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Mobility Management Plan

Claremont Project, Howth

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PROJECT: **MOBILITY MANAGEMENT PLAN FOR MIXED USE RESIDENTIAL DEVELOPMENT AT CLAREMONT, HOWTH ROAD, HOWTH, DUBLIN 13**

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MOBILITY MANAGEMENT PLAN
FOR MIXED USE RESIDENTIAL DEVELOPMENT AT
CLAREMONT, HOWTH ROAD, HOWTH, DUBLIN 13

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1.0 INTRODUCTION

Atlas GP Limited has commissioned Barrett Mahony Consulting Engineers to provide a Mobility Management Plan for the mixed-use residential development at Claremont, Howth Road, Howth, Dublin 13. The proposed development will consist of 512 No. apartments, 2,873m^2 of retail / commercial / crèche space, 439 No. car parking spaces and 1335 No. bicycle parking spaces.

The purpose of the report is as follows:

- Propose a restricted car parking provision for the residential component of the development, arguing that the proposed provision is entirely sustainable given the current car ownership and modal splits for the journey to work for existing residents living close to the subject site, and
- Given this restricted parking provision, demonstrate the sustainability in transportation terms of residents utilising non-car based forms of travel by demonstrating the high level of service that is provided by the transport infrastructure in place at the site with regards to, walking, cycling, public bus services, DART, national rail, and other Services (taxis, Car-club), and
- Identify both physical elements and strategies to be incorporated within the proposed new development which will facilitate and create incentives for both residents of and visitors to the development to use the available modes of public transport along with walking and cycling in preference over private car use.

Section 2 of this report will estimate the car and cycle parking requirement for the overall development, proposing that, for the commercial component, full effective compliance with the car and cycle parking requirements will be achieved. For the residential component, while the full cycle parking requirements will be achieved, a restricted car parking provision will be proposed. The sustainability of this level of car parking provision will be demonstrated using census and canal cordon survey data.

Section 3 contains the mobility management plan for the proposed development.

Section 4 makes some overall concluding comments.

The site is located on the northern side of Howth Road within Howth Village, approximately 175 metres west of Howth DART Station.

Appendix 1 contains a detailed site layout for the candidate site. The site location is detailed within Figure 1-1 below:

Figure 1-1– Site Location Map

2.0 SUSTAINABILITY OF CAR PARKING PROVISION AT THE PROPOSED DEVELOPMENT

2.1 INTRODUCTION

This section of the report will detail the car and cycle parking requirements for the proposed development based on the Fingal Development Plan 2017-2023 and the Sustainable Urban Housing: Design Standards for New Apartments (Guidelines for Planning Authorities) published by the Department of Housing, Planning and Local Government in March 2018.

The proposed car and cycle parking provision on site will then be detailed, highlighting the intended level of car parking provision for the residential component of the proposed development versus the Development Plan.

It will be argued that the proposed residential parking provision is entirely sustainable given the current car ownership and modal splits for the journey to work / college for existing residents living close to the subject site.

The level of provision is seen as being completely consistent with the mobility targets for Dublin city as detailed within the Dublin City Transport Plan and consistent with minimising the traffic impact of nearby already congested junctions, particularly Sutton Cross, (as detailed within the accompanying traffic impact assessment) and with maximising patronage of the extensive public transport and soft mode options (as detailed within this mobility plan).

2.2 CAR AND CYCLE PARKING REQUIREMENTS AS PER FINGAL DEVELOPMENT PLAN

2.2.1 Provision versus requirements

Tables 2-1 and 2-2 below detail the car and bicycle parking standards for Fingal County Council based on the rates contained within their 2017 - 2023 Development Plan Written Statement for the residential and mixed use / commercial components of the proposed development respectively (norms rather than maxima or minima):

Development type	Area / units	Car Parking Standards	Parking required
Apartments 1-bed	222 No.	1.0 per unit plus 0.2 per unit visitor spaces	267
Studio	4 No.	1.0 per unit plus 0.2 per unit visitor spaces	5
Apartments 2-bed	276 No.	1.5 per unit plus 0.2 per unit visitor spaces	470
Apartments 3-bed	10 No.	2.0 per unit plus 0.2 per unit visitor spaces	22
TOTAL	512 No.		764
		Bike parking standards	Parking required
Apartments	512 No.	1.0 per unit plus 0.2 per unit visitor spaces	615

Table 2-1: Parking Norms required under Fingal County Council Development Plan Standards for residential component

Development type	Area / units	Car Parking Standards	Parking required
Anchor Retail Unit (max)	1705 m^2	1 per 20 m^2	85
Retail Unit 01 (max)	603 m^2	1 per 30 m^2	20
Restaurant (norm)	243 m^2	1 per 15 m^2	16
Café (norm)	86 m^2	1 per 15 m^2	6
Crèche (max)	236 m^2	1 per 20 m^2 (0.5 per classroom)	12
TOTAL	2,873 m^2		139
		Bike parking standards	Parking required
Anchor Retail Unit (norm)	1705 m^2	1 per 100 m^2	17
Retail Unit 01 (norm)	603 m^2	1 per 50 m^2	12
Restaurant (norm)	243 m^2	1 per 150 m^2	2
Café (norm)	86 m^2	1 per 150 m^2	1
Crèche (norm)	236 m^2	1 per 20 m^2 (0.5 per classroom)	12
TOTAL	2,873 m^2		44

Table 2-2: Parking required under Fingal County Council Development Plan Standards for retail / commercial component

Development type	Area / units	Car Parking Standards	Parking proposed	% of required quantum
Apartments 1-bed	222 No.	0.7 per unit	156	-
Studio	4 No.	0.7 per unit	3	-
Apartments 2-bed	276 No.	0.7 per unit	193	-
Apartments 3-bed	10 No.	0.7 per unit	7	-
TOTAL Residential	512 No.		359	47
Car Club			5	-
Retail/Commercial	2873 m^2		75	51
Total Spaces			439	48
		Bike parking standards	Parking proposed	
Apartments	512 No.	2.0 per unit plus 0.5 per unit visitor spaces	1286	208
Retail/Commercial	Indicative		49	122
Total Spaces			1335	202

Table 2-3- Proposed parking at subject site relative to Development Plan requirements

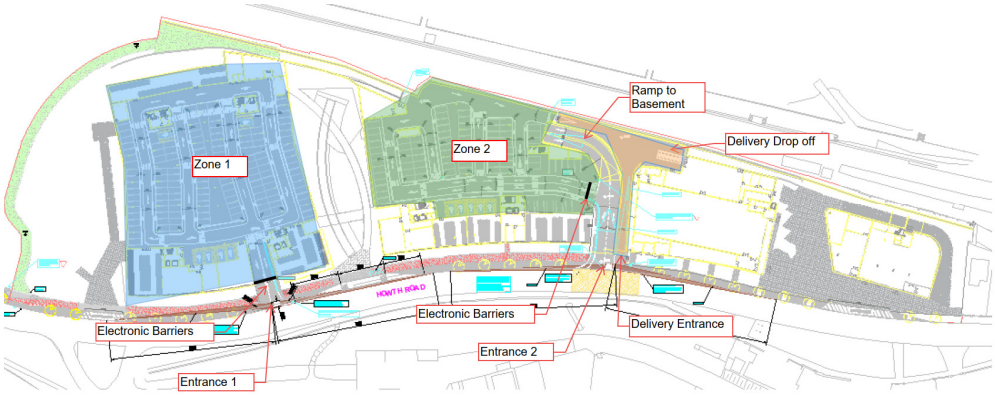
Thus, for car parking within the residential component, 764 No. spaces are required if the norms are to be adhered to, with 359 No. spaces proposed. This level of provision for the residential component is 47% of the minimum requirement set out by under the Fingal County Development Plan standards. However, this provision must be viewed in relation to the New Apartment Guidelines where more relaxed requirements are detailed. The high level of compliance of the proposed development with these Guidelines is detailed within the section immediately below.

It should also be stated that the level of parking provision for this residential development is consistent with the proposed provision at the adjacent Balscadden Road residential development.

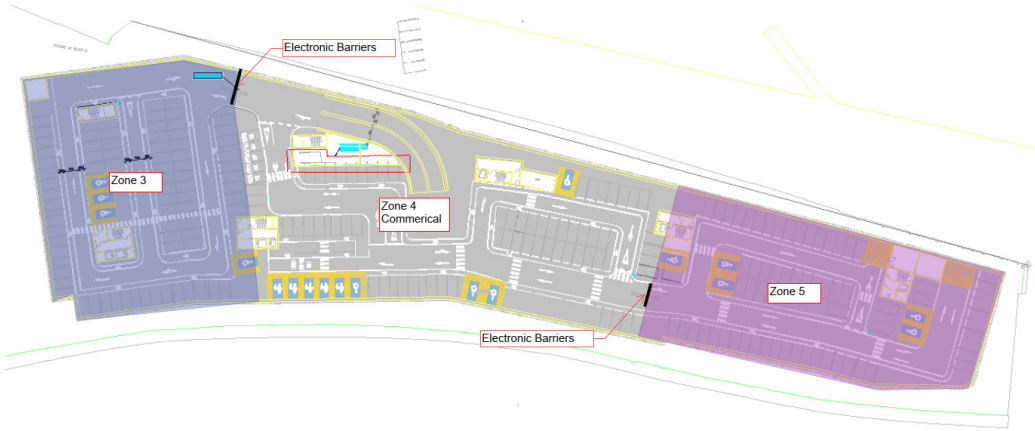
It is proposed to provide 75 No. car parking spaces for the mixed use / commercial / crèche component of the proposed development. This level of provision is 51% of the quantum required under the Fingal Development Plan standards (147 No. spaces). This level of provision is seen as entirely sustainable given that a significant proportion of the trips to the mixed use / commercial component will be made by the residents of the apartment development (termed internally generated trips). Given the scale of the residential development, the proportion of internally generated trips will be substantial – in the range of 25 to 30%, with an associated reduction in demand for parking spaces. In addition, multi-purpose trips, resulting in the use of more than one of the mixed-use/ commercial outlets by visitors, say for example retail plus restaurant or retail plus gym with further reduce the parking requirement. Multi-purpose trips at such developments can constitute up to 25% of total trips. Given these two assumptions, therefore, a provision of just over 50% is seen as adequate in the circumstances.

