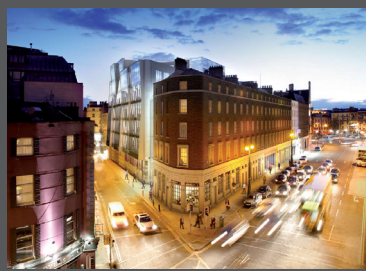


BM BARRETT MAHONY CONSULTING ENGINEERS CIVIL & STRUCTURAL



PARKING AND MOBILITY STUDY

PROPOSED MIXED USE RESIDENTIAL DEVELOPMENT,
THE CONCORDE INDUSTRIAL ESTATE, NAAS ROAD, WALKINSTOWN, DUBLIN 12

PROJECT: PARKING AND MOBILITY STUDY FOR MIXED USE RESIDENTIAL DEVELOPMENT AT CONCORDE INDUSTRIAL ESTATE, NAAS ROAD, WALKINSTOWN, DUBLIN 12

PROJECT NO. 18.232

DOCUMENT TITLE: PARKING AND MOBILITY STUDY

DOCUMENT NO: 18.232 – PMS – 05

Issue	Date	Description	Orig.	PE	PD	Issue Check
1	25/10/18	ISSUED FOR COMMENT	R.M.	C.O'R.	J.C.	C.O'R.
2	02/11/18	ISSUED FOR COMMENT	R.M.	C.O'R.	J.C.	C.O'R.
3	17/12/18	ISSUED FOR COMMENT	R.M.	C.O'R.	J.C.	C.O'R.
4	17/01/19	ISSUED FOR PLANNING	R.M.	C.O'R.	J.C.	C.O'R.
5	23/04/19	ISSUED FOR PLANNING	R.M.	C.O'R.	J.C.	C.O'R.

**PARKING AND MOBILITY STUDY
FOR MIXED USE RESIDENTIAL DEVELOPMENT AT
THE CONCORDE INDUSTRIAL ESTATE, NAAS ROAD, WALKINSTOWN, DUBLIN 12**

Proposed mixed use, commercial and residential development, Concorde Industrial Estate, Naas Road, Walkinstown, Dublin 12

Parking and Mobility Study

Client: Development Ocht Limited

Barrett Mahony Consulting Engineers

Dr Martin Rogers
Transport Planning Professional
Chartered Civil Engineer and Chartered Town Planner

November 2018

TABLE OF CONTENTS

1.0 INTRODUCTION	4
2.0 SUSTAINABILITY OF CAR PARKING PROVISION AT THE PROPOSED DEVELOPMENT	6
2.1 INTRODUCTION	6
2.2 CAR AND CYCLE PARKING REQUIREMENTS AS PER DUBLIN CITY COUNCIL DEVELOPMENT PLAN	6
2.2.1 <i>Provision versus maximum requirements</i>	6
2.2.2 <i>Provision of dedicated Car Club parking spaces</i>	7
2.3 CAR PARKING REQUIREMENTS FOR THE RESIDENTIAL COMPONENT BASED ON NEW APPARTMENT GUIDELINES.....	8
2.4 PROJECTED CAR USAGE IN GENERAL PROXIMITY TO PROPOSED DEVELOPMENT	9
2.5 MODAL SPLITS FOR THE PRIVATE CAR - 2017 CANAL CORDON COUNTS DOCUMENT	10
2.6 MODAL SPLIT FOR THE PRIVATE CAR – 2016 CENSUS RESULTS FOR ELECTORAL DISTRICTS IN THE VICINITY OF THE PROPOSED DEVELOPMENT	11
2.7 CONCLUDING COMMENT	11
3.0 MOBILITY MANAGEMENT PLAN	12
3.1 INTRODUCTION	12
3.2 GUIDANCE AND POLICY DOCUMENTS	12
3.3 STRATEGIC ACCESSIBILITY ASSESSMENT	13
3.3.1 <i>INTRODUCTION</i>	13
3.3.2 <i>NAAS ROAD LOCAL AREA PLAN</i>	14
3.3.3 <i>MOVEMENT AND ACCESS</i>	14
3.4 CONCORDE DEVELOPMENT MOBILITY STRATEGY	19
3.4.1 <i>INTRODUCTION</i>	19
3.4.2 <i>WALKING MOBILITY</i>	20
3.4.3 <i>CYCLING MOBILITY</i>	22
3.4.4 <i>PUBLIC TRANSPORT MOBILITY</i>	23
3.4.5 <i>TRAVEL DISTANCE</i>	28
3.5 CONCLUDING COMMENTS ON MOBILITY PLAN	29
4.0 OVERALL CONCLUSIONS	30
APPENDIX 1 – SITE LAYOUT	
APPENDIX 2 – CYCLE NETWORK PLAN	
APPENDIX 3 – BUS CONNECTS ROUTE 9	
APPENDIX 4 – BLEEPER BIKE LETTER OF INTENT	
APPENDIX 5 – GO CAR LETTER OF INTENT	

1.0 INTRODUCTION

Development Ocht Limited has commissioned Barrett Mahony Consulting Engineers to provide a Mobility Management Plan for the mixed-use Concorde Residential Development at Concorde Industrial Estate, Naas Road, Walkinstown, Dublin 12. The proposed development will consist of 8 No., above ground floor, levels extending across most of the site along with a single level basement. 492 no. apartments with a total of 31,024 m² and 3,327 m² of commercial space. A total of 238 no. car parking spaces will be provided, with 200 no. provided in the basement car park allocated to the residential units. 38 no. surface car parking spaces will be provided for the commercial units and this shall include 10 spaces allocated to a car club scheme. The development includes 516 no. bicycle parking spaces for the apartments and commercial units, located at basement and ground floor level. The apartment will be a “Build-To-Rent” (BTR) scheme with management on site. Appendix 1 has a full site layout and a permeability plan.

The apartment breakdown is as follows;

- Studios 104
- 1 Bedroom 136
- 2 Bedroom (3 person) 21
- 2 Bedroom (4 person) 231

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, LUAS, national rail, and other Services (taxis, Car-club)
- 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 cycle parking requirements in accordance with DCC guidance 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 at Concorde Industrial estate, adjacent to the Naas Road. To the south of the site is the Long Mile Road and to the west of the site is Walkinstown Avenue which runs onto the Kylemore Road. There are no major roads to the east of the site. The site and all notable landmarks can be seen in 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 Dublin City Development Plan 2016-2022 and the 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.

The proposed car and cycle parking provision on site will then be detailed, highlighting in particular the intended low level of provision in relation to car parking for the residential component of the proposed development.

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.

This low level of provision is also seen as being completely consistent with the mobility targets for Dublin city as detailed within the Dublin City Transport Plan and also consistent both with minimising the traffic impact of nearby already congested junctions (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 DUBLIN CITY COUNCIL DEVELOPMENT PLAN

2.2.1 Provision versus maximum requirements

Tables 2-1 and 2-2 below detail the maximum car and bicycle parking standards for Dublin City Council based on the rates contained within their 2016 - 2022 Development Plan Written Statement for the residential and mixed use / commercial components of the proposed development respectively. It is noted that the bicycle parking standard in the design guidelines for apartments specifies 1 bicycle space per bedroom and 1 bicycle space per visitor. However, this requirement has been acknowledged by DCC as excessive and the proposed bicycle parking provision for this development is based on DCC guidelines as noted below.

Development type	Area / units	Maximum car parking standards	Maximum parking required
Apartments	492 No.	1.0 per unit	492
		Bike parking standards	Parking required
Apartments	492 No.	1 per unit	492

Table 2-1: Parking required under Dublin City Council Development Plan Standards for residential component

Development type	Area / units	Maximum car parking standards	Maximum parking required
Crèche	347 m ²	1 per 200 m ² plus 2 drop off	4
Office	723 m ²	1 per 200 m ²	4
Retail	1410 m ²	1 per 275 m ²	6
Medical Clinic	518 m ²	2 per consulting room (12 No.)	24
TOTAL			38

		Bike parking standards	Parking required
Creche	347 m ²		
Office	723 m ²	1 per 100 m ²	8
Retail	1410	1 per 150m ²	10
Medical Clinic	518 m ²	1 per 2 consulting room (12 rooms)	6
TOTAL			24

Table 2-2: Parking required under Dublin City Council Development Plan Standards for mixed use / commercial component

It is proposed to provide 200 No. car parking spaces for the residential component, equating to 0.41 car spaces per residential unit.

This level of provision is 41% of the quantum required under the Dublin City Development Plan maximum standards. However, this provision must also be viewed in relation to the New Apartment Guidelines, the level of compliance with which is detailed within the section immediately below.

It is proposed to provide 38 No. car parking spaces for the mixed use / commercial component of the proposed development. This level of provision is 100% of the quantum required under the Dublin City Development Plan maximum standards (38 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 multi-purpose trips). Given the scale of the residential development, the proportion of multi-purpose trips will be substantial. Multi-purpose trips will also result from generated trips resulting in use of more than one of the mixed use / commercial outlets, say for example retail plus restaurant or retail plus gym. Multi-purpose trips at such developments can constitute up to 25% of total trips. The 100% provision is thus more than sufficient.

10 of the 38 No. ground level parking spaces will be dedicated for car club use only.

In terms of cycle parking provision, it is intended to provide 516 No. cycle parking spaces, 100% of the maximum requirement under the Dublin City Development Plan.

2.2.2 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 in order to cater for the non-trip-to-work-related car demand of residents at the proposed development. It is proposed to initially provide 10 No. car club vehicle spaces at ground floor level for communal use.

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.

The developer has discussed the potential for a car club base at the subject site with GoCar, an established car club operator in the Dublin area. Go Car have confirmed the feasibility of such a facility. A letter of Intent from Go Car for this development is included in APPENDIX 5.

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 10 No. car club spaces will result in a number of 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.'*

2.3 CAR PARKING REQUIREMENTS FOR THE RESIDENTIAL COMPONENT BASED ON NEW APARTMENT 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.

Section 2.2 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, 6 km from the city centre, located directly on the LUAS Red Line and the Naas Road Quality Bus Corridor, the sites designation within the second classification is entirely appropriate.

On the basis of 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 200 No. spaces, equates to 0.41 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

Car ownership levels and 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 only 41% 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 ownership and car travel within the general environs of the subject site using 2016 Census data.

This data enables the proportion of households in the general vicinity of the subject site who do not own a car to be established as well as the proportion of commuters presently living in the area using the private car for their journey to work.

Data from individual 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 5 No. Electoral Districts in the general vicinity of the subject site:

- Walkinstown A (ED containing the Concorde development)
- Crumlin A
- Crumlin B
- Crumlin E
- Inchicore A
- Inchicore B

Table 2-3 below indicates the percentage of households in each of these ED's with no car.

Figure 2-1 contains a map showing the location of the 5 No. Electoral Districts close to the subject site.

Electoral District	Total No. of households	No. of households with no car	% households with no car
Walkinstown A	1043	299	30
Crumlin A	1439	471	33
Crumlin B	1183	395	33
Crumlin E	1070	382	36
Inchicore A	1025	337	33
Inchicore B	815	307	38
AVERAGE			33

Table 2-3: Car ownership levels in ED's close to proposed development

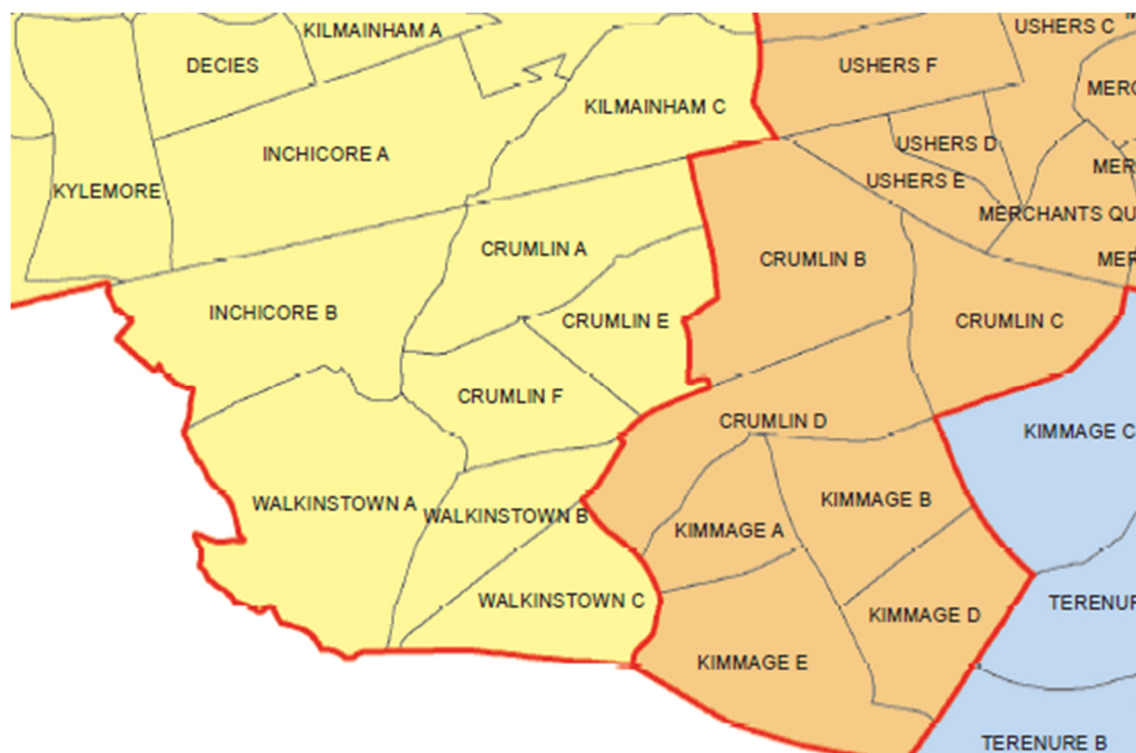


Figure 2-1: Electoral Districts in proximity to proposed development

Thus, the above figures demonstrate that one-third of the existing inhabitants of the area close to the proposed development do not own a car. Thus only 70% are in a position to make the journey to work by this mode of travel.

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:

Mode	Percentage for each 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 LUAS / Rail travel for the 6 No. Electoral Districts close to the subject site whose car ownership levels were detailed within Table 2.4.

