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**Appendix A6.3  
Construction Traffic  
Management Plan**

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## 1. INTRODUCTION

This document is the Construction Traffic Management Plan (CTMP) for the DART+ West Project, hereafter referred to as the proposed development.

The following CTMP is prepared to supplement the Environmental Impact Assessment Report (EIAR) and Railway Order for the proposed development. The CEMP is a live document that will be reviewed in subsequent design phases and expanded upon, where necessary. The measures outlined in this document are subject to conditions attached to any decision to grant approval by ABP, further design stages and appointment of a main contractor, pertinent issues have been reviewed to ensure a holistic approach has been taken about the proposed traffic management measures proposed.

### 1.1 Purpose of Report

The CTMP has been prepared to identify and describe the locations that the proposed development interact with the public road network and to identify appropriate and safe methods of access for construction traffic during the construction phase of the project. The CTMP has also been prepared to describe the traffic management required to undertake the works and for the transportation of construction materials, equipment and personnel along the public road network to facilitate the construction of the proposed development.

## 2. PROJECT DESCRIPTION

### 2.1 Development Description

The proposed DART+ West development will consist of the electrification of the existing Great Southern & Western Railway (GSWR) and the Midland Great Western Railway (MGWR) rail lines from Dublin City centre extending west of Maynooth town as far as the proposed depot, and to M3 Parkway Station. The works extend across four administrative areas/local authority areas, including Dublin City, Fingal, Kildare and Meath. The total length of the proposed development is approximately 40 kilometres.