In terms of cycle parking provision, it is intended to provide 1335 No. cycle parking spaces, exceeding 1-space per bed, which is significantly in excess than what is set out in the Fingal Development Plan (2023).

2.2.2 Residential/Commercial Parking Zones



a) Ground Floor



b) Basement

Figure 2-1- Ground Floor and Basement Parking

To control parking the car parks have been split into the following zones:

- Zone 1 – access via entrance 1 is located at ground level under Block A, has electronic barrier at the entrance and will provide parking to the residents in Block A - Figure 2-1 a
- Zone 2 – Accessed via Entrance 2 is located at Ground level under Block B. This will have an electronic barrier at the entrance and will provide parking to the residents in Block B- Figure 2-1 a
- Zone 3 – Accessed via Entrance 2, is in the basement. This will have electronic barrier on entry and will provide parking for the residents in Block C - Figure 2-1 b
- Zone 4 – Accessed via Entrance 2, is in the basement. This area is commercial use, people wanting to use the creche or any of the commercial units can park here. - Figure 2-1 b
- Zone 5 – Accessed via Entrance 2, is in the basement at the very end. This will have an electronic barrier at the entrance and will provide parking for the residents in Block D. - Figure 2-1 b

Deliveries for the commercial units will access the retail units via Entrance 2 using a separate ramp beside the general ramp to the basement. This allows large vehicles to enter the development without disrupting traffic.

2.2.3 Provision of dedicated Car Club parking spaces

Use of private car is seen within this report as relating to its use for the journey to and from work during the morning and evening peaks. However, in many cases, residents require access to a parking space in order to have a car available to make non-work-related trips for shopping and leisure purposes. Such trips can be very infrequent, therefore, the provision of dedicated car parking spaces for such usage constitutes an inefficient use of such resources.

Therefore, an alternative approach is proposed to cater for the non-trip-to-work-related car demand of residents at the proposed development. It is proposed to initially provide 5 No. car club vehicle spaces within the basement car park, available exclusively for residents.

The demand will be monitored on an ongoing basis by those managing the development, and the number of spaces can be increased as required.

Car clubs typically operate with residents signing up to the service being able to reserve the use of the vehicle at certain times / days, paying a rental fee to do so, but saving the user the necessity of owning either a car or a parking space at the development.

It is the intention of the developer to discuss the potential for a car club base at the subject site with GoCar, an established car club operator in the Dublin area.

Results of surveys carried out by GoCar indicate that use is predominantly for private rather than business use, with just less than 60% using the service to replace a private car. The average car is rented out for 1 hour per day. Shopping and leisure related trips were listed as top uses for GoCar.

The provision of 5 No. car club spaces will result in several benefits for residents at the proposed development:

- Elimination of the necessity to own a car (and the associated expense) where use of it will be relatively infrequent
- Access to car transport for those using a car infrequently

The provision of car club spaces is also consistent with section 4.23 of the 2018 Design Standards for New Apartments which states that 'for all types of location, where it is sought to eliminate or reduce car parking provision, … 'provision is to be made for alternative mobility solutions including facilities for car sharing club vehicles.'

2.2.4 Provision of Electrical Spaces

It is intended that 10% of the car parking spaces provided, will have the necessary ducting to allow for future adjustment for electrical cars.

2.3 CAR PARKING REQUIREMENTS FOR THE RESIDENTIAL COMPONENT BASED ON NEW APPARTMENT GUIDELINES

Sustainable Urban Housing: Design Standards for New Apartments (Guidelines for Planning Authorities) was published by the Department of Housing, Planning and Local Government in March 2018.

Chapter 4 of this report refers specifically to revised car parking requirements for new apartment developments.

Its recommendations can be summarised as follows:

The quantum of car parking is dependent primarily on the location of the subject site. Three categories of location are defined:

Central and/or Accessible Urban Locations
Apartments in central locations that are well served by public transport, in which situation car parking provision to be wholly eliminated or substantially reduced. These locations are most likely to be in cities, within 15 minutes walking distance of city centres or centrally located employment locations. These locations include sites within 10 minutes walking distance of DART, commuter rail or Luas stops or within 5 minutes walking distance of high frequency (min 10 minute peak hour frequency) bus services.

Intermediate Urban Locations
This applies to apartments in suburban/urban locations served by public transport or close to town centres or employment areas and particularly for housing schemes with more than 45 dwellings per hectare. For this category, planning authorities may consider a reduced overall car parking standard.

Peripheral and/or Less Accessible Urban Locations
Apartments in relatively peripheral or less accessible urban locations will require one car parking space per unit, together with an element of visitor parking, such as one space for every 3-4 apartments.

It is reasonable to assume that the subject site comes within the second category – an intermediate area, 14 km from the city centre, located directly on the DART Line and the Howth Quality Bus Corridor, the sites designation within the second classification is entirely appropriate.

Based on this classification, it was concluded that a provision of between 0 and 1.0 parking spaces in total would be appropriate for the proposed development.

The actual car parking provision, at 359 No. spaces, equates to 0.70 No. car parking spaces per residential unit.

The section immediately below uses mobility information from the 2016 Census to justify this level of car parking provision at the proposed development.

2.4 PROJECTED CAR USAGE IN GENERAL PROXIMITY TO PROPOSED DEVELOPMENT

Modal split data from the 2016 Census for Electoral Districts close to the subject site can assist in providing a case for the sustainability in transportation terms of 53% of residents having access to a car space.

Such evidence can help demonstrate that potential overspill onto the local road network will not occur with the proposed level of car parking provision in place.

In order to demonstrate that the proposed quantum of car parking is sustainable and will not result in overspill, this report will assess existing demand for car travel within the general environs of the subject site using 2016 Census data.

This data enables the proportion of commuters presently living in the area using the private car for their journey to work.

Data from individual small areas, electoral districts, overall figures for Dublin City and Canal Cordon Counts are utilised to support the proposed level of car parking provision.

Data has been obtained for the following 3 No. Electoral Districts in the general vicinity of the subject site:

1. Howth (ED containing the Claremont development)
2. Sutton
3. Baldoyle

Figure 2-2 contains a map showing the location of the 3 No. Electoral Districts close to the subject site.

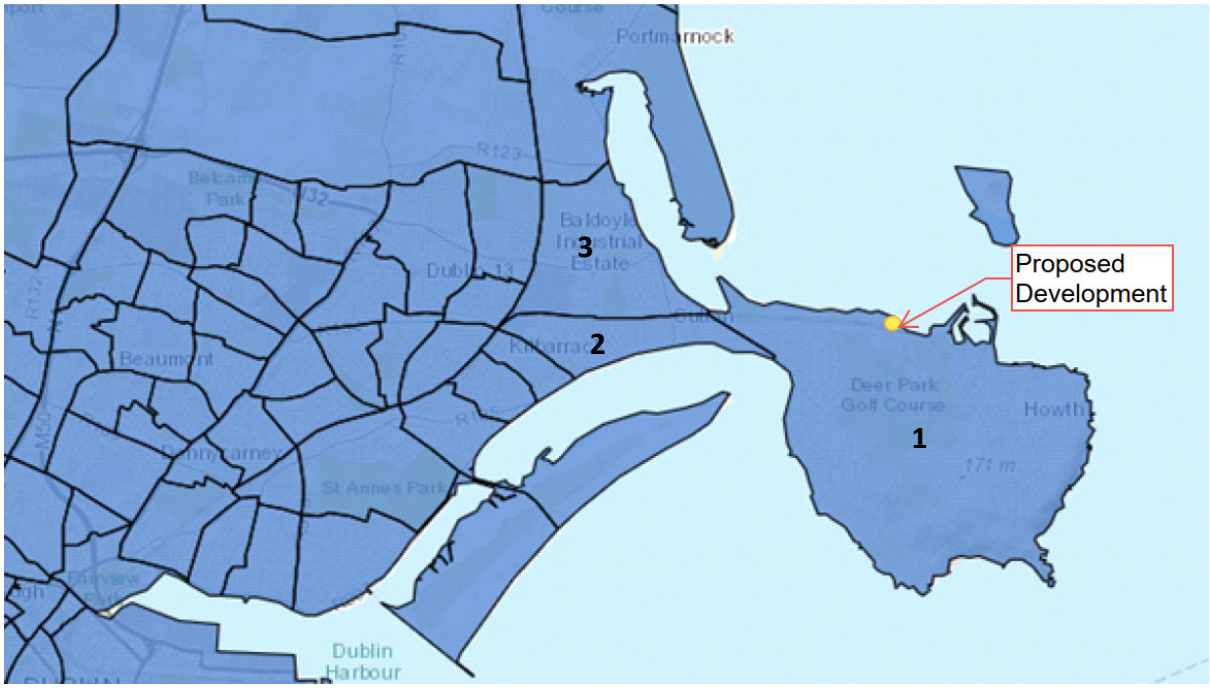


Figure 2-2: Electoral Districts in proximity to proposed development

3 No. Small Areas close to the subject site are also examined:

- Small Area 267095015
- Small Area 267095012
- Small Area 267095013

Figure 2-3 contains a map showing the location of the 3 No. Small Areas of relevance close to the subject site.

