Travel Plan

Proposed Residential Development at Ballycullen, Dublin 16, Co. Dublin

April 2025

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Quality Assurance – Approval Status

This document has been prepared and checked in accordance with
Waterman Group's IMS (BS EN ISO 9001: 2015 and BS EN ISO 14001: 2015)

Issue	Date	Prepared by	Checked by	Approved by
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Comments

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1. Introduction

1.1 Context

This Travel Plan (also called Mobility Management Plan) has been prepared by Waterman Moylan on behalf of Lagan Homes Ballycullen Limited intend to make a planning application for planning permission for a Large Scale Residential Development (LRD) in the townland of Woodtown, Ballycullen, Dublin 16. The lands are located to the east of Abbots Grove Park, south-east of Abbots Grove Avenue, south of Stocking Avenue and Stocking Wood estate, and west of White Pines Park.

The proposed development will consist of 502 no. residential units (108no. 1-bed, 170no. 2-bed, 162 no. 3-bed; 62 no. 4-bed) comprising 197no. 2 storey houses (terraced/semi-detached/detached) (19no. 2-bed, 116no. 3-bed; 62no. 4-bed) and 28no. 3 and 4 storey simplex/duplex apartment blocks providing 305no. apartments (108no. 1-bed apartments, 151no. 2-bed apartments, 46no. 3-bed apartments). The proposed development also includes a crèche (c.475sq.m), public open space, car parking (surface/undercroft), bicycle parking, bicycle storage structures and lockers, bin stores, and 8no. ESB substations. Vehicular access to be provided from the existing spur road connection to Stocking Avenue to the west of the site, and via Stocking Wood Drive to the east of the site (with relocation of existing ESB substation and associated works to the existing hammerhead). Additional pedestrian only routes will be provided into Abbot's Grove Park and Stocking Wood Copse with future connections provided for into Stocking Wood Manor, White Pines Park and the future school site to the north of the application site. The proposed development includes all associated site development works (including site reprofiling, retaining structures and downing of ESB overhead lines), landscaping, boundary treatments and services provision.

The accommodation schedule is shown in **Table 1** below:

Description	1-bed	2-bed	3-bed	4-bed	Total	GFA (Sqm)
Houses		19	116	62	197	
Apartments	108	151	46		305	
Childcare Facility						474.8
Total	**108**	**170**	**162**	**62**	**502**	**474.8**

Table 1 | *Schedule of Accommodation*

The project also encompasses the construction of roads, footpaths, car parking spaces, bicycle parking areas, storage facilities, and utility infrastructure. Furthermore, it includes the implementation of landscaping, boundary treatments, and public lighting.

1.2 Programme

For the purposes of the assessment, it is assumed that the Subject Development will be built in two phases with completion in 2029. Therefore, 2030 was chosen as the opening year.

The assessment years may lag pending approval of the planning application and may differ from the programme.

1.3 Scope

The proposed Travel Plan will be a key operational feature at the proposed development on lands at Ballycullen, Dublin 16, Co. Dublin. The developer will implement a Travel Plan on an ongoing basis with the triple objectives of promoting sustainability, enhancing the use of public transport, and reducing dependency on the use of the private car.

The proposed Travel Plan, as outlined in this report, is designed to address the typical day-to-day operational conditions at the site. The objectives set forth in the plan will be accomplished in the context of an expanding public transportation infrastructure.

The plan will assess, examine, and manage the typical traffic that will be generated by the residential units during the operational phase of the development. It will also encourage the residents to shift to public transport by improving awareness of public transport options and providing information on bus routes and frequencies.

2. Site Description

2.1 Location of Development

The subject site is situated in Woodtown, in the South Dublin County Council Area, to the south-west of junction number 12 of the M50 motorway.

The site is currently a greenfield site, bounded to the east, north and west by existing residential areas and to the south by greenfield lands.

The subject development site is to be accessed by way of the established existing road infrastructure, with two road accesses off Stocking Avenue: one via an existing spur road from Stocking Avenue and the other via Stocking Wood Drive. These roads have footpaths on both sides.

The location of the subject development is shown in **Figure 1** below.

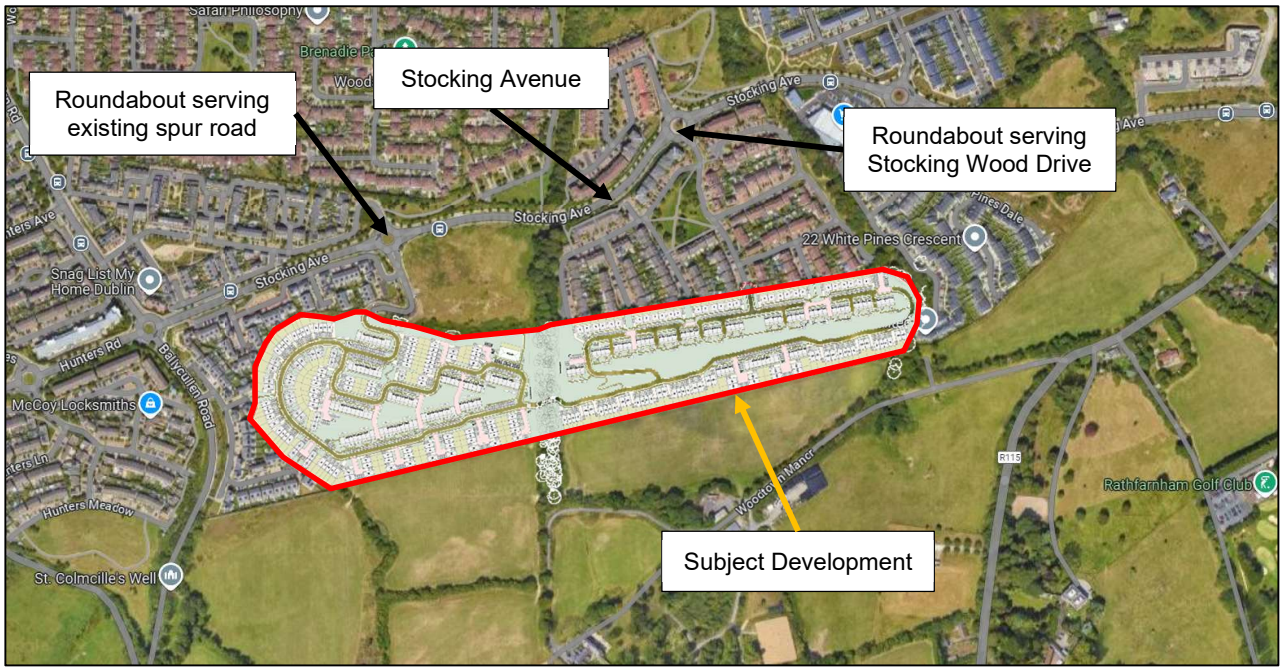

Figure 1 | *Site Location (Source: Google Maps)*

2.2 Site Characteristics

South Dublin County Development Plan 2022-2028 indicates that the subject site falls within the objective RES-N, as can be seen in **Figure 2** below.

The objective RES-N is defined as "*To provide for new residential communities in accordance with approved area plans*", which is destined to: "*Childcare Facilities, Community Centre, Cultural Use, Doctor/Dentist, Education, Enterprise Centre, Funeral Home, Garden Centre, Guest House, Health Centre, Housing for Older People, Industry-Light, Nursing Home, Offices less than 100sqm, Open Space, Primary Health Care Centre, Public House, Public Services, Recreational Facility, Recycling Facility, Residential*

Institution, Residential, Restaurant/Café, Retirement Home, Shop-Local, Shop-Neighbourhood, Sports Club/Facility, Stadium, Traveller Accommodation, Veterinary Surgery".

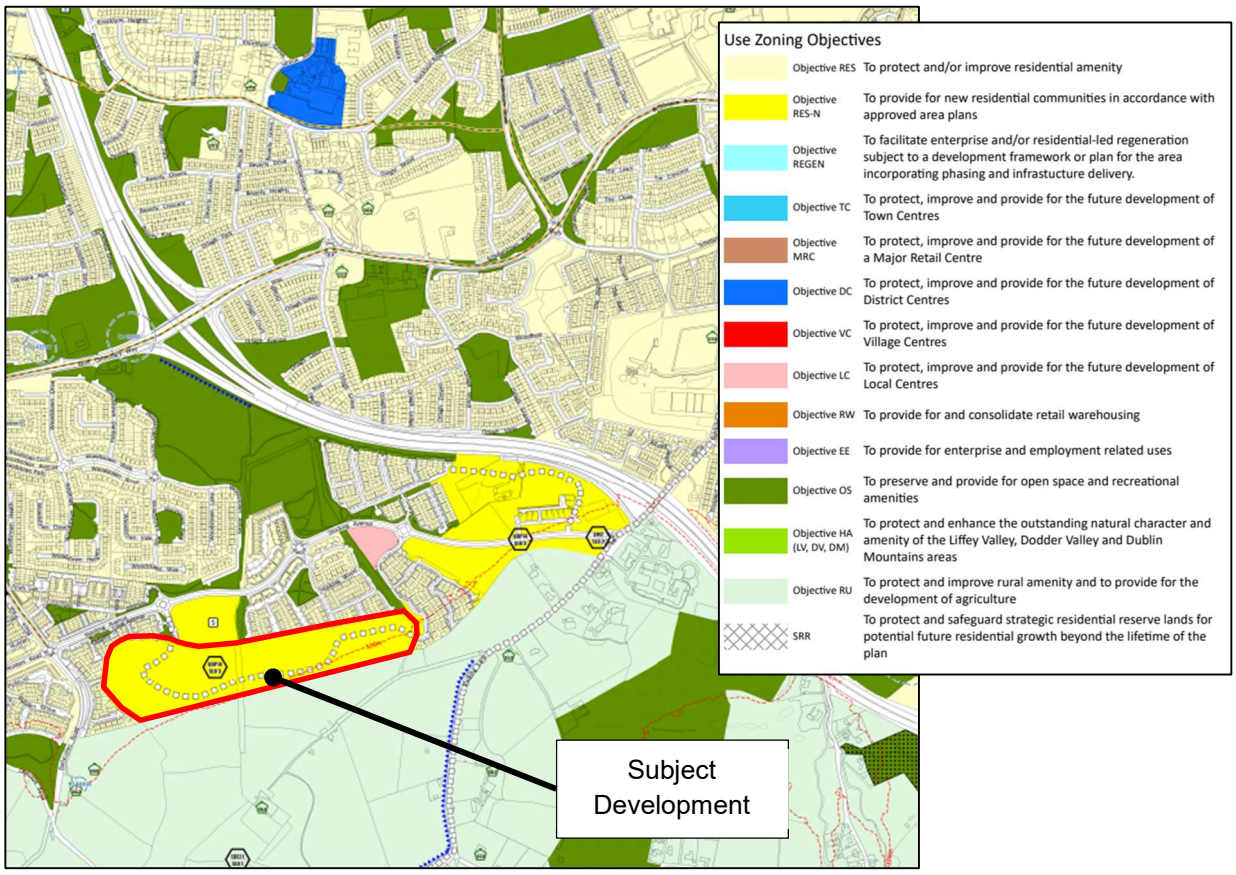

Figure 2 | *Land Use (Source: Map 10 - South Dublin County Development Plan 2022-2028)*

3. Site Accessibility

3.1 Pedestrian Infrastructure and Walking Accessibility

The key to pedestrian accessibility is the provision of short, convenient, and safe routes. Walking is the most common mode of transport. Almost all journeys involve some walking, so improvements to pedestrian facilities can have a wide impact.