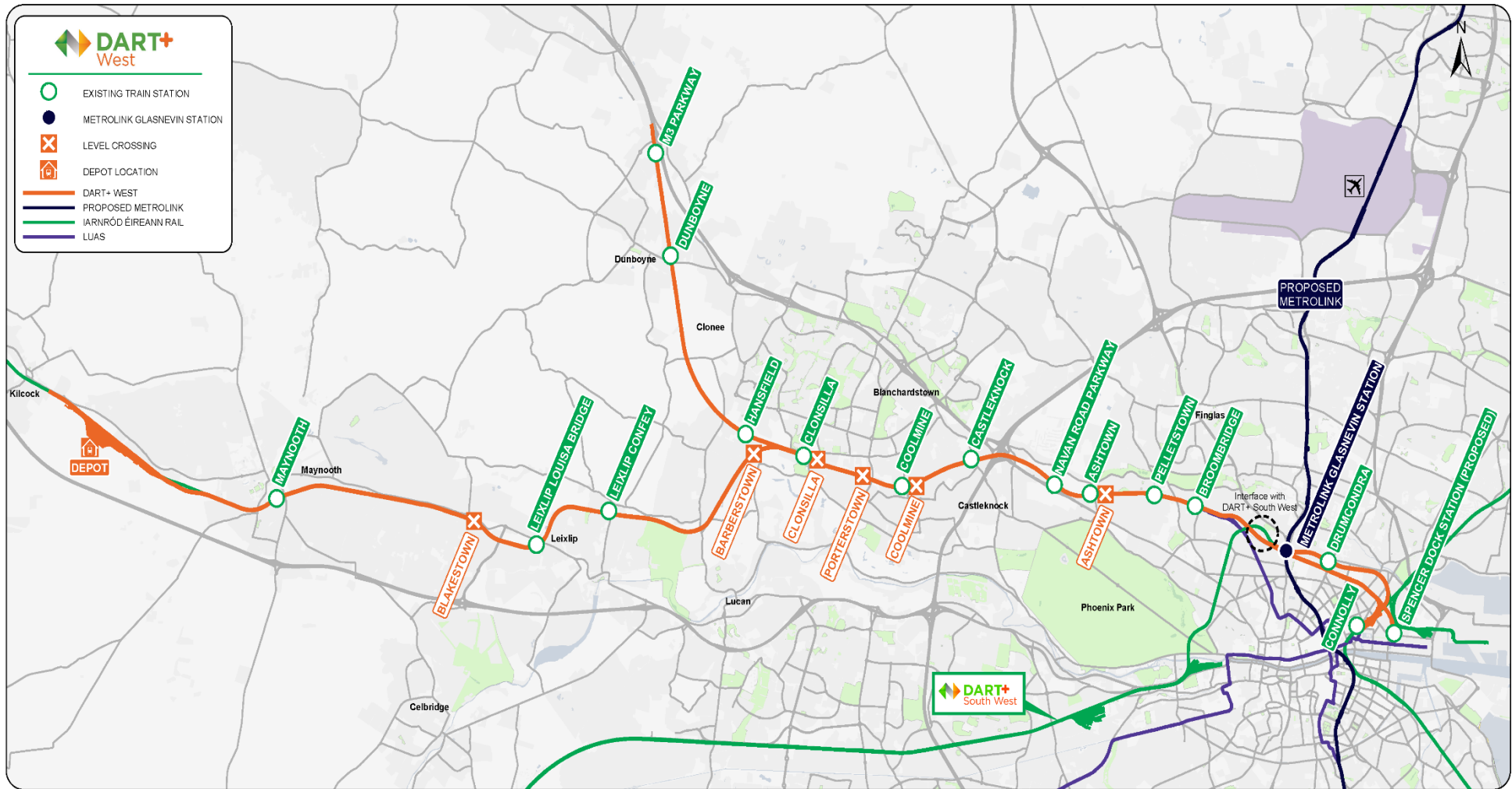


Figure 2-1 Schematic of DART+ West project

The main infrastructure elements associated with the proposed development include the electrification of the existing railway corridor. It will also include constructing a new station at Spencer Dock in Dublin City centre and passenger capacity enhancements at existing train stations as required. It will require the closure of the six existing level crossings along the railway line to allow for increased train capacity. From east to west, these level crossing closures are at Ashtown, Coolmine, Porterstown, Clonsilla, Barberstown and Blakestown. To maintain connectivity at the level crossing, replacement bridge structures will be provided as necessary. These will include road bridges and / or pedestrian and cycle bridges, as required (Note Blakestown will not have a replacement bridge).

## 2.2 Site access

### 2.2.1 Introduction

The proposed development requires works along the permanent way (railway) and at specific location along the railway outside of the permanent way. To facilitate the works construction compounds are provided along the length of the railway adjacent to the specific works. Refer to compound strategy report for further details on compound location selection.

### 2.2.2 Compounds

52 No. Construction compounds are required at specific site locations, such as at closures of level crossing and associated replacement works, or structure modifications works. The selection of the location of the compounds where determined, in some cases, by a multi criteria assessment. The majority of construction compounds are temporary facilities that support the construction of the different elements of the Project. 4 No. Permanent compounds are proposed to facilitate maintenance of the railway during the operational phase.

The compound duration is dictated by the full program of works. The life cycle of a construction compound ranges from several months, in the case of the building of substations or overbridge modification, to several years, those servicing the new Spencer Dock station construction or the depot construction. These compounds will be operational 24/7 to service the various worksites.

The activities that will take place on these sites include:

- Material unloading, storage and loading.
- Erection of prefabricated sections for construction.
- Use of welfare and on-site office space.
- Personnel and machinery access to the railway.
- Parking space for personnel and work vehicles.
- Lifting of material/precast elements, especially in the compounds corresponding to modification of existing overbridges (for instance, OBG5), construction of new overbridges (OBG23A) and erection of buildings (new Spencer Dock station, stabling/workshop).
- Assembling of catenary cantilevers only in the SET compounds (the cantilevers consist of metallic bars that are connected by means of bolts).
- Heavy Goods Vehicles (HGV) and usual construction machines movement.
- Staff vehicles movement.
- Welding is not foreseen within the compounds (welding will be required on some track sections to join rails together).
- Road-rail Vehicles (RRV) access to track at the points set up for this purpose.
- Construction traffic on the access routes for the material/equipment supply by HGV.

Where practical, material deliveries to and from the construction compounds will be timed so as to reduce the impact on local communities and residents and the general road network.

A map showing the location of compounds is provided in Appendix A.

Compound Code	Zone	Location	Chainage	Compound Category	Primary Discipline Served	Road Rail Access Points	Level Crossing
CC-STA-S1-7800-B	A	Connolly Station	7+800	Satellite Compound	Station	New Road AP No Rail AP	No
CC-PW-S1-10300-B	A	Connolly Station	10+300	Satellite Compound	Permanent way	New Road AP New Rail AP	No
CC-PW-S3-33340-B	A	Glasnevin	33+340	Satellite Compound	Permanent way	Existing Road AP Existing Rail AP	No
CC-SUB-S3-33460	A	Glasnevin	33+460	Satellite Compound	Substation	New Road AP No Rail AP	No
CC-SET-S3-00000-B	A	Cabra Road	00+000	Satellite Compound	SET	Existing Road AP Existing Rail AP	No
CC-SUB-S2A-20280	B	Spencer Dock	20+280	Main Compound	Substation	New and existing Road AP No Rail AP	No
CC-PW-S2A-20750-B	B	Spencer Dock	20+750	Main Compound	Permanent way	Existing Road AP Existing Track AP	No
CC-STA-S4-40230-B	B	Spencer Dock	40+230	Main Compound	Station	New and existing Road AP No Rail AP	No
CC-STA-S4-40250-B	B	Spencer Dock	40+250	Main Compound	Station	Existing Road AP No Rail AP	No
CC-SET-S4-40280-B	B	Spencer Dock	40+280	Main Compound	SET	New and existing Road AP Existing Rail AP	No
CC-PW-S4-40380-B	B	Spencer Dock	40+380	Main Compound	Permanent way	New and existing Road AP Existing Rail AP	No
CC-PW-S4-43200-B	B	Glasnevin	43+200	Satellite Compound	Permanent way	Existing Road AP Existing Rail AP	No
CC-STR-S5-51480-B	C	OBG5	51+480	Satellite Compound	Structures	New Road AP No Rail AP	No
CC-SET-S5-51530-B	C	Reilly	51+530	Satellite Compound	SET	Existing Road AP No Rail AP	No