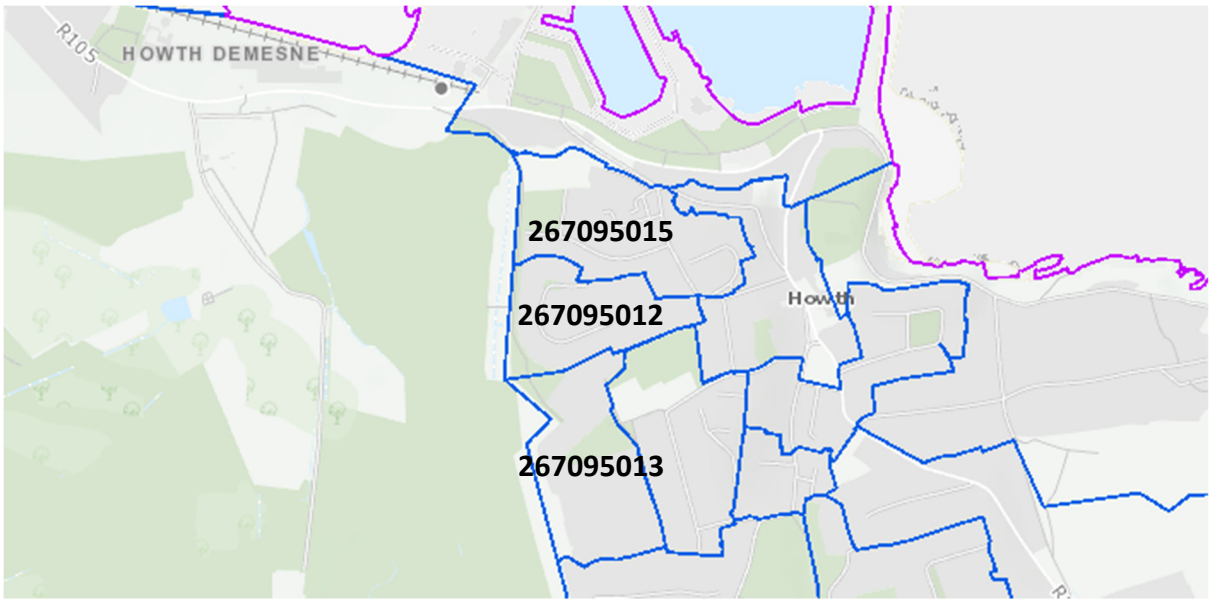


Figure 2-3: Small Areas close to subject site

In order to analyse in detail the travel behaviour of commuters in the vicinity of the proposed development, let us look first at modal splits for commuters within the Dublin city area.

2.5 Modal splits for the private car - 2017 Canal Cordon Counts document

The results within this document detail the volume of vehicles and people crossing the Canal Cordon into Dublin city centre in the morning peak between 7am and 10am. The purpose of collecting this data is to track trends in the modes of travel people are using to travel to the city centre. It indicates the degree of success of various transport management measures / policies in changing commuter travel behaviour.

A comprehensive picture of the modes of travel of commuters was compiled for the period 2008 to 2017.

Table 2-4 below details the modal splits compiled for the 10-year period from 2008 to 2017:

	Percentage for each mode									
Mode	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Private car users	33.9	37.7	39.8	38.0	37.0	35.4	33.3	32.6	31.8	29.2
Pedestrians	9.2	7.8	8.3	7.9	9.2	9.1	10.2	9.4	10.5	11.8
Cyclists	3.1	3.4	3.3	3.7	4.3	4.7	5.4	5.4	5.9	5.9
Public transport	51.1	48.1	45.9	47.5	46.4	47.9	48.4	49.8	49.1	50.7

Table 2-4: Modal share for commuters crossing canal cordon 2008 to 2017.

It can be seen that car usage has gradually reduced over the past 10 years, with the modal split for private car usage now below 30%, with public transport at just above 50%.

The 2016 census figures for Dublin City indicates a modal split for the private car in the region of 32%, slightly higher than the 2017 Canal Cordon results. This is entirely consistent with the ongoing reduction of this modal split on a year-on-year basis.

2.6 Modal split for the private car – 2016 Census results for Electoral Districts in the vicinity of the proposed development

Table 2-5 contains the modal splits for car, bus and DART / Rail travel for the 3 No. Electoral Districts close to the subject site:

Mode	CAR DRIVER (%)	BUS (%)	DART/TRAIN (%)	CYCLING (%)	WALKING (%)
Howth	54	4	20	2	5
Sutton	47	4	29	5	3
Baldoyle	48	5	26	4	4
Average	49	4	25	4	4

Table 2-5: Modal splits for electoral districts in vicinity of subject site

Thus, for the existing inhabitants in 3 No. Electoral Districts close to the subject site, 49% commute by private car as detailed within the 2016 Census, with 25% commuting by bus or train and 8% cycling or walking.

In order to gauge the modal splits as close as possible to the candidate site, the car ownership and modal splits for 3 No. small areas close to the subject site have been analysed:

- Small Area 267095015
- Small Area 267095012
- Small Area 267095013

Table 2-6 contains the modal splits for car, bus and DART / Rail travel for the 3 No. Small Areas close to the subject site, based on data from the 2016 Census.

Mode	CAR DRIVER (%)	BUS (%)	DART/TRAIN (%)	CYCLING (%)	WALKING (%)
267095015	34	4	30	3	11
267095012	48	2	24	2	9
267095013	42	5	23	1	9
Average	41	4	26	2	10

Table 2-6: Modal splits for Small Areas in vicinity of subject site

The above figures are a very accurate assessment of the likely modal splits for the subject site, demonstrating that, close to the subject site car usage in the region of 40% can be predicted, with DART usage at 26% and walking at 10%.

These figures for the Electoral Districts and Small Areas are critical in two respects. Firstly, they demonstrate that providing car parking for 70% of the residential units for the proposed development is entirely sustainable. The 2016 census shows a modal split for car use for journey's to work in the general area at 40%, and given that, as indicated by the year-on-year Canal Cordon counts, this figure has, in all probability, reduced in the intervening two years to 2018, 20% of households in the vicinity of the subject site do not own a car.

Finally, it would be reasonable to assume that improving access to the bus, DART, and cycle links from the subject site, as proposed within this report, will result in increased usage of public transport and soft modes, presently at 26% and 12% respectively for the Small Areas close to the subject site, and a consequent decrease in the use of the private car for the journey to work.

2.7 CONCLUDING COMMENT

This section of the report demonstrates that, given existing travel patterns close to the subject site, and its designation within the New Apartment Guidelines as an 'intermediate area' within proximity to a high frequency major rail line, a parking provision of 0.70 No. car parking spaces per dwelling unit is sustainable. The allocation of 5 No. dedicated car club spaces will further aid the sustainability of this parking provision.

This provision will have the effect of reducing the traffic impact from the development. This is referred to in detail within the accompanying traffic assessment, which is important given the levels of congestion currently at these major junctions.

However, providing a limited number of car parking spaces places an onus on the applicant to demonstrate that the site is configured in such a manner that enables all residents at the proposed development to commute to work by means of a sustainable mode of travel other than the private car.

The remaining sections of this document seek to demonstrate that such is the case for the proposal at the Claremont site.

3.0 MOBILITY MANAGEMENT PLAN

3.1 INTRODUCTION

A Mobility Management Plan (MMP) is a long-term management strategy covering a selected location with the aim to promote and deliver sustainable transport objectives. A Mobility Management Plan consists of a package of measures put in place by an applicant in order to encourage and support more sustainable travel patterns among both residents and visitors at the proposed development.

The package usually includes measures to promote and improve attractiveness of using public transport, cycling, walking, car-sharing / car clubs. It should be considered a dynamic process where a package of measures are identified, piloted and monitored on an ongoing basis.

A MMP prepared at planning stage, before the development is built and occupied, can only highlight potential issues to be included in a subsequent MMP to be prepared once the development has obtained a grant of planning permission and is built and occupied.

The environmental and congestion impacts of car-based transport has resulted in policy changes where the priority of more sustainable forms of travel has increased. The MMP helps to encourage use of modes of travel other than the private car.