The "*Guidelines for Providing for Journeys on Foot*" published by the *Institution of Highways & Transportation* in 2000, indicates that the acceptable walking distances vary between individuals and circumstances. These include an individual's fitness, physical ability, and personal motivation; the size of the city itself and the quality of the surrounding footpath network. Furthermore, the document proposes walking distances and times based on an average walking speed of 1.4 metres per second (approximately 400 metres in five minutes) **Table 2** below provides a summary of these suggestions.

	Town Centre	Commuting / School / Site Seeing	Elsewhere
Desirable	200m (2.5-mintues)	500m (6-minutes)	400m (5-minutes)
Acceptable	400m (5-minutes)	1,000m (12-minutes)	800m (12-minutes)
Preferred Maximum	800m (10-minutes)	2,000m (24-minutes)	1,200 (15-minutes)

Table 2 | *Ideal Walking Distances (Source: Guidelines for Providing for Journeys on Foot - Institute of Highways and Transportation)*

Figure 3 below details the 10-minute, 15-minute and 25-minute walking catchments areas to summarise the accessibility of the subject site on foot (Preferred Maximum) to "Town Centres, Commuting / School Sight-seeing, and Elsewhere" respectively, as per **Table 2** above. It illustrates the presence of grocery stores within the 10-minute walking isochrone, while the Bloomfield Hospital and other medical centres are within a 15-minute walk distance. Additionally, several primary schools are located within the 25-minute walk catchment area.

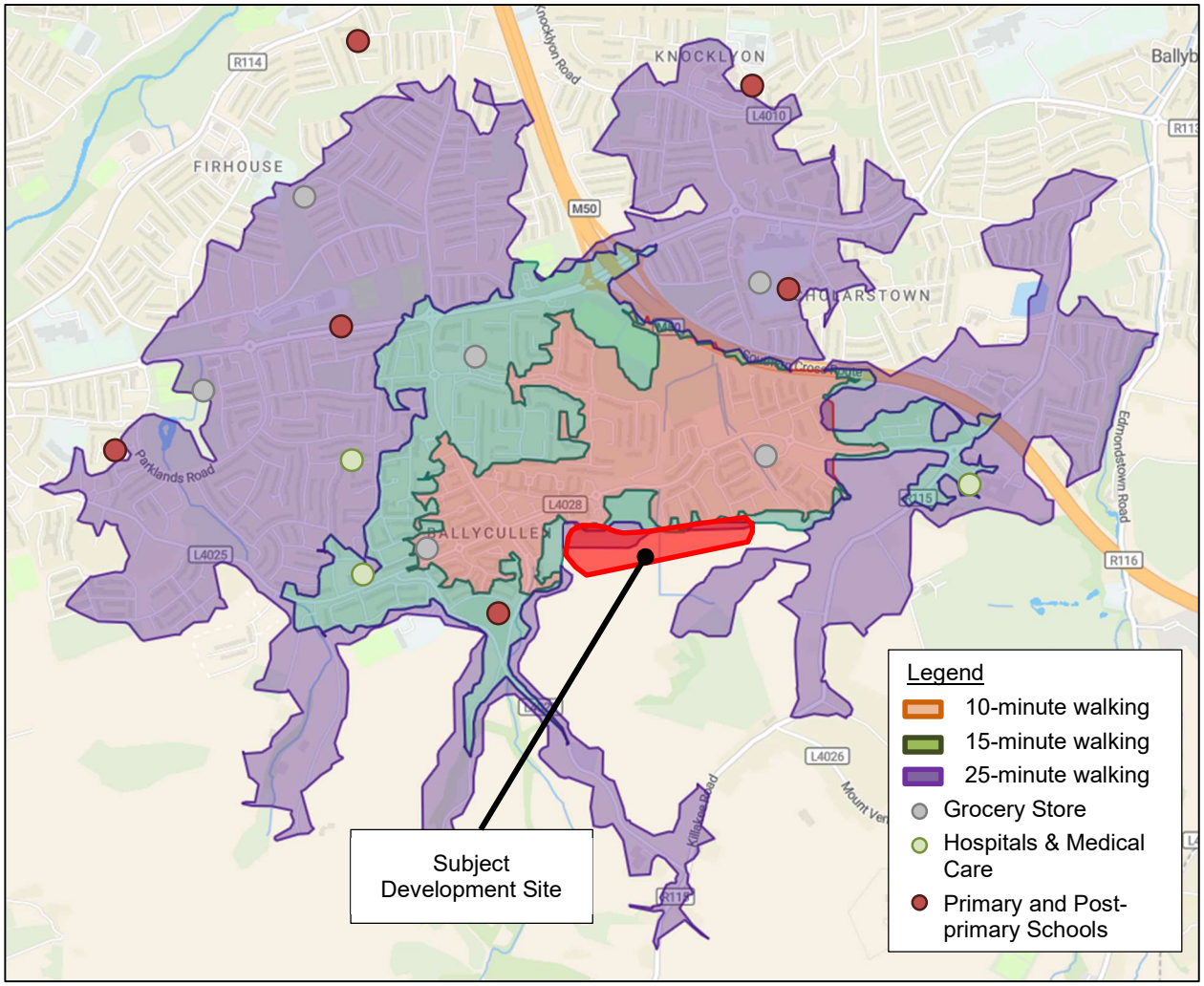

Figure 3 | *Walking time from the proposed development (Source: Smappen)*

3.2 Cycle Infrastructure and Cycling Accessibility

As illustrated in **Figure 4** below, the area surrounding the Subject Development is characterised by the presence of a well-interconnected cycling infrastructure.

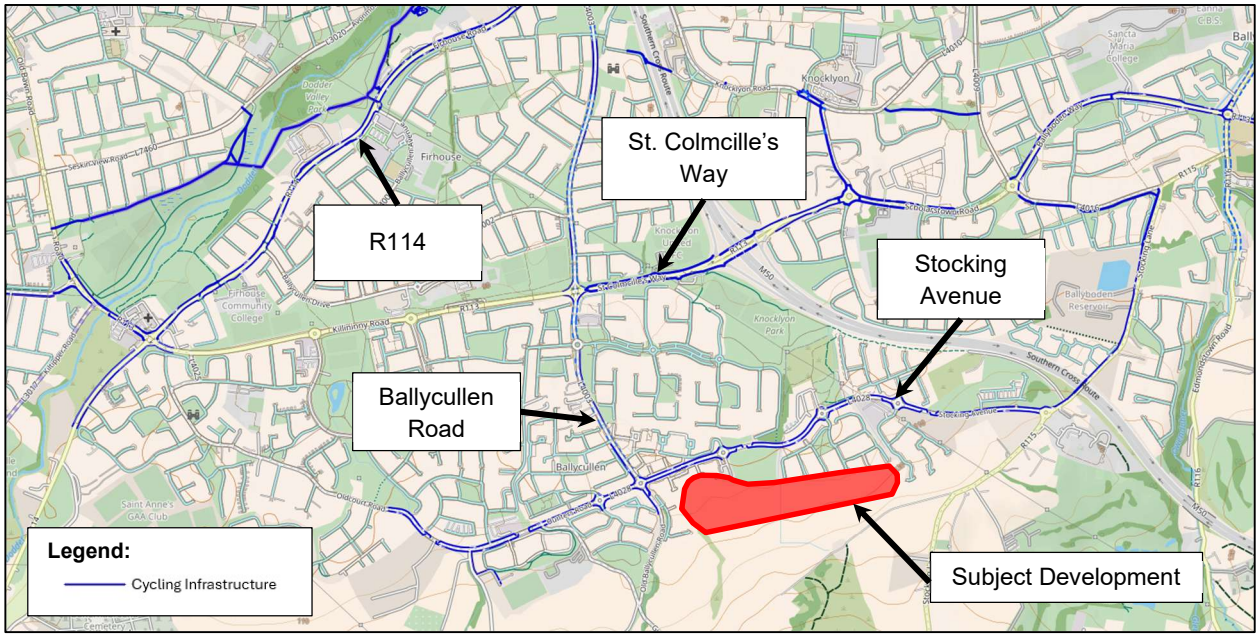

Figure 4 | *Existing Cycling infrastructure (Source: Open Street Map)*

The figure above shows the presence of cycling infrastructure on both sides of Stocking Avenue to the north of the subject site, which runs east-west. In addition, there is cycling infrastructure on Ballycullen Road to the west of the site, which runs northwards. Further north, cycling infrastructure exists on St. Colmcille's Way and on the R114.

Figure 5 summarises the site's bicycle accessibility by showing the 10, 15, and 25-minute cycling catchments areas based on an average cycling speed of 3.3m/sec (15 km/h). A 15-minute cycling time equates to approximately 3.0km.

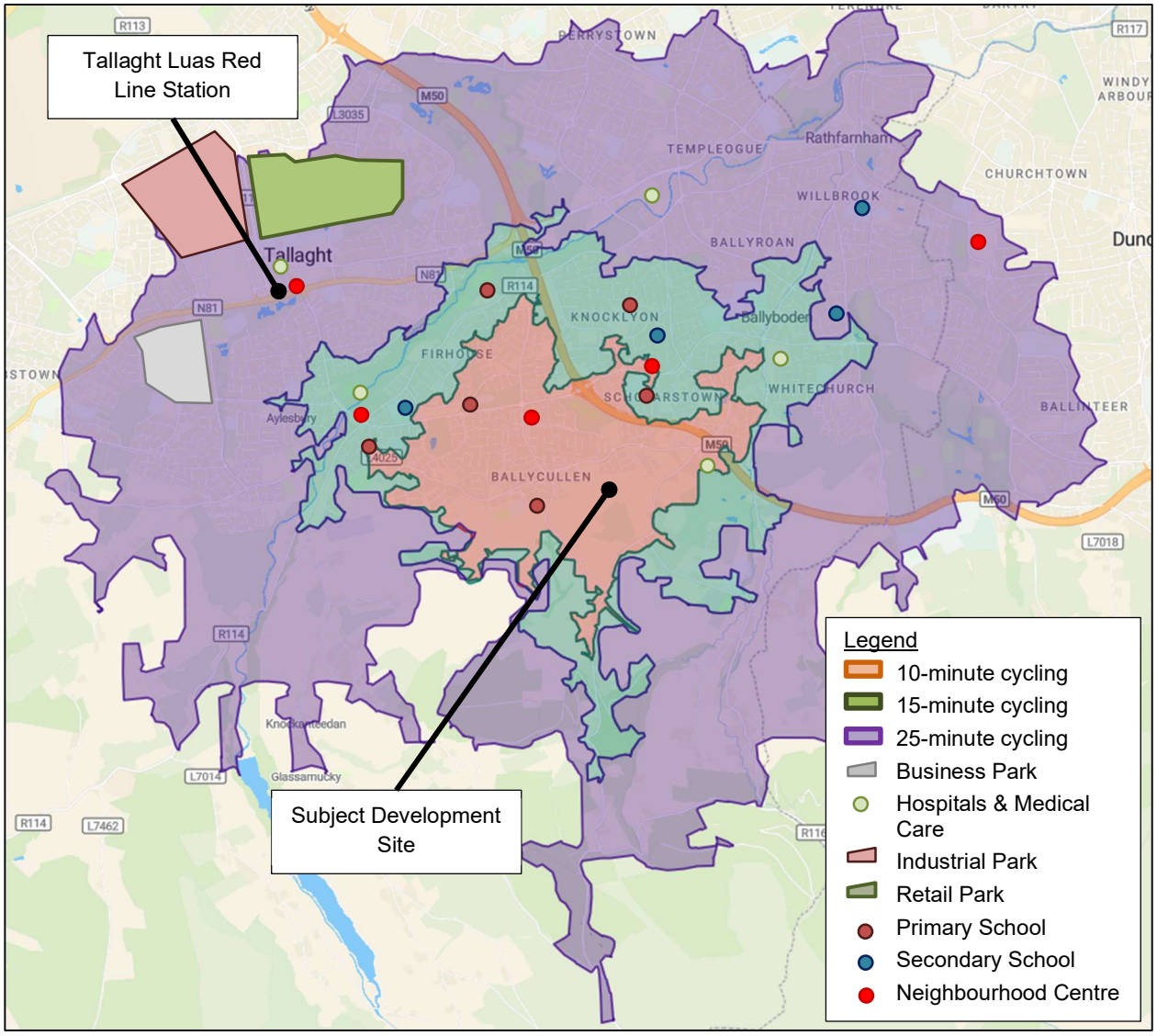

Figure 5 | *Site Accessibility – Isochrone map indicating cycling accessibility (Source: Smappen)*

The figure above illustrates that the subject site is situated in close proximity to significant business, industrial and retail parks that fall within the 25-minute cycling catchment area.

