

TRAFFIC & TRANSPORT ASSESSMENT

N7 Longview Ballyvolane Cork June 2026





Document Control Sheet

Client	Longview Estates Ltd.
Project Title	Proposed Residential Development – N7 Longview
Project Location	N7 Longview, Ballyvolane, Cork
Document Title	Traffic & Transport Assessment
Document No.	24083HD_TTA-D04

Revision	Status	Author	Reviewed By	Approved By	Date
01	Internal Draft	F O' Sullivan	K Manley	K Manley	13/03/2026
02	External Draft	F O' Sullivan	K Manley	K Manley	13/03/2026
03	External Draft – REV A	F O' Sullivan	K Manley	K Manley	30/04/2026
04	External Draft – REV B	F O' Sullivan	K Manley	K Manley	07/05/2026
05	Client Issue	F O' Sullivan	S Moriarty	K Manley	05/06/2026

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1.0 INTRODUCTION

1.1 INTRODUCTION

- 1.1.1 MHL Consulting Engineers have been engaged by Longview Estates Ltd to provide engineering design consultancy services associated with a proposed development of 262 no. residential units and an associated creche located within Longview Estate, Ballyhooly Rd, Ballyvolane, Co. Cork.
- 1.1.2 The development lands are located along the Ballyhooly Road (R614), approximately 4.0km to the north east of Cork City Centre. The development consists of a mix of Houses, Duplex Apartments and Apartments with an associated creche to be determined by way of the Large Scale Residential (LRD) process.
- 1.1.3 This TTA will assess how the proposed development will impact the surrounding roads network. It will consider appropriate access arrangements and the transport choices available to future users of the application site and how the existing/proposed transport infrastructure surrounding the site will influence that choice. The impact of traffic demand generated by the proposals will be considered and quantified.
- 1.1.4 The key junctions in the area surrounding the proposed development are shown in **Figure 1.1** and are as follows:
- J1: White's Cross (uncontrolled)
 - J2: Junction of Upper Dublin Hill / Lower Dublin Hill (uncontrolled)
 - J3: Junction of Lower Dublin Hill / Ballyhooly Road (uncontrolled)
 - J4: Development Access Junction – Ballyhooly Road (uncontrolled)
 - J5: Fox & Hound's Crossroads (fully signalised)

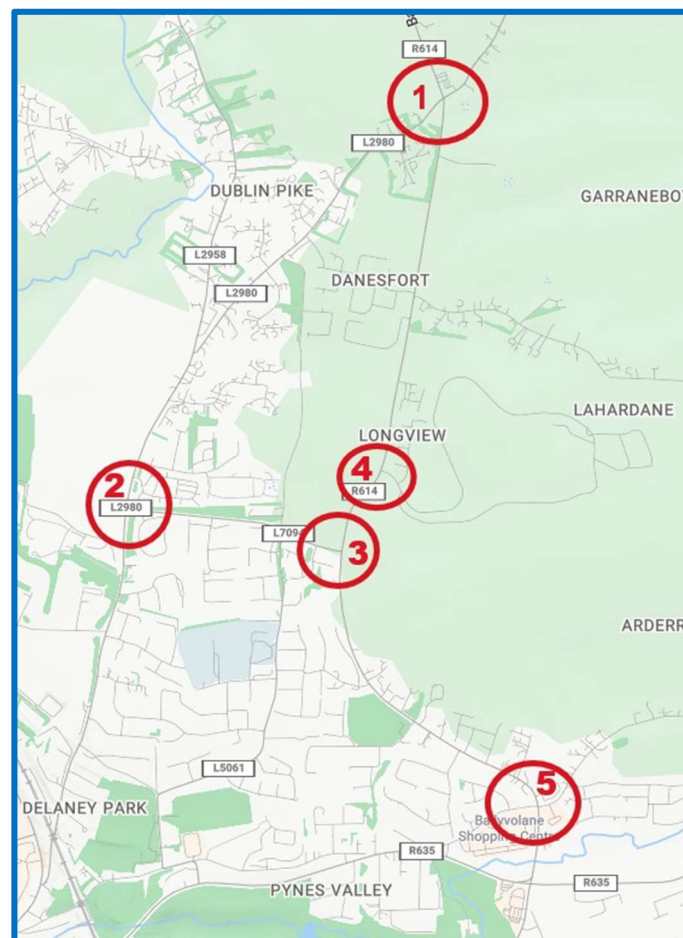


Figure 1.1: Junction Locations

1.2 PLANNING BACKGROUND

- 1.2.1 This area of north Cork is contained within Map 04 (North Central Suburbs) of the Cork City Development Plan 2022-2028. The development site is zoned ZO-02, New Residential Neighbourhoods. Map 04 can be seen in Figure 1.2 below with the site outlined in red to the northeast.

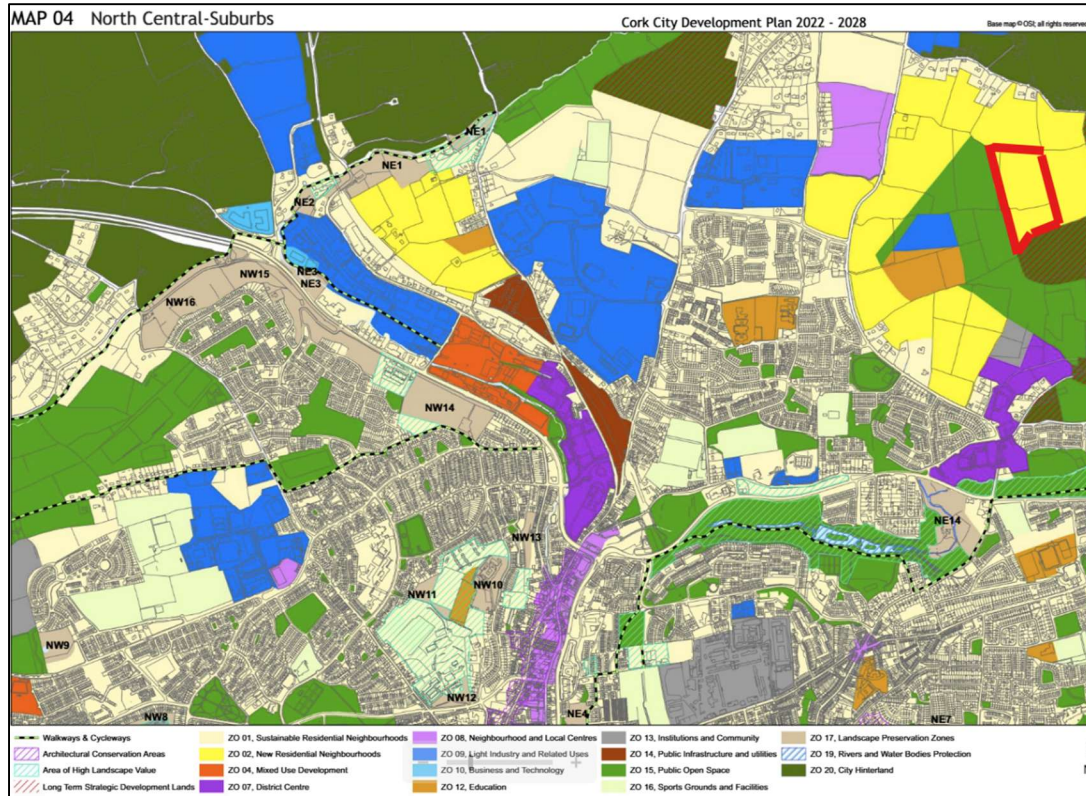


Figure 1.2: Map 04 (Cork City Development Plan 2022-2028)

- 1.2.2 The proposed development of these lands for residential development is in accordance with the Core Strategy of the Cork City Development Plan which sees the North Environs as part of the main engine of population and employment growth for the region. At a regional level the importance of the area is also evident in the Regional Spatial and Economic Strategy for the Southern Region and the Cork Metropolitan Area Transport Strategy (CMATS).
- 1.2.3 The lands are being actively promoted for significant residential development at local and regional planning policy levels. On this basis the proposed development in this planning application is a plan led development that is entirely suitable at this location. The area is also traversed by the proposed route of the Cork Northern Multi Modal Distributor Road. Development lands area located north and south of this and new and existing connection points to this will be created; including at some of the junctions considered in this TTA.

1.3 DOCUMENT STRUCTURE

- 1.3.1 A TTA is an appropriate form of assessment for the scale of the proposed development and the scope has been agreed with the Local Authority. The structure of this TTA is in accordance with TII (Transport Infrastructure Ireland) Document, Traffic and Transport Assessment Guidelines, 2014.

The aim of this TTA is to identify the characteristics of the application site and surrounding area, examine the likely transport implications, ensure sustainable accessibility is maximised and appropriate infrastructure provided.

The key issues that need to be addressed within this TTA, with reference to the size and location of the development proposal, are as follows:

- Review of the site location, composition and local roads network.
- Analysis of Road Safety data for the most recent five-year period available.
- Accessibility critique reviewing pedestrian, cycle and public transport access to the site, plus any infrastructure currently available to promote travel by sustainable means.
- A review of the relevant planning and transport policy.
- Description of the development proposal.
- Description and justification for the proposed access arrangement, internal layout, parking provision, public transport provision, fire tender/service/delivery access, including all necessary swept-path assessments and visibility splays.
- Forecast multi-modal trip rates and trip generation.
- Modal split assumptions used in the trip generation process.
- The use of appropriate and agreed traffic modelling software for the assessment of individual junctions.
- Provide With/Without Development assessment for each of the critical junctions.
- Assess significance of development generated traffic upon the surrounding transport infrastructure and identify any necessary mitigation.

1.3.2 The TTA concludes that the proposed development, with regard to traffic and transportation, is acceptable and there are no traffic and transportation reasons that should prevent the Planning Authority from recommending approval of this application.

2.0 NON-TECHICAL SUMMARY

2.1 A TTA has been prepared in support of an application to Cork City Council for the development of 262 residential units at development lands at Longview Estate, Ballyhooly Road, Ballyvolane, Cork.

2.2 The TTA methodology including the scope and means of assessment of the identified key junctions has been agreed with the Local Authority as part of the pre-application process.

2.3 The TTA has demonstrated the following:

- (i) The proposed residential development is in accordance with the Cork City Development Plan and forms an important continuation in the delivery of planned growth in the area.
- (ii) A review of the existing roads network and a separate Stage 1 Road Safety Audit indicates that there are no significant problems in relation to the current safety of the roads network or the proposed junctions associated with this development.

(iii) **Junction 1: White's Cross - (uncontrolled)**

The crossroads junction is shown to be at capacity for the current year 2026 scenario during the AM peak hour and approaching capacity during the PM peak hour.

Future year results, both **with and without** the development, show a steady degradation in capacity for the junction, specifically for minor Arm B (R616) during both peak hours as well as Minor Arm D during the PM peak hour. This would be expected with the traffic growth rates applied.

It is recommended that signalisation of the junction by the council be investigated. Junction improvements to provide flares on the minor arms may also be adequate in providing additional capacity.

(iv) **Junction 2: Junction of Upper Dublin Hill / Lower Dublin Hill (uncontrolled)**

The results indicate that the junction is operating within capacity for the current design year 2026 for both AM & PM peak hours.

Future year results, both with and without the development, show a steady degradation in capacity for Arm B (Lower Dublin Hill) for both peak hours. This would be expected as the minor arm of the junction. Arm B is shown to breakdown by the year 2029. This occurs **with or without** the inclusion of the development traffic.

A solution to this would be to improve the junction of the minor arm to allow for a flare. The minor arm currently does not have sufficient room to enable a left turning and right turning vehicle to approach the junction simultaneously. An alternative solution to this problem would be to signalise this junction. Signalisation of this junction is already proposed as part of the Cork Northern Distributor Multi Modal Route (CNDMR) so any signalisation may best be postponed to that design solution.

(v) **Junction 3: Junction of Lower Dublin Hill / Ballyhooly Road (uncontrolled)**

The results indicate that the main road (Ballyhooly Road) is operating well within capacity for all design years. Arm B (Lower Dublin Hill) is approaching capacity for the current design year 2026 for both AM & PM peak hours.

Future year results, both **with and without** the development, show a steady degradation in capacity for Arm B especially in the AM peak hour. This would be expected as the minor arm of the junction. Arm B is shown to be over capacity during both peak hours by the year 2029. This occurs with or without the inclusion of the development traffic.

A solution to this would be to improve the junction of the minor arm to allow for a flare. The minor arm currently does not have sufficient room to enable a left turning and right turning vehicle to approach the junction simultaneously. An alternative solution to this problem would be to signalise this junction. Signalisation of this junction is already proposed as part of the Cork Northern Distributor Multi Modal Route (CNDMR) so any signalisation may best be postponed to that design solution.

(vi) **Junction 4: Development Access Junction – Ballyhooly Road (uncontrolled)**

This Longview Estate Access Junction is operating well within capacity for the current design year 2026 for both AM & PM peak hours and for all future year scenarios **with and without** the development.

(vii) **Junction 5: Fox & Hound's Crossroads (fully signalised)**

The current year (2026) results are representative of how this junction currently operates during peak periods. The results indicate that the junction is currently operating over capacity for both the morning and evening peak hours.

Future year results, both **with and without** the development, show a steady degradation in capacity for the network for both morning and evening peak hours as would be expected with the traffic growth rates applied and the addition of traffic from permitted developments in the immediate vicinity.

The addition of traffic from the proposed development results in an increase in AADT at this junction of only 4% during the morning and evening peak hours. This indicates that the proposed development does not have a significant impact on capacity for this junction as can be seen from the **with and without** development scenarios.

2.4 The following observations on the proposed development have been noted.

- (i) The proposed site layout is permeable to the roads network and is connected to existing cyclist/pedestrian linkages to public transport offerings, schools, retail and amenity destinations.
- (ii) The proposed new access arrangements are safe and suitable and are in accordance with the Design Manual for Roads & Bridges (DMRB) and the Design Manual for Urban Roads & Streets (DMURS).
- (iii) The site benefits from being in close proximity to regular transport provision, within walking distance of the site, which enables journeys throughout Cork City.

- (iv) The cumulative impact of the development, inclusive of future growth background traffic as well as additional traffic from permitted development in the area, has been tested on the identified critical junctions, indicating that the proposed development does not have a significant impact on the junctions which have been assessed.
- (v) The completion of the aforementioned CNDMR (refer to section 3.5.2) will provide an alternative route for traffic currently using the R635 to bypass the city centre. This route is indicated to pass to the south of the development site, incorporating the 'Kilbarry Link Road' and will serve as a high-quality bus corridor (QBC) orbiting the city. Arterial links to the city centre, such as the Ballyvolane Strategic Transport Corridor (BSTC), will provide connectivity inwards from this route. The CNDMR is identified in CMATS (Cork Metropolitan Area Transport Study) with an expected delivery date by 2031. On its completion, traffic and travel patterns in this area will undergo significant change which has been included in the SWRM (NTA South West Regional Model) future year scenarios.

3.0 EXISTING CONDITIONS

3.1 INTRODUCTION

- 3.1.1 This section describes the base data used to develop the junction models, the critical links and junctions as agreed with the Local Authority, committed transport proposals to the area and other surrounding proposed development.

3.2 BASELINE TRAFFIC CONDITIONS

- 3.2.1 As part of the pre-application process the extent of data collection and the critical links and junctions was agreed with the Local Authority.
- 3.2.2 Peak hour traffic flows 07:30 – 09:30 & 16.30 - 18.30 (13th of September 2023) were recorded at 5no. existing junctions in the vicinity of the site. These traffic counts were undertaken by Tracsis Transportation Surveys. Full traffic counts are available from MHL upon request.
- 3.2.3 After scrutinising the traffic count data it was determined that the AM peak hour occurred between 08:00 - 09:00 and the PM peak hour occurred between 17:00 - 18:00.

3.3 SITE LOCATION AND COMPOSITION

- 3.3.1 The proposed development is located along the R614 Ballyhooly Road just south of White's Cross.
- 3.3.2 The proposed development is located on a greenfield site within the already permitted Longview Estates Development. The site was previously proposed as a school site but as part of a rezoning by the City Council in 2022 the lands were changed to residential zoning while the school site was moved to a location adjoining the CNDMR route for potential ease of access and integration of schools provision with public transport routes. This site is therefore a standalone residential site; the proposed use having no relationship to previously consented areas now part complete.
- 3.3.3 The Longview Estates Development will constitute approximately 753no. residential units. This site is currently at construction stage with 400+ homes complete, at an advanced stage of construction or commenced. It has been developed in accordance with the granted planning permission which includes the provision of cycle and footpath connectivity towards Ballyvolane Town Centre.

3.4 LOCAL ROADS NETWORK

- 3.4.1 The R614 Ballyhooly Road is a single carriageway, two-way road, characterised by two distinct sections. The northern section closer to Whites Cross is more rural in nature and currently has no cyclist/pedestrian infrastructure although new cyclist/pedestrian facilities will be provided as part of the northern section of the permitted Longview Estate as well as a recently permitted apartment development located in the old TLI yard. Cork City Council is then to connect its new housing estate at Coppinger's Fields to this infrastructure by way of a bridge / culvert that has been constructed as part of that scheme.

The posted speed limit on the northern section of the Ballyhooly Road is 80k/hr. A 50 km/hr zone commences as you approach the junction of Ballyhooly Rd/ Lower Dublin Hill (Junction 3) travelling southbound towards the city. There are new cyclist/pedestrian facilities provided along a large section of the Ballyhooly Road as part of recent works connected to the Longview Estate development. These facilities run southwards to The Fox & Hounds Junction at Ballyvolane village.

- 3.4.2 The R614 south of the Fox & Hounds Junction is an urban commuter link which intersects the R635 North Ring Road junction via a traffic-signal controlled junction and continues via Dillons Cross and St. Luke's Cross to Patrick's Quay in the city centre. The R635 North Ring Road serves as the main northern orbital route of Cork City, linking the N8 at the Tivoli Junction with the N20 at Blackpool. In addition to bypass traffic, it also caters for significant commuter traffic from outlying areas via the Ballyhooly Road and the Old Youghal Road.

At Whites Cross Junction, the R616 regional road north east bound connects onwards to the M8 motorway, south of the village of Watergrasshill. The proposed development is well connected to the wider area through the existing road network and is within close proximity to the services and facilities within Ballyvolane as well as Blackpool.

3.5 COMMITTED TRANSPORT PROPOSALS

3.5.1 Ballyvolane Strategic Transport Corridor

As identified previously, Cork City Council in association with the National Transport Authority are currently in the process of constructing Phase II of the Ballyvolane Strategic Transport Corridor Project: North Ring Road to Ballincolly (BSTC). The project objective is to deliver enhanced facilities for all road users but with particular benefits for pedestrians, cyclists and public transport users while providing, in as much as possible, for the efficient movement of vehicular traffic within the study area. As part of the works, the Fox & Hounds Junction is being upgraded with additional lanes and enhanced facilities to promote active travel and sustainable travel patterns. See **Fig 3.5.1**.

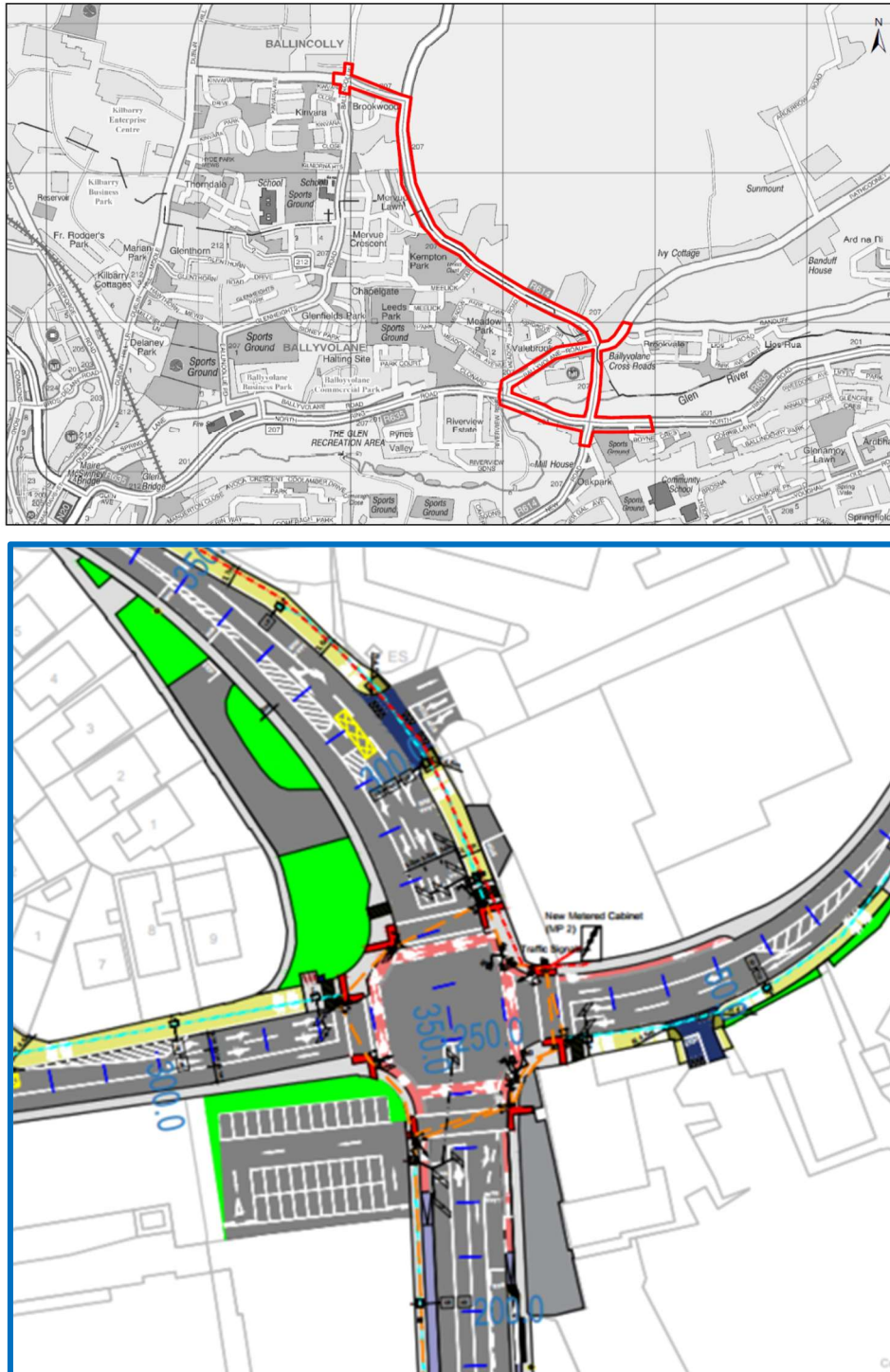


Fig 3.5.1: BSTC – Study Area & Fox & Hounds junction Layout

3.5.2 **Cork Northern Distributor Multi Modal Route**

The Cork Metropolitan Area Transport Strategy 2040 (CMATS) has identified the importance of the Ballyvolane UEA in the delivery of the projected growth in population for Cork City into the future. In order to support this growth in terms of transportation, the strategy proposes a Northern Distributor Multi Modal Route for Cork (CNDMR), an indicative route for which is shown in **Figure 3.5.2** as well as **Figure 3.5.3**.

The northern distributor road will provide for orbital movement for bus, pedestrian, cycle and some strategic and general traffic and reduce reliance on radial routes through the city centre. The proposed route is about 14km long and will provide active travel, public transport and vehicular linkages on the northside. The NDR is considered to be a critical enabler for Cork Metropolitan Area Transport Strategy, as it would create opportunities for sustainable development of existing landbanks in the northern Cork metropolitan area; facilitate the rollout of sustainable transport measures including public transport services for the north Cork metropolitan city area, as well as facilitating the introduction of a HGV ban within the city centre, among other things.

As previously identified the timescale for the delivery of this route is 2031, which will lead to a fundamental change in traffic flow patterns in the area when it is in place. It is anticipated that the most pronounced change will be to the existing R635, North Ring Road, as the NDR will fulfil the function of a bypass for N25/M28/N20 bound traffic.

As part of the development of the CMATS document, significant traffic modelling has been carried out using the NTA SWRM (South Western Regional Model) model which, it is understood, has accounted for the completion of the entire Ballyvolane UEA, including the proposed development site. This modelling has included for additional public transport provision as well as improved splits in terms of pedestrian/cycle modes of travel. It has also accounted for the aforementioned change in traffic distribution.



Fig. 3.5.2: CNDMR preferred route (source Cork City Council)

3.5.3 **Cork City Northern Transport Project**

The Cork City Northern Transport Project, formally referred to as the Cork North Ring Road (CNRR), is a complementary project to the N/M20 Cork to Limerick project and is part of the Cork Metropolitan Area Transport Strategy (CMATS) and will support the objectives of a number of other national & regional policies including Project Ireland 2040 & the Cork City Development Plan. A preliminary route has been included within CMATS. This document states that as part of the N/M20 Cork to Limerick Road Improvement Scheme, TII will examine the inclusion of this strategic road which would link the N20 to the M8. It's indicated that the link road is a complementary but independent scheme to the N/M20 corridor scheme, however; its requirements, scale (based on demand levels) and justification will be considered and assessed as part of the appraisal process for the overall M20 scheme.

The route is seen as an important strategic infrastructural requirement to complete the existing road network around the city and has been divided into a Northern Section; linking the N20 Cork to Mallow Road with the N8 Glanmire Bypass, and a Western Section; linking the Ballincollig Bypass with the N20. With regard to this development, vehicular access may be further enhanced through the possible future linkage between the proposed North Ring Road and the Ballincroig/Ballyvolane area. A preliminary route for the CNRR can be seen below in **Figure 3.5.3**.

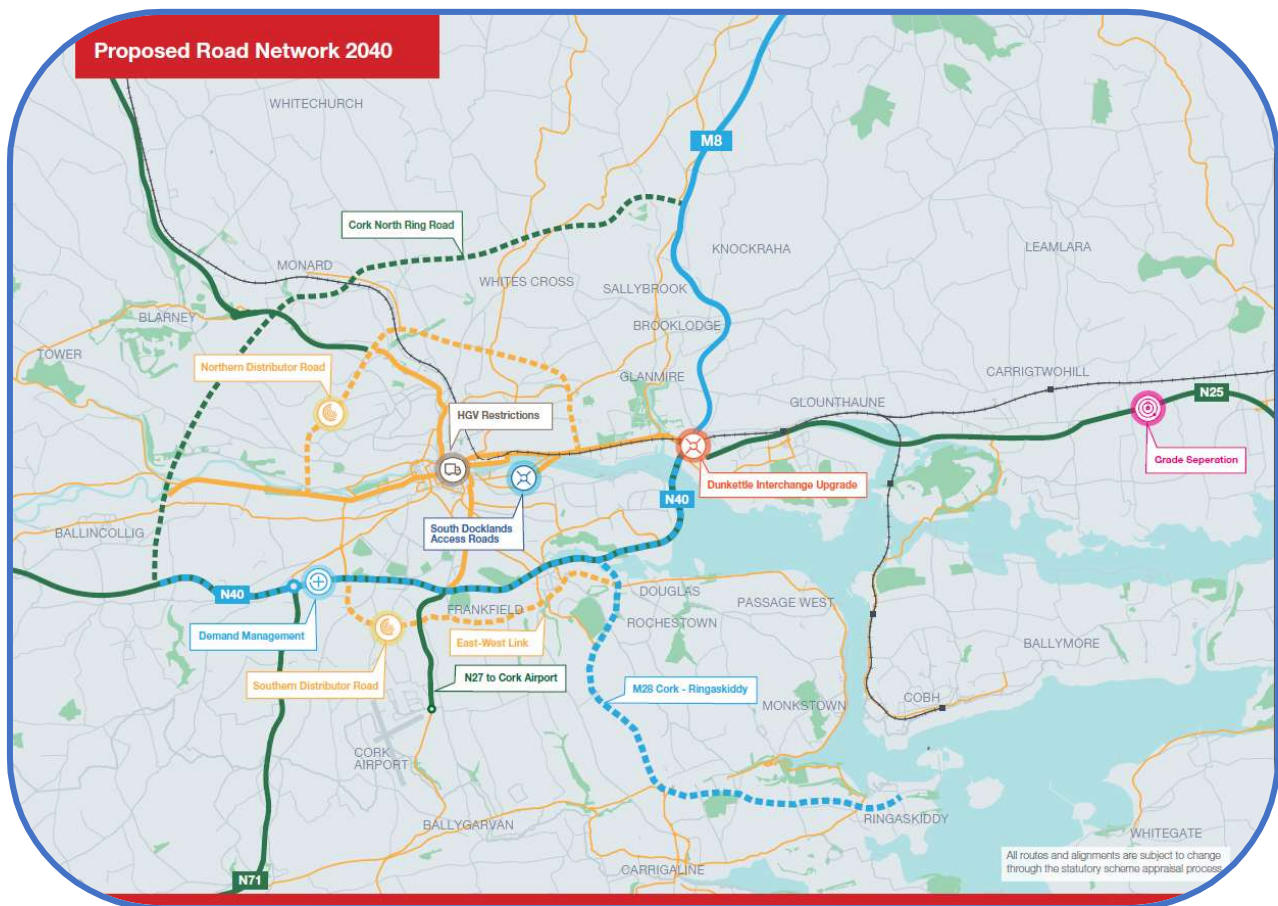


Fig. 3.5.3: Extract from CMATS

3.5.4 **Cork Metropolitan Bus Network**

The National Transport Authority (NTA) launched its new design for the Cork Metropolitan Bus Network in June 2022. The new network, part of BusConnects Cork, is intended to transform the public transport network across the Cork Metropolitan Area. The new network will involve the creation of new bus routes and improved bus frequencies to help transform the public

transport network to meet anticipated growth and future demand in the region. As part of this new network, a new bus route 54 between Upper Glanmire and Cork Bus Station via White's Cross, with six daily trips Monday-Saturday, is being created. This new route will supplement the existing bus routes in the vicinity. The 54 will run along the Ballyhooly Road and can be seen below in **Figure 3.5.4**, which is an extract from BusConnects Cork Metropolitan Areas Central Local Area Map.