Mode	CAR DRIVER (%)	BUS (%)	LUAS/TRAIN (%)	CYCLING (%)	WALKING (%)
Walkinstown A	42	17	8	8	9
Crumlin A	41	13	15	8	10
Crumlin B	38	13	10	11	14
Crumlin E	38	16	9	9	13
Inchicore A	32	14	16	11	11
Inchicore B	31	8	17	5	11
Average	37	14	13	9	11

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

Thus, for the existing inhabitants in 6 No. Electoral Districts close to the subject site, 37% commute by private car as detailed within the 2016 Census, with 25% commuting by bus, train or LUAS and 20% cycling or walking.

These figures are critical in two respects. Firstly it demonstrates that providing car parking for 41% of occupants of the proposed development is entirely sustainable, given that the 2016 census indicated a modal split for provide car use for the journey to work for the general area of 37%, 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.

Also, it would be reasonable to assume that improving access to the bus, LUAS, and cycle greenways from the subject site, as proposed within this report, will result in increased usage of public transport and soft modes, presently at 27% and 20% respectively for the Electoral Districts 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 close proximity to a high frequency major rail line, a parking provision of 0.41 No. car parking spaces per dwelling unit is sustainable. The allocation of 10 No. dedicated car club spaces will further aid the sustainability of this parking provision.

This low provision will have the effect of minimising the traffic impact of the proposal, an effect referred to in detail within the accompanying traffic assessment. This is very significant given the levels of congestion at the major junctions in proximity to the proposed development.

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 Concorde Industrial estate.

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 the Concorde Industrial Estate both benefits and suffers from its location on the major traffic artery of the Naas Road which carries heavy traffic volumes, a Luas line and a quality bus corridor (QBC). As highlighted in the Naas Road Lands Local Area Plan, no additional capacity can, or will be, made available to private vehicles and, as a result, a major objective of the Local Area Plan and subsequently, this Mobility Management Plan, is to encourage as much movement as possible by public transport, cycling and walking.

MMP's are intended to bring the following benefits:

- Greater accessibility of the site.
- Encouraging 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.

As noted, the proposed scheme is a BTR scheme. The advantage of such a scheme is that the apartments are managed on site and the availability and the use of car alternatives can be more easily highlighted to residents and visitors alike. A member of staff can be appointed as a mobility manager to encourage residents and visitors away from car usage and towards sustainable transport alternatives.

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. Dublin City Council aims to increase mode shares by cycling to reach a minimum target of 25% by 2020.
- **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

- **Dublin City Development Plan 2016-2022**
 - Movement and Transport Policy 13 (MTP13) states that Dublin City Council will promote best practice Mobility Management and Travel Planning.
 - Movement and Transport Objective 24 (MT024) states that Dublin City Council will review and monitor plans.
- **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, adopted in June 2010, provides local guidelines on the delivery of the aims and objectives of the National Cycle Policy Framework 2009-2020.
- **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.
- **Naas Road Lands – Local Area Plan**
 - The Naas Road Lands Local Area Plan outlines several objectives to encourage a greater use of public transport as well upgrading the pedestrian and cycling experience by provision of more direct routes, upgrading the quality of existing routes, provision of additional pedestrian crossings and upgrades to key road junctions to improve pedestrian and cycling viability.

3.3 STRATEGIC ACCESSIBILITY ASSESSMENT

3.3.1 INTRODUCTION

This section of the report assesses the existing transport infrastructure within the confines of Naas Road Local Area along with a review of the policies and objectives of the Local Area Plan, which will be used to inform the design of The Concorde Industrial Estate development, with respect to mobility, for residents, visitors and the wider community.

Figures 3-1 and 3-2 detail the extent of the lands covered by the Naas Road LAP.

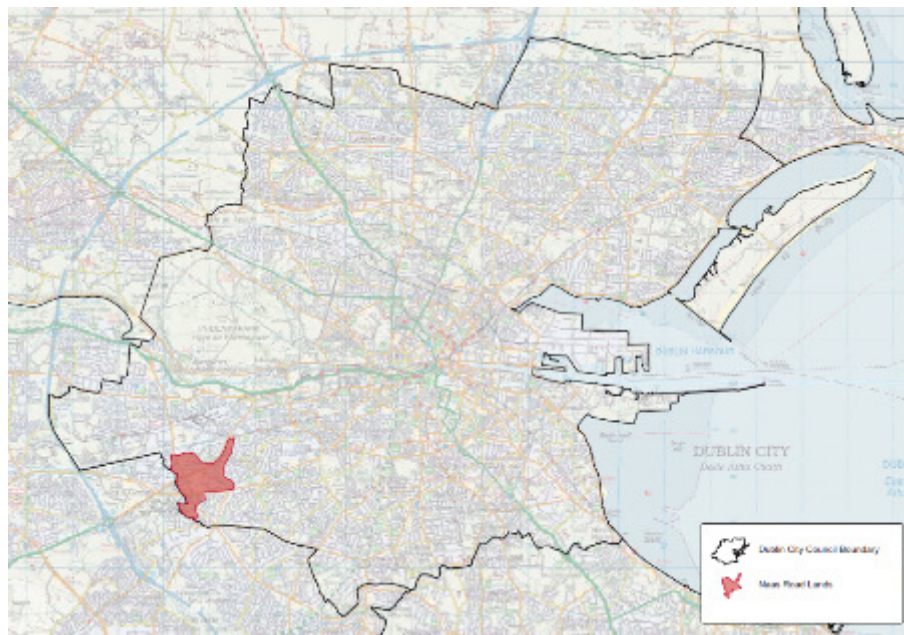


Figure 3-1 – Dublin Land Area Extract

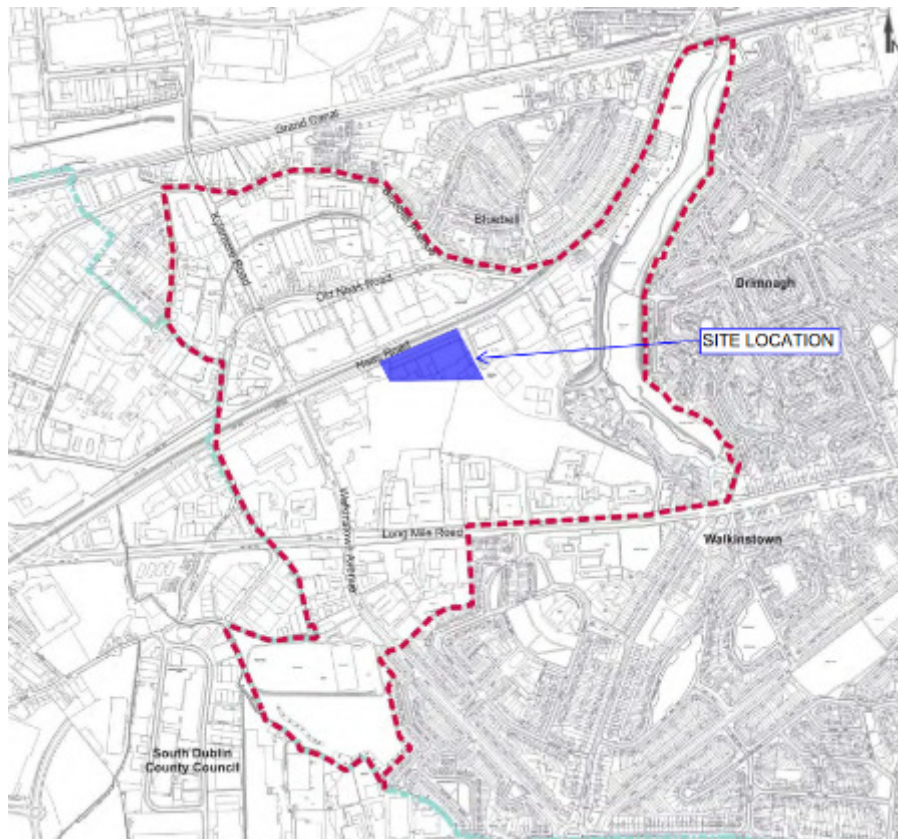


Figure 3-2 – Naas Road Local Area Plan – Site Location

3.3.2 NAAS ROAD LOCAL AREA PLAN

The Naas Road Local Area Plan was formally adopted in 2013 by Dublin City Council. This plan builds upon the initial strategic plan for the area published in 2009 and the content contained within the Dublin Development Plan 2011-2017 (currently 2016-2022). On the 6th of November 2017 the city council voted to extend this plan to January 2023.

Vision for the Naas Road Lands:

“To create a great place to work and live and create a new urban identity for the Naas Road lands area plan by regenerating existing development lands as a sustainable mixed use area, capitalising on the area’s locational advantages and improving the relationship of the lands to their immediate surroundings through improved linkages, green infrastructure and permeability. As part of this transformation there will be an increase in the range of land-uses, and improvements in the visual environment, resulting in an increase in street level activity and general revitalisation of the area”.

3.3.3 MOVEMENT AND ACCESS

EXISTING ACCESSIBILITY

As can be seen from Figure 3-3 below, the permeability of the Naas Road area is restricted by the presence of predominantly large land holdings with impermeable boundaries. Road crossings for pedestrians and cyclists are generally limited to major road junctions. While the Naas Road provides a major arterial route to and from the city, containing extensive public transport facilities in both the Luas Red line and a Quality Bus Corridor (Figure 3.4), the area is at or near capacity for private car vehicles and the accessibility to those public transport options is restricted by the aforementioned impermeable boundaries and limited crossings. On the whole, the current environment for pedestrians, cyclists and those availing of public transport is difficult and unattractive.