Compound Code	Zone	Location	Chainage	Compound Category	Primary Discipline Served	Road Rail Access Points	Level Crossing
CC-SET-S5-52180-B	C	Reilly	52+180	Satellite Compound	SET	Existing Road AP Existing Rail AP	No
CC-SUB-S5-53600-B	C	Ashtown	53+600	Satellite Compound	Substation	New Road AP No Rail AP	Yes
CC-STA-S5-53660-B	C	Ashtown	53+660	Satellite Compound	Station	New Road AP No Rail AP	Yes
CC-LC-S5-53820-B	C	Ashtown	53+820	Satellite Compound	Level Crossing	New Road AP No Rail AP	Yes
CC-SET-S5-54750-B	C	Navan Road Station	54+750	Satellite Compound	SET	New Road AP New Rail AP	No
CC-STR-S5-56060-B	C	OBG9	56+060	Satellite Compound	Structures	New Road AP No Rail AP	No
CC-STR-S5-56130-B	C	OBG9	56+130	Satellite Compound	Structures	New Road AP No Rail AP	No
CC-STR-S5-56460-B	C	Castleknock	56+460	Satellite Compound	Structures	New Road AP No Rail AP	No
CC-SUB-S5-56500-B	C	Castleknock	56+500	Satellite Compound	Substation	New Road AP No Rail AP	No
CC-SUB-S5-57550-B	C	Coolmine	57+550	Satellite Compound	Substation	New Road AP No Rail AP	No
CC-STA-S5-57900-B	C	Coolmine	57+900	Satellite Compound	Station	New Road AP Existing Rail AP	Yes
CC-LC-S5-58670-B	C	Coolmine	58+670	Satellite Compound	Level Crossing	New Road AP Existing Rail AP	Yes
CC-LC-S5-58800-B	C	Porterstown	58+800	Satellite Compound	Level Crossing	New Road AP Existing Rail AP	Yes
CC-LC-S5-60150-B	C	Clonsilla	60+150	Satellite Compound	Level Crossing	New Road AP Existing Rail AP	Yes
CC-PW-S5-59970-B	C	Clonsilla siding	59+970	Satellite Compound	Permanent way	New Road AP New Rail AP	Yes
CC-SUB-S8-101070	D	Hansfield	101+070	Satellite Compound	Substation	New Road AP No Rail AP	No
CC-PW-S8-101660	D	OBCN286	101+660	Satellite Compound	Permanent way	New Road AP New Rail AP	No
CC-PW-S8-104970	D	Dunboyne	104+970	Satellite Compound	Permanent way	New Road AP Existing Rail AP	No
CC-SUB-S8-105060	D	Dunboyne	105+060	Satellite Compound	Substation	New Road AP No Rail AP	No
CC-PW-S8-106950-B	D	M3 Parkway	106+950	Main Compound	Permanent way	New Road AP Existing Rail AP	No



Compound Code	Zone	Location	Chainage	Compound Category	Primary Discipline Served	Road Rail Access Points	Level Crossing
CC-SET-S8-106950-B	D	M3 Parkway	106+950	Main Compound	SET	New Road AP Existing Rail AP	No
CC-SUB-S8-106950	D	M3 Parkway	106+950	Main Compound	Substation	New Road AP No Rail AP	No
CC-LC-S6-71100-B	E	Barberstown	71+100	Satellite Compound	Level Crossing	New Road AP Existing Rail AP	Yes
CC-SET-S6-70700-B	E	Barberstown	70+700	Satellite Compound	SET	New Road AP Existing Rail AP	No
CC-PW-S6-72830-B	E	OBG13	72+830	Satellite Compound	Permanent way	New Road AP New Rail AP	No
CC-STR-S6-74660	E	Leixlip	74+660	Satellite Compound	Structures	New Road AP New Rail AP	No
CC-SUB-S6-74680-B	E	Leixlip	74+680	Satellite Compound	Substation	New Road AP No Rail AP	No
CC-STR-S6-76470-B	E	Leixlip (Louisa Bridge)	76+470	Satellite Compound	Structures	New Road AP New Rail AP	No
CC-STR-S6-76540-B	E	Leixlip (Louisa Bridge)	76+540	Satellite Compound	Structures	New Road AP New Rail AP	No
CC-SUB-S6-78180	E	Blakestown	78+180	Satellite Compound	Substation	New Road AP No Rail AP	Yes
CC-SET-S6-78200-B	E	Blakestown	78+200	Satellite Compound	SET	New Road AP Existing Rail AP	Yes
CC-PW-S6-79950-B	E	OBG18	79+950	Satellite Compound	Permanent way	New Road AP Existing Rail AP	No
CC-SUB-S6-82260	E	Maynooth	82+260	Satellite Compound	Substation	New Road AP No Rail AP	No
CC-STR-S7-91880-B	F	Millfarm	91+880	Main Compound	Structures	New Road AP No Rail AP	No
CC-PW-S7-92340-B	F	Millfarm	92+340	Main Compound	Permanent way	New Road AP New Rail AP	No
CC-SET-S7-92100-B	F	Millfarm	92+100	Main Compound	SET	New Road AP New Rail AP	No
CC-STR-S7-92850-U	F	OBG23A	92+850	Satellite Compound	Structures	New Road AP New Rail AP	No
CC-STR-S7-92900-U	F	OBG23A	92+900	Satellite Compound	Structures	New Road AP No Rail AP	No
CC-DEP-S7-93060-D	F	Depot	93+060	Main Compound	Depot SET	New Road AP No Rail AP	No
CC-DEP-S7-UP-93370-U	F	Depot	93+370	Main Compound	Depot Permanent way	New Road AP No Rail AP	No