The proposed development at Claremont benefits from its proximity to the DART and from its easy access to the 31 bus route operating between Howth village and Talbot Street.

The Fingal Development Plan 2017 – 2023 states that Mobility Management Plans (MMP's) set out measures which promote sustainable transport for particular places of work or education. The measures normally include:

- The appointment of a Mobility Manager at senior level within the organisation who is responsible for implementing the Plan.
- Conducting a survey of travel patterns of workers and/or students.
- Setting targets for the share of trips made by sustainable modes.
- Making available showers and locker rooms for cyclists and walkers.
- Provide adequate bicycle parking.
- Enabling staff to avail of Government tax-saver schemes for the purchase of bicycles and public transport tickets.
- Providing information on walking routes, cycle routes and public transport services.
- Flexible working hours.
- Promotion of car sharing (e.g. by assigning priority car parking spaces).
- Promotion of cycle trains and walking buses, especially for schools.

Objective MT13 therefore strives to 'promote walking and cycling as efficient, healthy, and environmentally-friendly modes of transport by securing the development of a network of direct, comfortable, convenient and safe cycle routes and footpaths, particularly in urban areas'.

MMP's are intended to bring the following benefits:

- Greater accessibility of the site.
- Encouraging of safe and viable alternatives for accessing the site.
- Pragmatic initiatives based on appraisal of residents' and visitors travel patterns.
- Reduced overall vehicle mileage and trip volumes.

3.2 GUIDANCE AND POLICY DOCUMENTS

This report was developed with guidance from the documents listed below;

NATIONAL POLICY

- **Smarter Travel A Sustainable Transport Future 2009 – 2020**
  - The governments transport policy for the future which targets transportation. It promotes greater integration between spatial planning and transport policy. The aim is to reduce car-based commuting from 65% to 45% by 2020.
- **National Cycle Policy Framework 2009**
  - The National Cycle Policy Framework NCPF sets out a national policy for cycling to create a stronger cycling culture and a friendlier environment for cyclists.
- **Regional Planning Guidelines for the Greater Dublin Area**
  - Transport policy and prioritised infrastructure investment are critical to the success of the Greater Dublin Area in terms of connectivity to international and indigenous markets, the movement of people and goods and providing a range of transport modes to ensure efficient and sustainable travel patterns and which provide value for money.

LOCAL POLICY

- **Fingal Development Plan 2017-2023**
  - Mobility Management Plana are seen as effective instruments to promote the provision of sustainable travel infrastructure within a development. MMP's are applicable to housing developments, workplaces, colleges, schools and hospitals as Travel Plan initiatives relate not only to residents but also to staff, students or visitors.
- **Fingal North Dublin Transport Study (2015)**
  - This report examined the medium-long term needs of the Dublin City – Dublin Airport – Swords corridor. The results of this informed the Transport Strategy for the Greater Dublin Area which the NTA has submitted to the Minister for Transport
- **Greater Dublin Area Draft Transport Strategy 2011 - 2030 : 2030 Vision**
  - The goal of the strategy is to support the greater Dublin area in meeting its potential as a competitive, sustainable city region with a good quality of life for all.
- **Cycling Policy**
  - The Council Cycling Policy, as stated in its Development Plan, adheres to the recommendations of the Greater Dublin Area Cycle Network Plan 92013)
- **National Transport Authority's Transport Strategy for the Greater Dublin Area 2016–2035**
  - This sets out the integrated long-term strategy for the area and includes new proposals such as DART and LUAS extensions.

3.3 CLAREMONT DEVELOPMENT MOBILITY STRATEGY

3.3.1 INTRODUCTION

Having regard to the guidance documents list above in section 0, the following list of measures, which are discussed in detail below, have been incorporated into the proposed development:

- Provision of 1335 no. easily accessible, secure bicycle parking spaces including a minimum of 49 no. retail and creche spaces dispersed throughout the site.
- Provision of 359 no. resident car parking spaces, plus and additional minimum of 5 no. Club Car spaces for communal use.
- Provision of 75 no. retail car parking spaces.

3.3.2 WALKING MOBILITY

The subject site is within 100 metres of the Howth DART Station and within 700 metres of the centre of Howth Village, with excellent pedestrian links in place in all cases.

The pedestrian links to all transport, retail and employment centres in the vicinity of the subject site are of high standard.

3.3.3 CYCLING MOBILITY

The "Cycle Network Plan for the Greater Dublin" area has produced an overall plan for providing safe cycle routes both within the city and in the suburbs.

The proposed plan for Howth is detailed in Appendix 2.

Figure 3-1 contains the map of existing cycle facilities for the area close to the subject site as detailed within the GDA Cycle Plan.

Figure 3-1: Existing cycle facilities close to the Claremont site (GDA cycle plan)

It can be seen that, at present, the major cycle lane is along the bus corridor on the Howth Road, linking the site to Sutton Cross and onwards towards the city centre

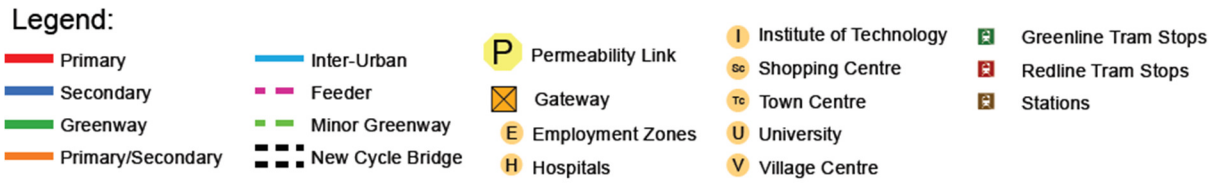


Figure 3-2 details the network improvements proposed within the GDA cycle plan.

Figure 3-2: Proposed cycle facilities close to the Claremont site (GDA cycle plan)

A secondary cycle route is planned along Howth Road . Carrickbrack Road, which will connect the subject site to all parts of Howth, southwards towards the city centre and north-westwards towards Portmarnock, Malahide and Swords.

In addition, the proposed East Coast Greenway will run on the northern edge of the site, connecting Howth to the greenway network in the Greater Dublin area.

Figure 3-3 contains a drawing of the Dublin Greenway network map, indicating the extent of the east Coast Greenway.

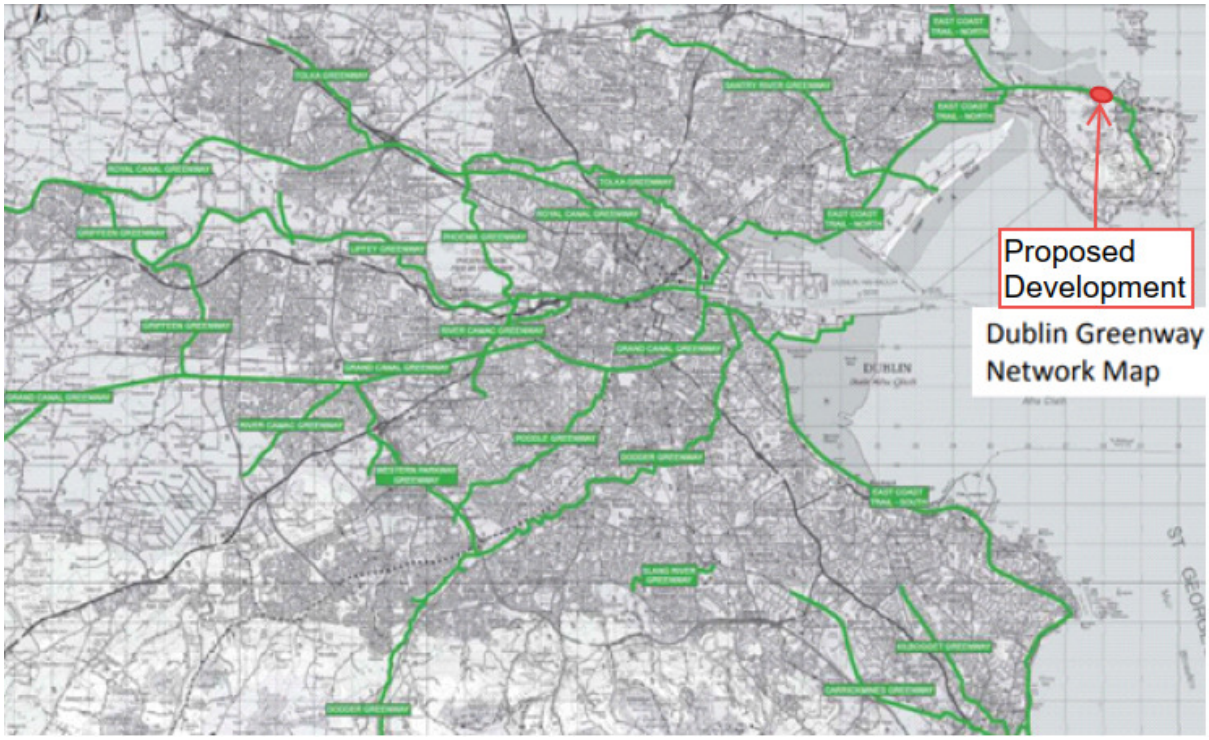


Figure 3-3: Dublin Greenway Map, including route of East Coast Greenway

3.3.4 PUBLIC TRANSPORT MOBILITY

INTRODUCTION

As the road network surrounding the site is quite congested and busy, the role of public transport in accommodating the movement requirements of the area now and into the future is crucial. In the vicinity of the proposed development, DART and buses have the greatest potential to increase public transport capacity and decrease the number of private vehicles on the road. The main focus of the Mobility Management Plan is to improve connectivity to existing public transport services and promote the usage sustainable transport services.