There are several primary schools, secondary schools and shopping centres within the 15-minute cycling isochrone. Finally, the resources accessible in the 10-minute cycling catchment area are also accessible in the 25-minute walking catchment area depicted in **Figure 3**, as they are comparable.

In addition, Tallaght Luas Red Line Station (see **Figure 5** above) is a 17-minute cycle from the subject site.

3.3 Existing Roads

The subject site is located to the south of the Stocking Avenue and east of Ballycullen Road, as seen in **Figure 6** below. Driving via Ballycullen Road northbound provides access to Kilinniny Road, which eastbound provides access to the M50 motorway via junction 12.

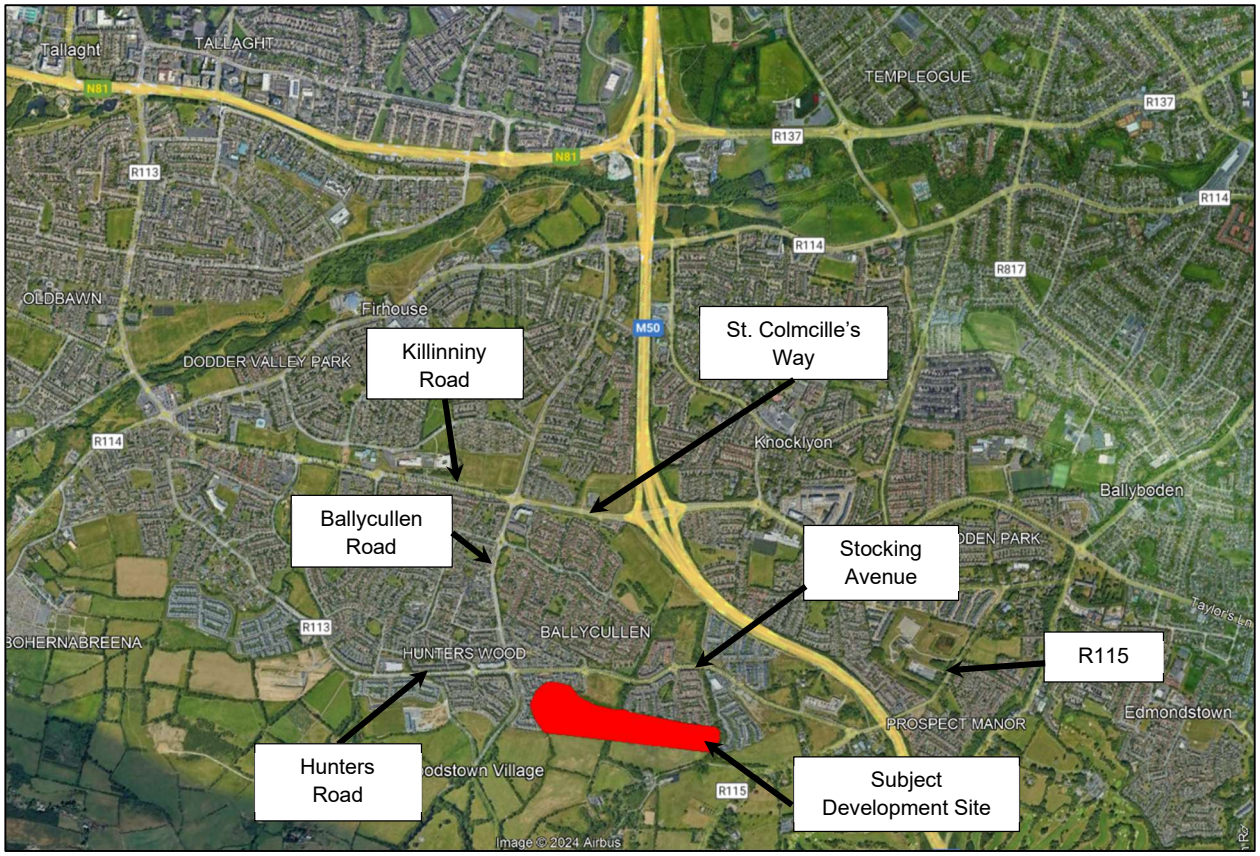

Figure 6 | *Site Location and Surrounding Roads.*

Stocking Avenue is a two-way single carriageway road which starts at a three-arm roundabout (junction 7 in **Figure 7** below), and runs in the east-west direction c. 1.5km to end at a four-arm roundabout (junction 3 in **Figure 7** below). Stocking Avenue has a speed limit of 50km/h, a width of 7m and includes footpaths and cycle lanes either side of the road. The avenue also has bus stops in both directions.

Hunters Road is the continuation of the Stocking Av. to the west of the junction 3. The road continues in a westerly direction for c. 300m, and it terminates at a priority T-Junction with the R113 to the west of the site. The road has a speed limit of 50km/h, a width of 7m and includes footpaths and cycle lanes on both sides of the road. However, there are no bus routes currently using the road.

Ballycullen Road is a two-way single carriageway road which starts at a priority T-Junction on the R113 to the south of the site and runs with north direction for c. 2.3km to end at a priority T-Junction with the R114 to the north of the site. Ballycullen Rd. has a speed limit of 50km/h, a width of 10m, and, from the junction with Stocking Av. (junction 3 in **Figure 7** below), has a footpath on both sides and a cycle lane on

the northbound side. In addition, the road has a priority bus lane on northbound and bus stops in both directions.

Killinniny Road is a two-way single carriageway road. It starts at signalised crossroad with Ballycullen Road (junction 1 in **Figure 7** below) and runs westerly direction for c. 1.3km to ends at a priority T-Junction with the R113. Ballycullen Rd. has a speed limit of 50km/h, a width of 10m, and includes footpaths either side of the road. In addition, the road has bus stops in both directions.

St. Colmcille's Way is a is a two-way single carriageway road which starts at the interchange with the M50 motorway at its Junction 12 and runs with west direction for c. 1.0km to ends at a signalised crossroad with Ballycullen Road (junction 1 in **Figure 7** below). St. Colmcille's Way has a speed limit of 50km/h, a width of 10m and 15m, and includes footpaths and cycle lanes either side of the road. In addition, the road has bus stops in both directions.

The **R113** road is a regional road which forms a semi-orbital route around the south of the city. It starts at the N31 at Temple Hill in Blackrock and ends at a junction with the N4 at Palmerstown.

The **R114** road is a regional road which runs from the city centre to Brittas in southwest County Dublin via Rathmines, Rathgar, Rathfarnham, Knocklyon, Firhouse and the mountainous area of Boharnabreena. The final stretch of the road runs just north of the border between County Dublin and County Wicklow, parallel to the Brittas River and a canal to the River Camac.

The **R115** road is a regional road in counties Dublin and Wicklow. It follows the Military Road. The R115 is 40.5 km long. The road runs between its junction with R114 at Butterfield Avenue Rathfarnham South Dublin and its junction with R755 at Laragh in the county of Wicklow via Grange Road, Willbrook Road, Ballyboden Road, Scholarstown Road, Stocking Lane and Military Road in South Dublin: Glencree, Liffey Head Bridge, Sally Gap and Drummin, County Wicklow.

The **M50 Motorway** is an important orbital motorway around Dublin which is subject to a speed limit of 100kph. It is a 40km, C-shaped ring around Dublin that connects all the National Primary Roads and carries more than 115,000 vehicles per day.

The **N81** road is a national secondary road in Ireland, from the M50 motorway to Tullow, County Carlow, north to south. The N81 continues past Tullow for another 8 km to terminate at the village of Closh, County Carlow, where it intersects the N80. The road is a dual carriageway between M50 motorway and west of Tallaght, known as the Tallaght Bypass or Blessington Road. It intersects with the M50 motorway at Junction 11.

The primary junctions in the local area surrounding the site are introduced in **Figure 7**. They include:

- **Junction 1:** is a signalised-controlled crossroad located at the intersection of Old Ballycullen Road, Killinniny Road and St. Colmcille's Way. Each arm has left turning slip lane.
- **Junction 2**: is a four-arm roundabout located at the intersection of Old Ballycullen Road, Daletree Drive and Woodstown Avenue.
- **Junction 3**: is a four-arm roundabout located at the intersection of Old Ballycullen Road, Hunters Road and Stocking Avenue.
- **Junction 4**: is a four-arm roundabout located at the intersection of Stocking Avenue, Dalriada Avenue and Abbot's Grove. Dalriada Avenue and Abbot's Grove are accesses to residential areas.

- **Junction 5**: is a four-arm roundabout located at the intersection of Stocking Avenue, Stocking Well and Stocking Wood Drive. Stocking Well and Stocking Wood Drive are accesses to residential areas.
- **Junction 6**: is a four-arm roundabout located at the intersection of Stocking Avenue, White Pines Way and White Pines Park. White Pines Way and White Pines Park are accesses to residential areas.
- **Junction 7**: is a three-arm roundabout located at the intersection of Stocking Avenue and R115 (Stocking Lane).

