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# 16 Population and Human Health

## 16.1 Introduction

This chapter addresses potential impacts of the Proposed Project on population and human health. This chapter was written by the following.

James Sweeney is a GIS and Analytics specialist and a Director of Future Analytics Consulting (FAC) with over 7 years' experience. His work involves detailed socio-economic analysis, spatial analysis and economic research. He has worked on strategic plans for cities and undertaken numerous socio-economic studies, utilising the use of demographic analysis in forecasting future population projections. He also has a Master of Science in Health Informatics. As part of Future Analytics' professional service provision, he is experienced in the provision of: Housing needs analysis; Retail analysis; Urban economic studies; GIS visualisation, modelling, and web application development. Relevant experience includes Socio-Economic Assessment of the Greater Dublin Area Drainage Scheme for Fingal County Council (2016); Socio-economic and environmental assessment for the Local Economic and Community Plan for Dublin City Council (2016) and the Dublin City Council Housing Strategy for DCC (2015).

Rachel Gleave O'Connor is a Chartered Town Planner with over 12 years' experience in private and public sectors in Ireland and the UK, specialising in development management and with particular expertise in large scale urban regeneration development. Rachel has managed an extensive portfolio of large scale planning applications for both residential and non-residential developments, including student housing, build-to-rent, co-living, office, retail and academic floorspace. Rachel has managed a number of high profile planning applications in the UK through the assessment and approval stages at the London Legacy Development Corporation, working on high density housing, tall building and extensive public realm/landscape redevelopment. She is experienced in Environmental Impact Assessment (EIA), EIA Screening and EIA Scoping.

The purpose of this assessment is to identify and assess the potential health and wellbeing effects of the Proposed Project on the surrounding population, and to deliver evidence-based recommendations that maximise health benefits and reduce or remove potentially negative impacts.

The requirement to carry out an assessment of potential impacts on Population and Human Health is set out in the EIA Directive (2014/52/EU). The recitals to the 1985 and 2011 Directives refer to 'Human Health' and include 'Human Beings' as the corresponding environmental factor. The 2014 Directive changes the title of this factor to 'Population and Human Health'.

According to the Draft Guidelines on the Information to be Contained in Environmental Impact Assessment Reports (EPA, 2017) 'in an EIAR, the assessment of impacts on population and human health should refer to the assessment of those factors under which human health effects might occur, as addressed elsewhere in this EIAR e.g. under the environmental factors of air, water, soil etc.

Potential impacts of the Proposed Glenamuck District Roads Scheme (GDRS) on population and human health arise from traffic and transportation, air quality and climate, noise and vibration, townscape and

visual, material assets: utilities and the risk of major accidents and/or disasters. These aspects are dealt with in the specific chapters in this EIAR dedicated to those topics.

This chapter refers to the findings of those assessments included elsewhere in this EIAR which human health effects might occur.

## 16.2 Assessment Methodology

This chapter has been prepared having regard to the following guidelines:

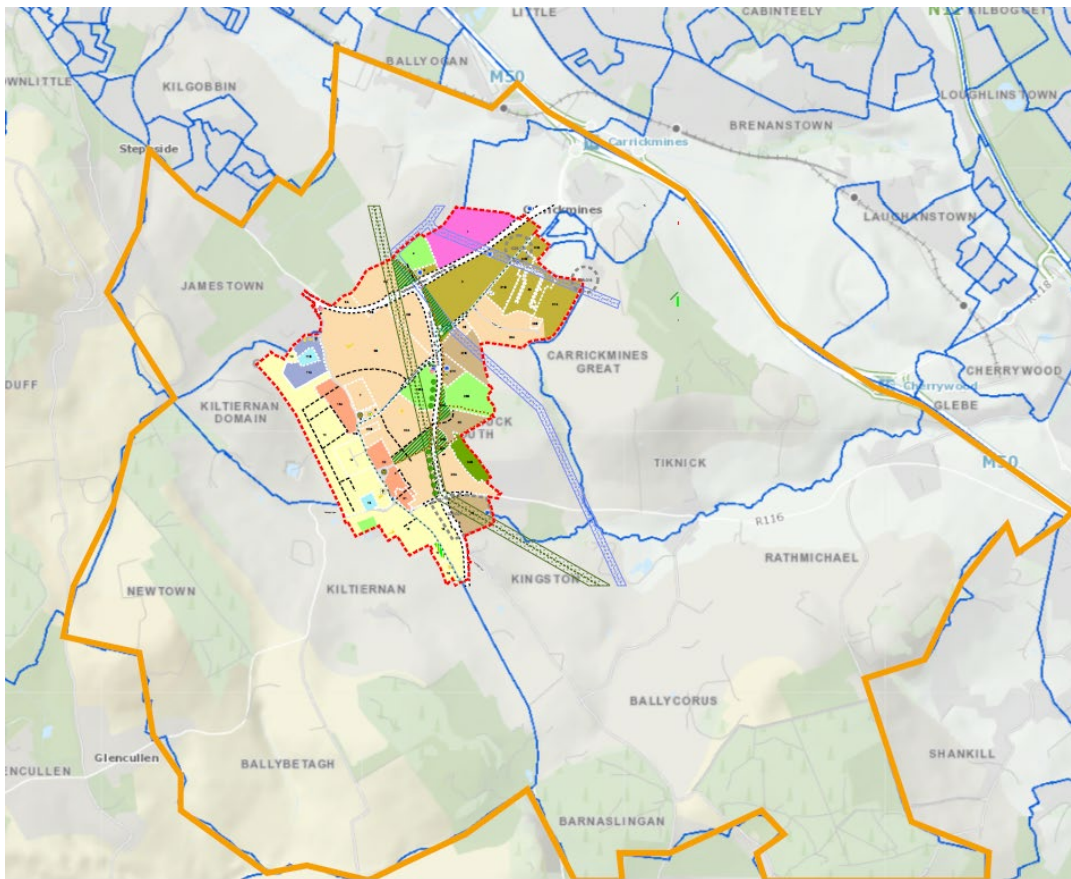
- Draft Guidelines on the Information to be Contained in Environmental Impact Assessment Reports (Environmental Protection Agency, Draft August 2017);
- Advice Notes for Preparing Environmental Impact Statements, Draft September 2017;
- Guidelines on the Information to be contained in Environmental Impact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

## 16.3 Baseline Environment

The Proposed Project is located in the administrative area of Dún Laoghaire-Rathdown in County Dublin. The extent of works associated with the new road scheme will be in close proximity to a number of residential and commercial receptors, stretching from Jamestown to Carrickmines in the north, to Kingston and Kiltiernan in the south. The site also neighbour's recreational uses, including Stepside Golf Course, De La Salle Palmerstown Rugby Club, Wayside Celtic and Bective Rangers Grounds and local park/open spaces. There is potential for negative impacts during both the construction and operational stage, with the end-use operational stage bringing opportunity for socio-economic and community benefits to the surrounding area.

The Proposed Project concerns the construction of the Glenamuck District Distributor Road, which will connect the existing R117 Enniskerry Road to the Glenamuck Road and Golf Lane Roundabout. The GDRS will also involve the construction of the Glenamuck Link Distributor Road, which will connect the new distributor road with the existing Glenamuck Road and Ballycorus Road providing an alternative to the Enniskerry Road for north-south travel.

Those Electoral Division (ED) areas that intersect with the GDRS area have been chosen as the logical study area for the report. This includes EDs in the Glencullen, Cabinteely-Loughlinstown and Shankill-Rathmichael areas. Figure 16- 1 below illustrates this study area in more detail with the LAP area shown.



**Figure 16- 1** Study Area

The report also includes an examination of facilities within the wider Dún Laoghaire-Rathdown area, which are relevant from a connectivity perspective when considering the Project in operational phase.

Analysis of potential impacts resulting from the Project are described in relation to a number of assessment themes, which were determined at Scoping stage, these include the following:

- A. Population Demographic;
- B. Settlement Patterns;
- C. Economic Activities and Employment;
- D. Amenity;
- E. Roads and Traffic;
- F. Property;
- G. Access to Public Transport; and
- H. Health Demographics.

A description of the Baseline Environment and Predicted Impacts for each of these assessment themes is also described below. This informs the professional conclusions reached as to whether impacts will be negative or beneficial, and of low, medium or high significance as detailed in section 16.4 and the overall conclusion regarding population and human health impacts in Section 16.6.