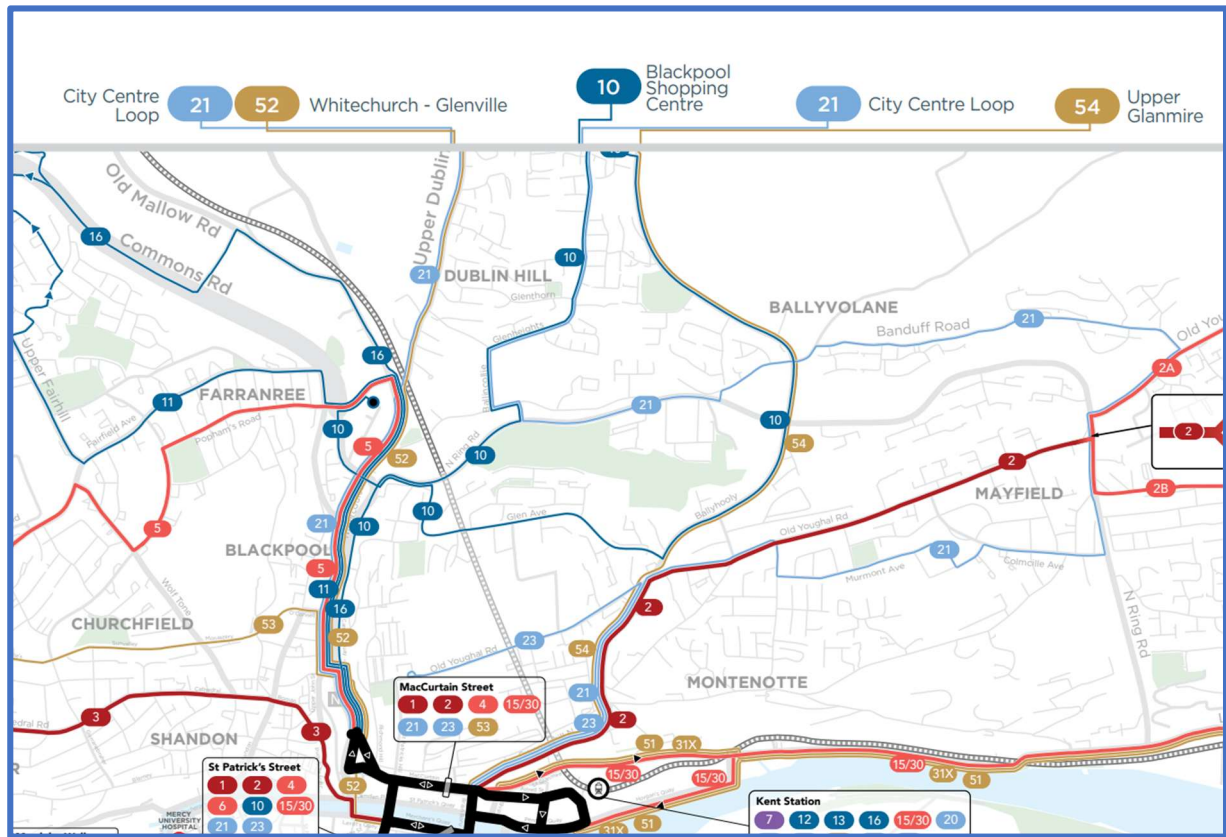


Fig 3.5.4: BusConnects Cork Metropolitan Areas Central Local Area Map.

3.6 SURROUNDING PROPOSED DEVELOPMENT

- 3.6.1 The latest City Development Plan, as shown in **Figure 1.2**, identifies the zonings in the vicinity of the lands the subject of this application. A number of planning applications have been made within the area that have either been granted or are under consideration. The largest of these is Longview Estate, there have been a number of amendments to this consent. Permission overall, has been granted for the construction of a total of 753no. dwelling units as well as a creche, community facilities, an internal distributor road providing access to neighbouring lands, internal bus stops, site service infrastructure including water supply and foul and surface/storm water drainage infrastructure (Ref: ABP-306325-20). Future trips to and from this development have been directly accounted for in all traffic models.
- 3.6.2 As previously mentioned, a Large Scale Residential development (Ref: 25/44053) was recently granted planning along Ballyhooly Road. This development of 114no. apartments is located in the old TLI yard site north of the main Longview Estate Access Junction. Future trips to and from this development have been directly accounted for in all traffic models.
- 3.6.3 In order to account for traffic generation from additional development in the wider area, the TII Central Growth Rate factor for Cork City has been applied to existing background traffic when determining future year scenarios. As an additional factor-of-safety the resulting figures **have not been reduced** in accordance with an anticipated increase in modal shift with the delivery of the BSTC Scheme.

4.0 PROPOSED DEVELOPMENT

4.1 INTRODUCTION

- 4.1.1 The proposed development on our client's site is consistent with the zoning for sustainable residential development including a creche facility.
- 4.1.2 This application comprises 262no. residential units.
- 4.1.3 Proposed access to the site is from 5no. new junctions onto the Longview Estate Distributor Road. This then takes access from the R614 Ballyhooly Road to the west.
- 4.1.4 The proposed development can be seen in **Figure 4.1.1** below.



Fig 4.1.1: Proposed Site Layout

5.0 TRAFFIC GENERATION

5.1.1 This section describes the traffic generation from the development. MHL are a licence holder for the TRICS database and employ it for traffic studies. TRICS is a well-established UK and Irish national database which holds in excess of 2,100 site locations and 7,000 survey counts with over 98 separate land use sub-categories. MHL & Associates Ltd. are one of over 300 worldwide licensed TRICS member organisations. The TRICS program was utilised for the land-use sub-category associated with the development proposal. The “Guidelines for Traffic and Transportation Assessments” state that for residential use the busiest hours are between 08:00-09:00 and 17:00-18:00. The traffic counts being utilised for this TTA have the same peak hours.

5.1.2 A number of trip generation rates for the proposed development were garnered via the TRICS database for different land use sub-categories. The final trip rate used in the traffic modelling has been calculated as an average of these different trip rates. This final trip rate has been agreed with the Traffic & Transport Section of Cork City Council.

No. of Units		TRIP RATE		TRIPS	
		IN	OUT	IN	OUT
262	AM	0.174	0.353	46	93
	PM	0.294	0.218	77	57

Figure 5.1 Trip Generation Per Residential Unit for the Development

6.0 MODAL SPLIT

6.1.1 This section describes the application of modal shift (the use of sustainable modes of travel) using an evidence-based approach when generating development traffic.

6.1.2 The 2022 Census online SAP data was used to assess current modal shift patterns in the area. 12% of people said they were commuting on foot, bike or using public transport.

Means of Travel	Usually resident by means of travel to work (Number)	Usually resident by means of travel to school, college or childcare (Number)	Usually resident by means of travel to work, school, college or childcare (total) (Number)
On Foot	109	222	331
Bicycle	28	2	30
Bus, minibus or coach	189	284	473
Train, DART or LUAS	7	2	9
Motorcycle or scooter	13	0	13
Car Driver	2,598	120	2,718
Car passenger	234	1,645	1,879
Van	239	4	243
Other (incl. lorry)	14	4	18
Work mainly at or from home	407	6	413
Not stated	150	118	268
Total	3,988	2,407	6,395

Table 6.1.1: 2022 Modal Shift by means of travel to work, school or college.

6.1.3 As agreed with the Traffic & Transport Department of Cork City Council, a modal shift factor has been applied to the sustainable transport figure taken from the CSO data shown above. This modal shift factor has been calculated using projected changes presented in the Cork

Metropolitan Area Transport Study. CMATS gives modal shift factors of 34% for existing sustainable transport modes and 50.7% for future sustainable travel modes. This approach would suggest a future modal split by active and sustainable travel modes of 18% $[12\% + (12\% \times 50\%)]$ which would result in a **6%** reduction in the vehicular modal shift.

- 6.1.4 On completion of the Ballyhooly Transport Corridor (BTC) works, an increase in modal shift of 34% would be expected to be delivered for the area for existing traffic patterns according to CMATS. This increase in modal shift **has not been applied** to existing traffic numbers when developing future year traffic models. This BTC expected to be fully operational late 2026 or early 2027.

In terms of modal split and national policies for the promotion of sustainable transport solutions, a reduction in car trips would be expected with improvement in pedestrian / cycle facilities as well as improvement to public transport. In order to provide a robust traffic analysis **no reduction** in car traffic volumes due to modal shift have been assumed in this report other than traffic generated from the proposed development and the 2no. permitted developments in the immediate vicinity which have been included as part of the TTA.

The Longview access / distributor road is also included on the Bus Connects with Route No. 39 in the current iteration of the Network Map.

7.0 TRAFFIC GENERATION/FORECASTING

- 7.1.1 This section describes the traffic generation from the development as outlined in Section 5 and accounts for future modal shift targets as described in Section 6.
- 7.1.2 The traffic generation outlined in Section 5 has been added to existing background flows and distributed through the network to model each of the identified junctions. The results are presented in Section 9 of this report.
- 7.1.3 Proposed trips to and from both the development are outlined in the table below.

						6% Modal Shift	
No. of Units		TRIP RATE		TRIPS		TRIPS	
		IN	OUT	IN	OUT	IN	OUT
262	AM	0.174	0.353	46	93	43	87
	PM	0.294	0.218	77	57	72	54

Table 7.1: Proposed Development Traffic

- 7.1.4 In addition to development traffic, the recorded background traffic from 2023 was factored using Transport Infrastructure Ireland's Project Appraisal Guidelines (PE-PAG-02017 October 2021) for use in future year scenarios. The following table presents the factors used on recorded pcu's based on Link Based Growth Rates (Central Growth) for the Cork Metropolitan Area.

2023	2026	2029	2034	2044
BASE	5.16%	10.58%	16.10%	25.18%

Table 7.3: Background Traffic Growth Rates

8.0 TRIP ATTRACTION AND DISTRIBUTION

- 8.1.1 This section outlines the methodology used in the distribution of development specific traffic onto the modelled network. Section 3.2 describes the 4no. junctions where turning count movements were recorded over a 4-hour timeframe. This 'snapshot' of existing traffic

movements provides a basis for determining desire lines which can be used to assign development traffic at each of the modelled junctions.

8.1.2 For the purpose of this TTA it is assumed that the proposed development will be complete in 3 years' time (2029).

8.1.3 Traffic flow matrices have been developed for each Junction for the following 14no. scenarios:

- 2026 Current Year Flows AM/PM
- 2029 Year of Opening - AM/PM - With/Without Dev
- 2034 Year of Opening +5 - AM/PM - With/Without Dev
- 2044 Year of Opening +15 - AM/PM - With/Without Dev

8.1.3 The traffic distribution to and from the proposed development has been agreed with Traffic & Transport Section of Cork City Council. Figures 8.1.1 & 8.1.2 show how development traffic has been split at the junctions throughout the network. The split percentages for the development have been kept the same for the AM peak & the PM peak to reflect key attractors in the area. The percentage splits for outbound development traffic are shown in red whilst inbound traffic splits are shown in blue.

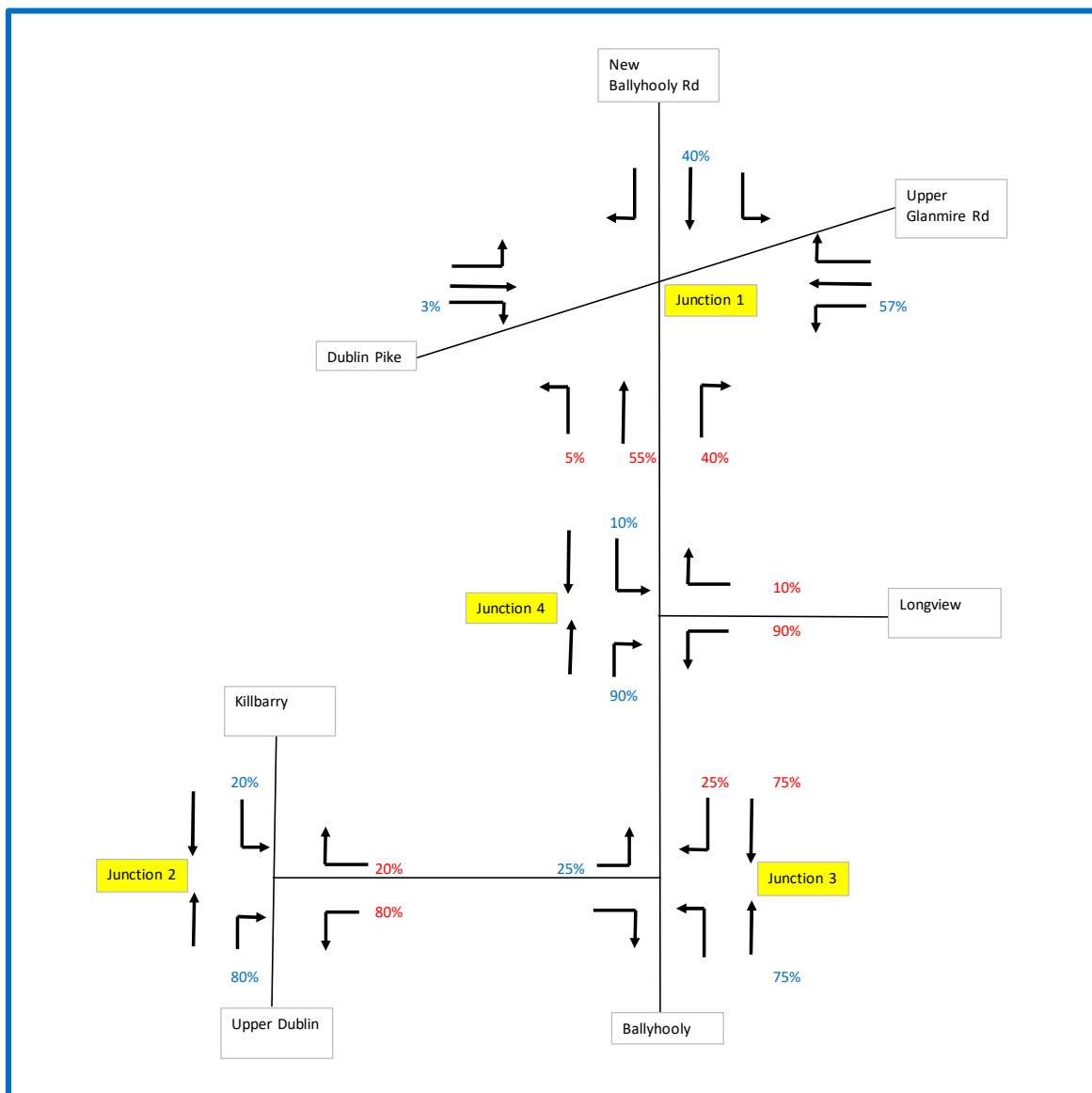


Figure 8.1.1: Development Traffic Split Percentages – Junctions 1 to 4

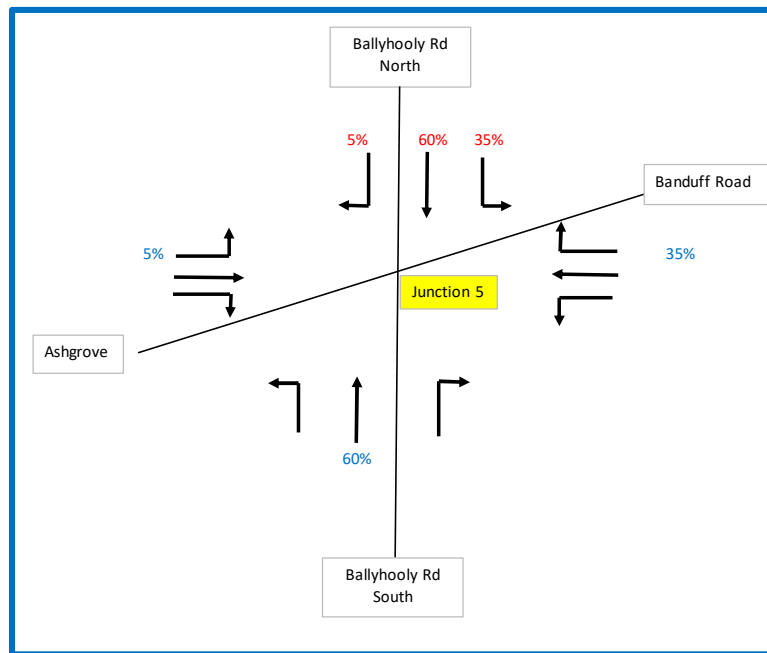


Figure 8.1.2: Development Traffic Split Percentages – Junction 5

9.0 NETWORK MODELLING RESULTS

9.1 INTRODUCTION

9.1.1 This section presents the results of the traffic modelling of the four identified junctions presented both with/without development in place for the current year 2026, the year of opening 2029, the year of opening + 5 (2034) and the year of opening + 15 (2044). Junction 11 was used to analyse all junctions 1-4 and LinSig was used to analyse Junction 5. The complete results sheets for all of the generated models are provided in **Appendix A**.

9.1.2 The Junction 11 modelling software produces an RFC % (Ratio of Flow to Capacity), a Delay figure measured in seconds and a LOS (Level of Service) which are used to compare the effects the development will have on the junction being modelled. Generally, an RFC of 85% for uncontrolled junctions or less is considered acceptable during the peak period for priority junctions. An RFC of this value would indicate that at peak times the uncontrolled junction is at 85% of its operational capacity and therefore has a practical reserve capacity of 15%. This reserve capacity of 15% is considered by traffic engineers to be the level of reserve capacity at a junction required to cater for periods of unusually high traffic flows, such as bank holiday weekends, public entertainment, and sporting events etc. The following table describes the different LOS and the implications for the junction being assessed.

Level of Service A	Free-Flow
Level of Service B	Reasonably Free-Flow (no delay incurred)
Level of Service C	Stable Operation (busy but operational with acceptable delay incurred)
Level of Service D	Borderline Unstable (Junctions reaching capacity – but still operational- delay incurred)
Level of Service E	Extremely Unstable (Junctions at capacity or over, any incident will cause a grid-lock situation- significant delay incurred)
Level of Service F	Breakdown (Junctions over capacity, unacceptable delay traffic at a standstill)

Table 9.1 Level of Service

9.1.2 LinSig is a software which allows traffic engineers to model traffic signals and their effect on traffic capacities and queuing. As well as modelling the effects of traffic signals, LinSig also optimises signal timings to reduce delay or increase capacity at a junction or group of interlinked junctions. Generally, an RFC of 90% or less is considered acceptable during the peak period for signalised junctions. An RFC of this value would indicate that at peak times the junction is at 90% of its operational capacity and therefore has a practical reserve capacity of 10%. This reserve capacity of 10% is considered by traffic engineers to be the level of

reserve capacity at a signalised junction required to cater for periods of unusually high traffic flows, such as bank holiday weekends.

9.2 Junction 9 Results

9.2.1 Junction 1: White's Cross (uncontrolled)

The junction diagram is shown in Figure 9.2.1 below and the tabulated results for this junction are presented in Table 9.2.1 below.

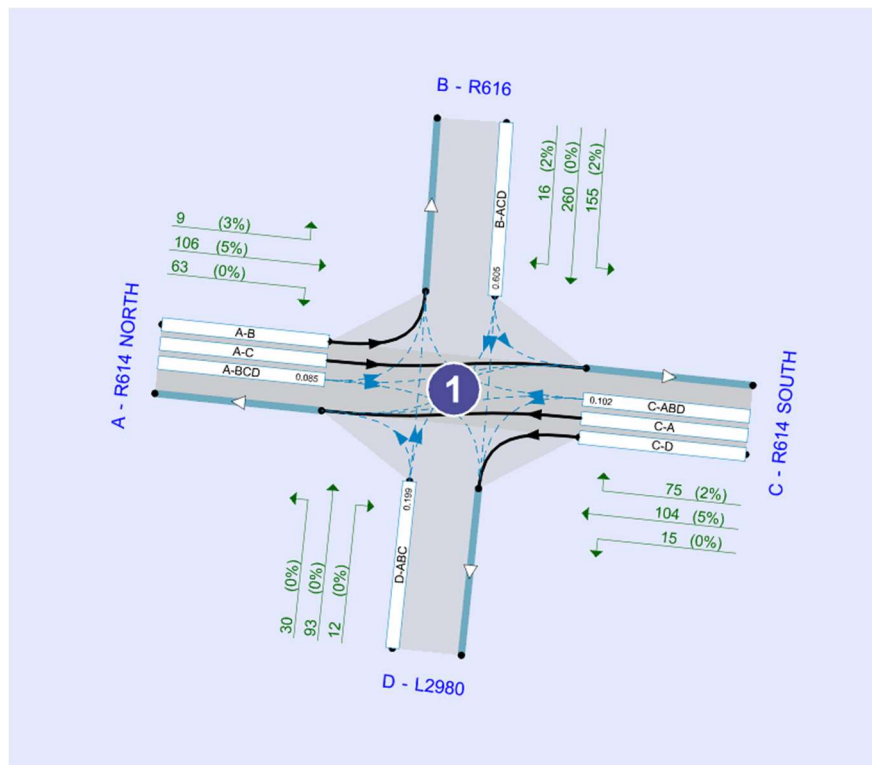


Figure 9.2.1: Junction Diagram for Junction 1

Junction 1 - Whites Cross						
	Scenario	Arm				JUNCTION
		A	B	C	D	
AM	2026	A	F	A	B	D
	2029 WITHOUT	A	F	A	B	E
	2029 WITH	A	F	A	B	F
	2034 WITHOUT	A	F	A	B	F
	2034 WITH	A	F	A	B	F
	2044 WITHOUT	A	F	A	B	F
	2044 WITH	A	F	A	B	F
Junction 1 - Whites Cross						
	Scenario	Arm				JUNCTION
		A	B	C	D	
PM	2026	A	C	A	D	C
	2029 WITHOUT	A	D	A	D	C
	2029 WITH	A	D	A	E	C
	2034 WITHOUT	A	D	A	E	C
	2034 WITH	A	E	A	E	C
	2044 WITHOUT	A	F	A	F	E
	2044 WITH	A	F	A	F	E

Table 9.2.1: Results for Junction 1

- a. The current year (2026) results are representative of how the junction currently operates during peak periods.
- b. The results indicate that the junction is currently operating with an overall LOS of D for the morning peak hour and with an overall LOS of C for the evening peak hour.
- c. A closer inspection of the morning AM analysis shows that all arms are operating well with the exception of Arm B (R616) which is currently shown to be over capacity during the AM peak hour with an RFC of 91% and an LOS of F. A vehicle queue length of 8 is indicated.
- d. Future year results, both **with** and **without** the development, show a steady degradation in capacity for the network as would be expected with the traffic growth rates applied and specifically for Arm B in both the AM and PM peak hours.
- e. The results indicate that Arm B (R616 Road) is over capacity in the PM peak hour by the design year 2044 both **with** and **without** the proposed development.
- f. The results indicate that Arm D (L2980 Road) is also over capacity in the PM peak hour by the design year 2044 both **with** and **without** the proposed development.
- g. A simple solution to this problem would be to signalise this crossroads junction. This would also improve road safety and provide better facilities and connectivity for pedestrians at White's Cross. An alternative solution to signalisation would be to improve the junctions of both minor arms to allow for a flare. Both junctions currently do not have sufficient room to enable a left turning and right turning vehicle to approach the junction simultaneously.
- h. It must also be remembered that no allowance for modal shift for background traffic was assumed for analysis. If allowance were made, the network may not be over capacity.

9.2.2 **Junction 2: Junction of Upper Dublin Hill / Lower Dublin Hill (uncontrolled)**

The junction diagram is shown in Figure 9.2.2 below and the tabulated results for this junction are presented in 9.2.2 below.

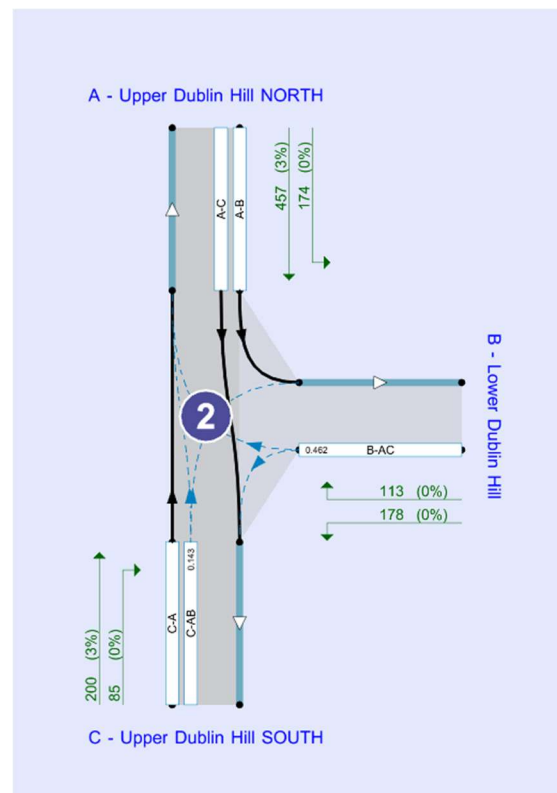


Figure 9.2.2: Junction Diagram for Junction 2

AM	Junction 2 - Upper/Lower Dublin Hill			
	Scenario			
		B	C	JUNCTION
	2026	E	A	B
	2029 WITHOUT	F	A	C
	2029 WITH	F	A	D
	2034 WITHOUT	F	A	D
	2034 WITH	F	A	E
	2044 WITHOUT	F	A	F
	2044 WITH	F	A	F

PM	Junction 2 - Upper/Lower Dublin Hill			
	Scenario			
		B	C	JUNCTION
	2026	F	A	C
	2029 WITHOUT	F	B	D
	2029 WITH	F	B	E
	2034 WITHOUT	F	B	E
	2034 WITH	F	B	F
	2044 WITHOUT	F	B	F
	2044 WITH	F	B	F

Table 9.2.2: Results for Junction 2

- The current year (2026) results are representative of how the junction currently operates during peak periods.
- The results indicate that the junction is currently operating well with an overall LOS of B for the morning peak hour and with an overall LOS of C for the evening peak hour.
- A closer inspection of the morning AM analysis shows that all arms are operating well with the exception of Arm B (Lower Dublin Hill) which is currently shown to be nearing capacity during the AM peak hour with an RFC of 78% and an LOS of E. A vehicle queue length of 3 is indicated.
- A closer inspection of the morning PM analysis shows that all arms are operating well with the exception of Arm B (Lower Dublin Hill) which is currently shown to be just over capacity during the PM peak hour with an RFC of 85% and an LOS of F. A vehicle queue length of 5 is indicated.
- Future year results, both **with** and **without** the development, show a steady degradation in capacity for the network as would be expected with the traffic growth rates applied and specifically for Arm B in both the AM and PM peak hours.
- A simple solution to this problem would be to signalise this junction. This would also improve road safety and provide better facilities and connectivity for pedestrians at. An alternative solution to signalisation would be to improve the junction of the minor arm to allow for a flare. The junction currently does not have sufficient room to enable a left turning and right turning vehicle to approach the junction simultaneously.
- It must also be remembered that no allowance for modal shift for background traffic was assumed for analysis. If allowance were made the minor arm may not be over capacity.

9.2.3 Junction 3: Junction of Lower Dublin Hill / Ballyhooly Road (uncontrolled)

The junction diagram is shown in Figure 9.2.3 below and the tabulated results for this junction are presented in Table 9.2.3 below.

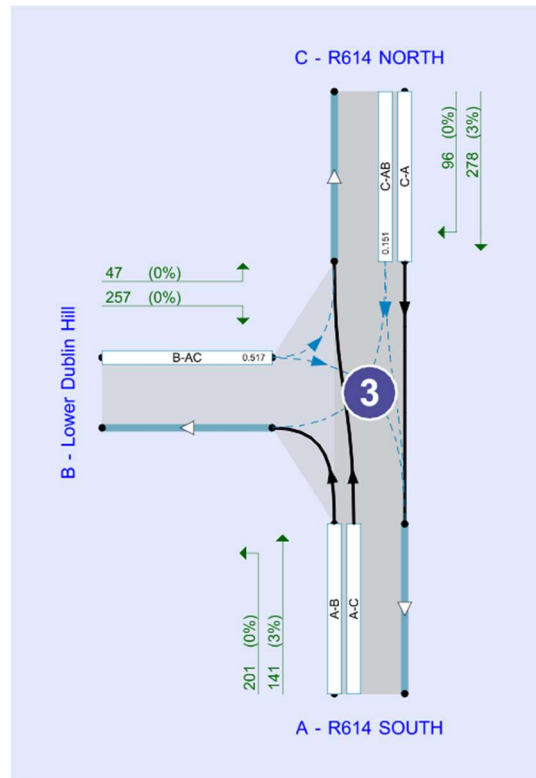


Figure 9.2.3: Junction Diagram for Junction 3

Junction 3 - Ballyhooly Rd/Lower Dublin Hill				
AM	Scenario	B	C	JUNCTION
	2026	F	A	C
	2029 WITHOUT	F	A	E
	2029 WITH	F	A	F
	2034 WITHOUT	F	A	F
	2034 WITH	F	A	F
	2044 WITHOUT	F	A	F
	2044 WITH	F	A	F

Junction 3 - Ballyhooly Rd/Lower Dublin Hill				
PM	Scenario	B	C	JUNCTION
	2026	D	A	A
	2029 WITHOUT	F	A	C
	2029 WITH	F	A	D
	2034 WITHOUT	F	A	C
	2034 WITH	F	A	E
	2044 WITHOUT	F	A	E
	2044 WITH	F	A	F

Table 9.2.3: Results for Junction 3

- The current year (2026) results are representative of how the junction currently operates during peak periods.
- The results indicate that the junction is currently operating with an overall LOS of C for the morning peak hour and with an overall LOS of A for the evening peak hour.
- A closer inspection of the morning AM analysis shows that all arms are operating well with the exception of Arm B (Lower Dublin Hill) which is currently shown to be just over capacity during the AM peak hour with an RFC of 87% and an LOS of F. A vehicle queue length of 5 is indicated.
- Future year results, both **with** and **without** the development, show a steady degradation in capacity for the network as would be expected with the traffic growth rates applied and specifically for Arm B in both the AM and PM peak hours.
- The results indicate that Arm B is over capacity in the PM peak hour by the design year 2029 with or without the proposed development.
- A simple solution to this problem would be to signalise this junction. This would also improve road safety and provide better facilities and connectivity for pedestrians at. An alternative solution to signalisation would be to improve the junction of the minor arm to allow for a flare. The junction currently does not have sufficient room to enable a left turning and right turning vehicle to approach the junction simultaneously.
- It must also be remembered that no allowance for modal shift for background traffic was assumed for analysis. If allowance were made the minor arm may not be over capacity.

9.2.4 **Junction 4: Development Access Junction – Ballyhooly Road (uncontrolled)**

The junction diagram is shown in Figure 9.2.4 below and the tabulated results for this junction are presented in Table 9.2.4 below.

