Rathcoole Housing

Traffic and Transport Assessment

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Quality information

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1 Introduction

1.1 Background

AECOM were commissioned by South Dublin County Council (SDCC) to prepare a Traffic and Transport Assessment (TTA) for the proposed development of a site in Rathcoole, Co. Dublin, to provide new residential communities and educational local amenities.

The application site as shown in Figure 1-1, consists of a site measuring 11.4ha to the south and southeast of Rathcoole Village. It is bounded by Coolamber Drive / Beechwood Lawns to the northwest, residential developments to the east, Rathcoole Park to the north and Four Districts Woodlands to the south and west.

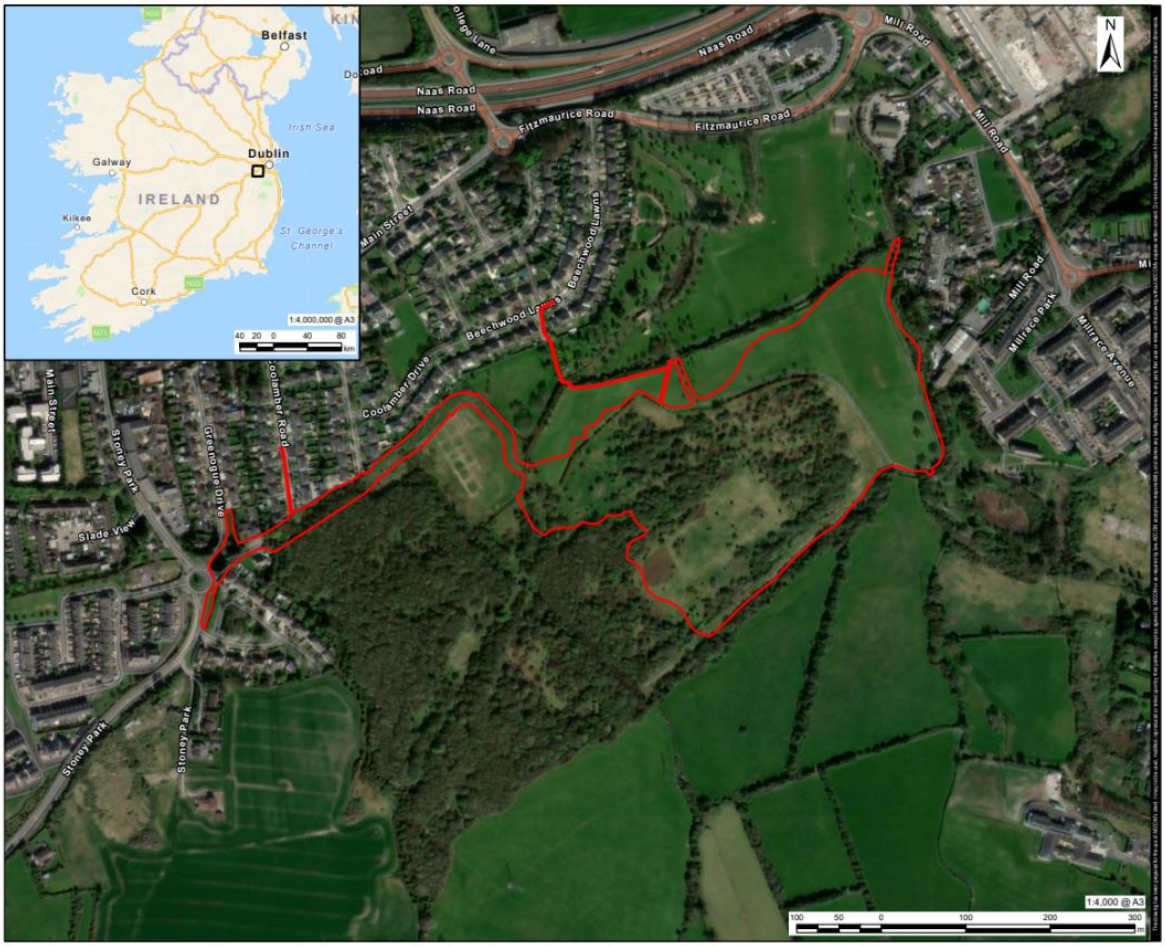


Figure 1-1 Site Location

Source: Bing Maps

1.2 Scope of Assessment

The purpose of this TTA is to quantify the existing transport environment and to detail the results of assessment work undertaken to identify the potential level of any transport impact generated as a result of the proposed residential development.

The scope of the assessment covers transport and related sustainability issues including means of vehicular access, pedestrian, cyclist and local public transport connections. Recommendations contained within this report are based on existing and proposed road layout plans, site visits, on site traffic observations and the review of junction vehicle turning count data.

The principal objective of the report is to quantify any level of impact across the local road network and subsequently ascertain both the existing and future operational performance of the local road network.

1.3 Methodology

The assessment approach contained herein aligns and complies with current and emerging policy and guidance at national, regional, and local level (outlined further in Section 2) and responds to best practices exemplified by a series of key publications, all of which advocate for the method of analysis applied in this TTA.

Key policy and publication references include, but are not limited to: -

- PE-PDV-02045 Traffic and Transport Assessment Guidelines (May 2014), Transport Infrastructure Ireland (TII).
- Design Manual for Urban Roads and Streets, May 2019 (Department of Transport, Tourism and Sport /Department of Environment, Community & Local Government).
- Project Ireland 2040: The National Planning Framework and the National Development Plan (2018).
- National Sustainable Mobility Policy (2022).
- South Dublin County Development Plan 2022-2028.

Our methodology incorporated several key inter-related stages, including: -

- Site Visit – AECOM attended a site visit on 08th May 2025 to understand the existing road network and identify the site's level of public transport and active travel mode accessibility. Photographs were taken during the site visit.
- Traffic Counts – Traffic flow data including flows, speeds, turning counts and queue lengths were surveyed in October 2025 and analysed to identify current peak hours for traffic and to establish local traffic characteristics in proximity of the application site.
- Trip Generation – A trip generation exercise has been carried out to establish the potential level of vehicle trips that could be generated by the proposed development.
- Trip Distribution – Trip distribution has been based on existing movements determined from the Junction Turning Counts (JTC) survey carried out in October 2025.
- Network Impact Analysis – In accordance with the TII's Traffic and Transport Assessment Guidelines, the forecast level of impact generated by the development proposals on the local road network was reviewed and the junctions which required assessment in greater detail were identified.
- Junction Operational Capacity Assessment – Drawing upon the findings of the previous stages, an operational capacity assessment of the site's access priority junction and the immediate junctions in proximity of the site were assessed to evaluate their performance following the implementation and future occupation of the proposed development.

1.4 Report Structure

As introduced above, this TTA seeks to quantify the potential level of influence generated by the proposed development upon the local road network and subsequently ascertain the existing and future operational performance of the local transport system. The structure of the report responds to the various stages of this exercise including the key tasks summarised below.

- **Section 2** – Reviews relevant transport planning policy at national, regional and local levels.
- **Section 3** - Provides details of the site's context in relation to its public transport connectivity and reviews the local road network and baseline traffic conditions surrounding the site.
- **Section 4** - Outlines the development proposal, including site access arrangements, car parking, cycle parking provisions, delivery and servicing and emergency access.
- **Section 5** – Outlines the proposed site layout's compliance with DMURS guidance.
- **Section 6** - Summarises the trip generation assessment for the existing site and proposed development; reviews vehicle trips generated by committed development sites nearby; and outlines the distribution of the forecast vehicle trips on the local road network.

- **Section 7** – Assesses the potential traffic impact of the proposed development for the adopted Opening and Future Design years.
- **Section 8** – Assesses the operational impact of the development on the site's immediate and surrounding junctions.
- **Section 9** – Provides an outline Construction Traffic Management Plan.
- **Section 10** – Summarises the conclusions of this TTA.

2 Policy Context

3.1 Overview

The following relevant policy documents apply, and have been considered when developing the proposed transport strategy for the proposed residential development:

National Level:

- Project Ireland 2040: National Planning Framework and National Development Plan 2021 – 2030.
- National Climate Action Plan 2025.

