps, Annotated by Thornton O'Connor Town Planning, 2019.

The local area is well served by educational facilities as illustrated at Figures 5.5 and 5.6.

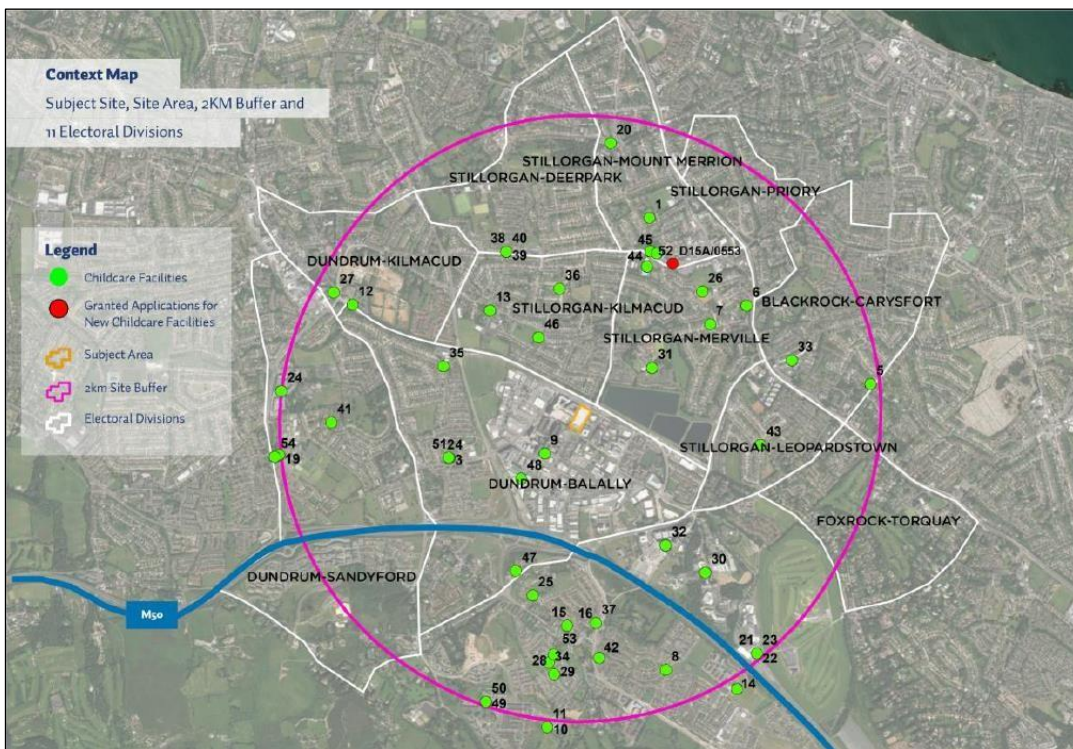


Figure 5.5: Map Indicating the Location of Childcare Facilities within a 2 km Radius.

Source: Creche and Schools Demand Assessment prepared by Future Analytics, July 2019.