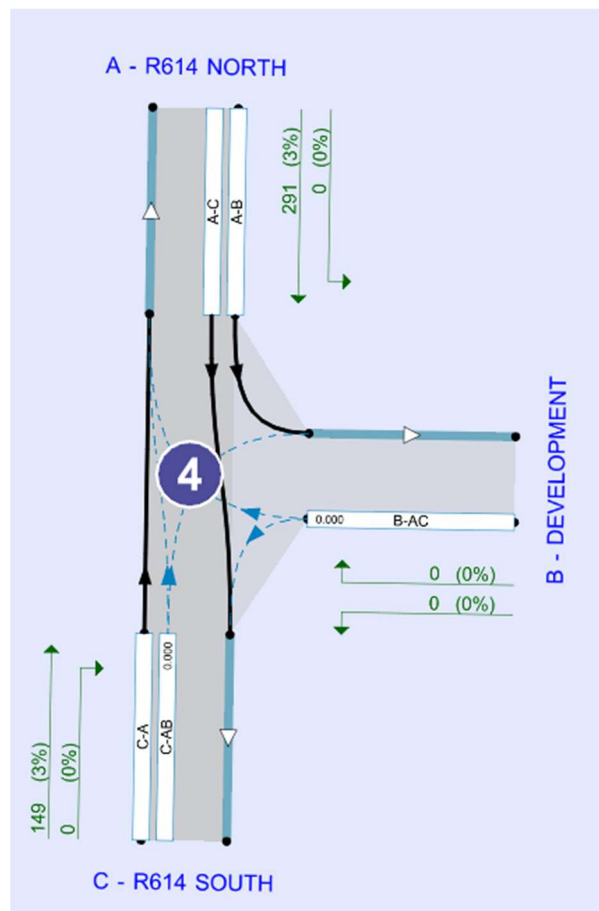


Figure 9.2.4: Junction Diagram for Junction 4

AM	Junction 4 - Dev Access Ballyhooly Rd			
	Scenario			
		B	C	JUNCTION
	2026	A	A	A
	2029 WITHOUT	B	A	A
	2029 WITH	C	A	A
	2034 WITHOUT	B	A	A
	2034 WITH	C	A	A
	2044 WITHOUT	B	A	A
	2044 WITH	C	A	B

PM	Junction 4 - Dev Access Ballyhooly Rd			
	Scenario			
		B	C	JUNCTION
	2026	A	A	A
	2029 WITHOUT	A	B	A
	2029 WITH	B	B	A
	2034 WITHOUT	B	B	A
	2034 WITH	B	B	A
	2044 WITHOUT	B	B	A
	2044 WITH	B	C	A

Table 9.2.4: Results for Junction 4

- The current year (2026) results are representative of how the junction currently operates during peak periods.
- The results indicate that the junction is currently operating well with an overall LOS of A for the morning peak hour and with an overall LOS of A for the evening peak hour.
- Future year results, both **with** and **without** the development, show a slight degradation in capacity for the network as would be expected with the traffic growth rates applied and specifically for minor Arm B in both the AM and PM peak hours, however; the junction is shown to be operating well within capacity for all design scenarios.
- No mitigation measures are required at this junction.

9.2.5 **Junction 5: Fox & Hound's Crossroads (fully signalised)**

The junction diagram is shown in Figure 9.2.5 below. Junction 5 was analysed using LinSig as the junction is fully signalised. The junction model was built to reflect the new signalised junction which is currently under construction at this location.

LinSig software does not give a Level of Service (LOS) as Junction 11 does and so the tabulated results below in Table 9.2.5 are presented differently to the other 4no. unsignalised junctions. The table instead shows the RFC figures for each arm of the junction as well as for the overall junction.

The complete results sheets for this junction can be found in **Appendix A**.

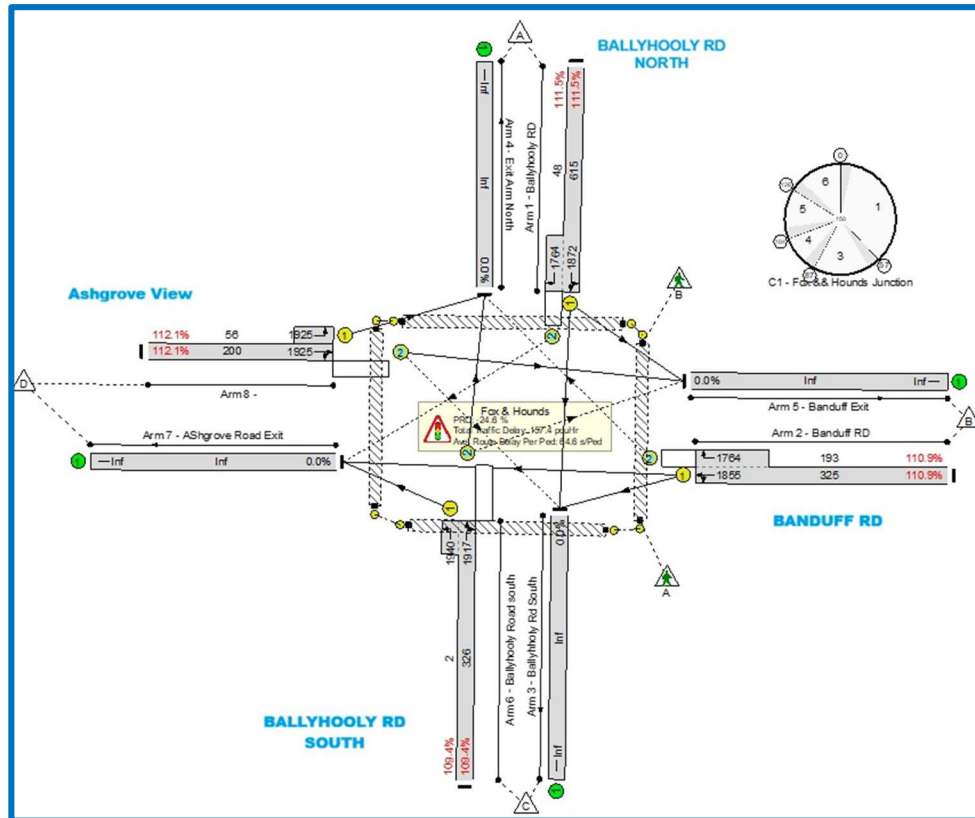


Figure 9.2.4: Junction Diagram for Junction 4

AM	Junction 5 - Fox & Hounds					
	Scenario	Arm				JUNCTION
		A	B	C	D	
AM	2026	111.50	110.90	109.40	112.10	112.10
	2029 WITHOUT	124.50	126.10	122.20	124.50	126.10
	2029 WITH	130.60	130.90	127.40	131.90	131.90
	2034 WITHOUT	129.40	131.50	127.40	130.30	131.50
	2034 WITH	137.90	136.30	132.50	130.70	137.90
	2044 WITHOUT	139.80	140.60	136.50	133.60	140.60
	2044 WITH	145.70	145.40	141.60	141.10	145.70
PM	Junction 5 - Fox & Hounds					
	Scenario	Arm				JUNCTION
		A	B	C	D	
	2026	122.70	108.30	122.30	120.70	122.70
	2029 WITHOUT	135.50	127.10	134.00	135.50	135.50
	2029 WITH	139.60	136.50	140.90	140.50	140.90
	2034 WITHOUT	141.20	131.60	139.50	142.30	142.30
	2034 WITH	145.20	141.00	146.40	147.50	147.50
	2044 WITHOUT	150.40	139.50	148.80	153.30	153.30
	2044 WITH	158.00	148.90	155.70	153.70	158.00

Table 9.2.5: Results for Junction 5

- a. The current year (2026) results are representative of how the junction currently operates during peak periods.
- b. The results indicate that the junction is currently operating over capacity for both the morning and evening peak hours.
- c. Future year results, both **with** and **without** the development, show a steady degradation in capacity for the network for both morning and evening peak hours as would be expected with the traffic growth rates applied and the addition of traffic from permitted developments in the immediate vicinity.
- d. As part of CMATS and other transport related studies SYSTRA carried out a much larger transport assessment for the Ballyvolane area for Cork City Council to inform infrastructure improvements which would cater for zoned land in the area. This larger model allowed for future transport proposals such as the upgrade of the existing North Ring Road as well as the new Northern Distributor Road which are beyond the scope of the traffic modelling for this TTA. The inclusion of this infrastructure as well as other transport infrastructure, measures and initiatives in the wider Cork Metropolitan area would be expected to alter traffic patterns drastically in the coming years.
- e. Modal shift allowance for permitted developments and the proposed development has been capped at 6% which is far below the targets set out in CMATS and the Cork City Development Plan. It must also be remembered that no allowance for modal shift for background traffic was assumed for analysis. If allowance were made, the network may not be over capacity. With new improved sustainable and active travel infrastructure/facilities currently being provided in the immediate area, it would be expected that modal choice would improve measurably towards sustainable and active travel modes which will result in significant changes to existing travel patterns, resulting in capacity increases within the modelled network.

Table 9.2.6 shows the increase in overall AADT for all junctions **with** and **without** the inclusion of the proposed development. As can be seen from the tables, the inclusion of the development does not cause a significant increase in AADT for the junctions with the exception of Junction no.4 which would be expected as this is the Longview Access Junction. The Fox & Hounds junction is only shown to be increasing by 4% with the inclusion of traffic from the proposed development whilst the Whites Cross Junction is shown to only increase by 1%.

AM	Junction	AADT 2044	AADT 2044	% Increase
		Without Development	With Development	
	1	1065	1078	1%
	2	1467	1497	2%
	3	1411	1528	8%
	4	909	1039	14%
	5	2429	2516	4%

PM	Junction	AADT 2044	AADT 2044	% Increase
		Without Development	With Development	
	1	1238	1250	1%
	2	1541	1570	2%
	3	1534	1649	7%
	4	953	1080	13%
	5	2481	2568	4%

Table 9.2.6: Increase in AADT for all Junctions

10.0 CUMULATIVE IMPACT

- 10.1.1 As outlined in **Section 7.0** of this report, industry standard growth rates have been applied to background traffic for future year assessments (to account for further development within the area). These growth rates make allowance for modal shift targets as set by national policy but do not take account of site-specific measures that may be implemented to mitigate against traffic generation from a particular development. In this instance the development of strategic transport corridors in line with national and local policy should allow for the development of the Ballyvolane Zoned Area using lower traffic generation.
- 10.1.2 Upgrade works to specific junctions are proposed as part of the NSTC Study. The Ballyvolane Transport Corridor Scheme will facilitate the delivery of these upgrade works as outlined in **Section 3.5**.
- 10.1.3 As previously discussed the Northern Distributor Road (NDR) as outlined in CMATS will be designed as a Quality Bus Corridor (QBC) and ultimately will allow for high frequency bus services to orbit the city. This 'Orbital' Route will have arterial links, such as the Ballyhooly Transport Corridor, facilitating direct access to the city centre. In practice these routes also include cycle provision such as secure bicycle parking, cycle lanes and other inducements to reduce reliance on the car for travel. In order to function properly and to justify their provision a certain density of population is required. A new bus route 54 is also being introduced as part of BusConnects Cork and will pass the site along the Ballyhooly Road.
- 10.1.4 The development of an outer Northern Distributor Road linking the M8 to the N20 (M20) via the proposed new town of Monard and ultimately to the M22 at Ballincollig, will result in significant changes to existing travel patterns, resulting in capacity increases within the modelled network. An indicative route for the NDR is shown in CMATS.

11.0 INTERNAL LAYOUT & PARKING PROVISION

- 11.1 Vehicular and bicycle parking has been provided in accordance with local and national policy and is suitably located on site.

12.0 PUBLIC TRANSPORT

- 12.1 The closest public bus route serving the site is the 248 which stops at White's Cross which is less than 10mins walk from the site. The 248 originates at Parnell Place bus station in the city centre and terminates at Glenville. The journey from town to White's Cross is approximately 10mins.

Another bus stop exists on the Upper Kinvra Road where the 207 can be availed of. Route 207 runs from Ballyvolane to Donnybrook via Cork City centre with terminus at Glenheights Park, Glenheights Road in Ballyvolane on the North of the City and at Scairt Cross, Donnybrook on the South side. The route services Glen Rovers Hurling Club, Ballyvolane Business Park, Ballyvolane Shopping Centre, Cork City Centre and Douglas via the main Douglas Road in the south side. Services depart from Glenheights Park, every 30 minutes from 0710 hours to 2300 hours on Mondays to Saturdays. Sunday services are every thirty minutes from 0930 to 2300 hours.

The outbound route runs from Donnybrook to Ballyvolane through Patrick Street with the same frequency as the inbound route. The inbound route commences at Glenheights Park in the north side of the city near Glen Rovers GAA Club, travels past Ballyvolane Business Park, then east along the North Ring Road, northeast along Ballyvolane Road past Ballyvolane Shopping Centre, then south along Ballyhooly Road through Dillon's Cross, St. Luke's Cross and down Summerhill North, through Brian Boru Street and crossing the River Lee at Brian Boru Bridge to the Bus Station at Parnell Place before continuing on its southbound path through the city centre. The outbound/northbound route differs from the southbound path, as it follows the inbound path along the Ballyhooly Road from the City Centre to Ballyvolane Shopping Centre,

where it continues northward along Ballyhooly Road as far as Ballyhooly New Road, passing Brockwood, Upper Kinvara Road and emerging onto Dublin Hill Upper in the vicinity of City North Business Park, Kilbarry Business Park and Industrial Estate in Blackpool. From here the route heads south again along Dublin Hill Middle and turns eastward through Glenthorne Drive to the terminus at Glenheights.

- 12.2 As part of the Ballyvolane Strategic Transport Corridor (BSTC) significant improvements to Route 207 are proposed with the aim of decreasing journey times and enhancing public facilities. These include bus shelters and RTPi (Realtime Public Information) boards to be provided at bus stops along the corridor and bus priority at all signal-controlled junctions. With the provision of these facilities and other incentives as part of national policy, it is anticipated that a shift to public transport will occur over the construction phase of this scheme. CMATS has provided more certainty for the delivery of these enhancements.
- 12.3 The National Transport Authority (NTA) launched its new design for the Cork Metropolitan Bus Network in June 2022. The new network, part of BusConnects Cork, is intended to transform the public transport network across the Cork Metropolitan Area. The new network will involve the creation of new bus routes and improved bus frequencies to help transform the public transport network to meet anticipated growth and future demand in the region. As part of this new network, a new bus route 54 between Upper Glanmire and Cork Bus Station via White's Cross, with six daily trips Monday-Saturday, is being created. This new route will supplement the existing bus routes in the vicinity. The 54 will run along the Ballyhooly Road along the site's eastern boundary. The Longview access / distributor road is also included on the Bus Connects with Route No. 39 in the current iteration of the Network Map.
- 12.4 The following isochrone map shows the areas accessible by public transport based on time of travel from the site. The existing bus stop on the Kilbarry Link Road was used as the terminus. Note: The distances include transfers to different services so are indicative only (delay may be experienced during transfer)

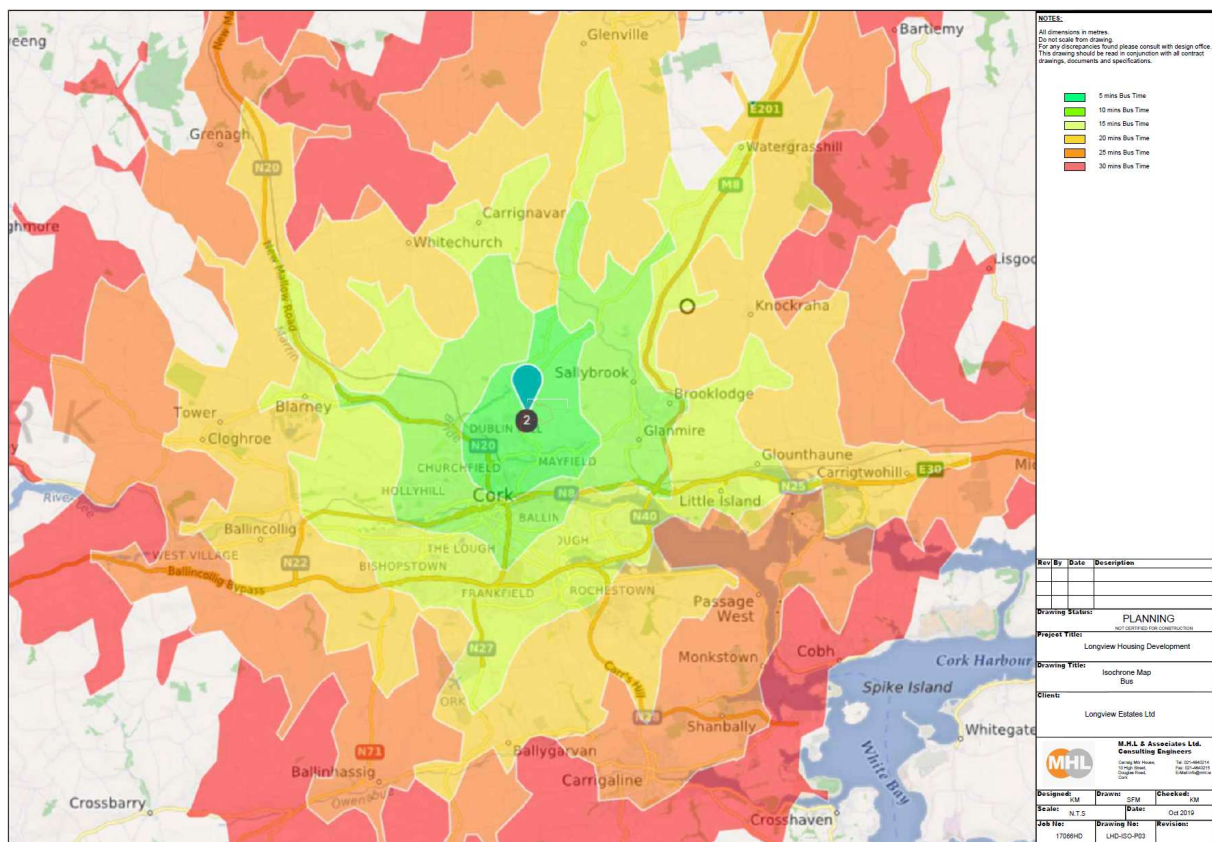


Fig 12.1: Time of travel by Public Transport Options

- 12.5 Evident from the above map is that current bus provision in the area allows travel to a wide area within 30 mins, with many of the main employment centres being within the 20 mins range. This is significantly shorter than CSO figures for other areas such as Dublin City 28.9 mins, South Dublin 30.6 mins, Waterford City & County 22.4 mins, Limerick City & County 24.2 mins.

A commute time by public transport in excess of 45 mins results in a change in behavioural preference away from public transport. It can be concluded that the proposed development site by its location will encourage the use of public transport in-line with national policy.

- 12.6 The aforementioned travel times are set to significantly improve as a result of the BSTC project which will include bus priority at junctions, additional on-road facilities such as covered shelters, real-time arrival departure boards and an increase in frequency of service. These measures, scheduled for delivery in 2023, will require the density of population in the area served, to justify this expenditure by the NTA.
- 12.7 The development of this site, which is situated close to the Ballyhooly Road Strategic Public Transport Route presents the opportunity to further increase residential capacities to support future public transport services, a point which was acknowledged and accepted in the previous An Bord Pleanála decision to grant planning permission for the development of 753no. dwelling units that comprises Longview Estate.

13.0 ACCESSIBILITY AND INTEGRATION

- 13.1 Pedestrian facilities in the vicinity are good. The site benefits from cycle and pedestrian connectivity as a result of recently completed works associated with Longview Estate. A new shared 4m wide footpath/cycle path has been provided which extends south from the Longview Estate boundary with Ballyhooly Road, as far as Mervue Lawn where it connects to existing infrastructure.

- 13.2 A desktop assessment of existing permeability for cyclists and pedestrians from the site was carried out.

- 13.3 Within 10 mins walk time from the site:

- White's Cross Service Station
- The Stirrup Bar (White's Cross)
- Bus Stop White's Cross (Service 248)

Within 15 mins walk time from the site:

- Bus Stop Upper Kinvara Road (Service 207)
- Murphy's Rock Bar
- Kempton Park

Within 20 mins walk time from the site:

- Scoil Olibheir Primary School
- St. Aidan's Community College
- St. Olivers Church
- Leeds Athletic Football Club
- The Blackman Bar
- Lidl

Within 30 mins walk time from the site:

- 'The Glen' Hurling & Football Club
- Blackpool Retail Park
- Cinema
- Aldi
- Dunnes Stores
- Fox & Hounds Bar & Restaurant

- Blackpool Credit Union
- Banks
- McDonalds
- Boots

Within 40 mins walk time from the site:

- Mayfield Community School
- Mayfield Sports Complex

Within 50 mins walk time from the site:

- Cork City Centre

- 13.4 Pedestrian routes within the site will connect to the adjoining Longview development by means of a stepped and ramped access route to the south of the site.
- 13.5 The Isochrone map shown below in Figure 13.1 represents the pedestrian travel times in 10-minute intervals from the site up to a 50-minute duration.

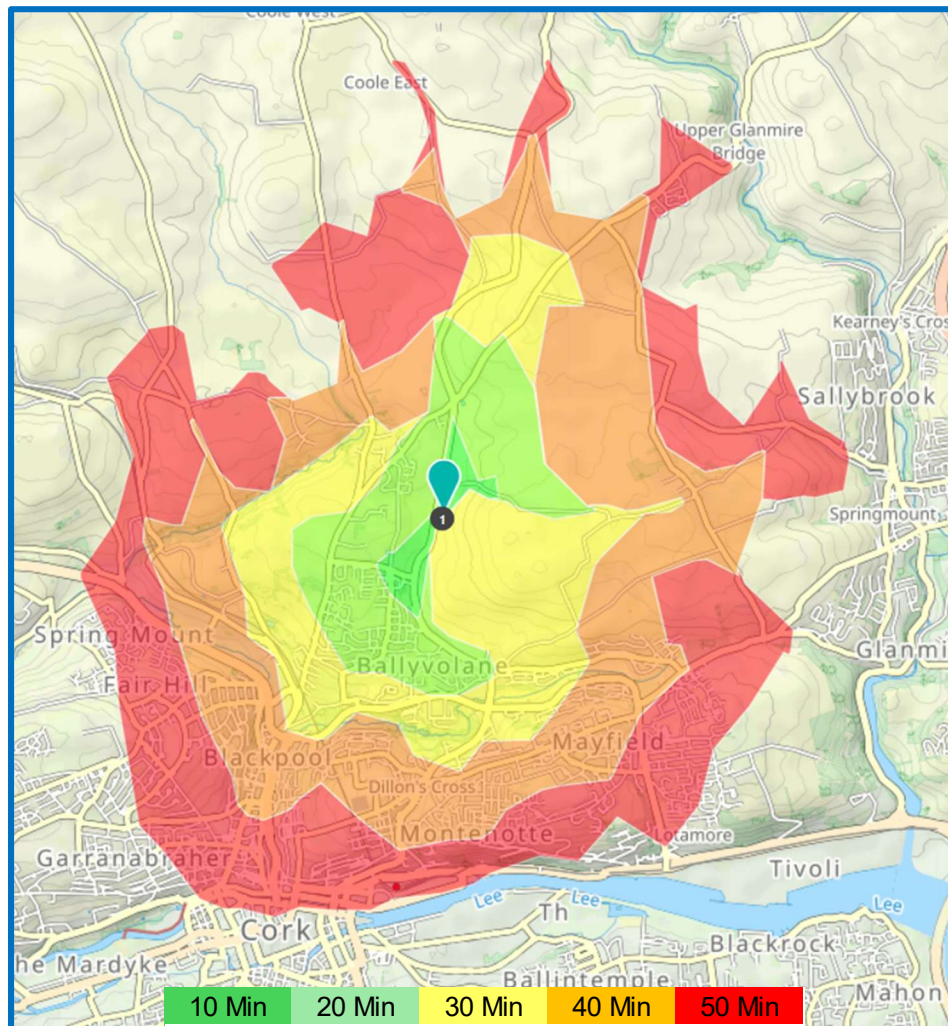


Fig 13.1: Isochrone Map - Pedestrian

- 13.5 A desktop assessment of existing permeability for cyclists from the site was carried out. The cycle range is presented in similar terms and relates to the average distance travelled in a

specific time (16-19 kmph). Cork City Centre falls within the 15 min category based on unrestricted flow through junctions. The 30 mins range includes all of the city including the southern suburbs.

Note: The travel speed used is on the low side, an experienced cyclist would have a 26-30kph average speed, however the speed used is more reflective of the topography in and around Cork City. It should also be noted that as a result of the aforementioned topography the inbound from the site to, say the City Centre, would be considerably quicker than the outbound trip, so on average it is considered that the speed used is appropriate.

Within 5 mins cycle time from the site:

- White's Cross Service Station
- The Stirrup Bar (White's Cross)
- Bus Stop White's Cross (Service 248)
- Bus Stop Upper Kinvara Road (Service 207)
- Murphy's Rock Bar
- Kempton Park
- Scoil Olibheir Primary School
- St. Aidan's Community College
- St. Olivers Church
- Leeds Athletic Football Club

Within 10 mins cycle time from the site:

- 'The Glen' Hurling & Football Club
- Blackpool Retail Park
- Cinema
- Aldi
- Lidl
- Dunnes Stores
- Fox & Hounds Bar & Restaurant
- Blackpool Credit Union
- Banks
- McDonalds
- Boots
- Mayfield Community School
- Mayfield Sports Complex
- The Blackman Bar

Within 15 mins cycle time from the site:

- Cork City Centre

- 13.5 The Isochrone map overleaf represents the cycle travel times in 5-minute intervals from the site up to a 30-minute duration

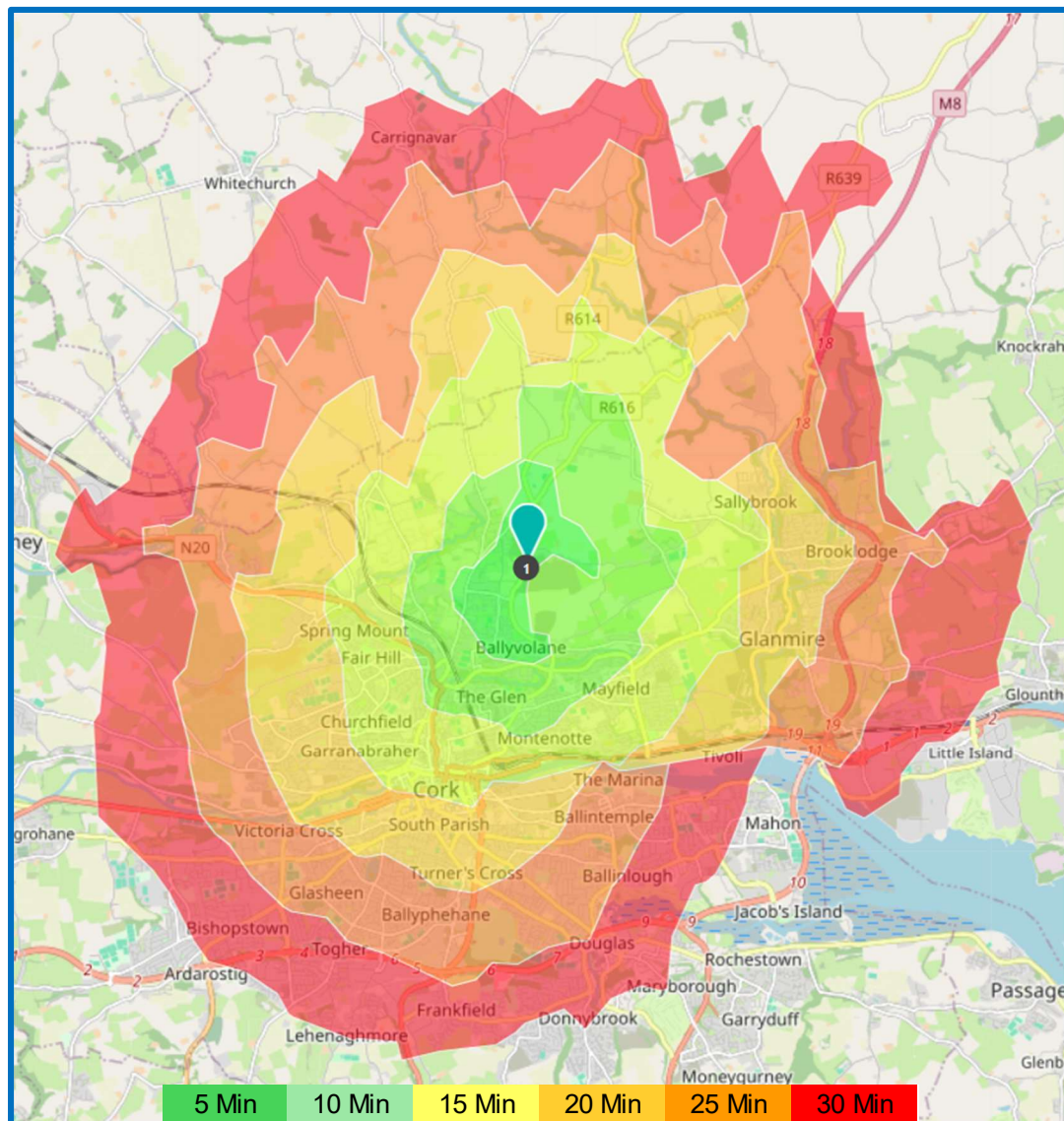


Fig 13.2: Isochrone Map - Cyclist

14.0 ACCESS FOR PEOPLE WITH DISABILITIES

- 14.1 Dropped kerbs, dished footpaths and tactile paving will be provided at appropriate locations throughout the development.

15.0 MITIGATION TRANSPORT

- 15.1 It has been clearly demonstrated that the proposed scheme falls within the category of development where the use of sustainable transport solutions will be a real option. This premise is further supported by the Local Authority and the National Transport Authority's commitment to the delivery of the Ballyvolane Strategic Transport Corridors Project. The proposed upgrade works will include junction improvements in the vicinity of the proposed development.
- 15.2 The traffic modelling of the 5no. junctions included as part of this study, has concluded that the delivery of this development does not detrimentally impact the local road network.
- 15.3 Future year analysis of the 5no. existing junctions shows that, with the exception of the Longview Estate Access Junction (Junction 4), all junctions will become unstable **WITH** or **WITHOUT** the development. The analysis excludes the presence of the Cork Inner Northern Distributor Rd which will have a significant impact on junctions, movement and modal opportunities across the North of the City.
- 15.4 Signalisation of the White's Cross crossroads junction may be investigated as the junction is shown to be currently approaching capacity during the AM peak hour and will breakdown in the future year design scenario **WITH** or **WITHOUT** the development.. Minor junction improvements to provide flares on the minor arms may also be adequate.
- 15.3 Two other existing junctions which were modelled (J2 & J3) both indicated that junction improvements would be required. Again, signalisation may be investigated. Similar to Junction 1, minor junction improvements to provide flares on the minor arms may also be adequate.
- 15.4 As identified previously there will be improvements on the existing roads network associated with funded Local Authority Plans, these have not been modelled. In addition to this, the CMATS document has identified the need for additional infrastructure to be provided as part of the future public transport solution to support the expansion of Cork City. The Northern Distributor Road, when completed in 2031, will provide an orbital route of Cork City, encompassing the Ballyvolane UEA. The proposal, the subject of this application, is fully compatible with CMATS.

