

14 Material Assets – Traffic and Transport

14	Material Assets – Traffic and Transport.....	1
14.1	Introduction.....	2
14.2	Study Methodology	2
14.3	The Existing Receiving Environment (Baseline)	3
14.4	Characteristics of the Proposed Development	11
14.5	Potential Impact of the Proposed Development	11
14.6	Potential Cumulative Impacts	14
14.7	Do Nothing Scenario	14
14.8	Mitigation Measures	14
14.9	Residual Impacts	15
14.10	Monitoring.....	15
14.11	Reinstatement	15
14.12	Interactions.....	16
14.13	Difficulties Encountered	16
14.14	References	16

14.1 Introduction

This Material Assets (Transportation) EIAR Chapter has been prepared by NRB Consulting Engineers Ltd and addresses the traffic and transport issues arising from the proposed Large Scale Residential Development on the site at St Teresa's, Temple Hill, Temple Road, Blackrock, Co Dublin. The content of the EIAR Chapter should be read in conjunction with the stand alone TA Report (including the appended reports including Mobility Management Plan / Travel Plan, DMURS Statement of Consistency, Car / Bicycle Management Plan, Cycle Audit, Public Transport Capacity Assessment and Independent Roads Safety / Quality Audit), which are included as an Appendix to the EIAR.

14.1.1 Quality Assurance and Competency of Experts

This chapter was prepared by Eoin Reynolds, a Chartered Engineer and founding Director of NRB. Eoin also specialises in the field of Traffic and Transportation & Roads Design and has over 36 years' experience in assessing the infrastructure needs of development. He is expert in the provision of advice to both private sector and public sector clients on all aspects of roads, traffic and transportation, and mobility management. Eoin is also expert in the use of Traffic Engineering Modelling Software (TRICS, ARCADY, PICADY, LINSIG, Traffic and Network Study Tool (TRANSYT) and Micro-Simulation Techniques). He has given expert evidence at planning appeals, oral hearings and public enquiries..

This chapter was then reviewed by Brian McMahon, a Chartered Engineer and Director of NRB. Brian has 20 years' experience in planning, design and management of traffic and transportation projects. Brian is an expert in the application of software packages such as ARCADY, PICADY, LinSig and the TRICS trip generation database. Brian is an experienced Road Safety Audit Team Lead, Transport Infrastructure Ireland (TII) approved, with over 200 Road Safety Audits (RSAs) undertaken within Ireland and the UK.

14.2 Study Methodology

14.2.1 Assessment Methodology

This chapter has been undertaken in accordance with the requirements, and methodologies set out in TII's Traffic and Transport Assessment Guidelines 2014 (PE-PDV-02045). These are the professional Guidelines used to assess the impact of developments on public roads.

The methodology includes baseline traffic surveys (2025), trip generation using the Trip Rate Information Computer System (TRICS) database, trip assignment and distribution based on observed traffic patterns, and capacity analysis of junctions as necessary using TII approved modelling software.

In describing the Receiving Environment and the Proposed Future Environment, this report addresses the following aspects of the proposed development:

- Relative Small Scale of the development in terms of vehicular traffic generated, particularly in the context of the local area and the busy road network (Reflected in the Low Traffic Generation of the Development),
- Location of the development close to a number of bus routes and DART,
- Traffic & Transportation impact,
- Proposed amended vehicular access junction,
- Capacity of the proposed vehicular access arrangement to accommodate the worst-case development traffic flows associated with the proposed development,
- Pedestrian and cyclist permeability and promotion,
- Capacity of the Existing Road Network.

The recommendations contained within this Chapter are based on the following sources of information and industry-standard practices; -

- DLRCC Development Plan 2022-2028,
- TII Traffic & Transport Assessment Guidelines,
- Design Manual for Urban Roads and Streets,
- Recent Traffic Survey Data commissioned 2025,
- Relevant Design Guidance, and,
- Our experience in assessing the impact of Developments of this Nature.

The Report has been prepared in accordance with the requirements, and methodologies set out in TII's PE-PDV-02045 Traffic & Transport Assessment Guidelines. These are the professional Guidelines used to assess the impact of developments on public roads.

14.3 The Existing Receiving Environment (Baseline)

The site is in Blackrock, within easy walking distance of Dublin Bus Stops on the adjacent N31 Bus Corridor, and also close to Seapoint and Blackrock Rail / DART Stations and is therefore ideally placed to accommodate the Transportation Demands associated with this scale of development.

The site is bound along the northern boundary by the N31 Temple Road, to the east by the existing St Vincent's Park Residential Development, to the west by St Louise's Park and the Alzheimer Society of Ireland, and to the south by undeveloped parklands and the established convent buildings.

The road along the northern boundary of the site is the N31 National Secondary Road, which is one of the city's main commuter routes, also serving the port of Dun Laoghaire, connecting to the N11. The N31 is a wide urban dual carriageway with a series of large traffic signal-controlled junctions along its length, serving local areas as well as commercial development such as Blackrock Village, Blackrock Shopping Centre and the Frascati Shopping Centre located to the north of the subject site. The N31 is subject to a 50kph urban speed restriction. The N31 carries a weekday AM Peak Hour 2-way flow of approximately 2,100 PCUs and a weekday PM Peak Hour 2-Way flow of approximately 2,300 PCUs, and in these terms, it can be considered as quite heavily trafficked.

The junction of the N31/Seapoint Ave/St Vincent's Park takes the form of a large 4-arm traffic signal-controlled junction. The junction is to be upgraded as part of the approved BusConnects Plans; however the layout currently remains substandard in terms of modern & safe roads design, due primarily to the requirement to maintain access to St Vincent's Park with a non-standard geometric layout, and a left turn diverge lane that crosses the city bound cycle lane.

The existing residential development of St Vincent's Park adjacent the site is a low-density development, consisting of approximately 30 residential houses. In these terms St Vincent's Park is demonstrably a very low generator of vehicular movements.