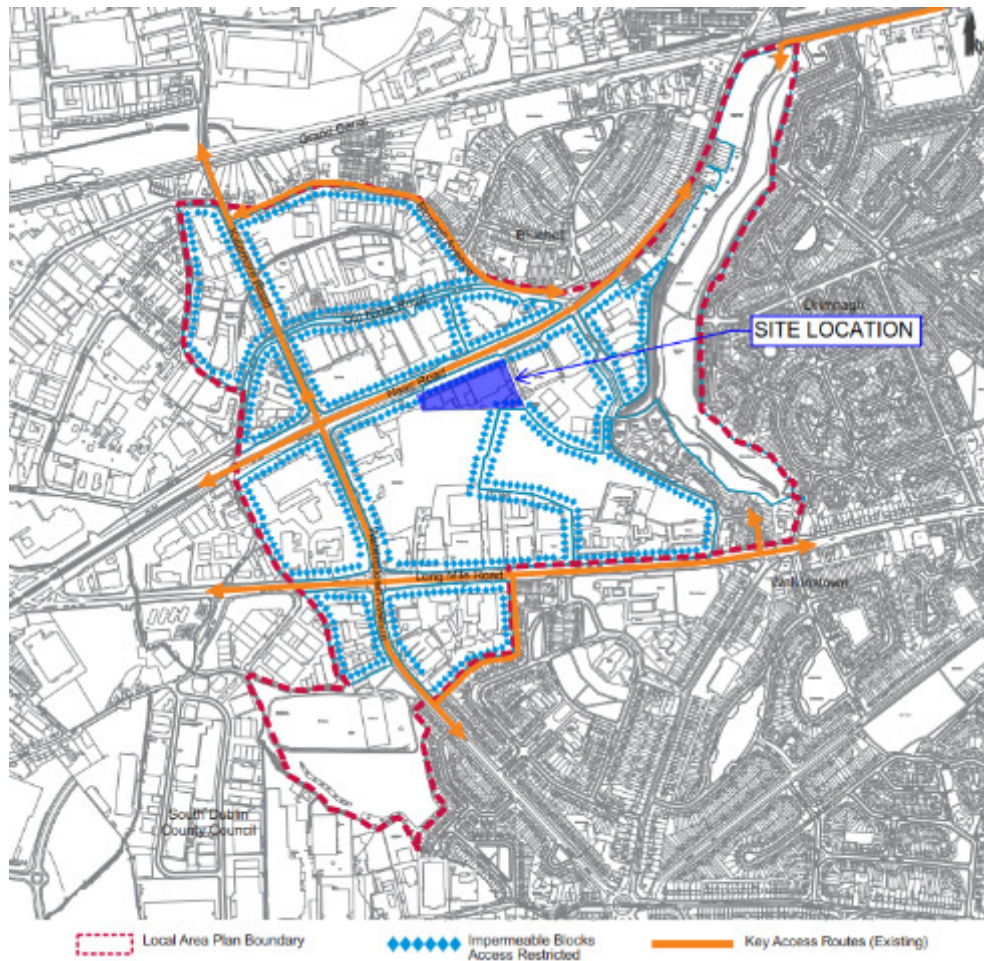


Figure 3-3 – Local Area Plan Extract – Existing Accessibility

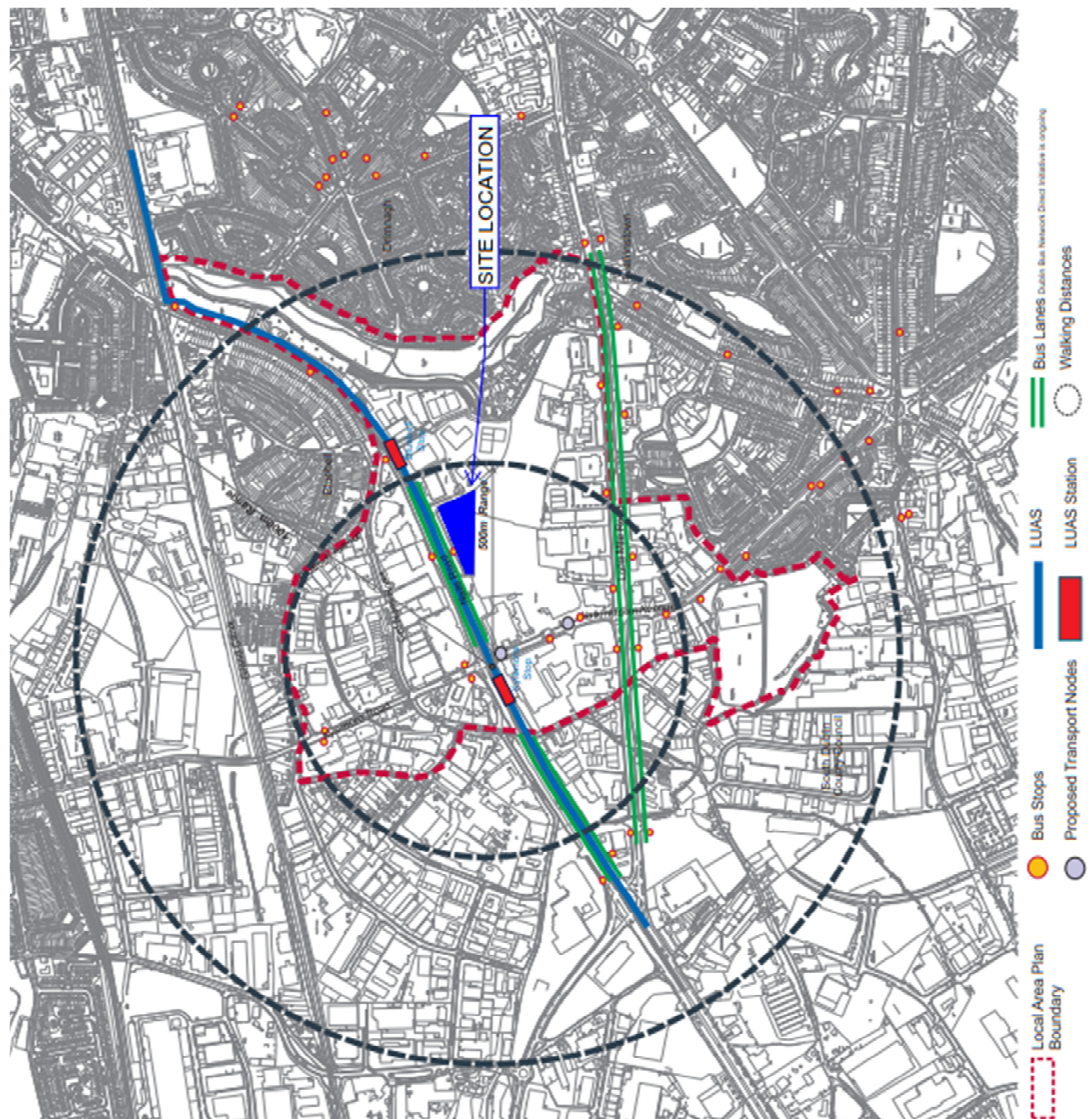


Figure 3-4 – Local Area Plan Extract – Existing Public Transport Provisions Measured from the Naas Rd/Walkinstown Ave Junction

LOCAL AREA PLAN POLICIES AND OBJECTIVES

The policies and objectives of the Local Area Plan in relation to movement and access are contained in Figure 3.5 while the proposed pedestrian linkages and green infrastructure strategy maps are contained in Figures 3.6 and 3.7 below, respectively. The over-riding objective of the Local Area plan is to deliver quality movement and access infrastructure that prioritises public transport, cyclists and pedestrians, while managing an appropriate role for the car. To achieve the objectives and policies of section 4.4 of the Local Area Plan, significant improvements to permeability and accessibility in and around Naas Road lands development sites are required.

In order to comply with the requirements of the Local Area Plan, the Mobility Management Plan for the proposed the Concorde Industrial Estate Development must address the specific measures which can be incorporated into the development, within the confines of the areas forming part to the development, which can positively contribute to achieving the objectives contained in the Local Area Plan.

Movement and Access Policies	Movement and Access Objectives	
<p>MA1. To provide for a new high quality pedestrian and cycle network within the LAP area which will connect existing and new communities and reinforce the character of the LAP area including the creation of new segregated green routes within the LAP area, (ii) improvement and upgrading of existing routes; (ii) improvement and increased number of accessible cycle crossings, (iii) roads and (iv) connect into existing and planned networks surrounding the LAP area.</p>	<p>MAO1. To create a south-east-west linkage from Long Mile Road and Landsdowne Valley Park to the Naas Road and to the Grand Canal to provide cycling connections to the Canal Quay and to provide direct links through the LAP area to the Luas and bus services on the Naas Road.</p>	<p>MAO10. To facilitate works along the Naas Road that will reduce traffic impact and improve safety for pedestrian and cycle users and facilitate improved signage. This may comprise landscaping works, public realm enhancement, reconfiguration of the carriageway and provision of a direct pedestrian crossing across the Naas Road.</p>
<p>MA2. Increase permeability to existing public transport routes by providing attractive, legible and direct walking and cycling links to bus and Luas stops.</p>	<p>MAO2. To create new pedestrian and cycle linkages on an east-west axis connecting Robinsford Road through the key sites to Landsdowne Valley, Naas Road and Dinnagh. (See Chapter 9 for detail).</p>	<p>MAO11. Car parking provision shall reflect the accessible nature of the area via public transport, both existing and proposed with the quantity determined in consultation with the planning authority through a Transport Assessment prepared as part of the planning process.</p>
<p>MA3. To protect the role of the key strategic roads within the LAP area so that they continue to serve and benefit the city economically whilst also seeking visual improvements to these routes so that they are more urban in character and provide better movement for the public bus services utilising them. New vehicle access points onto the Naas Road cannot be accommodated as this would impact on the strategic role of this important route.</p>	<p>MAO3. To seek the delivery of improved pedestrian and cycle environments with green infrastructure along Kilmora Road, Walkinstown Avenue and Long Mile Road. (See Section 4.8 for further details).</p>	<p>MAO12. To foster and support a pro-active mobility management approach and a culture of sustainable travel in new and existing developments.</p>
<p>MA4. Ensure that sustainable development within the LAP area is cognisant of the proximity of the plan area to the city centre and to existing and future public transport infrastructure and their respective details, access points, layouts, and compatible with this.</p>	<p>MAO4. To implement pedestrian infrastructure improvements along the Naas Road to facilitate and increase opportunities for crossing the carriageway.</p>	
<p>MA5. To ensure integration between the LAP plans with initiatives such as Greater Travel and strategic cycle routes, connected South Dublin County Council and Dublin City and to develop improved connectivity to surrounding communities including Thurles, Bachelmore, Dinnagh and Blessard.</p>	<p>MAO5. To identify funding for key movement and access enhancements through the Sustainable Transport Measures Grants system and other measures operated by the National Transport Authority with a view to prioritising a number of improvements proposed in the LAP that will interface with existing projects.</p>	
	<p>MAO6. To provide good quality and of trip facilities to encourage walking and cycling such as secure and weather proof bike stands, lockers, showers changing and drying rooms.</p>	
	<p>MAO7. To ensure that all new routes, inclusive of those accommodating traffic, shall be designed and constructed in a manner that will facilitate the safe and easy movement of pedestrians and cyclists.</p>	
	<p>MAO8. To work with all relevant providers to facilitate a quality bus, pedestrian and cycling link on a north-south axis (Kilmora Road/Walkinstown Avenue), with orbital capability and associated interchange potential between bus, heavy rail and Luas.</p>	
	<p>MAO9. To create a through access in Landsdowne Valley Park, linking David Road in the north with the Long Mile Road in the south and also creating a western access to link to Dinnagh, Castle and Walkinstown Avenue.</p>	

Figure 3-5 – Local Area Plan Extract – Movement and Access Policies and Objectives

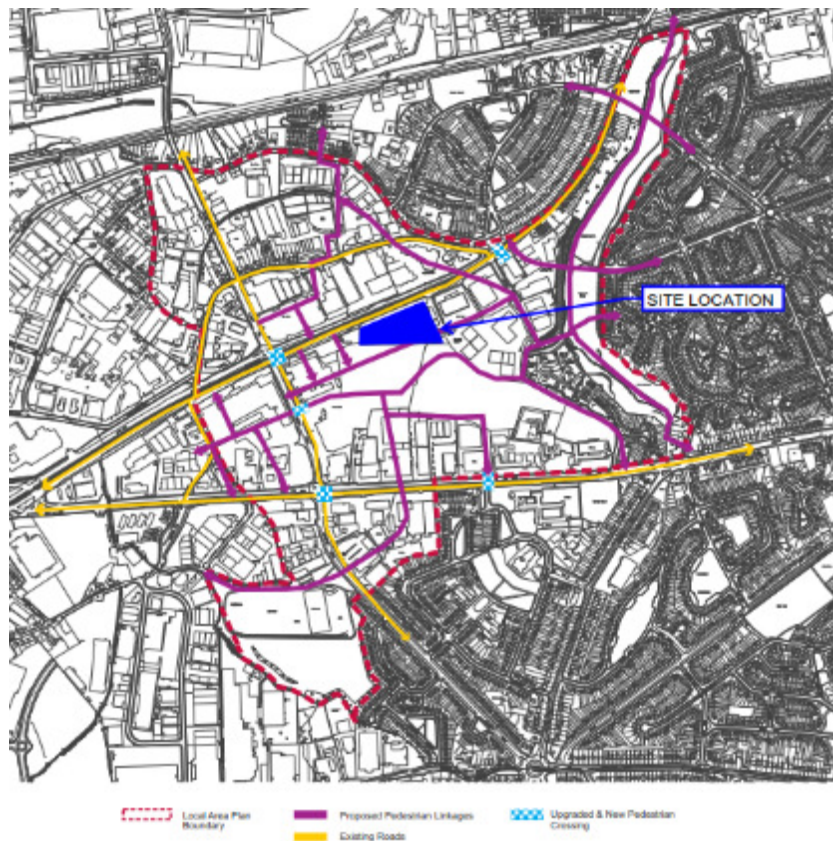


Figure 3-6 – Local Area Plan Extract – Proposed Pedestrian Linkages

3.4 CONCORDE DEVELOPMENT MOBILITY STRATEGY

3.4.1 INTRODUCTION

Having regard to the guidance documents list above in section 3.2, in particular the policies and objectives of the Naas Road Lands local area plan and following discussion with Dublin City Council and Transport Infrastructure Ireland, the following list of measures, which are discussed in detail below, have been incorporated into the proposed development (Refer to Figure 3-8 below)

- Signalised pedestrian crossing to be provided across the un-named public access road to the east boundary of the site at the junction with the Naas Road.
- Signalised pedestrian crossing to be provided across the Naas Road and Luas track at the junction to the north east corner of the site.
- 2-way cycle lane around the full perimeter to the site and extensive provision for continuation of proposed City Wide Green Route through the site and into the adjacent development site to the south.
- Several access and egress points into and through the development for pedestrians and bicycles, with pedestrian priority at internal road crossings.
- Provision of extensive landscaping throughout the development, including the full length of the Naas Road elevation.
- Provision of 516no. easily accessible, covered and secure bicycle parking spaces dispersed throughout the site, including the basement car park, including the provision for shared bike club stands.
- Provision of 200no. resident car parking spaces within a single level basement.
- Provision of 38no. on grade car parking spaces directly opposite the commercial areas of the development, including a 10no. Club Car spaces for communal use.
- Incorporation into the Build to Rent facility management, an information guide to all residents on all locally accessible transport modes and routes (private/public and pedestrian) within the vicinity of the development.

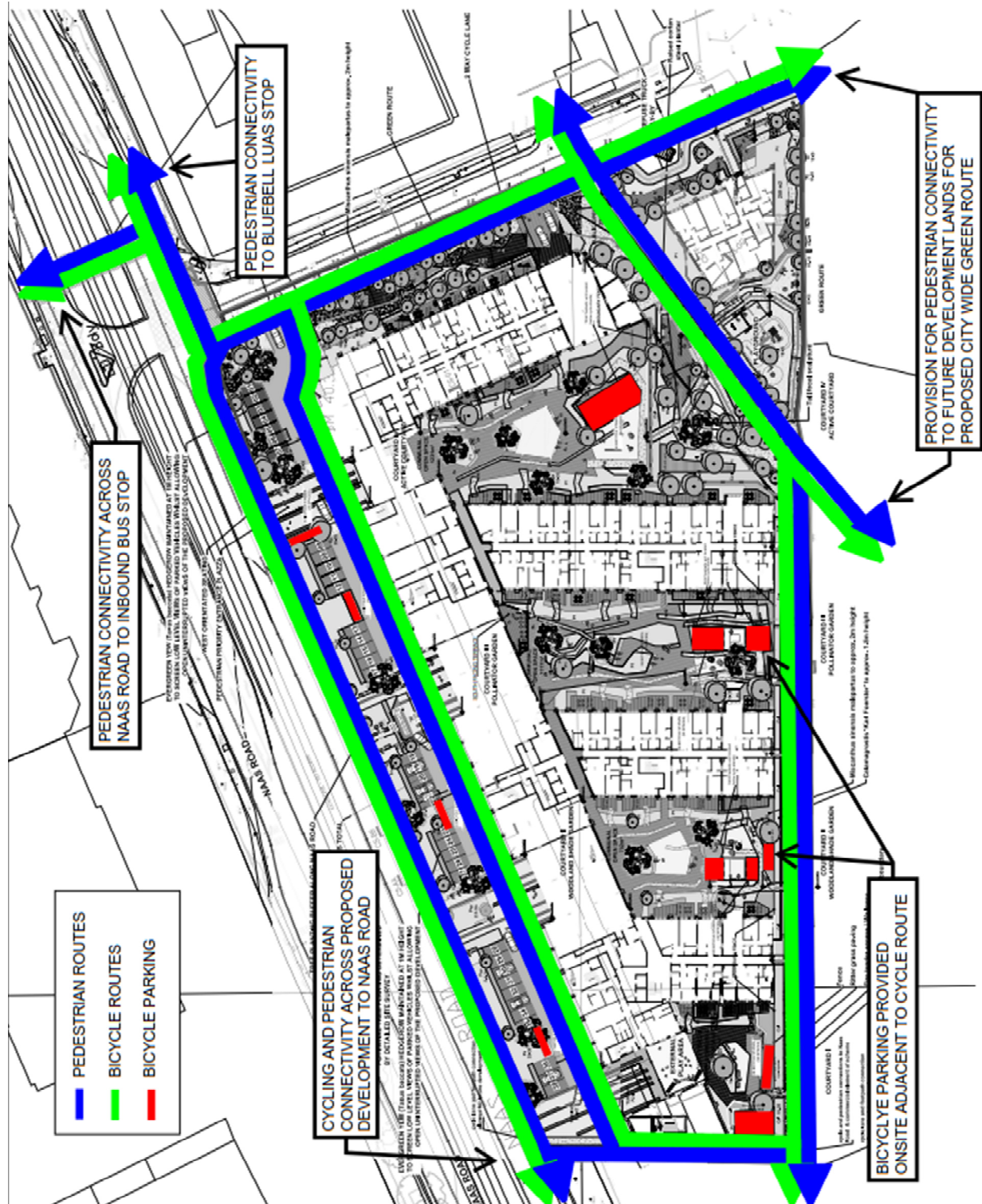


Figure 3-8 – Movement through Site

3.4.2 WALKING MOBILITY

Existing pedestrian movement through the site is non-existent due to the impermeable fencing which surrounds the site (Figure 3-3). This is a function of the current land usage, which is primarily an industrial estate and its lack of connectivity with the adjacent surrounding areas.