16.0 REFERENCES

Transport Infrastructure Ireland, Traffic and Transport Assessment Guidelines
 Institution of Highways & Transportation, Guidelines for Traffic Impact Assessment
 Transport Infrastructure Ireland, Design Manual For Roads and Bridges (DMURS)
 Transport Infrastructure Ireland, Project Appraisal Guidelines
 Cork City Council, Cork City Development Plan 2022 – 2028
 National Transport Authority, Cork Metropolitan Area Transport Strategy (CMATS)

APPENDIX A: TRAFFIC MODELLING RESULTS

Junctions 11											
PICADY 11 - Priority Intersection Module											
Version: 11.1.0.2307											
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Filename: Import of WHITES CROSS LRD.j11

Path: N:\HOUS_DEV\24083HD Longview\N7 Construction\TTA\TRAFFIC ANALYSIS\JUNCTION 11

Report generation date: 24/04/2026 15:47:07

- »D1 - 2026 | | AM
- »D2 - 2026 | | PM
- »D3 - 2029 | WITHOUT | AM
- »D4 - 2029 | WITH | AM
- »D5 - 2029 | WITHOUT | PM
- »D6 - 2029 | WITH | PM
- »D7 - 2034 | WITHOUT | AM
- »D8 - 2034 | WITH | AM
- »D9 - 2034 | WITHOUT | PM
- »D10 - 2034 | WITH | PM
- »D11 - 2044 | WITHOUT | AM
- »D12 - 2044 | WITH | AM
- »D13 - 2044 | WITHOUT | PM
- »D14 - 2044 | WITH | PM

Summary of junction performance

	AM						PM					
	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Network Residual Capacity	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Network Residual Capacity
	2026											
1 - Whites Cross - Stream B-ACD	D1	7.7	65.14	0.91	F	-10 % [1 - Whites Cross - Stream B-ACD]	D2	2.0	22.78	0.67	C	-7 % [2 - Upper/Lower Dublin Hill - Stream B-AC]
1 - Whites Cross - Stream A-BCD		0.2	6.46	0.13	A			0.1	6.81	0.09	A	
1 - Whites Cross - Stream D-ABC		0.4	11.03	0.31	B			2.3	25.32	0.70	D	
1 - Whites Cross - Stream C-ABD		0.2	6.53	0.13	A			0.5	6.94	0.28	A	
2 - Upper/Lower Dublin Hill - Stream B-AC		3.3	38.70	0.78	E			4.9	54.37	0.85	F	
2 - Upper/Lower Dublin Hill - Stream C-AB		0.5	8.18	0.27	A			1.2	8.39	0.43	A	
3 - Ballyhooly Rd/Lower Dublin Hill - Stream B-AC		5.3	60.75	0.87	F			2.7	28.14	0.74	D	
3 - Ballyhooly Rd/Lower Dublin Hill - Stream C-AB		0.6	6.76	0.29	A			0.4	7.48	0.23	A	
4 - Dev Access - R614 - Stream B-AC		0.4	9.36	0.30	A			0.3	9.40	0.20	A	
4 - Dev Access - R614 - Stream C-AB		0.2	6.61	0.15	A			0.3	7.13	0.20	A	
	2029 - WITHOUT											
1 - Whites Cross - Stream B-ACD	D3	11.2	87.48	0.96	F	-21 % [3 - Ballyhooly Rd/Lower Dublin Hill - Stream B-AC]	D5	2.7	29.22	0.74	D	-15 % [2 - Upper/Lower Dublin Hill - Stream B-AC]
1 - Whites Cross - Stream A-BCD		0.2	6.34	0.14	A			0.1	7.07	0.10	A	
1 - Whites Cross - Stream D-ABC		0.5	11.17	0.32	B			3.2	34.58	0.78	D	
1 - Whites Cross - Stream C-ABD		0.2	6.55	0.15	A			0.6	7.17	0.31	A	
2 - Upper/Lower Dublin Hill - Stream B-AC		7.6	78.47	0.92	F			11.5	113.07	0.98	F	
2 - Upper/Lower Dublin Hill - Stream C-AB		0.7	8.77	0.32	A			1.8	10.08	0.53	B	
3 - Ballyhooly Rd/Lower Dublin Hill - Stream B-AC		17.9	174.86	1.04	F			6.1	59.03	0.89	F	

3 - Ballyhooley Rd/Lower Dublin Hill - Stream C-AB		1.2	7.62	0.42	A			0.7	8.14	0.32	A		
4 - Dev Access - R614 - Stream B-AC		0.9	13.21	0.49	B			0.4	9.98	0.30	A		
4 - Dev Access - R614 - Stream C-AB		0.4	7.38	0.24	A			1.1	10.01	0.45	B		
2029 - WITH													
1 - Whites Cross - Stream B-ACD	D4	14.4	109.77	0.99	F	-25 %	[3 - Ballyhooley Rd/Lower Dublin Hill - Stream B-AC]	D6	2.8	30.36	0.75	D	-17 %
1 - Whites Cross - Stream A-BCD		0.2	6.54	0.14	A				0.1	7.06	0.10	A	
1 - Whites Cross - Stream D-ABC		0.5	11.82	0.33	B				3.3	35.68	0.78	E	
1 - Whites Cross - Stream C-ABD		0.2	6.64	0.16	A				0.6	7.21	0.31	A	
2 - Upper/Lower Dublin Hill - Stream B-AC		11.5	109.17	0.97	F				15.9	146.46	1.02	F	
2 - Upper/Lower Dublin Hill - Stream C-AB		0.7	9.10	0.34	A				2.0	10.66	0.56	B	
3 - Ballyhooley Rd/Lower Dublin Hill - Stream B-AC		30.9	285.11	1.15	F				10.6	95.97	0.96	F	
3 - Ballyhooley Rd/Lower Dublin Hill - Stream C-AB		1.8	8.68	0.51	A				1.0	8.70	0.38	A	
4 - Dev Access - R614 - Stream B-AC		2.0	20.77	0.67	C				0.7	12.23	0.42	B	
4 - Dev Access - R614 - Stream C-AB		0.7	8.45	0.34	A				2.0	14.51	0.62	B	
2034 - WITHOUT													
1 - Whites Cross - Stream B-ACD	D7	21.0	147.46	1.04	F	-24 %	[3 - Ballyhooley Rd/Lower Dublin Hill - Stream B-AC]	D9	3.3	34.64	0.78	D	-19 %
1 - Whites Cross - Stream A-BCD		0.2	6.56	0.15	A				0.1	7.15	0.11	A	
1 - Whites Cross - Stream D-ABC		0.5	12.19	0.35	B				4.2	43.71	0.83	E	
1 - Whites Cross - Stream C-ABD		0.2	6.65	0.16	A				0.6	7.31	0.32	A	
2 - Upper/Lower Dublin Hill - Stream B-AC		12.4	118.71	0.99	F				19.4	172.99	1.05	F	
2 - Upper/Lower Dublin Hill - Stream C-AB		0.7	9.03	0.34	A				2.1	10.76	0.57	B	
3 - Ballyhooley Rd/Lower Dublin Hill - Stream B-AC		27.4	248.83	1.11	F				8.8	80.34	0.94	F	
3 - Ballyhooley Rd/Lower Dublin Hill - Stream C-AB		1.3	7.83	0.44	A				0.8	8.33	0.33	A	
4 - Dev Access - R614 - Stream B-AC		0.9	13.44	0.49	B				0.4	10.12	0.30	B	
4 - Dev Access - R614 - Stream C-AB		0.4	7.38	0.25	A				1.1	10.09	0.46	B	
2034 - WITH													
1 - Whites Cross - Stream B-ACD	D8	22.5	156.13	1.04	F	-28 %	[3 - Ballyhooley Rd/Lower Dublin Hill - Stream B-AC]	D10	3.5	36.19	0.79	E	-21 %
1 - Whites Cross - Stream A-BCD		0.2	6.59	0.15	A				0.1	7.14	0.11	A	
1 - Whites Cross - Stream D-ABC		0.5	12.32	0.35	B				4.3	44.52	0.83	E	
1 - Whites Cross - Stream C-ABD		0.3	6.68	0.17	A				0.6	7.36	0.33	A	
2 - Upper/Lower Dublin Hill - Stream B-AC		19.1	165.36	1.04	F				26.1	220.57	1.10	F	
2 - Upper/Lower Dublin Hill - Stream C-AB		0.8	9.40	0.36	A				2.3	11.57	0.60	B	
3 - Ballyhooley Rd/Lower Dublin Hill - Stream B-AC		42.8	385.58	1.22	F				16.5	136.76	1.02	F	
3 - Ballyhooley Rd/Lower Dublin Hill - Stream C-AB		2.0	9.05	0.53	A				1.1	8.95	0.40	A	
4 - Dev Access - R614 - Stream B-AC		2.0	21.34	0.68	C				0.7	12.46	0.43	B	
4 - Dev Access - R614 - Stream C-AB		0.7	8.48	0.34	A				2.1	14.82	0.63	B	
2044 - WITHOUT													
1 - Whites Cross - Stream B-ACD	D11	40.9	262.37	1.13	F	-28 %	[3 - Ballyhooley Rd/Lower Dublin Hill - Stream B-AC]	D13	5.3	52.58	0.86	F	-24 %
1 - Whites Cross - Stream A-BCD		0.2	6.65	0.16	A				0.2	7.28	0.12	A	
1 - Whites Cross - Stream D-ABC		0.6	13.27	0.39	B				7.3	70.80	0.91	F	
1 - Whites Cross - Stream C-ABD		0.3	6.74	0.17	A				0.7	7.57	0.35	A	
2 - Upper/Lower Dublin Hill - Stream B-AC		26.9	224.52	1.10	F				39.7	322.81	1.18	F	
2 - Upper/Lower Dublin Hill - Stream C-AB		0.9	9.56	0.38	A				2.8	12.48	0.63	B	
3 - Ballyhooley Rd/Lower Dublin Hill - Stream B-AC		45.4	406.96	1.23	F				18.1	145.20	1.03	F	
3 - Ballyhooley Rd/Lower Dublin Hill - Stream C-AB		1.5	8.23	0.47	A				0.9	8.73	0.36	A	
4 - Dev Access - R614 - Stream B-AC		1.0	13.82	0.50	B				0.4	10.37	0.31	B	
4 - Dev Access - R614 - Stream C-AB		0.5	7.39	0.25	A				1.2	10.24	0.47	B	
2044 - WITH													
1 - Whites Cross - Stream B-ACD	D12	43.1	281.54	1.14	F	-32 %	[3 - Ballyhooley Rd/Lower Dublin Hill - Stream B-AC]	D14	5.7	55.70	0.87	F	-26 %
1 - Whites Cross - Stream A-BCD		0.2	6.67	0.16	A				0.2	7.28	0.12	A	
1 - Whites Cross - Stream D-ABC		0.6	13.44	0.39	B				7.4	72.70	0.91	F	
1 - Whites Cross - Stream C-ABD		0.3	6.78	0.18	A				0.7	7.62	0.36	A	
2 - Upper/Lower Dublin Hill - Stream B-AC		37.2	293.85	1.16	F				48.4	394.12	1.23	F	
2 - Upper/Lower Dublin Hill - Stream C-AB		1.0	9.99	0.40	A				3.1	13.65	0.66	B	
3 - Ballyhooley Rd/Lower Dublin Hill - Stream B-AC		63.3	625.50	1.35	F				31.8	234.96	1.11	F	
3 - Ballyhooley Rd/Lower Dublin Hill - Stream C-AB		2.3	9.77	0.57	A				1.3	9.45	0.43	A	

4 - Dev Access - R614 - Stream B-AC	2.1	22.33	0.69	C	0.8	12.85	0.43	B
4 - Dev Access - R614 - Stream C-AB	0.7	8.52	0.35	A	2.3	15.40	0.65	C

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

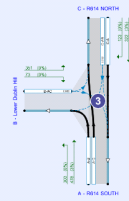
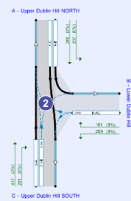
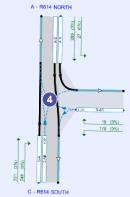
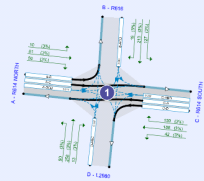
File summary

File Description

Title	
Location	
Site number	
Date	26/10/2023
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	MHL\bmurphy
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	Veh	Veh	perHour	s	-Min	perMin



Flows show original traffic demand (Veh/hr) with (HV %)
Streams (downstream end) show RFC ()

The junction diagram reflects the last run of Junctions.

Analysis Options

PICADY short flare model	Calculate Queue Percentiles	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
PICADY 4.1		✓	Delay	0.85	36.00	20.00

Demand Set Summary

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2026		AM	ONE HOUR	08:00	09:30	15
D2	2026		PM	ONE HOUR	17:00	18:30	15
D3	2029	WITHOUT	AM	ONE HOUR	08:00	09:30	15
D4	2029	WITH	AM	ONE HOUR	08:00	09:30	15
D5	2029	WITHOUT	PM	ONE HOUR	17:00	18:30	15
D6	2029	WITH	PM	ONE HOUR	17:00	18:30	15
D7	2034	WITHOUT	AM	ONE HOUR	08:00	09:30	15
D8	2034	WITH	AM	ONE HOUR	08:00	09:30	15
D9	2034	WITHOUT	PM	ONE HOUR	17:00	18:30	15
D10	2034	WITH	PM	ONE HOUR	17:00	18:30	15
D11	2044	WITHOUT	AM	ONE HOUR	08:00	09:30	15
D12	2044	WITH	AM	ONE HOUR	08:00	09:30	15
D13	2044	WITHOUT	PM	ONE HOUR	17:00	18:30	15
D14	2044	WITH	PM	ONE HOUR	17:00	18:30	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

D1 - 2026 | | AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Arm D Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Whites Cross	Crossroads	Two-way	Two-way	Two-way	Two-way		33.50	D
2	Upper/Lower Dublin Hill	T-Junction	Two-way	Two-way	Two-way			10.34	B
3	Ballyhooly Rd/Lower Dublin Hill	T-Junction	Two-way	Two-way	Two-way			18.12	C
4	Dev Access - R614	T-Junction	Two-way	Two-way	Two-way			2.89	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-10	1 - Whites Cross - Stream B-ACD	16.67	C

Arms

Arms

Junction	Arm	Name	Description	Arm type
1 - Whites Cross	A	R614 NORTH		Major
	B	R616		Minor
	C	R614 SOUTH		Major
	D	L2980		Minor
2 - Upper/Lower Dublin Hill	A	Upper Dublin Hill NORTH		Major
	B	Lower Dublin Hill		Minor
	C	Upper Dublin Hill SOUTH		Major
3 - Ballyhooly Rd/Lower Dublin Hill	A	R614 SOUTH		Major
	B	Lower Dublin Hill		Minor
	C	R614 NORTH		Major
4 - Dev Access - R614	A	R614 NORTH		Major
	B	DEVELOPMENT		Minor
	C	R614 SOUTH		Major

Major Arm Geometry

Junction	Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
1 - Whites Cross	A - R614 NORTH	6.00			100.0	✓	0.00
	C - R614 SOUTH	6.00			100.0	✓	0.00
2 - Upper/Lower Dublin Hill	C - Upper Dublin Hill SOUTH	6.00			50.0	✓	0.00
3 - Ballyhooly Rd/Lower Dublin Hill	C - R614 NORTH	6.00			50.0	✓	0.00
4 - Dev Access - R614	C - R614 SOUTH	6.00			50.0	✓	0.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Junction	Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
1 - Whites Cross	B - R616	One lane	3.00	100	100
	D - L2980	One lane	3.00	100	100
2 - Upper/Lower Dublin Hill	B - Lower Dublin Hill	One lane	3.00	100	50
3 - Ballyhooly Rd/Lower Dublin Hill	B - Lower Dublin Hill	One lane	3.00	50	50
4 - Dev Access - R614	B - DEVELOPMENT	One lane	3.00	50	50

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
1 - Whites Cross	A-D	632	-	-	-	-	-	-	0.245	0.350	0.245	-	-	-
	B-A	561	0.102	0.258	0.258	-	-	-	0.162	0.369	-	0.258	0.258	0.129
	B-C	687	0.105	0.266	-	-	-	-	-	-	-	-	-	-
	B-D, nearside lane	561	0.102	0.258	0.258	-	-	-	0.162	0.369	0.162	-	-	-
	B-D, offside lane	561	0.102	0.258	0.258	-	-	-	0.162	0.369	0.162	-	-	-
	C-B	632	0.245	0.245	0.350	-	-	-	-	-	-	-	-	-
	D-A	687	-	-	-	-	-	-	0.266	-	0.105	-	-	-
	D-B, nearside lane	561	0.162	0.162	0.369	-	-	-	0.258	0.258	0.102	-	-	-
	D-B, offside lane	561	0.162	0.162	0.369	-	-	-	0.258	0.258	0.102	-	-	-
	D-C	561	-	0.162	0.369	0.129	0.258	0.258	0.258	0.258	0.102	-	-	-

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
4 - Dev Access - R614	B-A	519	0.094	0.239	0.150	0.341
	B-C	655	0.100	0.254	-	-
	C-B	603	0.234	0.234	-	-

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
2 - Upper/Lower Dublin Hill	B-A	535	0.097	0.246	0.155	0.352
	B-C	655	0.100	0.254	-	-
	C-B	603	0.234	0.234	-	-

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
3 - Ballyhooly Rd/Lower Dublin Hill	B-A	519	0.094	0.239	0.150	0.341
	B-C	655	0.100	0.254	-	-
	C-B	603	0.234	0.234	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Year	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2026	AM	ONE HOUR	08:00	09:30	15

Demand overview (Traffic)

Junction	Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Whites Cross	A - R614 NORTH		✓	169	100.000
	B - R616		✓	417	100.000
	C - R614 SOUTH		✓	166	100.000
	D - L2980		✓	131	100.000
2 - Upper/Lower Dublin Hill	A - Upper Dublin Hill NORTH		✓	616	100.000
	B - Lower Dublin Hill		✓	298	100.000
	C - Upper Dublin Hill SOUTH		✓	291	100.000
3 - Ballyhooly Rd/Lower Dublin Hill	A - R614 SOUTH		✓	354	100.000
	B - Lower Dublin Hill		✓	305	100.000
	C - R614 NORTH		✓	418	100.000
4 - Dev Access - R614	A - R614 NORTH		✓	293	100.000
	B - DEVELOPMENT		✓	147	100.000
	C - R614 SOUTH		✓	209	100.000

Origin-Destination Data

Demand (Veh/hr)

1 - Whites Cross

	To				
From		A - R614 NORTH	B - R616	C - R614 SOUTH	D - L2980
	A - R614 NORTH	0	8	99	62
	B - R616	16	0	145	256
	C - R614 SOUTH	89	64	0	13
	D - L2980	29	91	11	0

Demand (Veh/hr)

4 - Dev Access - R614

	To			
From		A - R614 NORTH	B - DEVELOPMENT	C - R614 SOUTH
	A - R614 NORTH	0	7	286
	B - DEVELOPMENT	15	0	132
	C - R614 SOUTH	146	63	0

Demand (Veh/hr)

2 - Upper/Lower Dublin Hill

	To			
From		A - Upper Dublin Hill NORTH	B - Lower Dublin Hill	C - Upper Dublin Hill SOUTH
	A - Upper Dublin Hill NORTH	0	167	449
	B - Lower Dublin Hill	109	0	189
	C - Upper Dublin Hill SOUTH	197	94	0

Demand (Veh/hr)

3 - Ballyhooly Rd/Lower Dublin Hill

	To			
From		A - R614 SOUTH	B - Lower Dublin Hill	C - R614 NORTH
	A - R614 SOUTH	0	198	156
	B - Lower Dublin Hill	252	0	53
	C - R614 NORTH	310	108	0

Vehicle Mix

Heavy Vehicle %

1 - Whites Cross

	To				
		A - R614 NORTH	B - R616	C - R614 SOUTH	D - L2980
From	A - R614 NORTH	3	3	3	3
	B - R616	3	3	3	3
	C - R614 SOUTH	3	3	3	3
	D - L2980	3	3	3	3

Heavy Vehicle %

4 - Dev Access - R614

	To			
		A - R614 NORTH	B - DEVELOPMENT	C - R614 SOUTH
From	A - R614 NORTH	0	0	3
	B - DEVELOPMENT	0	0	0
	C - R614 SOUTH	3	0	0

Heavy Vehicle %

2 - Upper/Lower Dublin Hill

	To			
		A - Upper Dublin Hill NORTH	B - Lower Dublin Hill	C - Upper Dublin Hill SOUTH
From	A - Upper Dublin Hill NORTH	0	0	3
	B - Lower Dublin Hill	0	0	0
	C - Upper Dublin Hill SOUTH	3	0	0

Heavy Vehicle %

3 - Ballyhooly Rd/Lower Dublin Hill

	To			
		A - R614 SOUTH	B - Lower Dublin Hill	C - R614 NORTH
From	A - R614 SOUTH	0	0	3
	B - Lower Dublin Hill	0	0	0
	C - R614 NORTH	3	0	0

Results

Results Summary for whole modelled period

Junction	Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1 - Whites Cross	B-ACD	0.91	65.14	7.7	F
	A-BCD	0.13	6.46	0.2	A
	A-B				
	A-C				
	D-ABC	0.31	11.03	0.4	B
	C-ABD	0.13	6.53	0.2	A
	C-D				
	C-A				
2 - Upper/Lower Dublin Hill	B-AC	0.78	38.70	3.3	E
	C-AB	0.27	8.18	0.5	A
	C-A				
	A-B				
	A-C				
3 - Ballyhooly Rd/Lower Dublin Hill	B-AC	0.87	60.75	5.3	F
	C-AB	0.29	6.76	0.6	A
	C-A				
	A-B				
	A-C				
4 - Dev Access - R614	B-AC	0.30	9.36	0.4	A
	C-AB	0.15	6.61	0.2	A
	C-A				
	A-B				
	A-C				

D2 - 2026 | PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Arm D Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Whites Cross	Crossroads	Two-way	Two-way	Two-way	Two-way		15.32	C
2	Upper/Lower Dublin Hill	T-Junction	Two-way	Two-way	Two-way			15.08	C
3	Ballyhooly Rd/Lower Dublin Hill	T-Junction	Two-way	Two-way	Two-way			8.42	A
4	Dev Access - R614	T-Junction	Two-way	Two-way	Two-way			2.35	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-7	2 - Upper/Lower Dublin Hill - Stream B-AC	11.15	B

Traffic Demand

Demand Set Details

ID	Year	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2026	PM	ONE HOUR	17:00	18:30	15

Demand overview (Traffic)

Junction	Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Whites Cross	A - R614 NORTH		✓	114	100.000
	B - R616		✓	295	100.000
	C - R614 SOUTH		✓	319	100.000
	D - L2980		✓	303	100.000
2 - Upper/Lower Dublin Hill	A - Upper Dublin Hill NORTH		✓	454	100.000
	B - Lower Dublin Hill		✓	314	100.000
	C - Upper Dublin Hill SOUTH		✓	498	100.000
3 - Ballyhooly Rd/Lower Dublin Hill	A - R614 SOUTH		✓	567	100.000
	B - Lower Dublin Hill		✓	326	100.000
	C - R614 NORTH		✓	288	100.000
4 - Dev Access - R614	A - R614 NORTH		✓	351	100.000
	B - DEVELOPMENT		✓	89	100.000
	C - R614 SOUTH		✓	246	100.000

Origin-Destination Data

Demand (Veh/hr)

1 - Whites Cross

		To			
		A - R614 NORTH	B - R616	C - R614 SOUTH	D - L2980
From	A - R614 NORTH	0	8	64	42
	B - R616	16	0	100	179
	C - R614 SOUTH	154	130	0	35
	D - L2980	76	217	10	0

Demand (Veh/hr)

4 - Dev Access - R614

	To			
		A - R614 NORTH	B - DEVELOPMENT	C - R614 SOUTH
From	A - R614 NORTH	0	42	309
	B - DEVELOPMENT	29	0	60
	C - R614 SOUTH	161	85	0

Demand (Veh/hr)

2 - Upper/Lower Dublin Hill

	To			
		A - Upper Dublin Hill NORTH	B - Lower Dublin Hill	C - Upper Dublin Hill SOUTH
From	A - Upper Dublin Hill NORTH	0	164	290
	B - Lower Dublin Hill	153	0	161
	C - Upper Dublin Hill SOUTH	350	148	0

Demand (Veh/hr)

3 - Ballyhooly Rd/Lower Dublin Hill

	To			
		A - R614 SOUTH	B - Lower Dublin Hill	C - R614 NORTH
From	A - R614 SOUTH	0	254	313
	B - Lower Dublin Hill	61	0	265
	C - R614 NORTH	207	81	0

Vehicle Mix

Heavy Vehicle %

1 - Whites Cross

	To				
		A - R614 NORTH	B - R616	C - R614 SOUTH	D - L2980
From	A - R614 NORTH	0	2	5	0
	B - R616	5	0	5	0
	C - R614 SOUTH	5	2	0	0
	D - L2980	0	0	0	0

Heavy Vehicle %

4 - Dev Access - R614

	To			
		A - R614 NORTH	B - DEVELOPMENT	C - R614 SOUTH
From	A - R614 NORTH	0	0	3
	B - DEVELOPMENT	0	0	0
	C - R614 SOUTH	3	0	0

Heavy Vehicle %

2 - Upper/Lower Dublin Hill

	To			
		A - Upper Dublin Hill NORTH	B - Lower Dublin Hill	C - Upper Dublin Hill SOUTH
From	A - Upper Dublin Hill NORTH	0	0	3
	B - Lower Dublin Hill	0	0	0
	C - Upper Dublin Hill SOUTH	3	0	0

Heavy Vehicle %

3 - Ballyhooly Rd/Lower Dublin Hill

	To			
		A - R614 SOUTH	B - Lower Dublin Hill	C - R614 NORTH
	From			
	A - R614 SOUTH	0	0	3
	B - Lower Dublin Hill	0	0	0
	C - R614 NORTH	3	0	0

Results

Results Summary for whole modelled period

Junction	Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1 - Whites Cross	B-ACD	0.67	22.78	2.0	C
	A-BCD	0.09	6.81	0.1	A
	A-B				
	A-C				
	D-ABC	0.70	25.32	2.3	D
	C-ABD	0.28	6.94	0.5	A
	C-D				
	C-A				
2 - Upper/Lower Dublin Hill	B-AC	0.85	54.37	4.9	F
	C-AB	0.43	8.39	1.2	A
	C-A				
	A-B				
	A-C				
3 - Ballyhooly Rd/Lower Dublin Hill	B-AC	0.74	28.14	2.7	D
	C-AB	0.23	7.48	0.4	A
	C-A				
	A-B				
	A-C				
4 - Dev Access - R614	B-AC	0.20	9.40	0.3	A
	C-AB	0.20	7.13	0.3	A
	C-A				
	A-B				
	A-C				

D3 - 2029 | WITHOUT | AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Arm D Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Whites Cross	Crossroads	Two-way	Two-way	Two-way	Two-way		43.22	E
2	Upper/Lower Dublin Hill	T-Junction	Two-way	Two-way	Two-way			21.19	C
3	Ballyhooly Rd/Lower Dublin Hill	T-Junction	Two-way	Two-way	Two-way			46.17	E
4	Dev Access - R614	T-Junction	Two-way	Two-way	Two-way			4.71	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-21	3 - Ballyhooly Rd/Lower Dublin Hill - Stream B-AC	30.07	D

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2029	WITHOUT	AM	ONE HOUR	08:00	09:30	15

Demand overview (Traffic)

Junction	Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Whites Cross	A - R614 NORTH		✓	181	100.000
	B - R616		✓	442	100.000
	C - R614 SOUTH		✓	185	100.000
	D - L2980		✓	139	100.000
2 - Upper/Lower Dublin Hill	A - Upper Dublin Hill NORTH		✓	651	100.000
	B - Lower Dublin Hill		✓	340	100.000
	C - Upper Dublin Hill SOUTH		✓	315	100.000
3 - Ballyhooly Rd/Lower Dublin Hill	A - R614 SOUTH		✓	411	100.000
	B - Lower Dublin Hill		✓	333	100.000
	C - R614 NORTH		✓	545	100.000
4 - Dev Access - R614	A - R614 NORTH		✓	346	100.000
	B - DEVELOPMENT		✓	233	100.000
	C - R614 SOUTH		✓	271	100.000

Origin-Destination Data

Demand (Veh/hr)

1 - Whites Cross

		To			
		A - R614 NORTH	B - R616	C - R614 SOUTH	D - L2980
From	A - R614 NORTH	0	9	107	65
	B - R616	17	0	156	269
	C - R614 SOUTH	100	71	0	14
	D - L2980	31	96	12	0

Demand (Veh/hr)

4 - Dev Access - R614

	To			
		A - R614 NORTH	B - DEVELOPMENT	C - R614 SOUTH
From	A - R614 NORTH	0	11	335
	B - DEVELOPMENT	23	0	210
	C - R614 SOUTH	171	100	0

Demand (Veh/hr)

2 - Upper/Lower Dublin Hill

	To			
		A - Upper Dublin Hill NORTH	B - Lower Dublin Hill	C - Upper Dublin Hill SOUTH
From	A - Upper Dublin Hill NORTH	0	179	472
	B - Lower Dublin Hill	121	0	219
	C - Upper Dublin Hill SOUTH	207	108	0

Demand (Veh/hr)

3 - Ballyhooly Rd/Lower Dublin Hill

	To			
		A - R614 SOUTH	B - Lower Dublin Hill	C - R614 NORTH
From	A - R614 SOUTH	0	208	203
	B - Lower Dublin Hill	265	0	68
	C - R614 NORTH	406	139	0

Vehicle Mix

Heavy Vehicle %

1 - Whites Cross

	To				
		A - R614 NORTH	B - R616	C - R614 SOUTH	D - L2980
From	A - R614 NORTH	0	3	5	0
	B - R616	2	0	2	0
	C - R614 SOUTH	5	2	0	0
	D - L2980	0	0	0	0

Heavy Vehicle %

4 - Dev Access - R614

	To			
		A - R614 NORTH	B - DEVELOPMENT	C - R614 SOUTH
From	A - R614 NORTH	0	0	3
	B - DEVELOPMENT	0	0	0
	C - R614 SOUTH	3	0	0

Heavy Vehicle %

2 - Upper/Lower Dublin Hill

	To			
		A - Upper Dublin Hill NORTH	B - Lower Dublin Hill	C - Upper Dublin Hill SOUTH
From	A - Upper Dublin Hill NORTH	0	0	3
	B - Lower Dublin Hill	0	0	0
	C - Upper Dublin Hill SOUTH	3	0	0

Heavy Vehicle %

3 - Ballyhooly Rd/Lower Dublin Hill

	To			
		A - R614 SOUTH	B - Lower Dublin Hill	C - R614 NORTH
	From			
	A - R614 SOUTH	0	0	3
	B - Lower Dublin Hill	0	0	0
	C - R614 NORTH	3	0	0

Results

Results Summary for whole modelled period

Junction	Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1 - Whites Cross	B-ACD	0.96	87.48	11.2	F
	A-BCD	0.14	6.34	0.2	A
	A-B				
	A-C				
	D-ABC	0.32	11.17	0.5	B
	C-ABD	0.15	6.55	0.2	A
	C-D				
	C-A				
2 - Upper/Lower Dublin Hill	B-AC	0.92	78.47	7.6	F
	C-AB	0.32	8.77	0.7	A
	C-A				
	A-B				
	A-C				
3 - Ballyhooly Rd/Lower Dublin Hill	B-AC	1.04	174.86	17.9	F
	C-AB	0.42	7.62	1.2	A
	C-A				
	A-B				
	A-C				
4 - Dev Access - R614	B-AC	0.49	13.21	0.9	B
	C-AB	0.24	7.38	0.4	A
	C-A				
	A-B				
	A-C				

D4 - 2029 | WITH | AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Arm D Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Whites Cross	Crossroads	Two-way	Two-way	Two-way	Two-way		53.65	F
2	Upper/Lower Dublin Hill	T-Junction	Two-way	Two-way	Two-way			30.15	D
3	Ballyhooly Rd/Lower Dublin Hill	T-Junction	Two-way	Two-way	Two-way			70.69	F
4	Dev Access - R614	T-Junction	Two-way	Two-way	Two-way			8.28	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-25	3 - Ballyhooly Rd/Lower Dublin Hill - Stream B-AC	42.59	E