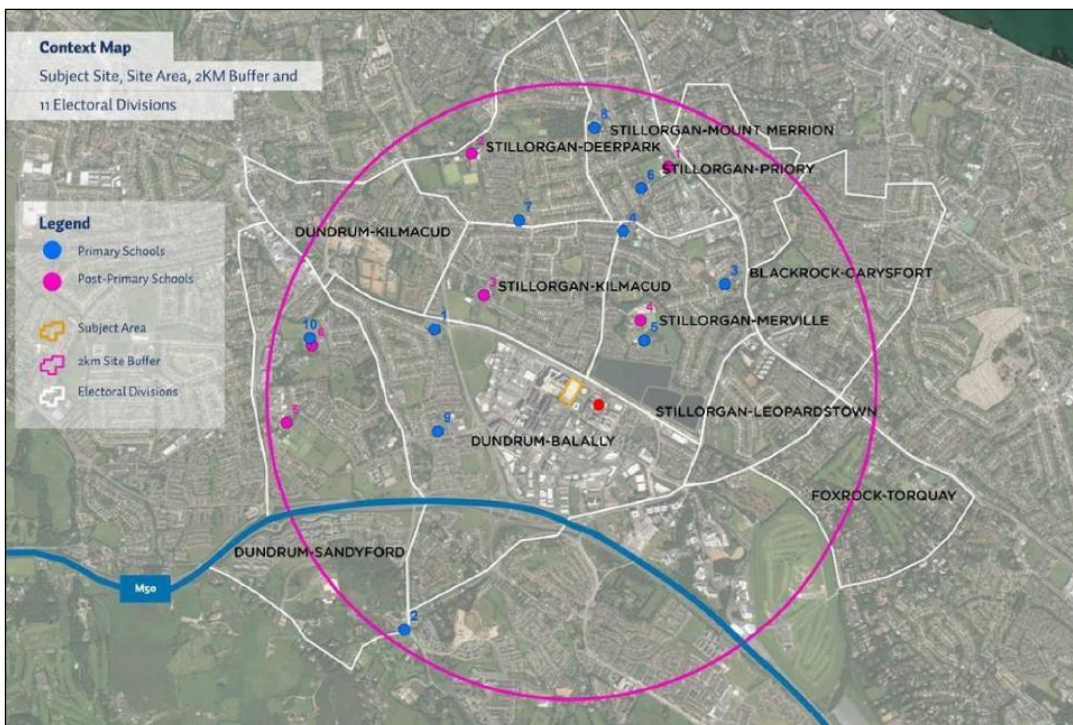


Figure 5.6: Map Indicating the Location of Primary and Post-Primary Schools Within a 2 km Radius.

Source: Creche and Schools Demand Assessment prepared by Future Analytics, November 2019.

A Creche and Schools Demand Assessment was prepared by Future Analytics and is submitted as part of the planning application. The assessment highlights that:

'in relation to the specific characteristics of renters (Census 2016), 24.5% of current renters within DLR Council are married or cohabiting couples with no children and 35.5% of privately rented households are by single persons. These figures indicate that the future occupants of the proposed PRS scheme are not likely to include children.'

In conclusion the report states that:

'the proposed 354 sq m creche facility would comfortably meet the requirements of government guidelines and easily support the needs of the inhabitants of the proposed development.'

5.5 Potential Impacts Associated with the Development and Any Mitigation Measures Proposed

This section considers any potential impacts that may occur on population and human health as a result of the proposed development during construction stage, operational stage and also any potential impacts that may arise if the development were not to proceed. We have considered unplanned events throughout this chapter with particular reference to population and human health.

5.5.1 Potential Impacts on Population

Do Nothing Scenario

If the proposed development were not to proceed, this underutilised brownfield site would remain in its existing form. This subject site is zoned 'MIC' Mixed Use Inner Core and thus development is envisaged at this location. If the site is not developed, it would result in a waste of scarce suitably zoned lands in a sustainable location. The wider Sandyford area contains predominately larger dwellings for instance, the Stillorgan-Kilmacud and Stillorgan-Merville ED's located directly to the north of the subject site comprise 91 per cent and 77 per cent of House/Bungalows respectfully. Furthermore, noting that 89% of households in the Stillorgan-Kilmacud ED comprise households of 5+ rooms and 76% of households in the Stillorgan-Merville ED.

Ultimately if the proposed development does not proceed there would still be a dearth in the provision of smaller dwelling types for persons seeking to rent a smaller unit. The Build-to-Rent development will cater for a range of household formations i.e. a family home or a young couple seeking to rent an apartment for example.

The proposed mix of Build-to-Rent apartment types (comprising 46 No studios, 205 No. 1 beds, 295 No. 2 beds and 18 No. 3 bed Build-to-Rent units) are not currently provided for in the area and will result in a positive impact for the population.