Most of the pedestrianised areas that surround the site are hostile to pedestrian users as can be seen in Figure 3-99 below. The footpath has no barriers between the pedestrians and the traffic on the road, and the roads in the area such as the Naas Road and Kylemore Road, which are main routes out of the city, have high volumes of

traffic including cars, buses and trucks; particularly at peak times. Crossing the Naas road at the site is potentially dangerous as there is no dedicated pedestrian crossing outside the site. Navigating from one side of the road to the other is challenging as there are multiple lanes of traffic and a Luas line to contend with when crossing. The quality of the pedestrian environment and connections for pedestrians at major junctions is poor.

By providing a pedestrian route, as shown in Figure 3-10 across the Naas Road and the road adjacent to the site, a significantly improved and safer pedestrian facility is provided to both the Luas line and inbound public bus service. This new pedestrian route will also link in with “City Wide Green Route” shown in Figure 3-11 to promote permeability throughout the site and allow continuity through to the adjacent strategic development sites.



Figure 3-9 – Google Image – Naas Road Existing Facilities



Figure 3-10 – Proposed New Pedestrian Crossings

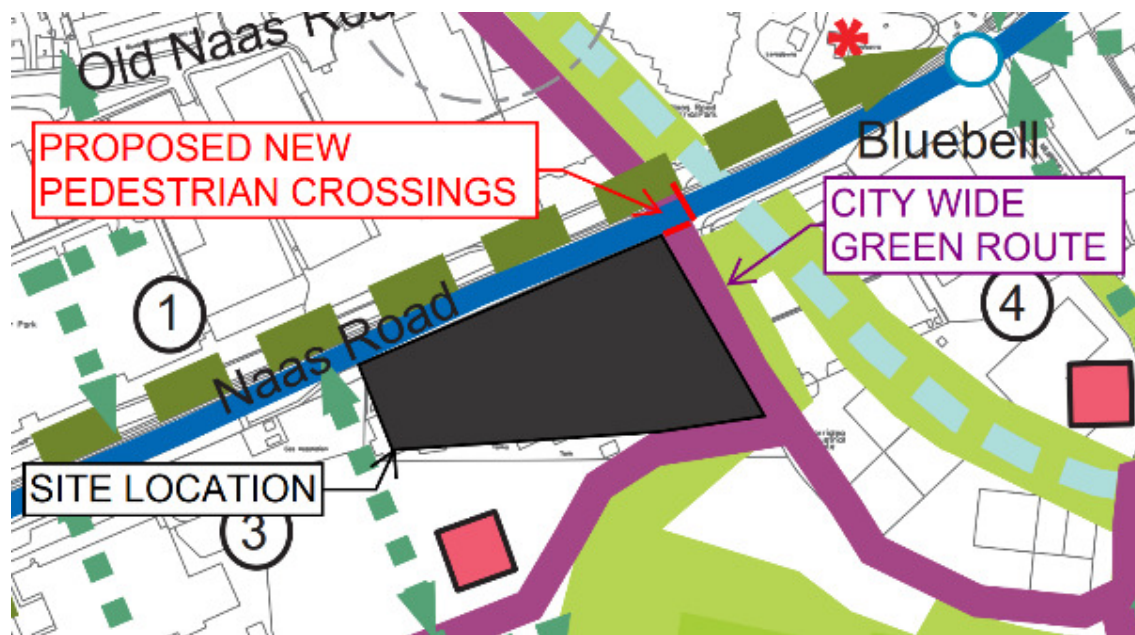


Figure 3-11 – Local Area Plan Extract – Pedestrian Crossing

3.4.3 CYCLING MOBILITY

Dublin City Council has an overall target of increasing journeys by bicycle in the city by 25% by the year 2020. Permeability and direct safe routes are therefore critical in achieving this goal. As previously stated, the majority of infrastructure for cyclists exist along major strategic roads where cyclists have to share their space with buses and large volumes of traffic.

This is currently the situation along the Naas Road at the proposed development site location. In Figure 3-9 it can be seen that there is no provision for cyclists along the route. This means cyclist using the route must share the road with the cars, buses and trucks that occupy the road.

The “Cycle Network Plan for the Greater Dublin” area has produced an overall plan for providing safe cycle routes in and out of the city, this plan aligns with the Naas Road Local Area Plan and an extract of the Cycle Network Plan can be seen in Figure 3-12, with the full plan in Appendix 2. To the immediate north of the site location is the new cycleway along the Grand Canal connecting the city with Lucan and which on completion, will form part of the Canal Way Cycle route, connecting along the Grand Canal to the Royal Canal through the city and docklands and integrating with other strategic cycle routes planned for the city. The proximity of this route to the site presents an opportunity to deliver new connections to this strategic cycle route and integrate the site into this growing network.

Providing easy access to this main cycle route into the city will entice residents of the development to use the route and cycle along the canal where they will not have to share their space with other road users such as cars, buses or trucks. Residents of the proposed development can choose to gain access to this main cycle route via the “7D” route or alternatively along the “River Carmac Greenway” which they will able to access via the Local Area Plan City Wide Green Route, (Figure 3-7).

To accommodate this proposed usage of bicycles to travel in and out of the city centre, 516no. bicycle parking locations have been provided at a variety of easily accessible locations throughout the site, which can be seen in the landscaping plans in Appendix 1. Included in this total number will be shared bike club spaces. The developer has been in consultation with Bleeper Bikes, an established bike club operator in the Dublin area. Bleeper Bikes have confirmed they would provide their service at the subject site. A letter of Intent from Bleeper bikes is included in APPENDIX 4.

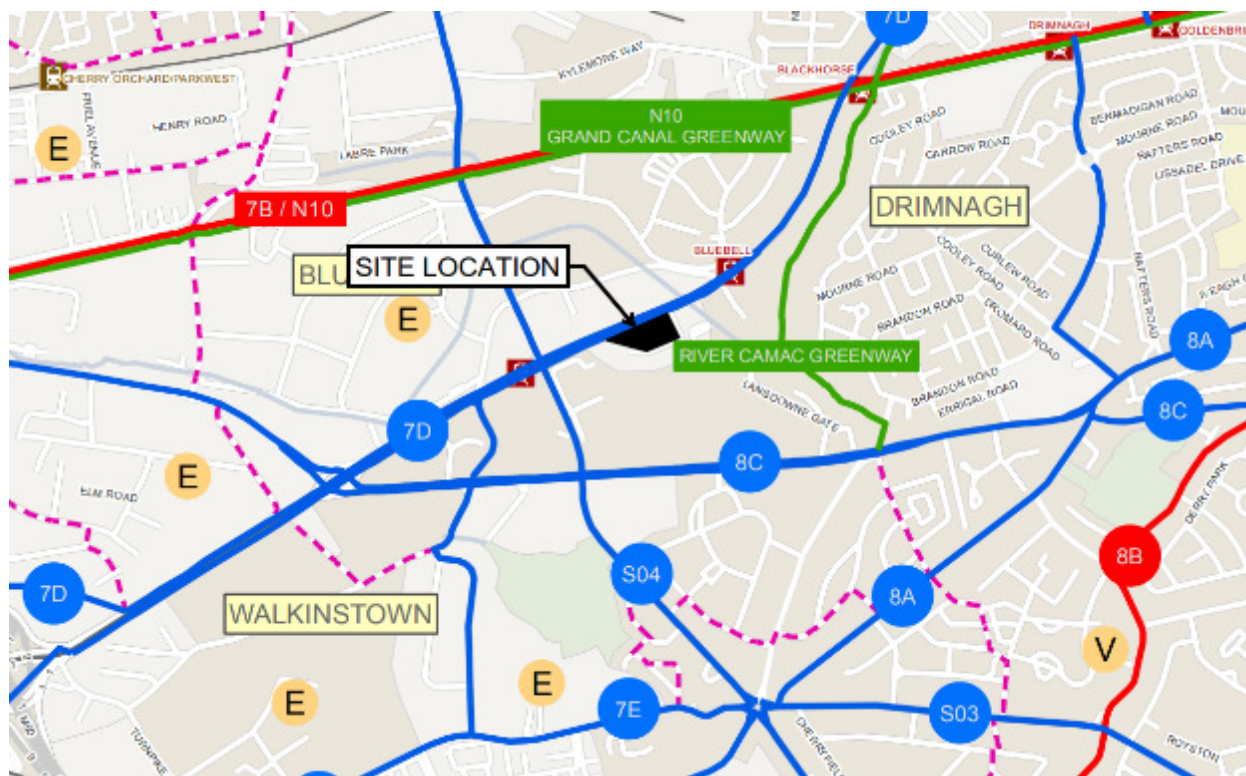


Figure 3-12 – Cycle Network Plan for the Greater Dublin Area Extract

3.4.4 PUBLIC TRANSPORT MOBILITY

BUS SERVICES

As no additional capacity on the roads surrounding the site can be made available to private vehicles, the role of public transport in accommodating the movement requirements of the area now and into the future is crucial. 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.

The Naas Road area is currently connected by public transport services such as Dublin Bus and the Luas Red Line. These services are predominantly radial in nature however, providing good links between the city centre and the west but not to other areas of the city. The full array of public transport can be seen in Figure 3-13.

The Dublin Bus services in the area provide direct linkage to the city, both Route 13 and 151. The frequency of each bus can be seen in Table 3-1, with an approximate 12 minute waiting time between buses. There is an inbound Route 13 stop situated directly outside the site, however accessing the inbound route is difficult as there is no dedicated pedestrian crossing across the Naas Road and Luas line which results in a 7 minute walk, indicated in the dashed blue line in Figure 3-13, to reach the stop. If residents choose to use the 151 bus service on the Long Mile Road, due to the lack of permeability through the site and lands between the stop, pedestrians need to walk down the Naas Road and Walkinstown Avenue which results in a 12 minute walk, indicated in a dashed orange line in Figure 3-13.

Table 3-1 – Dublin Bus Route Frequencies

<u>Route</u>	<u>Origin</u>	<u>Destination</u>	<u>Frequency (07:00 – 08:00)</u>
Route 13	Grange Castle	Harristown	5 per hour
Route 151	Foxborough Rd.	Docklands	5 per hour

With the new pedestrian crossing on the Naas Road, accessing the inbound Route 13 will be much simpler and similarly the proposed secondary green routes through the currently unused lands, will reduce the 12 minute

walk to the 151 bus stop to a 5 minute walk. This new route will also take pedestrians away from the busy Naas Road and Walkinstown Avenue, Figure 3-14.



Figure 3-13 – Existing Public Transport Services

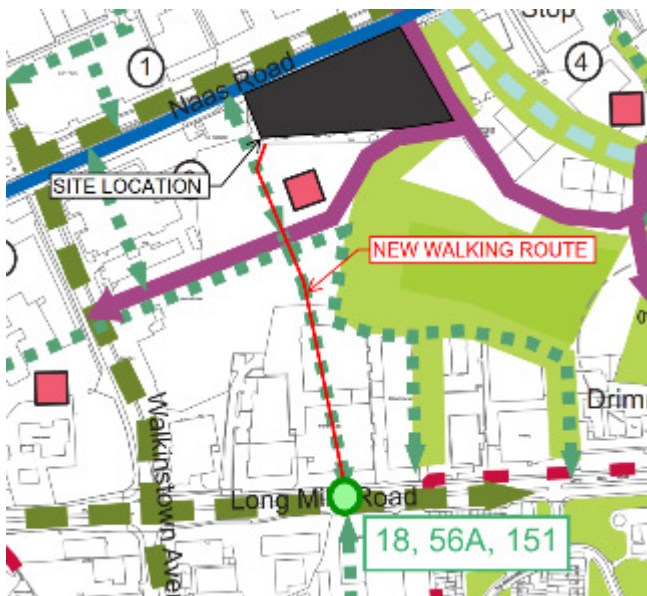


Figure 3-14 – Local Area Plan Green Route Extract – New Walking Route

Future bus plans involve the “Dublin Area Bus Network Redesign” 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.

Figure 3-15 and Figure 3-16 give an overview of the overall provision of services which will make up the overhaul of the current Dublin bus service. Preparing the site for this new bus service is an important part of designing the proposed development for the future. In both of these figures we can see that our site is located close to both of the proposed types of routes, radial and orbital. The radial routes will provide quick and efficient access to the city centre along designated routes from the extremities of Dublin. The orbital route will provide access to the other parts of Dublin city without the need to travel through the city centre which can be heavily congested.

An extract of the proposed route 9 can be seen in Figure 3-17, with the full overview attached in Appendix 3. The proposed development will link up perfectly with the proposed green routes in this area which will enable the residents of the apartment to avail of this new high-level bus service with an approx. 7-10 min walk from the site to either the radial or orbital bus routes.