BUS SERVICES

The Dublin Bus services in the area provide direct linkage to the city, the Route 31/a along Howth Road towards the city centre, and the 31b Route along Carrickbrack Road towards the city centre.

The frequency of each route during the morning peak is detailed within **Table 3-1**.

Route	Origin	Destination	Frequency (08:00 – 09:00)
Route 31/a	Howth Road / Carrickbrack Road	Talbot Street	2 per hour
Route 31b	Carrickbrack Road	Talbot Street	1 per hour

Table 3-1: Dublin Bus Route Frequencies

Future bus plans involve the "Dublin Area Bus Network Redesign" (Bus Connects) which is an attempt to overhaul the current bus system in the Dublin region by developing new bus corridors, new bus routes, increasing services and new buses. The proposed Bus Connects plan for Howth is detailed within Appendix 3

Figure 3-4 provides an overview of the overall provision of services which will upgrade the current Dublin bus service.

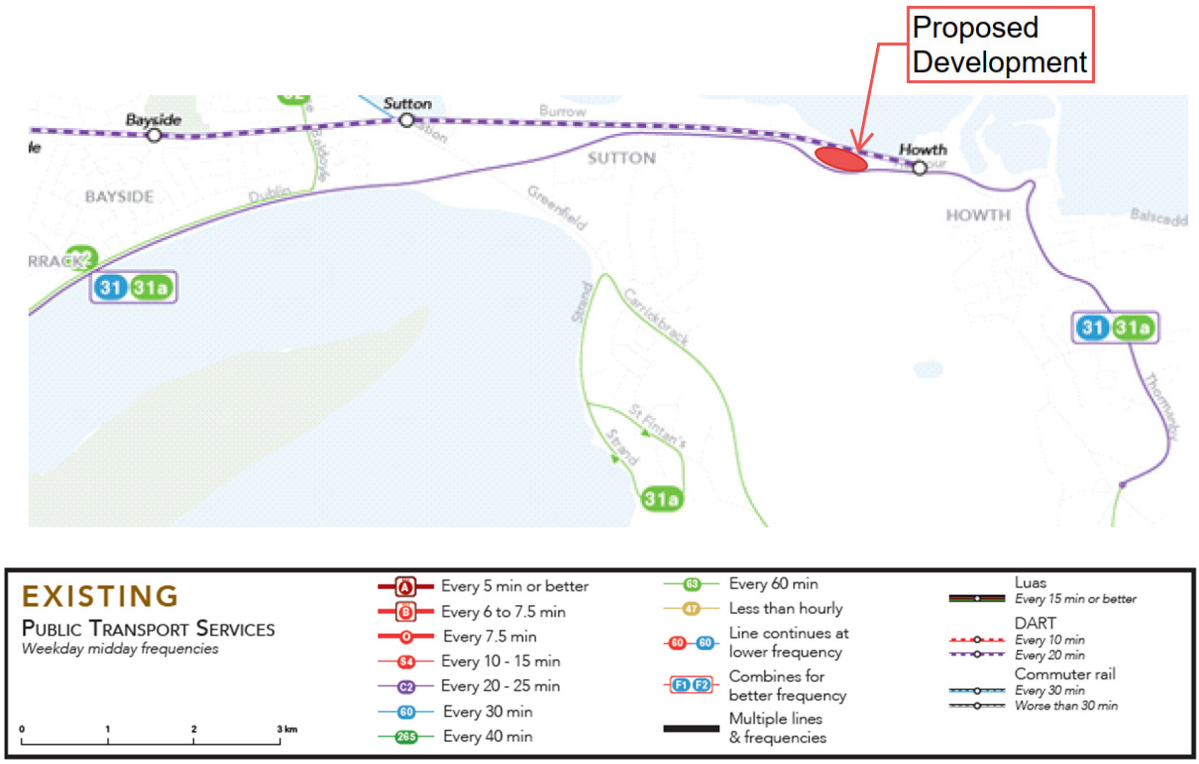


Figure 3-4: Existing bus services (31 31a) close to subject site

Figure 3-5 details the existing bus routes serving the subject site, emphasising the proximity of the routes 31 and 31a to the proposed development.

Given the existence of the DART service, Bus Connects proposes the N6 orbital route across the north side of Howth, opening up a new service to DCU while maintaining a good connection to the rail or the D spine for travel to the city centre.

On the southern and western sides of Howth, where demand is relatively low, local routes 290 and 291 will operate an hourly service, providing direct service to Sutton and Clongriffin DART Stations.

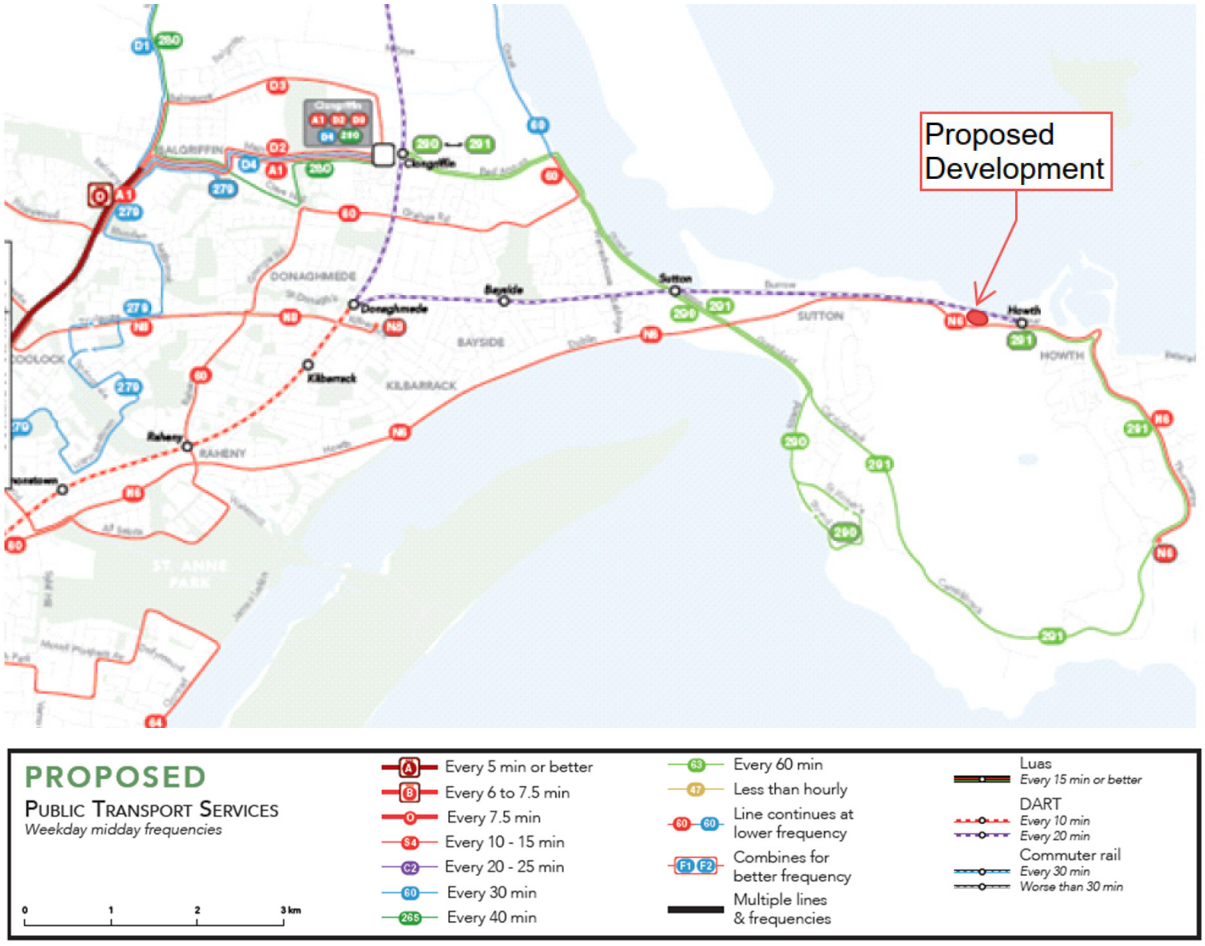


Figure 3-5 – Bus Connects Extract – proposed network

DART SERVICE

The DART extends along the coastline of the South Dublin area, extending from the centre of town to Ballsbridge, Sandymount, Merrion, Booterstown, Blackrock, Monkstown, Dun Laoghaire, Dalkey, Ballybrack, Shankhill, Bray and Greystones, and along the coastline of the north Dublin area extending from the town centre to Clontarf, Sutton, Howth and Malahide.

The Howth DART Station is within 100 metres (1 minutes' walk) of the subject site.

The DART operates a service to the city centre every 12 to 15 minutes during the morning peak time.

Figure 3-6 contains diagrammatic representations of the DART system serving the site and its connectivity to the regional / national rail network.