Construction Phase

The proposed development is planned to be constructed on a phased basis over c. 3 No. years. It is estimated that there will be 2 No. phases during the construction stage.

In the short term the local area will be impacted during the construction period due the influx of construction traffic, noise and dust. However, we note that mitigation measures will be put in place to minimise such impacts which are discussed in other sections of this EIAR such as the Noise and Vibration Chapter (Chapter 12) and the Traffic and Transportation Chapter (Chapter 14) in addition to the Infrastructure Report and Preliminary Construction Management Plan submitted as separate documents.

There will be a neutral impact on population trends and profile for the area as no additional persons will be accommodated at the subject lands during construction.

Operational Phase

As noted previously, the provision of 564 No. Build-to-Rent units will provide a choice in tenure for people seeking to rent a home in the area. The mix of studios, one, two and three bed units provided for within the proposed scheme includes a provision of leased Part V social housing units. The delivery of high quality units will be attractive to the proportion of the population seeking suitably sized accommodation in an urban and sustainable location. The subject lands will significantly contribute towards alleviating the housing crisis currently being experienced in Ireland, which is a positive impact associated with the proposed development.

A Pre-Connection Enquiry has been submitted to Irish Water and a response received confirming there is sufficient capacity in their infrastructure network to cater for the proposed development. This includes the Ringsend Treatment Plant which is currently being upgraded, with works due to be complete in 2020.

The provision of local services such as the café and crèche will result in a positive impact on the existing population and human health of the surrounding area. It is anticipated that the services provided will predominately cater for those within the subject scheme however will also benefit the existing residents of the area with the café positioned to be easily accessible to persons dropping/collecting children at the creche.

The proposed Landscape Masterplan has incorporated a number of measures such as the provision of exercise and play equipment to encourage physical activity which will have a positive impact on the health and wellbeing of residents and visitors.

Proposed Mitigation Measures

We consider that the development will have a long term positive impact on population due to the provision of a wide range of unit types which includes provision for Part V units and will cater for a wide cohort of persons. As noted, during the construction phase the local population will be impacted during the construction period due to the influx of construction traffic, noise and dust. However, we note that these impacts are short-term and mitigation measures will be put in place to minimise such impacts which are discussed in other sections of this EIAR such as the implementation of a dust minimisation plan, a Mobility Management Plan and Parking Strategy. Please see further details in Chapter 11 (Air Quality and Climate), Chapter 14 (Traffic and Transportation) in addition to the Infrastructure Report and Preliminary Construction Management Plan submitted as separate documents.

5.5.2 Potential Impacts on Housing

Do Nothing

The subject site measures 1.54 hectares and currently comprises a part demolished warehouse which is completely unsustainable at this strategically located large plot of underutilised land. Were the development to not proceed, the present state of the subject site would remain.

Construction Phase

In the short term the local area will be impacted during the construction period due to the influx of construction traffic, noise and dust. However, this unavoidable impact is associated with any new development and is not considered significant. In the short term, all structures on the site will be removed from the site to facilitate the proposed development of 564 No. units.

Operational Phase

As discussed in Chapter 3.0, the proposed development will provide a variety of housing typologies in an area which is currently lacking in Build-to-Rent studio, 1, 2 and 3 No. bedroom dwelling units. The addition of 564 No. units to an existing residential area will be a positive addition to the availability of housing in the Dundrum - Balally Electoral Division and County Dún Laoghaire – Rathdown and will cater for a wider cohort of persons.

Proposed Mitigation Measures

It is considered that the proposed development of 564 No. units will be a positive addition to the availability of housing in the area by providing a wide choice in tenure for a range of persons. The short-term impacts associated with the construction stage are associated with any new development and will not be significant once the mitigation measures outlined in other sections of this EIAR such as the Noise and Vibration chapter (Chapter 12) and the Traffic and Transportation chapter (Chapter 14) in addition to the Infrastructure Report and Preliminary Construction Management Plan submitted as a separate document. These mitigation measures include the implementation of a Dust Minimisation Plan, Mobility Management Plan and Parking Strategy.