Regional Level:

- Regional Spatial and Economic Strategy for the Eastern and Midland Region 2019 – 2031.
- The Greater Dublin Area Transport Strategy 2022 – 2042.
- The Greater Dublin Area Cycle Network Plan 2023 – 2042.
- Sustainable Residential Development and Compact Settlements Guidelines for Planning Authorities 2024.

Local Level:

- South Dublin County Development Plan 2022 – 2028.

3.2 National Policy

3.2.1.1 Project Ireland 2040: The National Planning Framework and the National Development Plan

The National Planning Framework (NPF), published in February 2018, is the Government's high-level strategic plan for shaping future growth and development in the country to 2040.

The core aim of the NPF is to avoid the pressure that urban sprawl places on the environment and the negative impacts it can have on the delivery and maintenance of key infrastructure and facilities. The NPF encourages the development of compact, higher density infill and brownfield sites that are well served by existing facilities, amenities, and public transport services.

As a part of Project Ireland 2040, the NPF is accompanied by a 10-year National Development Plan which sets the context for each of Ireland's three regional assemblies to develop their Regional Spatial and Economic Strategies taking account of and co-ordinating local County and City Development Plans in a manner that will ensure national, regional, and local plans align.

The National Strategic Outcomes (NSOs) of the NPF are:

- **NSO 1** - Compact Growth.
- **NSO 2** - Enhanced Regional Accessibility.
- **NSO 3** - Strengthened Rural Economies and Communities.
- **NSO 4** - Sustainable Mobility.
- **NSO 5** - A Strong Economy supported by Enterprise, Innovation and Skills.
- **NSO 6** – High-Quality International Connectivity.
- **NSO 7** – Enhanced Amenity and Heritage.
- **NSO 8** - Transition to a Low-Carbon and Climate Resilient Society.
- **NSO 9** – Sustainable Management of Water, waste and Other Environmental Resources.
- **NSO 10** – Access to Quality Childcare Education and Health Services.

3.2.1.2 National Planning Framework – First Revision, April 2025

The NPF has recently undergone a revision process, resulting in the publication of a revised NPF on 8 April 2025 (following a draft publication published in July 2025). The draft aims to update the original NPF published in 2018,

to better align with current government policies and address changes in societal and environmental contexts. The key changes are summarised as follows:

- Climate Transition: The revised NPF has been updated to reflect the latest Climate Action Plan 2023. This includes ambitious targets for reducing carbon emissions and enhancing sustainability practices across all sectors.
- Regional Development: The revised NPF impresses the importance of balanced regional development, aiming to reduce the concentration of growth in Dublin and spread economic activities more evenly across the country. This involves updated strategies for supporting regional cities and towns.
- Demographic Changes: The revised NPF considers latest demographic data, including the impacts of COVID-19 on commuting patterns and the rise of blended working arrangements. It also incorporates findings from the 2022 Census to update housing demand and supply targets.
- Digitalisations: The revised NPF highlights the importance of digital infrastructure to support remote work and economic development, recognising the rapid advancements in digital technologies since 2018.
- Investment and Prioritisation: The revised NPF includes a more detailed framework for investment prioritisation, ensuring that infrastructure projects are better aligned with the revised spatial and economic strategies.
- Implementation and Monitoring: The revised NPF includes enhanced mechanisms for monitoring and implementing the NPF.

3.3 Climate Action Plan (2025) & National Sustainable Mobility Policy (2022)

Transport was responsible for 21.4% of Ireland's greenhouse gas emissions in 2023 and was second only to agriculture in terms of emission share by sector. Road transport accounted for the majority of these emissions, with private cars accounting for 40%. Heavy Goods Vehicles (HGVs) for 18% and Light Goods Vehicles (LGV) for 6.2%.

The Climate Action Plan 2024 (CAP25) sets out an ambitious course of action for each sector within Ireland to achieve the targets needed to adhere to the Paris Agreement. For the transport sector, the target is to reduce transport related emissions by 45-50% by 2030, with a significant reduction expected in the latter half of the decade.

As set out in the Climate Action Plan, this will require a significant modal shift from car to public transport and active travel, as well as a significant uptake of electric vehicles and increased use of biofuels.

The National Sustainable Mobility Policy, Action Plan 2022 - 2025 published in 2022 supersedes the Smarter Travel, A Sustainable Transport Future (STASTF) – A New Transport Policy for Ireland 2009-2020. It recognises the importance of facilitating behavioural shifts in traveller mode choice towards sustainable modes from private vehicles by improving and expanding safe, accessible, and reliable active and public transport infrastructure across the country.

The accompanying 2025 Action Plan seeks to promote utilisation of sustainable mobility options available that enable the efficient, effective, and sustainable movement of people and goods, contributing to the required 51% reduction in carbon emissions by 2030. The policy aims fall under the following key themes:

- Safe and Green Mobility – Expanding infrastructure, zero emissions vehicles and improved safety.
- People Focused Mobility – Improving active and sustainable transport accessibility, reallocating road space to prioritise walking and cycling and reviewing public transport service fare structures.
- Better Integrated Mobility – Increasing linked-journeys between different modes or services with the delivery of better integrated multimodal transport networks.

3.4 Regional Policy

3.4.1 Regional Spatial and Economic Strategy for the Eastern and Midland Region 2019 – 2031

The Regional Spatial and Economic Strategy (RSES) for the Eastern and Midlands Regional Assembly, adopted in June 2019, is the strategic plan which identifies regional assets, opportunities and pressures and provides appropriate policy responses in the form of Regional Policy Objectives.

The principal statutory purpose of the RSES is to support the implementation of Project Ireland 2040 – National Planning Framework and National Development Plan 2019-2027. At this strategic level it provides a framework for investment to better manage spatial planning and economic development to sustainably grow the region to 2031.

The RSES acknowledges that the transport sector is one of the main contributors to national Green House Gas (GHG) emissions and emphasises the importance of promoting a modal shift away from a dependence on the private car to more sustainable modes of transport, to facilitate greater efficiency in transport networks thereby addressing the impacts of climate change.

3.4.2 The Greater Dublin Area Transport Strategy 2022 – 2042

The Greater Dublin Area Transport Strategy aims to contribute to the economic, social, and cultural progress of the greater Dublin Area by providing the efficient, effective, and sustainable movement of people and goods – helping to reduce modal share of car-based commuting to a maximum of 45%. To achieve the Strategy's principles, development proposals must:

- Have transport as a key consideration in land use planning – integration of land use and transport to reduce the need to travel, reduce the distance travelled, reduce the time taken to travel, promote walking and cycling especially within development plans.
- Protect the capacity of the strategic road network.
- Ensure a significant reduction in share of trips taken by car.
- Consider all day travel demand from all groups.
- Provide alternate transport modes to reduce the strain on the M50 as current increase in traffic is unsustainable.

3.4.3 The Greater Dublin Area (GDA) Cycle Network Plan 2022

The Greater Dublin Area (GDA) Cycle Network Plan sets out a 20-year strategy to expand the urban cycle network from 500km to 2,480km. The overarching ambition of the plan is to increase the number of commuters who travel by bicycle the same amount by those that commute via bus. The plan focuses on local routes to better connect the GDA towns and improve infrastructure for trips of less than 10km in distance.

3.4.4 Sustainable Residential Development and Compact Settlements Guidelines for Planning Authorities (2024)

The Sustainable Residential Development and Compact Settlements: Guidelines for Planning Authorities (Department of Housing, Local Government and Heritage, 2024) provide essential context for the preparation of this Traffic and Transport Assessment. The Guidelines emphasise the delivery of compact, accessible, and sustainable settlements through the prioritisation of infill and brownfield development, integration with public transport, and the creation of walkable 10–15-minute neighbourhoods. These principles directly inform the transport planning approach for the proposed development, supporting modal shift away from private car use and aligning with national policy objectives on climate action, sustainable mobility, and placemaking. Accordingly, this assessment has been guided by the need to facilitate efficient movement for all users, promote active travel, and ensure that the development supports a well-connected, low-carbon urban environment.

It is important to note that the guidelines Specific Planning Policy Requirements (SPPRs) take precedence over Local Development Plans in terms of both car and cycle parking.