This section provides an overview of the existing baseline conditions under each of the assessment themes identified above. The study area comprises ten Small Areas across three Electoral Divisions

that intersect with the proposed GDRS area. The findings of the 2016 census have been used to determine the current population characteristics of the study area with a comparison to Dún Laoghaire-Rathdown as a whole to benchmark the data. Through understanding the characteristics of the existing population residing in the study area, it is possible to assess the potential impacts that the proposed development will have upon the population.



**Figure 16-2** Location of Settlements in Dún Laoghaire-Rathdown

It should be noted that the description of the baseline environment of those factors under which human health effects might occur has also been addressed elsewhere in this EIAR, under the environmental factors of traffic and transportation, air quality and climate, noise and vibration, townscape and visual and material assets: utilities.

### The 'No Development' Scenario

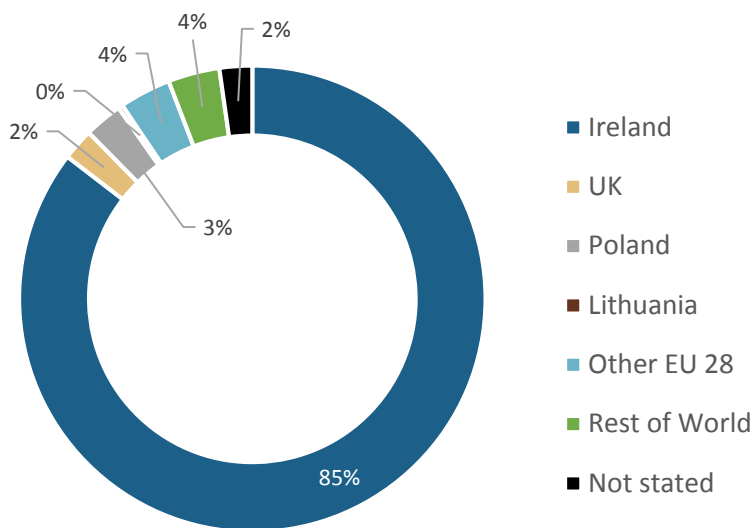
For each of the characteristics assessed below, it is predicted that in the absence of the development proposal or the 'no development' or 'do-nothing' scenario, each theme would continue to develop in line with identified trends. For example, it is expected that the population in the study area will grow in the absence of the development and that the characteristics of the population would continue to reflect the breakdown identified as part of a review of 2016 census data. However, the extent of population growth would be constrained because of infrastructural limits resulting from the 'no development' scenario. The location of amenities, attractions, facilities and employment hubs will remain unchanged and open spaces will also remain as described in the baseline characteristics. It is possible that individual businesses and attractions might discontinue operation in the 'no development'

scenario, but this is not expected to be directly related to the absence of the proposed development. The health of the population would also be expected to continue to reflect findings described in the baseline in the event of a 'no development' scenario.

### A. Population Demographic

The connectivity of an area will have significant influence upon the numbers of people attracted to live there, as well as the sustainability of future growth as the population expands. Comparing findings for the study area to Dún Laoghaire-Rathdown as a whole, can also provide insight into the performance of an area in facilitating future population growth.

According to the 2016 census the study area had a population of 2,944 people in a catchment of 1,230 properties. This was an increase of 286 people (or 10.8%) from the findings of the 2011 census. 85% of the current population reported their place of birth as Ireland or nationality as Irish. Figure 16-3 provides a breakdown of the population by nationality.



**Figure 16-3** Population of Study Area by Nationality

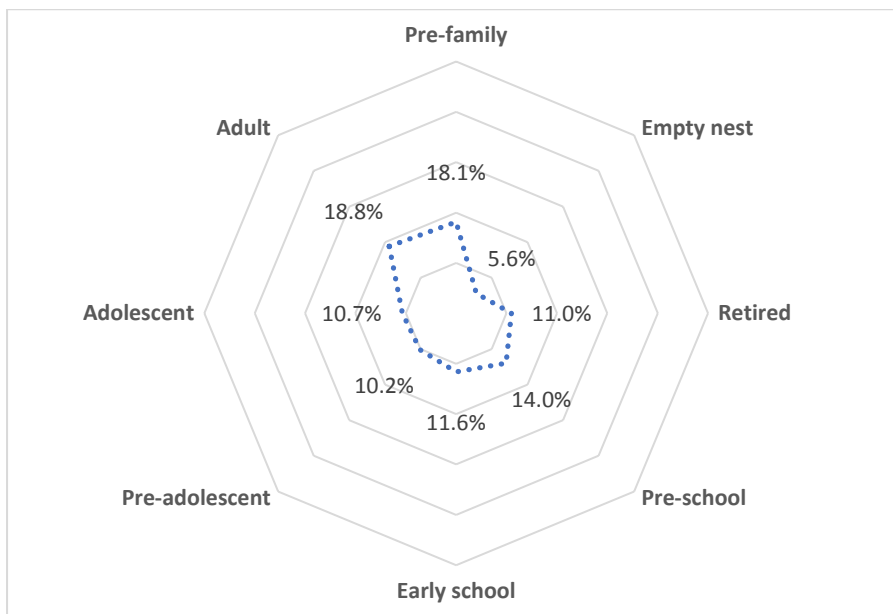
In Dún Laoghaire-Rathdown as a whole, 81% of the population recorded their nationality as Irish, indicating a slightly more diverse population in the wider area when compared to the study area.

In the study area, the working population (15-64 years) accounts for 64.8% of the total population. This broadly compares to Dún Laoghaire-Rathdown as a whole at 65.7%. However, overall the population in the study area is slightly younger than in the County as a whole, as described in the table below:

**Table 16-1** Age Profile

Average Age			
Area	Male	Female	Total
Study Area	34.6	35.7	35.2
Dún Laoghaire Rathdown	37.3	39.6	38.5

In terms of households in the study area, 83.5% of the population form part of a family household. Of these family households, 46.5% have children, 35.8% have young children (pre-adolescent) and 16.6% of households are formed of retired persons or empty nesters. Figure 16-4 illustrates this breakdown of the population in more detail below.



**Figure 16-4** Family Household Types in Study Area

The majority of households within the study area are formed of two persons at 31.3% and 62.1% of households residing in family houses (compared to 36% in apartments).



