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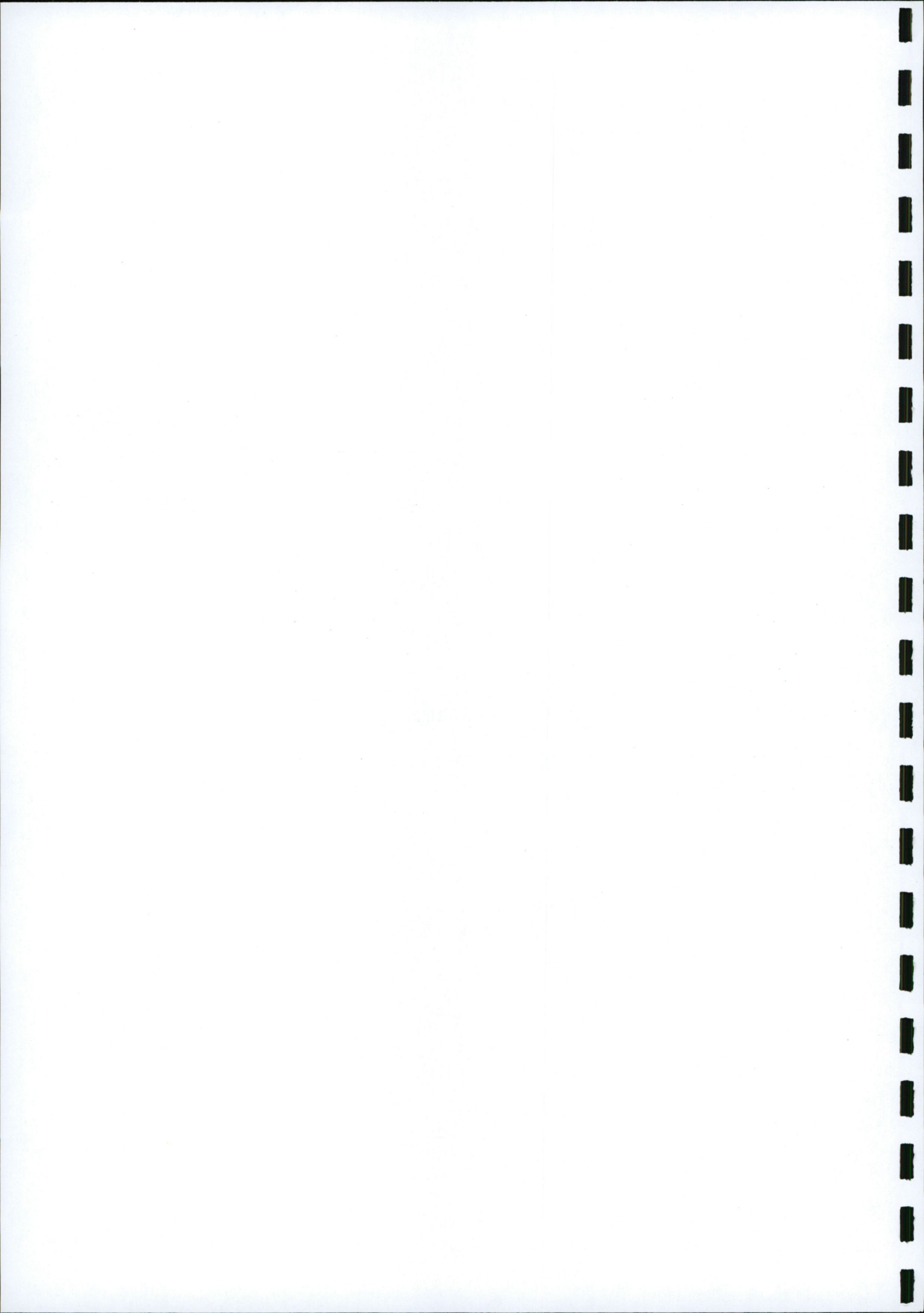
## **Traffic & Transport Assessment**

Proposed Phase 3 of Aderrig Development at Adamstown SDZ,  
Co. Dublin

October 2022

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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)

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<b>Issue</b>	<b>Date</b>	<b>Prepared by</b>	<b>Checked by</b>	<b>Approved by</b>
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**Comments**

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- A. TRICS Output Report

# 1. Introduction

## 1.1 Introduction

Waterman Moylan Engineering Consultants have been appointed by Quintain Developments Ireland Ltd. to prepare this Traffic and Transport Assessment (TTA) as part of the planning documentation for a proposed residential development on lands at the Aderrig site, located within the Adamstown Strategic Development Zone (ASDZ), Co. Dublin.

The proposed development is labelled as Phase 3 of Aderrig and consists of 207 no. residential units distributed as per the schedule of accommodation shown in Table 1 below.

Unit Type	2-Bedroom	3-Bedroom	4-Bedroom	Total
Houses	-	59	16	75
Duplexes	64	68	-	132
<b>Total</b>	<b>64</b>	<b>127</b>	<b>16</b>	<b>207</b>

**Table 1** | *Proposed Schedule of Accommodation.*

## 1.2 Standards and Contents

This TTA has been prepared based on a requirement set out in Section 7.9 of the South Dublin County Development Plan 20122 – 2028 which specifies that a Traffic and Transport Assessment will be “*required to support development proposals that have the potential to generate significant traffic movements, to demonstrate that there is public transport carrying capacity and road capacity to serve the development*”.

Section 12.7.2 also requires that the TTA be prepared in accordance with the ‘*Traffic and Transport Assessment Guidelines (May 2014)*’ published by the Transport Infrastructure for Ireland (TII) / National Road Authority (NRA).

The contents of the Traffic and Transport Assessment includes:

- Description of the proposed development.
- Description of the receiving environment including main roads and junctions, public transport, cycle facilities and pedestrian facilities.
- Description of the existing travel characteristics.
- Description of transportation improvements to nearby roads, junctions, public transport, cycle, and pedestrian facilities.
- Calculation of the trip generation for the proposed development.

This TTA is a comprehensive review of the potential transport impacts of the overall development within the Aderrig site, both approved and proposed.



References to the microsimulation carried out by Atkins for the full build out of the Adamstown SDZ is contained in this TTA as it already forms the transport strategy for the overall SDZ area.

### **1.3 Threshold for Transport Assessment**

Section 2.1 of the Traffic and Transport Assessment Guidelines (May 2014) requires submission of a Transport Assessment where a proposed development meets one or more of the following criteria:

- 1- Traffic to and from the development exceeds 10% of the traffic flow on the adjoining road.
- 2- Traffic to and from the development exceeds 5% of the traffic flow on the adjoining road where congestion exists, or the location is sensitive.
- 3- Residential development more than 200 dwellings.
- 4- Retail and leisure development more than 1,000sqm.
- 5- Office, education, and hospital development more than 2,500sqm.
- 6- Industrial development more than 5,000sqm.
- 7- Distribution and warehousing more than 10,000sqm.

In the case of the subject development, threshold no. 3 is exceeded.

### **1.4 Programme**

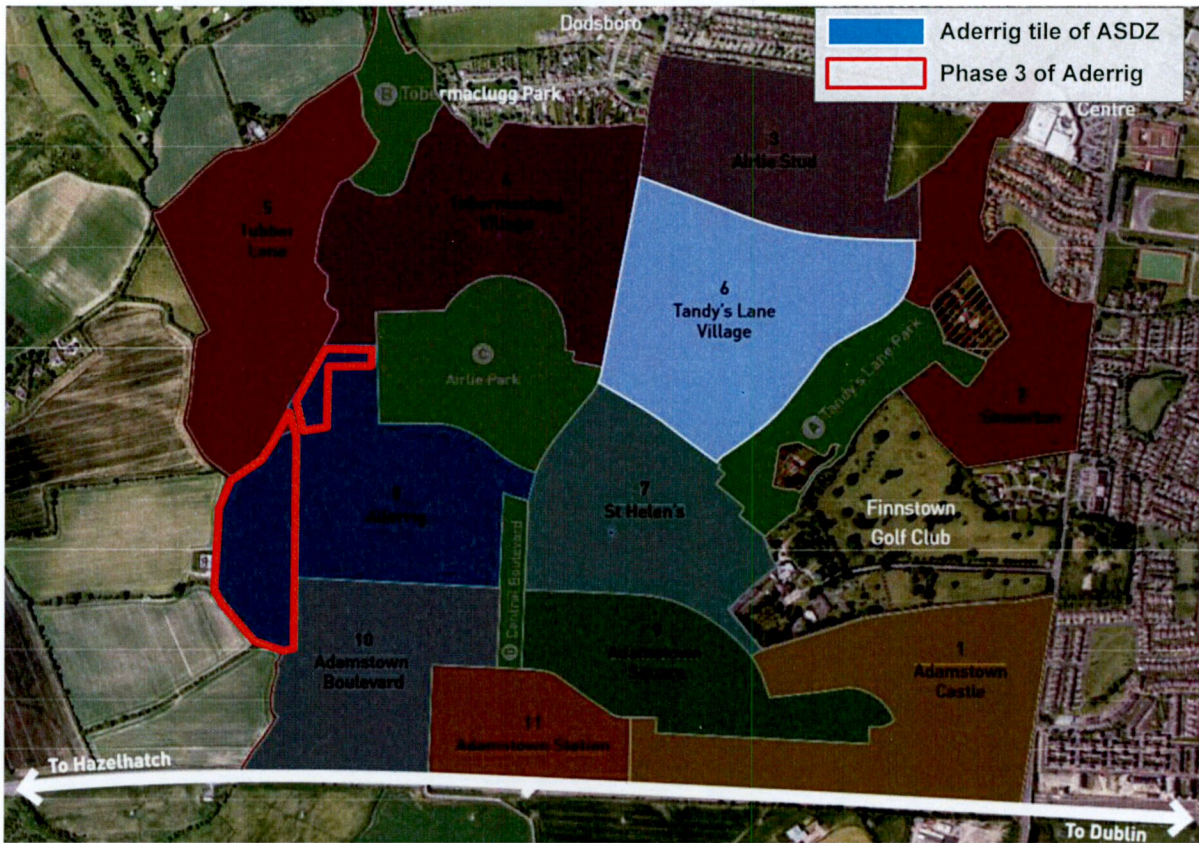
It is estimated that construction of the subject proposed development will commence in 2023 for completion in 2026.

### **1.5 Site Location and Description**

The proposed development lands are located within the Aderrig Development Tile - Area 8 of the Adamstown Strategic Development Zone (ASDZ), and is situated on the western portion of the tile – Refer to Figure 1.

The total area of the subject Aderrig Phase 3 site is 6.36 ha and is bounded by:

- Phase 3 Tubber Lane (to the North) – Reg. Ref. SDZ 21A/0023. This development is pending permission – seeking clarification of additional information.
- Celbridge Link Road (to the East) – Reg. Ref. SDZ 17A/0009. This development received grant permission on 26<sup>th</sup> February 2018 and the Link Road is currently under construction.
- Aderrig Phase 2 (to the East) – Reg. Ref. SDZ 21A/0014. This development received grant permission on 25<sup>th</sup> January 2022. Construction has commenced by the time of preparing this report.
- Adamstown Way (existing road that extends inside and to the East of the site) – Reg. Ref. SDZ 06A/5); and provides access to the:
- Electrical Transformer Station (to the West) – Reg. Ref. SD 06A/0497). This development received grant permission on 04<sup>th</sup> August 2006 and is currently operational.
- Farmlands (to the West and South).



**Figure 1 | Location Map for Proposed Aderrig Phase 3 Site.**

As can be seen from Figure 1 above, the subject Aderrig Phase 3 site is separated into two sites: a minor one on the northern portion of the Aderrig tile - which will provide for an additional open space area surrounding the future school site providing key linkages to future development; and the main site located at the western portion of the Aderrig tile – which will comprise all the housing and road infrastructure proposed under the subject application. The sites are separated by the Celbridge Link Road, substantially constructed under Reg. Ref. SDZ 17A/0009.

## 2. County Policy Framework

### 2.1 South Dublin County Council Development Plan (2022 – 2028)

The South Dublin County Council Development Plan (2022 – 2028) sets out the policies and objectives for the development of the County for the period of 2022 to 2028. The Plan seeks to improve and expand in a sustainable manner the social, economic, cultural and environmental assets of the county. In the perspective of the subject development site and the proposed residential scheme, with regards to transport and mobility, some pertinent objectives include:

#### 2.1.1 Transport & Movement – Overarching Policies and Objectives

**“SM1 Objective 1:** *To achieve and monitor a transition to more sustainable travel modes including walking, cycling and public transport over the lifetime of the County Development Plan, in line with the County mode share targets of 15% Walk; 10% Cycle; 20% Bus; 5% Rail; and 50% Private Car (Car / Van / HGV / Motorcycle).”*

**“SM1 Objective 3:** *To support the delivery of key sustainable transport projects including DART and Luas expansion programmes. BusConnects and the Greater Dublin Metropolitan Cycle Network in accordance with RPO 5.2 of the RSES / MASP.”*

**“SM1 Objective 4:** *To ensure that future development is planned and designed in a manner that facilitates sustainable travel patterns, with a particular focus on increasing the share of active modes (walking and cycling) and public transport use and creating a safe and attractive street environment for pedestrians and cyclists, in accordance with RPO 5.3 of the RSES / MASP.”*

**“SM1 Objective 5:** *To ensure that future development is planned and designed in a manner that maximises the efficiency and protects the strategic capacity of the metropolitan area transport network, both existing and planned, and to protect and maintain regional accessibility, in accordance with RPO 8.3 of the RSES.”*

**“SM1 Objective 6:** *To safeguard the County’s strategic road network and to improve the local road and street network in a manner that will better utilise existing road space and encourage a transition towards more sustainable modes of transport.”*

#### 2.1.2 Walking and Cycling

**“SM2 Objective 2:** *To create a comprehensive County-wide network supported by sustainable movement studies and other permeability measures, consisting of legible, sign-posted and well-maintained:*

- (i) *Safe cycling routes through the implementation of the Greater Dublin Cycle Network Plan, NTA (2011) and the Cycle South Dublin project; and*
- (ii) *Walking routes that link communities to key destinations, amenities and leisure activities.”*

**“SM2 Objective 3:** *To ensure that connectivity for pedestrians and cyclists is maximised and walking and cycling distances are reduced by promoting compact growth and permeability in the design and layout of new development areas.”*

**“SM2 Objective 5:** *To ensure that all streets and street networks are designed in accordance with the principles, approaches and standards contained in the Design Manual for Urban Roads and Streets (2013;*

updated 2019) so that the movement of pedestrians and cyclists is prioritised within a safe and comfortable environment for a wide range of ages, abilities and journey types.”