3.5 Local Policy

3.5.1 South Dublin County Development Plan 2022-2028

The South Dublin County Development Plan was adopted in August 2022 and is the key strategy document which structures the planning of sustainable development of land use across the County of South Dublin. The Core Strategy of the Development Plan is centred on the following key principals: - the places we live, the places we work, and how we interact and move between these places while protecting our environment. The aim is to progress to a more sustainable development pattern for South Dublin in the immediate and long-term future up to 2040 and beyond.

Chapter 7 of the South Dublin County Development Plan is the Sustainable Movement section which aims to promote and facilitate the ease of movement within and through County South Dublin, by increasing the number of people walking, cycling and using public transport and reducing the need for car journeys, resulting in:

- More active and healthy communities.
- More attractive public realm.
- Safer streets.
- Less congestion.
- Reduced carbon emissions.
- Better air quality.
- Quieter neighbourhoods.
- Positive climate impact.

SDCC shows the need for sustainable movement, in Chapter 7, as “Existing Mode Share”, illustrated in Figure 3-1, which shows the dominant usage of cars and little use of active modes. Transition to public transport will be enhanced by improvements such as the roll-out of BusConnects, introducing six new dedicated bus routes for a more efficient network with high-frequency spines, new orbital routes, and increased services. Significant upgrades to heavy rail services, including the DART+ project, will increase train frequency on the Heuston to Hazelhatch line, adding stops at Adamstown, Clonburris, Park West, and opening the Kishogue station. Capacity increases are also planned for the Luas lines to Tallaght and Saggart, along with potential new lines to Lucan and southern County areas.

To promote sustainable transport, the Council aims to increase walking, cycling, and public transport usage while reducing private vehicle journeys during the County Development Plan period. These targets include expanding the Cycle South Dublin network and fostering compact development in areas like Tallaght, City Edge, Clonburris, and Adamstown Strategic Development Zones (SDZs). The targets project walking to rise from 13% to 15%, cycling to double from 5% to 10%, bus mode share to grow from 17% to 20%, and rail mode share from 3% to 5% whilst reducing private car use from 62% to 50%.

As noted above in section 2.4.4, the Sustainable Residential Development and Compact Settlements (DHLGH) supersede the SDCC Development Plan’s cycle and car parking policy requirements. Please refer to the Sustainable Residential Development and Compact Settlements section above for policy guidance on the requirements for the subject site.

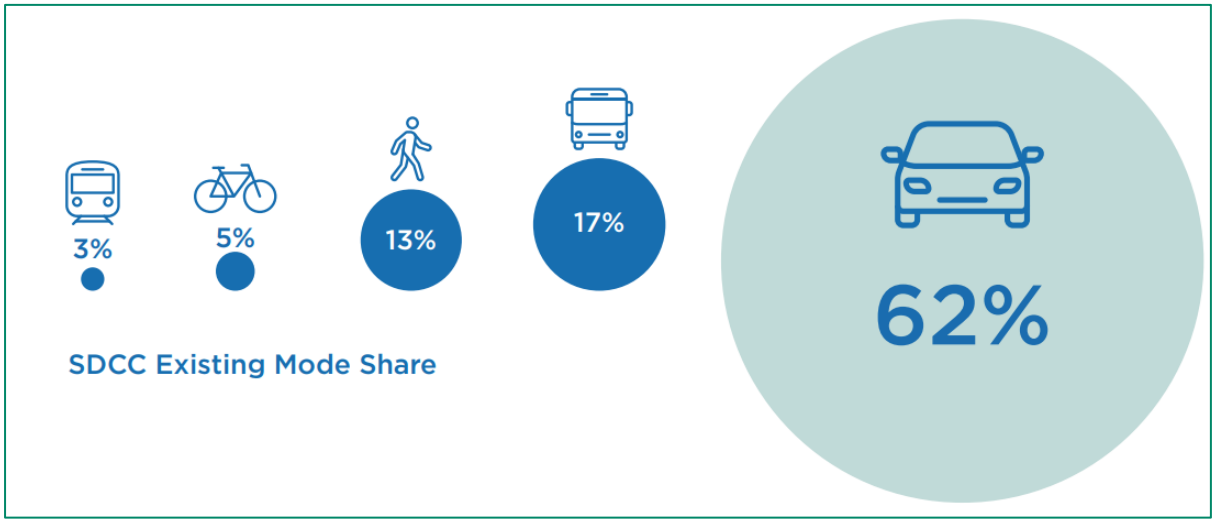


Figure 3-1 Existing Travel Modes

Source: South Dublin County Council Development Plan 2022-2028, Chapter 7, Page 254

4 Existing Conditions

4.1 Introduction

This chapter includes a review of the existing baseline conditions of the site including public transport provision, walking and cycling facilities and the current operation of the surrounding public network.

AECOM attended a site visit on Thursday 8th May 2025 to understand and establish any existing road network issues and identify the site's level of public transport and active travel mode accessibility. Photographs were taken during the site visit, which alongside observations, are included in this section.

4.2 Land Use Zoning

As set out in the SDCC Development Plan and shown in Figure 4-1, the subject site has been zoned as:

- *Objective 1A – To provide for new Residential Communities in accordance with approved Area Plan*.
- *Objective F – To preserve and provide for Open Space and Recreational Amenities.*

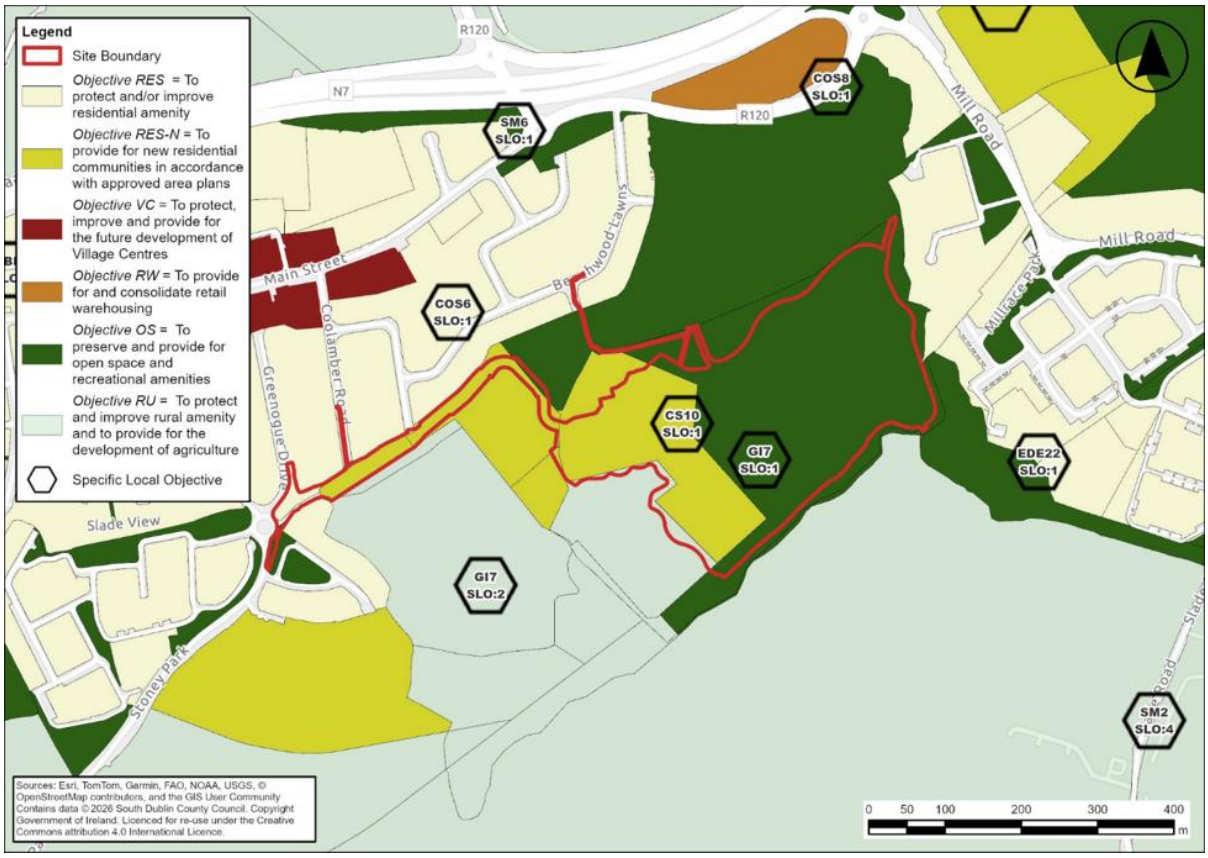


Figure 4-1 Land Use Zoning Map

Source: SDCC Development Plan 2022-2028

4.3 Site Access

There is currently no access to the site, other than via the adjacent Rathcoole Park. There is gated access to the adjacent Rathcoole Park located in Beechwood Lawns pictured in Figure 4-2.