5.5.3 Potential Impacts on Employment and Commuter Patterns

Do Nothing

The subject site in its current form does not provide any employment in the area except for security/monitoring. If undeveloped, there would be no benefit for local employment as there is very limited employment potential associated with the subject undeveloped lands.

Construction Phase

As a result of the construction of the proposed development, c. 450 – 500 No. workers will be directly employed during the construction period in addition to c. 170 No. indirect workers (e.g. marketing, suppliers etc.). This increase in employment will clearly have a positive impact on existing population in the area as there would be employment opportunities for any workers living in the wider area surrounding the subject lands. It is anticipated that the

additional workers on the site will utilise local shops and businesses in the surrounding areas during the construction phase, thus benefitting the local economy. The impact of the proposed development on employment and the economy is considered positive.

Operational Phase

The proposed development will provide 564 No. Built-to-Rent dwelling units and will cater for a range of persons including families, older persons and young couples who will utilise the existing services and amenities in the local area. The uplift in population will ultimately have a positive impact on the local economy and will potentially accommodate persons working in the local area of Sandyford. The subject development also proposes a creche and a café which will provide a number of jobs. In addition, resident amenities proposed in Blocks A and D will require management, as will the concierge, maintenance and cleaning services throughout the scheme which would all result in additional employment opportunities being facilitated during the operation phase of the development.

Proposed Mitigation Measures

The proposed development will have a significant positive impact on economy and employment of the area due to the influx of jobs that will be created at construction and operation stage. During the construction phase local businesses will benefit from workers utilising their services. During the operation stage there will be increased population at the subject lands which will support the local economy.

As such, due to the positive and long term impacts that will occur on employment and the local economy, no mitigation measures are proposed.

5.5.4 Potential Impacts on Local Services and Amenities

Do Nothing

If the development does not proceed there would be no impacts on local services and amenities as there is currently no provision at the subject privately owned lands.

Construction Phase

There are no existing services or amenities provided for at the subject lands as such there is no potential for impacts on local services and amenities associated with the site during the construction stage.

As noted previously, workers during the construction phase would utilise local shops and services in the area resulting in a positive short-term effect on the local services and amenities.

Operational Phase

As discussed in Chapter 3.0, the proposed scheme will provide a cafe and creche which will be accessible to the wider existing community thus positively benefiting the entire community.

As noted above, existing services and amenities in the area will also benefit from the increase in population at the site as they will bring significantly increased spending power to the local economy.

We note that the site is unique as it facilitates the creation of a pedestrian link from the Carmanhall Road to Blackthorn Drive. The provision of this pedestrian link is a positive contribution towards wayfinding and permeability from the Stillorgan Luas Station to the Beacon South Quarter and surround lands and thus will benefit local amenities and facilities that become more accessible.

Proposed Mitigation Measures

The proposed development will benefit the local economy as local shops and other amenities will benefit economically from the construction stage and operational stages.

The proposed crèche (354 sq m) has the capacity to cater for c. 120 No. children which will serve the subject development and surrounding residential areas if necessary. The Schools and Creche Demand Assessment enclosed as a separate document prepared by Future Analytics concludes that there is capacity in the primary and post-primary schools in the area to absorb the limited demand predicted to arise from the subject development.

The provision of a crèche in addition to café will ultimately ensure that the area has sufficient services and amenities to cater for this increase in population. In addition, the provision of open space and the pedestrian link proposed will be an attractive addition to the area.

5.5.5 Potential Impacts on Health and Safety

Do Nothing

If the development did not proceed, this large site would principally remain in a vacant state. This could have a potentially negative effect on health and safety for security reasons as the large extent of the open site could encourage antisocial behaviour to take place at the subject lands.