Figure 16-5 Number of Persons per Household

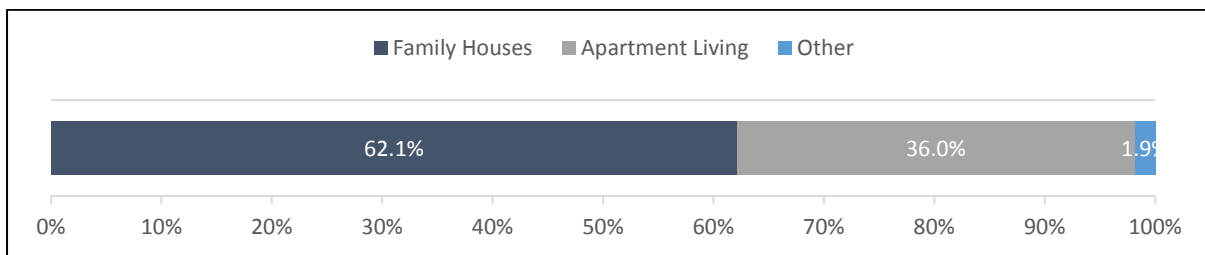


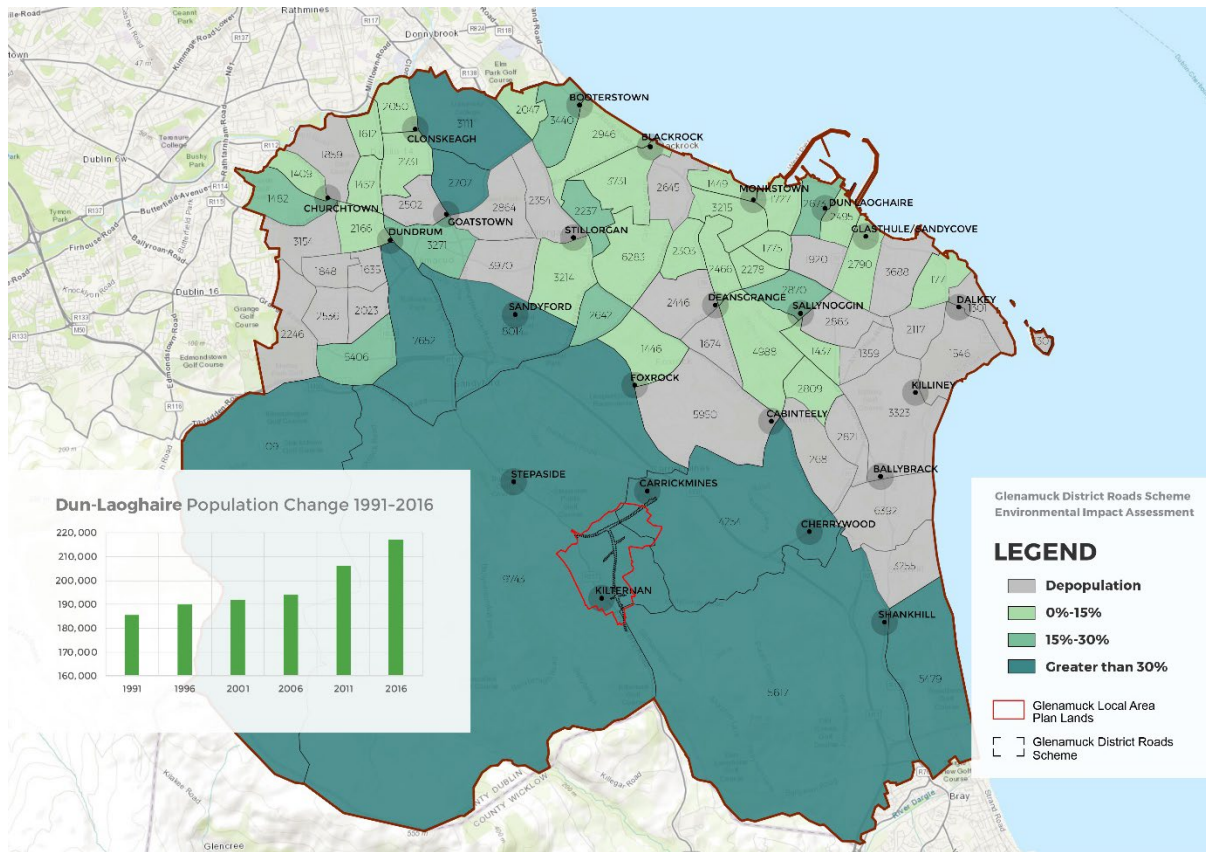
Figure 16-6 Household Accommodation Type

The household composition for the study area is broadly in keeping with Dún Laoghaire-Rathdown as a whole, with the exception of the number of persons within the ‘pre-family’ category, which amounts to 11.1% of the population in the County, as well as empty nesters at 8.5% and retired persons at 13.4%. This reflects the slightly younger age of the population overall than in the study area, evidenced by the number of persons 0-14 years at 18.4% in Dún Laoghaire-Rathdown compared to 22.4% in the study area. This will impact the types of services and facilities more frequently accessed by the population.

B. Settlement Patterns

As the population in an area grows, it is necessary to enhance infrastructure to sustain the requirements of the community. A review of settlement patterns in an area indicates the locations where need for additional infrastructure may be greatest.



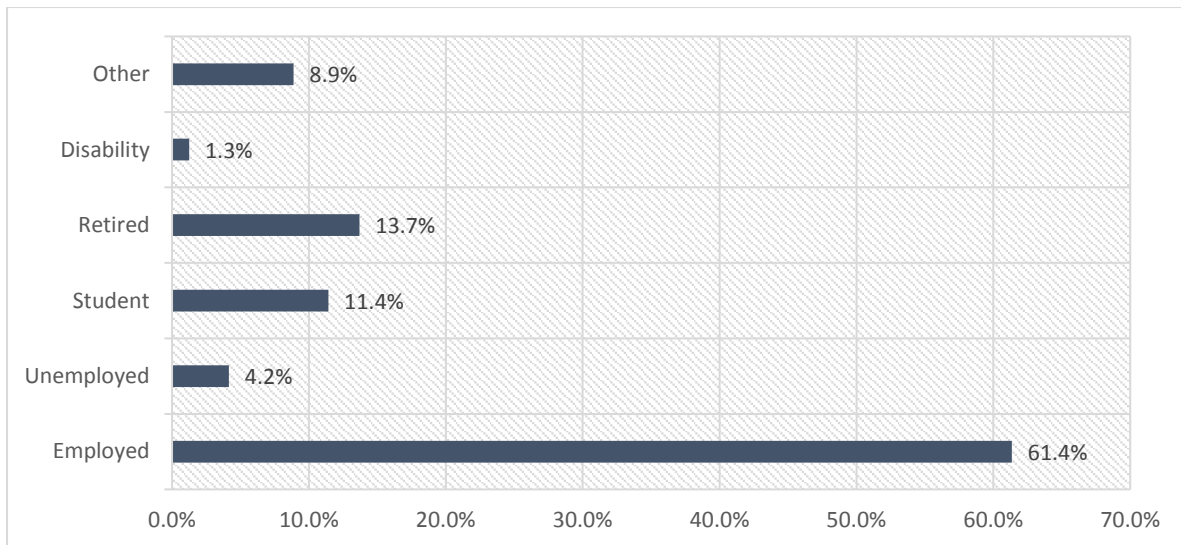


**Figure 16-7** Population Growth Across Settlements in Dún Laoghaire-Rathdown

The figure evidences the extensive population growth that has been experienced in the study area, as well as surrounding that area. This increase in the population residing in the study area will require additional infrastructural support.

**C. Economic Activities and Employment**

Within the study area, 61.4% of people work (are employed). Figure 16-8 below provides a breakdown of the population according to economic status.



**Figure 16-8** Population Breakdown by Economic Status

In the County as a whole, 53.9% of the population are employed, indicating the relative positive economic performance of the study area when compared to Dún Laoghaire-Rathdown as a whole. However, this should be noted in light of the relative high number of the population that is retired in the County as a whole at 17%, compared to the study area at 13.7%. The County also demonstrates a higher number of people out of work with a disability at 2.3% when compared to the study area at 1.3%. The number unemployed in Dún Laoghaire-Rathdown is 4.3% and therefore in keeping with the study area at 4.2%.

#### D. Amenity

The assessment considers the baseline amenity conditions in the study area and Dún Laoghaire-Rathdown as a whole. This allows an assessment of the potential impacts on amenities of a recreational nature in the locality of the Proposed Project, which includes the populations enjoyment of the area. Access to amenities and recreational facilities in the area is of particular significance in this regard.

There are a number of attractions and amenities that bound the study area (see Figure 16-9).