At the subject site's northwestern boundary, there is an existing gated access to the adjacent Rathcoole Park via Beechwood Lawns as shown in Figure 4-2.



Figure 4-2 Existing Access in Beechwood Lawns

4.4 Existing Transport Infrastructure

4.4.1 Existing Road Network

This section reviews the local road network in proximity of the site to establish the existing transport conditions across the surrounding existing network.

4.4.1.1 Mullally's Lane

Mullally's Lane is a two-way single lane cul-de-sac, which starts at the Peyton Roundabout and serves three residential properties. No footways are present along the carriageway. There is an uncontrolled pedestrian crossing located on the Peyton Roundabout at the Mullally's Lane arm.

4.4.1.2 Greenogue Drive

Greenogue Drive is a two-way single lane carriageway accessed via Peyton Roundabout serving multiple residential dwellings. A footway is present on the western side of the carriageway along the entire length, with the footway on the eastern side serving the length of the residential units. There is an uncontrolled pedestrian crossing located on the Peyton Roundabout at the Greenogue Drive arm.

4.4.1.3 Stoney Lane

Stoney Lane is a local road which connects to Stoney Hill Road at the Peyton Roundabout and forms a stop controlled priority T-junction with Main Street. Footpaths are provided along both sides of the carriageway. Dropped kerbs and tactile paving are provided across local accesses.

4.4.1.4 Main Street

Main Street is the primary street running through Rathcoole and connects with Stoney Lane at a stop-controlled T-junction. It provides access to surrounding residential properties and local businesses in the settlement. Footpaths and public street lighting are provided along both sides of Main Street enabling pedestrian movement in the area. A posted speed limit of 50 km/hr applies along this section of road, with on-street parking provided at various locations on both sides of the carriageway.

4.4.1.5 N7

The N7 Naas Road is a national route located approximately 0.5 km north of the Site and is the nearest major road serving the area. The route forms a key connection within the region, providing links to Dublin, Naas, Portlaoise and the wider national road network. Roadway lighting is provided along both sides of the carriageway, and the road is subject to a posted speed limit of 100 km/hr. The Naas Road would also facilitate construction traffic accessing the Site due to the good existing operational conditions of the road.

As part of the Proposed Development there will be a new access route to the Site from Peyton Roundabout via a new three arm priority junction on Greenogue Drive connecting to the existing Mulally's lane. The existing Mullally's Lane access from Peyton Roundabout will be closed to vehicles and repurposed into an active travel link.

4.4.2 Pedestrian and Cycle Facilities

The site is situated in an urban area, where provision for pedestrian movement is generally good. Locally, footways are provided on both sides of the carriageway and range from 1.5m to 2.5m in width.

Within Beechwood Lawns footways are provided in front of residential properties.

Connections to the site can be made from Main Street through Stoney Lane and Greenogue Drive via the new access road, Coolamber Drive and Coolamber Road. Footways are provided along all these routes.

There are no footways provided along Mullally's Lane.

An uncontrolled pedestrian crossing with dropped kerbs and tactile paving is provided across the Mullally's Lane and Greenogue Drive arms of the Peyton Roundabout.

4.4.3 Existing Public Transport

4.4.3.1 Bus

Figure 4-3 illustrates the location of bus stops in relation to the site, the closest of which is within 300m. It demonstrates that the site benefits from a good bus transport connection, operated by Dublin Bus and Go Ahead Ireland.

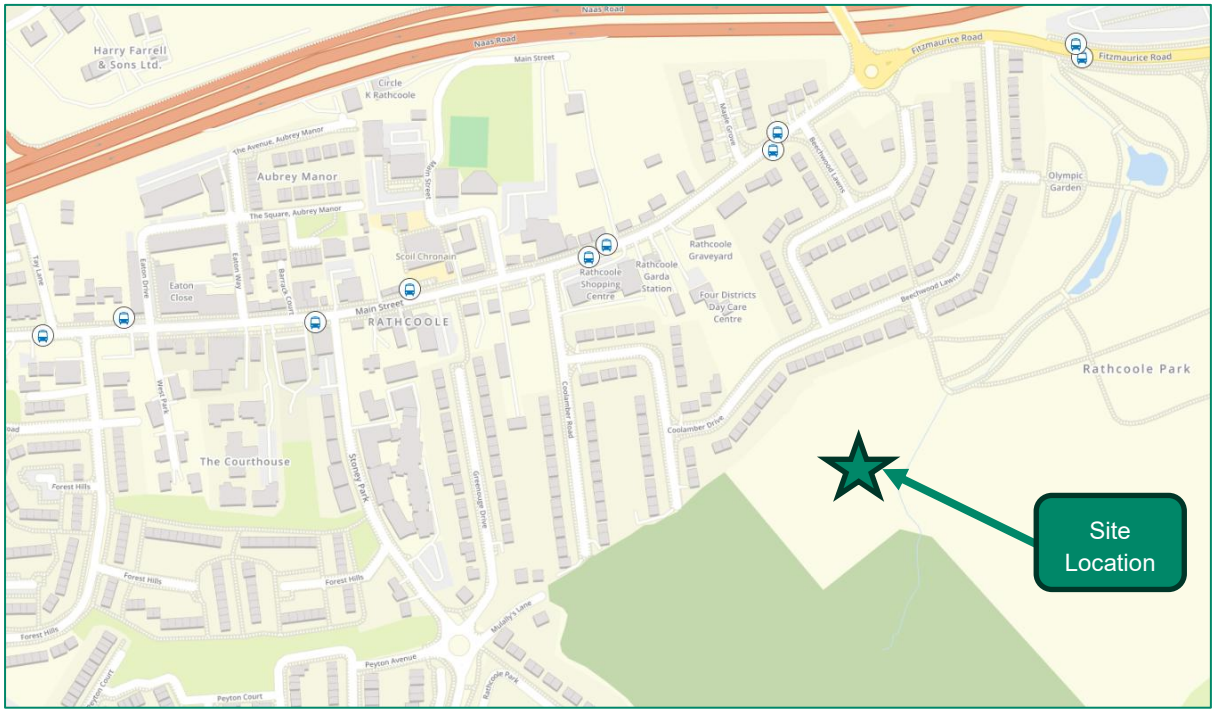


Figure 4-3 Existing Bus Stops

Source: https://www.transportforireland.ie/ © OpenStreetMap contributors

Dublin Bus operates two routes (one of which is an express route) that serve the subject site locale including the number 69 and 69x (Rathcoole – Clondalkin Village Towards Dublin City Centre). These routes provide links from Rathcoole to the city centre and intermediate destinations.

Go Ahead Ireland operates another route within the vicinity of the site that runs from Maynooth to Tallaght. The associated bus stops are all within convenient walking distance (approx. 550m) of the subject site. The scheduled frequency for buses to and from the city centre are outlined in Table 4-1.

Table 4-1 Existing Bus Service

Bus Route	Weekdays		Saturdays		Sundays/ Bank Holidays	
	To City Centre	From City Centre	To City Centre	From City Centre	To City Centre	From City Centre
69	20	18	21	18	12	12
69x	1	1	-	-	-	-
69n	-	-	-	3	-	-
	To Tallaght	To Maynooth	To Tallaght	To Maynooth	To Tallaght	To Maynooth
W6	36	36	34	34	30	30

Source: https://www.transportforireland.ie/

4.4.3.2 Rail Network

The subject development site is located approximately 8.5km away from the Hazelhatch and Celbridge rail station where services between Dublin City Centre and various destinations including Portlaoise, Kilkenny, Carlow and Waterford. The Hazelhatch and Celbridge rail station benefits from a Park & Ride facility incorporating 400 no. car parking spaces, making travel by rail a feasible alternative to future residents of the subject development. In addition, 30 no. sheltered cycle parking spaces are available as well as bike lockers.