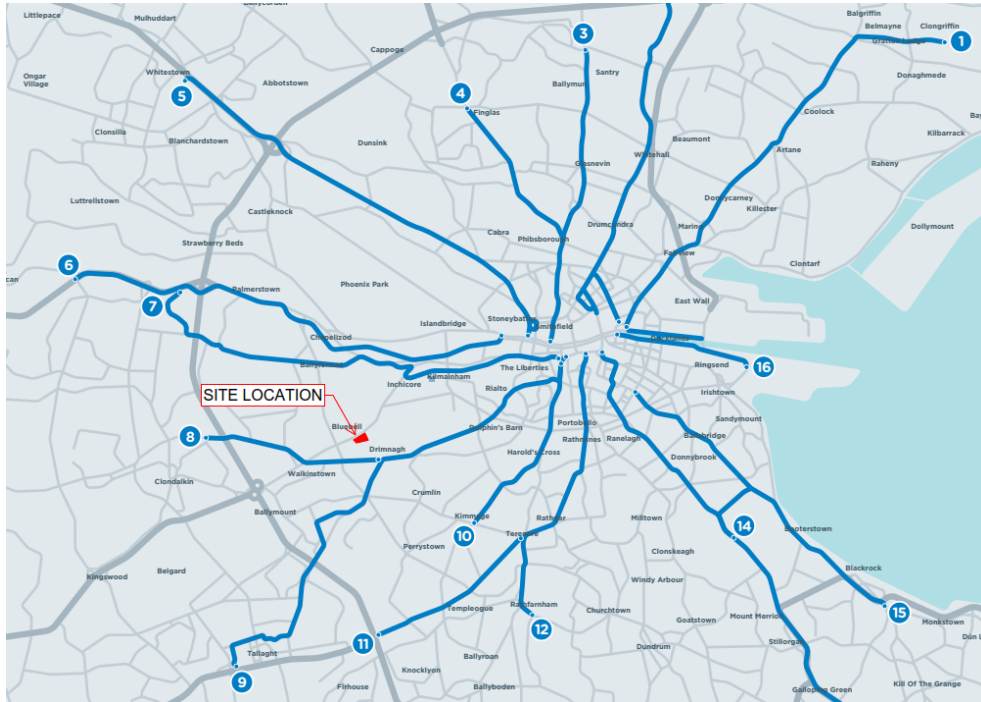


Figure 3-15 – Bus Connects Extract – Dublin Radial Overview

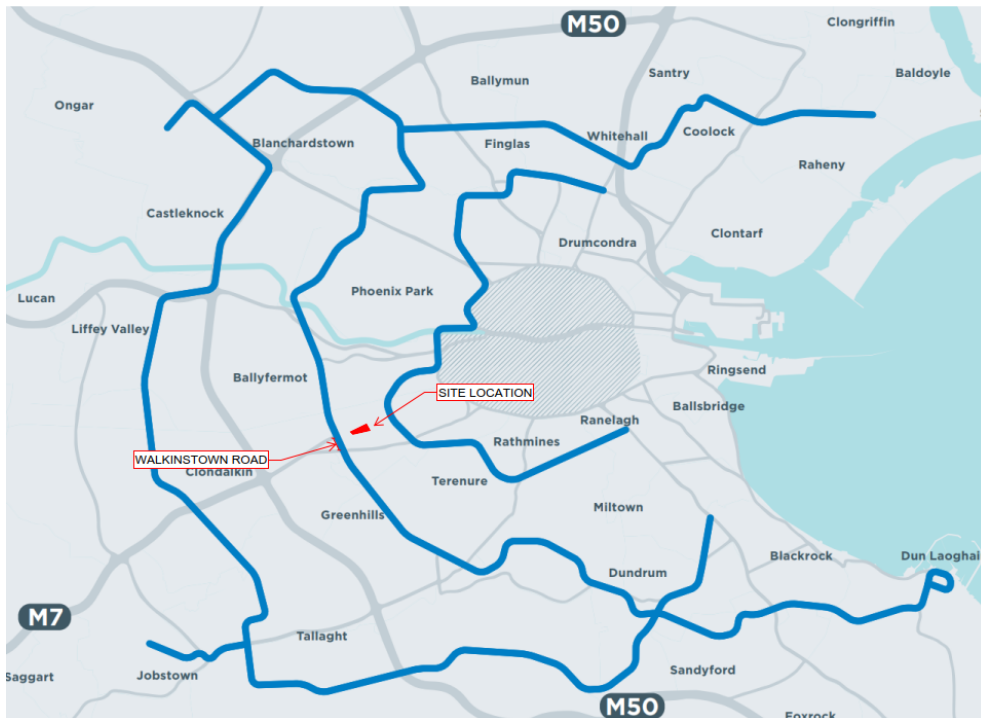


Figure 3-16 – Bus Connects Extract – Dublin Orbital Overview



Figure 3-17 – Bus Connects Route 9 Extract – Green Route Access

LUAS SERVICE

The Luas service is a form of public transport which travels along the Naas Road and is both a reliable and sustainable transport option. The frequency of service is a train every 5/6 minutes, which is twice the regularity of the bus service in the area. There are two Luas stops in the Naas Local Area Plan, although the Bluebell Luas Stop, a 4 minute walk, would be the stop of choice for residents in the proposed development, Figure 3-18. Although the Luas service is well maintained, reliable and has a higher frequency of service, according to the Naas Road Local Area Plan, “there is a relatively low patronage of these stops comparative to other stops”.

This low patronage of the service could be due to the isolated nature of the stops currently, as there is limited residential or commercial units in their vicinity. However, it could also be down to the position of the stops along the route. The Luas stops are not easily accessed. There is no dedicated crossing point outside the site and the stops themselves are in the centre of the Naas Road, which acts as a barrier. Traversing across the road to the Luas line island where the stops are located can be difficult with the volume of traffic and the lack of pedestrian crossways. The only pedestrian crossings in the area are at the Luas stops themselves, with little pedestrian access provided along the Naas road across secondary roads.

With the proposed development, the amount of commuters in the area will increase significantly and it is important to have infrastructure in place to promote the usage of the Luas stop. The introduction of the pedestrian crossing directly outside the site, as shown in Figure 3-10 and Figure 3-11 will promote the use of the service to residents of this and potential future developments.

Currently there is no provision to increase the number of trams for the red line, however the current frequency of one train every 5/6 minutes should be adequate for residents of the proposed development.

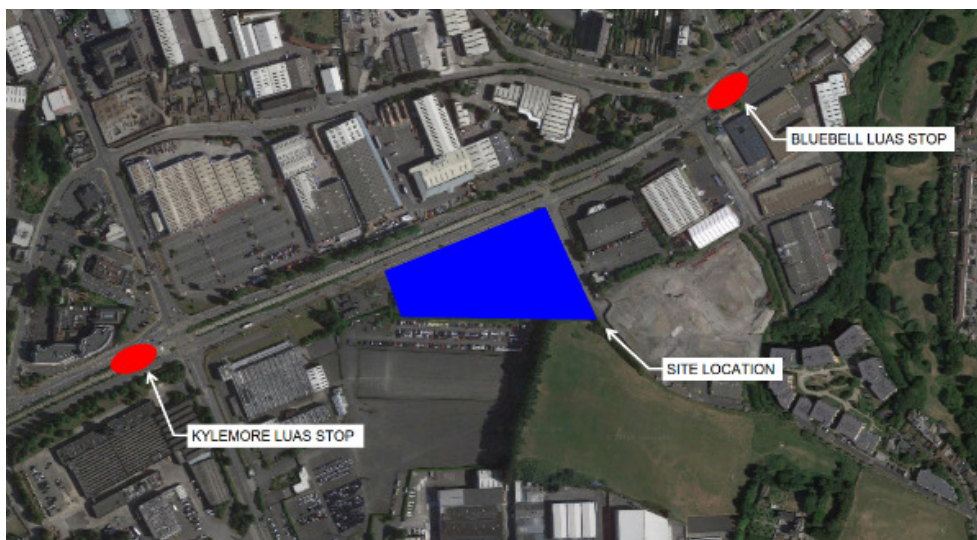


Figure 3-18 – Luas Stop Locations

RAIL TRANSPORT SERVICES

Mainline rail services are in the area but they are currently outside the walking distance of the site. The rail connection to the site area is located 2.5 km to the north east at the Cherry Orchard & Park West stop on the Kildare commuter service which can be seen in Figure 3-19. There is currently a dedicated shuttle service from the Kylemore Luas stop to Parkwest station. The “861 Express Bus” provides a limited number of trips from the Luas stop in the morning and a limited amount in the evening, Figure 3-20. As noted in the Naas Road Local Area Plan, there is the potential in the long term for an additional station near the Kylemore Road, to the North of the site, Figure 3-21. Such development would also support and be benefited by an orbital bus route serving both the rail service and a set down/hub area along the Kylemore Road/ Walkinstown Avenue serving the Luas.



Figure 3-19 – Current Train Station Location

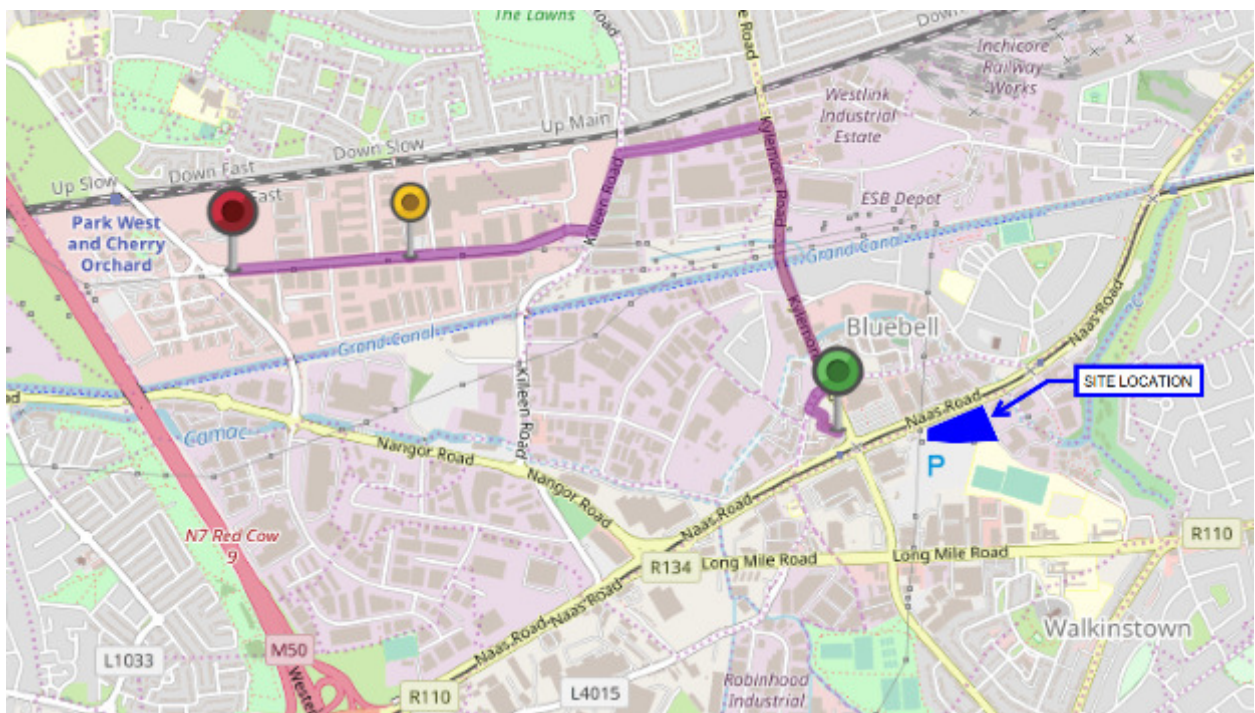


Figure 3-20 – Luas to Parkwest Shuttle Bus Route

FUTURE RAIL SERVICE



Figure 3-21 – Proposed New Train Station

3.4.5 TRAVEL DISTANCE

These travel distances were taken at 08:00am starting from Concorde Industrial Estate and heading to either The Spire on O’Connell street used to represent the City Centre and Citywest. The modes of transport which have been listed above where calculated using google maps. Items 1-5 represent travel to the city centre and 6-10 represent travel to Citywest. In some cases, modes of transport between the locations is not provided and therefore no estimation could be ascertained. Modes of transport may include walking distances (i.e. walking to and from the Luas stop). These times have been added to the overall travel duration. For example, no. 8 below (Concorde to Citywest) has a total travel duration of 43min. This is comprised of a 4min walk, 21 min Luas journey and an 18 min walk.

No.	MODE	START	LOCATION	DURATION
1	Walking	Concorde	City Centre	1h 19 min
2	Cycling	Concorde	City Centre	25 min
3	Bus Service	Concorde	City Centre	45 min
4	Luas Service	Concorde	City Centre	29 min
5	Car	Concorde	City Centre	45 min
6	Walking	Concorde	City West	2 h
7	Cycling	Concorde	City West	35 min
8	Bus Service	Concorde	City West	1 h
9	Luas Service	Concorde	City West	43 min
10	Car	Concorde	City West	25 min

3.5 CONCLUDING COMMENTS ON MOBILITY PLAN

The development shall contain a single level basement with a total of 200 residential parking spaces. Given the number of apartments (492 No.), the ratio of car spaces to residential units is low, compared to traditional requirements, but is considered sufficient for this development for the following reasons:

- This development, addressing the policies and objectives of the Local Area Plan, incorporates significant measures to promote and incentivise the use of available public transport modes along with walking and cycling.
- Strong public transport facilities in the Luas and a Quality Bus Corridor are located directly in front of the development and the additional pedestrian crossings proposed as part of the development will increase the incentives for its use.
- The proposed development will be a Build to Rent Scheme. The Department of Housing, Planning and Local Government document "Design Standards for Planning Authorities" makes specific provision for this type of development:
"A default policy of minimal car parking provision shall apply on the basis of shared accommodation development being more suitable for central locations and/or proximity to public transport services. The requirement for shared accommodation to have a strong central management regime is intended to contribute to the capacity to establish and operate shared mobility measures"
- As a Build to Rent Scheme, the facility's management hold control over parking allocation within the development. They have the capacity to ensure residents with private car needs can be accommodated prior to occupancy. Full time management will be present at the site. The management will have responsibility and, more importantly, the ability to ensure that illegal parking does not occur.
- In addition to the 200 resident car spaces, there will be a minimum of 10 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.
- According to Zipcar, who operate club car operations in both Berlin and London:
*"Every car club car removes up to 17 private cars from the roads, reducing traffic congestion, noise and air pollution.
 Car club members are nearly twice as likely to cycle or take the train than private car owners.
 Car club produces 7 times fewer short trips than car owners.
 A much higher proportion of car club cars are either low emission or fully electric than the general car population.
 Car club allows those who cannot afford a car the opportunity to drive, encouraging social inclusivity."*