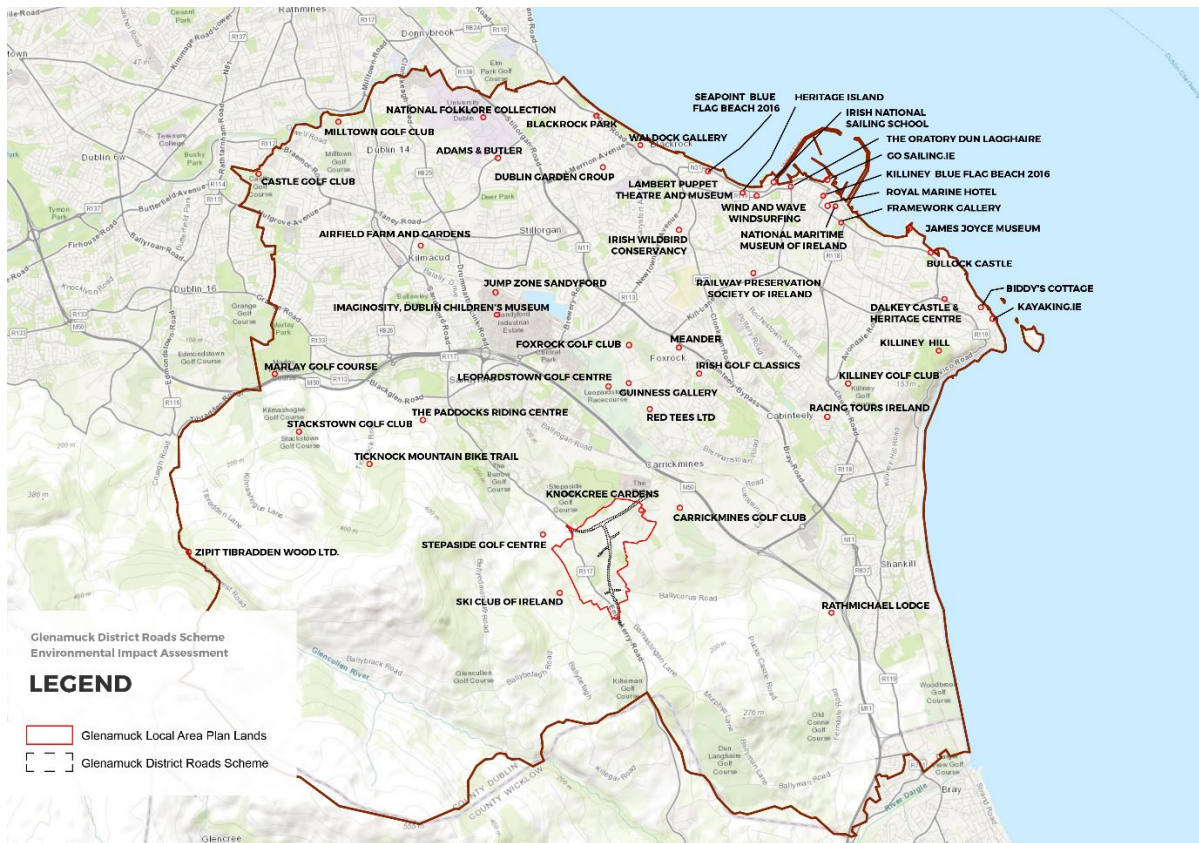


Figure 16-9 Amenities and Attractions in Dún Laoghaire-Rathdown

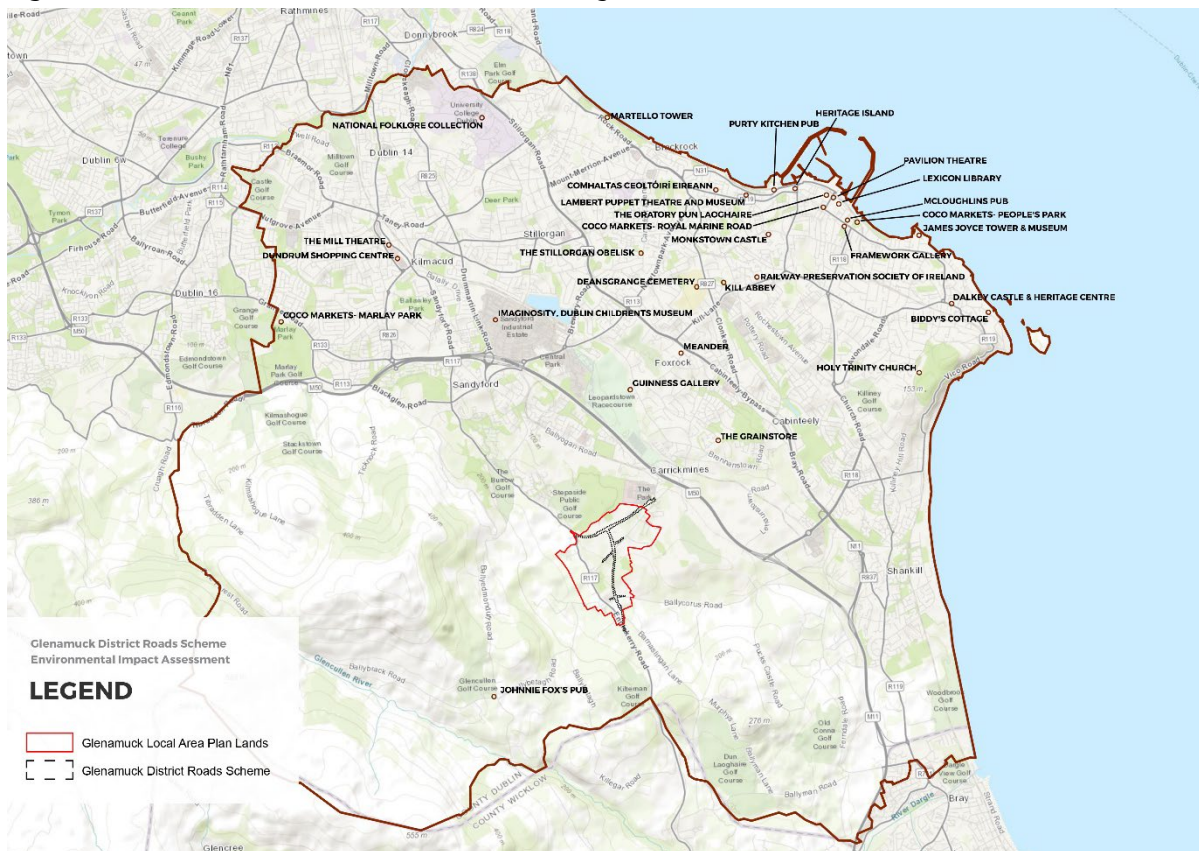
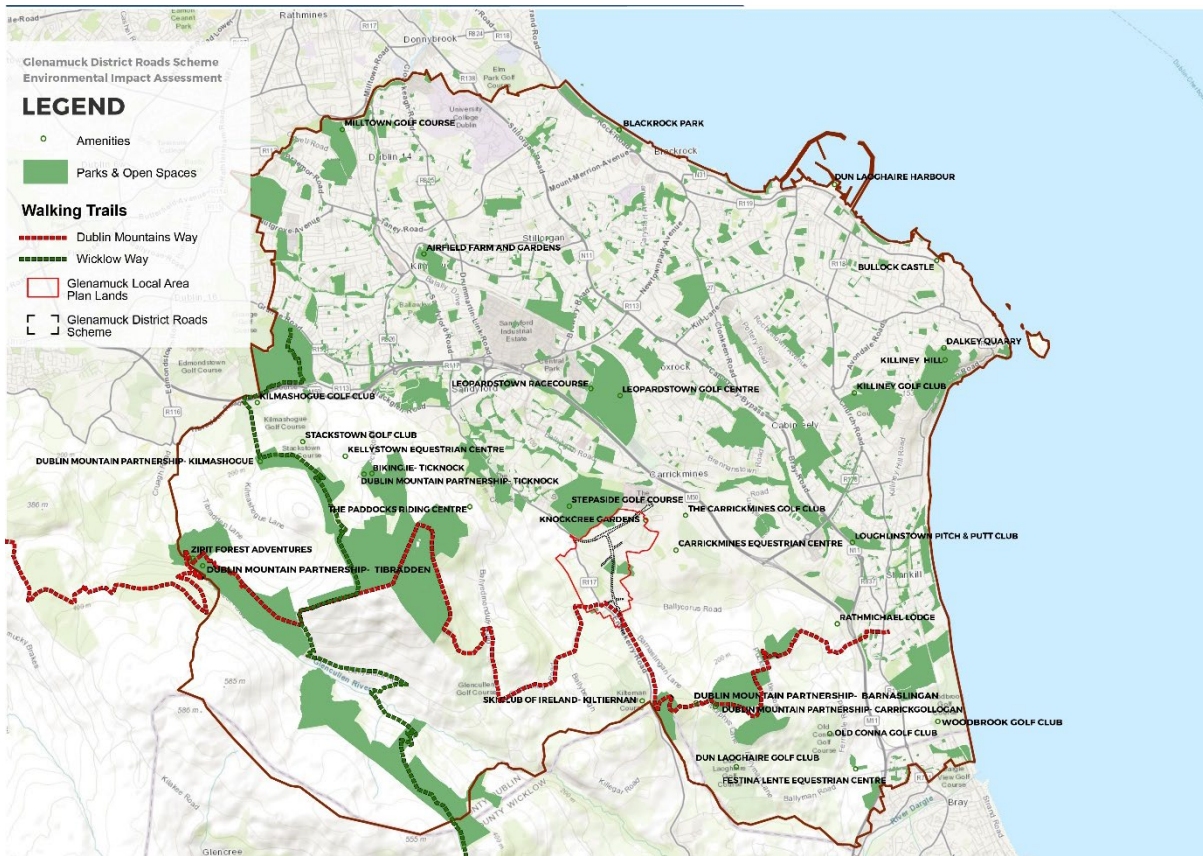


Figure 16-10 Cultural Attractions in Dún Laoghaire-Rathdown

There are a large number of major cultural attractions for the County area, most of these are less proximate to the study area itself.