Furthermore, the Saggart LUAS station and Cheeverstown LUAS Park & Ride station are located approximately 3km and 6km respectively to the northeast of the subject site providing access to LUAS Red Line services operating between Saggart and Connolly Station / The Point via Dublin City Centre.

A summary of the average LUAS frequency by day of the week is presented in Table 4-2.

Table 4-2 LUAS Red Line Service Frequency (minutes)

Time	Monday-Friday	Saturday	Sunday
Earlier than 07:00	7	-	-
07:00-10:00	4	9	9-12
10:00-16:00	4	6	
16:00-19:00	4	6	
Later than 19:00	11	11	11

4.4.4 Car Share / Car Club

There is an existing GoCar hire station located on Main Street, 600m from the site as shown in Figure 4-4, which is considered to be sufficient to serve and accommodate potential demand generated from the proposed development site. According to GoCar, each vehicle can replace up to 20 private cars.

Car club/car share cars provide an alternative means of travel for existing and prospective residents, encouraging car-free and/or car-lite lifestyles.

Car club members can book cars online or via an app for durations of as little as an hour. They then unlock the car with their phone or a membership Card; the keys are in the car, with fuel, insurance and city parking all included.

The benefits of such car sharing services include:

- Aids the reduction of cars on the road and therefore traffic congestion, noise and air pollution.
- Has the potential to free up land traditionally used for private parking spaces.
- Encourages and potentially increases use of public transport, walking and cycling as the need for car ownership is reduced.
- Car sharing allows those who cannot afford a car the opportunity to drive, encouraging social inclusivity.
- Car club replaces approximately 20 private car parking spaces.

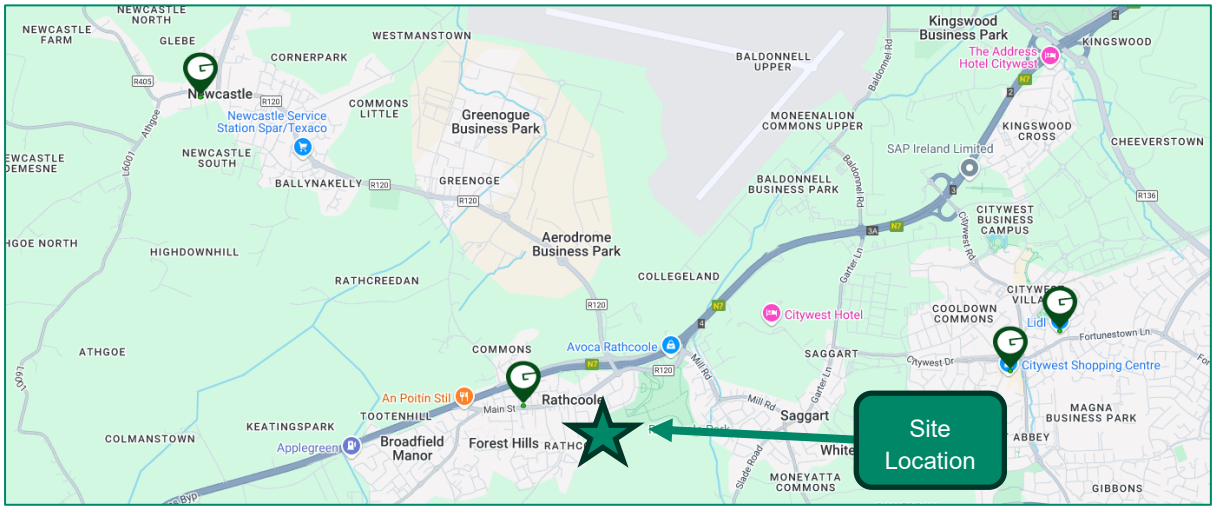


Figure 4-4 Existing Go Car Provisions

Source: https://www.gocar.ie/locations/

4.5 Site Accessibility

4.5.1 Pedestrian Catchment

Figure 4-5 illustrates the significant area that can be reached within a 20-minute walk of the development site. Residents and visitors of the site can access supermarkets such as Spar and Centra, cafes, restaurants and bars, recreational and leisure uses within a 20-minute walk of the site.

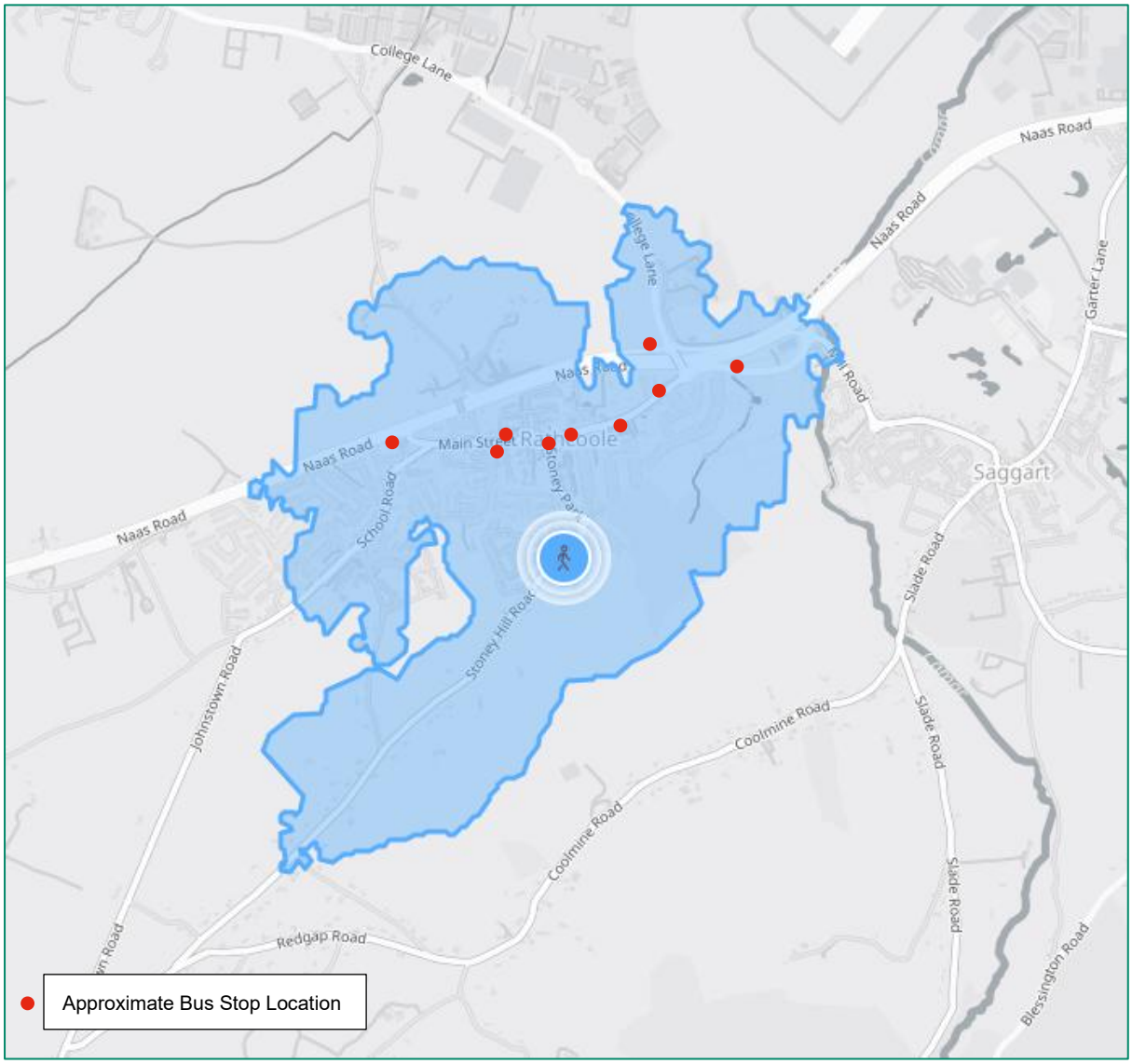


Figure 4-5 Walking Catchment - 20 Minute Isochrone

Source: https://app.traveltime.com/ © OpenStreetMap contributors

Taking into consideration the number of local amenities and facilities that be accessed on foot within a short walk of the site, there is the propensity for users of the site to travel on foot instead of driving/car trips.