**“SM2 Objective 13:** To ensure that new walking and cycling routes are designed, insofar as possible, to function as links in the County’s green infrastructure network and that adequate replacement and additional planting of native species and pollinators is provided, and that SuDS approaches are used to deal with surface water run-off.”

### 2.1.3 Public Transport

**“SM3 Objective 3:** To ensure that future development is planned in such a manner as to facilitate a significant shift to public transport use through pursuing compact growth policies, consolidating development around existing and planned public transport routes and interchanges, and maximising access to existing and planned public transport services throughout the network.”

**“SM3 Objective 4:** To optimise accessibility to public transport, increase catchment and maximise permeability through the creation of new and upgrading of existing walking and cycling routes linking to public transport stops.”

### 2.1.4 Strategic Road and Street Network

**“SM4 Objective 4:** To ensure that developing areas have sufficient access to the County’s road network.”

### 2.1.5 Road and Street Design

**“SM5 Objective 1:** To ensure that all streets and street networks are designed to passively calm traffic through the creation of a self-regulating street environment that promotes active travel modes and public transport.”

**“SM5 Objective 2:** To design new streets and roads within urban areas in accordance with the principles, approaches and standards contained within the Design Manual for Urban Roads and Streets (2013; updated 2019).”

### 2.1.6 Traffic and Transport Management

**“SM6 Objective 1:** To effectively manage the flow of through traffic along the strategic road network and maximise the efficient use of existing road resources.”

**“SM6 Objective 3:** To minimise the impact of new development on the County’s road and street network through prioritising active travel and public transport and implementing appropriate traffic and transport management measures.”

**“SM6 Objective 8:** To require all major traffic generating development to submit a Mobility Management Plan; Workforce Plan and / or Traffic and Transport Assessment.”

**“SM6 Objective 10:** To prioritise traffic calming measures, where appropriate, and works needed to improve safety at road crossings.”

### 2.1.7 Car Parking

*“SM7 Objective 1: To implement maximum car parking standards for a range of land-use types, where provision is based on the level of public transport accessibility.”*

*“SM7 Objective 5: To support the expansion of the EV charging network by increasing the provision of designated charging facilities for Electric Vehicles on public and private land in partnership with the ESB and other relevant stakeholders; and to support the Dublin Regional EV Parking Strategy.”*

*“SM7 Objective 10: To ensure that parking provision, including the provision of EV charging facilities, does not detract from the comfort and safety of pedestrians and cyclists, visual amenity or the character of an area.”*

*“SM7 Objective 11: To review and seek to improve the issue of on-street car parking in housing estates to eliminate any road or social issues they present, where issues of safety are clearly identified.”*

### 3. Receiving Environment

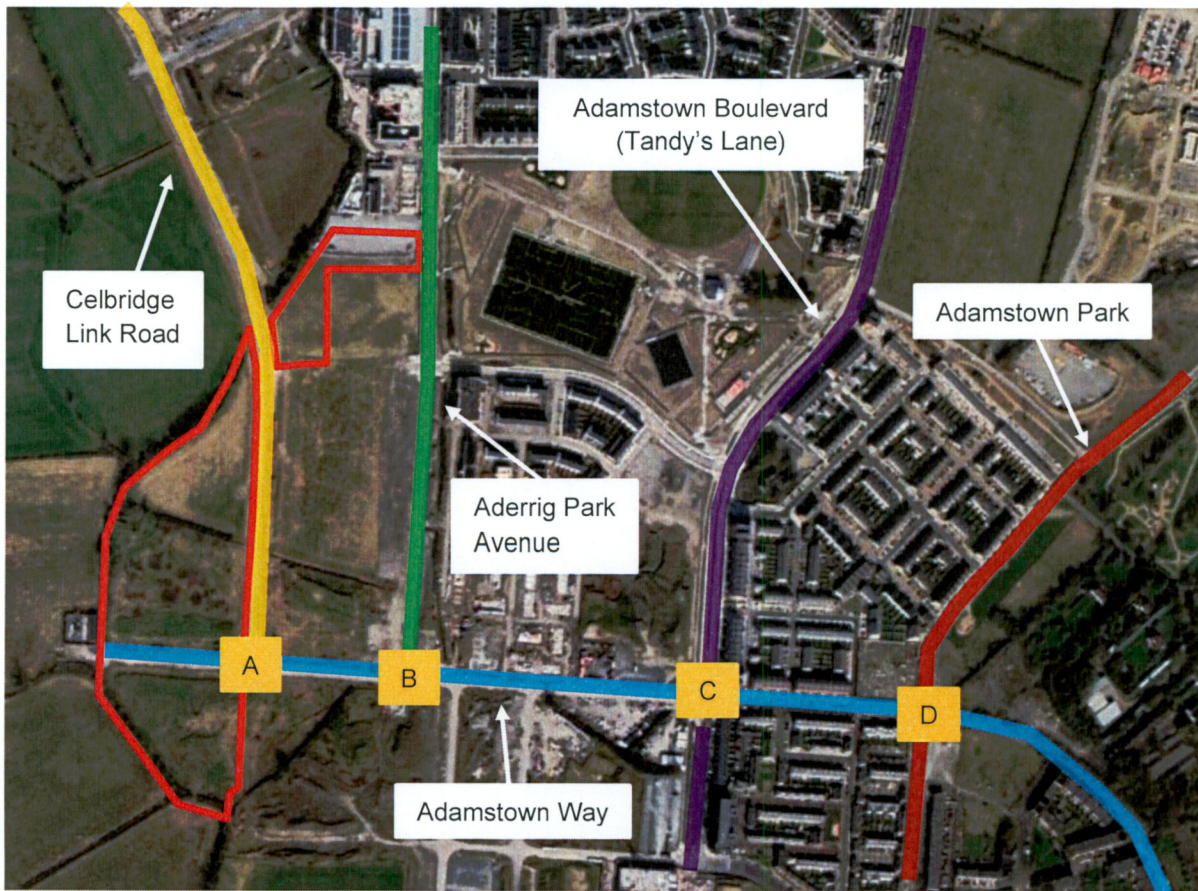
In this section, a review of the existing transport network was undertaken. The review focused on:

- Existing Local Road Network (Main Roads and Junctions).
- Existing Public Transport Provision (Train and Bus).
- Existing Facilities for Active Modes (Cycle and Pedestrian).

#### 3.1 Existing Local Road Network

##### 3.1.1 Roads

The existing main roads in the vicinity of the proposed development site are the Adamstown Park, the Adamstown Boulevard (Tandy's Lane), The Adamstown Way, the Aderrig Park Avenue and the Celbridge Link Road as shown in Figure 2 below.



**Figure 2 | Site Location and Surrounding Road Network & Main Junctions.**

Adamstown Park is a single carriageway road running south-north to the east of the site. The carriageway of the Adamstown Park is generally 6.0m wide with dedicated cycle lanes and footpaths running along both

sides of the road. The Adamstown Park intersects with Adamstown Way via a signalised crossroads and terminates further south at a signalised T-junction with the Station Road.

**Adamstown Way** is a single carriageway road which starts immediately west of the proposed development site and runs in an easterly direction until it becomes Castlegate Terrace and terminates at Station Road. The western section of the Adamstown Way (from Adamstown Boulevard), which provides access to the Electrical Transformer Station (SD 06A/0497) and the proposed development site, is fully operational. To the east of Adamstown Boulevard, the Adamstown Way is fully developed. Along this section, the Adamstown Way generally comprises a 7.0m wide carriageway with turning pocket lanes and dedicated off-road cycle lanes and footpaths running along both sides. There are also some parallel parking spaces provided on both sides of the road which currently serve some existing residential units.

**Adamstown Boulevard (Tandy's Lane)** is a double carriageway road running south-north to the east of the site. It comprises two lanes in both directions, with dedicated 3.0m wide bus lanes and 3.0m wide normal traffic lanes. Footpaths and off-road cycle lanes are provided along both sides of the road. Parking is not allowed along Adamstown Boulevard (Tandy's Lane).

**Aderrig Park Avenue** is a single carriageway road running north-south to the east of the site from Shackleton Drive (at the Lidl location) to the north up until the Adamstown Way to the south. Aderrig Park Avenue is currently under construction.

**Celbridge Link Road** is an under-construction road that received grant permission under Reg. Ref. SDZ 17A/0009. The permission provided for the construction of a 7.0m wide carriageway with parallel parking bays, off-road cycle tracks and footpaths. This road, which is currently not opened to traffic, will facilitate access to the R403 to the northwest of the Adamstown SDZ area and will provide access to the proposed development at the intersection with Adamstown Way.

### 3.1.2 Junctions

The junctions identified to be the primary ones in the vicinity of the site are:

- **Junction A (Future Signalised)**: Adamstown Way / Celbridge Link Road.
- **Junction B (Future Signalised)**: Adamstown Way / Shackleton Lawn.
- **Junction C (Signalised)**: Adamstown Way / Adamstown Boulevard.
- **Junction D (Signalised)**: Adamstown Way / Adamstown Park.

The location of these junctions in relation to the proposed development site were illustrated in Figure 2 above.

## 3.2 Existing Public Transport Provision

The review of the public transport provision provided in this section includes a) the description of the modes of transport available in the area, b) the ease of access to these facilities and c) the frequency of service currently available. The existing bus service along the Adamstown Boulevard and the Station Road and the Adamstown rail station are key elements already serving the area.

### 3.2.1 Train

Adamstown Train Station is located to the southeast of the site approximately 950m away or 12 minutes walking as shown in Figure 3 below. It is served by Commuter and InterCity services and operates from 06:15 to 23:50 from Monday to Friday and from 10:00 to 21:00 on Sundays. The Commuter Rail service through Adamstown Station serves all stations from Heuston to Cork. The InterCity service operates from Dublin through Kildare to Portlaoise. Train frequency at Adamstown Station is generally 2 services per hour per direction throughout the day.

Currently there is a temporary Park and Ride facility serving the Adamstown station. A permanent Park and Ride facility at this location is a requirement set out in the Adamstown SDZ planning scheme. A public bicycle parking with 50 parking spaces is provided just outside Adamstown train station and currently provides residents with a good opportunity to commute on a bike-train combined journey.

### 3.2.2 Dublin Bus and Go Ahead

Public bus service in the locality is operated by Dublin Bus and Go Ahead. As can be seen in Figure 3 below, the closest bus stops served by public bus services are located on the Adamstown Boulevard and on the Station Road c.850m and 950m away from the centre point of the site - approximately 10 and 12-minute walking, respectively. The bus routes which currently operate along the Adamstown Boulevard and the Station Road together with their weekday operational frequencies are provided in Table 2. It is important to mention that the bus frequency data presented below was based on the time that buses leave the first bus stop. The below information was obtained by consultation of Dublin Bus and Go-Ahead websites.