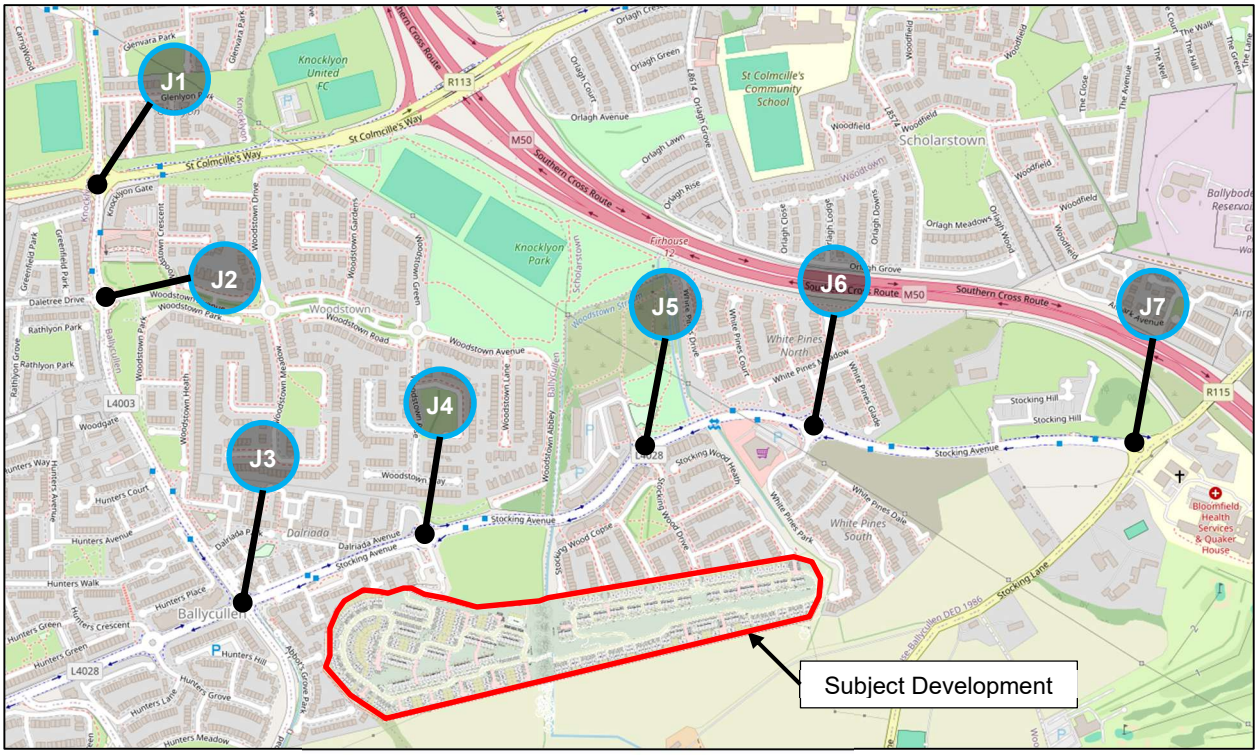

Figure 7 | *Primary Local Junctions (Source: Open Street Map)*

3.4 Existing Public Transport Network

The assessment of the public transport and the surrounding existing roads, junctions and pathways is outlined in this section.

3.4.1 Bus Network

The proposed development is well served in terms of public transport provision as can be seen in **Figure 8** below, which shows the bus stops in the surrounding area of the Subject Development.

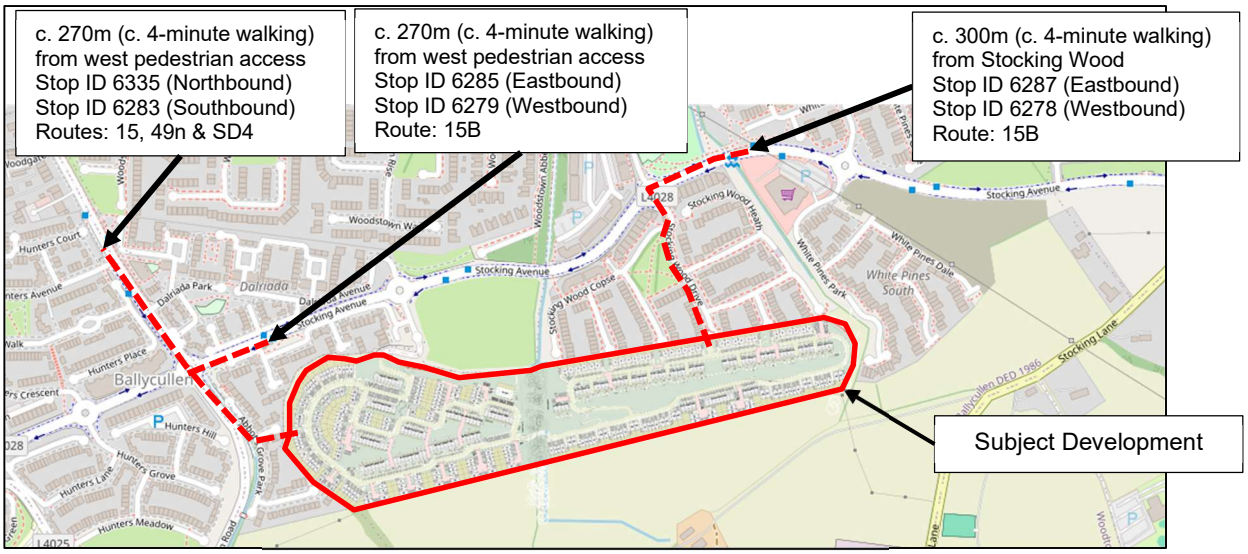

Figure 8 | *Location of the Closest Bus Stops (Source: Open Street Map)*

Route 15 and Route 49 are operated by Dublin Bus while Route SD4 is operated by Local Link Kildare South Dublin. It is important to note that routes 15 start and end at bus stops 6335 and 6283 respectively.

The details of the bus serving each bus stop are shown in **Table 3** below.

Route	Stop ID Route Name	Frequency
15	Ballycullen Rd. - Clongriffin	**Weekday:** Every 10 minutes between 6:00 and 7:00, and between 17:10 and 19:00 Every 5-12 minutes between 7:00 and 17:10 Every 15 minutes between 19:00 and 0:00 Every 30 minutes between 0:00 and 6:00 **Saturday:** Every 15 minutes between 6:00 and 0:00 Every 30 minutes between 0:00 and 6:00 **Sunday:** Every 20 minutes between 8:00 and 12:00 Every 15 minutes between 12:00 and 0:00 Every 30 minutes between 0:00 and 8:00
15B	Stocking Avenue to Merrion Square	**Weekday:** Every 15 minutes between 6:00 and 7:00, and between 8:00 and 19:00 Every 10 minutes between 7:00 and 8:00

		Every 20 minutes between 19:00 and 23:20 **Saturday:** Every 15 minutes between 6:30 and 19:00 Every 20 minutes between 19:00 and 23:30 **Sunday:** Every 30 minutes between 8:15 and 23:15
SD4	Tibradden Wood to Tallaght (Northbound) - **Weekday**: No Service - **Saturday**: 4 services: 8:38, 10:58, 14:18 & 16:53 - **Sunday**: No Service Tallaght to Tibradden Wood (Southbound) - **Weekday**: No Service - **Saturday**: 4 services: 8:11, 10:31, 13:51 & 16:26 - **Sunday**: No Service	
49n	D'Olier Street - Kilnamanagah - **Weekday**: No Service - **Friday - Saturday**: 3 services: 0:29, 2:29. & 4:29 - **Sunday**: No Service	

Table 3 | *Existing bus services (Source: Transport for Ireland)*

3.4.2 Car Sharing (Go Car)

The closest GoCar Base is located at the Lidl Ballycullen which is approximately 750m (or 10-minute walk) from the western pedestrian access of the subject site.

The location of the nearest GoCar Base to the subject site is shown in **Figure 9** below.

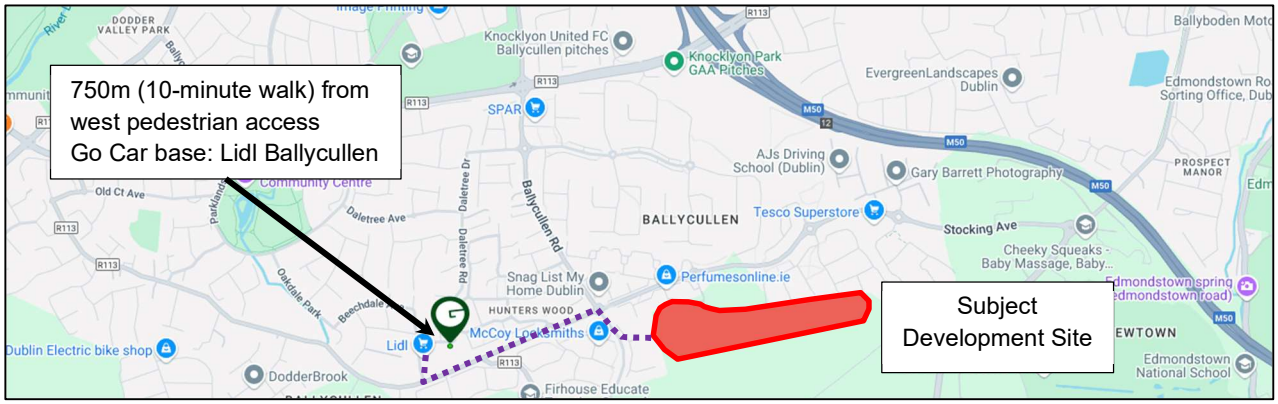

Figure 9 | *GoCar base locations (Source: GoCar website)*

4. Transportation Improvements

4.1 BusConnects

South Dublin County Development Plan 2022-2028 outlines the Council's policy in relation to the provision of a quality bus network for the administrative area. In particular, the *Policy SM1: Overarching – Transport and Movement* indicates that:

> *"**M3 Objective 11:** To facilitate the delivery of the BusConnects Core Bus Corridors and seek additional bus corridor and orbital routes to serve the County by securing and maintaining any required route reservations and to ensure the BusConnects Corridors do not adversely affect the village life and livelihoods of any of our County Villages."*

The BusConnects project, currently being promoted by the National Transport Authority (NTA), aims to deliver a significantly improved bus service in the Greater Dublin Area (GDA). Some of the route improvements identified in the BusConnects plan are already in place or underway. According to BusConnects the above route types can be defined as follows:

- **Spines routes:** are very frequent routes made up of individual bus services that are timetabled to work together over their common sections.
- **Radials routes:** are other services that operate into Dublin city centre. These services are not part of any Spine and operate to their own timetable.
- **Orbitals routes:** provide connections between suburbs, without having to travel into the city centre.
- **Local routes:** provide connections to Local centres and link to onward transport connections.
- **Peak routes** operate during peak travel periods, providing additional capacity along key bus corridors. Express routes are direct services from outer suburbs to the city centre during peak hours, serving limited stops to get passengers to their destination faster.

The routes proposed to serve the area surrounding the Subject Development are shown in **Table 4** below, which also gives the route name and weekday and weekend frequency, and the map showing the location of each bus route is shown in **Figure 10** below.

Route	Route Name	Frequency
A-Spine A1	Beaumont - City Centre - Knocklyon	**Weekday**: Every 12 minutes between 7:00 and 19:00 Every 15 minutes between 6:00 and 7:00 and between 19:00 and 23:00 Every 30 minutes between 23:00 and 6:00 **Saturday**: Every 15 minutes between 9:00 and 19:00 Every 20 minutes between 6:00 and 9:00 and between 19:00 and 23:00 Every 30 minutes between 23:00 and 6:00 **Sunday**: Every 20 minutes between 10:00 and 19:00 Every 30 minutes between 19:00 and 10:00
Orbital Route S8	Blanch SC - Dublin Airport - Clongriffin	**Weekday**: Every 30 minutes between 6:00 and 23:00 Every 60 minutes between 23:00 and 6:00 **Saturday**: Every 30 minutes between 9:00 and 23:00 Every 60 minutes between 23:00 and 9:00

		Sunday: Every 30 minutes between 10:00 and 22:00 Every 60 minutes between 22:00 and 10:00
85	Tallaght – Ballyboden – Harold's Cross – Parnell Square	**Weekday**: Every 15 minutes between 6:00 and 22:00 Every 10 minutes between 7:00 and 9:00 and between 15:00 and 17:00 Every 30 minutes between 23:00 and 6:00 **Saturday**: Every 15 minutes between 9:00 and 18:00 Every 20 minutes between 6:00 and 9:00 and between 19:00 and 23:00 Every 30 minutes between 23:00 and 6:00 **Sunday**: Every 20 minutes between 10:00 and 19:00 Every 30 minutes between 19:00 and 10:00

Table 4 | *BusConnects – Frequency service (Source: Bus Connects Timetable).*

The figure below shows the BusConnects route surrounding the subject development.