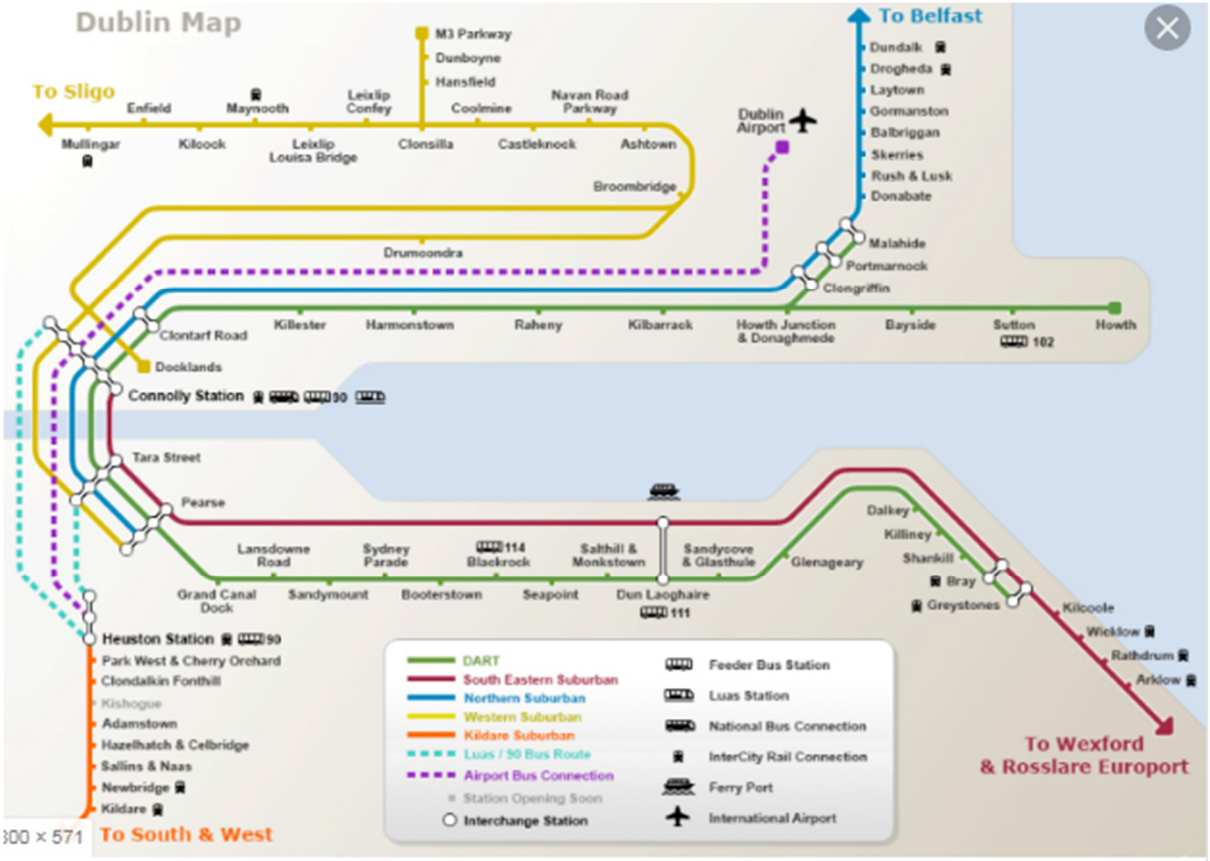


Figure 3-6: Diagrammatic representation of DART line and its connectivity to regional / national rail network

3.4 CONCLUDING COMMENTS ON MOBILITY PLAN

The development will comprise 439 No. residential parking spaces. Given the number of apartments (512 No.), the ratio of car spaces to residential units is lower than traditional requirements, but is considered sufficient for this development for the following reasons:

- The existence of significant public transport facilities – the DART Line within 100 metres of the subject site.
- Additional to the 359 resident car spaces will be a minimum of 5 Car Club spaces. Club car sharing has proven benefits to traffic volumes, parking volumes (both private and public), the environment, consumer cost and social inclusivity.
- Excellent pedestrian and cycle facilities, linking the site to both Sutton and Howth Villages

4.0 OVERALL CONCLUSIONS

1. This report has demonstrated that the proposed car parking provision for the residential development is entirely sustainable based on current car ownership and modal splits for the journey to work for existing residents living within Electoral Districts / Small Areas close to the subject site

2. Given the car parking provision, this report has demonstrated the sustainability in transportation terms of residents utilising non-car based forms of travel by demonstrating the high level of service that is provided by the transport infrastructure in place at the site with regards to walking, cycling, and DART.

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APPENDIX 1

SITE LAYOUT

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APPENDIX

2

CYCLE NETWORK PLAN (HOWTH AREA)

Greater Dublin Area Cycle Network Plan

3.2. Dublin North East Sector

The Dublin North East Sector extends outward from the city centre to Howth and Balgriffin at the edge of the urban area, and from the East Coast at Dublin Bay inland to a line between the Marino and Beaumont areas. Refer to Maps E2 and E3 in Part 6 for illustration of the existing cycle routes in this sector, with the existing cycle traffic flows shown in Part 7 Sheet DD3.

3.2.1 Dublin North East - Proposed Cycle Route Network

The proposed cycle route hierarchy is shown on Maps N2 and N3 in Part 8.

Radial Routes in the Dublin North East Sector

There is one primary radial cycle route that links this sector to the city centre, with five branches or variants, as follows:

Route 1: Beresford Place to Fairview via Amiens Street and North Strand;

- Route 1A to Howth along the coast, with a branch at Sutton to Baldoyle and onward to Portmarnock and Malahide in the Fingal suburban area;
- Route 1B along the Howth Road to Raheny and Donaghmede;
- Route 1C along the Malahide Road to Balgriffin;
- Route 1D provides an alternative link to the northern part of the city centre from Fairview via Ballybough and Summerhill to Parnell Square; and
- Route 1E branches off Route 1A at Clontarf Road and provides an alternative link to the Docklands area via East Wall.

Peak period cyclist volumes along these radial routes range from a high of 760 on Route 1 at North Strand to fewer than 100 on the coastal Route 1A north of Clontarf. On the basis of the existing cycle traffic volumes, the primary radial routes in this sector are Routes 1, 1B and 1C. The other radials are classified as secondary routes.

Route 1 - North Strand

Links from the Dublin North East Sector to Satellite Towns

The identified radial routes extend out from the city centre as far as the northern edge of the existing city urban area at Baldoyle, Clongriffin and Balgriffin. Further north there is a wide green-belt under the flight path for Dublin Airport that separates the city area from the satellite towns of Portmarnock and Malahide. At the narrowest point, the separation distance is 2km between Baldoyle and Portmarnock. Along the Malahide Road the separation increases to over 4km between the urban areas. For cyclist commuters the overall distance from Malahide to the city is about 15km, which is too far to attract many to cycle the entire route. This is reflected in low numbers of cyclists on the R107 Malahide Road, or the R106 coast road from Portmarnock.

Provision of a cycling facility along the rural section of the Malahide Road, which is a winding and narrow road that carries significant traffic, would be hard to justify on the basis of the current low number of users. A more suitable route for linking Malahide to the city is via Portmarnock and the coast, where the rural section is only half the length, (even if this is 3km or 20% longer). The coastal route would double up with a recreational function giving access to the open sea and to Howth, which is a major destination in the region. It would also coincide with the National Cycle Network East Coast Trail route linking to the string of towns further north in Fingal, including Donabate, Rush, Skerries, Balbriggan and the next major town of Drogheda in Louth.

Orbital Routes in the Dublin North East Sector

Five orbital routes in this sector provide cross-links between the radial routes and give access to destinations within this sector, and in the adjoining North Central sector:

- Route NO1: North Circular Route at the outer edge of the city centre, from Route 1 at Five Lamps westwards to Phibsborough and eastwards to the Docklands;
- Route NO2: Tolka Valley route from Route 1D at Ballybough to Drumcondra, Glasnevin and Finglas South;
- Route NO3 from Route 1A at Clontarf to Griffith Avenue via Hollybrook Road and Copeland Avenue;
- Route NO4 along Seafield Road and Castle Avenue from the coast at Clontarf and Dollymount to Killester and along Collins Avenue to Donnycarney; and
- Route NO5 from the coast at Kilbarrack to Donaghmede and Coolock.

Peak period cyclist volumes along these orbital routes vary considerably, from a high of over 500 on the Docklands section of Route NO1, to fewer than 100 on the orbital routes further out from the city centre. Routes NO1 and NO3 are important in sections for access to major destinations such as the Mater Hospital, Dublin City University and Beaumont Hospital.

Few greenways exist at present in this sector apart from the major amenity of the coastal promenades at Clontarf and Kilbarrack. There is considerable potential to develop new or extended greenways along natural corridors such as the coastline, the Royal Canal, the River Tolka and the Santry River, and within large public parks such as Saint Anne's Park in Raheny. More greenways would provide attractive public amenities to encourage more recreational cycling as a stepping stone towards everyday utility cycling for children and new adult cyclists. Such greenways can also provide for partial routing of commuter cycling trips along routes that are more enjoyable away from the busy arterial roads.