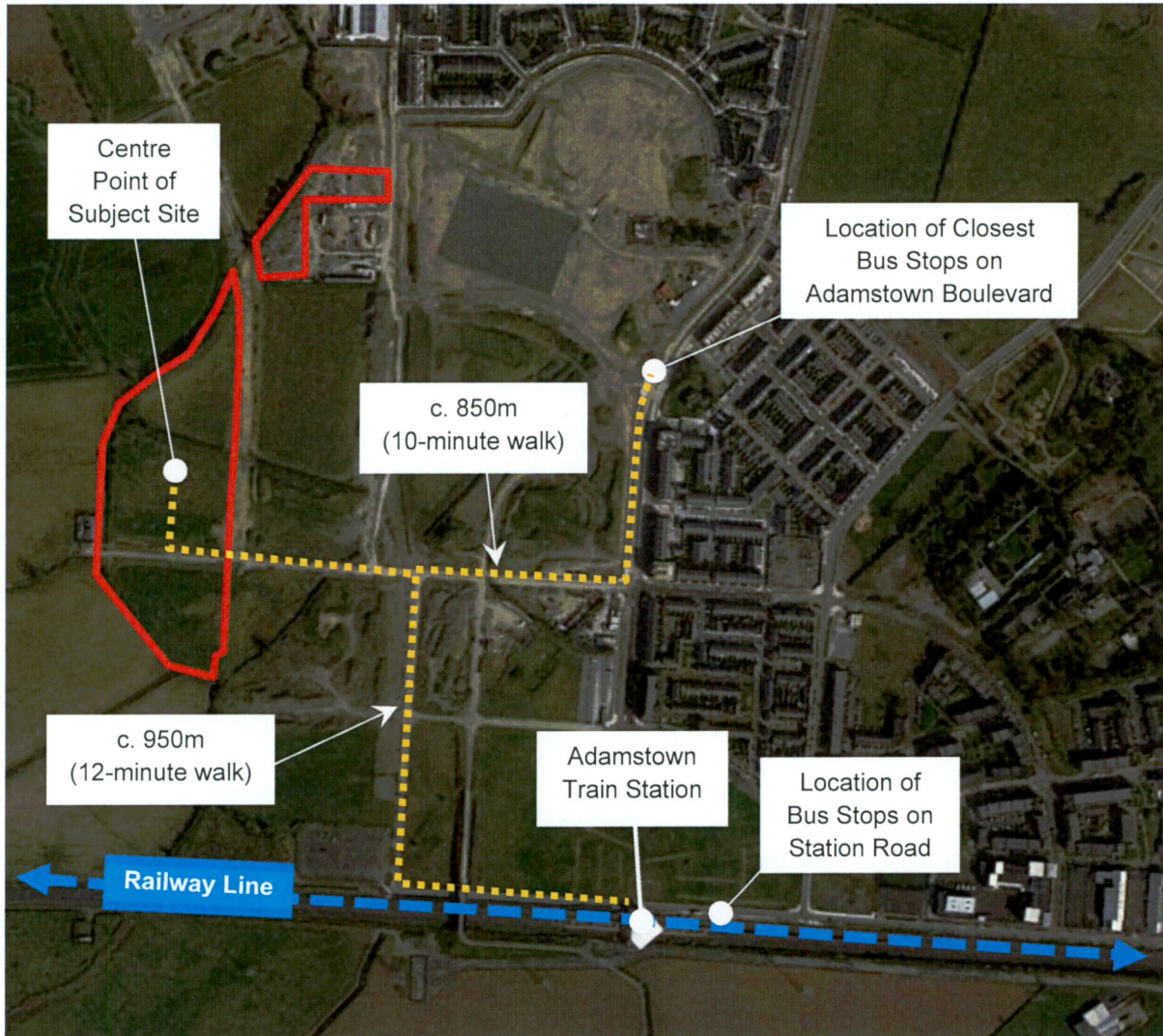
Bus Routes & Weekday (Monday to Friday) Operational Frequency						
Route No.	Direction	00:00 to 07:00	07:00 to 09:00	09:00 to 17:00	17:00 to 19:00	19:00 to 00:00
C1	to Sandymount	15 services	12 services	18 services	4 services	8 services
	from Sandymount	9 services	6 services	23 services	10 services	9 services
C2	to Sandymount	14 services	10 services	18 services	4 services	8 services
	from Sandymount	10 services	5 services	23 services	10 services	8 services
P29	to Ringsend Rd.	-	4 services	-	-	-
	from Ringsend Rd.	-	-	-	4 services	-
L51	to Liffey Valley	2 services	2 services	8 services	2 services	4 services
	from Liffey Valley	2 services	2 services	8 services	2 services	4 services
L52	to Blanchardstown	1 service	2 services	8 services	2 services	5 services
	from Blanchardstown	1 service	2 services	8 services	2 services	5 services
L53	to Liffey Valley	3 services	4 services	16 services	4 services	8 services
	from Liffey Valley	3 services	4 services	16 services	4 services	8 services

**Table 2 | Dublin Bus & Go-Ahead Routes – Operational Weekday Frequency.**

Access from the subject site to the closest existing bus stops on Adamstown Boulevard is via Adamstown Way, via a network of footpaths with dedicated pedestrian crossings that will be provided as part of Aderrig Phases 1 and 2, which, when combined with the existing pedestrian facilities on Adamstown Boulevard, will facilitate progression of all users towards the bus stops.



With the construction of the approved Aderrig Phases 1 and 2 and their associated pedestrian network, access to the bus stop on Adamstown Boulevard from the proposed development's residents living on the northern portion of the site, may be shortened.



**Figure 3 | Site Location and Routes to Existing Public Transport Services.**

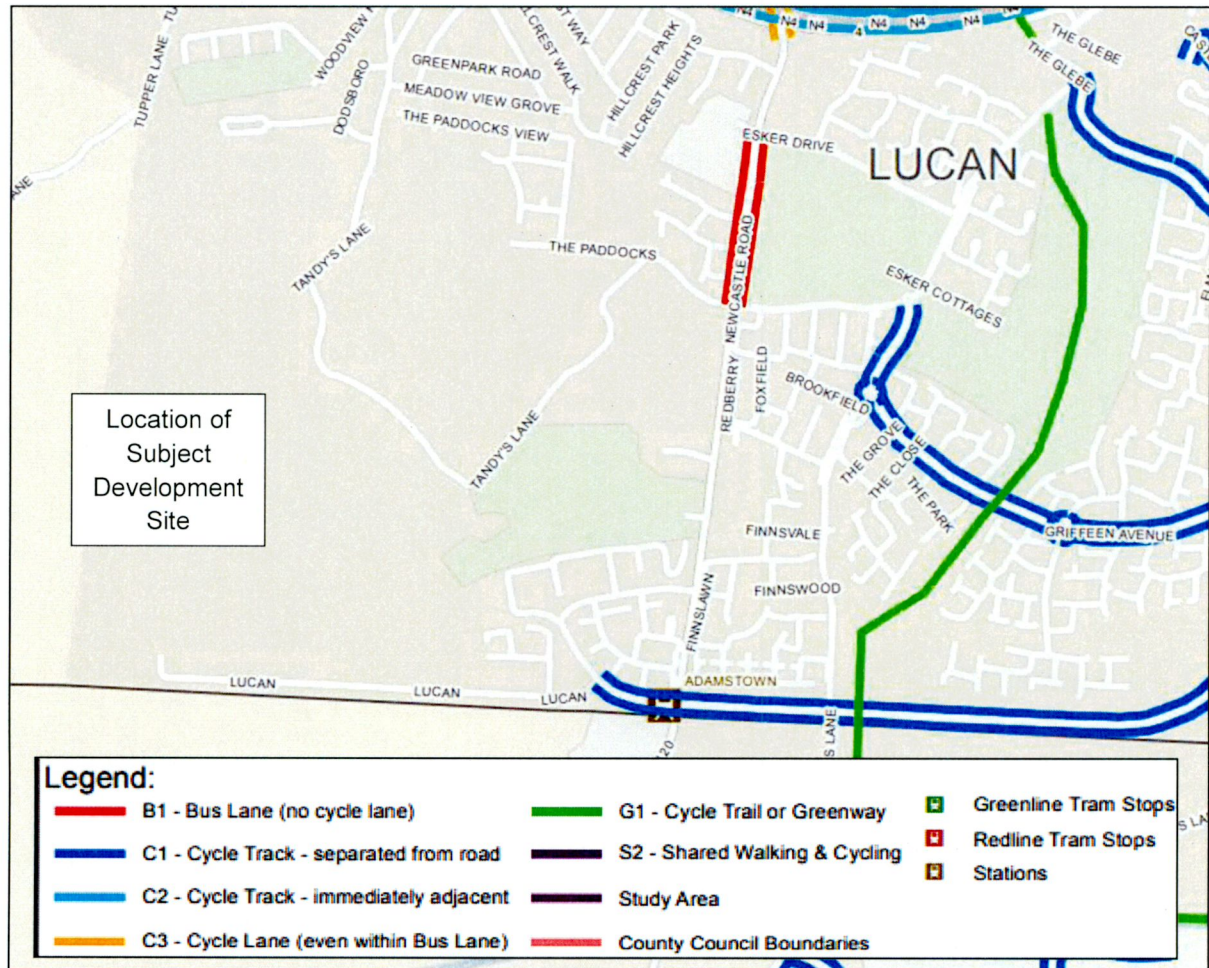
### 3.3 Existing Facilities for Active Modes

#### 3.3.1 Cycle Facilities

*Greater Dublin Area Cycle Network Plan – NTA, 2013*

According to Sheet 5 (Dublin Mid-West) of the Existing Cycle Network Map within the GDA Cycle Network Plan published by the National Transport Authority (NTA) in December 2013, the immediate area surrounding the site had no provision of cycle facilities. The closest cycle facilities were provided to the east of the site and included cycle tracks separated from the road along both sides of the Griffeen Avenue, cycle

tracks separated from the road along both sides of the road adjacent to the railway line and a cycle trail (or greenway) running north-south between the R120 and the R139 (across Griffen Valley Park). Figure 4 below shows the surrounding cycle network existent in the local area as extracted from Sheet 5 of the GDA Existing Cycle Network Map.



**Figure 4 | Existing Cycle Network – Extracted from the GDA Cycle Network Plan, NTA 2013.**

The cycle network in the Adamstown area has developed considerably since the GDA Cycle Network Plan was published in 2013. The **Adamstown Way** to the east of Adamstown Boulevard comprises of new off-road cycle tracks along both sides of the road. The **Adamstown Boulevard** comprises of new off-road cycle tracks along both sides of the road. The **Adamstown Park** comprises of new off-road dedicated cycle lanes along both sides of the carriageway. The **Adamstown Drive (L1030)** comprises of a dedicated off-road cycle lane along the northern side of the carriageway.

These cycle lanes, which are in line with the requirements set out in 'Figure 2.22 – Pedestrian and Cyclist Permeability' within the Adamstown Strategic Development Zone (SDZ) Planning Scheme 2014, already provide comfort and safety to those cyclists moving towards the outer network and to the local and strategic public transport system and amenities. Further details of the cycle network proposals as set out in the Adamstown SDZ are provided later in this report.

### Bike Parking

As described earlier in Section 3.2.1, public bicycle parking with 50 parking spaces is provided just outside Adamstown train station and currently provides residents with a good opportunity to commute on a bike-train combined journey.

### 3.3.2 Local Pedestrian Facilities

In the immediate vicinity of the proposed development site, the majority of the approved road and pedestrian networks are currently under construction or not developed. To the east of the site, however, from Adamstown Boulevard north and eastwards, the Adamstown Park, the Adamstown Way and the Adamstown Boulevard itself incorporate good quality pedestrian facilities with street lighting and footpaths provided along both sides of the carriageways. The major existing junctions in the area are equipped with dedicated pedestrian crossings facilities, which include dropped kerbs and tactile pavement.

### 3.4 Existing GoCar

There are two GoCar bases located in the surrounding area within reasonable walking time, one to the southeast of the site close to the railway line and one to the northeast of the site at Gandon Crescent. The location of each GoCar base in relation to the subject site is illustrated in Figure 5. There is currently one vehicle available at each station.

Walking times from the subject site (at a centre point) is approximately 19 minutes to the GoCar base near the railway line and 22 minutes to the GoCar base at Gandon Crescent.

Additionally, there is a further GoCar base located near the Griffeen Valley Park, which also has one vehicle available. Walking time to this GoCar base is c. 39 minutes.

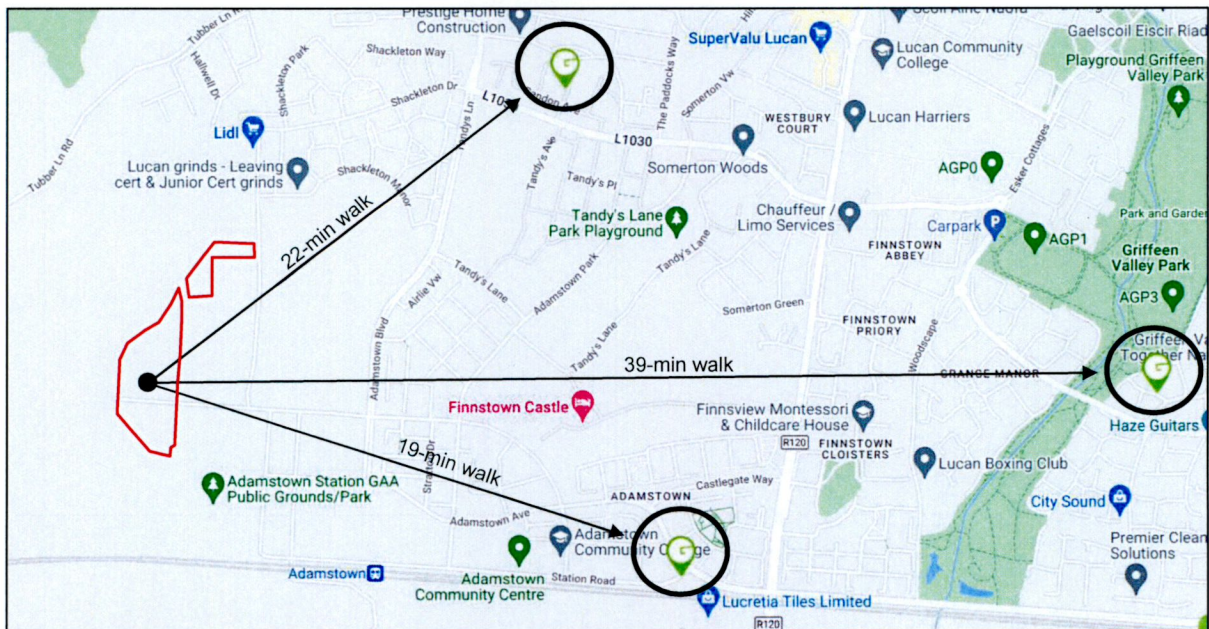


Figure 5 | Location and Walking Times to Closest GoCar Bases.