To the west of the site, St Louise's Park provides access to Traveller Accommodation and also to the Headquarters of the Alzheimer's Society of Ireland. Like St Vincent's Park, it is a low generator of vehicular traffic movements.

A site layout plan showing the development arrangement in relation to the existing site and roads is included within the appended TA Report (Appendix A) with further details of the redeveloped improved access and egresses.. The proposed site layout is also detailed in Appendix 1-1. We also include TRACK (Vehicle Swept Path).

Public Transport Accessibility Level (PTAL)

We have reviewed the NTA Public Transport Accessibility Level (PTAL) for the subject site, as it is referenced within the Compact Settlement Guidelines. Measuring the "PTAL" is a method used in transport planning to assess how well-connected an area is to public transport. This involves calculating the walking time to nearby public transport stops and considering the frequency and

reliability of services at those stops, and the accessibility level is now available on the NTA site, with the extract included below as **Figure 14.1**.



Figure 14.1 – Extract NTA PTAL Level and Site

The above confirms that the site is understandably defined as a 'Medium to High Level of Service' in terms of the NTA Public Transport Accessibility Level.

Pedestrian Infrastructure

At present, pedestrian activity to the existing site is served by an extensive network of footpaths connecting the site to the local area and providing direct links to the high-quality public transport services locally and within the wider area.

Cycle Infrastructure

At present, pedestrian/cycle traffic at/to the existing site is served by an extensive network of footpaths and dedicated cycle lanes/facilities. These facilities are continually improving, and of course the nature of the area and current practices by the Dublin Local Authorities is that the GDA cycle network will be rolled out within a short timeframe. The site is clearly ideally placed in terms of the NTA's GDA Cycle Network Plan for this area of Dublin. An extract from the plan is included and illustrated in **Figure 14.2** below.



Figure 14.2 – Extract GDA Cycle Network Plan

In terms of the 'Legend' for this extract, this is extracted from the NTA Document and included below as **Figure 14.3**.

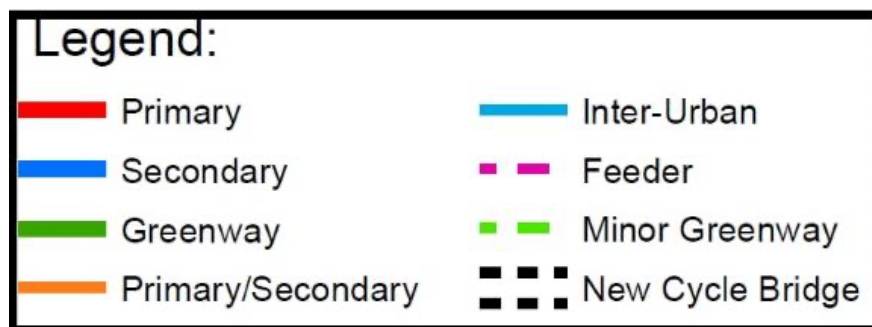


Figure 14.3 – Extract Legend from NTA Plan

The site is served by a Primary Route, a Secondary Route and indeed a Minor Greenway is identified as passing immediately adjacent the site. These links ensure that the site is highly accessible by bicycle to Dublin City Centre and environs. The Cycle Infrastructure planned for the site feeds into the overall GDA Network Plan, an extract of which is included below as **Figure 6.4** showing the site in context and demonstrating the cyclist permeability of the location to the overall Dublin City Area.

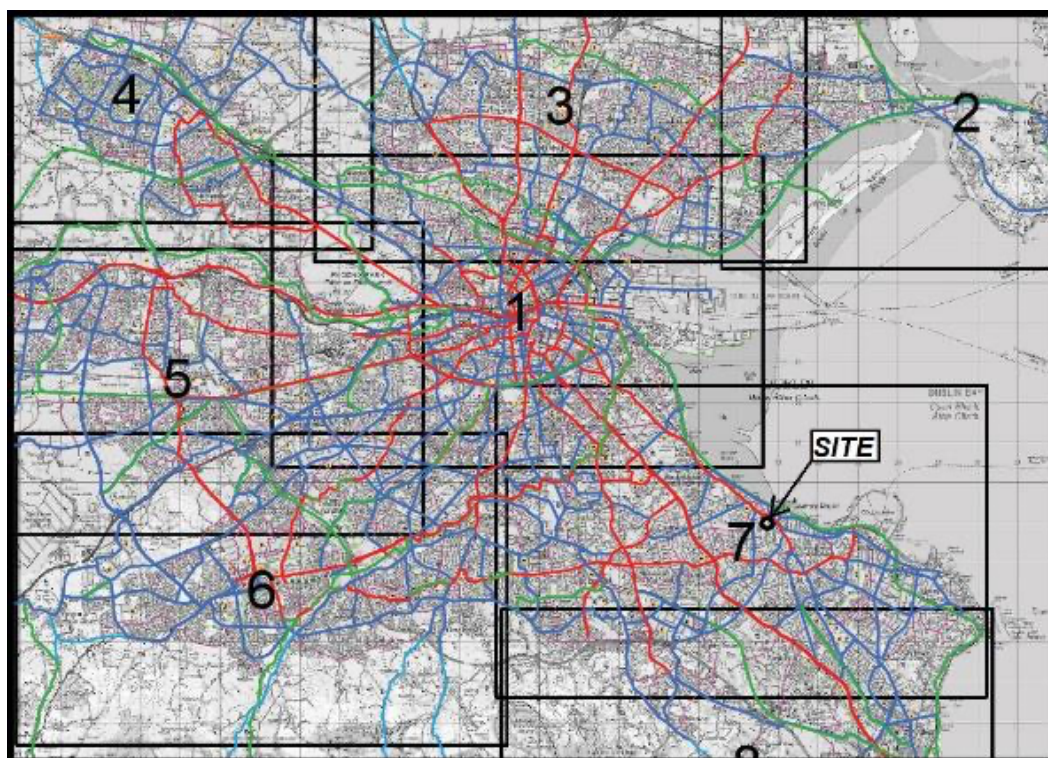


Figure 14.4 – GDA Cycle Network Plan (NTA)

The key to cycle accessibility is convenient safe links, with secure and carefully sited cycle parking. Cycling is ideal for shorter journeys. The provision of cycle parking for the site is addressed in more detail within the Car/Bicycle Management Plan Report included as Appendix H of the TA Report.