4.5.2 Cycling Catchment

Figure 4-6 demonstrates that it is possible to access a significant catchment within a 15 to 30-minute cycle from the site. With Saggart, Newcastle and Fortunestown an approximate 15-minute cycle and Clondalkin, Tallaght and Celbridge within an approximate 30-minute cycle.

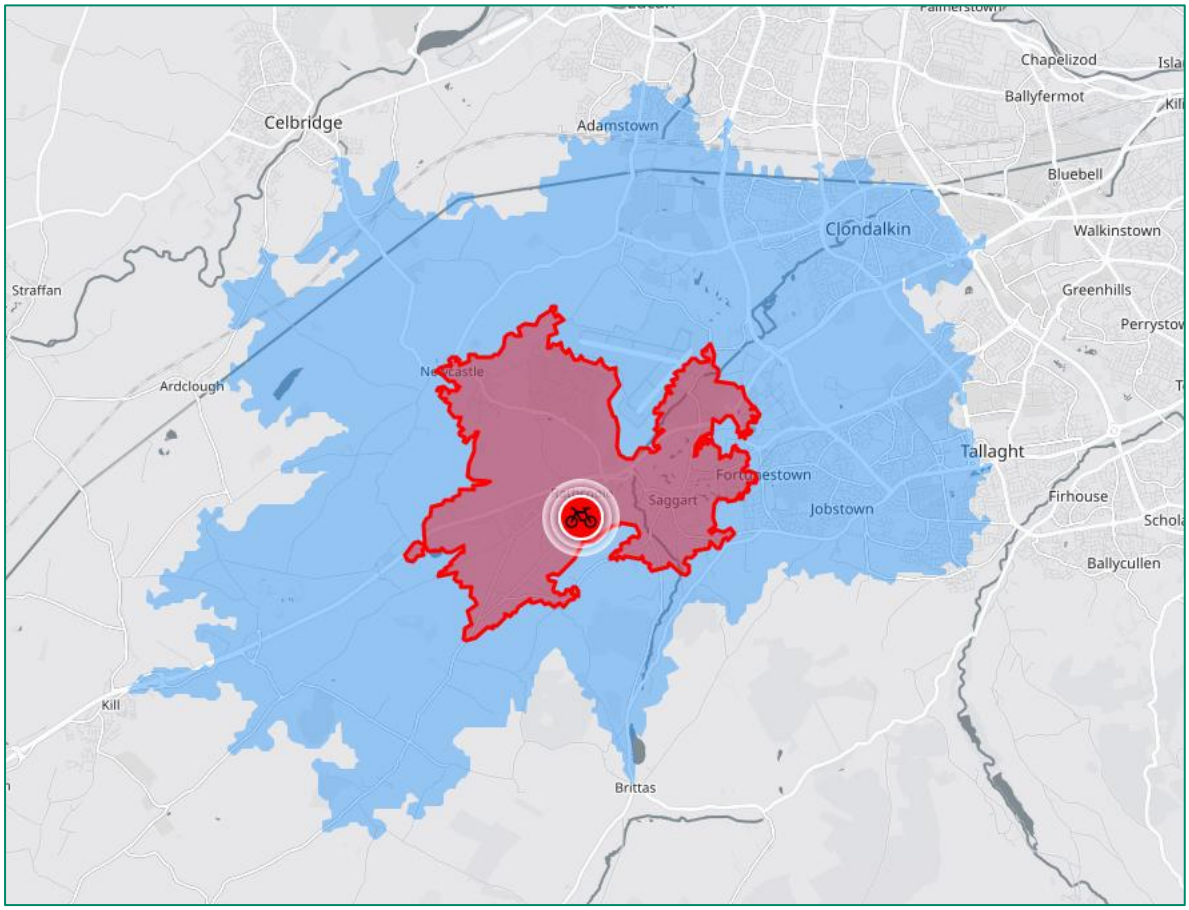


Figure 4-6 Cycling Catchment - 15 and 30 Minute Cycling Isochrone (c. 5km)

Source: https://app.traveltime.com/ © OpenStreetMap contributors

4.5.3 Public Transport Catchment

Figure 4-7 indicates a 30 to 60-minute public transport journey time catchment from the site, during the morning weekday peak hour (0800-0900). Both Newcastle and Kill are within a 30-min journey time in the AM peak, expanding to Naas, Celbridge and Clondalkin within a 60-min journey time.

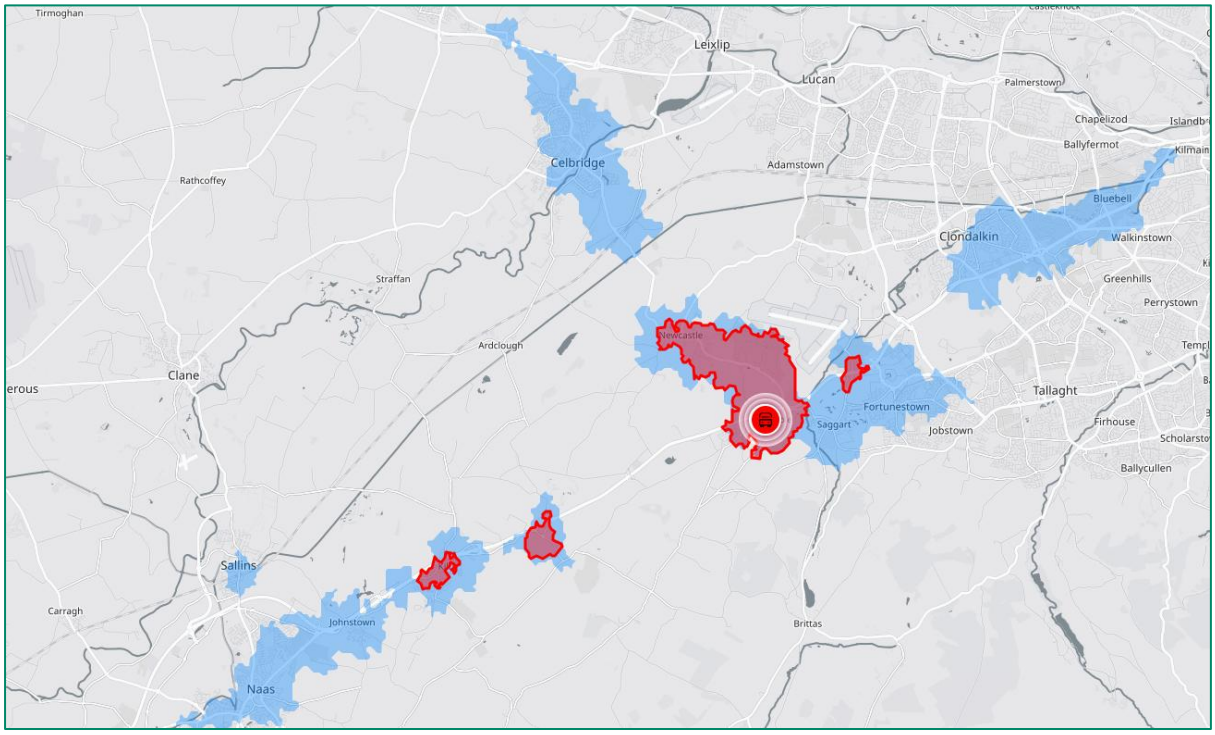


Figure 4-7 Public Transport Catchment - 30 and 60 Minute Isochrone

Source: https://app.traveltime.com/ © OpenStreetMap contributors

4.6 Collision History

As part of the road network analysis a review of the Road Safety Authority (RSA) traffic collision database has been undertaken for the road network in the vicinity of the proposed site to identify any collision trends. This review is aimed to assist in the identification of any potential safety concerns in relation to the existing road network.

The RSA website was recently offline due to GDPR issues however it was updated in May 2026 with collisions noted up to 2024. Interrogation of the published data between 2020 and 2024 (latest available) shows 2No. Collision on Main Street in the vicinity of the Proposed Development as shown in Figure 4-8 overleaf. The collision data notes the serious injury of a cyclist with no other vehicles involved. The other collision involved the minor injury of an E-scooter driver/ other. Based on the limited number and nature of the recorded incidents, it is not considered that there is an identifiable pattern or concentration of collisions within the vicinity of the site or at the adjacent junctions.