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

GoCar estimates that each GoCar vehicle in a community has the potential to replace the journey of up to 15 private cars.

## 4. Transportation Improvements

### 4.1 Public Transport

#### 4.1.1 Dart+ Southwest

Adamstown Station, located approximately 950m southeast of the proposed development site, is part of the southwestern route of the DART railway network. The DART+ Programme aims to improve current rail services across Dublin City and Greater Dublin, by modernising and providing an electrified and more frequent and reliable rail service, enhancing capacity on the rail corridor. The following improvements - extracted from the DART+ website, are included as part of the programme:

- *“Increase peak passenger capacity from 5,000 to 20,000 per hour per direction and increase train frequency between Hazelhatch & Celbridge Station and Dublin City – facilitating fast, frequent, and reliable transport to the surrounding communities.*
- *Enhance public transport opportunities for work, education, or leisure purposes.*
- *Facilitate the development and future growth of existing and new communities that will greatly benefit from the connectivity that the DART+ Southwest will deliver.*
- *Alleviate road congestion.*
- *Build a sustainable and connected city region, supporting the transition to a low carbon and climate resilient society.*
- *Facilitate people to make sustainable travel choices by encouraging a move away from private cars to reliable, efficient, and safe public transport network.*
- *Improve multimodal transport connectivity through interchange with the Luas at Heuston Station, Bus Connects and the proposed Metrolink.*
- *Improve journey time reliability.”*

An application for the DART+ Southwest programme is expected to be made to An Bord Pleanála in summer/autumn 2022.

#### 4.1.2 BusConnects

The BusConnects project currently being promoted by the National Transport Authority (NTA) aims to deliver a much-enhanced bus service to the Greater Dublin Area (GDA). The routes proposed under BusConnects project, to closely serve the subject development site are the following:

- **Spine Route C2**: Adamstown – City Centre – Sandymount.
- **Local Route L51**: Adamstown – Lucan Village – Esker – Liffey Valley and
- **Local Route L52**: Adamstown – Lucan Village – Clonsilla – Blanchardstown Shopping Centre.

In addition to the above, the four further routes, departing from the Adamstown train station, are proposed, under the Bus Connects project, to serve the Adamstown SDZ area. These include:

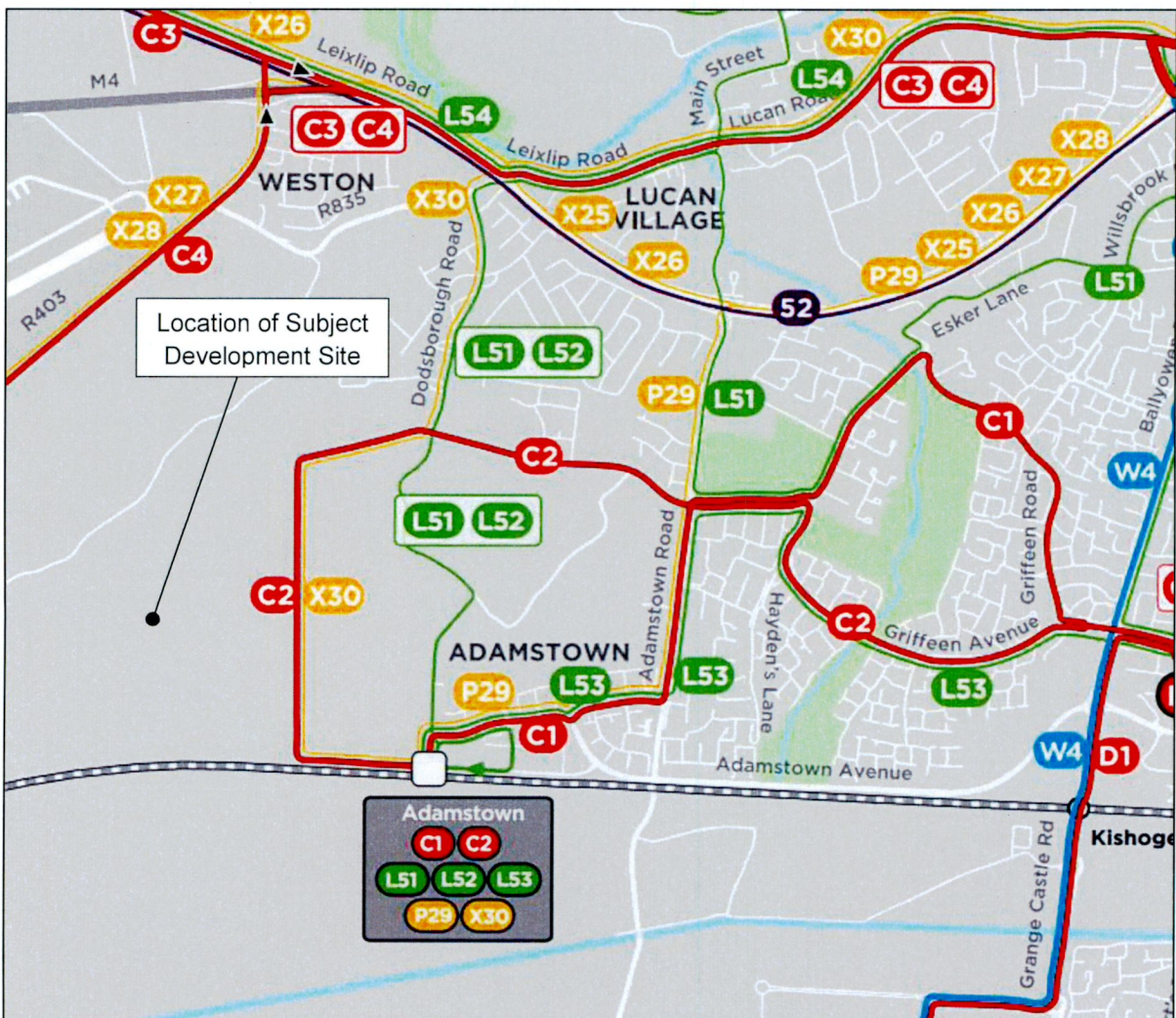
- **Spine Route C1**: Adamstown – City Centre – Sandymount.
- **Local Route L53**: Adamstown – Balgaddy – Liffey Valley.
- **Peak Only Route P29**: Adamstown Road – City Centre – Ringsend and

- **Peak Only Route X30:** Dodsborough – Lucan Village – City Centre – UCD.

According to Bus Connects website, all seven routes outlined above are part of Phase 2 of the Bus Connects Network Redesign, which was launched on 28<sup>th</sup> November 2021 and already serves the communities of Maynooth, Celbridge, Leixlip, Lucan, Adamstown, Liffey Valley and Palmerstown to the City Centre as well as Ringsend and Sandymount.

As outlined in Section 3.2.2 of this report, all routes are operated by Dublin Bus, with the exception of routes L51 and L52 which are operated by Go-Ahead.

Even though it is illustrated on the map below that Peak Only Route X30 starts at the Adamstown rail station, in reality it starts at Dodsborough Road to the north of the L1030.



**Figure 6 | Bus Connects Routes Map (Extracted from Bus Connects Network Map).**

The background map as shown in Figure 7 above is outdated and therefore do not precisely indicate the current road network in the Adamstown SDZ area. However, as previously described in Section 3.2.2 and illustrated in Figure 3, there are existing bus stops on the Adamstown Boulevard which are currently

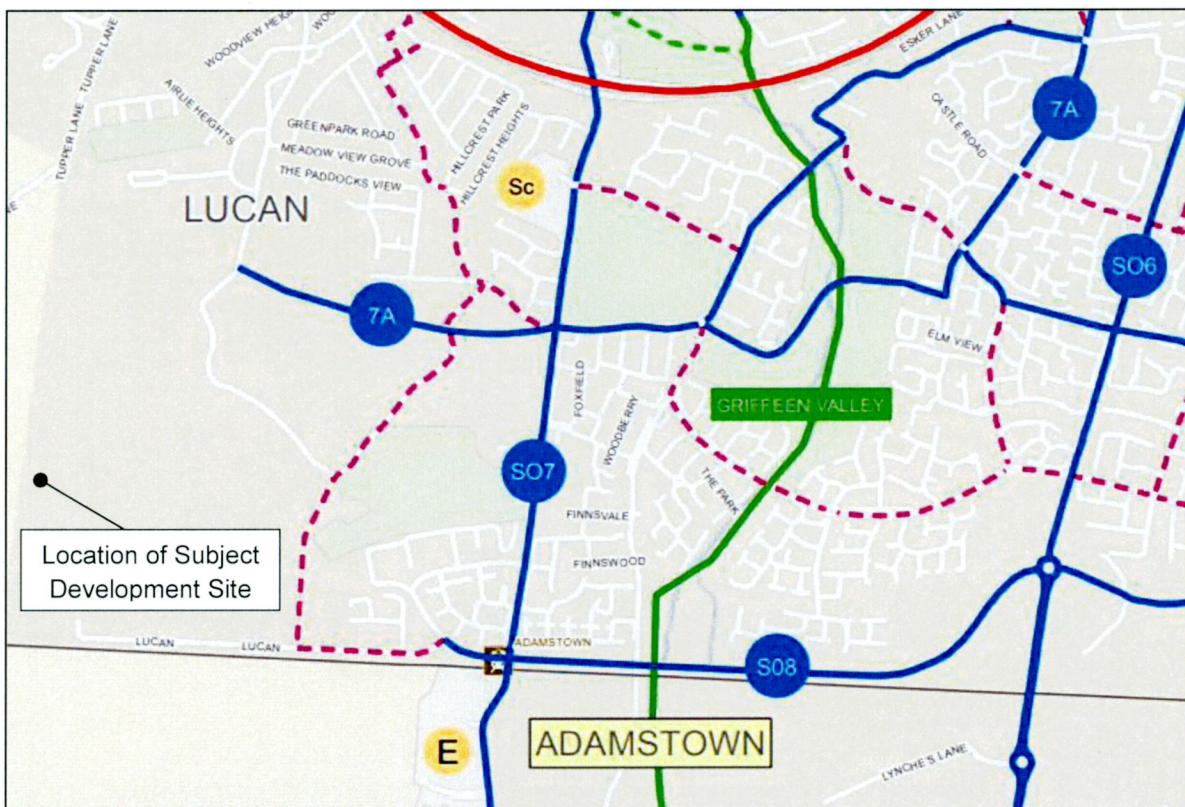
serviced by Routes L51 and L52. Route C2 does not operate precisely as illustrated in Figure 6 above. It actually operates following the same path as Route C1 – eastwards along Adamstown Avenue and Castlegate Way, left turn on Adamstown Road, then right turn on the Old Esker Lane to continue its path along Griffeen Avenue around Griffeen Park.

## 4.2 Cycle Infrastructure

### 4.2.1 Greater Dublin Area Cycle Network Plan, NTA 2013

Proposals for the Greater Dublin Area Cycle Network Plan were published by the National Transport Authority (NTA) in December 2013. The plan sets out a vision and a strategy for the construction and/or designation of a comprehensive network of cycling routes throughout the Greater Dublin Area (Counties Dublin, Meath, Kildare, and Wicklow).

The subject site in Adamstown SDZ lies within the “Dublin West Sector” as outlined within the Greater Dublin Area Cycle Network Plan. This sector “extends southward from the N4 and River Liffey, to a line south of the N7 and the Ballymount and Walkinstown areas.” An extract from Sheet N5 (Proposed Cycle Network – Dublin Mid-West), where the subject site is situated is reproduced in Figure 7 below.



**Figure 7 | Proposed Cycle Network – Extracted from Sheet N5 of the GDA Cycle Network Plan.**

It can be noted that the background map in Figure 7 above is outdated and therefore does not precisely represent the current road network in the Adamstown SDZ area. However, route 7A – running along the

L1030 and connecting to the wider cycle network to the east, is already constructed and serving the residents of the Adamstown Area.

The north-south feeder route (dotted pink line crossing route 7A) is also substantially completed. To the south of its junction with route 7A, the feeder route is provided in the form of an off-road cycle lane running along both sides of the Adamstown Park. Further south along this road, the feeder route becomes a shared cycle-vehicle route.

The existing cycle network in Adamstown area was previously described in Section 3.3.1

### **4.3 Adamstown Strategic Development Zone (SDZ) – SDCC, December 2014**

In December 2014, South Dublin County Council published the 'Adamstown Strategic Development (SDZ)' with the *"aim to create sustainable communities rather than just housing developments"* in the Adamstown Planning Scheme area.

#### **4.3.1 Road Improvements Outside the SDZ**

Several road improvements outside the Adamstown SDZ have been carried out to support the development of the area. These improvements included:

- Completion of the Outer Ring Road from the N4 to the N81.
- Completion of 2.2km of the Adamstown Link Road connecting to the Outer Ring Road.
- Realignment of Hayden's Lane.
- Upgrades to the R120 adjacent to the SDZ.
- Construction of two signal-controlled access junctions into the SDZ.
- Construction of the R120 bridge over the Adamstown Link Road and Railway Line.
- Improvements to the N4 between the M50 and Leixlip Interchange.
- Completion of the Celbridge/Leixlip West interchange on the N4.