The appointed Contractor's CTMP will include measures for managing traffic accessing and egressing the Construction Compound.

### **2.2.3 Main Storage and Distribution Centre**

A main storage and distribution centre (MSDC) will be required, reducing the required local storage space. It is envisaged that materials will be stockpiled at the compound for distribution to the other construction compounds as required. The chosen site is the Breffini Group property in Ballyhack, Kilsallaghan, 20 km north-west of Dublin Airport, accessible via the M50 and N2. The MSDC will cover a 25 acre area of the site. The MSDC will be required to be operational for approximately 39 months in order to service the SET construction activities. Activities will be carried out continuously 24 hours a day, 7 days a week.

### **2.2.4 Compound haulage routes**

Access to and egress from the construction compounds is assumed to be along pre-determined routes on the public roads in the vicinity of the specific construction compound. Drawings showing the envisaged haulage routes for the various compounds are provided in Appendix B. Each route is based on the shortest route to the local, National Road, Regional Road and/or Motorway. It is anticipated that Contractor's CTMP will include measures for appropriate signage and communication to direct construction traffic allow appropriate routes. It is anticipated that the appointed contractor will monitor the haulage routes for dirt and debris generated by the construction traffic and take appropriate action, such as road sweeping.

## **2.3 Envisaged Construction Traffic Generation**

### **2.3.1 Introduction**

A traffic impact assessment was undertaken to determine impacts of the proposed development both during the construction phase and the operational phase. To determine the baseline and future scenarios for the proposed development, thereby allowing an assessment of its impact to be undertaken, transport modelling was undertaken. The assessment included the analysis of baseline conditions, potential impacts associated with the construction and operation of the proposed development, appropriate mitigations and monitoring, and identifying residual effects.

Due to the travel restrictions posed by Covid-19 lockdowns from March 2020, there was no possibility to conduct surveys which were not impacted by travel restrictions and disruption. This impacted on traffic levels and patterns. This assessment is therefore based on 2019 traffic survey information supported by LAMs, developed specifically for this project and NTA's ERM.

For further details of traffic movements and flows generated by the construction activities for the proposed development, please refer to the Traffic Impact Assessment (TIA) provided in Appendix A6.2 in Volume 4 of this EIAR.

### **2.3.2 Phasing**

As with any construction project, the contractor will be required to prepare a comprehensive traffic management plan for the construction phase. The purpose of such a plan is to outline measures to manage the expected construction traffic activity during the construction period.

It will be the project contractor's responsibility to prepare a Traffic Management Plan for the approval of local authorities.

## 2.4 Construction Management and Mitigation

The impact of the construction phase will need to be monitored and managed across the lifecycle of construction to ensure that all modes including those using the rail are impacted upon as least as possible. To assist in this a number of measures can be implemented including routing, hours of work, compound locations and traffic management, such as diversions and traffic signals to manage the road network. In addition to this, a Construction Traffic Management Plan and a Construction Stage Mobility Management Plan (CSMMP) will be implemented by the contractor to ensure that staff movements and the works have as little an impact on the surrounding area as possible. Further detail relating to this and the mitigation for the operation period is set out in Chapter 5 of the EIAR.

### 2.4.1 Temporary Traffic Management

Temporary Traffic Management (TTM), such as road closures and diversions, will be required during the Construction phase to facilitate the completion of the works. Specific areas that have been identified as requiring TTM are listed below. Additional areas may require traffic management following the progression to future design stages and construction.