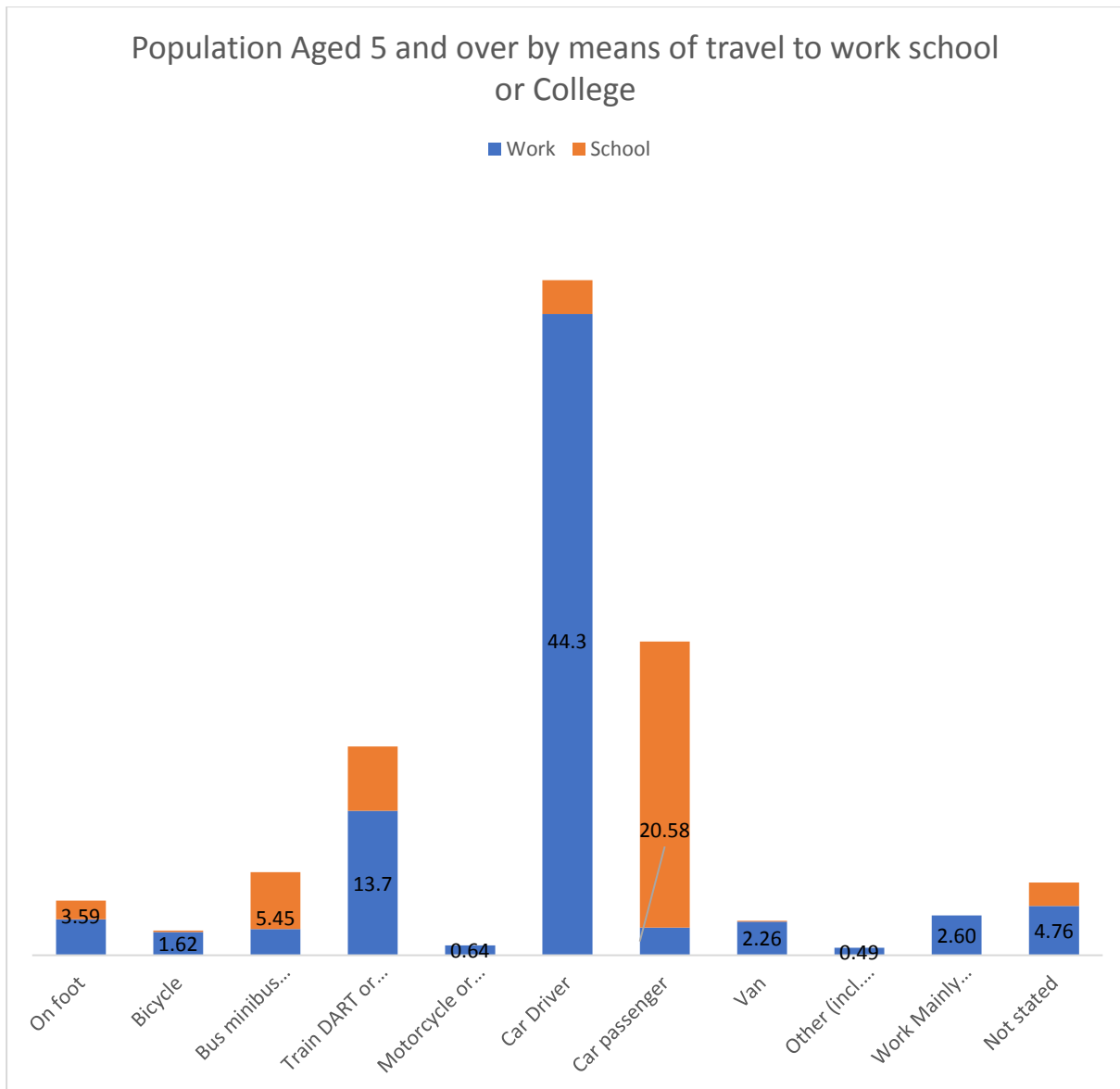
**Figure 16-11** Location of Amenity Spaces/Parks/Outdoor Recreation in Dún Laoghaire-Rathdown

There are significant areas of outdoor amenity spaces and a number of leisure facilities located proximate to the study area, specifically the Stepside Golf Course, De La Salle Palmerstown Rugby Club, Wayside Celtic, Bective Rangers Grounds, Knockree Gardens, Carrickmines Equestrian Centre and Golf Club.

E. Roads and Traffic

The ability of the population to utilise services in and facilities in the area will be dependent upon access arrangements to those services. The assessment considers the provision of roads in the locality, any congestion on this network and the proportion of the population relying upon the road system.

In the study area, travel by car for commuting purposes is by far the most popular form of transport according to the 2016 census with 65% of the population in the study area commuting by car as either a driver or passenger.



**Figure 16-12** Mode of Transport to Work, School or College

The proportion of the population commuting by car is significantly more than the County as a whole, with 49% travelling to work, school or college by car in Dún Laoghaire-Rathdown. This should be compared to the larger proportion of the population utilising buses at 10.6% in Dún Laoghaire-Rathdown, compared to the study area at 5.5%. The ability to access alternative forms of transportation will be a key influencing factor for determining mode of transport. It is clear that in the study area there is a strong reliance upon the road network as a result of the number of the population commuting by car.

F. Property

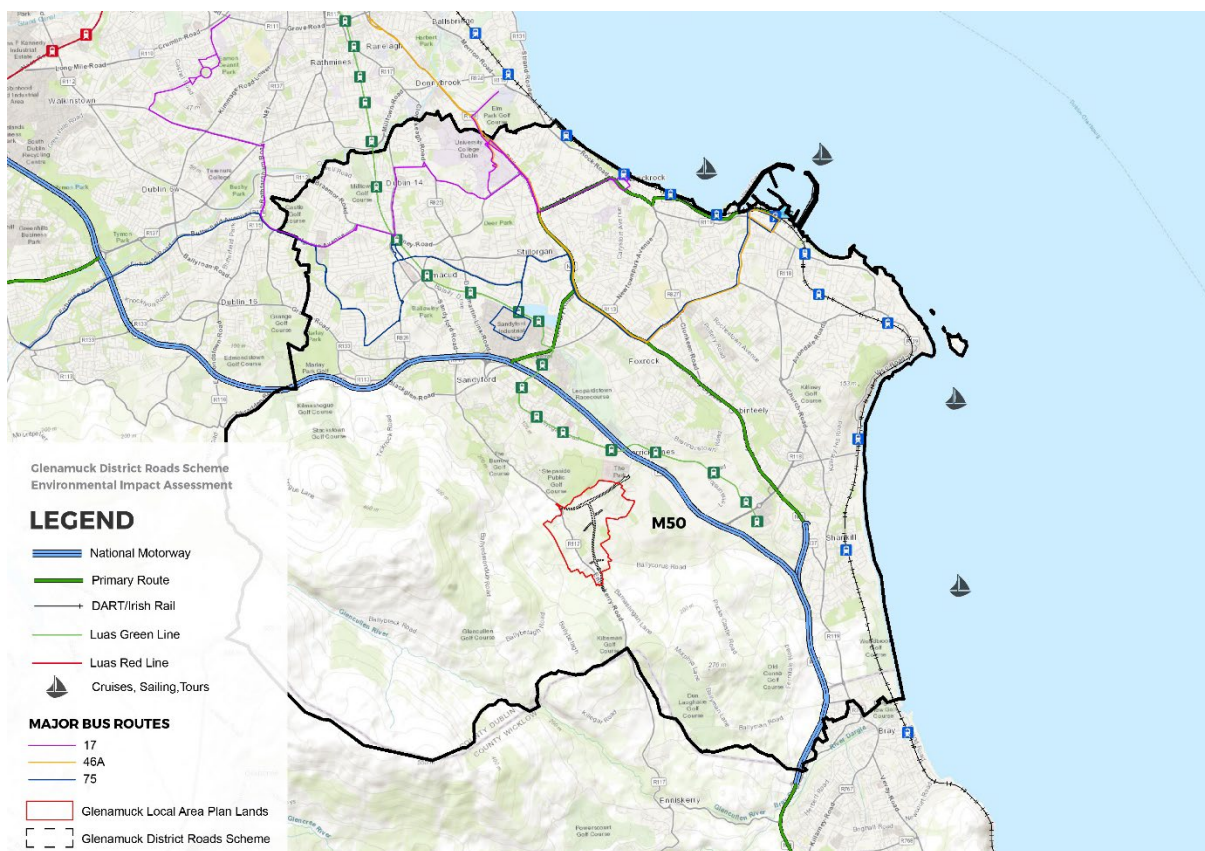
Of the total population, 48.8% of persons reside in property built between 2001-2010. This follows the data demonstrating the rapid growth in population within the study area in recent years.