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2029	WITH	AM	ONE HOUR	08:00	09:30	15

Demand overview (Traffic)

Junction	Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Whites Cross	A - R614 NORTH		✓	182	100.000
	B - R616		✓	444	100.000
	C - R614 SOUTH		✓	195	100.000
	D - L2980		✓	139	100.000
2 - Upper/Lower Dublin Hill	A - Upper Dublin Hill NORTH		✓	653	100.000
	B - Lower Dublin Hill		✓	360	100.000
	C - Upper Dublin Hill SOUTH		✓	323	100.000
3 - Ballyhooly Rd/Lower Dublin Hill	A - R614 SOUTH		✓	440	100.000
	B - Lower Dublin Hill		✓	343	100.000
	C - R614 NORTH		✓	623	100.000
4 - Dev Access - R614	A - R614 NORTH		✓	350	100.000
	B - DEVELOPMENT		✓	320	100.000
	C - R614 SOUTH		✓	310	100.000

Origin-Destination Data

Demand (Veh/hr)

1 - Whites Cross

		To			
		A - R614 NORTH	B - R616	C - R614 SOUTH	D - L2980
From	A - R614 NORTH	0	9	108	65
	B - R616	17	0	158	269
	C - R614 SOUTH	105	75	0	15
	D - L2980	31	96	12	0

Demand (Veh/hr)

4 - Dev Access - R614

	To			
		A - R614 NORTH	B - DEVELOPMENT	C - R614 SOUTH
From	A - R614 NORTH	0	15	335
	B - DEVELOPMENT	32	0	288
	C - R614 SOUTH	171	139	0

Demand (Veh/hr)

2 - Upper/Lower Dublin Hill

	To			
		A - Upper Dublin Hill NORTH	B - Lower Dublin Hill	C - Upper Dublin Hill SOUTH
From	A - Upper Dublin Hill NORTH	0	181	472
	B - Lower Dublin Hill	125	0	235
	C - Upper Dublin Hill SOUTH	207	116	0

Demand (Veh/hr)

3 - Ballyhooly Rd/Lower Dublin Hill

	To			
		A - R614 SOUTH	B - Lower Dublin Hill	C - R614 NORTH
From	A - R614 SOUTH	0	208	232
	B - Lower Dublin Hill	265	0	78
	C - R614 NORTH	464	159	0

Vehicle Mix

Heavy Vehicle %

1 - Whites Cross

	To				
		A - R614 NORTH	B - R616	C - R614 SOUTH	D - L2980
From	A - R614 NORTH	3	3	3	3
	B - R616	3	3	3	3
	C - R614 SOUTH	3	3	3	3
	D - L2980	3	3	3	3

Heavy Vehicle %

4 - Dev Access - R614

	To			
		A - R614 NORTH	B - DEVELOPMENT	C - R614 SOUTH
From	A - R614 NORTH	0	0	3
	B - DEVELOPMENT	0	0	0
	C - R614 SOUTH	3	0	0

Heavy Vehicle %

2 - Upper/Lower Dublin Hill

	To			
		A - Upper Dublin Hill NORTH	B - Lower Dublin Hill	C - Upper Dublin Hill SOUTH
From	A - Upper Dublin Hill NORTH	0	0	3
	B - Lower Dublin Hill	0	0	0
	C - Upper Dublin Hill SOUTH	3	0	0

Heavy Vehicle %

3 - Ballyhooly Rd/Lower Dublin Hill

	To			
		A - R614 SOUTH	B - Lower Dublin Hill	C - R614 NORTH
	From			
	A - R614 SOUTH	0	0	3
	B - Lower Dublin Hill	0	0	0
	C - R614 NORTH	3	0	0

Results

Results Summary for whole modelled period

Junction	Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1 - Whites Cross	B-ACD	0.99	109.77	14.4	F
	A-BCD	0.14	6.54	0.2	A
	A-B				
	A-C				
	D-ABC	0.33	11.82	0.5	B
	C-ABD	0.16	6.64	0.2	A
	C-D				
	C-A				
2 - Upper/Lower Dublin Hill	B-AC	0.97	109.17	11.5	F
	C-AB	0.34	9.10	0.7	A
	C-A				
	A-B				
	A-C				
3 - Ballyhooly Rd/Lower Dublin Hill	B-AC	1.15	285.11	30.9	F
	C-AB	0.51	8.68	1.8	A
	C-A				
	A-B				
	A-C				
4 - Dev Access - R614	B-AC	0.67	20.77	2.0	C
	C-AB	0.34	8.45	0.7	A
	C-A				
	A-B				
	A-C				

D5 - 2029 | WITHOUT | PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Arm D Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Whites Cross	Crossroads	Two-way	Two-way	Two-way	Two-way		20.01	C
2	Upper/Lower Dublin Hill	T-Junction	Two-way	Two-way	Two-way			30.63	D
3	Ballyhooly Rd/Lower Dublin Hill	T-Junction	Two-way	Two-way	Two-way			16.22	C
4	Dev Access - R614	T-Junction	Two-way	Two-way	Two-way			4.42	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-15	2 - Upper/Lower Dublin Hill - Stream B-AC	19.05	C

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2029	WITHOUT	PM	ONE HOUR	17:00	18:30	15

Demand overview (Traffic)

Junction	Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Whites Cross	A - R614 NORTH		✓	123	100.000
	B - R616		✓	316	100.000
	C - R614 SOUTH		✓	341	100.000
	D - L2980		✓	319	100.000
2 - Upper/Lower Dublin Hill	A - Upper Dublin Hill NORTH		✓	481	100.000
	B - Lower Dublin Hill		✓	347	100.000
	C - Upper Dublin Hill SOUTH		✓	544	100.000
3 - Ballyhooly Rd/Lower Dublin Hill	A - R614 SOUTH		✓	665	100.000
	B - Lower Dublin Hill		✓	366	100.000
	C - R614 NORTH		✓	367	100.000
4 - Dev Access - R614	A - R614 NORTH		✓	366	100.000
	B - DEVELOPMENT		✓	141	100.000
	C - R614 SOUTH		✓	380	100.000

Origin-Destination Data

Demand (Veh/hr)

1 - Whites Cross

		To			
		A - R614 NORTH	B - R616	C - R614 SOUTH	D - L2980
From	A - R614 NORTH	0	9	70	44
	B - R616	17	0	111	188
	C - R614 SOUTH	165	139	0	37
	D - L2980	80	228	11	0

Demand (Veh/hr)

4 - Dev Access - R614

	To			
		A - R614 NORTH	B - DEVELOPMENT	C - R614 SOUTH
From	A - R614 NORTH	0	20	346
	B - DEVELOPMENT	14	0	127
	C - R614 SOUTH	198	182	0

Demand (Veh/hr)

2 - Upper/Lower Dublin Hill

	To			
		A - Upper Dublin Hill NORTH	B - Lower Dublin Hill	C - Upper Dublin Hill SOUTH
From	A - Upper Dublin Hill NORTH	0	176	305
	B - Lower Dublin Hill	164	0	183
	C - Upper Dublin Hill SOUTH	368	176	0

Demand (Veh/hr)

3 - Ballyhooly Rd/Lower Dublin Hill

	To			
		A - R614 SOUTH	B - Lower Dublin Hill	C - R614 NORTH
From	A - R614 SOUTH	0	268	397
	B - Lower Dublin Hill	64	0	302
	C - R614 NORTH	265	102	0

Vehicle Mix

Heavy Vehicle %

1 - Whites Cross

	To				
		A - R614 NORTH	B - R616	C - R614 SOUTH	D - L2980
From	A - R614 NORTH	3	3	3	3
	B - R616	3	3	3	3
	C - R614 SOUTH	3	3	3	3
	D - L2980	3	3	3	3

Heavy Vehicle %

4 - Dev Access - R614

	To			
		A - R614 NORTH	B - DEVELOPMENT	C - R614 SOUTH
From	A - R614 NORTH	0	0	3
	B - DEVELOPMENT	0	0	0
	C - R614 SOUTH	3	0	0

Heavy Vehicle %

2 - Upper/Lower Dublin Hill

	To			
		A - Upper Dublin Hill NORTH	B - Lower Dublin Hill	C - Upper Dublin Hill SOUTH
From	A - Upper Dublin Hill NORTH	0	0	3
	B - Lower Dublin Hill	0	0	0
	C - Upper Dublin Hill SOUTH	3	0	0

Heavy Vehicle %

3 - Ballyhooly Rd/Lower Dublin Hill

	To			
		A - R614 SOUTH	B - Lower Dublin Hill	C - R614 NORTH
	From			
	A - R614 SOUTH	0	0	3
	B - Lower Dublin Hill	0	0	0
	C - R614 NORTH	3	0	0

Results

Results Summary for whole modelled period

Junction	Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1 - Whites Cross	B-ACD	0.74	29.22	2.7	D
	A-BCD	0.10	7.07	0.1	A
	A-B				
	A-C				
	D-ABC	0.78	34.58	3.2	D
	C-ABD	0.31	7.17	0.6	A
	C-D				
	C-A				
2 - Upper/Lower Dublin Hill	B-AC	0.98	113.07	11.5	F
	C-AB	0.53	10.08	1.8	B
	C-A				
	A-B				
	A-C				
3 - Ballyhooly Rd/Lower Dublin Hill	B-AC	0.89	59.03	6.1	F
	C-AB	0.32	8.14	0.7	A
	C-A				
	A-B				
	A-C				
4 - Dev Access - R614	B-AC	0.30	9.98	0.4	A
	C-AB	0.45	10.01	1.1	B
	C-A				
	A-B				
	A-C				

D6 - 2029 | WITH | PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Arm D Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Whites Cross	Crossroads	Two-way	Two-way	Two-way	Two-way		20.59	C
2	Upper/Lower Dublin Hill	T-Junction	Two-way	Two-way	Two-way			39.67	E
3	Ballyhooly Rd/Lower Dublin Hill	T-Junction	Two-way	Two-way	Two-way			25.07	D
4	Dev Access - R614	T-Junction	Two-way	Two-way	Two-way			7.29	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-17	2 - Upper/Lower Dublin Hill - Stream B-AC	24.54	C

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2029	WITH	PM	ONE HOUR	17:00	18:30	15

Demand overview (Traffic)

Junction	Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Whites Cross	A - R614 NORTH		✓	126	100.000
	B - R616		✓	320	100.000
	C - R614 SOUTH		✓	346	100.000
	D - L2980		✓	320	100.000
2 - Upper/Lower Dublin Hill	A - Upper Dublin Hill NORTH		✓	490	100.000
	B - Lower Dublin Hill		✓	359	100.000
	C - Upper Dublin Hill SOUTH		✓	551	100.000
3 - Ballyhooly Rd/Lower Dublin Hill	A - R614 SOUTH		✓	714	100.000
	B - Lower Dublin Hill		✓	382	100.000
	C - R614 NORTH		✓	416	100.000
4 - Dev Access - R614	A - R614 NORTH		✓	373	100.000
	B - DEVELOPMENT		✓	195	100.000
	C - R614 SOUTH		✓	446	100.000

Origin-Destination Data

Demand (Veh/hr)

1 - Whites Cross

		To			
		A - R614 NORTH	B - R616	C - R614 SOUTH	D - L2980
From	A - R614 NORTH	0	9	73	44
	B - R616	17	0	115	188
	C - R614 SOUTH	167	141	0	38
	D - L2980	80	228	12	0

Demand (Veh/hr)

4 - Dev Access - R614

	To			
		A - R614 NORTH	B - DEVELOPMENT	C - R614 SOUTH
From	A - R614 NORTH	0	27	346
	B - DEVELOPMENT	19	0	176
	C - R614 SOUTH	198	248	0

Demand (Veh/hr)

2 - Upper/Lower Dublin Hill

	To			
		A - Upper Dublin Hill NORTH	B - Lower Dublin Hill	C - Upper Dublin Hill SOUTH
From	A - Upper Dublin Hill NORTH	0	185	305
	B - Lower Dublin Hill	170	0	189
	C - Upper Dublin Hill SOUTH	368	183	0

Demand (Veh/hr)

3 - Ballyhooly Rd/Lower Dublin Hill

	To			
		A - R614 SOUTH	B - Lower Dublin Hill	C - R614 NORTH
From	A - R614 SOUTH	0	268	446
	B - Lower Dublin Hill	64	0	318
	C - R614 NORTH	301	115	0

Vehicle Mix

Heavy Vehicle %

1 - Whites Cross

	To				
		A - R614 NORTH	B - R616	C - R614 SOUTH	D - L2980
From	A - R614 NORTH	3	3	3	3
	B - R616	3	3	3	3
	C - R614 SOUTH	3	3	3	3
	D - L2980	3	3	3	3

Heavy Vehicle %

4 - Dev Access - R614

	To			
		A - R614 NORTH	B - DEVELOPMENT	C - R614 SOUTH
From	A - R614 NORTH	0	0	3
	B - DEVELOPMENT	0	0	0
	C - R614 SOUTH	3	0	0

Heavy Vehicle %

2 - Upper/Lower Dublin Hill

	To			
		A - Upper Dublin Hill NORTH	B - Lower Dublin Hill	C - Upper Dublin Hill SOUTH
From	A - Upper Dublin Hill NORTH	0	0	3
	B - Lower Dublin Hill	0	0	0
	C - Upper Dublin Hill SOUTH	3	0	0

Heavy Vehicle %

3 - Ballyhooly Rd/Lower Dublin Hill

	To			
		A - R614 SOUTH	B - Lower Dublin Hill	C - R614 NORTH
	From			
	A - R614 SOUTH	0	0	3
	B - Lower Dublin Hill	0	0	0
	C - R614 NORTH	3	0	0

Results

Results Summary for whole modelled period

Junction	Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1 - Whites Cross	B-ACD	0.75	30.36	2.8	D
	A-BCD	0.10	7.06	0.1	A
	A-B				
	A-C				
	D-ABC	0.78	35.68	3.3	E
	C-ABD	0.31	7.21	0.6	A
	C-D				
	C-A				
2 - Upper/Lower Dublin Hill	B-AC	1.02	146.46	15.9	F
	C-AB	0.56	10.66	2.0	B
	C-A				
	A-B				
	A-C				
3 - Ballyhooly Rd/Lower Dublin Hill	B-AC	0.96	95.97	10.6	F
	C-AB	0.38	8.70	1.0	A
	C-A				
	A-B				
	A-C				
4 - Dev Access - R614	B-AC	0.42	12.23	0.7	B
	C-AB	0.62	14.51	2.0	B
	C-A				
	A-B				
	A-C				

D7 - 2034 | WITHOUT | AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Arm D Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Whites Cross	Crossroads	Two-way	Two-way	Two-way	Two-way		71.77	F
2	Upper/Lower Dublin Hill	T-Junction	Two-way	Two-way	Two-way			31.48	D
3	Ballyhooly Rd/Lower Dublin Hill	T-Junction	Two-way	Two-way	Two-way			65.85	F
4	Dev Access - R614	T-Junction	Two-way	Two-way	Two-way			4.67	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-24	3 - Ballyhooly Rd/Lower Dublin Hill - Stream B-AC	45.20	E

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D7	2034	WITHOUT	AM	ONE HOUR	08:00	09:30	15

Demand overview (Traffic)

Junction	Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Whites Cross	A - R614 NORTH		✓	189	100.000
	B - R616		✓	462	100.000
	C - R614 SOUTH		✓	193	100.000
	D - L2980		✓	146	100.000
2 - Upper/Lower Dublin Hill	A - Upper Dublin Hill NORTH		✓	683	100.000
	B - Lower Dublin Hill		✓	355	100.000
	C - Upper Dublin Hill SOUTH		✓	329	100.000
3 - Ballyhooly Rd/Lower Dublin Hill	A - R614 SOUTH		✓	426	100.000
	B - Lower Dublin Hill		✓	349	100.000
	C - R614 NORTH		✓	560	100.000
4 - Dev Access - R614	A - R614 NORTH		✓	361	100.000
	B - DEVELOPMENT		✓	233	100.000
	C - R614 SOUTH		✓	278	100.000

Origin-Destination Data

Demand (Veh/hr)

1 - Whites Cross

		To			
		A - R614 NORTH	B - R616	C - R614 SOUTH	D - L2980
From	A - R614 NORTH	0	9	112	68
	B - R616	17	0	163	282
	C - R614 SOUTH	104	74	0	15
	D - L2980	33	101	12	0

Demand (Veh/hr)

4 - Dev Access - R614

	To			
		A - R614 NORTH	B - DEVELOPMENT	C - R614 SOUTH
From	A - R614 NORTH	0	11	350
	B - DEVELOPMENT	23	0	210
	C - R614 SOUTH	178	100	0

Demand (Veh/hr)

2 - Upper/Lower Dublin Hill

	To			
		A - Upper Dublin Hill NORTH	B - Lower Dublin Hill	C - Upper Dublin Hill SOUTH
From	A - Upper Dublin Hill NORTH	0	187	496
	B - Lower Dublin Hill	127	0	228
	C - Upper Dublin Hill SOUTH	217	112	0

Demand (Veh/hr)

3 - Ballyhooly Rd/Lower Dublin Hill

	To			
		A - R614 SOUTH	B - Lower Dublin Hill	C - R614 NORTH
From	A - R614 SOUTH	0	218	208
	B - Lower Dublin Hill	279	0	70
	C - R614 NORTH	417	143	0

Vehicle Mix

Heavy Vehicle %

1 - Whites Cross

	To				
		A - R614 NORTH	B - R616	C - R614 SOUTH	D - L2980
From	A - R614 NORTH	0	3	3	3
	B - R616	3	0	3	3
	C - R614 SOUTH	3	3	0	3
	D - L2980	3	3	3	0

Heavy Vehicle %

4 - Dev Access - R614

	To			
		A - R614 NORTH	B - DEVELOPMENT	C - R614 SOUTH
From	A - R614 NORTH	0	0	3
	B - DEVELOPMENT	0	0	0
	C - R614 SOUTH	3	0	0

Heavy Vehicle %

2 - Upper/Lower Dublin Hill

	To			
		A - Upper Dublin Hill NORTH	B - Lower Dublin Hill	C - Upper Dublin Hill SOUTH
From	A - Upper Dublin Hill NORTH	0	0	3
	B - Lower Dublin Hill	0	0	0
	C - Upper Dublin Hill SOUTH	3	0	0

Heavy Vehicle %

3 - Ballyhooly Rd/Lower Dublin Hill

	To			
		A - R614 SOUTH	B - Lower Dublin Hill	C - R614 NORTH
	A - R614 SOUTH	0	0	3
	B - Lower Dublin Hill	0	0	0
	C - R614 NORTH	3	0	0

Results

Results Summary for whole modelled period

Junction	Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1 - Whites Cross	B-ACD	1.04	147.46	21.0	F
	A-BCD	0.15	6.56	0.2	A
	A-B				
	A-C				
	D-ABC	0.35	12.19	0.5	B
	C-ABD	0.16	6.65	0.2	A
	C-D				
	C-A				
2 - Upper/Lower Dublin Hill	B-AC	0.99	118.71	12.4	F
	C-AB	0.34	9.03	0.7	A
	C-A				
	A-B				
	A-C				
3 - Ballyhooly Rd/Lower Dublin Hill	B-AC	1.11	248.83	27.4	F
	C-AB	0.44	7.83	1.3	A
	C-A				
	A-B				
	A-C				
4 - Dev Access - R614	B-AC	0.49	13.44	0.9	B
	C-AB	0.25	7.38	0.4	A
	C-A				
	A-B				
	A-C				

D8 - 2034 | WITH | AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Arm D Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Whites Cross	Crossroads	Two-way	Two-way	Two-way	Two-way		75.20	F
2	Upper/Lower Dublin Hill	T-Junction	Two-way	Two-way	Two-way			44.95	E
3	Ballyhooly Rd/Lower Dublin Hill	T-Junction	Two-way	Two-way	Two-way			96.23	F
4	Dev Access - R614	T-Junction	Two-way	Two-way	Two-way			8.30	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-28	3 - Ballyhooly Rd/Lower Dublin Hill - Stream B-AC	59.01	F

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D8	2034	WITH	AM	ONE HOUR	08:00	09:30	15

Demand overview (Traffic)

Junction	Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Whites Cross	A - R614 NORTH		✓	190	100.000
	B - R616		✓	464	100.000
	C - R614 SOUTH		✓	203	100.000
	D - L2980		✓	146	100.000
2 - Upper/Lower Dublin Hill	A - Upper Dublin Hill NORTH		✓	685	100.000
	B - Lower Dublin Hill		✓	375	100.000
	C - Upper Dublin Hill SOUTH		✓	337	100.000
3 - Ballyhooly Rd/Lower Dublin Hill	A - R614 SOUTH		✓	455	100.000
	B - Lower Dublin Hill		✓	359	100.000
	C - R614 NORTH		✓	638	100.000
4 - Dev Access - R614	A - R614 NORTH		✓	365	100.000
	B - DEVELOPMENT		✓	320	100.000
	C - R614 SOUTH		✓	317	100.000

Origin-Destination Data

Demand (Veh/hr)

1 - Whites Cross

		To			
		A - R614 NORTH	B - R616	C - R614 SOUTH	D - L2980
From	A - R614 NORTH	0	9	113	68
	B - R616	17	0	165	282
	C - R614 SOUTH	109	78	0	16
	D - L2980	33	101	12	0

Demand (Veh/hr)

4 - Dev Access - R614

	To			
		A - R614 NORTH	B - DEVELOPMENT	C - R614 SOUTH
From	A - R614 NORTH	0	15	350
	B - DEVELOPMENT	32	0	288
	C - R614 SOUTH	178	139	0

Demand (Veh/hr)

2 - Upper/Lower Dublin Hill

	To			
		A - Upper Dublin Hill NORTH	B - Lower Dublin Hill	C - Upper Dublin Hill SOUTH
From	A - Upper Dublin Hill NORTH	0	189	496
	B - Lower Dublin Hill	131	0	244
	C - Upper Dublin Hill SOUTH	217	120	0

Demand (Veh/hr)

3 - Ballyhooly Rd/Lower Dublin Hill

	To			
		A - R614 SOUTH	B - Lower Dublin Hill	C - R614 NORTH
From	A - R614 SOUTH	0	218	237
	B - Lower Dublin Hill	279	0	80
	C - R614 NORTH	475	163	0

Vehicle Mix

Heavy Vehicle %

1 - Whites Cross

	To				
		A - R614 NORTH	B - R616	C - R614 SOUTH	D - L2980
From	A - R614 NORTH	3	3	3	3
	B - R616	3	3	3	3
	C - R614 SOUTH	3	3	3	3
	D - L2980	3	3	3	3

Heavy Vehicle %

4 - Dev Access - R614

	To			
		A - R614 NORTH	B - DEVELOPMENT	C - R614 SOUTH
From	A - R614 NORTH	0	0	3
	B - DEVELOPMENT	0	0	0
	C - R614 SOUTH	3	0	0

Heavy Vehicle %

2 - Upper/Lower Dublin Hill

	To			
		A - Upper Dublin Hill NORTH	B - Lower Dublin Hill	C - Upper Dublin Hill SOUTH
From	A - Upper Dublin Hill NORTH	0	0	3
	B - Lower Dublin Hill	0	0	0
	C - Upper Dublin Hill SOUTH	3	0	0

Heavy Vehicle %

3 - Ballyhooly Rd/Lower Dublin Hill

	To			
		A - R614 SOUTH	B - Lower Dublin Hill	C - R614 NORTH
	From			
	A - R614 SOUTH	0	0	3
	B - Lower Dublin Hill	0	0	0
	C - R614 NORTH	3	0	0

Results

Results Summary for whole modelled period

Junction	Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1 - Whites Cross	B-ACD	1.04	156.13	22.5	F
	A-BCD	0.15	6.59	0.2	A
	A-B				
	A-C				
	D-ABC	0.35	12.32	0.5	B
	C-ABD	0.17	6.68	0.3	A
	C-D				
	C-A				
2 - Upper/Lower Dublin Hill	B-AC	1.04	165.36	19.1	F
	C-AB	0.36	9.40	0.8	A
	C-A				
	A-B				
	A-C				
3 - Ballyhooly Rd/Lower Dublin Hill	B-AC	1.22	385.58	42.8	F
	C-AB	0.53	9.05	2.0	A
	C-A				
	A-B				
	A-C				
4 - Dev Access - R614	B-AC	0.68	21.34	2.0	C
	C-AB	0.34	8.48	0.7	A
	C-A				
	A-B				
	A-C				

D9 - 2034 | WITHOUT | PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Arm D Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Whites Cross	Crossroads	Two-way	Two-way	Two-way	Two-way		24.27	C
2	Upper/Lower Dublin Hill	T-Junction	Two-way	Two-way	Two-way			45.69	E
3	Ballyhooly Rd/Lower Dublin Hill	T-Junction	Two-way	Two-way	Two-way			21.86	C
4	Dev Access - R614	T-Junction	Two-way	Two-way	Two-way			4.39	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-19	2 - Upper/Lower Dublin Hill - Stream B-AC	26.09	D

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D9	2034	WITHOUT	PM	ONE HOUR	17:00	18:30	15

Demand overview (Traffic)

Junction	Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Whites Cross	A - R614 NORTH		✓	128	100.000
	B - R616		✓	329	100.000
	C - R614 SOUTH		✓	358	100.000
	D - L2980		✓	335	100.000
2 - Upper/Lower Dublin Hill	A - Upper Dublin Hill NORTH		✓	504	100.000
	B - Lower Dublin Hill		✓	362	100.000
	C - Upper Dublin Hill SOUTH		✓	569	100.000
3 - Ballyhooly Rd/Lower Dublin Hill	A - R614 SOUTH		✓	690	100.000
	B - Lower Dublin Hill		✓	381	100.000
	C - R614 NORTH		✓	377	100.000
4 - Dev Access - R614	A - R614 NORTH		✓	382	100.000
	B - DEVELOPMENT		✓	141	100.000
	C - R614 SOUTH		✓	389	100.000

Origin-Destination Data

Demand (Veh/hr)

1 - Whites Cross

		To			
		A - R614 NORTH	B - R616	C - R614 SOUTH	D - L2980
From	A - R614 NORTH	0	9	73	46
	B - R616	17	0	115	197
	C - R614 SOUTH	173	146	0	39
	D - L2980	84	239	12	0

Demand (Veh/hr)

4 - Dev Access - R614

	To			
		A - R614 NORTH	B - DEVELOPMENT	C - R614 SOUTH
From	A - R614 NORTH	0	20	362
	B - DEVELOPMENT	14	0	127
	C - R614 SOUTH	207	182	0

Demand (Veh/hr)

2 - Upper/Lower Dublin Hill

	To			
		A - Upper Dublin Hill NORTH	B - Lower Dublin Hill	C - Upper Dublin Hill SOUTH
From	A - Upper Dublin Hill NORTH	0	184	320
	B - Lower Dublin Hill	172	0	190
	C - Upper Dublin Hill SOUTH	387	182	0

Demand (Veh/hr)

3 - Ballyhooly Rd/Lower Dublin Hill

	To			
		A - R614 SOUTH	B - Lower Dublin Hill	C - R614 NORTH
From	A - R614 SOUTH	0	281	409
	B - Lower Dublin Hill	67	0	314
	C - R614 NORTH	272	105	0

Vehicle Mix

Heavy Vehicle %

1 - Whites Cross

	To				
		A - R614 NORTH	B - R616	C - R614 SOUTH	D - L2980
From	A - R614 NORTH	3	3	3	3
	B - R616	3	3	3	3
	C - R614 SOUTH	3	3	3	3
	D - L2980	3	3	3	3

Heavy Vehicle %

4 - Dev Access - R614

	To			
		A - R614 NORTH	B - DEVELOPMENT	C - R614 SOUTH
From	A - R614 NORTH	0	0	3
	B - DEVELOPMENT	0	0	0
	C - R614 SOUTH	3	0	0

Heavy Vehicle %

2 - Upper/Lower Dublin Hill

	To			
		A - Upper Dublin Hill NORTH	B - Lower Dublin Hill	C - Upper Dublin Hill SOUTH
From	A - Upper Dublin Hill NORTH	0	0	3
	B - Lower Dublin Hill	0	0	0
	C - Upper Dublin Hill SOUTH	3	0	0

Heavy Vehicle %

3 - Ballyhooly Rd/Lower Dublin Hill

	To			
		A - R614 SOUTH	B - Lower Dublin Hill	C - R614 NORTH
	A - R614 SOUTH	0	0	3
	B - Lower Dublin Hill	0	0	0
	C - R614 NORTH	3	0	0

Results

Results Summary for whole modelled period

Junction	Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1 - Whites Cross	B-ACD	0.78	34.64	3.3	D
	A-BCD	0.11	7.15	0.1	A
	A-B				
	A-C				
	D-ABC	0.83	43.71	4.2	E
	C-ABD	0.32	7.31	0.6	A
	C-D				
	C-A				
2 - Upper/Lower Dublin Hill	B-AC	1.05	172.99	19.4	F
	C-AB	0.57	10.76	2.1	B
	C-A				
	A-B				
	A-C				
3 - Ballyhooly Rd/Lower Dublin Hill	B-AC	0.94	80.34	8.8	F
	C-AB	0.33	8.33	0.8	A
	C-A				
	A-B				
	A-C				
4 - Dev Access - R614	B-AC	0.30	10.12	0.4	B
	C-AB	0.46	10.09	1.1	B
	C-A				
	A-B				
	A-C				

D10 - 2034 | WITH | PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Arm D Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Whites Cross	Crossroads	Two-way	Two-way	Two-way	Two-way		24.87	C
2	Upper/Lower Dublin Hill	T-Junction	Two-way	Two-way	Two-way			58.47	F
3	Ballyhooly Rd/Lower Dublin Hill	T-Junction	Two-way	Two-way	Two-way			35.53	E
4	Dev Access - R614	T-Junction	Two-way	Two-way	Two-way			7.34	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-21	2 - Upper/Lower Dublin Hill - Stream B-AC	33.95	D

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D10	2034	WITH	PM	ONE HOUR	17:00	18:30	15

Demand overview (Traffic)

Junction	Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Whites Cross	A - R614 NORTH		✓	131	100.000
	B - R616		✓	333	100.000
	C - R614 SOUTH		✓	362	100.000
	D - L2980		✓	335	100.000
2 - Upper/Lower Dublin Hill	A - Upper Dublin Hill NORTH		✓	514	100.000
	B - Lower Dublin Hill		✓	374	100.000
	C - Upper Dublin Hill SOUTH		✓	577	100.000
3 - Ballyhooly Rd/Lower Dublin Hill	A - R614 SOUTH		✓	739	100.000
	B - Lower Dublin Hill		✓	398	100.000
	C - R614 NORTH		✓	427	100.000
4 - Dev Access - R614	A - R614 NORTH		✓	389	100.000
	B - DEVELOPMENT		✓	195	100.000
	C - R614 SOUTH		✓	455	100.000

Origin-Destination Data

Demand (Veh/hr)

1 - Whites Cross

		To			
		A - R614 NORTH	B - R616	C - R614 SOUTH	D - L2980
From	A - R614 NORTH	0	9	76	46
	B - R616	17	0	119	197
	C - R614 SOUTH	175	148	0	39
	D - L2980	84	239	12	0

Demand (Veh/hr)