For journeys greater than 8km, it is recognised that a modal shift to cycling could be achievable for some, but not all, and options such as public transport and car sharing should be considered. It is generally accepted that journeys up to 8km can reasonably be undertaken by bicycle and journeys of 2-4km can be undertaken by either walking or cycling. To illustrate the extent of the GDA accessible by both Bicycle (8km) and on foot (2km, which represents a c25 min walk) we have included below approximate 'Iso-Distance Mapping' for a 2km and 8km radius from the site. These illustrate the extent of the employment, retail, and schools within sustainable pedestrian and cycle travel distance of the site. These are included below as **Figure 14.5** and **Figure 14.6**



Figure 14.5 – Approx 2km Iso-Distance (Google)

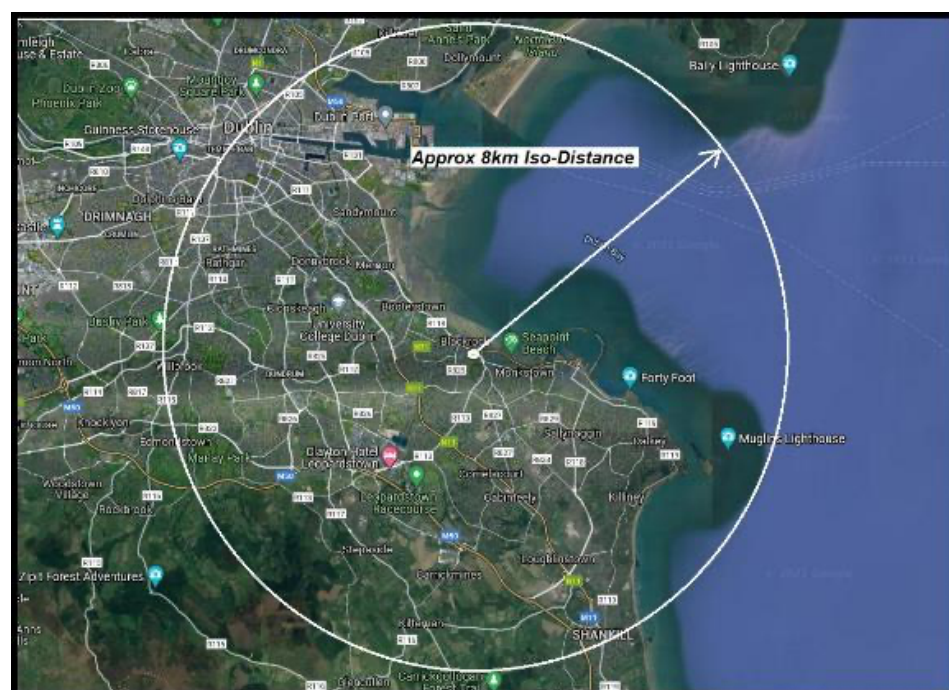


Figure 14.5 – Approx 2km Iso-Distance (Google)

The proposed site clearly can support sustainable living in terms of cycle and walking accessibility to schools, employment, and services as set out above. The 2km radius illustrates the accessibility to these local services, schools, employment destinations, public transport hubs. The 8km accepted commuting cycle distance also takes in a wide 'swathe' of Dublin City.

Bicycle sharing facilities are becoming ever more popular with the Dublin Bikes and BleeperBike initiatives spreading ever further throughout the City and into Suburbs. These facilities offer a bicycle sharing alternative mode of transport and are easily accessible from the site. The permeability locally for walking by residents is addressed above – and of course, being within Blackrock, and within only 8km of the City Centre (as a comparative example it is an 8km walk distance from Grafton Street), this means that a very significant number of Schools, Services, Employment Destinations and Offices are within an easy and acceptable walk-commute of the site.

The site is also within the heart of the Blackrock and is therefore within the catchment for local Primary and Secondary Schools. In these terms we believe that walking and cycling will represent the most popular modes of home-work-home and home-school-home travel for residents of the Apartments.

DART / Rail

The Dublin Area Rapid Transit system, or DART, is an electrified commuter rail railway network serving the coastline & city centre of Dublin. The service makes up the core of Dublin's suburban railway network, stretching from Greystones, County Wicklow, in the south to Howth and Malahide in north County Dublin. The site is within easy walking commuting distance of both Seapoint & Blackrock DART & Train Station, (Seapoint being within 550m of the site). This represents an easy 6–7-minute walk time for commuting workers who chose to use the DART and / or the train, using existing services making this a very accessible development by rail. The DART Service at Seapoint or Blackrock provides a link to the entire GDA Rail/Transportation Hub Network as illustrated in the mapping included below as **Figure 14.6**