3.2.2 Dublin North East - Cycle Route Network Additions

From a gap analysis along cyclist desire lines as defined by the cycle network maps, it becomes clear where there is a need for new cycling facilities.

In the Dublin North East sector the following is where new cycling facilities are required to complete the cycle route network at Primary and Secondary Route levels:

(a) Radial Route 1A extension through Sutton Cross towards Howth in a loop and through Baldoyle to Portmarnock;

(b) Radial Route 1B along Raheny Road and Grange Road between Raheny and Clongriffin through Donaghmede;

(c) Radial Route 1D from Fairview to Ballybough and Summerhill;

Greater Dublin Area Cycle Network Plan

(d) Orbital Route NO2 along the River Tolka / Richmond Road from Fairview to Drumcondra;

(e) Orbital Route NO3 along Hollybrook Road and Copeland Avenue, which are residential roads with some traffic calming, so cycle lanes are not necessary;

(f) Orbital Route NO4 along Seafield Road, Castle Avenue and Collins Avenue; and

(g) Orbital Route NO5 along Tonlegee Road from Kilbarrack to Coolock and Oscar Traynor Road from Coolock to Kilmore at Northside Shopping Centre and onward to Santry.

Greenways in the Dublin North East Sector

The following greenway routes are proposed in the Dublin City North East Sector so as to avail of the natural corridors for a mix of amenity and commuter cycling:

(a) **East Coast Trail** from Fairview to Howth, incorporating the Sutton to Sandycove proposal at north Dublin Bay;

(b) **Royal Canal Greenway** from Sheriff Street in the Docklands to Drumcondra Road past Croke Park stadium (partly in place west of North Strand);

(c) **River Tolka Greenway** from Fairview to Drumcondra, subject to a feasibility study, and possibly using Richmond Road where the river banks are developed;

(d) **Santry River Greenway** from Dollymount through Raheny to Santry via a series of public parks and open spaces; and

(e) Various local greenways within large public parks such as Saint Anne's Park in Raheny and Edenmore Park, similar to the new cycle track loop within Father Collins Park in Clongriffin.

Route 1A - Coastal Cycleway at Bull Island

Enhanced Permeability for Cyclists in the Dublin North East Sector

The existing cycle network maps have identified where cyclists can permeate through blocks within the road network by using quiet streets and roads that do not require cycling facilities due to the low volumes and speed of traffic. Such permeability is enhanced in various locations by laneways that provide shortcuts that cannot be used by motor traffic. There are places along the DART railway line where pedestrian and cyclist underpasses or bridges provide additional route possibilities for cyclists to avoid the main road system. Examples are the underpass at Bayside Station, and the footbridge with spiral ramps at Kilbarrack Station.

Such permeability requires local knowledge and, as a result, cyclists are unlikely to be aware of these routes outside their own neighbourhood. Little investment would be required to capitalise on this latent network to greatly expand the route choices available for cyclists. A system of cycling direction signs would make cyclists aware of the quiet alternative routes that are available. In the Dublin North East sector there are directions signs to several DART stations that are not on main roads, such as Killester, Harmonstown, Kilbarrack and Bayside. These signs provide clues to cyclists that it should be possible to find a through-route beyond the station. Supplementary cycle route signs could be added to formalise these routes, such as from Baldoyle to Kilbarrack via Bayside Station or Raheny to Coolock via Harmonstown Station.

In addition, there are potential new links that could be developed between adjoining areas which are cut off from each other. One example would be from Clare Hall to Grangemore and Donaghmede. Local network studies are required to assess the scope for enhanced permeability links within local districts.

It is acknowledged that local residents may not be keen about new links through their areas for fear of anti-social behaviour or security risks. Careful selection of where to introduce new links can ensure passive surveillance and avoid secluded blind-spots which might facilitate crime.

Bike & Ride to the DART Railway Line in the Dublin North East Sector

The catchment area of the DART Railway line can be greatly expanded from a 1km walking distance to a 3km cycling distance by the active promotion of high quality Bike & Ride facilities. There is some cycle parking provided at the DART stations in the North East sector with access routes of varying quality from the surrounding areas. A good example is at Clongriffin Station, where there are cycle tracks on the approaches from both east and west and a large amount of cycle parking provided. On the other hand, at Howth Junction Station there is no formal cycle route from the Donaghmede side to the station. There is potential to provide a high-quality cycleway to the station from the west via a corridor of green open spaces that runs parallel to Saint Donagh's Road to Grange Road and beyond to the Millbrook area. The cycle parking at the station is limited in capacity (only 6 racks) and requires a shelter, as well as possibly better security. At all locations, cycle parking quantum and security will need to be assessed.

The cycle route network maps have identified cycle routes to all DART stations in this sector. Most of these routes are along suitable quiet roads and do not require cycling facilities. A promotional campaign and an upgrade of the cycle parking facilities could encourage better use for multi-modal trips. The recent change in operational rules that allows bicycles on trains at off-peak times facilitates recreational trips using the train service to reach farther areas.

3.2.3 Dublin North East - Existing Quality of Service

Map Sheets 2 & 3 in Volume 2 illustrate the existing Quality of Service (QoS) assessments for the primary cycle routes and a sample of the secondary routes in the Dublin North East sector. The QoS is generally in the range of C and D on most existing routes where the cycling facility consists of advisory cycle lanes of minimum width or shared bus lanes, while the seaside promenade at Clontarf and Kilbarrack has a higher quality segregated facility. Significant upgrade work is required to achieve the desirable QoS of A or B on the primary cycle routes in this sector.

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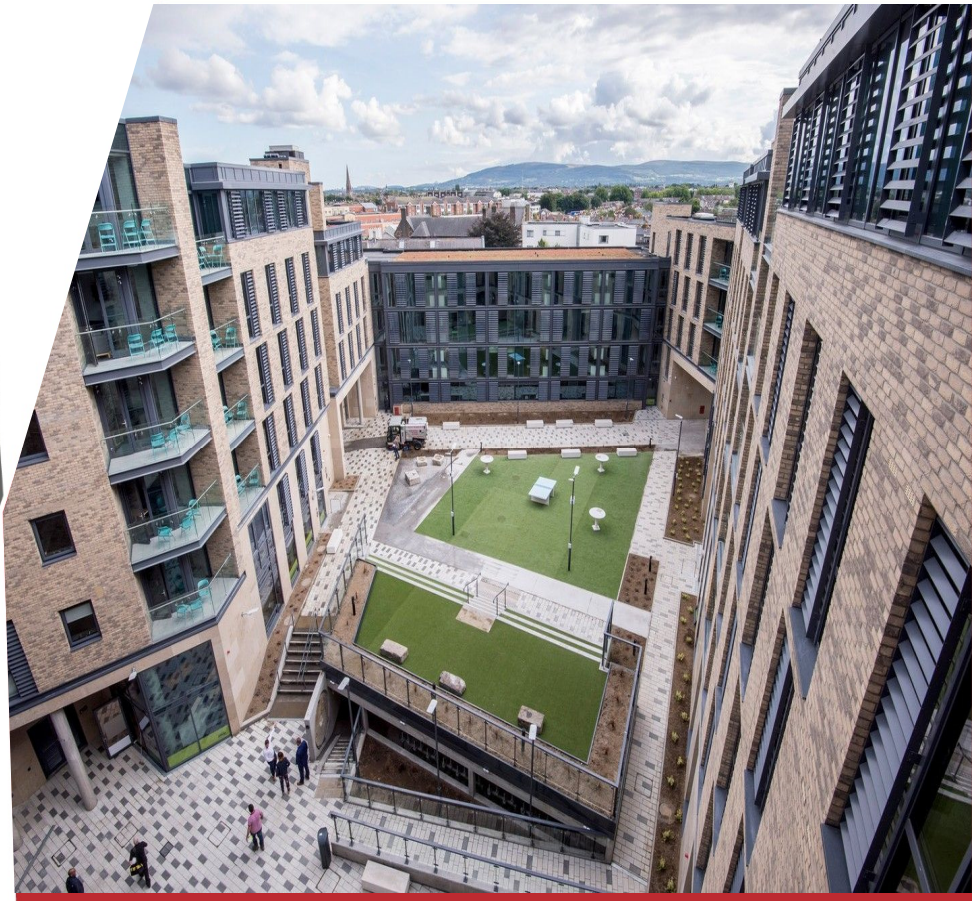

APPENDIX 3

BUS CONNECTS (HOWTH AREA)

Maps E7, P7: Howth and Northeast

Killester, Raheny, Donaghmede

A radial service is needed from the city centre to the areas between Malahide Road and Dublin Bay, along the path that goes through Killester and Raheny. While DART is nearby, this path includes many local destinations that are not near DART stations, or that are too close to the city centre for DART to offer an attractive travel time. From Raheny northward, DART's travel time becomes more competitive, so more people will interchange or walk to DART.

Route 60 is designed to be the main radial for this purpose. It is essentially the existing Route 29a, serving Killester, Raheny, All Saints Road and Donaghmede, then turning east to Baldoyle. This is the end of its 15 minute frequency, but the route continues north via the coast to serve Portmarnock, Malahide, and Swords. That extension ultimately goes to Dublin Airport, although it is not designed to be useful for that purpose from points in this area. We would like Route 60 to touch DART, but there is no easy way to access Clongriffin station on the way from Donaghmede to Baldoyle.