4 - Dev Access - R614

	To			
		A - R614 NORTH	B - DEVELOPMENT	C - R614 SOUTH
From	A - R614 NORTH	0	27	362
	B - DEVELOPMENT	19	0	176
	C - R614 SOUTH	207	248	0

Demand (Veh/hr)

2 - Upper/Lower Dublin Hill

	To			
		A - Upper Dublin Hill NORTH	B - Lower Dublin Hill	C - Upper Dublin Hill SOUTH
From	A - Upper Dublin Hill NORTH	0	194	320
	B - Lower Dublin Hill	178	0	196
	C - Upper Dublin Hill SOUTH	387	190	0

Demand (Veh/hr)

3 - Ballyhooly Rd/Lower Dublin Hill

	To			
		A - R614 SOUTH	B - Lower Dublin Hill	C - R614 NORTH
From	A - R614 SOUTH	0	281	458
	B - Lower Dublin Hill	67	0	331
	C - R614 NORTH	309	118	0

Vehicle Mix

Heavy Vehicle %

1 - Whites Cross

	To				
		A - R614 NORTH	B - R616	C - R614 SOUTH	D - L2980
From	A - R614 NORTH	3	3	3	3
	B - R616	3	3	3	3
	C - R614 SOUTH	3	3	3	3
	D - L2980	3	3	3	3

Heavy Vehicle %

4 - Dev Access - R614

	To			
		A - R614 NORTH	B - DEVELOPMENT	C - R614 SOUTH
From	A - R614 NORTH	0	0	3
	B - DEVELOPMENT	0	0	0
	C - R614 SOUTH	3	0	0

Heavy Vehicle %

2 - Upper/Lower Dublin Hill

	To			
		A - Upper Dublin Hill NORTH	B - Lower Dublin Hill	C - Upper Dublin Hill SOUTH
From	A - Upper Dublin Hill NORTH	0	0	3
	B - Lower Dublin Hill	0	0	0
	C - Upper Dublin Hill SOUTH	3	0	0

Heavy Vehicle %

3 - Ballyhooly Rd/Lower Dublin Hill

	To			
		A - R614 SOUTH	B - Lower Dublin Hill	C - R614 NORTH
	From			
	A - R614 SOUTH	0	0	3
	B - Lower Dublin Hill	0	0	0
	C - R614 NORTH	3	0	0

Results

Results Summary for whole modelled period

Junction	Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1 - Whites Cross	B-ACD	0.79	36.19	3.5	E
	A-BCD	0.11	7.14	0.1	A
	A-B				
	A-C				
	D-ABC	0.83	44.52	4.3	E
	C-ABD	0.33	7.36	0.6	A
	C-D				
	C-A				
2 - Upper/Lower Dublin Hill	B-AC	1.10	220.57	26.1	F
	C-AB	0.60	11.57	2.3	B
	C-A				
	A-B				
	A-C				
3 - Ballyhooly Rd/Lower Dublin Hill	B-AC	1.02	136.76	16.5	F
	C-AB	0.40	8.95	1.1	A
	C-A				
	A-B				
	A-C				
4 - Dev Access - R614	B-AC	0.43	12.46	0.7	B
	C-AB	0.63	14.82	2.1	B
	C-A				
	A-B				
	A-C				

D11 - 2044 | WITHOUT | AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Arm D Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Whites Cross	Crossroads	Two-way	Two-way	Two-way	Two-way		125.83	F
2	Upper/Lower Dublin Hill	T-Junction	Two-way	Two-way	Two-way			58.19	F
3	Ballyhooly Rd/Lower Dublin Hill	T-Junction	Two-way	Two-way	Two-way			108.01	F
4	Dev Access - R614	T-Junction	Two-way	Two-way	Two-way			4.60	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-28	3 - Ballyhooly Rd/Lower Dublin Hill - Stream B-AC	77.57	F

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D11	2044	WITHOUT	AM	ONE HOUR	08:00	09:30	15

Demand overview (Traffic)

Junction	Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Whites Cross	A - R614 NORTH		✓	204	100.000
	B - R616		✓	498	100.000
	C - R614 SOUTH		✓	206	100.000
	D - L2980		✓	157	100.000
2 - Upper/Lower Dublin Hill	A - Upper Dublin Hill NORTH		✓	736	100.000
	B - Lower Dublin Hill		✓	378	100.000
	C - Upper Dublin Hill SOUTH		✓	353	100.000
3 - Ballyhooly Rd/Lower Dublin Hill	A - R614 SOUTH		✓	453	100.000
	B - Lower Dublin Hill		✓	373	100.000
	C - R614 NORTH		✓	584	100.000
4 - Dev Access - R614	A - R614 NORTH		✓	385	100.000
	B - DEVELOPMENT		✓	233	100.000
	C - R614 SOUTH		✓	291	100.000

Origin-Destination Data

Demand (Veh/hr)

1 - Whites Cross

		To			
		A - R614 NORTH	B - R616	C - R614 SOUTH	D - L2980
From	A - R614 NORTH	0	10	120	74
	B - R616	19	0	175	304
	C - R614 SOUTH	111	79	0	16
	D - L2980	35	109	13	0

Demand (Veh/hr)

4 - Dev Access - R614

	To			
		A - R614 NORTH	B - DEVELOPMENT	C - R614 SOUTH
From	A - R614 NORTH	0	11	374
	B - DEVELOPMENT	23	0	210
	C - R614 SOUTH	191	100	0

Demand (Veh/hr)

2 - Upper/Lower Dublin Hill

	To			
		A - Upper Dublin Hill NORTH	B - Lower Dublin Hill	C - Upper Dublin Hill SOUTH
From	A - Upper Dublin Hill NORTH	0	201	535
	B - Lower Dublin Hill	136	0	242
	C - Upper Dublin Hill SOUTH	234	119	0

Demand (Veh/hr)

3 - Ballyhooly Rd/Lower Dublin Hill

	To			
		A - R614 SOUTH	B - Lower Dublin Hill	C - R614 NORTH
From	A - R614 SOUTH	0	235	218
	B - Lower Dublin Hill	300	0	73
	C - R614 NORTH	435	149	0

Vehicle Mix

Heavy Vehicle %

1 - Whites Cross

	To				
		A - R614 NORTH	B - R616	C - R614 SOUTH	D - L2980
From	A - R614 NORTH	3	3	3	3
	B - R616	3	3	3	3
	C - R614 SOUTH	3	3	3	3
	D - L2980	3	3	3	3

Heavy Vehicle %

4 - Dev Access - R614

	To			
		A - R614 NORTH	B - DEVELOPMENT	C - R614 SOUTH
From	A - R614 NORTH	0	0	3
	B - DEVELOPMENT	0	0	0
	C - R614 SOUTH	3	0	0

Heavy Vehicle %

2 - Upper/Lower Dublin Hill

	To			
		A - Upper Dublin Hill NORTH	B - Lower Dublin Hill	C - Upper Dublin Hill SOUTH
From	A - Upper Dublin Hill NORTH	0	0	3
	B - Lower Dublin Hill	0	0	0
	C - Upper Dublin Hill SOUTH	3	0	0

Heavy Vehicle %

3 - Ballyhooly Rd/Lower Dublin Hill

	To			
		A - R614 SOUTH	B - Lower Dublin Hill	C - R614 NORTH
	From			
	A - R614 SOUTH	0	0	3
	B - Lower Dublin Hill	0	0	0
	C - R614 NORTH	3	0	0

Results

Results Summary for whole modelled period

Junction	Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1 - Whites Cross	B-ACD	1.13	262.37	40.9	F
	A-BCD	0.16	6.65	0.2	A
	A-B				
	A-C				
	D-ABC	0.39	13.27	0.6	B
	C-ABD	0.17	6.74	0.3	A
	C-D				
	C-A				
2 - Upper/Lower Dublin Hill	B-AC	1.10	224.52	26.9	F
	C-AB	0.38	9.56	0.9	A
	C-A				
	A-B				
	A-C				
3 - Ballyhooly Rd/Lower Dublin Hill	B-AC	1.23	406.96	45.4	F
	C-AB	0.47	8.23	1.5	A
	C-A				
	A-B				
	A-C				
4 - Dev Access - R614	B-AC	0.50	13.82	1.0	B
	C-AB	0.25	7.39	0.5	A
	C-A				
	A-B				
	A-C				

D12 - 2044 | WITH | AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Arm D Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Whites Cross	Crossroads	Two-way	Two-way	Two-way	Two-way		133.64	F
2	Upper/Lower Dublin Hill	T-Junction	Two-way	Two-way	Two-way			78.28	F
3	Ballyhooly Rd/Lower Dublin Hill	T-Junction	Two-way	Two-way	Two-way			157.15	F
4	Dev Access - R614	T-Junction	Two-way	Two-way	Two-way			8.35	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-32	3 - Ballyhooly Rd/Lower Dublin Hill - Stream B-AC	99.26	F

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D12	2044	WITH	AM	ONE HOUR	08:00	09:30	15

Demand overview (Traffic)

Junction	Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Whites Cross	A - R614 NORTH		✓	206	100.000
	B - R616		✓	500	100.000
	C - R614 SOUTH		✓	216	100.000
	D - L2980		✓	157	100.000
2 - Upper/Lower Dublin Hill	A - Upper Dublin Hill NORTH		✓	738	100.000
	B - Lower Dublin Hill		✓	398	100.000
	C - Upper Dublin Hill SOUTH		✓	361	100.000
3 - Ballyhooly Rd/Lower Dublin Hill	A - R614 SOUTH		✓	482	100.000
	B - Lower Dublin Hill		✓	383	100.000
	C - R614 NORTH		✓	662	100.000
4 - Dev Access - R614	A - R614 NORTH		✓	389	100.000
	B - DEVELOPMENT		✓	320	100.000
	C - R614 SOUTH		✓	330	100.000

Origin-Destination Data

Demand (Veh/hr)

1 - Whites Cross

		To			
		A - R614 NORTH	B - R616	C - R614 SOUTH	D - L2980
From	A - R614 NORTH	0	10	122	74
	B - R616	19	0	177	304
	C - R614 SOUTH	116	83	0	17
	D - L2980	35	109	13	0

Demand (Veh/hr)

4 - Dev Access - R614

	To			
		A - R614 NORTH	B - DEVELOPMENT	C - R614 SOUTH
From	A - R614 NORTH	0	15	374
	B - DEVELOPMENT	32	0	288
	C - R614 SOUTH	191	139	0

Demand (Veh/hr)

2 - Upper/Lower Dublin Hill

	To			
		A - Upper Dublin Hill NORTH	B - Lower Dublin Hill	C - Upper Dublin Hill SOUTH
From	A - Upper Dublin Hill NORTH	0	203	535
	B - Lower Dublin Hill	140	0	258
	C - Upper Dublin Hill SOUTH	234	127	0

Demand (Veh/hr)

3 - Ballyhooly Rd/Lower Dublin Hill

	To			
		A - R614 SOUTH	B - Lower Dublin Hill	C - R614 NORTH
From	A - R614 SOUTH	0	235	247
	B - Lower Dublin Hill	300	0	83
	C - R614 NORTH	493	169	0

Vehicle Mix

Heavy Vehicle %

1 - Whites Cross

	To				
		A - R614 NORTH	B - R616	C - R614 SOUTH	D - L2980
From	A - R614 NORTH	3	3	3	3
	B - R616	3	3	3	3
	C - R614 SOUTH	3	3	3	3
	D - L2980	3	3	3	3

Heavy Vehicle %

4 - Dev Access - R614

	To			
		A - R614 NORTH	B - DEVELOPMENT	C - R614 SOUTH
From	A - R614 NORTH	0	0	3
	B - DEVELOPMENT	0	0	0
	C - R614 SOUTH	3	0	0

Heavy Vehicle %

2 - Upper/Lower Dublin Hill

	To			
		A - Upper Dublin Hill NORTH	B - Lower Dublin Hill	C - Upper Dublin Hill SOUTH
From	A - Upper Dublin Hill NORTH	0	0	3
	B - Lower Dublin Hill	0	0	0
	C - Upper Dublin Hill SOUTH	3	0	0

Heavy Vehicle %

3 - Ballyhooly Rd/Lower Dublin Hill

	To			
		A - R614 SOUTH	B - Lower Dublin Hill	C - R614 NORTH
	From			
	A - R614 SOUTH	0	0	3
	B - Lower Dublin Hill	0	0	0
	C - R614 NORTH	3	0	0

Results

Results Summary for whole modelled period

Junction	Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1 - Whites Cross	B-ACD	1.14	281.54	43.1	F
	A-BCD	0.16	6.67	0.2	A
	A-B				
	A-C				
	D-ABC	0.39	13.44	0.6	B
	C-ABD	0.18	6.78	0.3	A
	C-D				
	C-A				
2 - Upper/Lower Dublin Hill	B-AC	1.16	293.85	37.2	F
	C-AB	0.40	9.99	1.0	A
	C-A				
	A-B				
	A-C				
3 - Ballyhooly Rd/Lower Dublin Hill	B-AC	1.35	625.50	63.3	F
	C-AB	0.57	9.77	2.3	A
	C-A				
	A-B				
	A-C				
4 - Dev Access - R614	B-AC	0.69	22.33	2.1	C
	C-AB	0.35	8.52	0.7	A
	C-A				
	A-B				
	A-C				

D13 - 2044 | WITHOUT | PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Arm D Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Whites Cross	Crossroads	Two-way	Two-way	Two-way	Two-way		37.41	E
2	Upper/Lower Dublin Hill	T-Junction	Two-way	Two-way	Two-way			83.30	F
3	Ballyhooly Rd/Lower Dublin Hill	T-Junction	Two-way	Two-way	Two-way			39.16	E
4	Dev Access - R614	T-Junction	Two-way	Two-way	Two-way			4.36	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-24	2 - Upper/Lower Dublin Hill - Stream B-AC	45.31	E

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D13	2044	WITHOUT	PM	ONE HOUR	17:00	18:30	15

Demand overview (Traffic)

Junction	Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Whites Cross	A - R614 NORTH		✓	139	100.000
	B - R616		✓	355	100.000
	C - R614 SOUTH		✓	384	100.000
	D - L2980		✓	361	100.000
2 - Upper/Lower Dublin Hill	A - Upper Dublin Hill NORTH		✓	544	100.000
	B - Lower Dublin Hill		✓	388	100.000
	C - Upper Dublin Hill SOUTH		✓	610	100.000
3 - Ballyhooly Rd/Lower Dublin Hill	A - R614 SOUTH		✓	731	100.000
	B - Lower Dublin Hill		✓	408	100.000
	C - R614 NORTH		✓	396	100.000
4 - Dev Access - R614	A - R614 NORTH		✓	409	100.000
	B - DEVELOPMENT		✓	141	100.000
	C - R614 SOUTH		✓	403	100.000

Origin-Destination Data

Demand (Veh/hr)

1 - Whites Cross

		To			
		A - R614 NORTH	B - R616	C - R614 SOUTH	D - L2980
From	A - R614 NORTH	0	10	79	50
	B - R616	19	0	123	213
	C - R614 SOUTH	185	157	0	42
	D - L2980	90	258	13	0

Demand (Veh/hr)

4 - Dev Access - R614

	To			
		A - R614 NORTH	B - DEVELOPMENT	C - R614 SOUTH
From	A - R614 NORTH	0	20	389
	B - DEVELOPMENT	14	0	127
	C - R614 SOUTH	221	182	0

Demand (Veh/hr)

2 - Upper/Lower Dublin Hill

	To			
		A - Upper Dublin Hill NORTH	B - Lower Dublin Hill	C - Upper Dublin Hill SOUTH
From	A - Upper Dublin Hill NORTH	0	198	346
	B - Lower Dublin Hill	185	0	203
	C - Upper Dublin Hill SOUTH	417	193	0

Demand (Veh/hr)

3 - Ballyhooly Rd/Lower Dublin Hill

	To			
		A - R614 SOUTH	B - Lower Dublin Hill	C - R614 NORTH
From	A - R614 SOUTH	0	303	428
	B - Lower Dublin Hill	73	0	335
	C - R614 NORTH	285	111	0

Vehicle Mix

Heavy Vehicle %

1 - Whites Cross

	To				
		A - R614 NORTH	B - R616	C - R614 SOUTH	D - L2980
From	A - R614 NORTH	3	3	3	3
	B - R616	3	3	3	3
	C - R614 SOUTH	3	3	3	3
	D - L2980	3	3	3	3

Heavy Vehicle %

4 - Dev Access - R614

	To			
		A - R614 NORTH	B - DEVELOPMENT	C - R614 SOUTH
From	A - R614 NORTH	0	0	3
	B - DEVELOPMENT	0	0	0
	C - R614 SOUTH	3	0	0

Heavy Vehicle %

2 - Upper/Lower Dublin Hill

	To			
		A - Upper Dublin Hill NORTH	B - Lower Dublin Hill	C - Upper Dublin Hill SOUTH
From	A - Upper Dublin Hill NORTH	0	0	3
	B - Lower Dublin Hill	0	0	0
	C - Upper Dublin Hill SOUTH	3	0	0

Heavy Vehicle %

3 - Ballyhooly Rd/Lower Dublin Hill

	To			
		A - R614 SOUTH	B - Lower Dublin Hill	C - R614 NORTH
	From			
	A - R614 SOUTH	0	0	3
	B - Lower Dublin Hill	0	0	0
	C - R614 NORTH	3	0	0

Results

Results Summary for whole modelled period

Junction	Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1 - Whites Cross	B-ACD	0.86	52.58	5.3	F
	A-BCD	0.12	7.28	0.2	A
	A-B				
	A-C				
	D-ABC	0.91	70.80	7.3	F
	C-ABD	0.35	7.57	0.7	A
	C-D				
	C-A				
2 - Upper/Lower Dublin Hill	B-AC	1.18	322.81	39.7	F
	C-AB	0.63	12.48	2.8	B
	C-A				
	A-B				
	A-C				
3 - Ballyhooly Rd/Lower Dublin Hill	B-AC	1.03	145.20	18.1	F
	C-AB	0.36	8.73	0.9	A
	C-A				
	A-B				
	A-C				
4 - Dev Access - R614	B-AC	0.31	10.37	0.4	B
	C-AB	0.47	10.24	1.2	B
	C-A				
	A-B				
	A-C				

D14 - 2044 | WITH | PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Arm D Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Whites Cross	Crossroads	Two-way	Two-way	Two-way	Two-way		38.73	E
2	Upper/Lower Dublin Hill	T-Junction	Two-way	Two-way	Two-way			102.57	F
3	Ballyhooly Rd/Lower Dublin Hill	T-Junction	Two-way	Two-way	Two-way			60.84	F
4	Dev Access - R614	T-Junction	Two-way	Two-way	Two-way			7.46	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-26	2 - Upper/Lower Dublin Hill - Stream B-AC	57.20	F

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D14	2044	WITH	PM	ONE HOUR	17:00	18:30	15

Demand overview (Traffic)

Junction	Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Whites Cross	A - R614 NORTH		✓	141	100.000
	B - R616		✓	359	100.000
	C - R614 SOUTH		✓	389	100.000
	D - L2980		✓	361	100.000
2 - Upper/Lower Dublin Hill	A - Upper Dublin Hill NORTH		✓	553	100.000
	B - Lower Dublin Hill		✓	400	100.000
	C - Upper Dublin Hill SOUTH		✓	618	100.000
3 - Ballyhooly Rd/Lower Dublin Hill	A - R614 SOUTH		✓	781	100.000
	B - Lower Dublin Hill		✓	424	100.000
	C - R614 NORTH		✓	445	100.000
4 - Dev Access - R614	A - R614 NORTH		✓	416	100.000
	B - DEVELOPMENT		✓	195	100.000
	C - R614 SOUTH		✓	469	100.000

Origin-Destination Data

Demand (Veh/hr)

1 - Whites Cross

		To			
		A - R614 NORTH	B - R616	C - R614 SOUTH	D - L2980
From	A - R614 NORTH	0	10	81	50
	B - R616	19	0	127	213
	C - R614 SOUTH	188	159	0	42
	D - L2980	90	258	13	0

Demand (Veh/hr)

4 - Dev Access - R614

	To			
		A - R614 NORTH	B - DEVELOPMENT	C - R614 SOUTH
From	A - R614 NORTH	0	27	389
	B - DEVELOPMENT	19	0	176
	C - R614 SOUTH	221	248	0

Demand (Veh/hr)

2 - Upper/Lower Dublin Hill

	To			
		A - Upper Dublin Hill NORTH	B - Lower Dublin Hill	C - Upper Dublin Hill SOUTH
From	A - Upper Dublin Hill NORTH	0	207	346
	B - Lower Dublin Hill	191	0	209
	C - Upper Dublin Hill SOUTH	417	201	0

Demand (Veh/hr)

3 - Ballyhooly Rd/Lower Dublin Hill

	To			
		A - R614 SOUTH	B - Lower Dublin Hill	C - R614 NORTH
From	A - R614 SOUTH	0	303	478
	B - Lower Dublin Hill	73	0	351
	C - R614 NORTH	322	123	0

Vehicle Mix

Heavy Vehicle %

1 - Whites Cross

	To				
		A - R614 NORTH	B - R616	C - R614 SOUTH	D - L2980
From	A - R614 NORTH	3	3	3	3
	B - R616	3	3	3	3
	C - R614 SOUTH	3	3	3	3
	D - L2980	3	3	3	3

Heavy Vehicle %

4 - Dev Access - R614

	To			
		A - R614 NORTH	B - DEVELOPMENT	C - R614 SOUTH
From	A - R614 NORTH	0	0	3
	B - DEVELOPMENT	0	0	0
	C - R614 SOUTH	3	0	0

Heavy Vehicle %

2 - Upper/Lower Dublin Hill

	To			
		A - Upper Dublin Hill NORTH	B - Lower Dublin Hill	C - Upper Dublin Hill SOUTH
From	A - Upper Dublin Hill NORTH	0	0	3
	B - Lower Dublin Hill	0	0	0
	C - Upper Dublin Hill SOUTH	3	0	0

Heavy Vehicle %

3 - Ballyhooly Rd/Lower Dublin Hill

	To			
		A - R614 SOUTH	B - Lower Dublin Hill	C - R614 NORTH
	From			
	A - R614 SOUTH	0	0	3
	B - Lower Dublin Hill	0	0	0
	C - R614 NORTH	3	0	0

Results

Results Summary for whole modelled period

Junction	Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1 - Whites Cross	B-ACD	0.87	55.70	5.7	F
	A-BCD	0.12	7.28	0.2	A
	A-B				
	A-C				
	D-ABC	0.91	72.70	7.4	F
	C-ABD	0.36	7.62	0.7	A
	C-D				
	C-A				
2 - Upper/Lower Dublin Hill	B-AC	1.23	394.12	48.4	F
	C-AB	0.66	13.65	3.1	B
	C-A				
	A-B				
	A-C				
3 - Ballyhooly Rd/Lower Dublin Hill	B-AC	1.11	234.96	31.8	F
	C-AB	0.43	9.45	1.3	A
	C-A				
	A-B				
	A-C				
4 - Dev Access - R614	B-AC	0.43	12.85	0.8	B
	C-AB	0.65	15.40	2.3	C
	C-A				
	A-B				
	A-C				

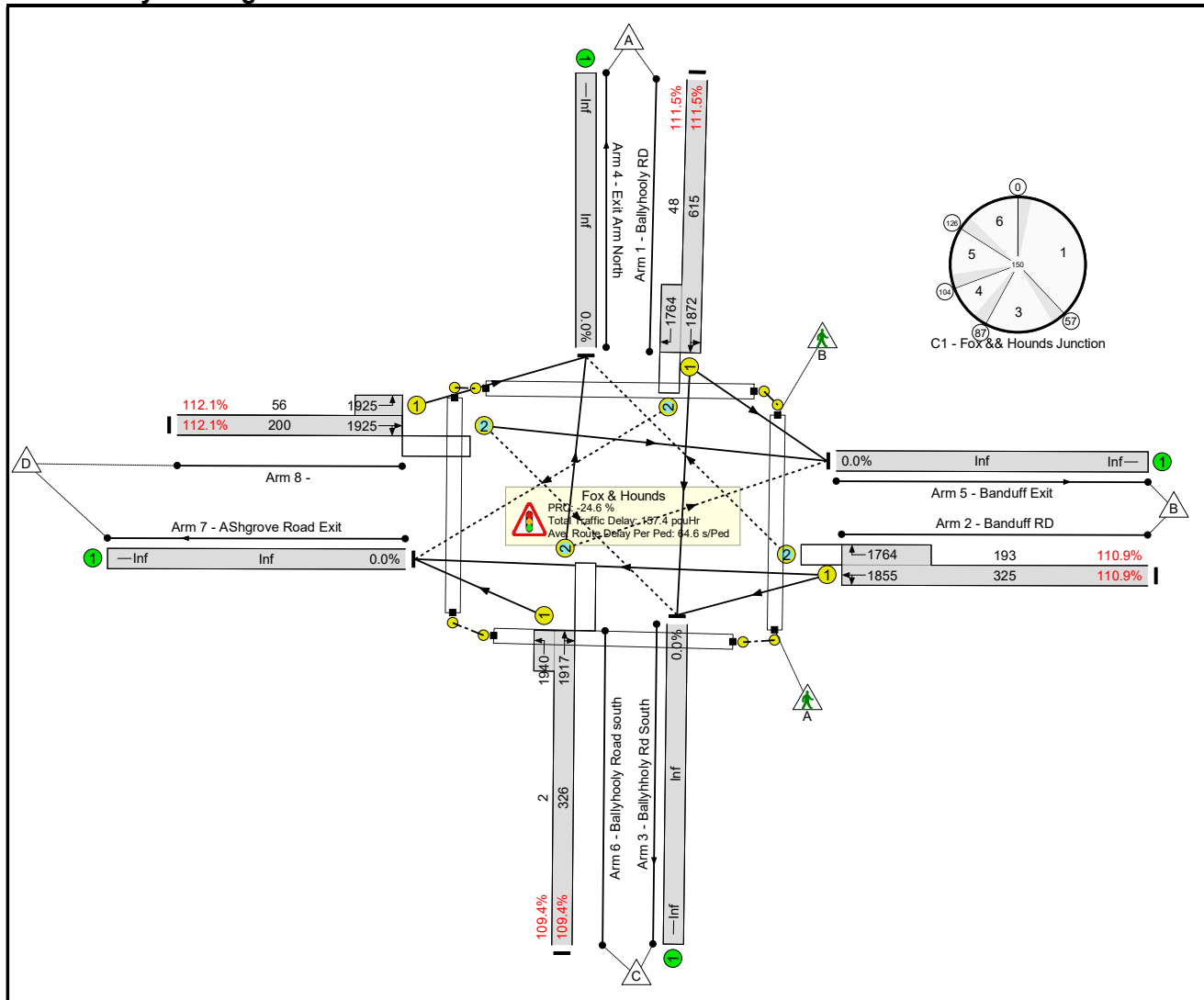
Basic Results Summary

User and Project Details

Project:	Longview N7
Location:	Ballyhooley Road, Ballyvolane, Cork
Client:	Temporis
Author:	F O' Sullivan
Company:	MHL Consulting Engineers

Scenario 1: '2026 AM' (FG1: '2026 - Base Year - AM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



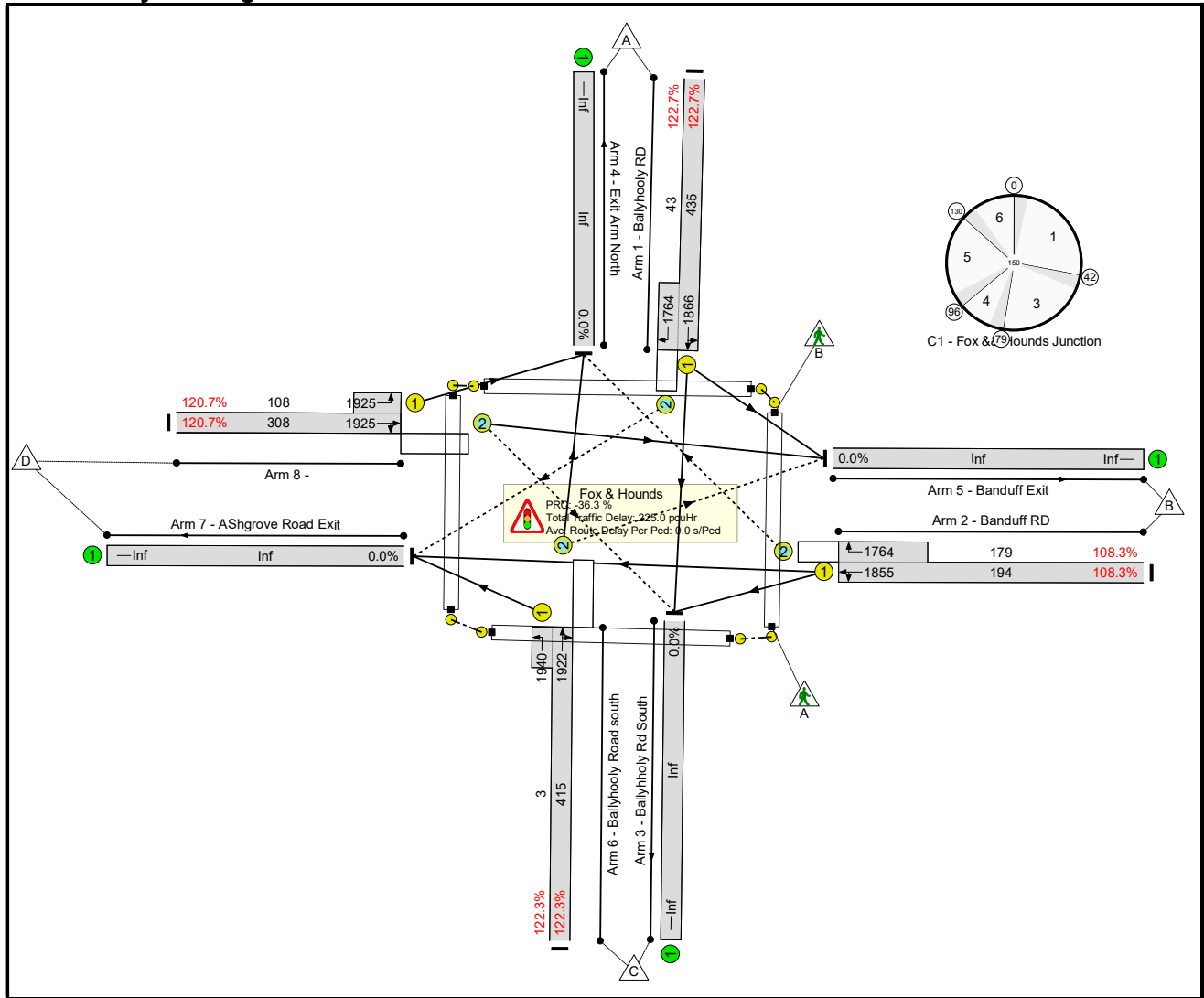
Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	112.1%	5	288	32	157.4	-	-
Fox & Hounds	-	-	-		-	-	-	-	-	-	112.1%	5	288	32	157.4	-	-
1/1+1/2	Ballyhooly RD Ahead Left Right	U+O	C D		1	52	-	740	1872:1764	615+48	111.5 : 111.5%	0	46	3	58.1	282.6	77.1
2/1+2/2	Banduff RD Left Right Ahead	U+O	B F		1	41:19	-	574	1855:1764	325+193	110.9 : 110.9%	0	179	14	45.9	287.7	56.4
6/2+6/1	Ballyhooly Road south Ahead Right Left	O+U	A		1	25	-	359	1917:1940	326+2	109.4 : 109.4%	0	63	15	28.1	281.7	36.5
8/2+8/1	Right Left Ahead	O+U	G H		1:2	17:69	-	287	1925:1925	200+56	112.1 : 112.1%	5	0	0	25.3	317.7	31.7
Ped Link: P1	Unnamed Ped Link	-	E		1	12	-	20	-	5760	0.3%	-	-	-	0.4	64.6	0.8
Ped Link: P2	Unnamed Ped Link	-	E		1	12	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P3	Unnamed Ped Link	-	E		1	12	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P4	Unnamed Ped Link	-	E		1	12	-	0	-	0	0.0%	-	-	-	-	-	-
C1 - Fox & Hounds Junction				PRC for Signalled Lanes (%):			-24.6	Total Delay for Signalled Lanes (pcuHr):			157.37	Cycle Time (s): 150					
				PRC Over All Lanes (%):			-24.6	Total Delay Over All Lanes(pcuHr):			157.37						