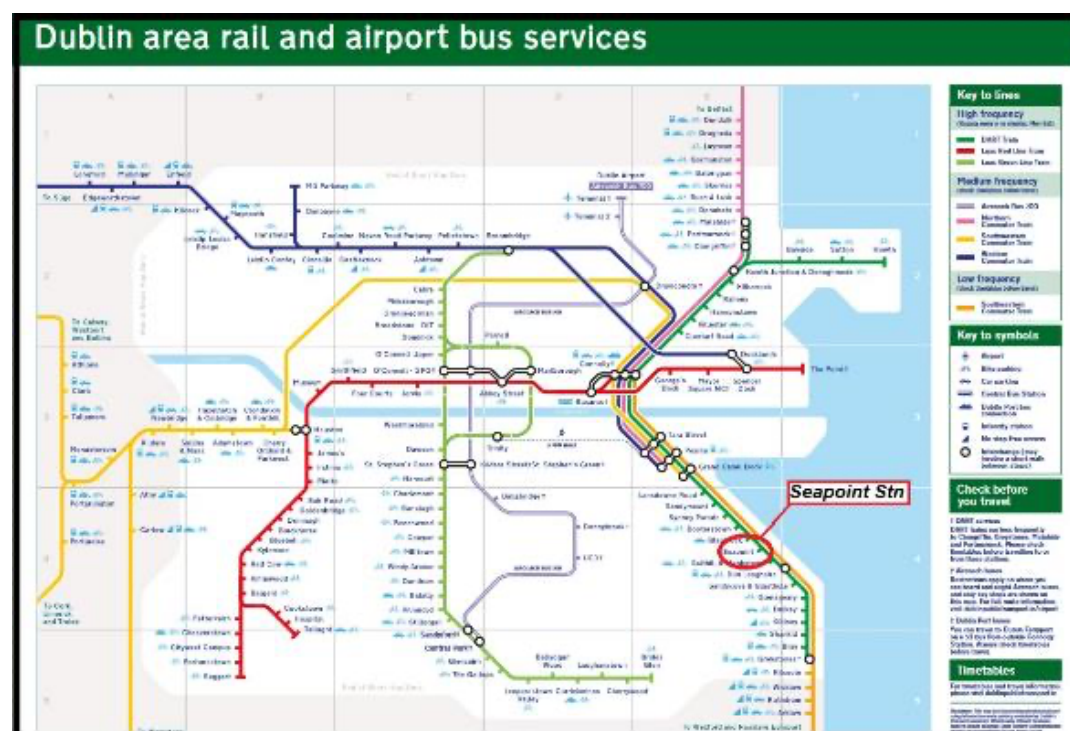


Figure 14.6 – GDA Network Rail / Transport Hub Plan

The 550m walking route to Seapoint DART is illustrated below as **Figure 6.7**. The DART service runs on an approximate frequency of 10-minute intervals at peak times, and an extract from the published timetable confirming same is included below as **Figure 6.8**



Figure 14.7 – Walk Distance / Route Seapoint DART Stn (Google)

MONDAY TO FRIDAY										
Nowry	Dep	..	..	..	..	..	..	..	..	..
DUNDALK Clarke	Dep	..	..	06:30	..	..	..	07:10	..	..
DROGHEDA MacBride	Dep	..	..	07:21	..	..	..	07:36	..	..
Laytown	Dep	..	..	07:29	..	..	..	07:43	..	..
Gormanston	Dep	..	..	..	..	..	..	07:49	..	..
BALBRIGGAN	Dep	..	..	07:37	..	..	..	07:54	..	..
Skerries	Dep	..	..	07:44	..	..	..	08:01	..	..
Rush & Lusk	Dep	..	..	07:51	..	..	..	08:09	..	..
Donabate	Dep	..	..	07:56	..	..	..	08:14	..	..
MALAHIDE	Dep	07:52	..	08:03	..	08:10	..	08:19	..	08:30
Portmarnock	Dep	07:56	..	..	..	08:14	..	..	..	08:34
Clongriffin	Dep	07:58	..	..	..	08:16	..	..	..	08:36
HOWTH	Dep	..	..	..	08:00	..	..	..	08:20	..
Sutton	Dep	..	..	..	08:04	..	..	..	08:24	..
Bayside	Dep	..	..	..	08:06	..	..	..	08:26	..
Howth Jctn. & Donaghmede	Dep	08:01	..	..	08:09	08:21	..	08:29	..	08:39
Kilbarrack	Dep	08:03	..	..	08:11	08:23	..	08:31	..	08:41
Raheny	Dep	08:05	..	..	08:13	08:25	..	08:33	..	08:43
Harmonstown	Dep	08:07	..	..	08:15	08:27	..	08:35	..	08:45
Killester	Dep	08:09	..	..	08:17	08:29	..	08:37	..	08:47
Clontarf Road	Dep	08:12	..	..	08:20	08:32	..	08:40	..	08:50
DUBLIN Connolly	Arr	08:16	08:18	08:19	08:25	08:36	08:39	08:42	08:46	08:52
DUBLIN Connolly	Dep	08:17	08:21	..	08:26	08:37	08:41	08:44	08:48	08:53
Tara Street	Dep	08:20	08:25	..	08:30	08:40	08:45	08:48	08:52	08:58
DUBLIN Pearse	Arr	08:21	08:27	..	08:31	08:41	08:46	08:51	08:54	09:00
Grand Canal Dock	Arr	08:24	..	..	08:34	08:43	..	08:54	08:58	09:02
Lansdowne Road	Dep	08:28	..	..	08:38	08:47	..	08:58	09:02	09:07
Sandymount	Dep	08:30	..	..	08:40	08:49	..	..	09:05	09:09
Sydney Parade	Dep	08:32	..	..	08:42	08:52	..	09:02	09:07	09:12
Boaterstown	Dep	08:35	..	..	08:45	08:54	..	..	09:10	09:14
Blackrock	Dep	08:37	..	..	08:48	08:57	..	09:06	09:12	09:17
Seapoint	Dep	08:39	..	..	08:49	08:59	..	..	09:14	09:19
Salthill & Monkstown	Dep	08:41	..	..	08:51	09:01	..	..	09:16	09:21
DUN LAOGHAIRE Malin	Arr	08:43	..	..	08:53	09:02	..	09:11	09:18	09:23
Sandycove & Glasthule	Dep	08:47	..	..	08:57	09:07	..	..	09:22	09:27
Glenageary	Dep	08:49	..	..	09:00	09:09	..	..	09:25	09:29
Dalkey	Dep	08:52	..	..	09:02	09:12	..	..	09:27	09:32
Killiney	Dep	08:56	..	..	09:07	09:16	..	..	09:32	09:36
Shankill	Dep	08:59	..	..	09:10	09:19	..	..	09:35	09:39
BRAY Daly	Arr	09:05	..	..	09:16	09:25	..	09:35	09:41	09:45
BRAY Daly	Dep	09:06	..	..	..	..	..	..	..	09:46
GREY STONES	Arr	09:16	..	..	..	..	..	..	..	09:56
Kilcopple	Dep	..	..	..	..	..	..	..	..	..
Wicklow	Dep	..	..	..	..	..	..	..	..	..
Rathdrum	Dep	..	..	..	..	..	..	..	..	..
Arklow	Dep	..	..	..	..	..	..	..	..	..
GOREY	Arr	..	..	..	..	..	..	..	..	..