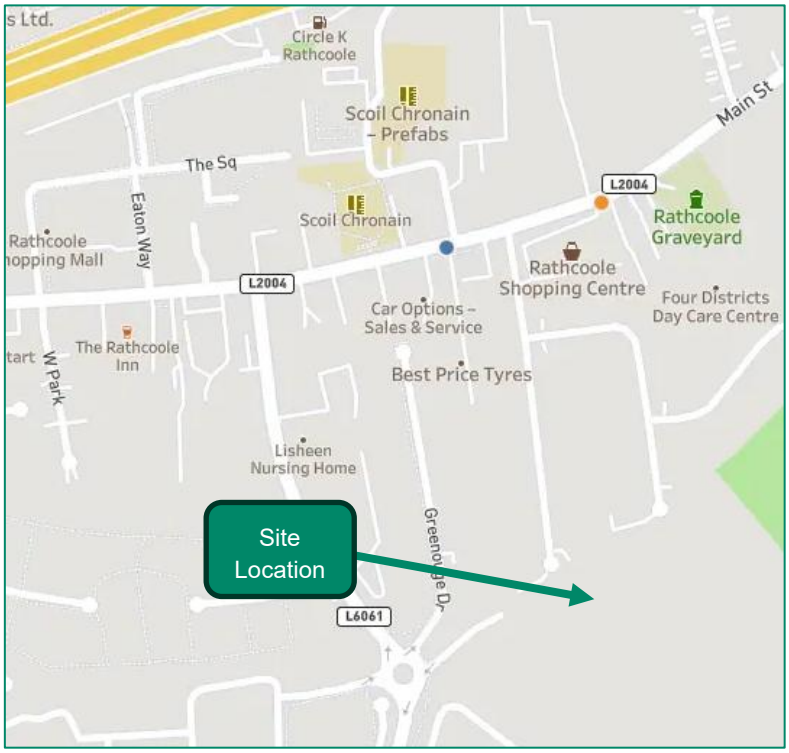


Figure 4-8 RSA Collision Data Map (2020-2024)

Source: Road Safety Authority (RSA), Map of Road Collisions in Ireland

4.7 Future Transport Infrastructure

4.7.1 Cycle Network Proposals

The 2022 GDA Cycle Network Plan presents a comprehensive framework for cycling infrastructure across the region, including rural areas such as Rathcoole. Within this plan, a Secondary inter-urban cycle route 'D5' is proposed along the R120/Main Street, passing through Rathcoole and providing direct connections to Newcastle to the north and Kill to the south, as well as linking to the broader Cycle Network. The development of inter-urban and greenway routes is designed to enhance connectivity between urban centres and rural communities, offering significant benefits to both Rathcoole and the proposed site by improving accessibility and promoting sustainable travel option. Figure 4-9 illustrates the proposed cycle network in relation to the site.

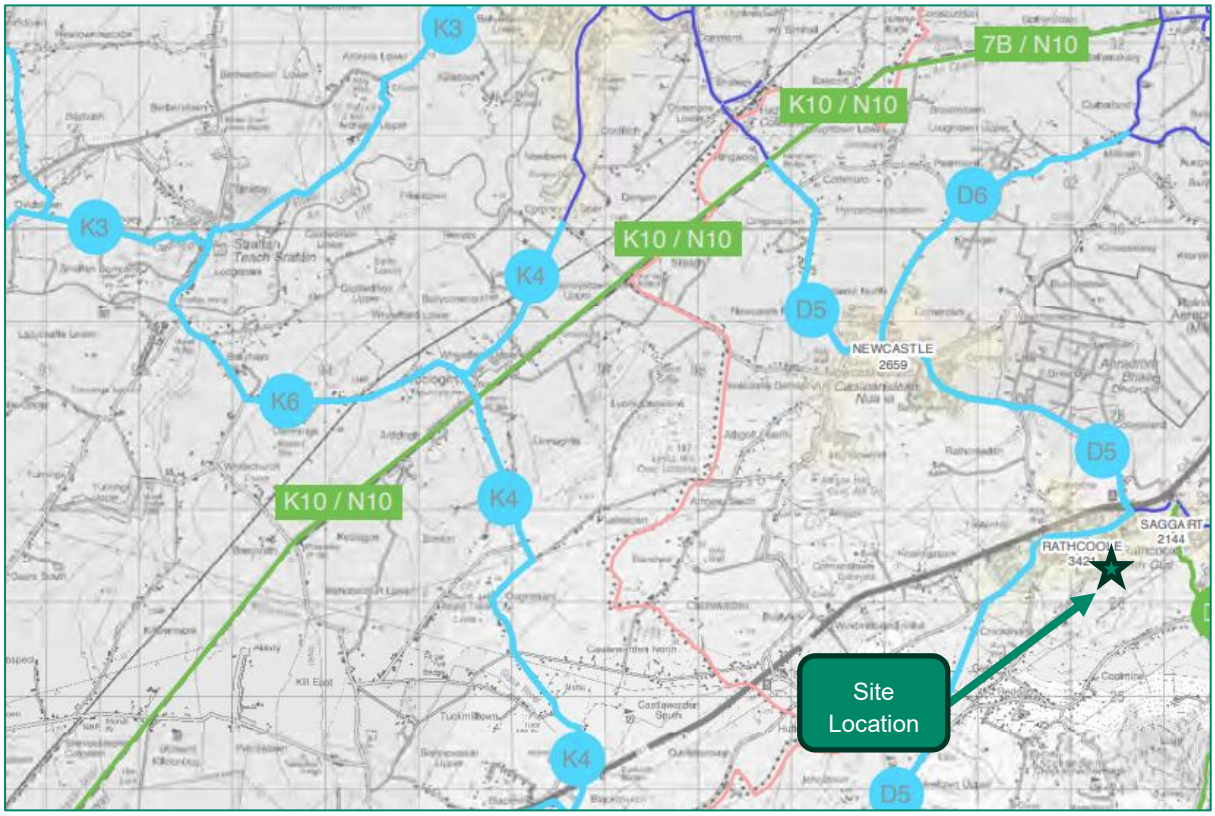


Figure 4-9 GDA Network Plan

Source: https://www.nationaltransport.ie/wp-content/uploads/2021/02/English_04d_Proposed_Network_Rural.pdf

4.7.2 BusConnects

BusConnects is an initiative launched by the National Transport Authority with the aim of overhauling the bus system in the Dublin Region. This initiative includes review of bus services, the definition core bus network which comprises radial, orbital and regional core bus corridors. It also includes enhancements to ticketing and fare systems as well as transition to a new low emission vehicle fleet.

This initiative proposes to implement a redesign of the existing bus network. The fundamental changes to the network expected would be as follows:

- Increasing the overall amount of bus services. Providing new and frequent orbital services connecting more outer parts of the city together.
- Simplifying the bus services on the key radial into “spines” where all buses will operate under a common letter system and buses will run very frequently and be more evenly spaced.
- Increasing the number of routes where buses will come every 15 minutes or less all day.
- The frequent network would become a web-shaped grid, with many interchange opportunities to reach more destinations. Everywhere that two frequent routes cross, a fast interchange is possible.
- Additional service would be provided at peak hours to limit overcrowding.

The BusConnects project will improve connectivity to Rathcoole by introducing the express service ‘X58,’ which will operate between Rathcoole and Dublin City Centre during peak hours. This service will run twice per hour in the morning peak and once per hour in the evening peak. The existing service will be replaced by the ‘58,’ an hourly route linking Rathcoole to both Dublin City Centre and City Port.

Additionally, the new orbital service ‘W6’ will connect Maynooth, Celbridge, Citywest, and Tallaght with a frequency of two buses per hour. The nearest stop will be within a 15-minute walk from the proposed site on Fitzmaurice Road. Figure 4-10 illustrates the proposed BusConnects routes in relation to Rathcoole and the development site. These enhancements will significantly improve public transport accessibility for the proposed development.