#### **4.3.2 Busway/Quality Bus Corridor (QBC)**

From the Adamstown SDZ, *"it is an objective of planning scheme to both increase bus capacity to serve Adamstown at each phase of development and improve bus journey times between Adamstown/Lucan area and the City Centre."*

To enhance the overall bus network in Adamstown to better serve the existing and future residents of the area, the following improvements have been set out in the Adamstown SDZ:

1. Provision of a north south QBC busway through the centre of the Adamstown SDZ lands between the railway station and the existing N4 QBC, which shall include both on-site and off-site bus priority measures comprising of road markings, bus gates and/or bus priority signals.
2. Provision of additional bus services from the Adamstown transport interchange serving Lucan, Liffey Valley, Blanchardstown, and Tallaght.

The proposed main roads and busway network in Adamstown area are illustrated in Figure 8 below – reproduced from *'Figure 2.16 Main Road and Busway Network'* of the Adamstown SDZ. The north-south



QBC that was required for the Adamstown SDZ is already constructed and operational via the Adamstown Boulevard.

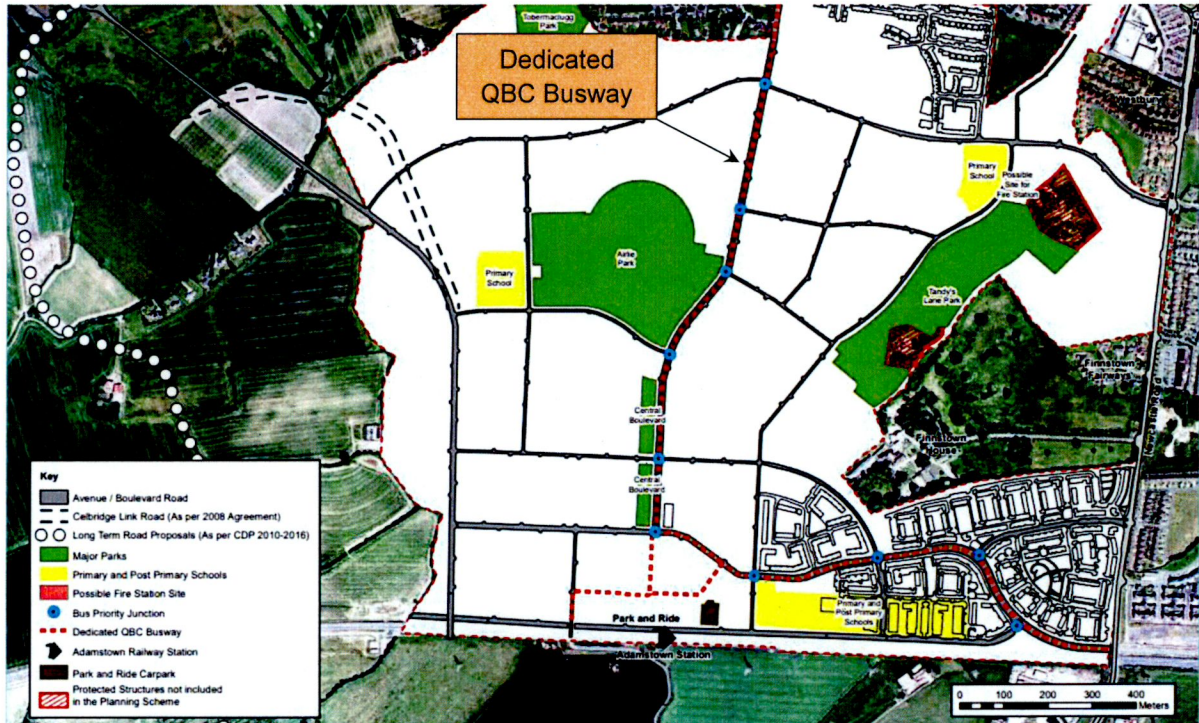


Figure 8 | Adamstown - Road and Busway Network (extracted from Figure 2.16 of the SDZ).

### 4.3.3 Aderrig Development Area – Road Hierarchy and Indicative Layout

Figure 9 below reproduces the road hierarchy and the indicative road layout for the western side of the Aderrig Development area (where the subject Aderrig Phase 3 is proposed) as extracted from the Adamstown SDZ, in comparison with the proposed road layout for the overall for the Aderrig Phase 3.

It will be seen that the internal road hierarchy proposed as part of the subject application (Aderrig Phase 3) has been developed based on the layout set out in the Adamstown SDZ, but with some adjustments that were required to address site constraints.

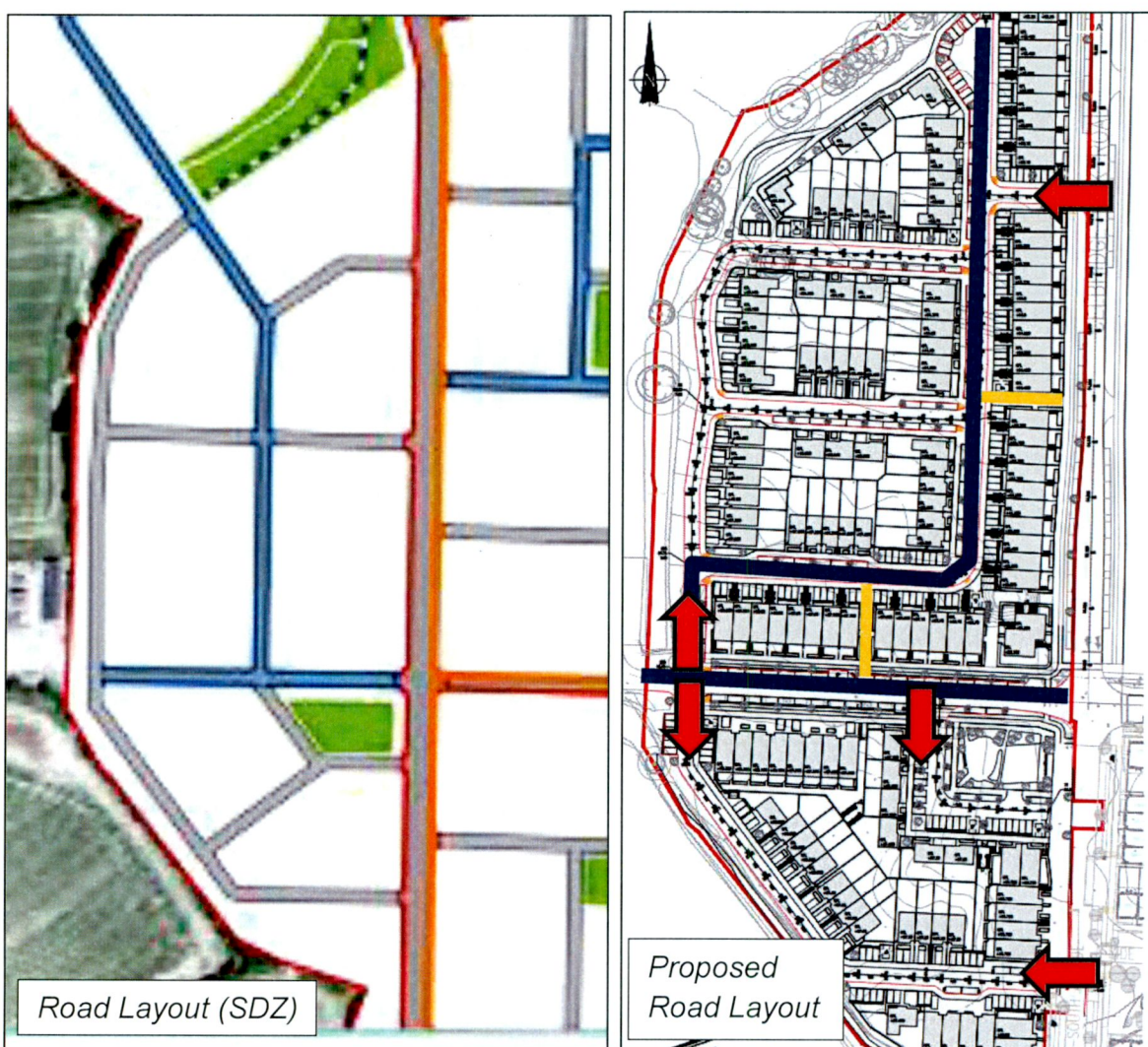
As part of the Adamstown Planning Scheme indicative layout, one east-west and one north-south Side Street are required for the Aderrig Phase 3. The proposed road layout for the Aderrig Phase 3 includes the construction of the western extension of the west-east Adamstown Way, which will form the west-east Side Street required in the Planning Scheme.

The central junction onto Adamstown Way, as set out in the Adamstown Planning Scheme layout, is the beginning of the north-south Side Street. Due to its low traffic characteristics which will not operate as a through route, it is proposed to be altered to a pedestrian link. As part of the proposed layout, the north-south Side Street will start further west on Adamstown Way and will continue north/east on a different alignment. As set out in the Adamstown Planning Scheme, the north-south Side Street alignment is indicated as a straight line. However, given the land use proposed for the area (residential), the proposed road layout is considered more appropriate in terms of pedestrian and cyclists' safety. The proposed road

layout will require drivers to reduce their vehicle speed for a couple of right/left turning movements which will therefore provide comfort and a better sense of safety for pedestrian and cyclists.

The northern extension of the north-south Side Street which would provide an internal connection link between Aderrig Phase 3 and the lands to the north, is not proposed in this application. As part of the planning RFI on the site to the north, this link was excluded to protect hedge and the same approach was replicated in the subject application. Instead, the pedestrian and cyclist link has been prioritised at this location and will lead to the Celbridge Link Road at an indicative crossing point – Refer to Figure 10.

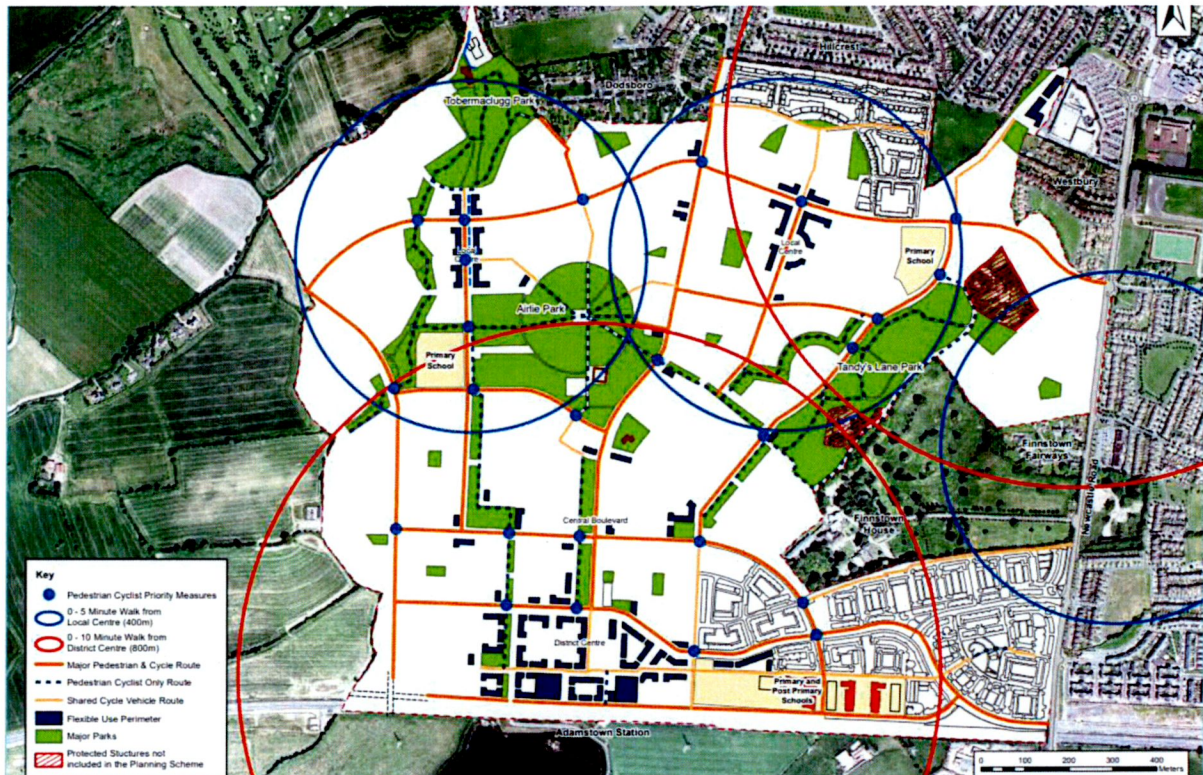
The specific location/alignment of the Back Streets through the site as well as the number of vehicular accesses onto Adamstown Way and Celbridge Link Road also differ slightly to those set out in the SDZ. The number of vehicular accesses has reduced in favour of providing pedestrian friendly Homezones and prioritising pedestrian and cyclist permeability in line with the objectives set out in DMURS.



**Figure 9** | Comparison of Road Hierarchy and Layout - SDZ vs. Proposed.

#### 4.3.4 Walking and Cycling Network

“Figure 2.22: Pedestrian and Cyclist Permeability” of the Adamstown SDZ, which is reproduced in Figure 11 below, sets out a comprehensive walking and cycling network proposed internally throughout Adamstown lands and its connection points to the existing wider network.



**Figure 10 | Pedestrian and Cyclist Permeability (Figure 2.22 of the Adamstown SDZ).**

Paragraph 2.4.17 of the Adamstown SDZ sets out that “future developments are required to maximise pedestrian and cyclist access to services and facilities and, the local and strategic public transport network. This is to be achieved through the provision of a network of direct, safe, secure, and pleasant pedestrian and cycle routes.” These pedestrian and cycle routes are illustrated in Figure 10 above.