Basic Results Summary

Scenario 2: '2026 PM' (FG2: '2026 - Base Year - PM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



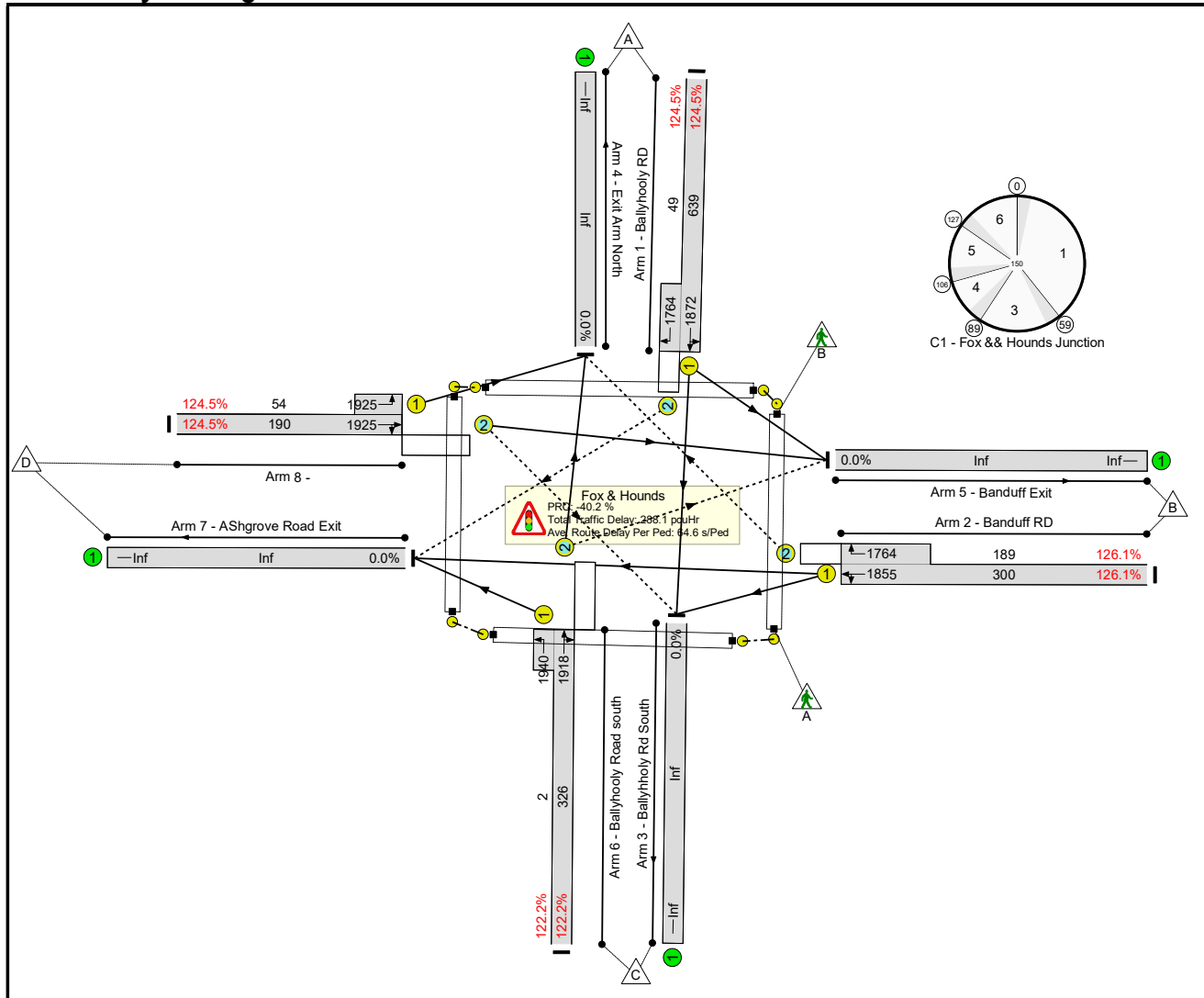
Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	122.7%	12	258	41	225.0	-	-
Fox & Hounds	-	-	-		-	-	-	-	-	-	122.7%	12	258	41	225.0	-	-
1/1+1/2	Ballyhooly RD Ahead Left Right	U+O	C D		1	37	-	587	1866:1764	435+43	122.7 : 122.7%	0	40	3	74.2	455.2	86.2
2/1+2/2	Banduff RD Left Right Ahead	U+O	B F		1	49:15	-	404	1855:1764	194+179	108.3 : 108.3%	0	153	26	28.6	254.9	33.1
6/2+6/1	Ballyhooly Road south Ahead Right Left	O+U	A		1	32	-	512	1922:1940	415+3	122.3 : 122.3%	0	66	12	63.8	448.3	74.9
8/2+8/1	Right Left Ahead	O+U	G H		1:2	29:66	-	502	1925:1925	308+108	120.7 : 120.7%	12	0	0	58.4	419.0	70.3
Ped Link: P1	Unnamed Ped Link	-	E		1	12	-	0	-	5760	0.0%	-	-	-	0.0	0.0	0.0
Ped Link: P2	Unnamed Ped Link	-	E		1	12	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P3	Unnamed Ped Link	-	E		1	12	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P4	Unnamed Ped Link	-	E		1	12	-	0	-	0	0.0%	-	-	-	-	-	-
C1 - Fox & Hounds Junction				PRC for Signalled Lanes (%):			-36.3	Total Delay for Signalled Lanes (pcuHr):				225.02	Cycle Time (s): 150				
				PRC Over All Lanes (%):			-36.3	Total Delay Over All Lanes(pcuHr):				225.02					

Basic Results Summary

Scenario 3: '2029 - Without Development - AM' (FG3: '2029 - Without Development - AM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



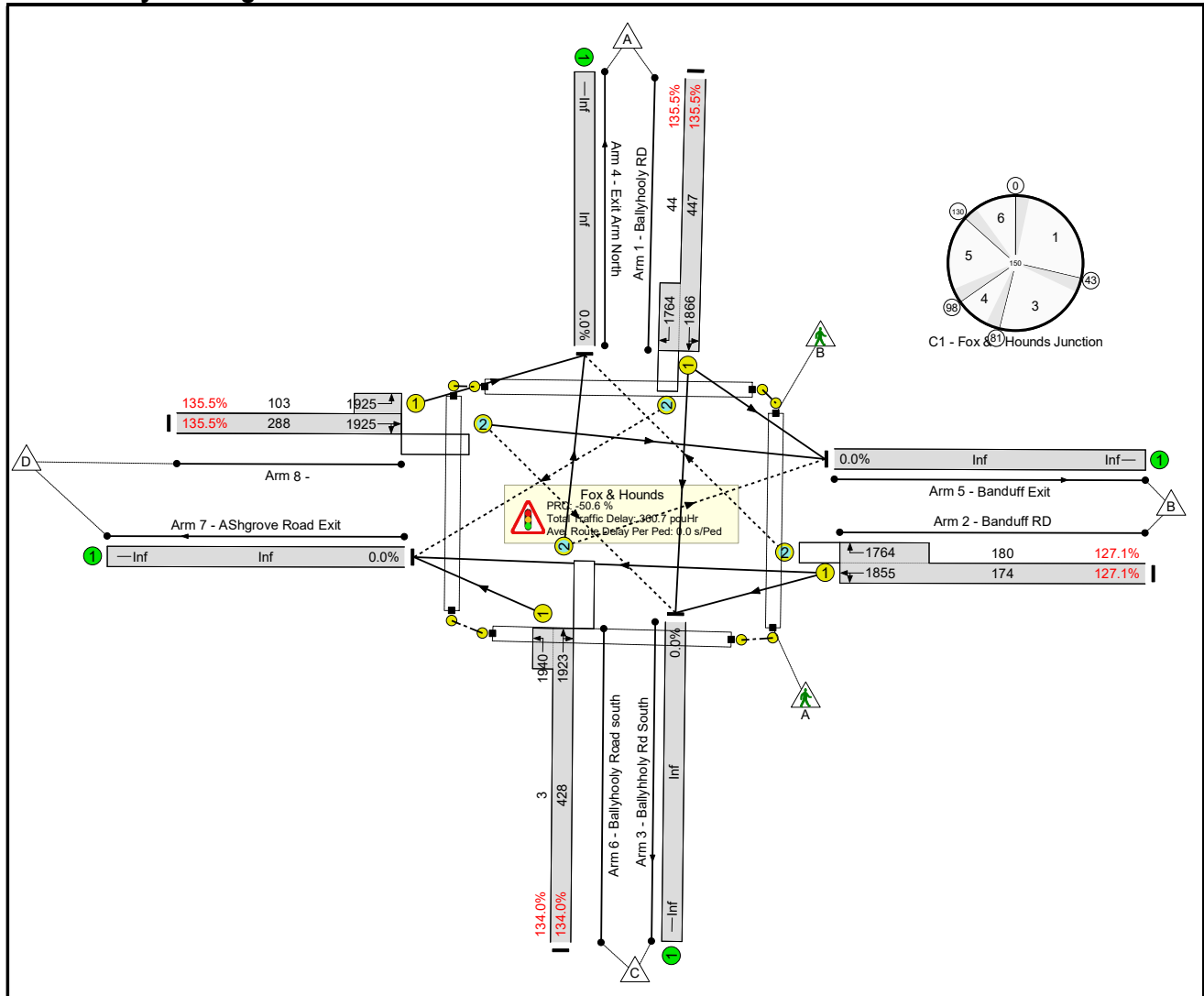
Network Results

Cycle Time (s): 150

Basic Results Summary

Scenario 4: '2029 - Without Development - PM' (FG4: '2029 - Without Development - PM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



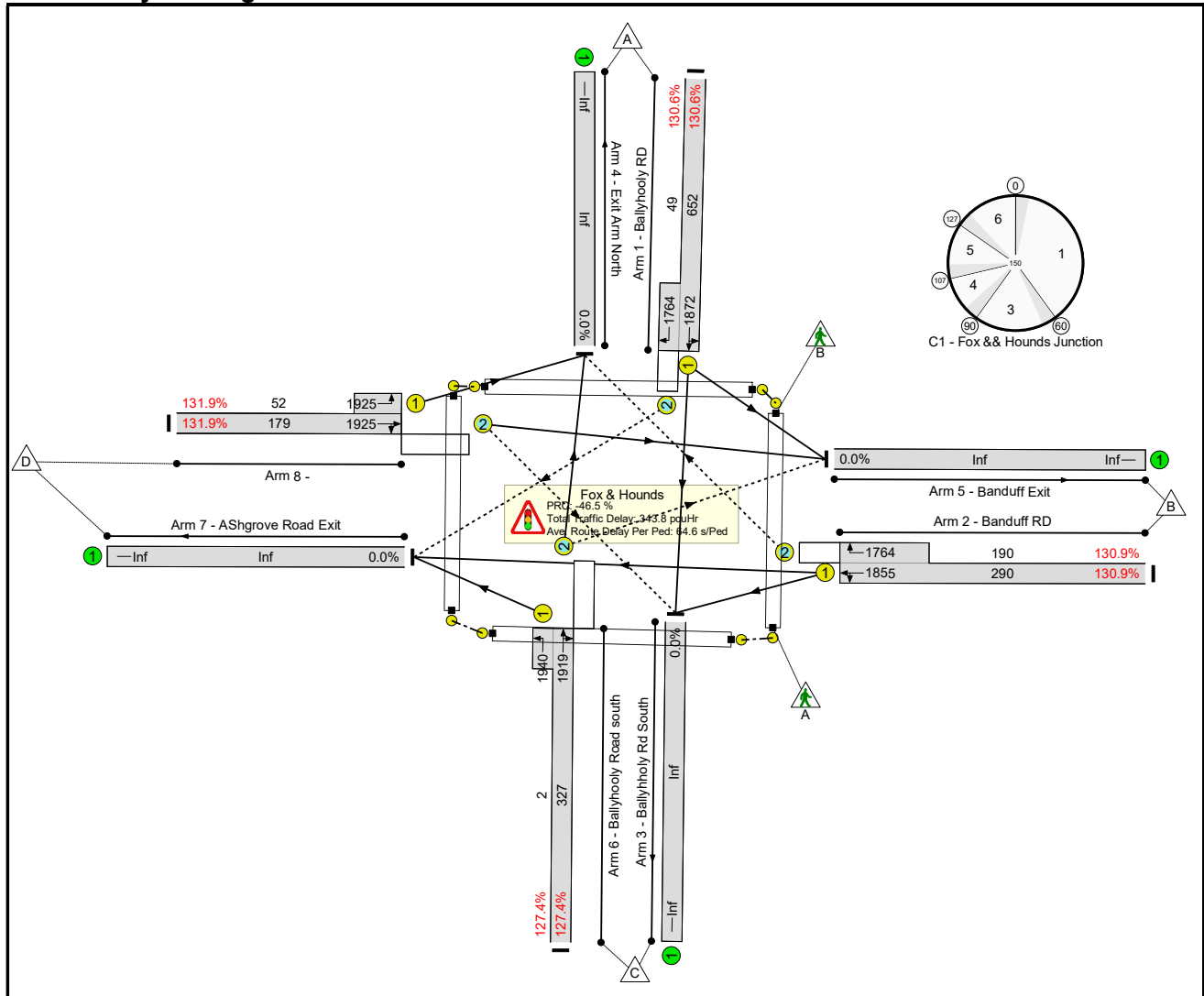
Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	135.5%	10	257	42	360.7	-	-
Fox & Hounds	-	-	-		-	-	-	-	-	-	135.5%	10	257	42	360.7	-	-
1/1+1/2	Ballyhooly RD Ahead Left Right	U+O	C D		1	38	-	665	1866:1764	447+44	135.5 : 135.5%	0	40	3	112.5	609.2	124.5
2/1+2/2	Banduff RD Left Right Ahead	U+O	B F		1	47:15	-	450	1855:1764	174+180	127.1 : 127.1%	0	153	27	64.9	519.0	69.8
6/2+6/1	Ballyhooly Road south Ahead Right Left	O+U	A		1	33	-	578	1923:1940	428+3	134.0 : 134.0%	0	64	11	94.0	585.5	105.8
8/2+8/1	Right Left Ahead	O+U	G H		1:2	27:65	-	530	1925:1925	288+103	135.5 : 135.5%	10	0	0	89.2	606.2	101.2
Ped Link: P1	Unnamed Ped Link	-	E		1	12	-	0	-	5760	0.0%	-	-	-	0.0	0.0	0.0
Ped Link: P2	Unnamed Ped Link	-	E		1	12	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P3	Unnamed Ped Link	-	E		1	12	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P4	Unnamed Ped Link	-	E		1	12	-	0	-	0	0.0%	-	-	-	-	-	-
C1 - Fox & Hounds Junction				PRC for Signalled Lanes (%):			-50.6	Total Delay for Signalled Lanes (pcuHr):				360.66	Cycle Time (s): 150				
				PRC Over All Lanes (%):			-50.6	Total Delay Over All Lanes (pcuHr):				360.66					

Basic Results Summary

Scenario 5: '2029 - With Development - AM' (FG5: '2029 - With Development - AM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



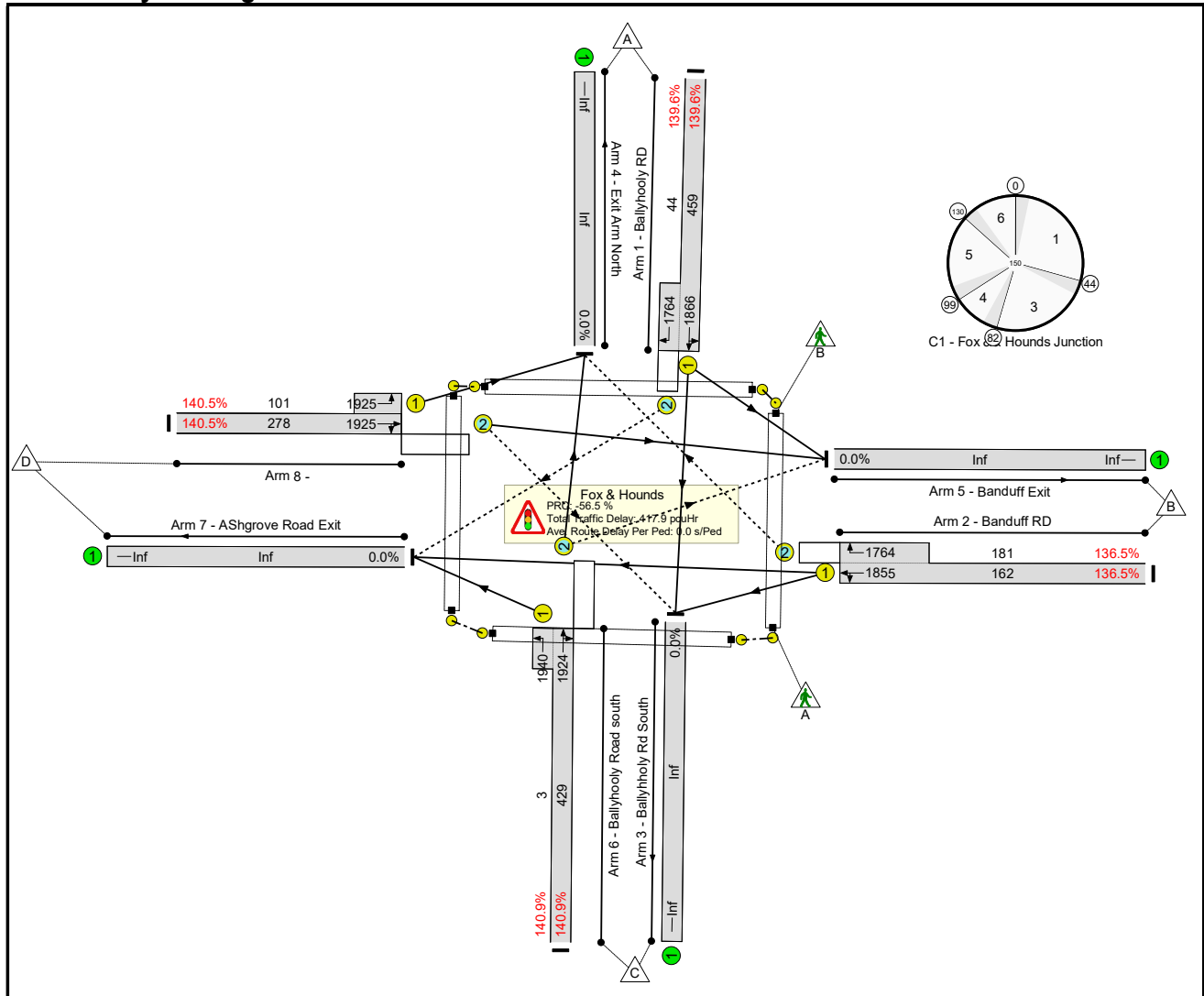
Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	131.9%	5	280	31	343.8	-	-
Fox & Hounds	-	-	-		-	-	-	-	-	-	131.9%	5	280	31	343.8	-	-
1/1+1/2	Ballyhooly RD Ahead Left Right	U+O	C D		1	55	-	915	1872:1764	652+49	130.6 : 130.6%	0	46	3	137.0	538.9	157.2
2/1+2/2	Banduff RD Left Right Ahead	U+O	B F		1	38:18	-	628	1855:1764	290+190	130.9 : 130.9%	0	176	14	98.5	564.6	109.3
6/2+6/1	Ballyhooly Road south Ahead Right Left	O+U	A		1	25	-	418	1919:1940	327+2	127.4 : 127.4%	0	58	14	59.8	515.1	68.6
8/2+8/1	Right Left Ahead	O+U	G H		1:2	15:70	-	305	1925:1925	179+52	131.9 : 131.9%	5	0	0	48.5	572.5	54.9
Ped Link: P1	Unnamed Ped Link	-	E		1	12	-	20	-	5760	0.3%	-	-	-	0.4	64.6	0.8
Ped Link: P2	Unnamed Ped Link	-	E		1	12	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P3	Unnamed Ped Link	-	E		1	12	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P4	Unnamed Ped Link	-	E		1	12	-	0	-	0	0.0%	-	-	-	-	-	-
C1 - Fox & Hounds Junction				PRC for Signalled Lanes (%):			-46.5	Total Delay for Signalled Lanes (pcuHr):				343.77	Cycle Time (s): 150				
				PRC Over All Lanes (%):			-46.5	Total Delay Over All Lanes(pcuHr):				343.77					

Basic Results Summary

Scenario 6: '2029 - With Development - PM' (FG6: '2029 - With Development - PM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



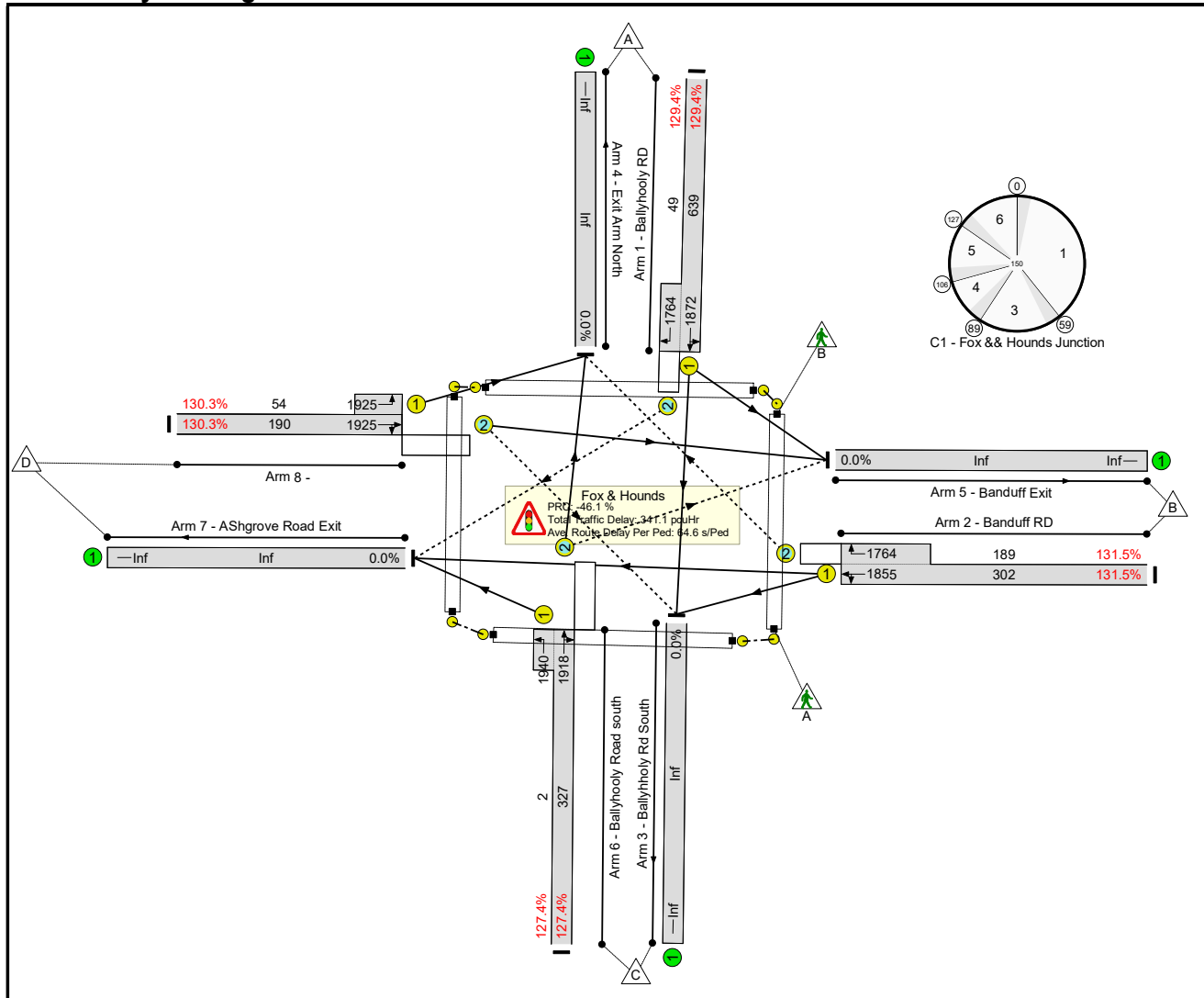
Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	140.9%	10	254	42	417.9	-	-
Fox & Hounds	-	-	-		-	-	-	-	-	-	140.9%	10	254	42	417.9	-	-
1/1+1/2	Ballyhooly RD Ahead Left Right	U+O	C D		1	39	-	702	1866:1764	459+44	139.6 : 139.6%	0	40	3	127.2	652.1	139.4
2/1+2/2	Banduff RD Left Right Ahead	U+O	B F		1	46:15	-	468	1855:1764	162+181	136.5 : 136.5%	0	153	28	82.0	630.9	87.6
6/2+6/1	Ballyhooly Road south Ahead Right Left	O+U	A		1	33	-	608	1924:1940	429+3	140.9 : 140.9%	0	60	11	111.1	657.6	123.0
8/2+8/1	Right Left Ahead	O+U	G H		1:2	26:65	-	532	1925:1925	278+101	140.5 : 140.5%	10	0	0	97.7	660.8	109.5
Ped Link: P1	Unnamed Ped Link	-	E		1	12	-	0	-	5760	0.0%	-	-	-	0.0	0.0	0.0
Ped Link: P2	Unnamed Ped Link	-	E		1	12	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P3	Unnamed Ped Link	-	E		1	12	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P4	Unnamed Ped Link	-	E		1	12	-	0	-	0	0.0%	-	-	-	-	-	-
C1 - Fox & Hounds Junction				PRC for Signalled Lanes (%):			-56.5	Total Delay for Signalled Lanes (pcuHr):				417.91	Cycle Time (s): 150				
				PRC Over All Lanes (%):			-56.5	Total Delay Over All Lanes(pcuHr):				417.91					

Basic Results Summary

Scenario 7: '2034 - Without Development - AM' (FG7: '2034 - Without Development - AM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



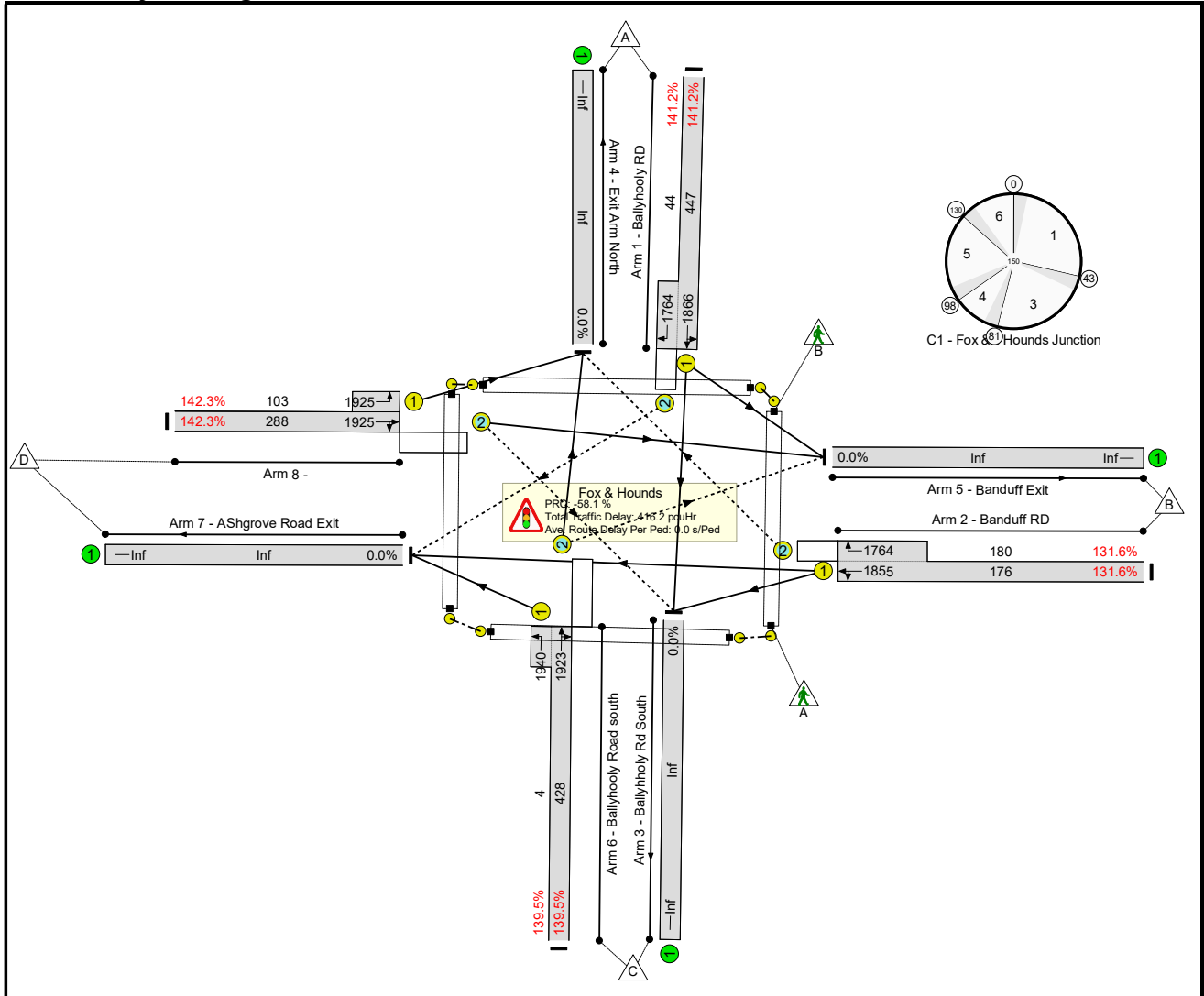
Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	131.5%	5	282	31	341.1	-	-
Fox & Hounds	-	-	-		-	-	-	-	-	-	131.5%	5	282	31	341.1	-	-
1/1+1/2	Ballyhooly RD Ahead Left Right	U+O	C D		1	54	-	891	1872:1764	639+49	129.4 : 129.4%	0	47	3	130.1	525.7	149.9
2/1+2/2	Banduff RD Left Right Ahead	U+O	B F		1	39:18	-	646	1855:1764	302+189	131.5 : 131.5%	0	175	14	102.4	570.9	114.0
6/2+6/1	Ballyhooly Road south Ahead Right Left	O+U	A		1	25	-	418	1918:1940	327+2	127.4 : 127.4%	0	60	15	59.9	516.0	68.7
8/2+8/1	Right Left Ahead	O+U	G H		1:2	16:70	-	317	1925:1925	190+54	130.3 : 130.3%	5	0	0	48.7	552.8	55.5
Ped Link: P1	Unnamed Ped Link	-	E		1	12	-	20	-	5760	0.3%	-	-	-	0.4	64.6	0.8
Ped Link: P2	Unnamed Ped Link	-	E		1	12	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P3	Unnamed Ped Link	-	E		1	12	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P4	Unnamed Ped Link	-	E		1	12	-	0	-	0	0.0%	-	-	-	-	-	-
C1 - Fox & Hounds Junction				PRC for Signalled Lanes (%):			-46.1	Total Delay for Signalled Lanes (pcuHr):				341.15	Cycle Time (s): 150				
				PRC Over All Lanes (%):			-46.1	Total Delay Over All Lanes (pcuHr):				341.15					