- Sheriff Street Upper bridge reconstruction (OBD 228).
- Broombridge reconstruction (OBG 5).
- Ashtown Road realignment.
- Old Navan Road/Talbot Court bridge deck lift (OBG 9).
- Castleknock Bridge reconstruction (OBG 11).
- Castleknock Road junction upgrade.
- Diswellstown Road junction upgrade.
- Clonsilla Road Level Crossing.
- Barberstown Level Crossing.
- L5041 Road Realignment.
- Cope Bridge.

Road closures and TTM will be designed and implemented in accordance with the Traffic Signs Manual with prior agreement of the Local Authority and An Garda Síochána. It will be the responsibility of the Contractor to prepare detailed Temporary Traffic Management Plans for each phase of the construction activities which impact on the public road network.

A description of works impacting the road network and proposed mitigation is provided below.

### 2.4.2 Sheriff Street Upper bridge reconstruction (OBD 228)

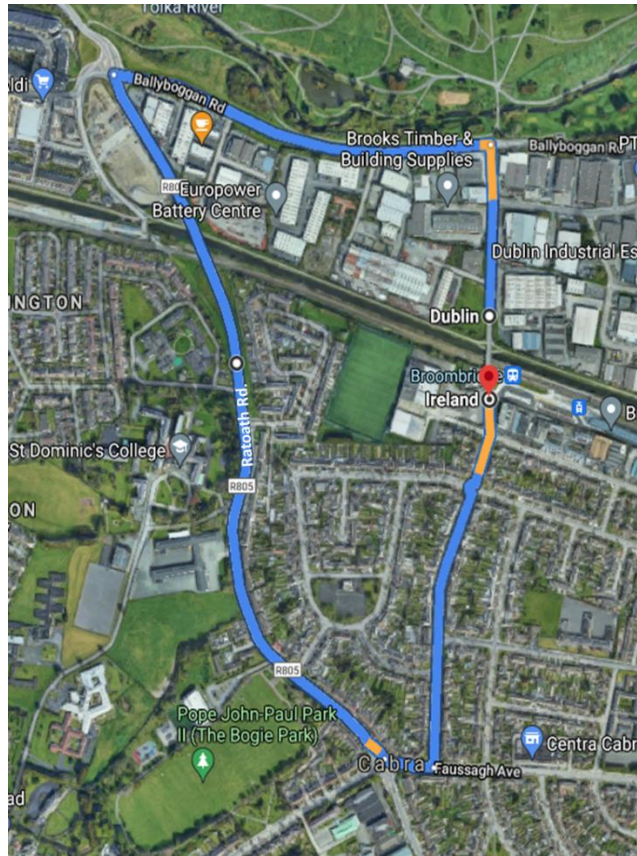
To facilitate the construction of the Spencer Dock Station, located to the south of the Sheriff Street Bridge and associated railway infrastructure, which will travel under the bridge, five spans of the existing bridge will be required to be demolished and rebuilt. The associated road closure is estimated to be a duration of 1.5 years. The traffic diversion illustrated below is proposed to manage traffic around the works area.



**Figure 2-2 Proposed road diversion for the OBD228**

### **2.4.3 Broombridge Arch Deck reconstruction (OBG 5)**

To achieve sufficient vertical clearance for the catenary equipment under the bridge, the current deck is required to be demolished and a new precast arch deck provided at a higher level. During the reconstruction of the bridge deck, the road access to the bridge will be closed. Vehicular traffic will be required to be diverted onto the local road network. Figure 2-3 below illustrates the proposed diversion route for traffic.



**Figure 2-3 OBG5 traffic diversion during construction**

#### **2.4.4 Ashtown Road Realignment**

The proposed development requires the construction of a new road and underpass west of the existing Ashtown level crossing. To avoid traffic congestion, during the underpass and approach road construction, it is intended to keep the level crossing open. On complete of the underpass and approach roads, traffic will be diverted onto the new road. At this point the level crossing will be closed and works on Ashtown Road, south of the railway, completed.

It is envisaged that a local traffic management plan will be required to facilitate the construction of the tie ins of the proposed works to the existing road network.

#### **2.4.5 Old Navan Road/Talbot Court Bridge Deck Lift**

Old Navan Road bridge (OBG9) is to be modified as part of the proposed design. During construction, houses located south of the Old Navan Road bridge require alternative road access. A temporary solution will be required for the duration of the construction activities. The proposed solution, as shown in Figure 2-4 below considers a connection road between Ashleigh Green Street and the Old Navan Rd (blue shade). Pedestrians will also require to be diverted. Pedestrian diversion is shown in cyan colour in Figure 2-4 below.