In the study area, 7.2% of persons reside in social housing, 23.2% privately rent and 64.5% are owner occupiers. This compares to the County as a whole, with a larger proportion of the population recorded as owner occupiers at 69.8% and less private renters at 20.2% and social renters at 6.8%. A correlation between the means of the population and their occupancy type can be drawn and will be influenced by the type of employment they are able to access.

According to the 2016 census, 87.4% of dwellings are occupied in the study area (12.6% are vacant). This compares to a higher occupancy rate on a County basis at 94.5%. The connectivity of an area will impact its desirability from an occupancy basis.

G. Access to Public Transport

Figure 16-13 below illustrates the location of public transport hubs as well as the road network through the Dún Laoghaire-Rathdown area.

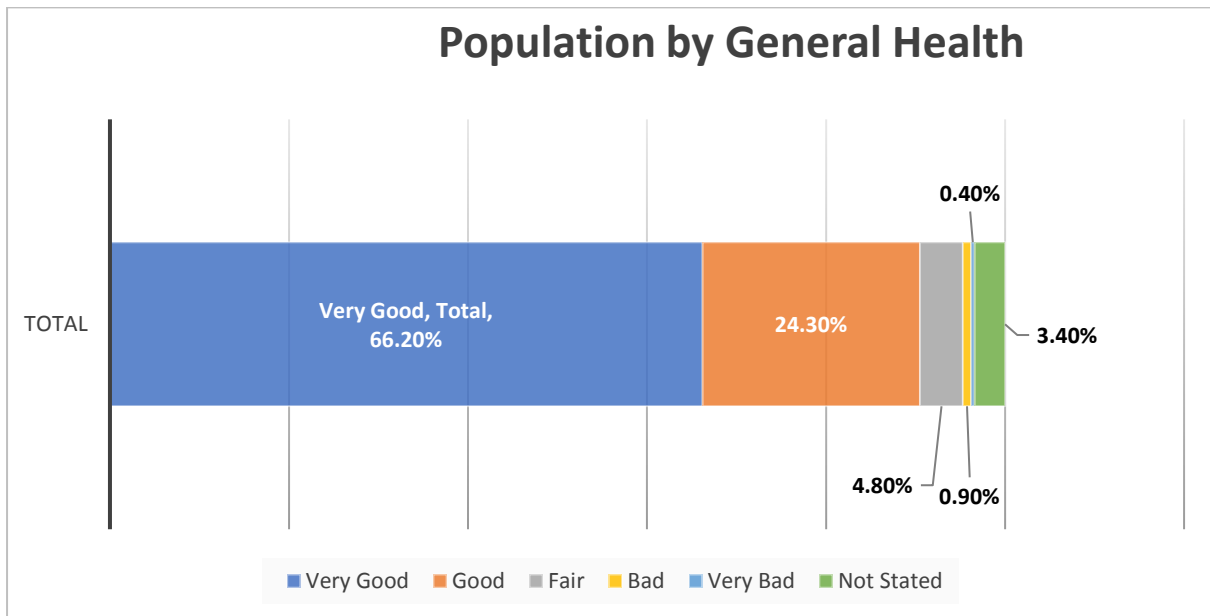


**Figure 16-13** Location of Roads and Public Transport Routes in Dún Laoghaire-Rathdown

The location of public transport hubs, are focused generally outside of the study area, with road connections forming the dominant transport connections through and around the area. The Luas Green Line is however located on the edge of the study area with a station in Carrickmines.

H. Health Demographics

90.6% of the population in the study area reported themselves to be in good health according to the 2016 census, whilst conversely 1.2% reported themselves to be in bad health. This compares closely to a County wide figure of 89.9% in good health and 1.2% in bad health. A breakdown of the findings for general health in the study area is illustrated in Figure 16-14 below.



**Figure 16-14** Proportion of the Population in Good Health

In the study area, 10.6% of the population reported themselves as having a disability and 3.66% of the population classified themselves as a carer in the 2016 census.

## 16.4 Predicted Impacts

This section provides assessment of all the potential and predicted impacts of the Proposed Project on population and human health. As outlined in Section 16.1, in accordance with the draft EPA guidelines, the assessment of impacts on population and human health refer to the assessment of those factors under which human health effects might occur, this is also as addressed elsewhere in this EIAR e.g. under the environmental factors of air, water, soil etc.

The analysis comprises a study of the key assessment themes as well as consideration of the construction phase, with a conclusion reached in relation to the proposed GDRS on the baseline characteristics as described above. The characteristics of this impact assessment are defined below, as per the EPA Guidelines on the Information to be Contained in Environmental Impact Statements (EPA March 2002 and draft guidelines for consultation, EPA 2015):

- Quality of Effects
  - Positive Effects: An improvement in the quality of the environment or characteristic;
  - Neutral Effects: No effect or imperceptible effects;
  - Negative/Adverse Effects: A change that reduces the quality of the environment or characteristic.
- Significance of Effects
  - Imperceptible: The change is measurable but without consequence;
  - Not Significant: An effect that causes change but without noticeable consequence;
  - Slight Effect: Noticeable changes are caused to the character of the environment or characteristic, without affecting sensitivities;
  - Moderate Effects: Alterations to the character of the environment or characteristic, in a format that is consistent with existing and emerging baseline trends;
  - Significant Effects: A change that is of a magnitude that will alter the sensitive aspects of an environment or characteristic;
  - Very Significant Effects: A change that is of a magnitude that will significantly alter the sensitive aspects of an environment or characteristic;
  - Profound Effects: A change that obliterates sensitive environments or characteristics.

### Construction Phase

It is considered the following impacts will be of significance to population and human health during the construction phase:

- An increase in baseline noise levels resulting from construction activities;
- Possible odour releases and associated dust emissions;



- Traffic disruption and associated congestion; and
- Noise, air quality and congestion impacts as a result of construction traffic and movements.

These impacts are described in more detail in the specialist chapters for each topic area within this EIAR.

Without mitigation, the above impacts would be negative and significant, but this is on a short-term basis and would not result in profound effects. Measures will be in place to control impacts and to limit these to acceptable parameters.

### **Negative and significant – short-term.**

#### A. Population Demographic

The population demographics of the study area will be influenced by the improved connectivity of the area. It is expected that the population will continue to grow in line with established trends, but that this growth will be stimulated by the improved road network through the area. The GDRS will increase connectivity to surrounding areas and enhance access to the associated opportunities that this presents to the population (i.e. access to employment opportunities and community facilities). This is likely to alter the established population demographic with an increased diversity in population characteristics.

The study area currently supports a large number of family households and younger persons when compared to the County as a whole. Improved connectivity through the area will enhance access opportunities to facilities required by this population, including schools, hospitals and day care facilities, as well as work places. This will also influence the desirability of the study area for occupation by future populations, facilitating future population growth and the associated economic value associated with this. The population growth is accounted for within the Kiltiernan/Glenamuck Local Area Plan 2013-2019 and requires infrastructure, such as the GDRS, to support this growth.

### **Positive Moderate Effect.**

#### B. Settlement Patterns

A study of settlement patterns in Dún Laoghaire-Rathdown, demonstrates significant population increases in the study area when compared at wider County level. In the period between 1991 and 2016, the study area and the areas around it, have seen population increases of greater than 30%. This increase in population can only be sustainably accommodated where infrastructure is also enhanced. The GDRS represents a significant improvement to the road network that will benefit the population through enhanced connectivity and reduced traffic congestion.

In addition, and similar to the impact described above in relation to demographics, it is expected that improved road connectivity through the GDRS will influence settlement patterns, and as a result enhance the attractiveness of the study area for increased settlement by future populations. This is predicted to have a positive influence upon both those areas located immediately adjacent to the GDRS as well as settlements in the wider vicinity that are still proximate to the GDRS and will utilise it as a result.

### Positive Moderate Effect.

#### C. Economic Activities and Employment

The GDRS will improve connections through the study area and its immediate locality, providing enhanced connection to employment opportunities for the population. Figure 16-15 below shows the location of employment centres relative to the proposed road network. This clearly demonstrates the connections created locally to Carrickmines and Kiltiernan, but in addition to this, wider connectivity will also be enhanced. With improved access to the M50 a much wider area of employment opportunity can be accessed by the population.