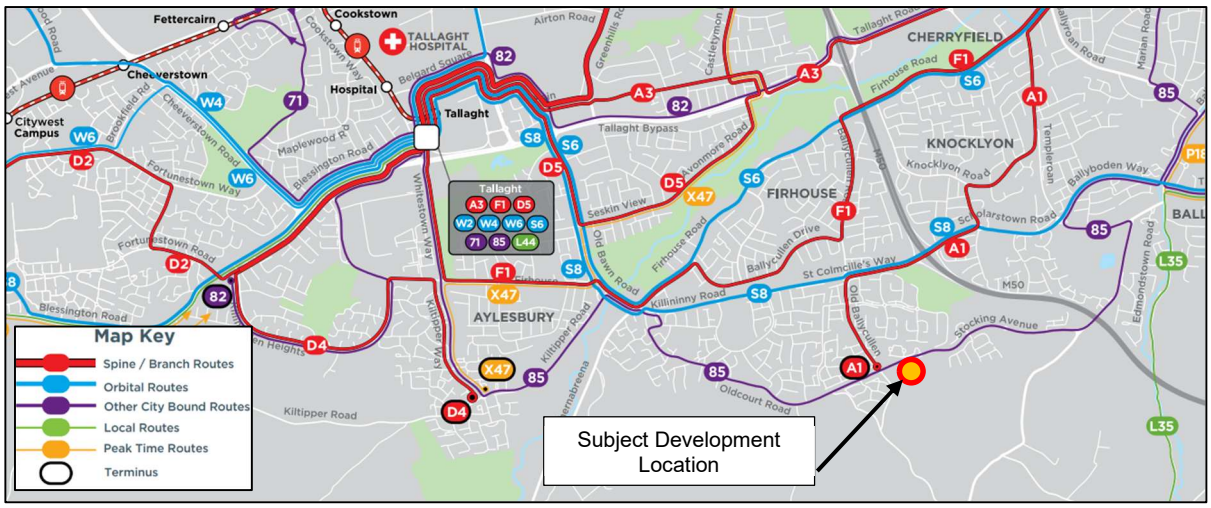

Figure 10 | *Bus Connects Routes (Source: Revised Network Big Picture Map 2020 – Tallaght Area – Ballymount Firhouse, Greenhills, Jobstown, Kiltipper, Tallaght – BusConnects website)*

4.2 Greater Dublin Area Cycle Network Plan

The NTA published a 2022 version of the updated GDA Cycle Network Plan which supersedes the 2013 version. An extract of the updated cycle network is reproduced in Figure below.

Greater Dublin Area Cycle Network Plan 2022 sets out the future local cycle network which includes Dublin south-west area.

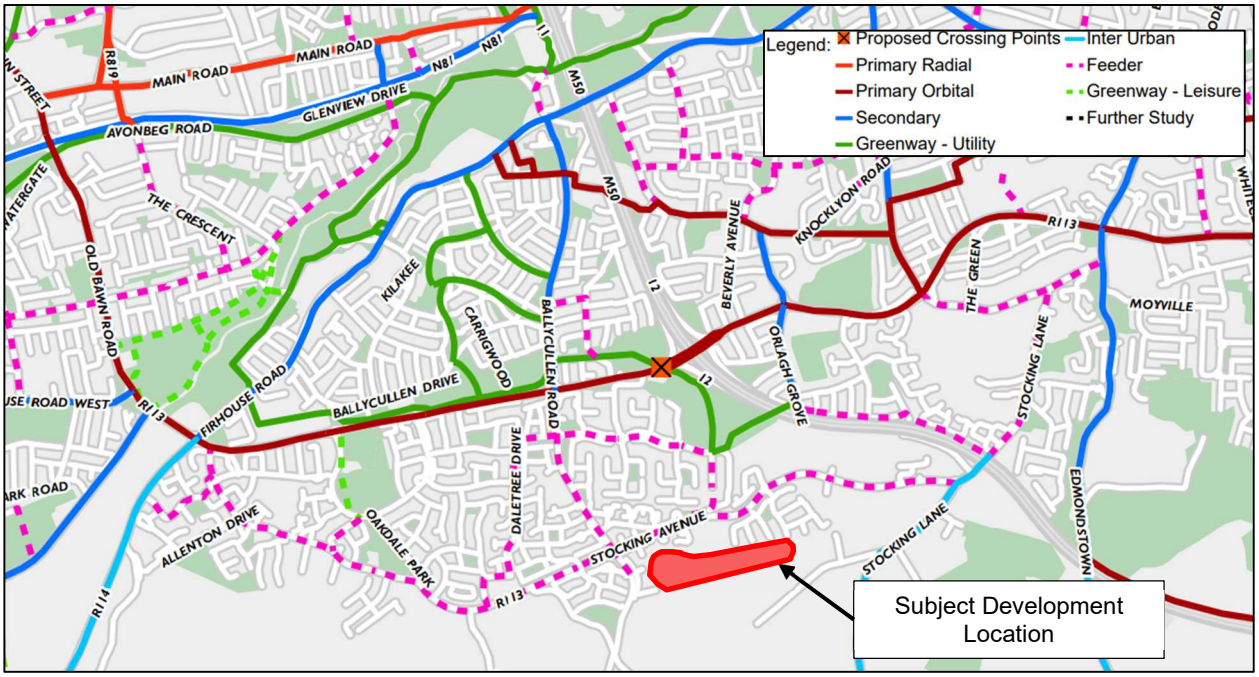

Figure 11 | *Proposed Cycle Network – from GDA Cycle Network Plan, 2022.*

The figure above shows a well-connected network that would serve to complement the existing cycling infrastructure.

4.3 Ballycullen – Oldcourt LAP Main Link Street

The Ballycullen - Oldcourt LAP Main Link Street is included within the Six Year Road Programme in the South Dublin County Development Plan 2022-2028. Table 7.5 of the plan indicates that Ballycullen Old Court Street Network will be a strategic street network providing access throughout the site Ballycullen - Oldcourt LAP.

The Ballycullen - Oldcourt LAP Main Link Street is proposed as part of the Planning Application Reg. Ref. SD17A/0041. The proposed road scheme comprises a 6.5m wide carriageway, approx. 1500m in length with a with footpaths and verges. A two-way cycle track is located on the northern side of the Link Street linking Oldcourt Road to Bohernabreena Road. Traffic calming will be provided through geometry design features with such as vertical deflections, particularly at junctions between the Link Street and internal estate roads where the footpath/cycle path crosses.

Currently, the eastern section of Main Link Street is under construction as part of the ongoing developments (Pl. Apl. Reg. Ref. Nos. SD17A/0468 and SD23A/0083). Additionally, the remaining portion of Main Link Street, from the tie-in provided by the ongoing development (Pl. Apl. Reg. Ref. No. SD23A/0083) to the R114, will be completed by the potential future development Pl. Apl. Reg. Ref. No. LRD24/0007.

Due to its proximity to the subject development as shown in **Figure 12** below.

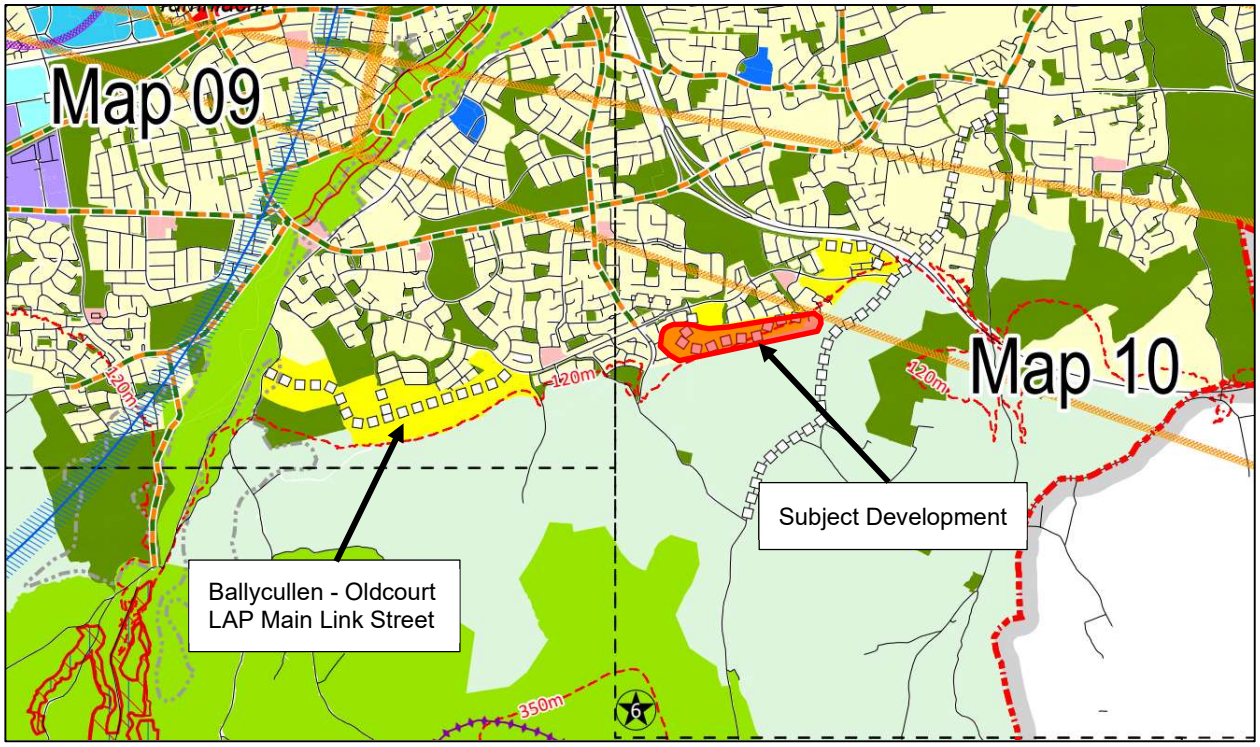

Figure 12 | *Zoning maps 9 and 10 of Plan Lands under SDCC (Source: South Dublin County Development Plan 2022-2028)*

5. Proposed Development

5.1 Description of the Proposed Development

The development with total of c.10.35 Ha will consist of the construction of 502 No. residential units with 197 No. houses (19 No. 2-bed, 116 No. 3-bed and 62 No. 4-bed units) and 305 No. apartments (108 No. 1-bed, 151 No. 2-bed and 46 No. 3-bed units) and a childcare facility with an GFC c. 474.8sqm.

The accommodation schedule is shown in **Table 5** below:

Description	1-bed	2-bed	3-bed	4-bed	Total	GFA (Sqm)
Houses		19	116	62	197	
Apartments	108	151	46		305	
Childcare Facility						474.8
Total	**108**	**170**	**162**	**62**	**502**	**474.8**

Table 5 | *Schedule of Accommodation*

5.2 Internal Layout and Vehicular Access Points

The internal road network has been designed in accordance with the standards set out in the South Dublin Development Plan, which requires that all roads comply with DMURS. The roads vary in width between 4.8 metres and 6 metres wide, while all footpaths are 2 metres wide and connect the internal spaces.