**Figure 2-4** Diversion routes during OBG9 construction

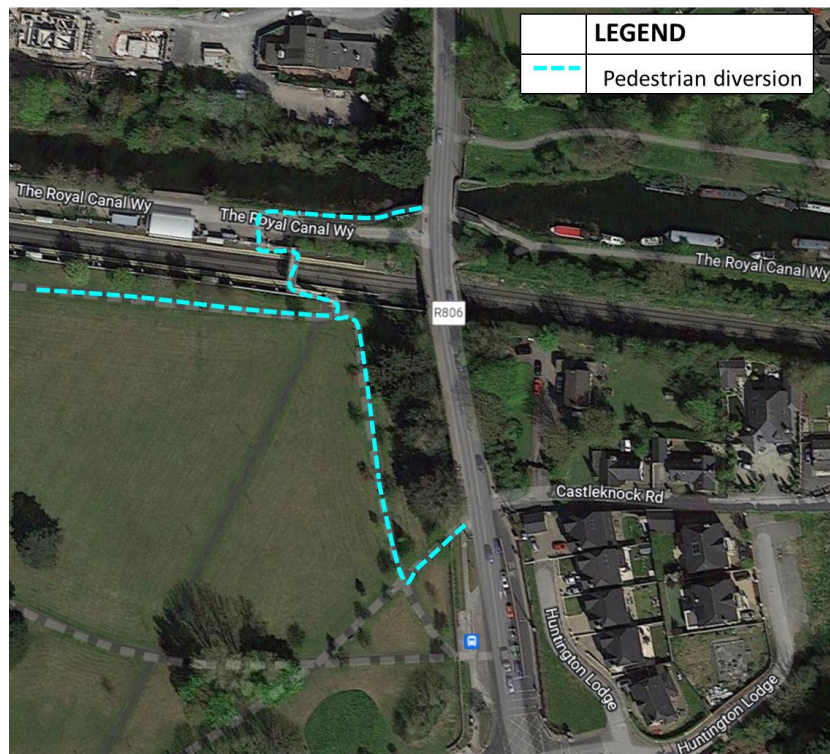
### 2.4.6 Castleknock Bridge reconstruction (OBG 11)

Castleknock Bridge (OBG11) is to be modified as part of the proposed design. During the bridge reconstruction, road access will be closed, therefore traffic must be diverted. Vehicles needing to cross the bridge can choose between two alternatives that will not require much deviation from current route. First option is crossing the railway and the Royal canal using the Coolmine road, connecting the north and the south areas though the Coolmine level crossing. Travellers from the south part of the M50 can cross the railway and the canal by using M50 junction and the N3 road, which can be faster than using the Coolmine level crossing. It is intended that pedestrians will avail of the existing Castleknock Station footbridge to travel past the works.



**Figure 2-5** Traffic diversion during OBG11 construction

The footbridge in Castleknock station will be used to provide access to pedestrians, as shown in Figure 2-6 below.



**Figure 2-6 Pedestrian diversion during OBG11 construction**

#### **2.4.7 Castleknock Road junction upgrade**

The proposed design required the upgrade of Castleknock Road junction to facilitate the closure of the Coolmine level crossing. It is anticipated that these works can be undertaken under local temporary management measures to maintain traffic flows, such as stop and go etc. It is envisaged the Castleknock Road junction works will coincide with the Castleknock Road bridge works, subject to detailed construction programme, as traffic flows will be reduced.

#### **2.4.8 Diswellstown Road junction upgrade**

The proposed design required the upgrade of Castleknock Road junction. It is anticipated that these works can be undertaken under local temporary management measures to maintain traffic flows, such as stop and go etc. It is envisaged the Castleknock Road junction works will coincide with the Castleknock Road bridge works, subject to detailed construction programme, as traffic flows will be reduced.

#### **2.4.9 Clonsilla Road junction upgrade**

The proposed design required the upgrade of Castleknock Road junction. It is anticipated that these works can be undertaken under local temporary traffic management measures to maintain traffic flows, such as stop and go etc. It is envisaged the Castleknock Road junction works will coincide with the Castleknock Road bridge works, subject to detailed construction programme, as traffic flows will be reduced.

#### **2.4.10 Clonsilla Road Level Crossing**

The design requires the provision of a pedestrian and cyclist bridge at Clonsilla Level Crossing and associated local road upgrades. It is intended level crossing will be closed after finishing the pedestrian bridge, that way, the pedestrian, and cyclist accessibility will not be affected by the different stages of the construction, keeping

a crossing option always available. It is anticipated that the local road upgrade works can be undertaken under local temporary traffic management measures to maintain traffic flows, such as stop and go etc.