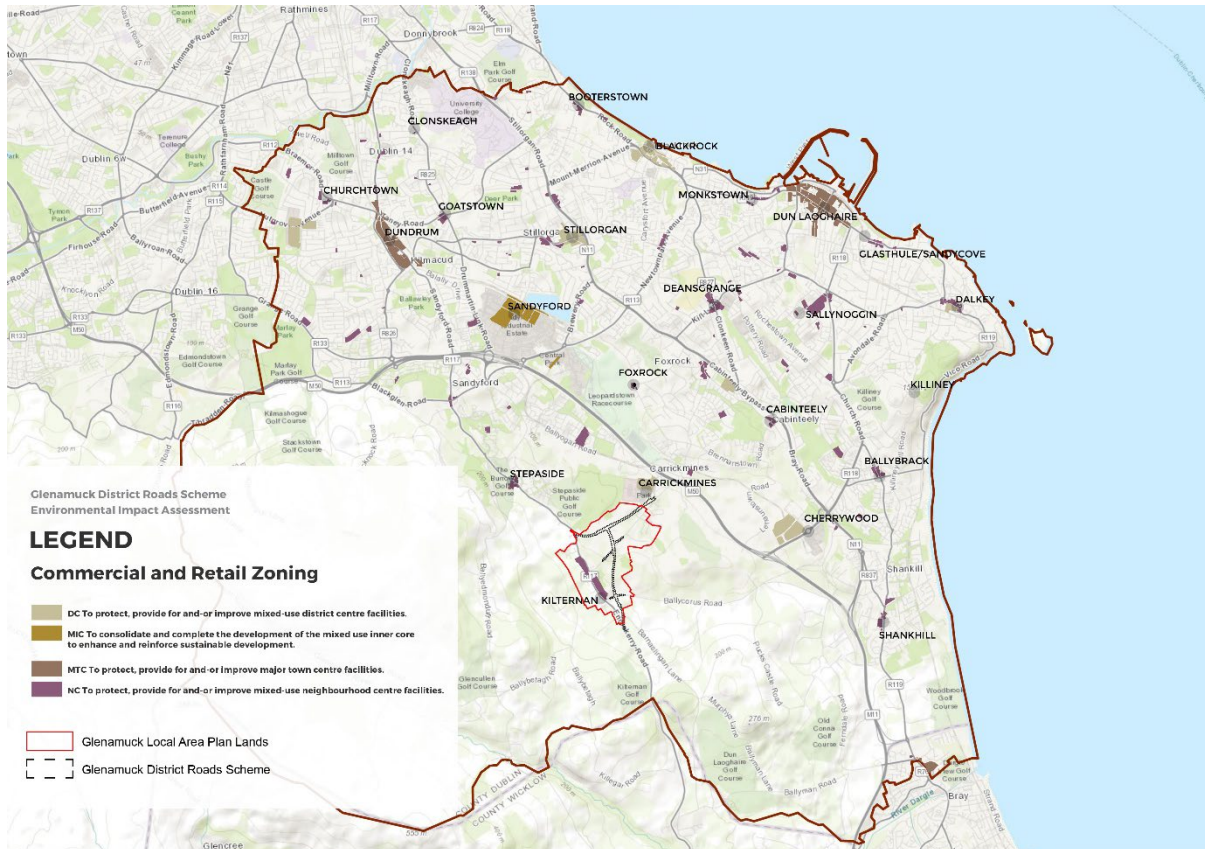
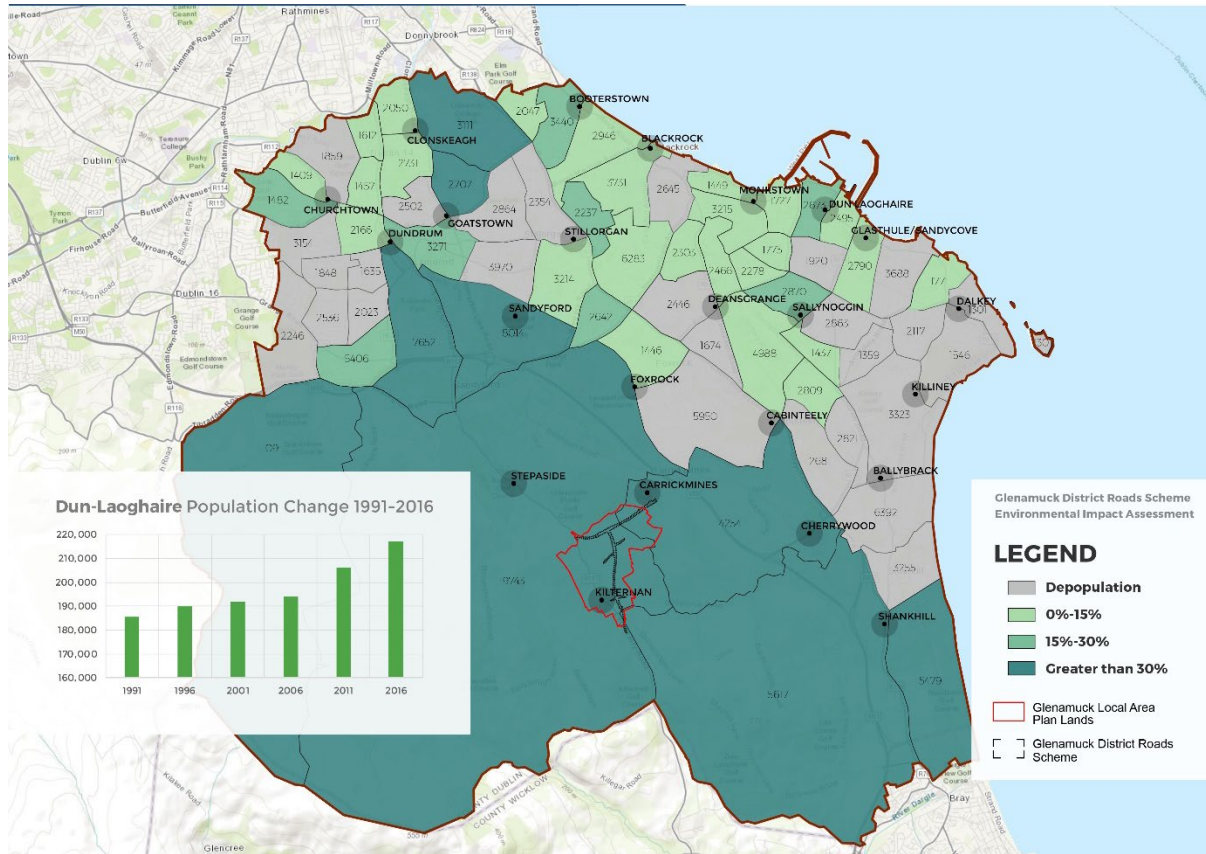


Figure 16-15 Location of Employment Hubs in Dún Laoghaire-Rathdown

The affluence and deprivation data for the County (Figure 16-16 below) demonstrates that the study area is in keeping with most of the area which is considered affluent. It bounds areas to the south that are considered to be marginally above average. Improved access to economic opportunities for a population will have a direct correlation to the affluence and deprivation experience in that area.



**Figure 16-16** Affluence and Deprivation in Dún Laoghaire-Rathdown

Improvement in connectivity through the study area will be beneficial to those areas currently classified as marginally above average, providing enhanced connectivity into affluent areas and the associated economic advantages this presents. Improved access to employment in general or quality employment, such as increased wage strength, will be significantly influential in expanding areas of affluence south of the study area.

Employment and economic activity will be generated during the construction stage of the project.

**Positive Significant Effect.**

D. Amenity

The GDRS will provide direct connectivity enhancements to a number of open spaces, leisure facilities and attractions. This is both in the immediate locality of the study area, as well as through enhanced connectivity to the M50 and the wider access opportunities that this results in. The GDRS itself, does not pass directly through or immediately bound any of these amenities and as such will not alter the sensitivities or characteristics of these environments. The Kiltiernan/Glenamuck Local Area Plan 2013-2019 accounts for the provision of public open space and protection of significant habitats in the area, whilst taking account of the location and route alignment for the proposed road scheme. This ensures compatibility between open space protection/provision and the GDRS.