Figure 14.8 – DART Timetable (Irish Rail)

The DART+ & DART+ Coastal South projects are crucial milestones in further expanding and transforming the rail network in the Greater Dublin Area. The Government has also approved the business case for the wider DART+ Programme, which will:

- Double passenger capacity per hour to 52,000 and treble the length of the DART network to 150km;
- Facilitate sustainable mobility and transport-orientated development in the capital and surrounding counties; and
- Provide clean and green electrified rail services in line with the targets set in the Climate Action Plan.

Bus Services

The site is ideally placed to benefit from and contribute to the existing and planned bus services passing immediately adjacent the site, with current provision illustrated in **Figure 14.9** below.

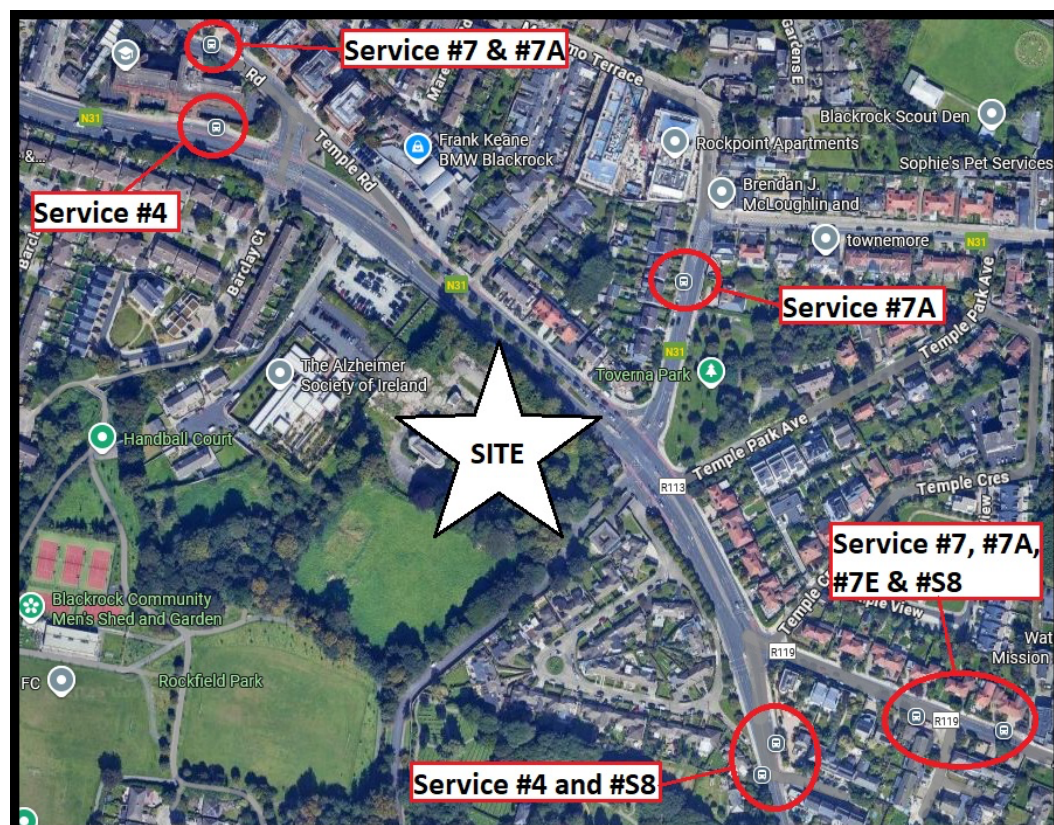


Figure 14.9 – Bus Services, Correct at Time of Writing (Annotated Google Map)

The details of each of the current services, including the route origin/destination, frequency are available on NTA Websites.

In terms of **Future Planned Services**, the NTA have recently published details of the overall bus network for the GDA, the 'New Dublin Area Network' - showing Spine Routes, Feeder and Orbital Routes. An extract from the NTA Plans showing the site location is included below as **Figure 14.10**.

It should be noted that the core corridor past the site has received planning permission from An Bórd Pleanála (now ACP).



Figure 14.10 – Bus Connects Network Plan and Site (NTA)

This network shows that the site’s accessibility to bus services will be further enhanced, with a high frequency and permeable service to be provided. The site is located served by **Main Spine Route B3 & B4 (Red)** and also several other **Local Routes S8 (Blue)** and **98 (Purple)**. The expected frequency of the Spine Routes are as illustrated in the extract included as **Figure 14.11** below. The site is therefore also ideally placed in terms of future high frequency bus availability, based on the NTAs approved Plans.