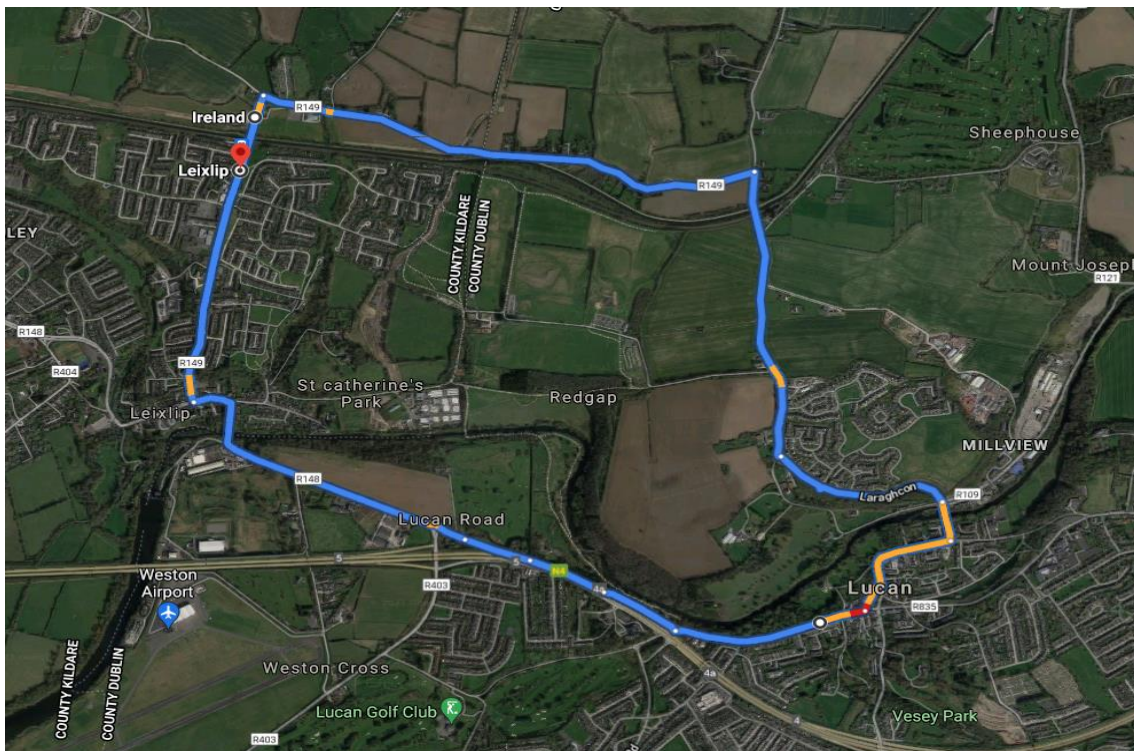
### 2.4.11 Barberstown Level Crossing

The design requires the construction of a new overbridge and associated approach roads to the west of the existing level crossing. The new road will tie into the existing roadway on the south of the railway and the Barnhill to Ongar Relief Road (to be constructed by other) to the north of the railway. It is intended that the existing level crossing will remain open until the overbridge and approach roads are operational. It is anticipated that the tie into existing roads can be managed under local temporary traffic management measures.

### 2.4.12 Cope Bridge (OBG14)

The design requires modification to the bridge deck and the construction of two footbridges either side of the existing bridge, spanning both the railway and Royal Canal.

During the reconstruction of the bridge deck, the road access to the bridge will be closed. Therefore, until the construction is completed, passing traffic must be diverted. Figure 2-7 below shows the shortest path between bridge access points is shown. Traffic will have to cross the railway track and the Royal canal using the Laraghcon road. In addition, it is planned to use R148 and R149 main roads to connect with Laraghcon road. Road closed traffic signs will be required in order to inform drivers of the diversion.



**Figure 2-7 Traffic diversion during OBG14 construction**

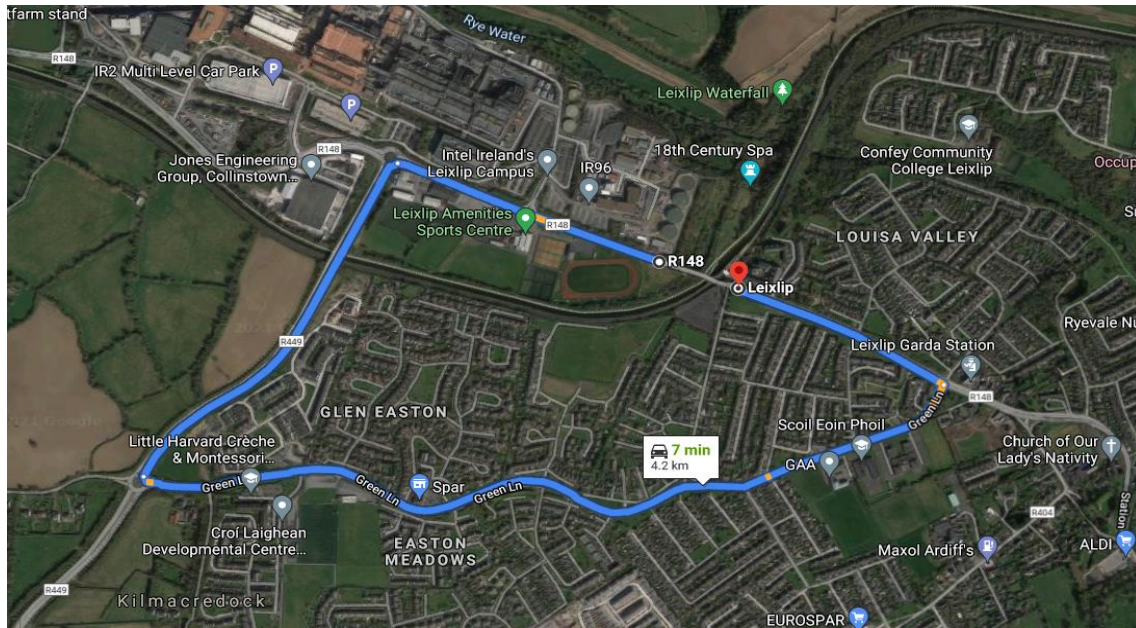
Pedestrians will use the new pedestrian and cycle bridges to cross the canal and railway while the bridge deck reconstruction is carried out, ensuring no diversions required.