## Positive Moderate Effect.

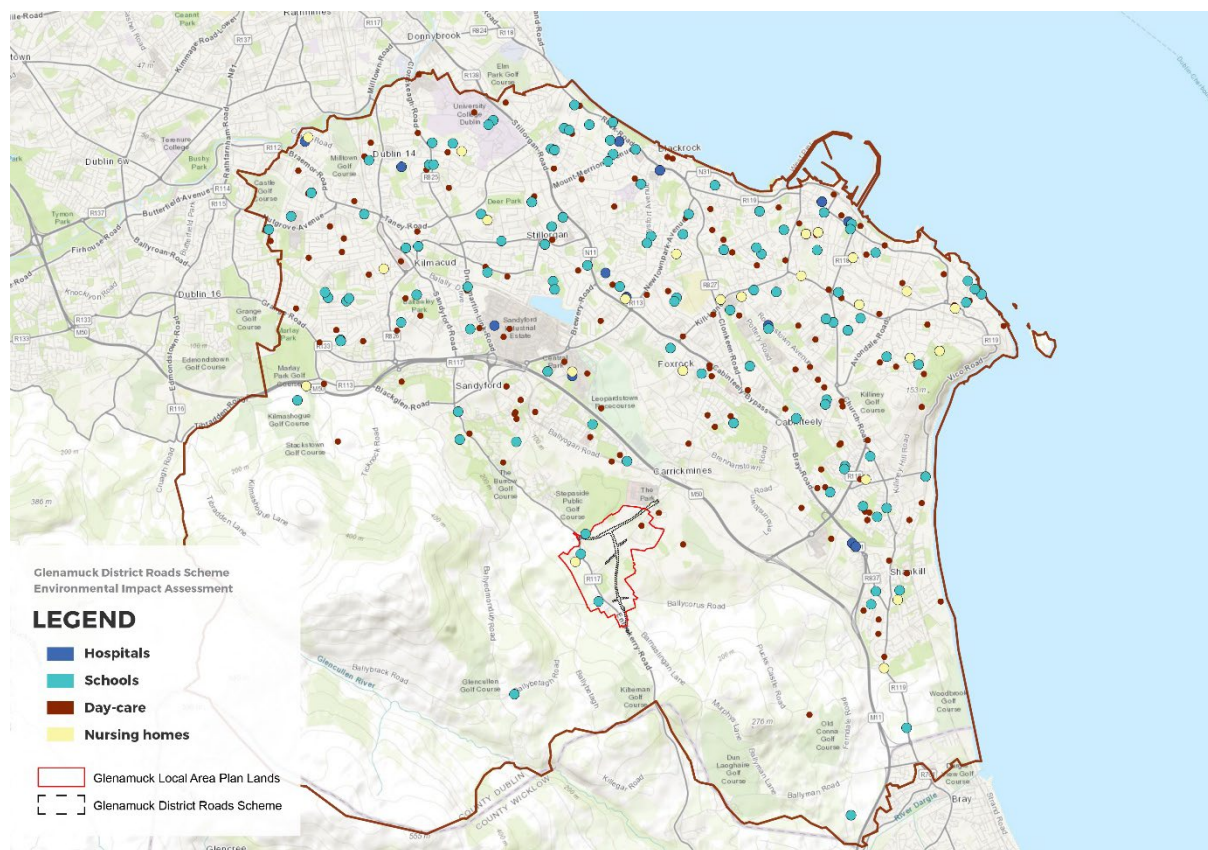
### E. Roads and Traffic

Refer to Chapter 7 for detailed assessment of Traffic and Transport. The assessment presented in this chapter refers specifically to traffic impact on population and human health.

Car travel is by far the most popular form of transport in the study area. This is influenced by the relatively poor availability of public transport in the area. The GDRS will significantly improve the road network in the area, providing new links to facilities and quicker drive times to connect to the M50. This will contribute to a reduction in congestion in the area and its associated adverse impacts, including poor air quality, noise and general quality of life when considering commute times.

Whilst the road itself clearly facilitates car use, it is not expected to intensify the number of car journeys in the area in itself but will relieve congestion associated with the existing road network. The design of the roads scheme makes significant provisions to encourage sustainable travel modes.

Figure 16-17 below shows the location of key facilities in the area when considering the demographic of the population. This includes schools, hospitals, day-care facilities and nursing homes. It is clear that the GDRS provides enhanced connection directly to these institutions or indirectly with reduced journey times to the M50 and other road networks.



**Figure 16-17** Location of Key Facilities (Schools, Nursing Homes, Hospitals and Day Care) in Dún Laoghaire-Rathdown

Enhancing the connectivity of the population to these facilities and reducing journey times through relieving congestion is expected to be a significant positive effect of the proposed road network.

### **Positive Significant Effect.**

#### F. Property

It is not expected that the characteristics of the study area in relation to property type and occupancy will be impacted to any perceptible degree as a result of the GDRS. Whilst a growth in population is expected in line with existing trends, and this will be facilitated by the road, the type and form of any accommodation constructed to accommodate this growth would only be indirectly influenced by the road network. The Kiltiernan/Glenamuck Local Area Plan 2013-2019 identifies a number of development parcels surrounding the proposed road network and describes the appropriate future development potential of those sites.

### **Neutral Effects, Not of Significance.**

#### G. Access to Public Transport

The proposed GDRS will enhance connectivity through the area and improve journey times to interconnected transport services, this will include intercity bus routes and rail routes, such as the Luas Green Line at Carrickmines. The design of the proposed new roads scheme enables provision of bus Gates/priority through two junctions (Glenamuck Junction and the Enniskerry Road Junction). This may influence the commuter patterns in the study area, with potential for increased use of public transport modes as a result. There are no public transport routes disrupted or removed as a result of the proposed GDRS (see Figure 16-13 above).

### **Positive Moderate Effect.**

#### H. Health Demographics

The health of the population will be impacted by a wide range of determinants, this will include access to education, employment/income, transport, housing, social capital, opportunities for physical activity and services (health and social care), as well as exposure to air quality, neighbourhood quality, noise and vibrations. The sections above described the improved connectivity through and around the study area as a result of the GDRS. This will improve access of the population to those facilities that will have a direct influence upon quality of life and health. Figure 16-11, Figure 16-13 and Figure 16-17 illustrate the improved connectivity to facilities and open spaces associated with this.

In relation to exposure to air quality, the GDRS will have two impacts. Firstly, the road will attract poor air quality as a result of vehicular emissions associated with its use. Secondly, the road will assist in relieving existing congestion in the area, and the concentration of poor air quality that results from that congestion.. The proposed road network provides a tie in to Enniskerry Road to the north and south of Kiltiernan Village, effectivity creating a bypass of Kiltiernan Village. This will remove the majority of extraneous through-traffic from the Village and facilitate a more pedestrian friendly, calmed street environment. There will be less exhaust emissions in the Village as a result and an improvement in the quality of the neighbourhood is expected to occur. Refer to Chapters 7, 8 & 9 for further detail on traffic and Air & Noise assessments

It is not expected that the road will create an intensification of car use that would increase overall levels of poor air quality, as it is intended to facilitate movements associated with existing traffic in the area and prioritise sustainable travel modes.

Impacts on severance and journey characteristics are addressed in Chapter 17

The statistics in relation to health in the study area, indicate that the numbers of people in good health is high at just over 90% and compares favourably to the County overall. It is not expected that the GDRS will result in any significant permanent effects that would alter this characteristic. The encouragement of walking & cycling as a result of the scheme may have a slight positive effect.

**Neutral Slight Effect.**

### **16.5 Mitigation Measures**

It should be noted that mitigation measures relating to those factors under which human health effects might occur have been addressed elsewhere in this EIAR, under the environmental factors of traffic and transportation, air quality and climate, noise and vibration, townscape and visual and material assets: utilities.

### **16.6 Residual Impacts**

Following implementation of the mitigation measures outlined in relevant sections of this EIAR, the residual impact on population and human health is considered to be positive.

**Conclusion on Overall Impact: Positive Moderate Effect.**

### **16.7 Difficulties Encountered**

There were no significant difficulties encountered in compiling the information contained in the Population and Human Health Chapter; however, census data (2016) is now two years old. It is not anticipated that any future revision of figures/data would result in a significant impact upon the findings of this assessment or the conclusions reached.

## 16.8 References

- Central Statistics Office (2011) Census 2011 Report. Dublin.
- Central Statistics Office (2016) Census 2016 Report. Dublin.
- Environmental Protection Agency (2002) Guidelines on the Information to be contained in Environmental Impact Statements. Wexford.
- Environmental Protection Agency (2003) Advice notes on current practice in the preparation of Environmental Impact Statements. Wexford.
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- Dún Laoghaire Rathdown County Council (2013) The Kiltiernan/Glenamuck Local Area Plan 2013-2019. Dublin.