New Dublin Area Bus Network / Network Implementation														
Spine frequency tables														
The number in each box is the expected time in minutes between buses. It is subject to adjustment in line with future passenger numbers.														
Spines & Branches														
Route no.		To and From		Weekday										
				5	6	7	8	9	10	11	12	1	2	3
A-SPINE		Swords Rd - City Centre - Terenure		8	4	3	3	3	3	3	3	3	3	3
A1		Beaumont - City Centre - Knocklyon		30	15	12	12	12	12	12	12	12	12	12
A2		Airport - City Centre - Ballinteer - Dundrum		30	15	12	12	12	12	12	12	12	12	12
A3		DCU - City Centre - Tallaght		30	15	12	12	12	12	12	12	12	12	12
A4		Swords - City Centre - Dundrum		30	15	12	12	12	12	12	12	12	12	12
B-SPINE		Blanchardstown SC - City Centre - UCD		8	4	4	4	4	4	4	4	4	4	4
B1		Ongar - City Centre - UCD		30	15	15	15	15	15	15	15	15	15	15
B2		Ongar North - Clonsilla - City Centre - UCD		30	15	15	15	15	15	15	15	15	15	15
B3		Tyrrelstown - City Centre - Dún Laoghaire		30	15	15	15	15	15	15	15	15	15	15
B4		Blanchardstown SC - City Centre - Sallynoggin		30	15	15	15	15	15	15	15	15	15	15
C-SPINE		Lucan - City Centre - Ringsend		15	8	4	5	8	8	8	8	8	5	4
C1		Adamstown - City Centre - Sandymount		30	30	8	8	30	30	30	30	30	8	8
C2		Adamstown - City Centre - Sandymount		30	30	8	15	30	30	30	30	30	15	8
C3		Maynooth - City Centre - Ringsend		30	30	30	30	30	30	30	30	30	30	30
C4		Celbridge - City Centre - Ringsend		30	30	30	30	30	30	30	30	30	30	30

Figure 14.11 – NTA Spine Route Frequency Timetable Extract (NTA)

The site is therefore ideally placed in terms of current and future high frequency bus availability.

Of course, with the high frequency DART and bus services to/from the city, the site is therefore also within easy reach of the mainline Nationwide Bus & Train Services - trains via Connolly & Heuston Stations and Buses via Busarus Terminus.

With ease of accessibility by Bus and Rail, and with the clear accessibility for walking & cycling, it is therefore considered that the proposed development is very highly sustainable in terms of public & alternative transport accessibility. The proximity of the development to public and alternative transport services means that residents will have viable alternatives to the private car for accessing the site and will not be reliant whatsoever upon the car as a primary mode of travel. In these terms, residents would clearly not have a need to own a car, given the highly accessible nature of the site, thereby supporting sustainable living

14.4 Characteristics of the Proposed Development

Chapter 2 of this EIAR includes a detailed description of the Proposed Development. The proposed site layout is also detailed in Appendix 1.1.

14.5 Potential Impact of the Proposed Development

Construction Stage

The effect of construction operations and traffic are also addressed in the *Construction & Environmental Management Plan* prepared by JJ Campbell & Associates. This JJC Report includes a description of the proposed works and how these works will be managed for the duration of the demolition and construction works on site. It is normal for these details to be agreed between the Planning Authority and the appointed Contractor for the works, following a planning decision. These details are normally best dealt with when details of construction programme and phasing have been confirmed.

When the demolition contractor is appointed, they will prepare a detailed method statement having regard to their own operating procedures, the agreed construction programme, site conditions, and any relevant planning conditions. Any works on the public road (e.g. for services connections) will require an application for a Road Opening Licence and will be submitted by the contractor to the Local Authority, and will include a full detailed Construction Traffic Management Plan prepared in accordance with Chapter 8 of the Traffic Signs Manual for pre-approval by the Local Authority. The Construction & Environmental Management Plan should be considered Preliminary in these terms, and the issues covered may be amended or added to by the successful appointed contractor.

It is intended that the first operations on site will be relocating the Gate lodge, immediately followed by the construction of the proposed new/realigned traffic signal-controlled junction, with the dedicated new vehicular access arrangement serving the site thereby delivered as part of the first phases. The Traffic Signals will be fully commissioned and operational, thereby facilitating safe and appropriate access for construction related activities and for construction staff.

Perimeter hoarding will be provided around the entire enclosed site to provide a barrier against unauthorised access from public areas. The Controlled access point to the site, in the form of gates or doors, will be monitored and secured, with a full time Flagman or Banksman during working hours to ensure that any conflicts between construction related traffic and public road users are minimised. These gates will be locked and secured to prevent unauthorised access during periods when these are not monitored (e.g., outside working hours). The hoarding will be maintained and painted, possibly with graphics of the project information, in accordance with current best practice.

Whilst the hours of operation are ordinarily a matter of Condition by the Planning Authority, it is proposed that the site and building works required to implement the development shall only be carried out between the hours of:

- Mondays to Fridays - 7.00am to 6.00pm
- Saturday - 8.00 a.m. to 2.00pm
- Sundays and Public Holidays - No activity on site.

Deviation from these times will only be allowed in exceptional circumstances where prior written approval has been received from Dun Laoghaire Rathdown County Council following an application for same. Such an application is considered unlikely and would only be made in exceptional or emergency circumstances, and approval may be given subject to conditions pertaining to the particular circumstances.

It is proposed that the new access arrangement will be used for all subsequent stages once the site has been secured. For the duration of construction, all traffic will enter and leave via the new access point (via the new traffic signals). The temporary parking of delivery vehicles or construction staff vehicles will not be permitted on public roads outside the site, and a dedicated storage and staff parking area will be constructed as part of the early works to accommodate construction vehicles and worker parking as necessary. Unfettered and unobstructed access will be maintained at all times to neighbouring properties adjacent the site and no parking on public roads will be allowed.

The proposed heavy goods vehicle routes are as follows; From the M50, HGVs will exit the motorway at Junction #13 which is c.6.9km from the development. HGVs will travel northeast for c.2.1km to the N11, and from there they will travel northwest for c.2.5km to the N31 junction at Mount Merrion Ave. HGVs then travel a further 2.3km northeast along the N31 to the entrance to the site. The exit route to the M50 will be the same.