### 2.4.13 Louisa Bridge (OBG16)

The design requires modification to the bridge deck. During the lifting of the bridge deck, the road access to the bridge will be closed. Therefore, until the construction is complete, passing traffic must be diverted. Figure 2-8 below shows the shortest path between bridge access points is shown. Traffic will have to cross the railway



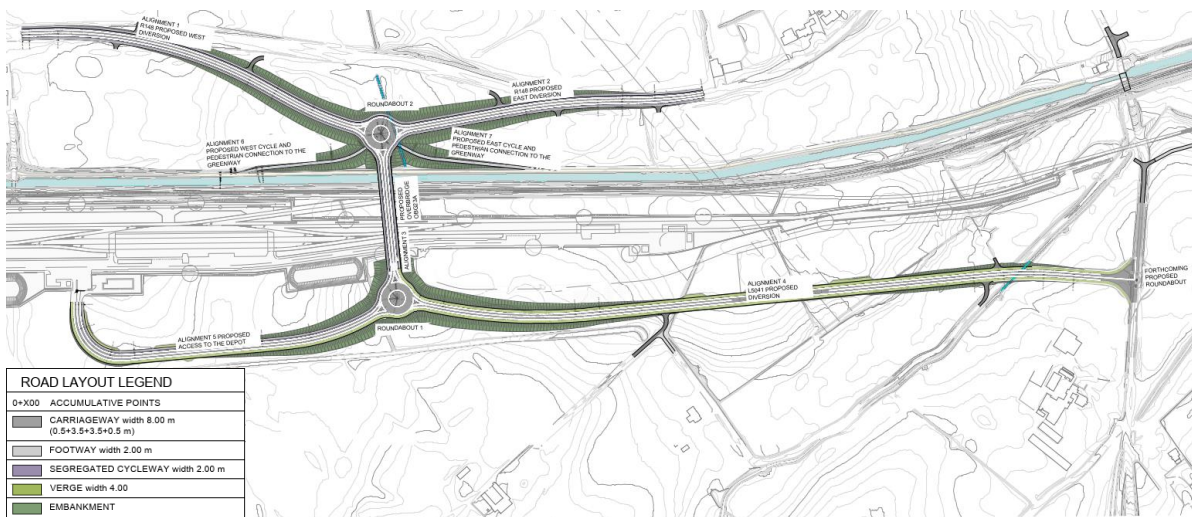
track and the Royal canal using the R449 road. In addition, it is planned to use R148 and Green Lane main to connect with R449. For pedestrians, Leixlip station footbridge will be used, in order to get to the OBG16 stretch above the canal.



**Figure 2-8 Traffic diversion during OBG16 construction**

### 2.4.14 L5041 Road Realignment

The design requires the construction of a new railway line south of the existing railway at Jacksons Bridge. To facilitate the L5041 is to be diverted and upgraded with the inclusion of a new overbridge over the proposed Depot, as shown below. The works also required the diversion of a short section of the R148. It is anticipated that the current road network will be maintained until the road is operational. It is envisaged that tie in works will be managed under local temporary traffic management.



**Figure 2-9 Depot access route general layout**

## 2.5 Interface with other projects

The likely timelines of the proposed development construction works have considered the potential for simultaneous construction of, and cumulative impacts with other infrastructure projects and developments which are proposed along, or in the vicinity, of the proposed development. The likely significant cumulative impacts caused by the proposed development in combination with other existing or planned projects are identified and assessed in Chapter 26 Cumulative Effects in Volume 2 of this EIAR.

Interface liaison will take place on a case-by-case basis, as will be set out in the Construction Contract, to ensure that there is coordination between projects, that construction access locations remain unobstructed by the proposed development works, that TTM is implemented in a planned and coordinated manner and that any additional construction traffic mitigation measures required to deal with cumulative impacts are managed appropriately.