Basic Results Summary

Scenario 8: '2034 - Without Development - PM' (FG8: '2034 - Without Development - PM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



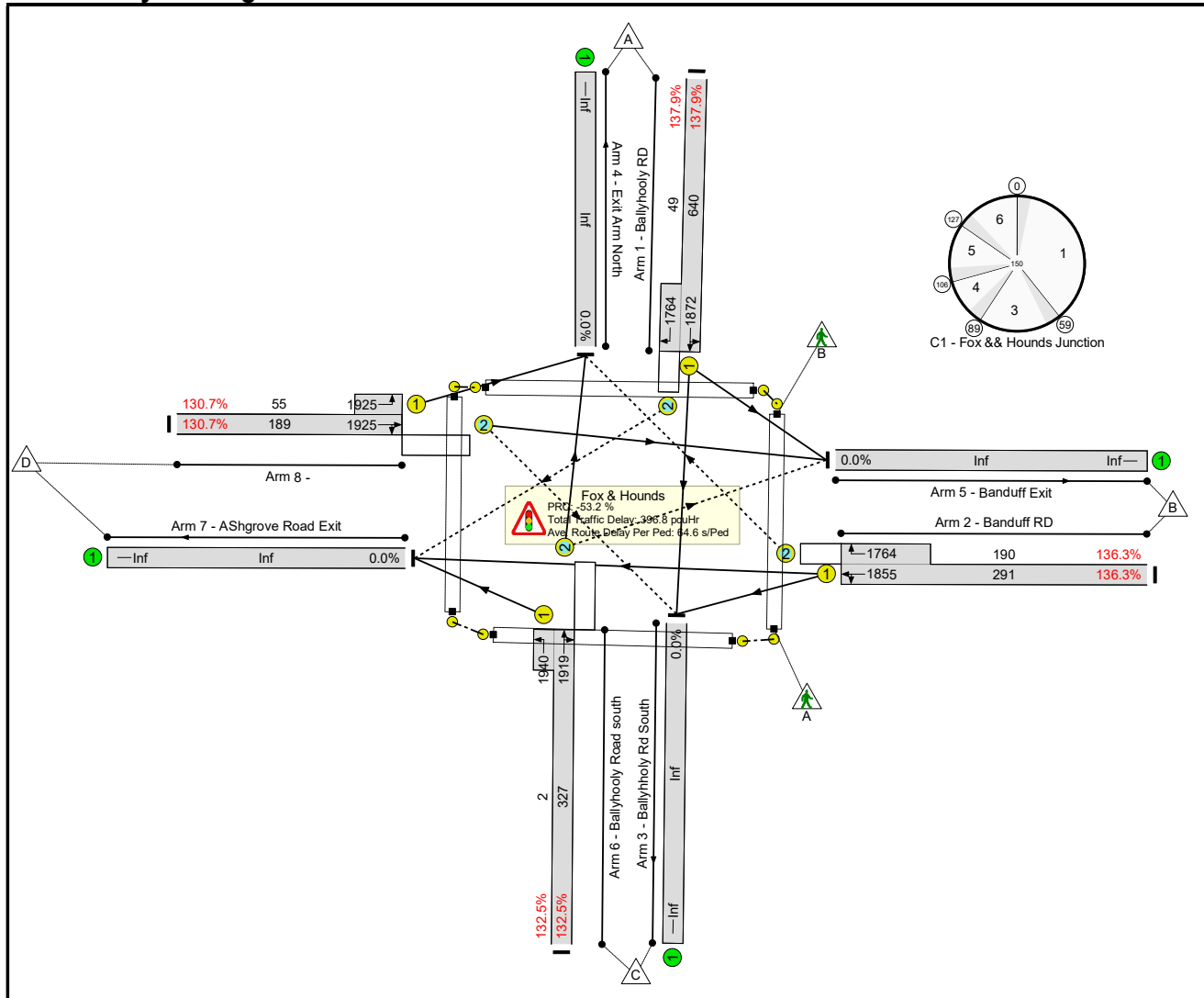
Network Results

Cycle Time (s): 150

Basic Results Summary

Scenario 9: '2034 - With Development - AM' (FG9: '2034 - With Development - AM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



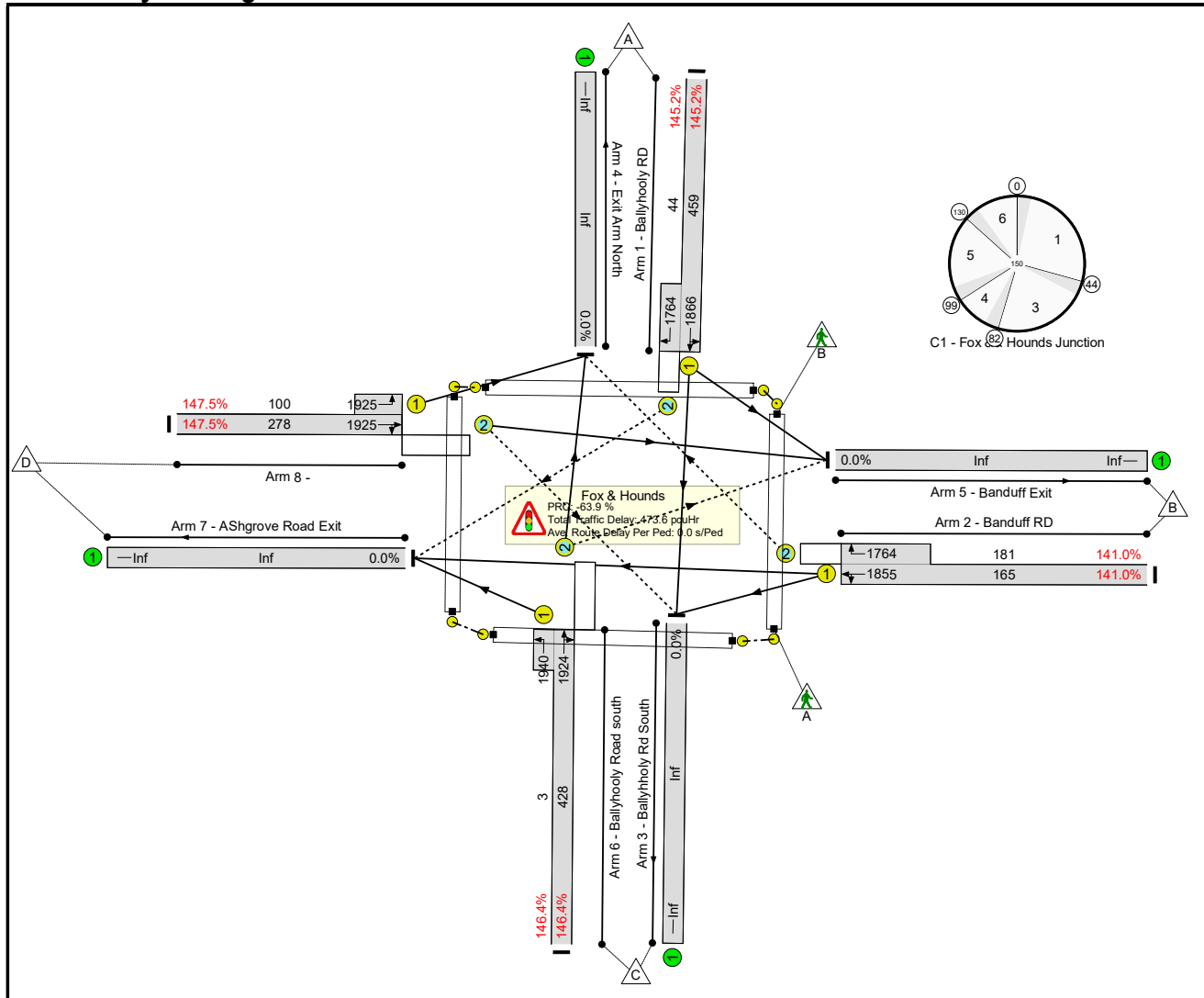
Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	137.9%	5	279	31	396.8	-	-
Fox & Hounds	-	-	-		-	-	-	-	-	-	137.9%	5	279	31	396.8	-	-
1/1+1/2	Ballyhooly RD Ahead Left Right	U+O	C D		1	54	-	949	1872:1764	640+49	137.9 : 137.9%	0	46	3	163.9	621.7	183.5
2/1+2/2	Banduff RD Left Right Ahead	U+O	B F		1	39:18	-	656	1855:1764	291+190	136.3 : 136.3%	0	176	14	114.1	626.0	125.6
6/2+6/1	Ballyhooly Road south Ahead Right Left	O+U	A		1	25	-	435	1919:1940	327+2	132.5 : 132.5%	0	58	14	69.4	574.6	78.3
8/2+8/1	Right Left Ahead	O+U	G H		1:2	16:70	-	319	1925:1925	189+55	130.7 : 130.7%	5	0	0	49.4	557.9	56.2
Ped Link: P1	Unnamed Ped Link	-	E		1	12	-	20	-	5760	0.3%	-	-	-	0.4	64.6	0.8
Ped Link: P2	Unnamed Ped Link	-	E		1	12	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P3	Unnamed Ped Link	-	E		1	12	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P4	Unnamed Ped Link	-	E		1	12	-	0	-	0	0.0%	-	-	-	-	-	-
C1 - Fox & Hounds Junction				PRC for Signalled Lanes (%):			-53.2	Total Delay for Signalled Lanes (pcuHr):				396.81	Cycle Time (s): 150				
				PRC Over All Lanes (%):			-53.2	Total Delay Over All Lanes(pcuHr):				396.81					

Basic Results Summary

Scenario 10: '2034 - With Development - PM' (FG10: '2034 - With Development - PM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



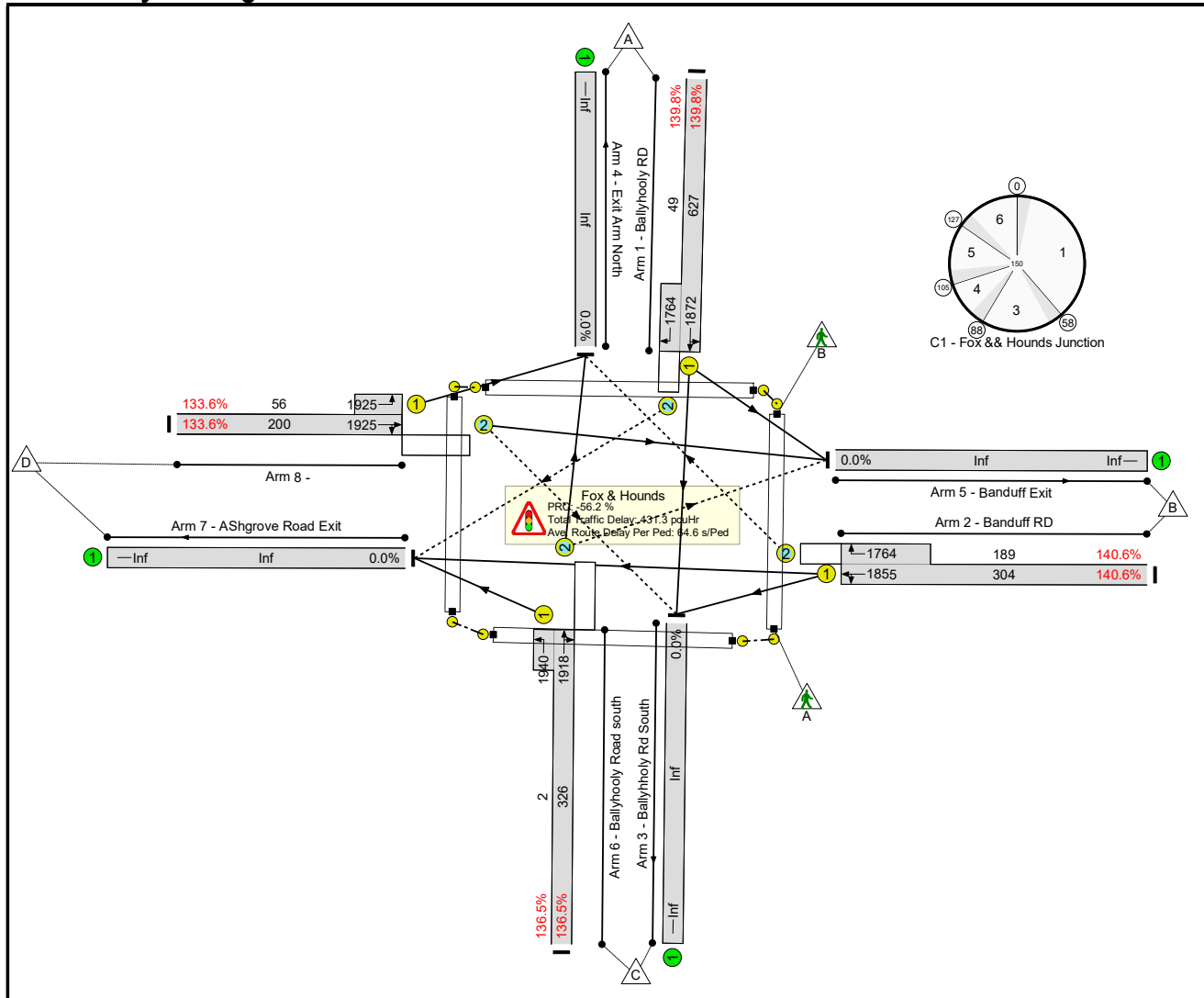
Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	147.5%	10	254	42	473.6	-	-
Fox & Hounds	-	-	-		-	-	-	-	-	-	147.5%	10	254	42	473.6	-	-
1/1+1/2	Ballyhooly RD Ahead Left Right	U+O	C D		1	39	-	730	1866:1764	459+44	145.2 : 145.2%	0	41	3	143.5	707.8	155.6
2/1+2/2	Banduff RD Left Right Ahead	U+O	B F		1	46:15	-	487	1855:1764	165+181	141.0 : 141.0%	0	153	28	91.9	679.3	97.8
6/2+6/1	Ballyhooly Road south Ahead Right Left	O+U	A		1	33	-	632	1924:1940	428+3	146.4 : 146.4%	0	60	11	124.8	710.9	136.9
8/2+8/1	Right Left Ahead	O+U	G H		1:2	26:65	-	558	1925:1925	278+100	147.5 : 147.5%	10	0	0	113.3	731.3	125.7
Ped Link: P1	Unnamed Ped Link	-	E		1	12	-	0	-	5760	0.0%	-	-	-	0.0	0.0	0.0
Ped Link: P2	Unnamed Ped Link	-	E		1	12	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P3	Unnamed Ped Link	-	E		1	12	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P4	Unnamed Ped Link	-	E		1	12	-	0	-	0	0.0%	-	-	-	-	-	-
C1 - Fox & Hounds Junction				PRC for Signalled Lanes (%):			-63.9	Total Delay for Signalled Lanes (pcuHr):			473.57	Cycle Time (s): 150					
				PRC Over All Lanes (%):			-63.9	Total Delay Over All Lanes(pcuHr):			473.57						

Basic Results Summary

Scenario 11: '2044 - Without Development - AM' (FG11: '2044 - Without Development - AM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



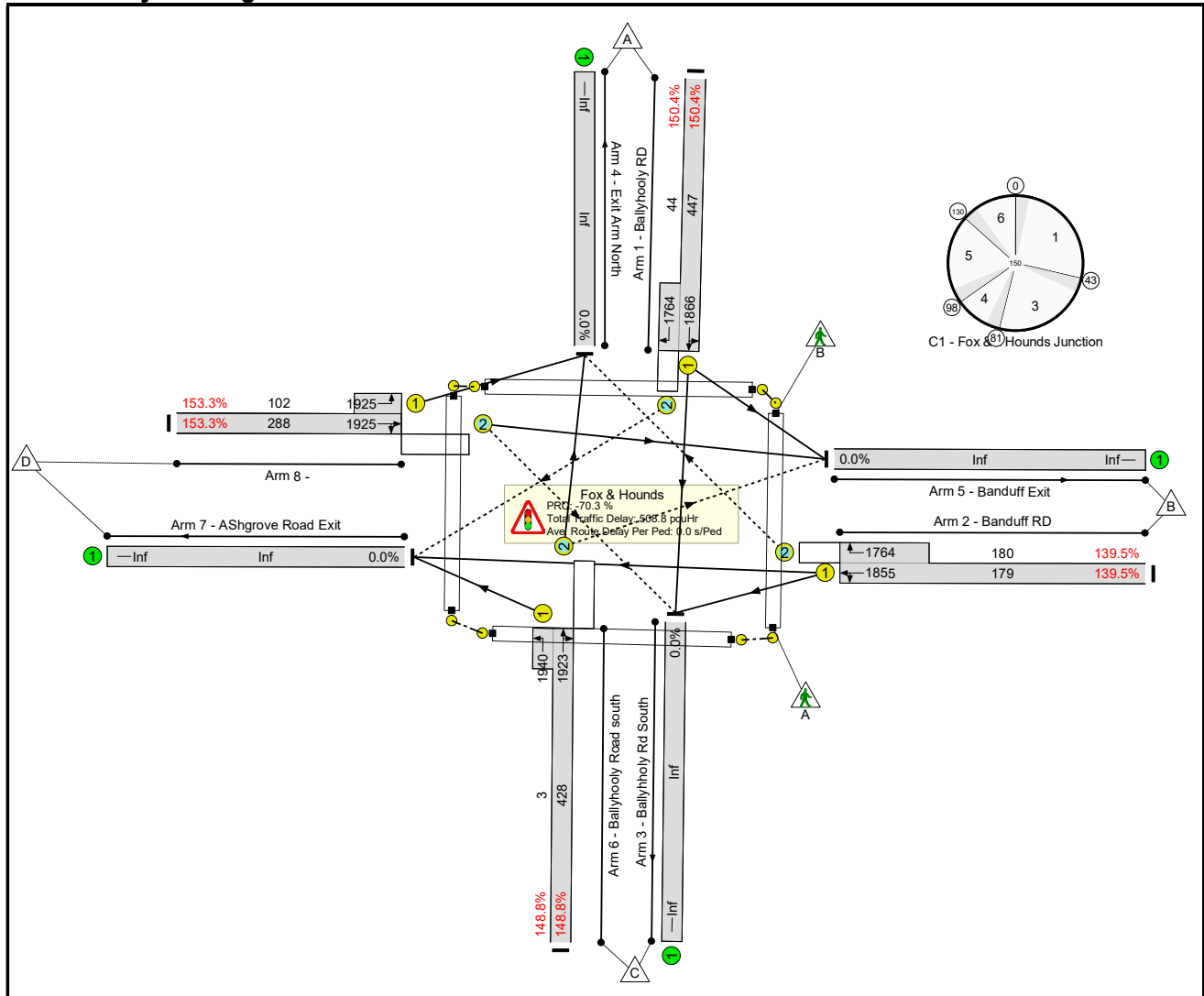
Network Results

Cycle Time (s): 150

Basic Results Summary

Scenario 12: '2044 - Without Development - PM' (FG12: '2044 - Without Development - PM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



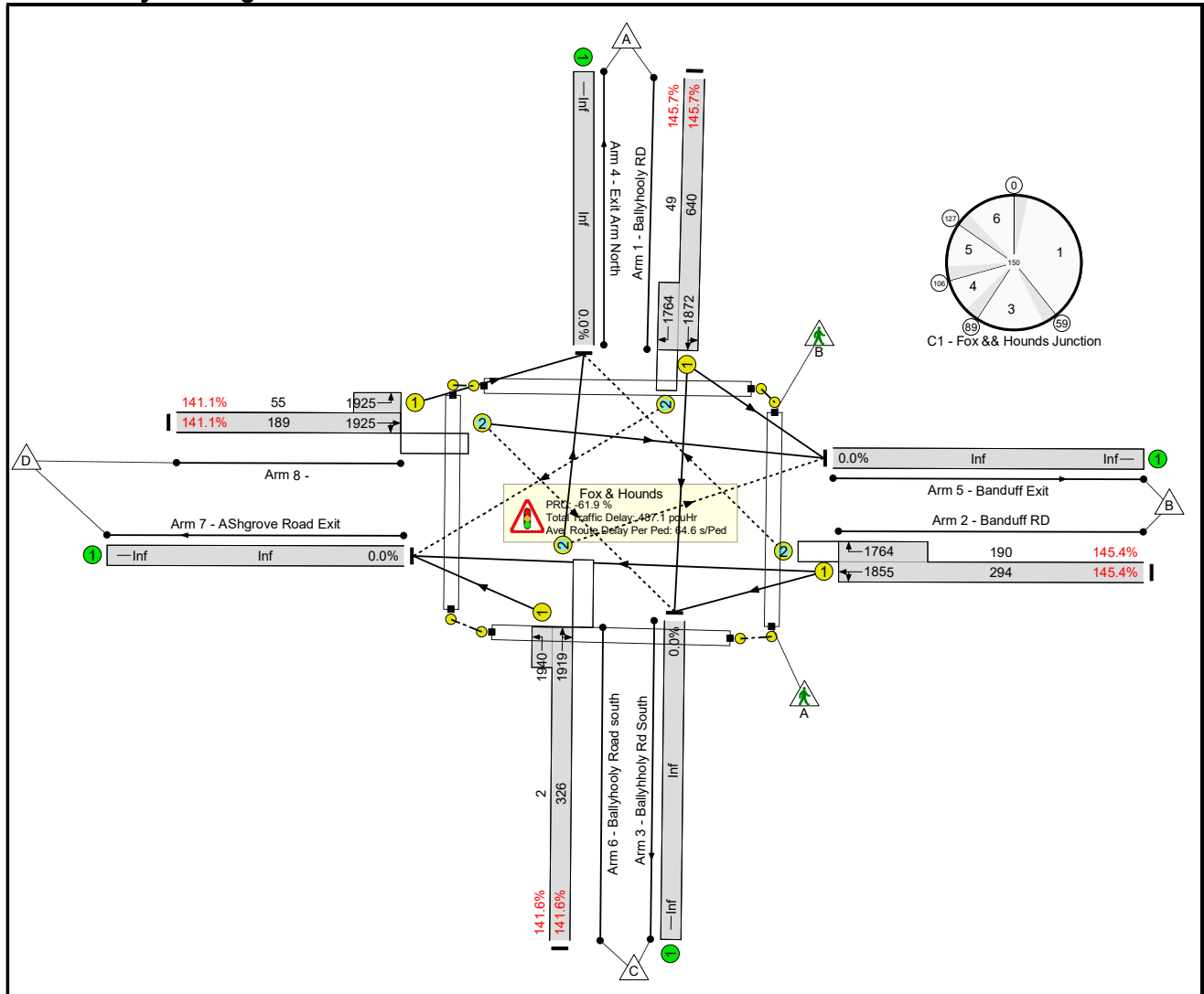
Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	153.3%	10	258	42	508.8	-	-
Fox & Hounds	-	-	-		-	-	-	-	-	-	153.3%	10	258	42	508.8	-	-
1/1+1/2	Ballyhooly RD Ahead Left Right	U+O	C D		1	38	-	738	1866:1764	447+44	150.4 : 150.4%	0	41	3	155.3	757.5	166.7
2/1+2/2	Banduff RD Left Right Ahead	U+O	B F		1	47:15	-	501	1855:1764	179+180	139.5 : 139.5%	0	153	27	92.1	662.1	97.9
6/2+6/1	Ballyhooly Road south Ahead Right Left	O+U	A		1	33	-	642	1923:1940	428+3	148.8 : 148.8%	0	65	11	130.7	733.1	142.8
8/2+8/1	Right Left Ahead	O+U	G H		1:2	27:65	-	599	1925:1925	288+102	153.3 : 153.3%	10	0	0	130.6	785.2	143.8
Ped Link: P1	Unnamed Ped Link	-	E		1	12	-	0	-	5760	0.0%	-	-	-	0.0	0.0	0.0
Ped Link: P2	Unnamed Ped Link	-	E		1	12	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P3	Unnamed Ped Link	-	E		1	12	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P4	Unnamed Ped Link	-	E		1	12	-	0	-	0	0.0%	-	-	-	-	-	-
C1 - Fox & Hounds Junction				PRC for Signalled Lanes (%):			-70.3	Total Delay for Signalled Lanes (pcuHr):			508.80	Cycle Time (s): 150					
				PRC Over All Lanes (%):			-70.3	Total Delay Over All Lanes (pcuHr):			508.80						

Basic Results Summary

Scenario 13: '2044 - With Development - AM' (FG13: '2044 - With Development - AM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



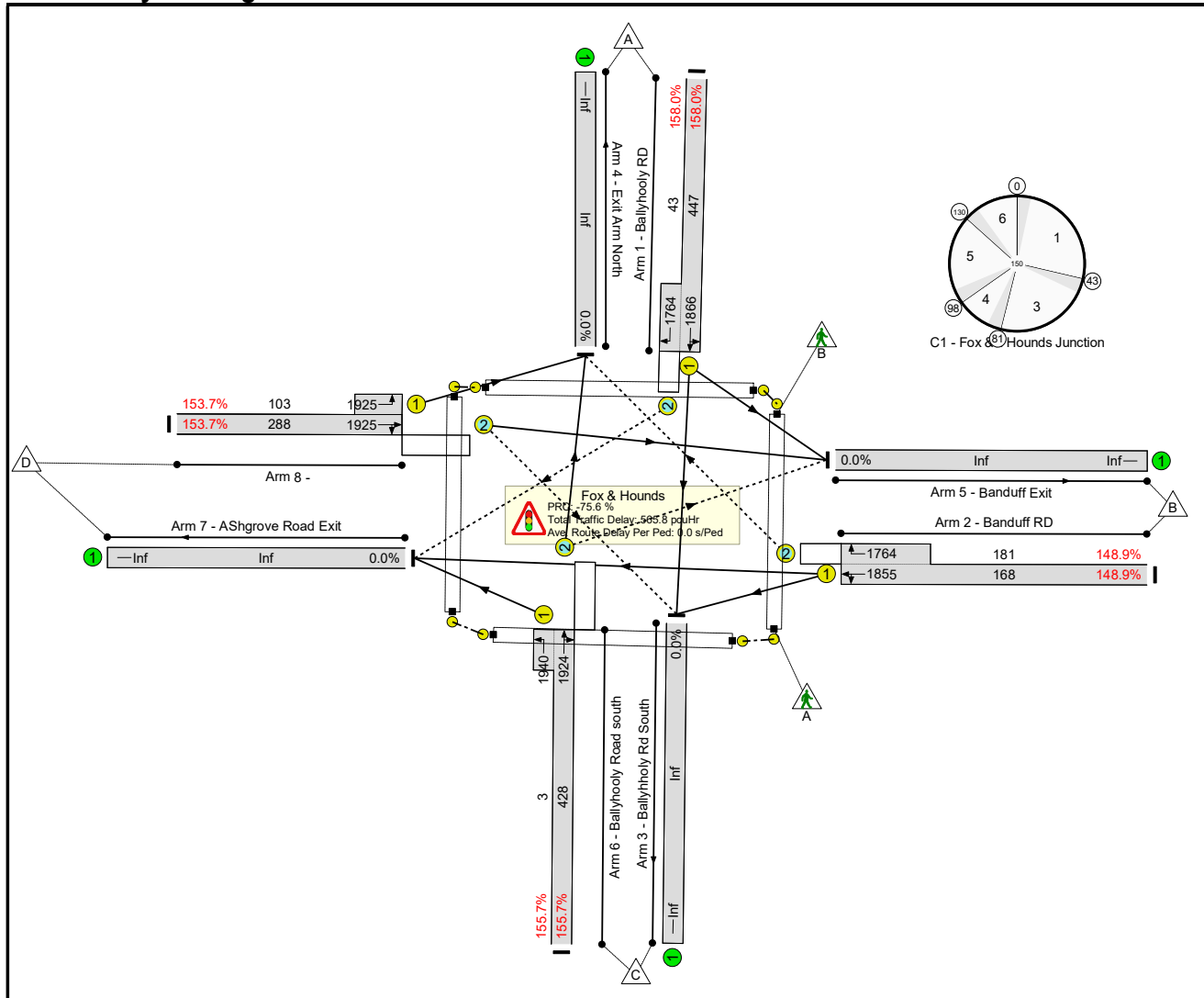
Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	145.7%	6	280	31	487.1	-	-
Fox & Hounds	-	-	-		-	-	-	-	-	-	145.7%	6	280	31	487.1	-	-
1/1+1/2	Ballyhooly RD Ahead Left Right	U+O	C D		1	54	-	1003	1872:1764	640+49	145.7 : 145.7%	0	46	3	195.4	701.2	214.8
2/1+2/2	Banduff RD Left Right Ahead	U+O	B F		1	39:18	-	704	1855:1764	294+190	145.4 : 145.4%	0	176	14	141.0	721.3	153.6
6/2+6/1	Ballyhooly Road south Ahead Right Left	O+U	A		1	25	-	465	1919:1940	326+2	141.6 : 141.6%	0	59	14	86.4	669.0	95.4
8/2+8/1	Right Left Ahead	O+U	G H		1:2	16:70	-	344	1925:1925	189+55	141.1 : 141.1%	6	0	0	64.3	673.2	71.5
Ped Link: P1	Unnamed Ped Link	-	E		1	12	-	20	-	5760	0.3%	-	-	-	0.4	64.6	0.8
Ped Link: P2	Unnamed Ped Link	-	E		1	12	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P3	Unnamed Ped Link	-	E		1	12	-	0	-	0	0.0%	-	-	-	-	-	-
Ped Link: P4	Unnamed Ped Link	-	E		1	12	-	0	-	0	0.0%	-	-	-	-	-	-
C1 - Fox & Hounds Junction				PRC for Signalled Lanes (%):			-61.9	Total Delay for Signalled Lanes (pcuHr):				487.14	Cycle Time (s): 150				
				PRC Over All Lanes (%):			-61.9	Total Delay Over All Lanes(pcuHr):				487.14					

Basic Results Summary

Scenario 14: '2044 - With Development - PM' (FG14: '2044 - With Development - PM', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Network Results

Cycle Time (s): 150