As mentioned earlier in this report, the cycle network in the Adamstown area has developed considerably since the GDA Cycle Network Plan and the Adamstown Planning Scheme were published in 2013 and 2014, respectively.

In the immediate vicinity of the proposed development site, the majority of the approved pedestrian and cycle networks within the Aderrig tile are currently under construction or not developed. To the east of the site, however, from Adamstown Boulevard north and eastwards, the Adamstown Park, the Adamstown Way and the Adamstown Boulevard itself incorporate good quality pedestrian and cycle facilities with street lighting, footpaths and cycle facilities provided along both sides of the carriageways. The major existing junctions in the area are equipped with dedicated pedestrian crossings facilities, which include dropped kerbs and tactile pavement. These cycle lanes, which are in line with the requirements set out in ‘Figure 2.22 – Pedestrian and Cyclist Permeability’ (Figure 10 above) already provide comfort and safety to those

cyclists moving towards the outer network and to the local and strategic public transport system and local educational developments.

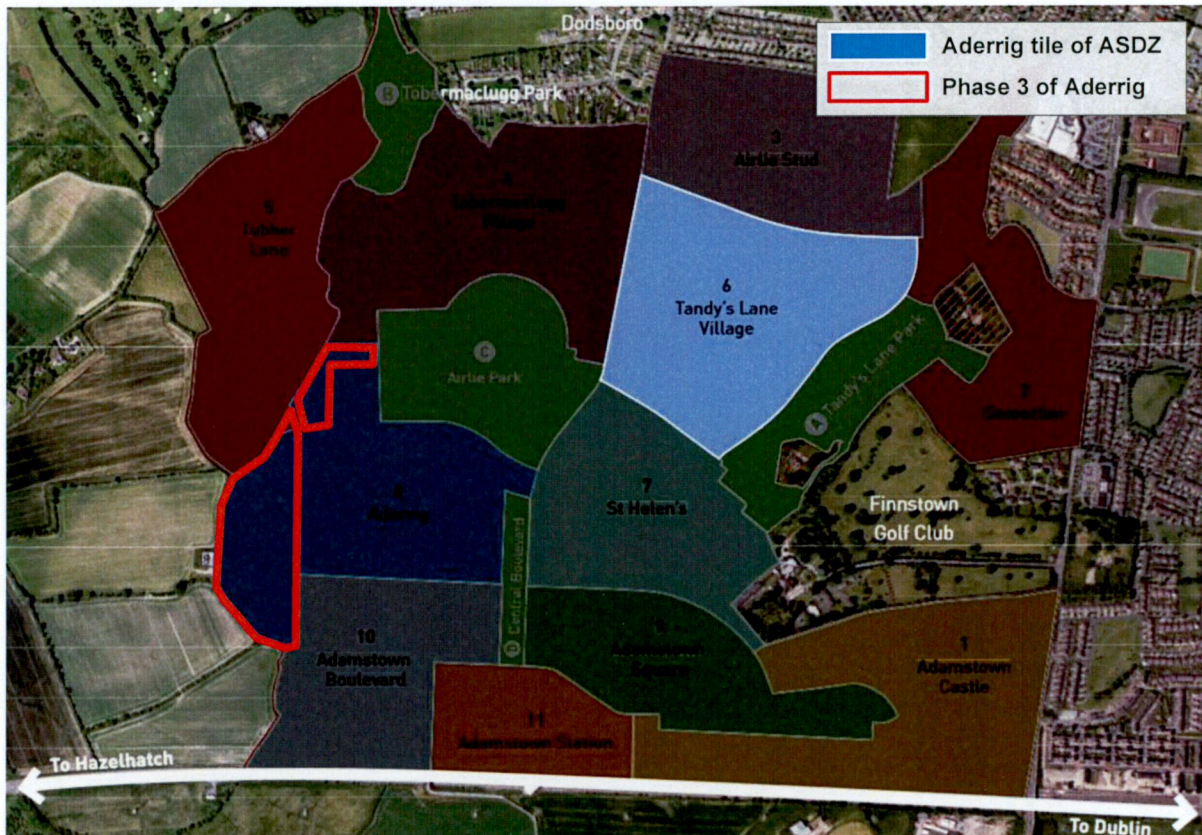
Dedicated cycle lanes are proposed within the site along Adamstown Way and Celbridge Link Road. In addition, measures for cyclists and pedestrians will be provided in the form of downgraded junctions to only pedestrian and cyclists links, which will provide safety and comfort for residents.

As indicated in Figure 10 above, the new junction between Celbridge Link Road and Adamstown Way and Celbridge Link Road at the northern boundary of the site will comprise of crossings facilities with dedicated priority measures for cyclists and pedestrians. The subject development proposals include an internal pedestrian network that connects with these facilities.

## 5. Proposed Development

### 5.1 Site Location

The proposed development lands are located within the Aderrig Development Tile - Area 8 of the Adamstown Strategic Development Zone (ASDZ), and is situated on the western portion of the tile – Refer to Figure 11.



**Figure 11 | Location Map for Proposed Aderrig Phase 3 Site.**

The total area of the subject Aderrig Phase 3 site is 6.36 ha and is bounded by:

- Phase 3 Tubber Lane (to the North) – Reg. Ref. SDZ 21A/0023;
- Celbridge Link Road (to the East) – Reg. Ref. SDZ 17A/0009;
- Aderrig Phase 2 (to the East) – Reg. Ref. SDZ 21A/0014;
- Adamstown Way (existing road that extends inside and to the East of the site) – Reg. Ref. SDZ 06A/5); and provides access to the Electrical Transformer Station (to the West) – Reg. Ref. SD 06A/0497); and
- Farmlands (to the West and South).

## 5.2 Development Description

The proposed development is labelled as Phase 3 of Aderrig Development Area and consists of 207 no. residential units in a mixture of 3- and 4-bedroom houses and 2- and 3-bedroom duplexes.

The proposed schedule of accommodation is shown in Table 3 below.

Unit Type	2-Bedroom	3-Bedroom	4-Bedroom	Total
Houses	-	59	16	75
Duplexes	64	68	-	132
<b>Total</b>	<b>64</b>	<b>127</b>	<b>16</b>	<b>207</b>

**Table 3 | Proposed Schedule of Accommodation.**

## 5.3 Vehicular Access Points

The proposed development site will benefit from five access points as shown in Figure 12. These include:

- 1 no. access point via Celbridge Link Road to the north of Adamstown Way.
- 1 no. access point via Celbridge Link Road to the south of Adamstown Way.
- 1 no. access point to the north via Adamstown Way.
- 2 no. access points to the south via Adamstown Way.

The visibility splay requirements for these vehicular access points are based on the 50kph design speed limit.

The sightline requirements for new priority junctions on 50kph roads are identified within the Design Manual for Urban Roads and Streets (DMURS) which recommends a visibility splay of 49m x 2.4m on roads with bus routes and 45m x 2.4m on roads without bus routes.

For the internal minor junctions, the proposed visibility splays were based on the requirements set out for roads with a speed limit of 30kph.

For the junctions on 30kph roads, the requirements are 23m x 2.4m.

Details of the designed sightlines for the proposed development's junctions are shown on Waterman Moylan Drawing 22-023-P110 accompanying the documentation package.

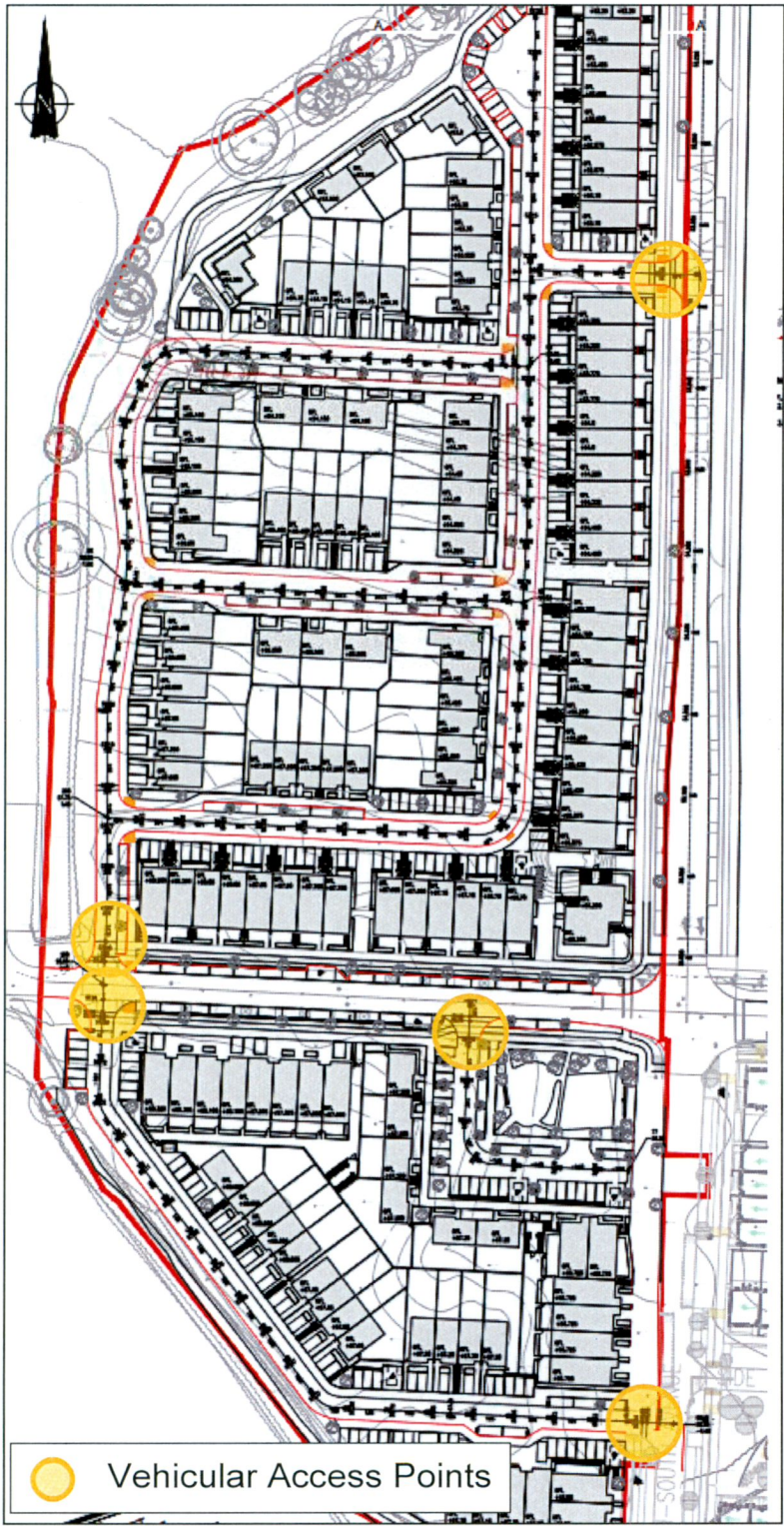


Figure 12 | Vehicular Access Points.

## 5.4 Internal Layout

As recommended by both DMURS and outlined in the ASDZ road widths have been minimised to encourage reduced vehicular speeds. All internal roads are 5.5m wide with footpaths of 2.2m wide. Carriageways within the 'homezones'/shared surface areas are 6.0m (4.5m wide with a 1.5m wide services strip/pedestrian refuge on one side of the carriageway). Details of the road cross sections are shown on Waterman Moylan Drawing No's 22-023-P120-P121 accompanying the documentation package.

All intersections within the development itself will be priority junctions with raised tables where appropriate. The low design speeds combined with traffic calming measures will ensure the safe operation of these junctions and a safe and comfortable environment for pedestrians and cyclists.

Proposed radii at junctions are as per DMURS recommendations. SDCC have indicated in recent Permissions within Adamstown to only provide tactile paving on the main peripheral footpaths and not within the general estate footpaths. Crossing points will be located along desire lines at various points within the development such that unimpeded pedestrian movement is facilitated.

All proposed internal footpaths are 2.2m in width. This is in accordance with Section 4.3.1 of the DMURS which suggests that a minimum 1.8 footpath should be provided.

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.

## 5.5 Access to Fire Tenders and Refuse Truck

The proposed development of Aderrig Phase 3 will be accessible for fire tenders and refuse trucks. Turning path layouts are shown on Waterman Moylan Drawings No. 22-023-P111 and P112 accompanying the documentation package.

## 5.6 Car Parking

### 5.6.1 South Dublin County Council Development Plan 2022 – 2028

Car parking rates for new residential developments are set out in Section 12.7.4 and Table 12.26 of the current South Dublin County Council Development Plan. See Table 4 below – extracted from the Development Plan. Parking rates are divided into the following categories with regards to residential developments:

- **Zone 1:** *General rate applicable throughout the County.*
- **Zone 2 (Non Residential):** *More restrictive rates for application within town and village centres, lands zoned REGEN, and brownfield / infill within Dublin City and Suburbs settlement boundary within 800 metres of a train of Luas station and within 400-500 metres of a high quality bus service (including proposed services that have proceeded to construction).*
- **Zone 2 (Residential):** *More restrictive rates for application within town and village centres, lands zoned REGEN, and brownfield / infill sites within Dublin City and Suburbs settlement boundary within 400-500 metres of a high quality public transport service (includes a train station, Luas station or bus stop with a high quality service).*

The proposed development site is located as Zone 1.