All internal roads within the proposed development are designed for a speed limit of 20km/h. All junctions within the development itself will be priority junctions with raised tables where appropriate.

The low design speeds and traffic calming measures will ensure the safe operation of these junctions and a safe/secure environment for pedestrians and cyclists.

The design and layout of the proposal has been prepared to fully comply with the current relevant design standards and specifications applicable to this form of development. In addition, parking spaces are proposed in accordance with local guidelines (refer to **Section 5.4** below).

The following figure shows the layout of the development with the access points and connections with adjacent approved development.

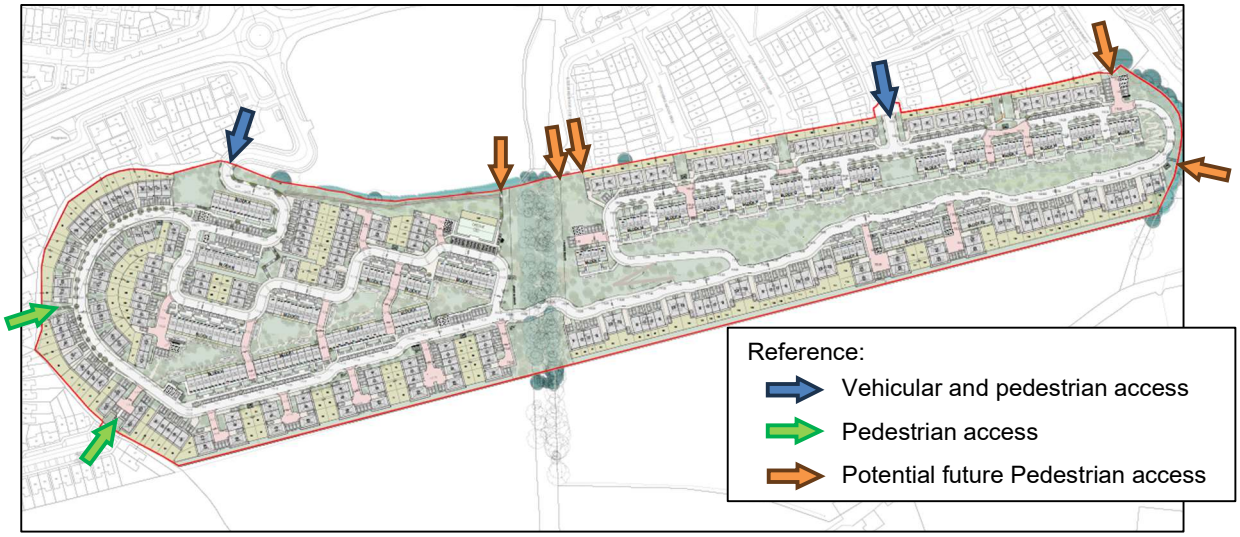

Figure 13 | *Proposed Site Layout*

The road layout has been designed with careful consideration of the existing ground levels to reduce soil movements beyond the site location. By incorporating curvilinear streetscapes, the design effectively reduces the gradient to a maximum of 8%, even in the most challenging sections. This approach not only ensures smoother transitions but also enhances safety and accessibility for all users. **Figure 14** below illustrates the maximum and minimum elevations along the centre line of the internal road network, providing a clear visual representation of the terrain variations.

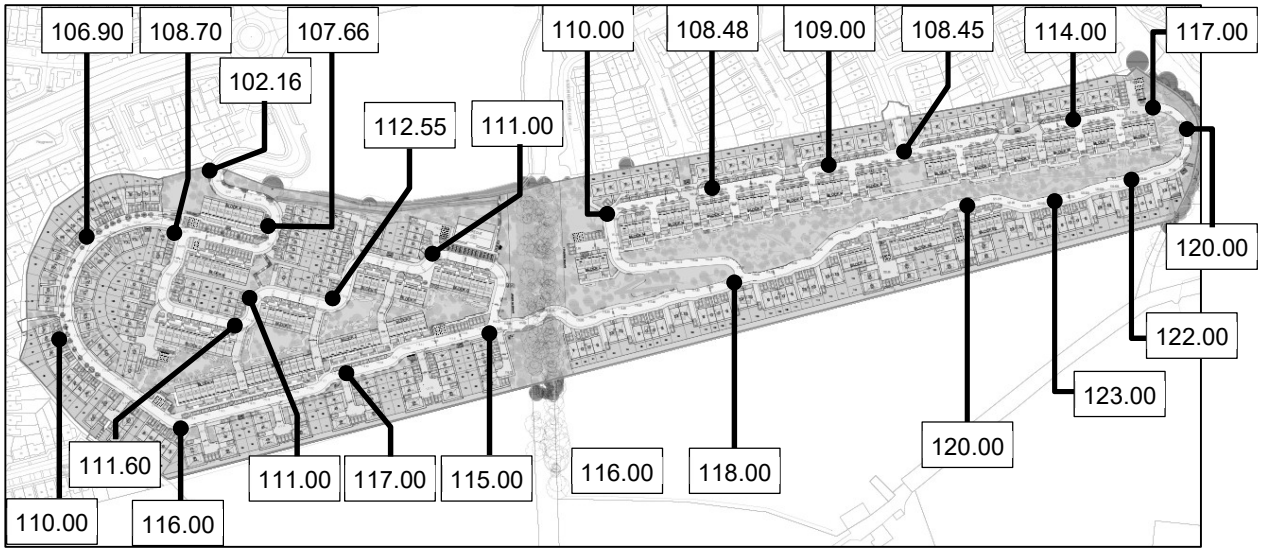

Figure 14 | *Maximum and minimum levels on the internal street layout.*

5.3 Pedestrian infrastructure

The proposed development has been designed with a network of interconnects footpaths providing permeability throughout the site to the surrounding area. All footpaths within the proposed development have been designed as 2.0m wide. This is in accordance with Section 4.3.1 of the DMURS which suggests that a minimum 1.8m footpath should be provided.

The proposed development includes footpath to the north on both vehicles access roads, which will connect to Stocking Avenue and provide residents with convenient access to this road. In addition, provisions have been made to ensure pedestrian accessibility to both eastern and western sides.

The main pedestrian and cycle path is shown in the **Figure 15** below.

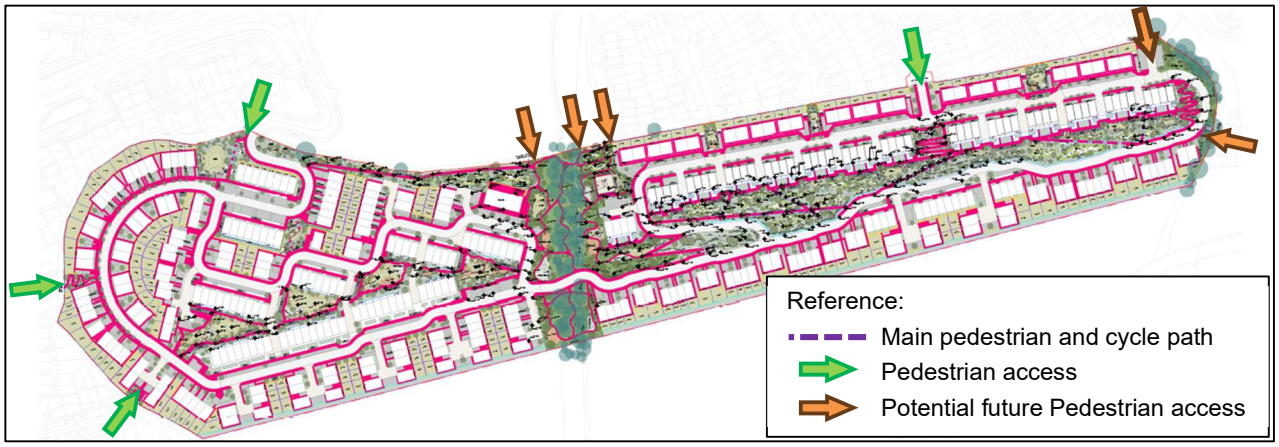

Figure 15 | *Proposed Pedestrian path*

As indicated in **Section 5.2** above, the road layout has been designed with careful consideration of the existing ground levels to minimise soil movement beyond the site. The pedestrian links have been designed to reduce the gradient to a maximum of 5%, even in the most challenging sections.

However, due to the existing topography on site, it has not been possible to design all areas as “access for all”. The level difference in some areas is over 3m’s and as such steps have been provided to ensure these spaces are useable where studies demonstrated that ramps would not comply when tested. Alternative Part M compliant routes are available throughout the site for all users.

Additionally, stairways have been provided in the public open spaces to offer an alternative route, thereby reducing walkable distances. This thoughtful design ensures accessibility and convenience for all users while maintaining the integrity of the natural landscape.

5.4 Car Parking

To determine the appropriate amount of car and cycle parking for the proposed development, reference will be made to the following guidelines/policies:

- Sustainable Residential Development and Compact Settlements Guidelines for Planning Authorities (2024)
- Sustainable Urban Housing: Design Standards for New Apartments (July 2023)
- Greater Dublin Area Transport Strategy (2022 – 2042)

- South Dublin Development Plan (2022 – 2028)

Details of the specific assessment are set out in the Waterman Moylan Report No. *24-007r.003 Traffic and Transport Assessment,* which is included as part of this of this application under a separate cover.

Based on the guidelines/policies indicated above, it is considered that the *Sustainable Residential Development and Compact Settlements Guidelines for Planning Authorities (2024)* standards are the most restrictive for the subject development and is the reference for determining the proposed the car parking.

Table 6 below shows the breakdown of car parking spaces proposed.

Type	No. of units	Compact Settlements Guidelines		South Dublin County Development Plan		Car Parking Spaces Proposed	
		Ratio	Car Parking	Ratio	Car Parking	Ratio	Car Parking
1-bed apartment	108	2	216	1	108	0.50	54
2-bed apartments	151	2	302	1.25	189	1.00	151
3-bed apartments	46	2	92	1.5	69	1.30	60
2-bed houses	19	2	38	1.5	29	1.00	19
3-bed houses	116	2	232	2	232	1.50	174
4-bed houses	62	2	124	2	124	1.45	90
Crèche	6 per classroom	N/A	N/A	1	6	2.5 per classroom	15
Total	502	2	1004	1.51	757	1.12	563

Table 6 | *Car Parking Spaces Proposed*

The proposal for parking spaces, indicated in the table above, reflects that 563 No. spaces are proposed, including 548 No. spaces for residential units and 15 No. spaces are proposed for the creche. The overall car carping spaces include a total of 2 No. accessible car parking spaces in the creche area and 9No. accessible car parking spaces for the apartment units.

In addition, the proposed development includes EV car parking spaces in the ratio of 20% of the total on-street car parking spaces.

5.5 Cycle Parking

To determine the appropriate amount of cycle parking for the proposed development, reference will be made to the following guidelines/policies:

- Sustainable Residential Development and Compact Settlements Guidelines for Planning Authorities (2024)
- Sustainable Urban Housing: Design Standards for New Apartments (July 2023)
- South Dublin Development Plan (2022 – 2028)

The proposed cycle parking spaces for the apartment units have been determined in accordance with the *South Dublin County Development Plan 2022-2028 Standards* and the *Sustainable Urban Housing: Design Standards for New Apartments (July 2023)*. House units without access to their rear gardens will be

provided with bicycle storage in the front garden, in line with the *Sustainable Residential Development and Compact Settlements Guidelines for Planning Authorities (2024)*.