Clontarf

Route 64 is identical to existing Route 130, with frequently reduced from 10 to 15 minutes in the middle of the day to reflect demand. Route 64 would retain 10 minute frequency at peak hours.

West of Route 60, the small **Route 279** fills in some coverage that is very difficult to serve, especially in the disconnected street patterns southeast of McAuley Park. This route is expected to be useful mainly for that area, since areas further north can walk to the D Spine or the N8, and parts of the area can also walk to Harmonstown or Raheny DART stations. The route continues west to Beaumont Hospital, providing access to the hospital from the southeast.

Bayside and Kilbarrack

Bayside and Kilbarrack present the most challenging design problem in this area. This coastal area, along Howth and Dublin Roads, is accustomed to direct city centre service (via several overlapping routes), but is not a large enough market to justify its own route all the way into the city, duplicating Route 60 most of the way. Instead, this segment is logically part of the frequent **N6 Orbital**, which provides direct service across the north to DCU, making connections to both the A and D spines for access to many parts of northern Dublin and many parts of the city centre.

In addition, a peak-only service direct to the city centre would run every 30 minutes during the morning and afternoon commute times. See **Route 390** in the separate section on Peak-Only services below.

Outside the peak period, a connection will be required to reach the city centre (from the N6 to DART at Raheny or to the D Spine at Artane). However, because of the increased frequency on this segment, a consistent 15 minutes all day, the connections are fast and the total travel time to the City is not much effected.

The **N8 Orbital** from the west replaces the existing Route 17a in this area at higher frequency. It ends at Howth Junction and Donaghmede station but would benefit from being extended to Kilbarrack for a connection with the N6 if a turnaround could be found.

Howth

Howth certainly does not justify a direct bus from the city centre, since it has good DART service that is planned to run every 20 minutes at all hours. Instead, the N6 orbital continues across the north side of Howth to the current terminus at Thormanby Road, opening up new service toward DCU while maintaining good connections to rail (or the D spine) for travel to the city centre.

On the southern and western sides of Howth, where densities are very low and demand is very sparse, hourly **local Routes 290 and 291** would provide direct service to Sutton and Clongriffin DART stations.

Clongriffin

Clongriffin's dense centre gets a major expansion of service reflecting its recent and ongoing development. The station there is a major terminus for service in many directions:

- All but one branch of the **D Spine** ends at Clongriffin, providing service inward toward the city centre along Malahide Road. Branches of the D Spine cover both Belmayne (D3) and Main Street (D2 and D4)
- **Route A1,** a branch of the **A Spine**, extends west past Beaumont Hospital to Whitehall, then extends south through Drumcondra into the city centre.
- **Route 280** extends north and west to Swords, similar to today's Route 43. See Maps E3, P3.
- **Routes 290 and 291** provide direct service to all parts of Howth, as described above.

For routes **D1 and 281**, see the discussion with maps E3, P3.

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APPENDIX 4

ROAD AUDIT

SAFETY AUDIT FORM – FEEDBACK ON AUDIT REPORT

Scheme: Claremont (Project Pier), Howth.

Stage: 1 Road Safety Audit
Date Audit (Site visit) Completed: 9th April 2019

Paragraph No. in Safety Audit Report	Problem accepted (yes/no)	Recommended measure accepted (yes/no)	Alternative measures (describe)	Alternative measures accepted by Auditors (Yes/No)
3.1	Yes	Yes	Drawing re-issued showing reduce road turn.	
3.2	Yes & No	Yes & No	Block A we have added a pedestrian crossing. However, in Block B this is not required as access to the building is to the South, pedestrian have no reason to cross between cars	Yes
3.3	Yes	Yes	Drawing re-issued showing removable bollards	
3.4	Yes	Yes	Separate drawing issued showing fire access route lighting addressed.	
3.5	Yes	Yes	Boundary wall to be 2.4m as per CIE's requirements	
3.6	Yes	Yes	Discussions to be held with the street lighting section of the council to review the impacts of the development on the road lighting adjacent to the development.	
3.7	Yes	Yes	This was a drafting error, there is no road furniture here. However, the pedestrian crossing has been moved to start of the disability spaces.	
3.8	Yes	Yes	Drawing re-issued showing footpath	
3.9	Yes	Yes	Drawing re-issued showing recessed bus stop and bus shelter	
3.10	Yes	Yes	Within the road verge, grass is proposed with no shrubs that	

Paragraph No. in Safety Audit Report	Problem accepted (yes/no)	Recommended measure accepted (yes/no)	Alternative measures (describe)	Alternative measures accepted by Auditors (Yes/No)
			would otherwise compromise visibility. The Trees that are proposed, will be planted as semi-mature specimens, with a clear stem extending to 2m in height (i.e. the canopy/leaves start 2m above the ground). The trees are at 10m spacing, set back (to the centre of the tree) from the face of the kerb by 1.5m and therefore on the basis of not compromising visibility, nor will they represent a risk to pedestrians or motorists. The proposed trees are Acer platanoides, which are a good, robust street tree. They will need to be the subject of ongoing inspection/maintenance as is the case for all trees in public environments.	

Signed……**…** **Date** ……

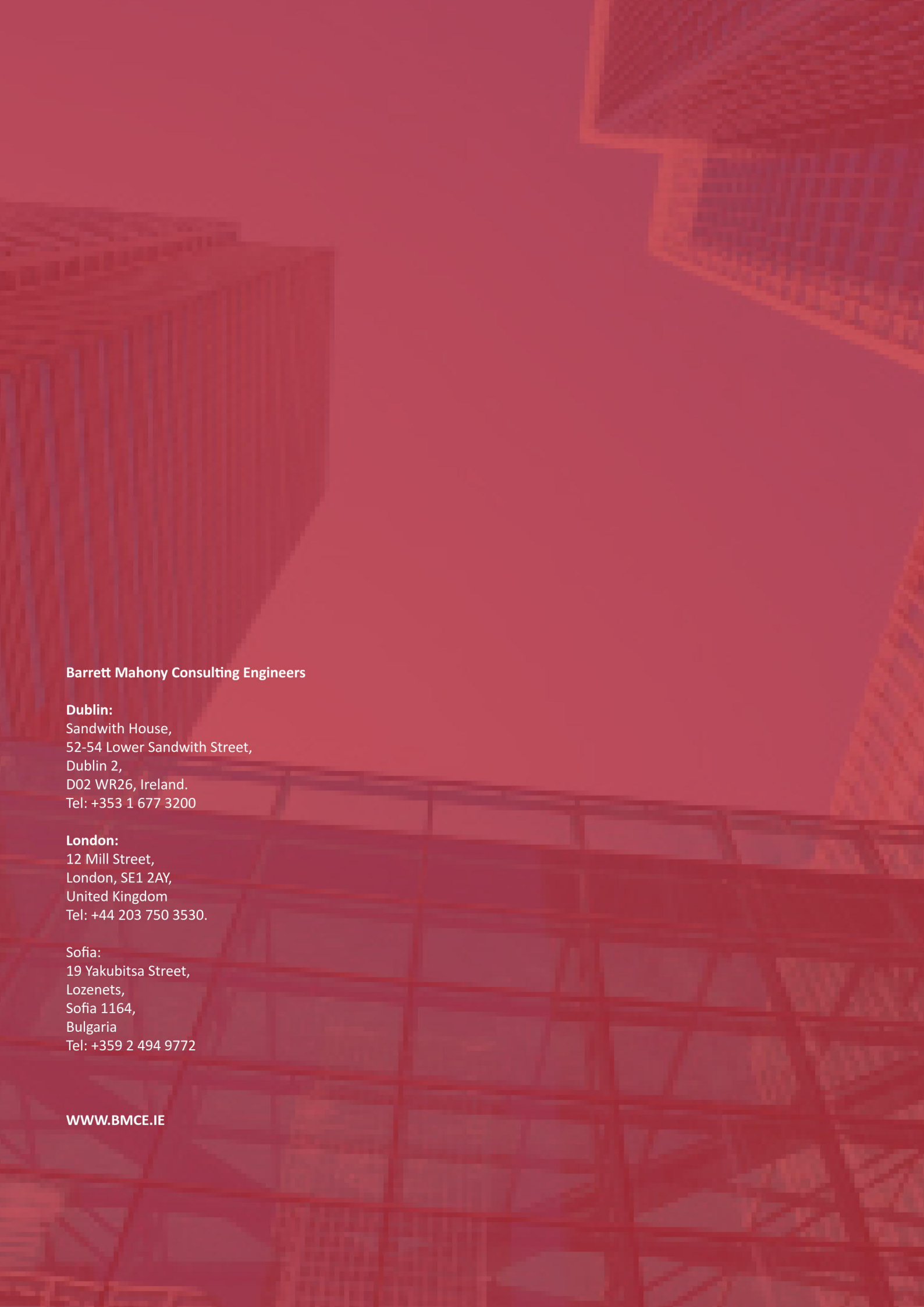
Design Team Leader

Signed…  …… **Date**: …15/4/2019……

Audit Team Leader

Signed…….. **Date**: ……

Employer



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