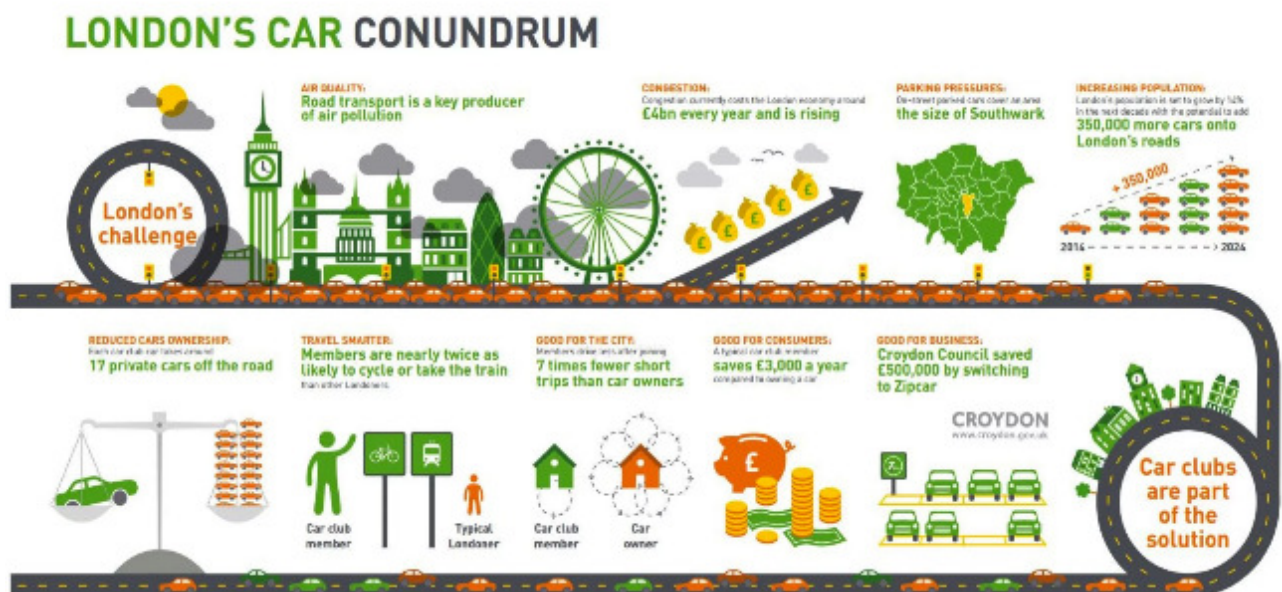


Figure 3-22 – Zip Car London Extract

4.0 OVERALL CONCLUSIONS

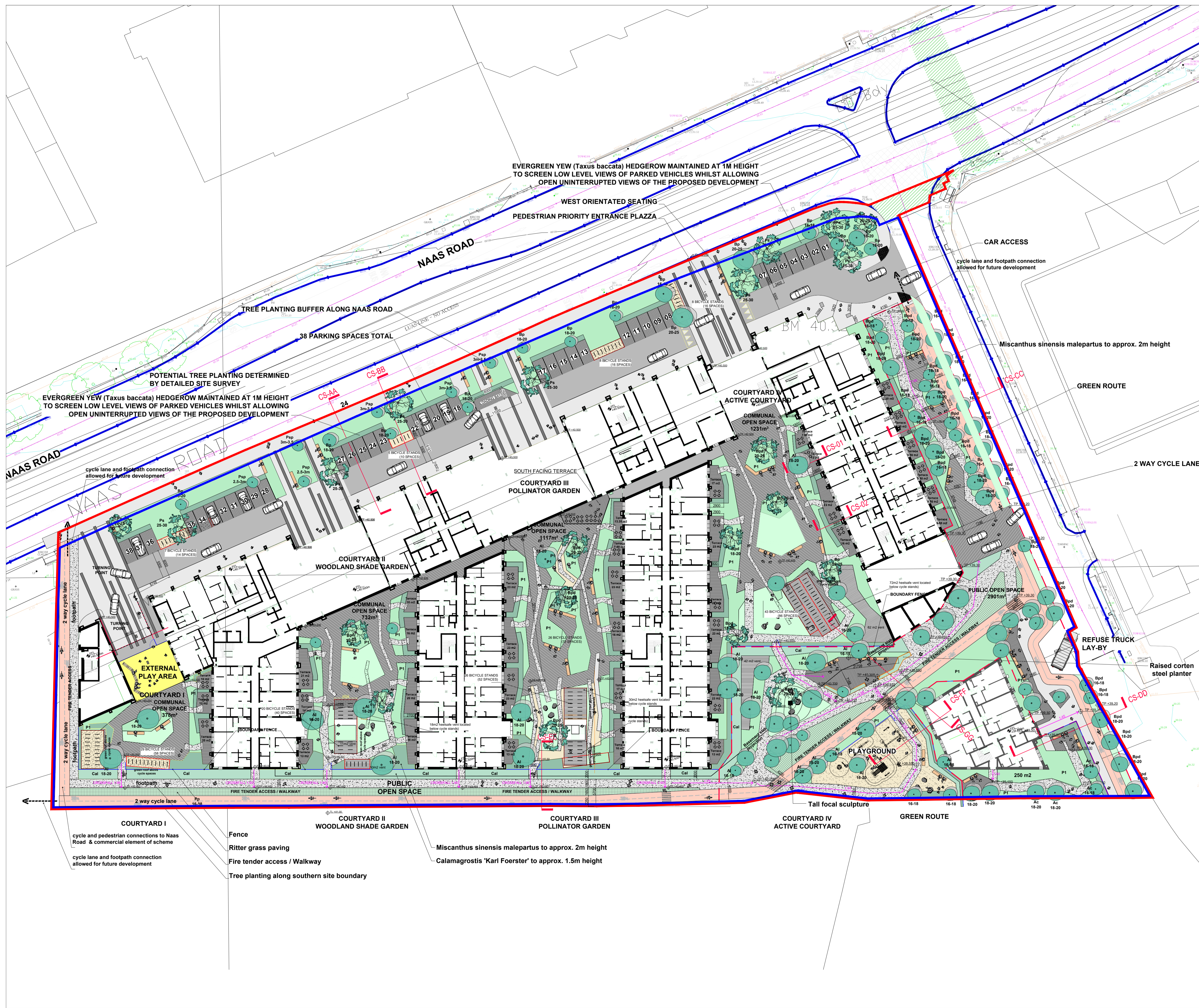
1. This report has demonstrated that the proposed restricted car parking provision for the residential component of the development is entirely sustainable based on current car ownership and modal splits for the journey to work for existing residents living close to the subject site
2. Given the restricted 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, public bus services, LUAS, national rail, and other Services (taxis, Car-club)
3. The proposed Concorde Residential Development is demonstrated to have been designed to integrate and connect the local authority plans for the overall area, which have been developed in an effort to reduce the amount of privately owned vehicles on the road, promote the use of alternative sustainable transport services and improve the environment for pedestrians and cyclists – policies further enhanced by the construction of the proposed scheme.
4. The report has demonstrated the existence of a full range of good alternative transport options available from the site utilising both public transport and soft modes – Luas, Bus, Bicycle, Walking
5. The central management of a “Build-To-Rent” scheme like Concorde will offer the opportunity for a dedicated “Mobility Manager” appointed to encourage residents and visitors away from car usage and towards the other more sustainable modes of travel as outlined within this report.

APPENDIX

1

SITE LAYOUT



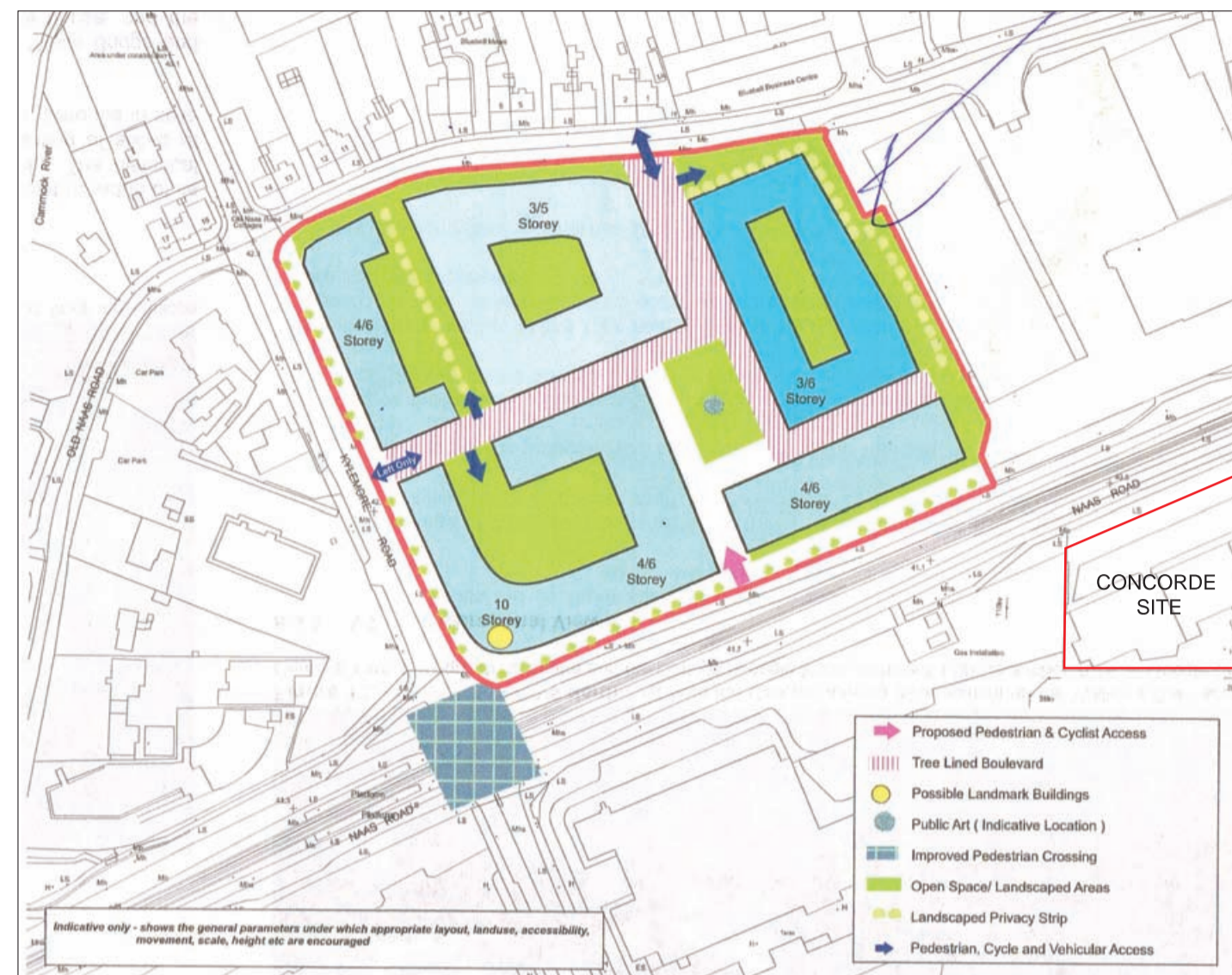


- Psp - Prunus spinosa (Blackthorn)
- Ps - Pinus sylvestris (Scots Pine)
- Bp - Betula pubescens (Downy Birch)
- Bpd - Betula pendula (Silver Birch)
- Ac - Acer campestre 'Streetwise' (Field Maple)
- Al - Amelanchier lamarckii (Snowberry)