In terms of Construction Staff, and the requirement for parking, in order to provide some measure of reassurance, it is estimated that the max number of staff on site at any one time, including main contractors and fit-out contractors is likely to be approximately 50. At worst, it is expected that this would require 25-30 car parking spaces on site, conscious of the location of the development site adjacent a Core Bus Corridor and being a short walk from 2no. separate DART stations. It should be remembered that construction activities and working hours mean that construction staff arrive and depart outside the traditional weekday commuter peak hours of 8-9am and 5-6pm. In this regard, we consider that the impact of construction staff traffic is imperceptible.

The JJC Construction & Environmental Management Plan identifies that the maximum HGV movement during construction will be 4-5 in any one-hour period (Equivalent to 12 PCUs, or 24 PCUs 2-way). This, combined with the worst-case staff traffic volumes (assuming for robustness that all 50 operatives arrive as car drivers) means that the maximum possible hourly traffic generated by the site during the construction stage is 74 PCUs or car equivalents. **Table 3.1** below confirms that the fully operational and occupied proposed apartment scheme on the site will generate 126 PCUs in the AM Peak Hour and 119 PCUs in the PM Peak Hour.

We have demonstrated below and in the appended TA that the completed, occupied development traffic can be accommodated with an imperceptible impact. Given that the construction traffic volume is significantly lower, and with the fully completed traffic signals in place, the impact of construction traffic will therefore also be imperceptible

Operational Stage

Both the Institution of Highways and Transportation (IHT) Guidelines for Traffic Impact Assessment and the TII Traffic and Transport Assessment Guidelines sets out a mechanism for assessment of developments of this nature and determining whether further assessment is indeed required.

This TII Traffic and Transport Assessment Guidelines requires a **Threshold Assessment** of the impact on the local roads to be provided in order to determine whether further, more detailed modelling and assessment of critical junctions is necessary. This is important in this case as the development is located in proximity to an important arterial route for the city.

The professional guidance referenced above sets out specific increases in traffic volume associated with new development, which, if breached, requires further detailed analysis to be undertaken. The recommendation is that, if the expected increase is 5% for networks that are considered heavily trafficked or congested, then further analysis is warranted. In this case, given the proximity to the N31 the 5% threshold has been applied, mirroring the assessment strategy that was deployed for the permitted scheme.

In this regard, it is demonstrated herein that the proposed addition of the construction and occupation of the residential development, with very low volumes of traffic added to a busy network, will not result in any significant level of new trips on the local roads, with all anticipated traffic increases at and beyond the site access expected to be well below the Industry-Standard levels above which further assessment is required.

Our assessment, with the traffic flow diagrams included within Appendix D of the TA Report, (Refer Page 5 of same) confirms that the absolute worst case traffic increase at the adjacent network and at the traffic signal controlled access junction (with all traffic considered as "New" and ignoring and linked/shared trips for robustness) is as summarised below as **Table 14.1**

Assessed Road or Junction	Traffic Increase %		COMMENT
	AM Pk Hr	PM Pk Hr	
N31/Monkstown Road Junction	1.8%	1.7%	<5% No Further Assessment Required
N31/Seapoint Rd/Site Access	5.4%	4.7%	Junction Capacity Assessment Included
N31/Barclay Ct/Temple Rd Junction	3.1%	2.7%	<5% No Further Assessment Required
N31/Sweetmans Ave Junction	2.7%	2.5%	<5% No Further Assessment Required
N31/Carysfort Ave Junction	2.7%	2.5%	<5% No Further Assessment Required
N31/Georges Ave Junction	2.7%	2.6%	<5% No Further Assessment Required
N31/Frascati SC/Rockhill Junction	2.5%	2.2%	<5% No Further Assessment Required
N31/Mt Merrion Ave Junction	2.2%	2.1%	<5% No Further Assessment Required

Table 14.1 - Threshold Assessment, Worst-Case Impact Weekday AM & PM Peak Hr

The Threshold assessment clearly confirms that, beyond the site access (where the impact is c 5%), is less than 3% in all cases, the worst-case traffic increases are way below the IHT and TII Recommended level of 5% above which further assessment is warranted. To set these increased levels of traffic in context, the day-to-day variation in traffic volume (due to day of week or weather conditions) is accepted as 10%, so, in this context alone, increases of in all cases less than 3% in traffic on the local roads will go entirely unnoticed as the increases are below the day-to-day variation.

It is clear that the introduction of the proposed sustainable residential development of 414 apartments will have an imperceptible impact upon traffic conditions locally.

We have undertaken detailed assessment of the capacity of the previously approved access junction using industry-standard software, with the now-single lane exit as requested by DLRCC. The capacity of the junction has been assessed using the LiNSiG programme (Linked Signal Design). LiNSiG is TII approved software that enables the user to predict the capacity, queues and delays at traditional traffic signal-controlled junctions. The outputs from the software present Degrees of Saturation, Practical Reserve Capacity and Queues/Delays as indicators of the operational efficiency of the specific junction type.

The detailed output of the models are included herein as Appendix E of the TA Report, and is summarised below as **Table 14.2**

Modelled Scenario	Network Saturation %	PRC %	Total Delay PCUhr
2028 Opening Year AM Peak Hr 8-9	99.3	-10.4	55.6
2028 Opening Year PM Peak Hr 5-6	101	-12.2	58.1
2043 Design Year AM Peak Hr 8-9	112	-25	107
2043 Design Year PM Peak Hr 5-6	109	-20.8	113

Table 14.2 - N31/Access/Seapoint Ave - Summary LINSIG Results

It should also be noted that the improved junction represents a very significant improvement in local traffic safety conditions and is expected to go some way to addressing and rectifying the evident established local accident cluster at the junction, based on historic data.

The impact on Bus and DART services is addressed within the Public Transport Capacity Assessment Study included as Appendix J of the enclosed TA Report.

14.6 Potential Cumulative Impacts

For impacts during the Construction and Operation Phases refer to 14.5 above.