Construction Phase

All new developments will consist of associated short-term impacts and disturbances to the surrounding areas. However, we note that the health and safety of surrounding persons and properties etc., has been a key consideration in the preparation of the Preliminary Construction Management Plan (enclosed separately) and various EIAR chapters such as the Air Quality and Climate chapter (Chapter 11) and Noise and Vibration chapter (Chapter 12). The construction of the proposed development will have a neutral and imperceptible impact on health and safety, provided all mitigation measures outlined in this EIAR are adhered to as well as the Construction Management Plan.

Operational Phase

During the operational stage of the development, traffic safety is the most significant concern when considering health and safety. However, having regard to the high-quality nature of the scheme which includes large areas of public open spaces and provides permeable links through the site, and the fact that the design accords with DMURS, it is envisaged that no significant impacts will occur on health and safety as a result of the project.

Proposed Mitigation Measures

As set out in the Preliminary Construction Management Plan, the Contractor shall be responsible for overall management of the site for the duration of the proposed works and must progress their works with reasonable skill, care, diligence and to proactively manage the works in a manner most likely to ensure the safety and welfare of those carrying out construction works. The Contractor shall comply with all relevant Statutory requirements such as the 2005 Safety Health and Welfare at Work Act, The Construction Regulations (SI 291 of 2013), the General Application Regulations (SI 299 of 2007), etc. (and any amendments thereof). In accordance with these duties, a Project Supervisor Design Process (PSDP) will be appointed by the relevant contractor to co-ordinate the design effort and minimise the construction risks during the design period. In addition, a Project Supervisor - Construction Stage (PSCS) will be appointed to coordinate and supervise all safety aspects of the project.

To negate any potential impacts during construction stage, a dust minimisation plan is proposed to be implemented.

Furthermore, a Daylight Sunlight Report has been prepared by O'Connor Sutton Cronin Consulting Engineers which concludes that the design approach taken has ensured that levels of daylight and sunlight within the scheme have been safeguarded and the impact to adjacent properties is negligible.

As set out in Chapter 14 of this EIAR 'Traffic and Transportation', the mitigation measures proposed during the operational stage include the implementation of the Mobility Management Plan and the Parking Strategy which will encourage the use of sustainable transport modes which will ultimately reduce the potential impacts on the health and safety of the population in relation to traffic safety. The scheme is fully in accordance with the *Design Manual for Urban Roads and Streets* which is set out in the DMURS Design Statement prepared by O'Connor Sutton Cronin Consulting Engineers.

5.5.6 Potential Impacts on Traffic and Commuter Patterns

Do Nothing

If the proposed development is not to proceed there would be no impacts on the existing traffic situation.

In regard to pedestrian permeability, in the event the development is not provided at the subject lands there would be a potential negative impact on pedestrians in the local area as the direct pedestrian thoroughfare from Carmanhall Road to Blackthorn Drive would not be developed.

Construction Phase

A Preliminary Construction Management Plan prepared by O'Connor Sutton Cronin Consulting Engineers is enclosed as a separate document with this application. We also note that a separate Traffic and Transportation EIAR chapter has also been prepared by O'Connor Sutton Cronin Consulting Engineers and is included as Chapter 14. In addition, a Construction Management Plan has been prepared by O'Connor Sutton Cronin and is enclosed as a standalone document as part of the planning application.

As associated with all new developments, there will be a slight temporary negative impact on the surrounding area during construction stage arising from construction traffic entering and exiting the site and their associated noise, dust and slight nuisance. However, these issues can be appropriately mitigated as set out in Chapters 11 (Air Quality and Climate), 12 (Noise and Vibration) and 14 (Traffic and Transportation) of this EIAR.

Operational Phase

The subject site is well located between two major distributor road in Sandyford (Blackthorn Drive and Carmanhall Road) with a strong urban context. We re-iterate that the site is within walking distance (less than 100 m) of the Stillorgan Luas stop and bus stops and therefore is ideally positioned with regard to access to public transport.