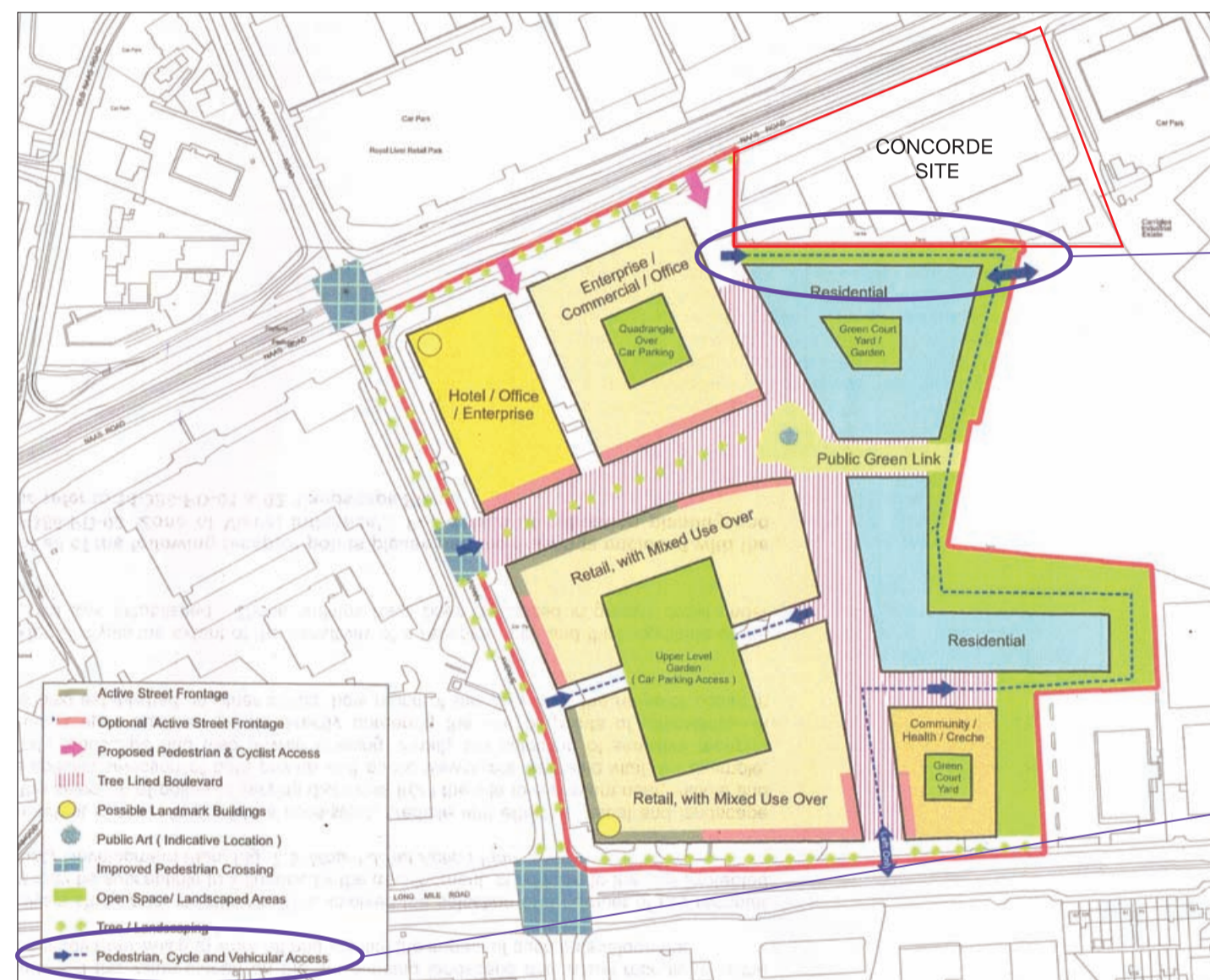
SPECIFICATION KEY	
	Q25110 - PAVING: NATURAL STONE PAVING 95x63mm in random length of 200 x 400 x 600 mm flame-textured MID-GREY GRANITE paving. • 6mm joints to paving units to be filled with wet-lay mix jointing material to BS 7533 colour neutral. • Sub-base to engineer's design detail and specification. • Apply two coats of clear wet look sealer to prevent staining.
	Q21115A - PAVING: EXPOSED AGGREGATE CONCRETE SURFACING Aggregate: size maximum 10 and 20 rounded river-washed gravel. Additional aggregate requirements: Aggregate size maximum 10 mm F50 and 20 mm F50 by Kilmer or EGA, the aggregate washed sand and CRF salt by Kilmer or EGA. • Cement: Cemlink by BSH Cement and 'GIGER' by Ecocem or EGA. • Admixtures: 'Aqua 411 HRWEX', 'Mars VMA' by Grace Construction Products & '150-12 Fibremat' by Curis Enterprises or EGA. • Colour: as per trial panel. • Additional mix requirements: 'Pret VBA Bio 2' or EGA vegetable-based surface retarder and curing agent for natural concrete hardwearing. • Slab thickness: 150 mm C40 concrete with reinforcement to engineer's specification. • Finish: Exposed aggregate surfacing. • Sub-base: as above. • Formed joints at 5 m centres, temporary forms; square edged with a steel top surface, placing concrete compact thoroughly at edges to give level, closely abutted joints with no spigot. • Saw Crack at min 3m c/s, not less than one quarter the depth of the slab in depth and as narrow as practicable. Sawing sufficiently early to prevent random cracking (within 24 hours of casting slab) and to produce strong well-defined joints. Crown: 80g/m².
	TARMAC TO ENGINEER'S SPECIFICATION
	PERMEABLE PAVING TO ENGINEERS DETAILS & SPECIFICATION
	HARD COMPACTING GOLDEN GRAVEL • 10mm dolomitic blinding dust material to seal all interstices. • 50mm compacted depth golden-coloured limestone hard-compacting gravel (IMAG or EGA).
	PAVING: • Modular paving strips to site frontage shared surface
	WET POUR IMPACT ABSORBING IN SITU SYNTHETIC SURFACING SPECIFICATION • Q20100 Surface course: Wet pour, in situ laid polyurethane bound EPDM rubber crumbs surface to BS 7188. Wet Pour Rubber Surfacing Base Course or Shock Pad is manufactured from 100% Recycled SBR (Styrene Butadiene Rubber) rubber crumbs which is mixed with a polyurethane resin binder. • Colour: Yellow. Thickness: 40mm
	Q30 - PLANTING: GRASS LAWN • Excavate lawn areas to 125mm depth & break up base of area to ensure free drainage. • Backfill with min. 150mm depth multi-purpose grade topsoil to BS3882 to lawn area. • Seed with low maintenance hard-wearing, non-ryegrass amenity grass seed mix at 25g per m² or approved wildflower meadow seed mix as indicated.
	RITTER GRASS TO SUPPORT TENDER ACCESS • GeoScape EcoBlock by Cooper Clarke Groups or EGA • Recycled polypropylene geo-space geocoblock (colour:green) 500x500x80mm deep with 10mm topsoil, on 200mm sharp sand standing on 200mm coarse 8/4 granular material on Tensar Triax TX 160 geogrid or equivalent.
	P1 - ORNAMENTAL SHRUBS AND PERENNIALS • Ayala nana, Digitalis grandiflora, Iris foetidissima, Kniphofia 'Alcazar', Lobelia grandiflora, Blechnum spicatum, Phytolacca spicatum, Scopolopodium. • Planting to 300mm depth BS3882 multi-purpose topsoil on free-draining sub-base, topped with 100g/m² black landscape fabric and 75mm depth medium-grade pine bark mulch. • Ornamental perennial planting to comprise flowering perennials & evergreen shrubs to soften the visual impact of the development.
	PLANTING - Miscanthus sinensis 'Malepartus': • 2 litre container grown. • 300mm depth BS3882 multi-purpose topsoil on free-draining sub-base, topped with 100g/m² black landscape fabric and 75mm depth medium-grade pine bark mulch.
	PLANTING - HEDGEROW: • Evergreen Yew (Taxus Baccata) Hedgerow maintained at 1m height to screen low level views of parked vehicles whilst allowing open uninterrupted views of the proposed development
	Q31 - SEMI-MATURE NATIVE TREES • Semi-mature native species provided with 1200mm³ multi-purpose grade topsoil to BS 3882, topped with black 100g/m² landscape fabric secured with plastic pegs at 300mm c/s & 75mm depth medium-grade bark mulch. • Trees double-staked & supplied with planting accessories, and provided with root restrictors within 2m of paving, underground services and foundations.
	Q31 - CLEAR-STEMMED TO 2M HEIGHT SEMI-MATURE TREES • Semi-mature trees provided with 1200mm³ multi-purpose grade topsoil to BS 3882, topped with black 100g/m² landscape fabric secured with plastic pegs at 300mm c/s & 75mm depth medium-grade bark mulch. • Trees double-staked & supplied with planting accessories, and provided with root restrictors within 2m of paving, underground services and foundations.
	Q50220A - WOODEN BENCH WITH BACKREST • 500mm width x 400mm depth x 350mm length planed smooth Grade A green Douglas Fir to 1500mm height from FGL. • Timber to be FSC-certified and sourced sustainably. • Base frame of galvanneal mild steel (powder coated to RAL 8004 Copper Brown) with stainless steel fasteners, bolted to C20P concrete foundation to engineer's specification, finished 100mm below FGL. • Seat and backrest of solid Douglas Fir softwood. • Shop drawings to be produced by contractor prior to fabrication.
	Q50225 - NATURAL STONE BOULDERS • 100-150mm Ø rounded natural stone glacial boulders of Irish granite or limestone grouped to act as a spine and dropped informal seating elements and features. • Set 100-200mm deep into landscape finish.
	COVERED BICYCLE STANDS • 500 no covered cycle parking spaces located within communal courtyard spaces. • 60 no uncovered cycles along site frontage onto Naas road
	EXIT STAIRWAY • Canopy above exit stair from basement car park and bicycle parking spaces
	BOUNDARY TREATMENT • 1.8m height galvanneal mild steel bar railing painted grey on 400mm height plinth wall
	BASEMENT VENTILATION • Galvanneal mild steel hee-late grating

STEPHEN DIAMOND ASSOCIATES
 CHARTERED LANDSCAPE ARCHITECTS

68 Pearse Street Dublin 2 tel: 01 6775670
 email: mail@scada.ie fax: 01 6775669
 Client: Development 8
 Project: Concorde site
 Title: Master plan
 Dwg No: 18-489-PD-01 Date issued: 2019-04-12 Scale: 1:200 @ A1
 Drawn: MA Purpose: Planning Checked: SD



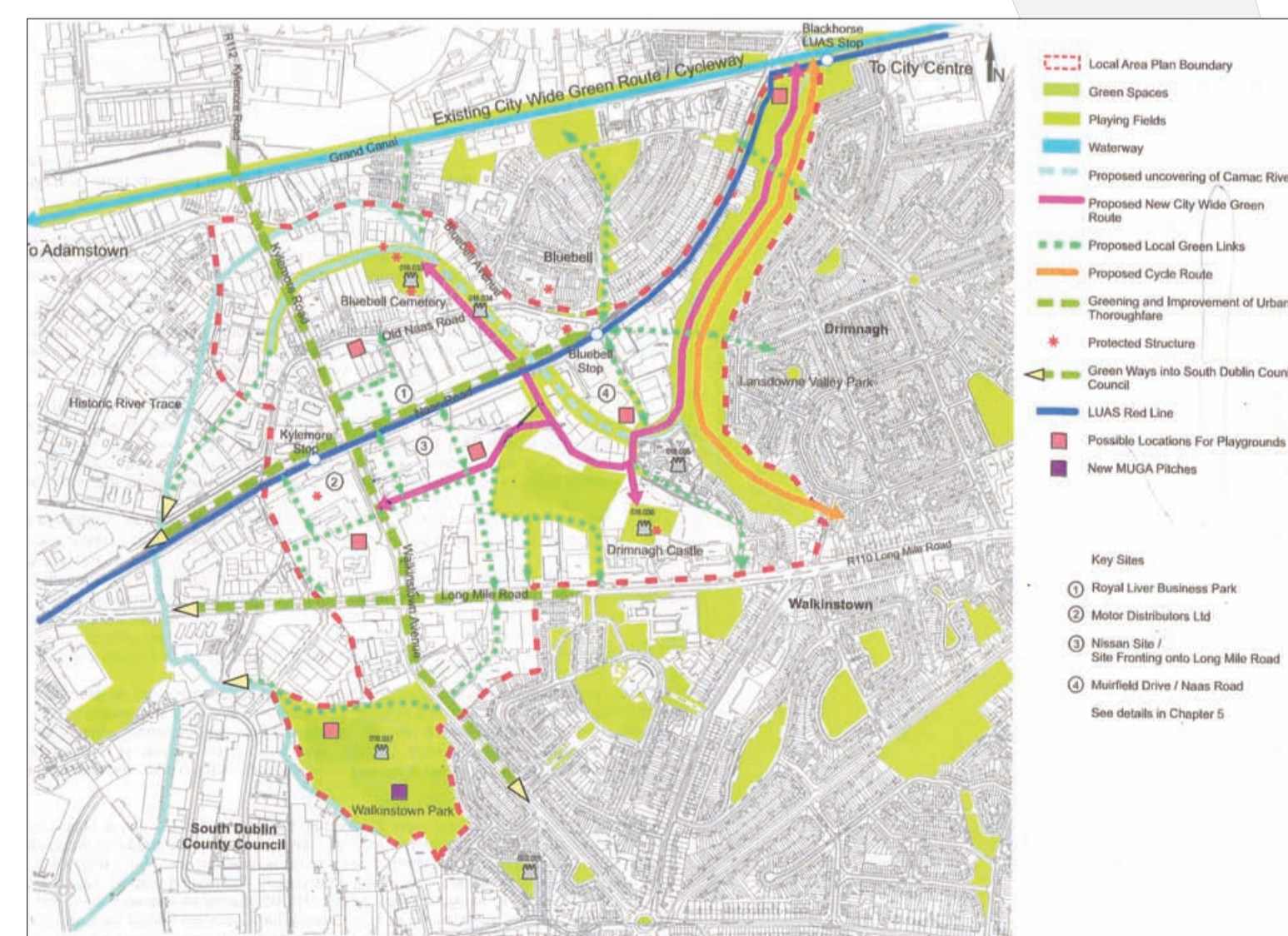
Map 5.3 Proposed Heights - Royal Liver Site - ref. page 56 of LAP



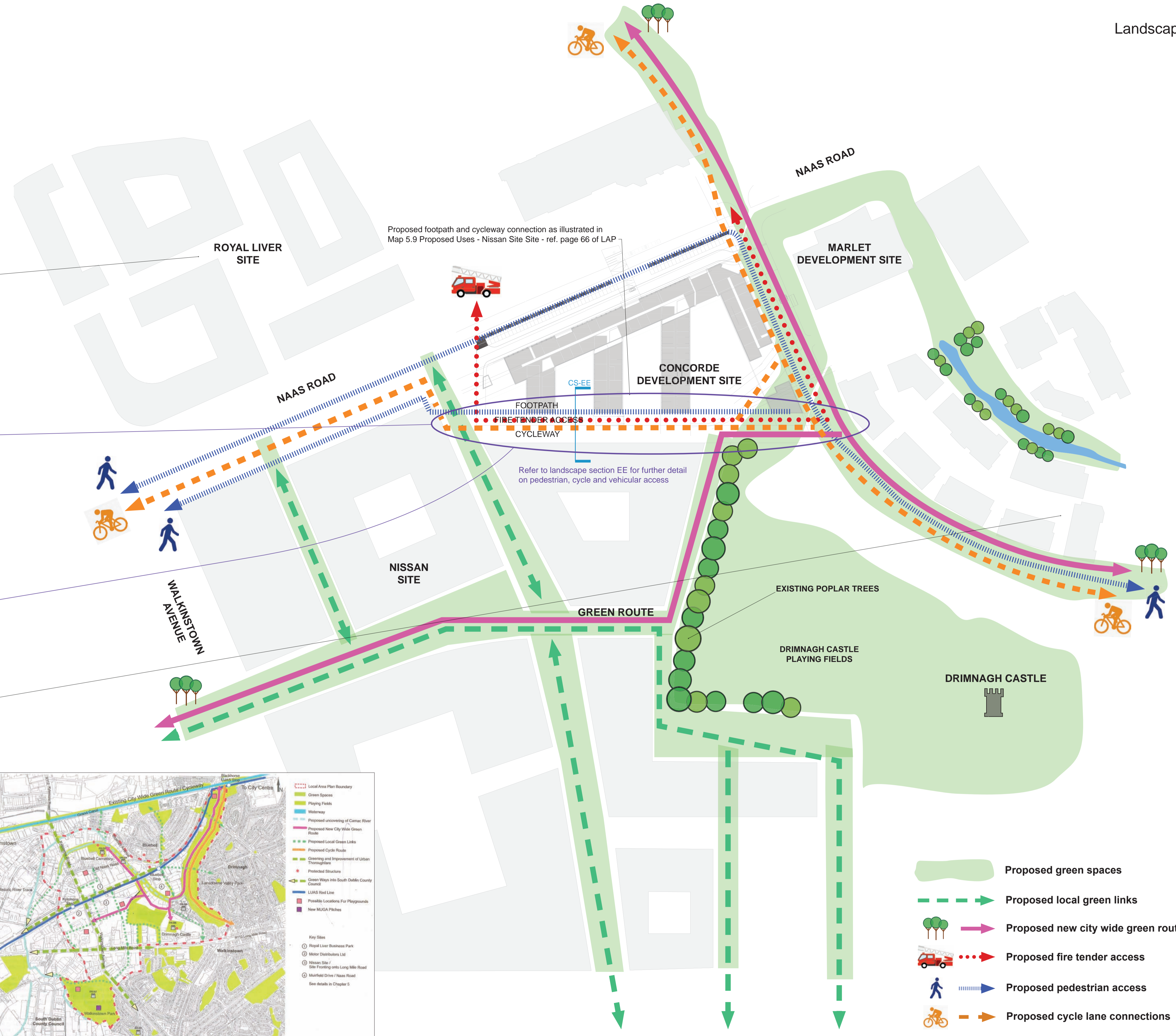
Map 5.9 Proposed Uses - Nissan Site - ref. page 66 of LAP