The proposed Cycle Parking for housing units based on construction type is shown in the table below:

Type	No. of units	Compact Settlements Guidelines		Design Standards for New Apartments		South Dublin County Development Plan		Cycle Parking Spaces Proposed	
		Resident long stay	Visitor short stay	Resident long stay	Visitor short stay	Resident long stay	Visitor short stay	Resident long stay	Visitor short stay
1-bed apts.	108	108	54	108	54	108	54	108	54
2-bed apts.	151	302	75	302	75	302	75	302	76
3-bed apts.	46	138	23	138	23	138	23	138	23
2-bed houses	19	38	-					38	-
3-bed houses	30 No. terrace units	90	-					90	-
	86 No. with rear garden access	-	-					258	-
4-bed houses	62	-	-					248	-
Crèche	6 No. classrooms 107 No. Pupils 20 No. Staff							4	12
Total		**676**	**152**	**548**	**152**	**552**	**163**	**1186**	**165**

Table 7 | *Cycle Parking Spaces Proposed*

For the subject site, a total of 1351 No. cycle spaces are proposed. Of this total, 634 No. spaces are for house units, 701 No. spaces are for apartment units, including 153 No. spaces for visitors, and 16 No. spaces are for the nursery, including 4 No. spaces for staff and 12 No. spaces for visitors.

Cycle parking for terraced housing units is provided in the storage locker. For non-terraced housing units, the cycle parking is provided in the back gardens. The apartments cycle parking is provided in the communal storage. Visitor cycle parking is provided in the public space. Apartments have been provided with visitor bicycle parking spaces. For the housing units, it is assumed that there may be unoccupied spaces available for visitors.

6. Modal Choice Targets Development

6.1 Reviewing territory developed

To understand the vehicle ownership and mode of travel choice of the residents in the area, public information from the Census 2022 was used. The Census was conducted by the Central Statistics Office on 3rd April 2022, and the information was distributed in small areas that divide the territory.

It is important to choose a wide number of areas to obtain representative values that will allow us to approximate the future behaviour of the inhabitants within the subject site. For this reason, 16 representative areas have been selected to reflect the Subject Development.

The small areas surveyed are shown in **Figure 16** below.

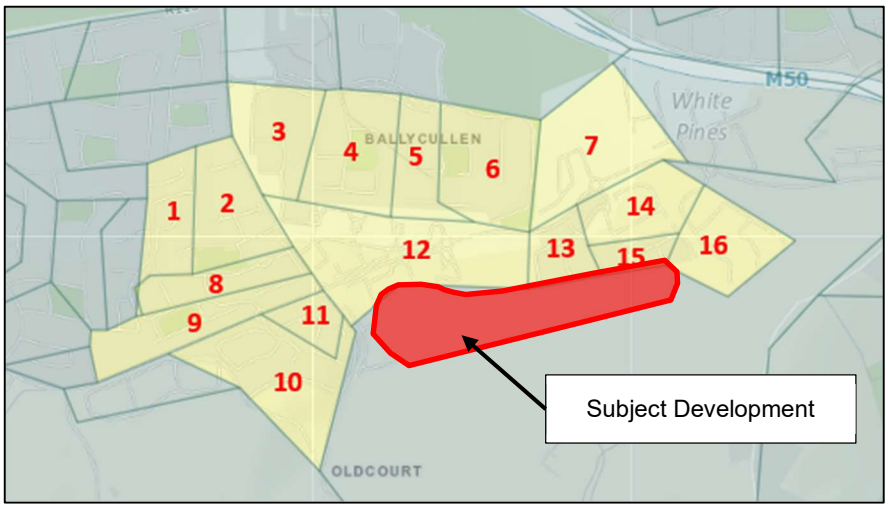

Figure 16 | *Consulted Statistic Small Area (Source: Census 2022).*

The results are summarised in the table below.

Mode	Census 2016	Census 2022
Car	73.4%	69.8%
Public Transport	14.7%	15.6%
Walk	7.2%	9.6%
Cycle	4.7%	5.0%
Total	100%	100%

Table 8 | *Surveyed Modal Split for the Journey to Work, School, or College – 2016 vs 2022.*

The table above shows that in the 6-year period between 2016 and 2022, there has been a decrease in the use of private cars and an increase in the use of public transport, walking and cycling. This reduction in the reliance of private cars for transport indicates a willingness by the residents of the Ballycullen area to switch to more sustainable forms of transport.

According to the *Sustainability Strategy 2024-2030*, there are targets to reduce carbon emissions from transport in the Greater Dublin Area by 50% by 2030 in line with the Climate Action Plan.

In light of this, the development strategy for this Travel Plan aims to promote sustainable modes of transport by encouraging more use of public transport and active travel and reducing reliance on private cars.

6.2 Strategy

The aim of this Travel Plan is to improve pedestrian and cyclist movement in the current development by prioritising it over vehicular movement. To achieve this goal, the following objectives have been set out:

(a) Reduce single occupancy car use.

(b) Reduce the use of cars commuting, studying, and shopping from the subject development, particularly at peak times.

(c) Promote the use of sustainable transport systems to and from the subject development.

(d) Encourage more people to walk, cycle, or use public transport to travel to and from the subject development instead of driving.

In addition, this Travel Plan aims to provide guidance to all stakeholders involved, including South Dublin County Council, public transport providers, tenants and owners of nearby developments to achieve the goal of promoting a sustainable transport network in and around the proposed development area to meet existing and future needs.

7. Travel Plan

7.1 Introduction

A Travel Plan (also called Mobility Management Plan) will be implemented and developed on an ongoing basis with the triple objectives of promoting sustainability, enhancing public transport, and reducing dependency on the use of the private car.

The Dublin Transportation Office in its Advice Note on Mobility Management Plans (July 2002) describes Mobility Management as *"a transport demand management mechanism that seeks to provide for the transportation needs of people and goods. The aim is to reduce demand for and use of cars by increasing the attractiveness and practicality of other modes of transport."*

It is important to strike an appropriate balance between promoting new development and preventing excessive car parking provision that can undermine cycling, walking and public transport use.

The Travel Plan is designed to address the typical day-to-day operational requirements at the site. It will be implemented and managed by the Transport Coordinator, who will be responsible for overseeing the implementation and management of the Travel Plan.

7.2 Travel Plan Coordinator

The developer will appoint a Travel Plan Coordinator or management company to oversee the development of the plan. The latter will appoint a senior member of staff as Travel Plan Coordinator.

The Travel Plan Coordinator will represent the philosophy of the plan and act as a coordinator for the proper functioning of the plan. The coordinator shall be appointed within two months of the site being occupied. The Travel Plan Coordinator's responsibilities shall include:

- Implementing and maintaining the plan.
- Monitoring the progress of the plan.
- Liaise with internal departments and stakeholders, public transport operators and planning and highways officials.
- Producing information reports for the developer, residents, and planning and highway authorities.
- Ongoing evaluation of the Plan's objectives.

7.2.1 Local Policies Review

As part of the Travel Plan Coordinator's responsibilities, a review of current policies and practices is to be undertaken with the aim of understanding their impact on the daily resident travel patterns. For instance, the provision of a substantial number of free parking spaces may prompt residents to have and utilise their vehicles, despite the proximity of their workplace.

A preliminary review of local policies will identify potential areas that should be addressed as part of the Travel Plan.

7.2.2 Site Audit

A preliminary assessment of the accessibility of the site is presented in **Section 3** of this Travel Plan, while **Section 4** outlines potential future transport improvements. However, it is the responsibility of the Travel Plan Coordinator to update this information based on the following guidelines:

- Public Transport service: The location of the bus stops and the train stations must be considered, as well as the routes served and the frequency of services.
- Pedestrian and cycle accessibility: This should include an assessment of the local cycling and walking environment from the subject development to the various public transport stops. This assessment must consider the current conditions and where necessary, identify areas for improvement.
- Road condition: This involves considering the traffic condition and level of congestion near the site.
- Parking spaces near to the site: A survey of car and cycle parking near the site will provide an indication of whether residents need to drive to the site and if they have sufficient car parking spaces. The survey must consider the volume and usage of the parking spaces, their location, the quality and quantity of the available parking, and the relationship between these factors and the demand for parking spaces. It must also consider any management issues that may arise.
- Location of the surrounding facilities: It is paramount for residents to be aware of the location of the primary shops, as well as the relative distance to the site. The distance should be provided in metres and in travel time, either walking or cycling.

Finally, it is important that the Travel Plan Coordinator is aware of possible future improvements to the public transport network, which could have an impact on travel patterns.

7.2.3 Residents Travel Survey

Within the first four months of appointment, the Travel Plan coordinator shall arrange for a residents' travel survey to be carried out. This can be achieved by means of self-completion questionnaires, which will help to identify travel requirements and set targets and needs. The information requested in the questionnaire should include:

- Basic details (occupation, age, household size, car ownership).
- Primary mode of transport.
- Current travel patterns including the time taken to travel to work and the place of work.

It is also necessary to ascertain the residents' views on alternative modes of transport to the car, to identify the factors that would encourage them to switch to other modes. Furthermore, it is important to ascertain the extent of usage of car sharing schemes.

It should be noted that, traditionally, response rates to such questionnaires are relatively low, and it may be necessary to encourage recipients to complete and return them.

The information obtained from the survey should be entered onto a database and used to formulate and monitor the implementation of the plan and to set and review targets. It is recommended that the aforementioned targets be agreed with the relevant planning and highway authorities or their agents within six months of the survey being carried out.

7.2.4 Promoting the Travel Plan

It is the responsibility of the Travel Plan Coordinator to provide all new residents at the site with a travel pack. The travel pack contains the following items:

(a) The travel plans.

(b) Public transport information, including bus and rail routes and frequencies.

(c) The advantages of the travel plan for residents and visitors.

(d) Details of tax incentives available, such as the Bike to Work Scheme, the Tax Saver Scheme for public transport tickets, etc.

(e) A travel survey form.

(f) Details of pedestrian and cycle facilities.

7.3 Action Plan

7.3.1 Walking

It is well documented that there are numerous benefits to walking daily. The subject development is situated within an area characterised by a wider range of land uses that are accessible by walking as are shown in **Figure 3** and **Figure 13**

It is proposed that residents be encouraged to reduce the use of the car for short journeys and choose to walk to access amenities and to commute to their place of work, school, or college. Thus, the connection of footpaths within the subject development with the existing road network will allow people to establish connections beyond the development itself.

Additionally, for people accessing the creche facility, the Travel Plan Coordinator will provide maps of the local area, which will show walking routes. This information will be displayed in strategic locations likely to be frequented by people accessing the creche, such as along common routes. This will further encourage a modal shift to walking instead of using a car.

This communication tool will be developed to encourage residents to meet and walk together, fostering a sense of community between them. Furthermore, children enrolled in local schools will be encouraged to walk to school on a daily basis, thus reducing the number of private vehicles on the road.

7.3.2 Cycling and cycle parking

Cycling is an effective mode of transport, promoting independence and sustainable travel and allowing for shorter distances to various facilities.

The subject development is located in close proximity to several business parks, as well as educational facilities at various levels and primary and specialist medical services, which can be reached within a 10-minute or maximum 30-minute cycle, as shown in **Figure 5** and **Figure 13**.

To facilitate the storage and maintenance of bicycles in the area it is considered that the end units, which are designed with private side access to rear gardens on one side, will enable residents to park their bicycles in the rear gardens without having to go through the interior of the houses. Bicycle parking spaces for the mid-terrace units are proposed in the form of integrated bike/bin stores in the front of the units.