The provision of 285 No. car parking spaces provides for a car parking provision of 0.5 No. car parking spaces per unit. The proposed development provides for a reduced allocation of car-parking for the Build-to-Rent units as set out in the Apartment Guidelines for central and accessible locations.

We reiterate that the sustainable location of the site will encourage sustainable modes of transport from the subject site. Please refer to Chapter 14 for further details on traffic and transport associated with the proposed development at operational stage.

Proposed Mitigation Measures

The promotion of sustainable modes of transport from the site during the operational stage will mitigate against any potential impacts that may arise on traffic in the area. Please refer to Chapter 14 of this EIAR and the separately enclosed Preliminary Construction Management Plan which details the proposed development further in relation to potential traffic impacts and mitigation measures.

The scheme will be developed in line with the Traffic and Transport chapter (Chapter 14 of this EIAR) and the separately enclosed Preliminary Construction Management Plan to ensure any impacts on local traffic is minimised during the construction stage. The Preliminary Construction Management Plan notes that a large quantum of the on-site employees will arrive in shared transport therefore reducing the potential for associated temporary negative impacts on the surrounding road network.

As discussed, the promotion of sustainable modes of transport from the site during the operational stage will significantly mitigate against any potential impacts that may arise on traffic in the area. Please see Chapter 14 of this EIAR (Traffic and Transport) which details Strategy. We note that the scheme has been designed in line with the *Design Manual for Urban Roads and Streets (2009)*.

5.5.7 Potential Impacts on Human Health (Environmental)

Water

Do Nothing

In the event that the site remains in its current form and is not subject to redevelopment, there would be no change to human health in terms of the water environment.

Construction Phase

The impact of the proposed development on water in the area during the construction stage is fully assessed under Chapter 10 of this EIAR. This chapter sets out that the implementation of the measures outlined within the chapter (summarised in mitigation measures section below) will ensure that the potential impacts do not occur on water and hydrology and ultimately there is anticipated to be no impact on population and human health in this regard.

Operational Phase

The potential impacts of the proposed development on water and hydrology in the area during the operation stage are fully assessed under Chapter 10 (Water & Hydrology) of this EIAR. As set out in Chapter 10 (Water-Hydrology), surface water drainage has been carried out in accordance with Greater Dublin Strategic Drainage Study (GSDSDS) and SuDS methodologies will be implemented, therefore no predicted impacts on water and hydrology will arise during the operational stage.

Proposed Mitigation Measures

A number of mitigation measures are set out in this Chapter which include the following:

- The filtering of surface water that is likely to be contaminated by soil particles in order to reduce the silting effects of these particles in the receiving downstream watercourse;
- Construction of suitable silt traps prior to the surface water out-falling to the existing watercourse;
- Locating existing services, methods statements, etc.

Air Quality and Climate

Do Nothing

If the site remains in its current form, there would be no change to human health in terms of air quality and climate.

Construction Phase

Throughout the construction phase there may be potential for impacts to occur on human health such as dust emissions from machinery on site. Chapter 11 of this EIAR sets out mitigation measures to minimise the increase of dust from the subject site during the construction phase.

Operational Phase

As set out in Chapter 11, there will be a slight impact on the local air quality due to the nature of the proposed development e.g. residential dwellings and increased traffic movements. Chapter 11 stipulates that although the long term impact on air quality as a result of the traffic increase associated with the development it is imperceptible in terms of significance and therefore no mitigation is required.

Proposed Mitigation Measures

Chapter 11 details the mitigation measures to be employed to minimise any potential impacts in terms of Air Quality and Climate.

Noise and Vibration

Do Nothing

If the site remains in its current form, there would be no change to human health in terms of noise and vibration.

Construction Phase

In the short term the local area will be impacted during the construction period due to the influx of construction traffic, noise, vibrations and dust. However, we note that these impacts are temporary and are generally associated with all new developments in residential areas. Please see the Noise and Vibration Chapter (Chapter 12) and the Traffic and Transportation Chapter (Chapter 14) in addition to the Infrastructure Report submitted as a separate document which set out mitigation measures which will minimise any potential impacts on human health.