**Table 12.26:** Maximum Parking Rates (Residential Development)

Dwelling Type	No. of Bedrooms	Zone 1	Zone 2
Apartment Duplex	1 Bed	1 space	0.75 space
	2 Bed	1.25 spaces	1 space
	3 Bed+	1.5 spaces	1.25 spaces
House	1 Bed	1 space	1 space
	2 Bed	1.5 spaces	1.25 spaces
	3 Bed+	2 spaces	1.5 spaces

**Table 4 |** County Development Plan 2022 - 2028, Maximum Car Parking Standards.

Note that the parking rates set out above are maximum standards. As stated in the Development Plan, “the maximum provision should not be viewed as a target and a lower rate of parking may be acceptable” subject to several criteria and agreement with the Council.

In addition to the above, the current Development Plan also states that “EV charging shall be provided in all residential, mixed use and commercial development and shall comprise a minimum of 20% of the total parking spaces.”

### 5.6.2 Adamstown Strategic Development Zone (SDZ) - 2014

Car parking standards for new residential developments in Adamstown are set out in Table 2.12 of the Adamstown SDZ. See Table 5 below – extracted from the Adamstown SDZ.

Table 2.12 Car Parking Standards	
Development Type	Car Parking Standard
<b>Residential</b>	
Dwelling with 1 bedroom	1 space per dwelling
Dwelling with 2 bedrooms	1.5 spaces per dwelling
Dwelling with 3 or more bedrooms	2 spaces per dwelling

**Table 5 |** Adamstown SDZ 2014, Car Parking Standards.

As can be seen from the above, the car parking standards for residential developments set out in the Adamstown SDZ are equal to the standards from the South Dublin County Council Development Plan 2022 – 2028 set out for new houses in the Zone 1. In this regard, the proposed number of car parking spaces to

serve the subject proposed development complies with both the current Development Plan and the Adamstown SDZ planning scheme. Refer to Section 5.6.3 below.

### 5.6.3 Proposed Car Parking

Table 6 below shows the breakdown of the number of car parking spaces allowed by the Adamstown SDZ planning scheme for the subject site.

Land use	No. of units	Parking Standard (Max)	Max Parking Allowed
Houses with 3+ bedrooms	75	2 spaces per dwelling	150
Duplexes with 2 bedrooms	64	1.5 spaces per dwelling	96
Duplexes with 3 bedrooms	68	2 spaces per dwelling	136
<b>Total</b>			<b>382</b>

**Table 6 | Parking Standard Layout**

314 no. car parking spaces will be provided to serve the proposed development which is less than the maximum allowed number of spaces as per the ASDZ and more than the minimum requirement of 1 no. car parking space per dwelling as stipulated in Paragraph 2.4.28 of the Adamstown SDZ. Of the 314 parking spaces, the 28 along Adamstown Way were previously permitted under Reg. Ref. SDZ06A/5. The current application includes amendments to these parking spaces to include 2 no. accessible spaces, 8 no. EV charging spaces and services infrastructure for future provision of EV charging to the remaining spaces.

Paragraph 2.4.22 of the Adamstown SDZ states that “no more than 60% of the residential car parking spaces shall be provided as private in-curtilage parking spaces in any development area.” Accordingly, a mixture of parallel and perpendicular on-road parking spaces is proposed throughout the development. It is proposed to provide 51 no. parking spaces in-curtilage which equates to 16% of the total parking spaces. The Adamstown Way within the proposed development will comprise of parallel parking only, whilst the car parking spaces on the Back Roads will be a mixture of perpendicular and parallel. 13 no. spaces are proposed as accessible spaces (11 new and 2 amended along Adamstown Way). 42 no. parallel spaces, which were permitted under Reg. Ref. SDZ17A/0009, will be provided on the west side of Celbridge Link Road. No changes to these parking are proposed under the current application. Of the 314 no. car parking spaces 51 are proposed as visitor spaces (49 new and 2 approved along Adamstown Way), and 52 are proposed as electric vehicle (EV) spaces (44 new and 8 amended along Adamstown Way). For additional details on car parking provision please refer to the accompanying architects drawing package.

## 5.7 Bicycle Parking

### 5.7.1 South Dublin County Council Development Plan 2022 - 2028

It is outlined in 12.7.1 of the South Dublin County Council Development Plan 2022 – 2028 that “bicycle parking / storage associated with residential apartments shall comply with the requirements of the Sustainable Urban Housing: Design Standards for New Apartments, Guidelines for Planning Authorities (2018) (the ‘Apartment Guidelines’), as may be amended or updated in relation to design and provision of facilities, including the following:

- **Location:** Cycle storage facilities should be directly accessible from the public road or from a shared private area that gives direct access to the public road.
- **Quantity:** A general **minimum standard of 1 cycle storage space per bedroom** shall be applied. For studio units, at least 1 cycle storage space shall be provided. **Visitor cycle parking shall also be provided at a standard of 1 space per 2 residential units.** Any deviation from these standards shall be at the discretion of the planning authority and shall be justified with respect to factors such as location, quality of facilities proposed, flexibility for future enhancement / enlargement.
- **Design:** Cycle storage facilities shall be provided in a dedicated facility of permanent construction, preferably within the building footprint or, where not feasible, within an adjacent or adjoining purpose-built structure of permanent construction.
- **Management:** An acceptable quality of cycle storage requires a management plan that ensures the effective operation and maintenance of cycle parking.”

### 5.7.2 Adamstown Strategic Development Zone (ASDZ) – 2014

Bicycle parking standards for new residential developments in Adamstown are set out in Table 2.13 of the Adamstown SDZ. See Table 7 below – extracted from the Adamstown SDZ

Table 2.13 Minimum Bicycle Parking Standards	
Development Type	Bicycle Parking Standard
Residential Apartments*	1 per dwelling

**Table 7 | Adamstown SDZ 2014, Minimum Bicycle Parking Standards.**

As can be seen from the above, the minimum bicycle parking standards for residential (apartments) developments set out in the Adamstown SDZ is 1 bicycle parking space per dwelling, less onerous than the minimum bicycle parking rate set out in the South Dublin County Council Development Plan 2022 – 2028 and Sustainable Urban Housing: Design Standards for New Apartments, Guidelines for Planning Authorities (2018) (the ‘Apartment Guidelines’).

### 5.7.3 Required Bicycle Parking

Outlined below is the breakdown of the number of bicycle parking spaces required for the proposed development under the ‘Apartment Guidelines’ in comparison with the required under the ‘Adamstown SDZ’:

Type	Apartment Guidelines	Adamstown SDZ
Houses	Not Applicable	Not Applicable
2-Bed Duplexes (64)	128 no. bike spaces	64 no. bike spaces
3-Bed Duplexes (68)	204 no. bike spaces	68 no. bike spaces
Visitors	66 no. bike spaces	Not applicable
<b>Total</b>	<b>398 no. bike spaces</b>	<b>132 no. bike spaces</b>

#### 5.7.4 Proposed Bicycle Parking

Bicycle parking spaces for the proposed duplexes are proposed as follows:

- **Bicycle Sheds**: 110 no. bike and 18 no. cargo bike spaces for residents of Type-F & Type-J duplex units.
- **Sheffield Stands under Sheltered Canopies**: 66 no. bike spaces for visitors at a rate of 1 bike space per every 2 duplex units. 132 duplex units in total.

Type-G & Type-H duplex units will have in-curtilage bike storage.

For details of each type of duplex units proposed, please refer to the accompanying architects drawing package.

Bike parking spaces for the houses will be provided within the curtilage of each unit.

## 6. Existing Travel Patterns – Census 2016

Census 2016 was carried out by the Central Statistics Office on the 24<sup>th</sup> of July 2016.

### 6.1 Statistical Small Area

With the objective to obtain information on local travel patterns (modal split and car ownership), the Statistical Small Area (No. 267103001/01), where the subject proposed development site is located, has been consulted.

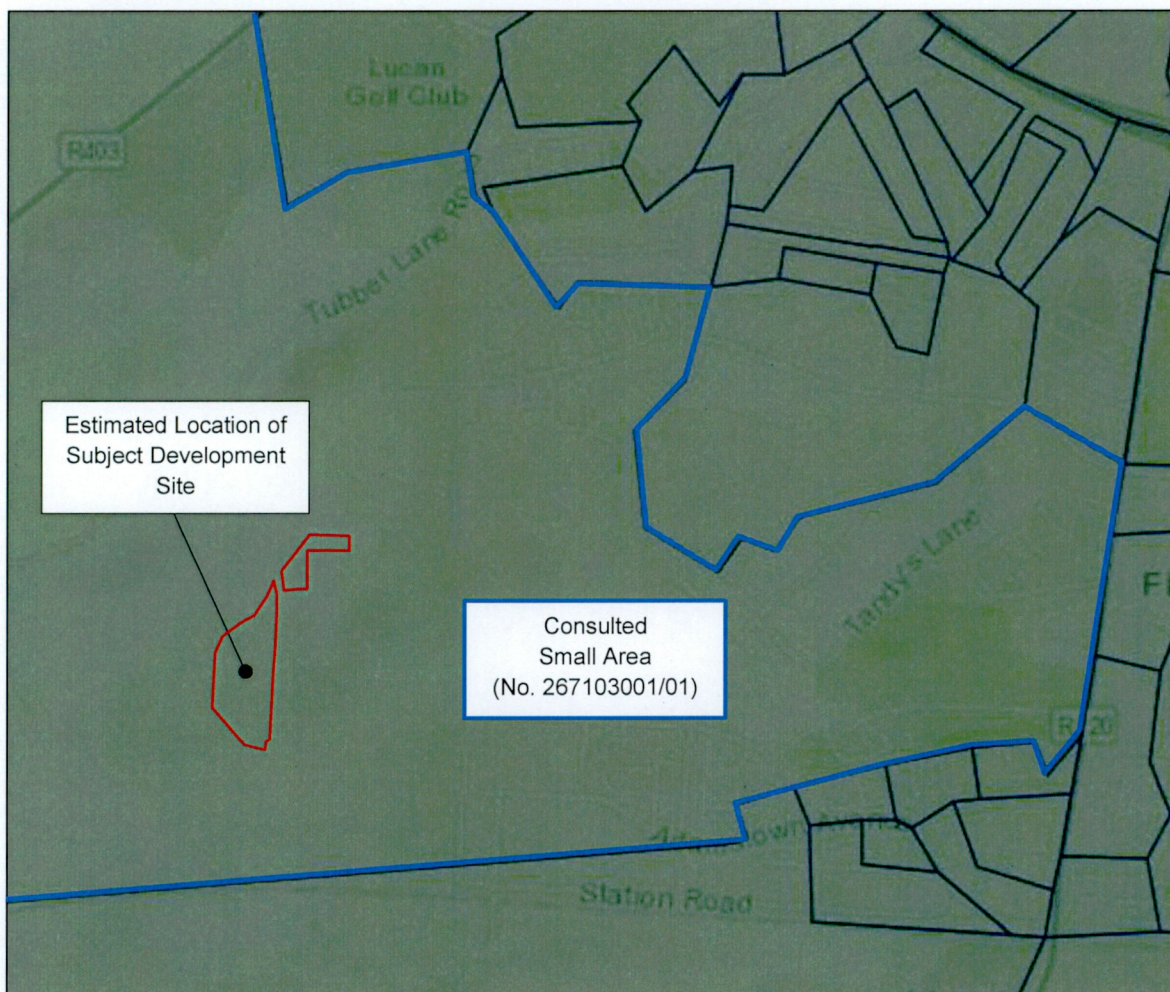


Figure 13 | Consulted Statistical Small Area – Census 2016.

### 6.2 Modal Split

The surveyed 'modal split for the journey to work, school or college' by the residents at the consulted Statistical Small Area as surveyed in Census 2016 recorded that some 76% of the 503-population living in the subject Small Area generated 383 trips for the journey to work, school, or college. The results of the surveyed modal split are presented in Table 8 below.

Mode	No. of Trips	Modal Split	Modal Split excluding 'Other and not stated'
On foot	72	19%	20%
Bike	7	2%	2%
Public transport	52	14%	15%
Car driver	179	47%	51%
Car passenger	43	11%	12%
Other or not stated	30	7%	-
Total	383	100%	100%

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

The data above shows that in the consulted Small Area, the percentage of commuters that travel by green modes of transport was above 30%, which suggests that green modes, in 2016, were an attractive and viable option for residents living in the area. Green modes of transport include those commuting by foot, by bike, or by public transport including train and bus.

One of the four approaches for environmental sustainability as set out in Section 2.5 of the Adamstown Strategic Development Plan is “encouraging high levels of use of sustainable modes of transport by promoting walking, cycling and public transport.”

As presented previously in this report, the Adamstown area has advanced significantly in the past years with the construction of new residential developments, and the pedestrian and cycle facilities and connections to public transport that were built along with these developments are currently a viable and more attractive option for residents, which will encourage residents to shift away from private car usage and towards sustainable modes of transport.

### 6.3 Car Ownership

The results of the Census for car ownership in the consulted Statistic Small Area is presented in Table 9.

The survey recorded that the population of 503 persons living in the consulted Small Area had a car ownership of 233 vehicles equivalent to 1 car per 2.16 persons or 1.48 car per residential unit.

Population	Housing	Number of households with cars						Total Cars	Total Cars/ Housing
		0 car	1 car	2 car	3 cars	4+ cars	Not Stated		
503	157	5	69	64	14	2	2	233	1.48

**Table 9 | Census 2016 – Car Ownership.**

## 7. Trip Generation and Traffic Assessment

### 7.1.1 TRICS Vehicle Trip Rates

The proposed development consists of 207 residential units (75 houses and 132 duplexes).