For the subject site, total of 1351 cycle spaces are proposed. Of this total, 634 No. spaces are for house units, 701 No. spaces are for apartment units, including 153 No. spaces for visitors, and 16 No. spaces are for the nursery, including 4 No. spaces for staff and 12 No. spaces for visitors.

The Travel Plan Coordinator will provide maps of the local area, indicating cycle routes, local facilities, and distances with health information. This information will be displayed in strategic locations to facilitate understanding of the importance of choosing this mode of transport over the car. Furthermore, the Travel Plan Coordinator will inform residents of future plans for the development of cycle routes in the area and of various government campaigns to encourage cycling.

If there is a genuine interest in bicycle maintenance, public courses on the use, maintenance, repair, and improvement of bicycles may be proposed.

Additionally, residents are urged to take use of the government's Cycle to Work program, which may be accessible through their employers.

7.3.3 Car for individual use, shared use, and parking

Thousands of commuters travel the same routes to work every day, arriving at their destinations at the same time as their coworkers. There would be 50% less cars on the road during peak time if every driver had a companion in the car. There are numerous advantages to utilising sharing services for commuting purposes, including a reduction in carbon emissions, fuel costs and parking fees, as well as a reduction in congestion and journey times due to a reduction in the number of vehicles on the road. Additionally, the experience of the journey is enhanced due to a reduction in congestion and the presence of company.

For people who live in places with long commutes or poor access to public transportation, carsharing is an attractive mode of transport.

To enable the formation of these vehicle sharing schemes, the Travel Plan Coordinator can use local communication channels (email groups, meeting spots, etc.) to encourage contact amongst various drivers.

In order to prevent the proliferation of automobile ownership, the subject development proposes a limited number of parking spaces for vehicles, as indicated in **Section 5.4** above. This indicates that 563 No. spaces are proposed, including 548 No. spaces for residential units and 15 No. spaces are proposed for the creche.

The Travel Plan Coordinator will be responsible for the management of inappropriate parking within the development.

7.3.4 Strategy for public transport use

The Travel Plan Coordinator will be responsible for encouraging residents to utilise public transportation and will provide them with the necessary information to facilitate this. This information will include Tax Saver Commuter tickets, details on travelling and the advantages of using public transportation.

(1) Promote Tax Saver Commuter tickets

The TaxSaver Commuter Ticket Scheme is a cost-reduction initiative for public transport. It offers employers the opportunity to make PRSI savings of up to 10.75%. Employees can also benefit from savings on their travel costs, with savings of between 28.5% and 52% possible due to tax, PRSI and USC savings. The ticket covers bus, rail, and the Luas system.

The scheme is open to employees who wish to participate. They can discuss the matter with their employer, who will then apply for and purchase the ticket on their behalf.

The TaxSaver scheme is managed in conjunction with the Revenue Commissioners by the following transport providers:

- Dublin Bus
- Bus Éireann
- Luas
- Irish Rail
- Approved transport providers

Residents of the subject site may obtain tickets as part of their salary package (salary sacrifice) in lieu of an annual cash bonus or as a benefit-in-kind. TaxSaver tickets are not subject to tax, PRSI or USC. It is important to note that employees are only liable to pay tax, PRSI, and USC on the portion of their salary that represents the actual remuneration. In addition, the employer is also responsible for calculating PRSI on the same basis.

The Travel Plan Coordinator will be responsible for disseminating this information to the residents of the subject development, thereby affording them the opportunity to request this benefit at their place of employment.

(2) Update travel information

The Travel Plan Coordinator will provide maps of the local area, indicating the nearest bus stops and train stations and the distance between the subject development and these points. Additionally, the Travel Plan Coordinator will provide updated local train and bus maps and timetables.

This information will be displayed in strategic locations to facilitate understanding of the importance of choosing this mode of transport over the car. Furthermore, the Travel Plan Coordinator will inform residents of future plans for the development of public transport routes in the area.

Residents of the area will be informed about online public transportation information systems, their use and the advantages that this entails.

(3) Monitoring of the Public Transport service

It is the responsibility of the Travel Plan Coordinator to conduct regular assessments of the public transport service in order to ascertain the quality of the service provided. In order to ensure the provision of high-

quality public transport services, the coordinator must consider a number of factors, including fare, travel time, vehicle conditions, and frequency.

The Travel Plan Coordinator may also engage in lobbying activities with the public transport operators in order to ensure the continued provision of a high level of service on the public transport routes serving the development.

(4) Advantages of using public transportation

The utilisation of public transport confers a multitude of advantages, both individually and socially. The benefits include:

- Pollution reduction: It is well known that commuting by efficient public transport is significantly less polluting in terms of CO2 emissions than using a private car. For example, a typical Euro 5 bus emits around 65g/km of CO2 per passenger, while a Euro 6 car emits almost 190g/km. Therefore, travelling by public transport is the most environmentally friendly alternative, preventing thousands of tonnes of CO2 from entering the atmosphere.
- Reduction of noise pollution: As with air pollution, noise pollution can be mitigated by augmenting the utilisation of public transport.
- Reduction of congestion in cities: The overuse of vehicles results in the daily collapse of cities, particularly during peak hours. This phenomenon transforms cities into dirty, noisy, and grey environments. Public transport represents an optimal alternative to enhance traffic flow by reducing delays and traffic jams, thereby achieving superior urban mobility.
- Most liveable cities: Increasing the use of public transport would benefit everyone and improve cities in many ways such as having greener cities, with less congestion, less pollution, and less greenhouse gas emissions.
- Economical: The costs associated with a private vehicle can be four times those of public transportation. The initial cost of a car is significantly higher than the sum paid for it. Furthermore, there are additional expenses such as fuel, maintenance, NCT, insurance, tolls, and other periodic costs. This renders public transport a more economical mode of transportation in both the short and long term.
- Time saving: The act of driving can be fraught with unexpected traffic jams or the necessity to search for parking, both of which can result in the loss of valuable time. Conversely, the use of public transport ensures that the scheduled time of arrival at the destination is maintained, thereby obviating the need for any further complications or stress.
- The opportunity to engage in other activities: The journey may be utilised to read, listen to music, catch up with friends, engage in conversation or simply to reflect. Bus or metro journeys are conducive to a variety of activities on a daily basis.
- Guarantee the mobility of groups with less access: This method of transportation ensures the possibility of travelling to young people, older people or people with reduced mobility who are unable to use or do not have their own vehicle.
- Accessible to the entire population: In addition to the aforementioned advantages, it is imperative to highlight the accessibility and subsidised prices that public transport offers, thereby ensuring its accessibility to the entire population. This is particularly important when considering the sectors of society at risk of social exclusion.

Considering the benefits described above, it is important to try to migrate for the use of private vehicles to public transport, especially when the destination is well connected with public service. This section proposes a series of measures that could increase the modal split in favour of public transport.

7.4 Monitoring of the Travel Plan

The responsibility for monitoring and reviewing the Plan will be borne by the Travel Plan Coordinator. The principal indicators that will be subject to monitoring are as follows:

- Changes in modal split – both 'usual' and 'occasional' modes used.
- Cycle Parking on site: Include the condition of the bike racks and that there are no abandoned bikes without owners.
- Bikes purchase through the Cycle to Work scheme.
- Number of car parking permits issued.
- Number of registered carsharers.
- Others that may be important.

The travel survey (refer to **Section 7.2.2**) establishes the initial modal split of travel by residents. Once the travel survey has been completed and analysed, the Travel Plan Coordinator will agree on annual targets with the main stakeholders (the developer, the occupier(s), the Local Authority, or its agents, etc.) for increasing the percentage of non-car modes of transport.

It is recommended that the Travel Plan Coordinator meet with the stakeholders, officers of the Local Authorities or representatives within six months of the occupation of the building(s) and thereafter every twelve months to assess and review progress of the Plan and agree objectives for the next twelve months.

As a consequence of the evaluation, the following potential outcomes may emerge:

- The objectives have been achieved, and no further intervention is deemed necessary to ensure alignment with existing local development plans.
- The objectives have not been fully achieved, necessitating the implementation of corrective measures that, due to their scale, can be managed by the Travel Plan Coordinator.
- Large measures: the results are found to be significantly divergent from the stated objectives, which may necessitate the engagement of external consultants to develop the requisite mobility studies and implement the measures deemed necessary to realign the development with the originally stated objectives.

It is recommended that the Travel Plan Coordinator draft and provide an annual Monitoring Report to the Local authorities or their representatives, the residents, and senior management of the developer.

7.5 Marketing

Marketing is a useful tool for showing stakeholders the status of implementation, explaining the main goals and the essence of the Travel Plan, demonstrating the level of responsibility to the surrounding environment, showing how the subject development complies with government regulations, or explaining to residents the various benefits they will receive as a result of participating in the travel plan.

By employing marketing, the site can enhance its level of acceptance within the community and present itself as a model for other similar developments.

The Marketing campaign will be creates considering the following:

- Identify the Target Audience of the Marketing Campaign: marketing may be directed towards a number of different stakeholders, including residents, government representatives, and the general public. Consequently, it is essential to tailor the message and create content that aligns with the specific events and circumstances of each target group. It is crucial to recognise that the target audience will comprise a heterogeneous group of individuals at varying stages of readiness for change.
- Identify the aim of the Marketing Campaign: the identification of the objective of the marketing campaign serves to clarify the message. It is not the same to run a campaign to inform residents about a new benefit available, to inform stakeholders about the progress of the plan, or to provide a message to the surrounding community. In order to achieve this, it is essential to ascertain the target audience and the communication tool to be employed. This will inform the manner in which the messenger is to be utilized to achieve the desired impact.
- Identify Communication Tools: the objective is to identify the communication tools that will be employed. The manner in which a message is conveyed affects the subsequent evolution of that message. Consequently, the selection of media for an information campaign is contingent upon the target audience. These may encompass Facebook groups, WhatsApp diffusion, print media, digital media, live events, or document reports.
- Identify your Message: Once the target audience has been identified, the objective of the campaign has been established and the communication tools have been selected, it is crucial to create a clear message that effectively conveys the information to the audience in the desired manner.
- Brand the Marketing Campaign: the creation of a logo or emblem that is directly related to the campaign that is being developed can assist in the visualisation of the main and the messenger.

In light of the aforementioned considerations, it is possible to deliver a targeted message that is more likely to be well received by the recipient and thus ensure the success of the marketing campaign.

8. Conclusion

This Travel Plan has been prepared by Waterman Moylan as part of the design documentation for a proposed development on lands at Ballycullen, Dublin 16, Co. Dublin.

The objective of this document is to encourage residents to alter their travel behaviour in favour of more sustainable modes of transportation.

The Travel Plan is a set of measures designed to facilitate sustainable travel for work-related journeys. The plan comprises a series of measures designed to encourage the use of walking, cycling and public transport.

It is important to note that the details provided in this report serve as a guideline for the subject development, which forms the basis for the Travel Plan to be developed by the Travel Plan Coordinator.

There are several benefits to an organisation implementing a Travel Plan, including:

- Reduced pressure on parking spaces so they are available to those with most need.
- Reduced carbon emissions associated with travel.
- Land formerly under parking released for more productive purposes.
- Increased accessibility to the site for residents and visitors.
- Compliance with planning permission conditions.

The implementation of these measures will not only benefit the residents but will also mitigate the negative impacts of the surrounding environment once the subject development has been completed.

UK and Ireland Office Locations