Operational Phase

Once the development is completed there will be potential noise arising from the increase of persons on the subject site and additional traffic movements entering and exiting the site (although this will be kept to a minimum having regard to the reduced number of car parking spaces provided to promote sustainable modes of transport). A full assessment of any impacts that may arise during the operational stage of the development is included in Chapter 14 which also sets out mitigation measures to be incorporated.

Proposed Mitigation Measures

Chapter 12 sets out the following mitigation measures to be implemented during the construction phase:

- The contractor will be required to ensure construction activities operate within the noise and vibration limits set out within this assessment. The contractor will be required to undertake regular noise and vibration monitoring at locations representative of the closest sensitive locations to ensure the relevant criteria are not exceeded.

- Noise monitoring should be conducted in accordance with the International Standard ISO 1996: 2017: Acoustics – Description, measurement and assessment of environmental noise.
- Vibration monitoring should be conducted in accordance with BS 6472 for human disturbance and BS ISO 4866:2010 for building damage.

Noise or vibration monitoring is not required once the development is operational.

Landscape and Visual

Do Nothing

If the site remains in its current form, there would be no visual alteration of the subject lands and the site would remain undeveloped with a vacant warehouse at the subject site.

Construction Phase

During the construction phase, it is inevitable that there will machinery and materials located on site in addition to ancillary storage, facilities for workers and hoarding for example. There may be potential for a slightly negative impact on the visual appearance of the site. It is anticipated that the impact will be temporary in nature and will ultimately provide a positive visual appearance on completion of the development.

Operational Phase

As noted above a Landscape and Visual Impact Assessment is included as Chapter 8 of this EIAR. The proposed development will undoubtedly change the view of this large site when viewed by the surrounding residents, however the layout of the proposed development has appropriately considered the existing environment as discussed in Chapter 8.

Proposed Mitigation Measures

The layout of the proposed development has positioned the highest forms at the least sensitive locations within the site. A Daylight and Sunlight Assessment has been carried out and is submitted as a standalone document with the proposed application. Block D, which provides the highest building form, is positioned to visually demarcate the entrance to the boulevard as viewed from the Luas station and Luas line. The provision of a pedestrian link through the site in addition to the landscaping proposals including functional areas of open space will contribute towards the successful integration of the subject development into the surrounding environment.

5.6 Potential Cumulative Impacts

The potential impacts that may arise from the proposed development of 564 No. Build-to-Rent units on population and human health have been considered cumulatively with other developments in the area. Particular attention was paid to an application for 428 No. Build-to-Sell apartments which was granted by An Bord Pleanála (Reg. Ref.: ABP-304405-19) on

the adjoining site (Rockbrook Phase II) on 19th August 2019. The scheme has been designed with due consideration of the entirety of the urban block which includes Rockbrook Phases I (constructed) and II (permitted) in addition to the part completed development at the Sentinel building (which has an extant permission for the completion of the office development granted in accordance with DLRCC Reg. Ref. D16A/0991).

A temporary permission for a primary school has been granted permission by Dún Laoghaire – Rathdown County Council (Reg. Ref.: D18A/1210) at Grafton House, Ballymoss Road which abuts the subject site to the east. It is not anticipated that the proposed scheme will have a significant impact on the school in terms of Population and Human Health given the temporary nature of the school and the proposed mitigation measures outlined throughout this EIAR.

The cumulative impact of the proposed development at the subject lands will be positive in the long term in relation to Population and Human Health as the introduction of a new type of tenure will provide opportunities for a wide cohort of persons to rent within an area excellently served by local facilities, educational establishments and modes of transport. In addition, the site will be opened up to provide a pedestrian link from Carmanhall Road through the site to Blackthorn Drive which will enhance the accessibility and permeability of the area for the existing population and promote cycle and walking, ultimately resulting a positive impact on population and human health.