Description	Houses	Duplexes
No. of Units	75	132
Percentage Contribution	36%	64%

**Table 10 | Proposed Development Units – Percentage Contribution.**

In order to assess the likely impact of the traffic generation arising from the proposed development, TRICS software has been consulted. TRICS is the national standard of trip generation and analysis in Ireland. It is a database system which allows users to identify representative trip rates and to establish potential levels of trip generation for a wide variety of developments. To obtain the most accurate trip rates, the proposed development was assessed based on the appropriate definition of a housing development as described in TRICS (Version 7.9.2):

1) 03/A – Houses Privately Owned (use class C3)

Housing developments where at least 75% of units are privately owned. Of the total number of units, **75% must also be houses (sum of “non-split” terraced, detached, semi-detached, bungalows, etc)**, with no more than 25% of the total units being flats. The TRICS definition of a privately owned dwelling is a dwelling at which residents have any degree of equity, or a dwelling that is owned by a private landlord and rented at market rates. Trip rates are calculated by Site Area, Dwellings, Housing Density, or Total Bedrooms.

2) 03/C – Flats Privately Owned (use class C3)

Housing developments where at least 75% of households are privately owned. Of the total number of units, **75% must also be flats (sum of flats in blocks and “split” houses)**, with no more than 25% of the total units being “non-split” houses. The TRICS definition of a privately owned dwelling is a dwelling at which residents have any degree of equity, or a dwelling that is owned by a private landlord and rented at market rates. Trip rates are calculated by Site Area, Dwellings, Housing Density, or Total Bedrooms.

3) 03/K – Mixed Private Housing (Flats & Houses) (use class C3)

Housing developments where at least 75% of units are privately owned. Of the total number of units, less than 75% must be houses (sum of “non-split” terraced, detached, semi-detached, bungalows, etc), and less than 75% must be flats (sum of flats in blocks and “split” houses). The TRICS definition of a privately owned dwelling is a dwelling at which residents have any degree of equity, or a dwelling that is owned by a private landlord and rented at market rates. Trip rates are calculated by Site Area, Dwellings, Housing Density, or Total Bedrooms.

Based on the definitions above, the most appropriate rates applicable to the proposed development is that of ‘03/K – Mixed Private Housing (Flats & Houses) (use class C3)’ as shown in the Table 11.

Full trip rates, which were sourced from the TRICS Database Version 7.9.2, have been provided in Appendix A. The below criteria were also selected during TRICS consultation:

- Sites located in UK and Ireland.
- Sites categorised as Suburban or Edge of Town.
- Car ownership between 1.1 and 1.5 per residential unit – as per Car Ownership in Section 6.3 above.

Land Use	Calculation Factor	AM Peak Hour (08h00 – 09h00)		PM Peak Hour (17h00 – 18h00)	
		Arrival	Departure	Arrival	Departure
<b>Mixed-Private Housing</b> (Houses & Flats)	Per Unit	0.099	0.329	0.349	0.173

**Table 11 | TRICS – Vehicle Trip Rates– AM & PM Peak Hours.**

### 7.1.2 Vehicle Trip Generation – Proposed Development

The potential peak hour vehicle trip generation for the proposed Aderrig Phase 3 development is presented in Table 12. It has been calculated based on the proposed 207 no. residential units and the TRICS trip rates set out above.

Land Use	No. Units	AM Peak Hour (08h00 – 09h00)		PM Peak Hour (17h00 – 18h00)	
		Arrivals	Departures	Arrivals	Departures
<b>Prop. Dev.</b>	207	21	68	72	36

**Table 12 | Vehicle Trip Generation, Proposed Development – AM & PM Peak Hours.**

As can be seen from the calculations above, it is estimated that the proposed development will generate a total of 89 vehicle trips in the AM peak hour (21 arrivals and 68 departures) and 108 vehicle trips in the PM peak hour (72 arrivals and 36 departures).

### 7.1.3 Construction Traffic

The nature of the construction process is such that the traffic generated will comprise short periods of intense activity interspersed with longer periods with relatively low level of truck movements into and out of the site.

The subject planning application for the proposed development is accompanied by a dedicated Construction Management Plan (CMP).



The Plan addresses the impact of construction related traffic on the surrounding road network during the construction stage.

One of the objectives of the Plan will be to ensure that the construction traffic for the proposed development can be accommodated on the surrounding road network without significant impact on pedestrian, cyclists, and other road users.

#### **7.1.4 Traffic Assessment**

Atkins were commissioned to prepare a microsimulation model of the entire Adamstown SDZ area. That model assumed the full build out of the Adamstown SDZ lands as per the SDZ Plan and included all development areas (including Aderrig Development Area – where the subject site is located) and planned infrastructure such as new avenues and streets (including the north-south Celbridge Link Road and the west-east Adamstown Way) and links to the external network. The proposed development is in accordance with the SDZ planning scheme, and the microsimulation model carried out by Atkins and therefore, it is our understanding that no further traffic analysis would be required for this application.

## 8. Conclusion

Waterman Moylan has been appointed by Quintain Developments Ireland Ltd. to prepare this Traffic and Transport Assessment for a proposed residential development located on the Aderrig tile in Adamstown SDZ.

The proposed development is the Phase 3 of the Aderrig Development Area and consists of 207 no. of residential units in a mixture of 3- and 4-bedroom houses and 2- and 3-bedroom duplexes.

Vehicular accesses to the proposed development are proposed via Celbridge Link Road (2 no. access points) and via Adamstown Way (3 no. access points).

Car and Bicycle parking for the proposed development have been designed in accordance with the requirements set out in the Adamstown SDZ and are in line with both Adamstown SDZ planning scheme and current South Dublin County Council Development Plan.

The subject site is located within reasonable walking time to Adamstown train station and to bus stops along Adamstown Boulevard and Station Road to the east and southeast of the site, respectively.

In the vicinity of the site new cycle and pedestrian facilities have been constructed to serve the area. These include dedicated pedestrian crossings with dropped kerbs and tactile paving's on all major junctions and dedicated cycle lanes along Adamstown Boulevard, Adamstown Park and Adamstown Way. These cycle lanes link up with the wider network and facilitate access to public transport services and surrounding amenities and educational facilities. New cycle facilities will also be provided along the Celbridge Link Road.

Based on TRICS trip rates, it is estimated that the proposed development will generate a total of 89 vehicle trips in the AM peak hour (21 arrivals and 68 departures) and 108 vehicle trips in the PM peak hour (72 arrivals and 36 departures).

The proposed development is in accordance with the Adamstown SDZ plan and the microsimulation model carried out by Atkins and therefore, for the purpose of this TTA it was understood that no further traffic analysis would be required for this application.

## Appendix

### A. TRICS Output Report

Calculation Reference: AUDIT-561501-220927-0933

**TRIP RATE CALCULATION SELECTION PARAMETERS:**

Land Use : 03 - RESIDENTIAL  
Category : K - MIXED PRIV HOUS (FLATS AND HOUSES)

**TOTAL VEHICLES**

Selected regions and areas:

<b>02 SOUTH EAST</b>	
WS WEST SUSSEX	1 days
<b>03 SOUTH WEST</b>	
CW CORNWALL	1 days
<b>07 YORKSHIRE &amp; NORTH LINCOLNSHIRE</b>	
NE NORTH EAST LINCOLNSHIRE	1 days
<b>13 MUNSTER</b>	
TI TIPPERARY	1 days
<b>14 LEINSTER</b>	
KK KILKENNY	2 days

*This section displays the number of survey days per TRICS® sub-region in the selected set*

**Primary Filtering selection:**

*This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.*

Parameter: No of Dwellings  
Actual Range: 27 to 371 (units: )  
Range Selected by User: 150 to 250 (units: )

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: All Surveys Included

Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/14 to 02/12/21

*This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.*

Selected survey days:

Monday	1 days
Tuesday	2 days
Wednesday	1 days
Thursday	2 days

*This data displays the number of selected surveys by day of the week.*

Selected survey types:

Manual count	6 days
Directional ATC Count	0 days

*This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaken using machines.*

Selected Locations:

Suburban Area (PPS6 Out of Centre)	2
Edge of Town	4

*This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.*

Selected Location Sub Categories:

Residential Zone	6
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*This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.*

**Secondary Filtering selection:**

Use Class:

C3 6 days

*This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.*

Population within 500m Range:

All Surveys Included

Population within 1 mile:

5,001 to 10,000 4 days

10,001 to 15,000 2 days

*This data displays the number of selected surveys within stated 1-mile radii of population.*

Population within 5 miles:

5,001 to 25,000 1 days

25,001 to 50,000 3 days

50,001 to 75,000 1 days

75,001 to 100,000 1 days

*This data displays the number of selected surveys within stated 5-mile radii of population.*

Car ownership within 5 miles:

1.1 to 1.5 6 days

*This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.*

Travel Plan:

Yes 1 days

No 5 days

*This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.*

PTAL Rating:

No PTAL Present 6 days

*This data displays the number of selected surveys with PTAL Ratings.*

Covid-19 Restrictions Yes At least one survey within the selected data set was undertaken at a time of Covid-19 restrictions

LIST OF SITES relevant to selection parameters

<p><b>1 CW-03-K-01 MIXED HOUSES &amp; FLATS</b>                      TRELLOWEN DRIVE                      PENRYN</p> <p>Edge of Town                      Residential Zone                      Total No of Dwellings: 89  <i>Survey date: THURSDAY 28/03/19</i></p>	<p><b>CORNWALL</b></p> <p><i>Survey Type: MANUAL</i></p>
<p><b>2 KK-03-K-01 HOUSES &amp; FLATS</b>                      BENNETTS BRIDGE ROAD                      KILKENNY</p> <p>Edge of Town                      Residential Zone                      Total No of Dwellings: 35  <i>Survey date: TUESDAY 30/09/14</i></p>	<p><b>KILKENNY</b></p> <p><i>Survey Type: MANUAL</i></p>
<p><b>3 KK-03-K-02 DETACHED &amp; FLATS</b>                      BOTHAR AN CHOLAISTE                      KILKENNY</p> <p>Suburban Area (PPS6 Out of Centre)                      Residential Zone                      Total No of Dwellings: 27  <i>Survey date: MONDAY 29/09/14</i></p>	<p><b>KILKENNY</b></p> <p><i>Survey Type: MANUAL</i></p>
<p><b>4 NE-03-K-01 BLOCK OF FLATS</b>                      LADYSMITH ROAD                      CLEETHORPES</p> <p>Suburban Area (PPS6 Out of Centre)                      Residential Zone                      Total No of Dwellings: 67  <i>Survey date: TUESDAY 06/05/14</i></p>	<p><b>NORTH EAST LINCOLNSHIRE</b></p> <p><i>Survey Type: MANUAL</i></p>
<p><b>5 TI-03-K-01 DETACHED HOUSES &amp; FLATS</b>                      SLIEVENAMON ROAD                      THURLES                      CLONGOWER                      Edge of Town                      Residential Zone                      Total No of Dwellings: 58  <i>Survey date: WEDNESDAY 23/09/20</i></p>	<p><b>TIPPERARY</b></p> <p><i>Survey Type: MANUAL</i></p>
<p><b>6 WS-03-K-04 MIXED HOUSES &amp; FLATS</b>                      HILLS FARM LANE                      HORSHAM                      BROADBRIDGE HEATH                      Edge of Town                      Residential Zone                      Total No of Dwellings: 371  <i>Survey date: THURSDAY 28/06/18</i></p>	<p><b>WEST SUSSEX</b></p> <p><i>Survey Type: MANUAL</i></p>

*This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.*

TRIP RATE for Land Use 03 - RESIDENTIAL/K - MIXED PRIV HOUS (FLATS AND HOUSES)

**TOTAL VEHICLES**

**Calculation factor: 1 DWELLS**

**BOLD print indicates peak (busiest) period**

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	6	108	0.049	6	108	0.221	6	108	0.270
08:00 - 09:00	6	108	0.099	<b>6</b>	<b>108</b>	<b>0.329</b>	6	108	0.428
09:00 - 10:00	6	108	0.134	6	108	0.192	6	108	0.326
10:00 - 11:00	6	108	0.141	6	108	0.133	6	108	0.274
11:00 - 12:00	6	108	0.138	6	108	0.147	6	108	0.285
12:00 - 13:00	6	108	0.153	6	108	0.134	6	108	0.287
13:00 - 14:00	6	108	0.185	6	108	0.184	6	108	0.369
14:00 - 15:00	6	108	0.153	6	108	0.179	6	108	0.332
15:00 - 16:00	6	108	0.249	6	108	0.167	6	108	0.416
16:00 - 17:00	6	108	0.236	6	108	0.173	6	108	0.409
17:00 - 18:00	<b>6</b>	<b>108</b>	<b>0.349</b>	6	108	0.173	<b>6</b>	<b>108</b>	<b>0.522</b>
18:00 - 19:00	6	108	0.328	6	108	0.147	6	108	0.475
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
<b>Total Rates:</b>			2.214			2.179			4.393

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP\*FACT. Trip rates are then rounded to 3 decimal places.

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**Parameter summary**

Trip rate parameter range selected: 27 - 371 (units: )  
 Survey date date range: 01/01/14 - 02/12/21  
 Number of weekdays (Monday-Friday): 6  
 Number of Saturdays: 0  
 Number of Sundays: 0  
 Surveys automatically removed from selection: 0  
 Surveys manually removed from selection: 0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

# UK and Ireland Office Locations