14.7 Do Nothing Scenario

In the absence of the Proposed Development, the existing site conditions and associated traffic patterns would remain unchanged. No additional vehicular trips would be generated, and the current baseline traffic volumes, junction performance, and network capacity would be maintained. As such, there would be no new pressures on the local road network, and no requirement for mitigation or intervention in terms of traffic and transport.

14.8 Mitigation Measures

Construction Stage

Mitigation during construction will include the implementation of a CTMP, which will outline strategies to manage and minimise traffic disruption. These measures will include restricted delivery hours and haulage hours to avoid peak traffic periods, clear signage to inform road users of temporary changes, and ongoing liaison with DLRCC to coordinate works and respond to any emerging issues. These actions listed will reduce the potential short-term effects on the local road network and ensure safe and efficient movement for all road users during the construction phase:

- Implementation of a Construction Traffic Management Plan (CTMP) as part of the Construction Environmental Management Plan.
- Restrict HGV and delivery movements to off-peak periods.
- Manage contractor parking and loading to avoid disruption.
- Temporary signage and traffic management to protect pedestrians and cyclists

Operational Stage

Operational phase mitigation measures include the provision of a reduced number of car parking spaces to discourage private car use, alongside the integration of high-quality cycle and pedestrian infrastructure to promote active travel. The Proposed Development also includes a Parking Management Plan and a Working Mobility Management Plan to support shared mobility options. The implementation of a comprehensive MMP will encourage modal shift, reduce reliance on private vehicles and support long-term behavioural change among residents and visitors. Specific Measures are:

- Lower Restricted car parking provision to discourage car dependency.
- Provision of 962 secure bicycle parking spaces (exceeding DLRCC standards).

- Delivery of high quality pedestrian and cycle connections, including an upgraded access that coordinates and includes the NTA Bus Connects Plans locally.
- EV spaces demarcated and provided (with flexibility also incorporated into the scheme allowing an EV demand-led approach for Residents).
- Ongoing Mobility Management Plan (MMP) to encourage sustainable travel behaviour

14.9 Residual Impacts

Construction Stage

Taking account of the embedded design features and the proposed mitigation measures, the residual traffic and transport impacts of the Proposed Development are negligible. Construction-related traffic will be temporary, limited in scale, and effectively managed through the CTMP, such that no significant residual congestion or safety issues are anticipated.

During the construction phase, traffic generation will be limited and temporary in nature, with peak activity associated with the movement of excavated materials and/or deliveries. The number of HGVs and staff vehicle trips will be modest and programmed to avoid the commuter peak periods. A Construction Traffic Management Plan (CTMP), integrated within the Construction Environmental Management Plan, will be implemented to manage vehicle routing, delivery scheduling and site access arrangements. With these measures in place, no significant adverse impacts on the local road network are predicted during construction.

Operational Stage

In the operational phase, the controlled car parking provision, extensive cycle parking, enhanced pedestrian and cycle connections, and implementation of the Parking Management Plan and Mobility Management Plan will ensure that junctions operate well within capacity and sustainable & active travel modes are prioritised. Some minor, localised effects may still arise intermittently from kerbside servicing activity or during peak construction deliveries; however, these will be of short duration, low magnitude, and not significant in EIA terms. Overall, no significant residual adverse impacts on traffic, transport, safety, or network capacity are predicted.

During the operational phase, the Proposed Development will generate a low volume of traffic. Comprehensive pedestrian and cycle infrastructure is integrated into the scheme, consistent with national and local policy objectives promoting modal shift towards sustainable transport. Junction capacity modelling confirms that all assessed junctions will continue to operate within capacity in both the opening year (2028) and the design year (2043), even under worst-case and cumulative development scenarios.

14.10 Monitoring

Construction Stage

Construction traffic will be monitored under the CTMP framework in consultation with DLRCC.

Operational Stage

No specific ongoing monitoring is proposed during the operational phase beyond review of Travel Plan / Mobility Management Plan effectiveness, and a similar review of the Parking Management Strategy.

14.11 Reinstatement

During the **construction phase**, the designated coordinator responsible for the implementation of the Construction Mobility Management Plan will conduct regular inspections of the public streets

impacted by the development activities to ensure that any disruptions to public mobility are minimized and managed effectively.

The coordinator will work closely with the construction team to address any issues that arise, ensuring that the public streets remain as accessible and safe as possible throughout the construction period. The coordinator will propose measures to mitigate any potential negative impacts on the local community and traffic flow.

Upon the completion of the construction phase, the appointed contractor will undertake the reinstatement of the affected public streets. This process will involve restoring the streets to their original condition or better, in compliance with the stringent requirements set forth by DLRCC. The contractor will also adhere to any specific conditions outlined in the planning permission if granted for the development.

The reinstatement process includes repairing any damage caused by the construction activities, ensuring that the streets are safe and functional for public use. This may involve resurfacing roads, repairing sidewalks, and reinstalling any street furniture or signage that was temporarily removed during the construction phase.

By adhering to these guidelines and maintaining open communication with DLRCC, the project team aims to ensure a smooth transition from the construction phase to the operational phase, minimizing any long-term disruptions to the local community and infrastructure.

During the **Operational Stage**, no reinstatement activities are planned beyond the routine maintenance of infrastructure. This includes the ongoing upkeep of roads, footpaths, buildings, and services to ensure they remain in good condition and fully functional.

14.12 Interactions

Traffic Survey data and Projections were supplied to design Team members to facilitate an assessment of traffic noise. Design Team liaised with DLRC and the NTA in terms of the Design of the Access Junction and the Layout. Report was updated to reflect comments at DLRCC Opinion Stage.

14.13 Difficulties Encountered

No significant difficulties were encountered. Traffic surveys were commissioned, and all traffic and junction modelling data were validated.

14.14 References

- TII Traffic & Transport Assessment Guidelines (March 2014),
- Design Manual for Urban Roads and Streets,
- Recent 2025 Traffic Survey Data commissioned,
- CSO Census Data 2022,