Marlet Development Site - Planning Application ref.: 2203/18



Map 4.12 - Proposed Green Infrastructure Strategy - ref.: page 48 of LAP



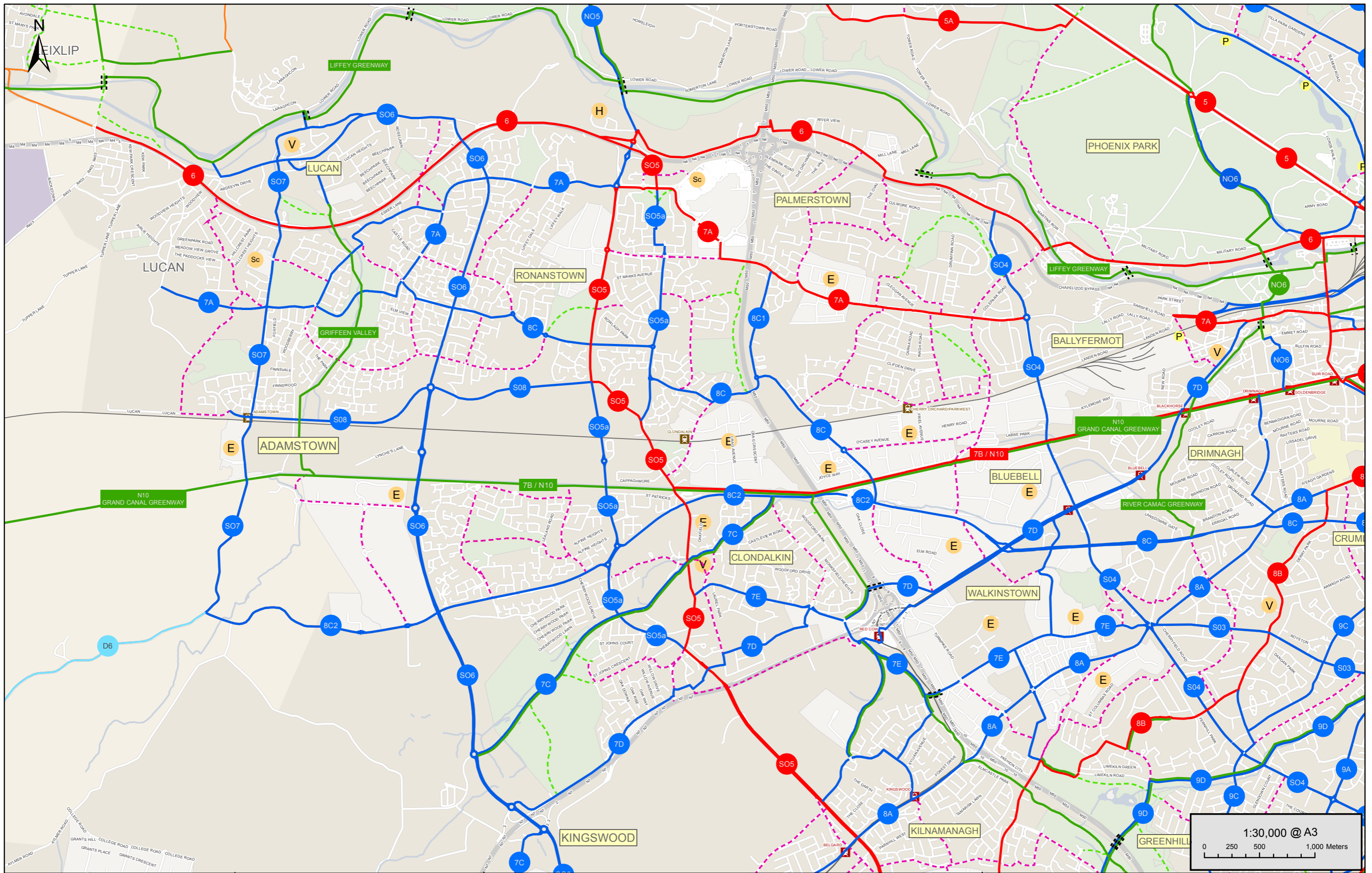
- Proposed green spaces
- Proposed local green links
- Proposed new city wide green route
- Proposed fire tender access
- Proposed pedestrian access
- Proposed cycle lane connections

APPENDIX

2

CYCLE NETWORK
PLAN





Project:
**CYCLE NETWORK PLAN FOR
 THE GREATER DUBLIN AREA**

Title:
**PROPOSED CYCLE NETWORK
 DUBLIN MID WEST
 SHEET N5**

Legend:

Primary	Inter-Urban	Greenline Tram Stops
Secondary	Feeder	Redline Tram Stops
Greenway	Minor Greenway	Stations
Primary/Secondary	New Cycle Bridge	Institute of Technology
Permeability Link	Gateway	Shopping Centre
Employment Zones	Town Centre	University
Hospitals	Village Centre	

Udarás
Náisiúnta Iompair
 National Transport Authority

AECOM
 Roughan & O'Donovan

Grand Canal House,
 Upper Grand Canal Street,
 Dublin 4
 Tel: +353 (0)1 238 3100
 Fax: +353 (0)1 238 3199
 www.aecom.com

APPENDIX

3

BUS CONNECTS
ROUTE 9



Greenhills > City Centre

Core Bus Corridor (bus & cycle infrastructure)

9

Key Facts

- Route length **11kms**
- Current bus journey time up to **80mins**
- BusConnects journey time **35-40mins**
- Future bus journey time without BusConnects **100mins+**

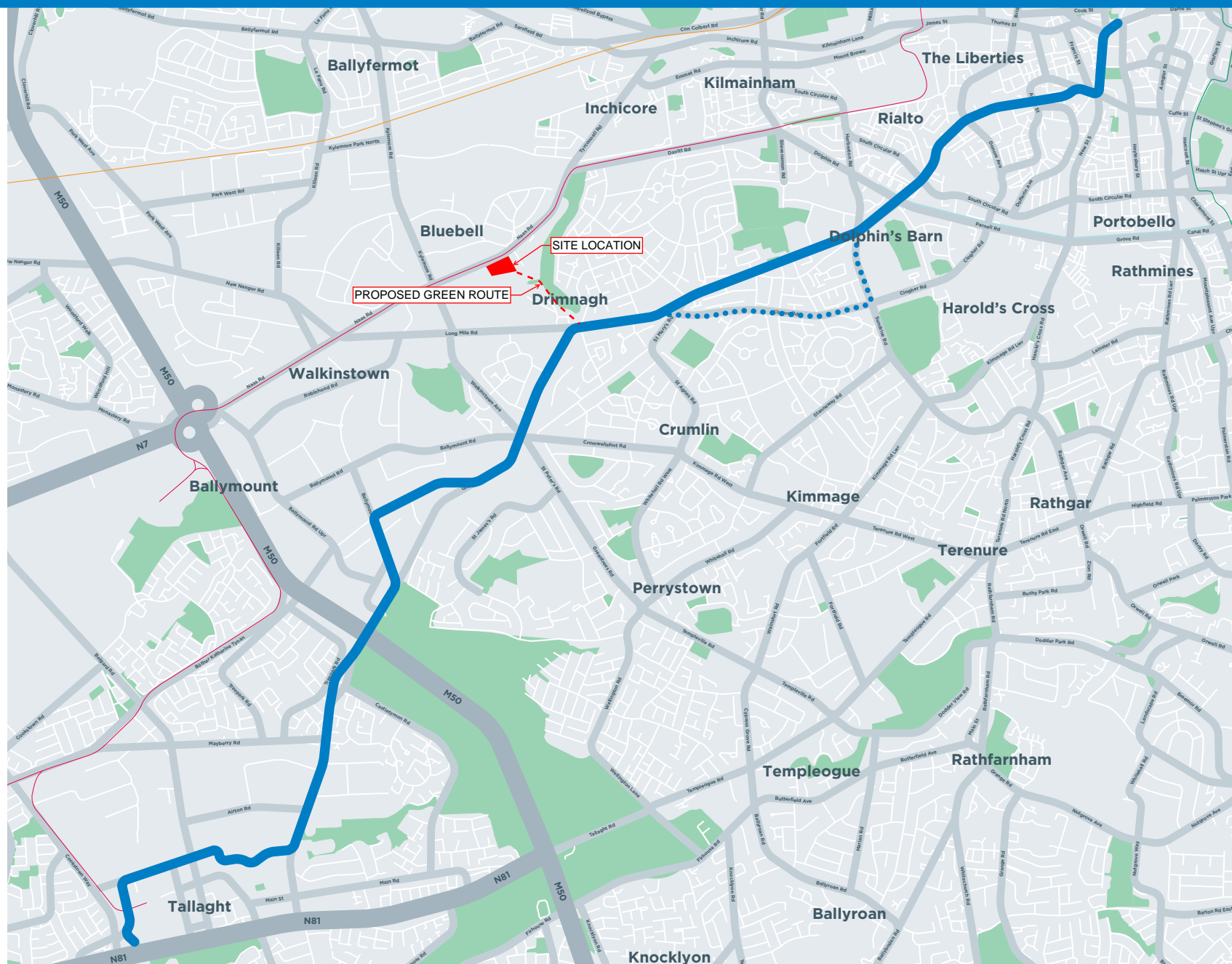
Potential Impacts

- Parts of front gardens removed
- Loss of parking spaces
- Changes to traffic movements
- Loss of trees

Additional Specific Challenges on Route

- Restricted width on many roads along this route requiring road widening.
- Walkinstown Roundabout is challenging for both bus and cycle movements.
- A proposal is to construct new link roads to divert all traffic via Calmount Avenue and Calmount Road while still maintaining access to the old section of Greenhills Road.
- A proposal is to realign a section of the Greenhills Road adjoining Castletymon Road junction.

- Bus Route
- Alternative Cycle Route



APPENDIX

4

BLEEPER BIKE
LETTER



BleeperBike
Rear of 24
South Richmond Street
Portobello
Dublin 2
D02 HF29

14 March 2019

**Re: Concorde Industrial Estate,
Naas Road,
Walkinstown,
Dublin 12.**

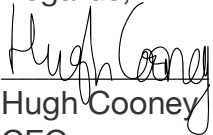
To Whom It May Concern,

Thank you for registering and interest in integrating Bleeper Bikes into the Mobility Plan for the proposed development at the Concorde Industrial Estate. We would be delighted to work with Development Ocht Ltd to ensure the sustainable cycle needs of the residents and others living nearby are met, with the provision of Bleeper Bike stands either on site or close by.

BleeperBike currently runs a fleet of 700 shared bicycles throughout the administrative areas of Dun Laoghaire Rathdown and Dublin City. The bicycles are available to use 19hrs per day (5am-12am) and are used primarily for short journeys (1-5km distances), with a typical journey time averaging 10-15 minutes. The bicycles are equipped with a 'smart lock' system utilising GPS and 3/4G technology, which works in tandem with our bespoke App. To unlock a bike, a user simply downloads the app, selects a payment plan and provides basic personal information. Once this is complete they open the App and scan the unique QR code on the bicycle lock to unlock the bike.

BleeperBike offers residents easy access to a fleet of bicycles that can be used for short to middle distance trips, which can **significantly reduce their dependency on car ownership.**

Regards,



Hugh Cooney
CEO

BleeperBike Ireland Opco Limited

APPENDIX

5

GO-CAR LETTER
OF INTENT





Padraig Kehoe

Development Ocht Ltd.

88 Harcourt St,

Saint Kevin's, Dublin 2

This is a letter to confirm that GoCar intends to provide ten shared car club vehicles in the proposed residential development at the Concorde Residential Development, on the Naas Road, with final terms to be agreed.

GoCar is Ireland's leading car sharing service with 40,000 members and over 600 cars and vans across 18 counties in Ireland. Each GoCar which is placed in a community has the potential to replace the journeys of up to 15 private cars.

The Department of Housing's Design Standards for New Apartments - Guidelines for Planning Authorities 2018 outline: "For all types of location, where it is sought to eliminate or reduce car parking provision, it is necessary to ensure... provision is also to be made for alternative mobility solutions including facilities for car sharing club vehicles."

GoCar members sign up online and can book cars or vans via the website or mobile app. Rates start from €4 for half an hour, with fuel, insurance and maintenance included. As such, it is both convenient and cost effective. It allows individuals to have the benefits of a private car, without having the large costs and hassle associated with car ownership. GoCar is ideal for people or organisations who only need occasional access to a car, for families who need a second car sometimes, and for others who would like occasional access to a vehicle of a different type than they use day-to-day.

Carsharing is a sustainable service. By allowing multiple people to use the same vehicle at different times, car sharing reduces car ownership, car dependency, congestion, noise and air pollution. It frees up land which would otherwise be used for additional parking spaces. Most GoCar users only use a car when necessary, and walk and use public transport more often than car owners.

By having GoCar car club vehicles in a residential development such as this, residents will have access to pay-as-you-go driving, in close proximity to their homes, which will increase usership of the service.

I trust that this information is satisfactory. For any queries, please do not hesitate to contact me.

Regards,

Rob Kearns

Head of Growth

GoCar Carsharing Limited

M: 083 822 3924

E: rob.kearns@gocar.ie

Barrett Mahony Consulting Engineers

Dublin:

Sandwith House,
52-54 Lower Sandwith Street,
Dublin 2,
D02 WR26, Ireland.
Tel: +353 1 677 3200

London:

12 Mill Street,
London, SE1 2AY,
United Kingdom
Tel: +44 203 750 3530.

Sofia:

19 Yakubitsa Street,
Lozenets,
Sofia 1164,
Bulgaria
Tel: +359 2 494 9772

WWW.BMCE.IE