Figure 4-10 BusConnects Rathcoole

Source: https://busconnects.ie/wp-content/uploads/2021/01/saggart-area-map.pdf

The Bus Network Redesign is the first step in a series of transformative changes to Dublin's bus network over the coming years. However, the next steps in this initiative are the improvements to the infrastructure and operation of the proposed bus network which include:

- Building a network of "next generation" bus corridors on the busiest bus lines to make bus journeys faster, predictable and reliable.
- Developing a state-of-the-art ticketing system using credit and debit cards or mobile phones to link with payment accounts and making payment much more convenient.
- Implementing a cashless payment system to vastly speed up passenger boarding times.
- A simpler fare structure, allowing seamless movement between different bus services without financial penalty.
- New bus stops with better signage and information and increasing the provision of additional bus shelters; and transitioning to a new bus fleet using low-emission vehicle technologies.

5 Proposed Development

5.1 Introduction

This chapter details the proposed development with regard to the transportation elements which includes the internal roads layout, proposed pedestrian/cycling infrastructure and parking provisions within the development area.

5.2 Development Proposal

The subject proposals seek planning permission for the construction of 130 residential dwelling units which will include a mix of social and affordable units to include apartments, duplex and dwelling houses and 2 no. senior and 1 no. junior grass pitches on SDCC-owned lands at Rathcoole, the application site area is 11.4 hectares.

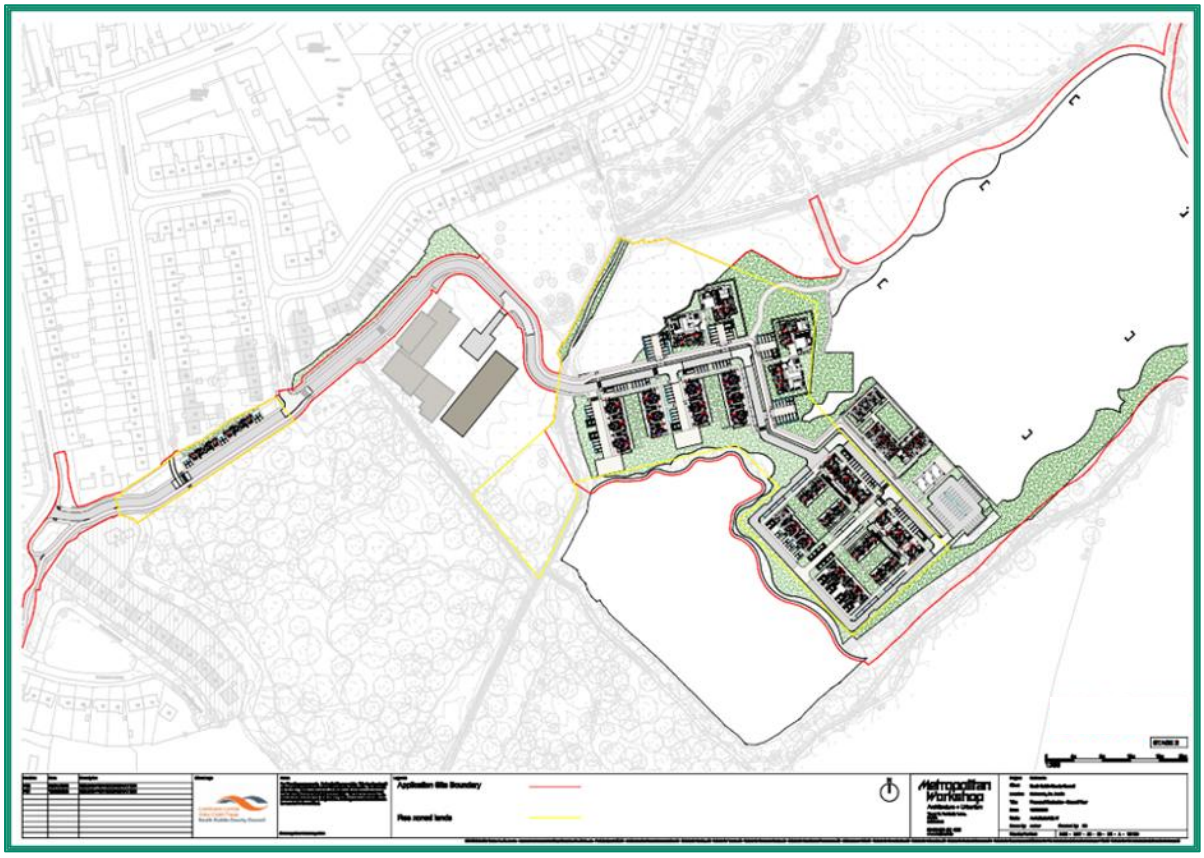


Figure 5-1 Proposed Site Layout Plan

Source: Metropolitan Workshop drawing, 2430-MET-ZZ-XX-DR-A-100022

5.3 Site Access Arrangements

5.3.1 Vehicle Access

It is proposed that a new vehicular entrance and access road will be provided including widening works along Mullaly's Lane to include SDCC held lands and third-party lands (subject to a separate statutory process). The new vehicular entrance will comprise of a three-arm priority junction on Greenogue Drive and associated upgrade of access to Peyton Roundabout including upgrade and modification of the existing roundabout to reduce the number of vehicular arms from five to four as shown in Figure 5-2. The revised vehicular access will be shared with the consented access for the primary school (ref: SD23A/0336).

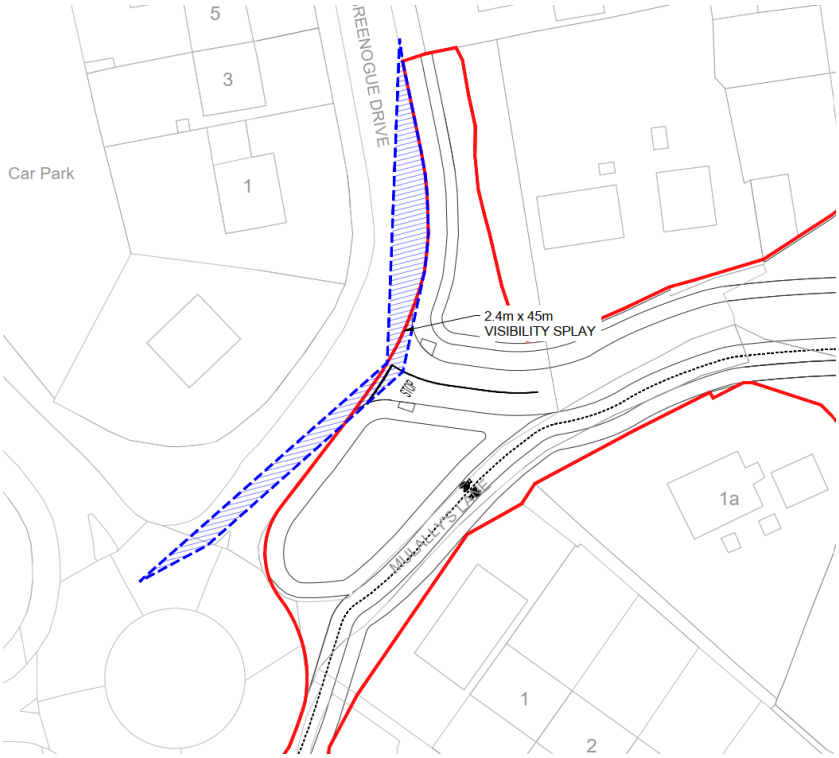


Figure 5-2 Proposed Reconfiguration of Mullaly's Lane

5.3.2 Pedestrians and Cyclists

The proposed development site will be highly accessible to pedestrians and cyclists from Coolamber Road and via existing routes through the adjacent Rathcoole Park. Furthermore, the reconfiguration of Peyton Roundabout enables the provision of a new pedestrian and cycle access from Mullaly's Lane. A cycle path will be provided from the entrance of the development connecting to the existing cycle lane at Stoney Park.

Pedestrians and cyclists will be given priority within the internal site layout to ensure desire lines within the site are accommodated, therefore providing a good level of service and ensuring the risk of vehicle/pedestrian conflict with vehicles is minimised. Footways are provided throughout the internal site, with dropped kerbs and tactile paving provided at each internal junction.

5.3.3 Visibility Splays

In accordance with DMURS a sightline of 45m is required having regard to the speed limit along Greenogue Drive (50km/h) site access at a setback of 2.4m. Figure 5-3 highlights that this visibility splay is achievable at the proposed access point.

Internal junction visibility splays of 2.4m x 23m are provided to reflect the proposed 30kph internal road speed designation in accordance with DMURS as shown in Figure 5-4.

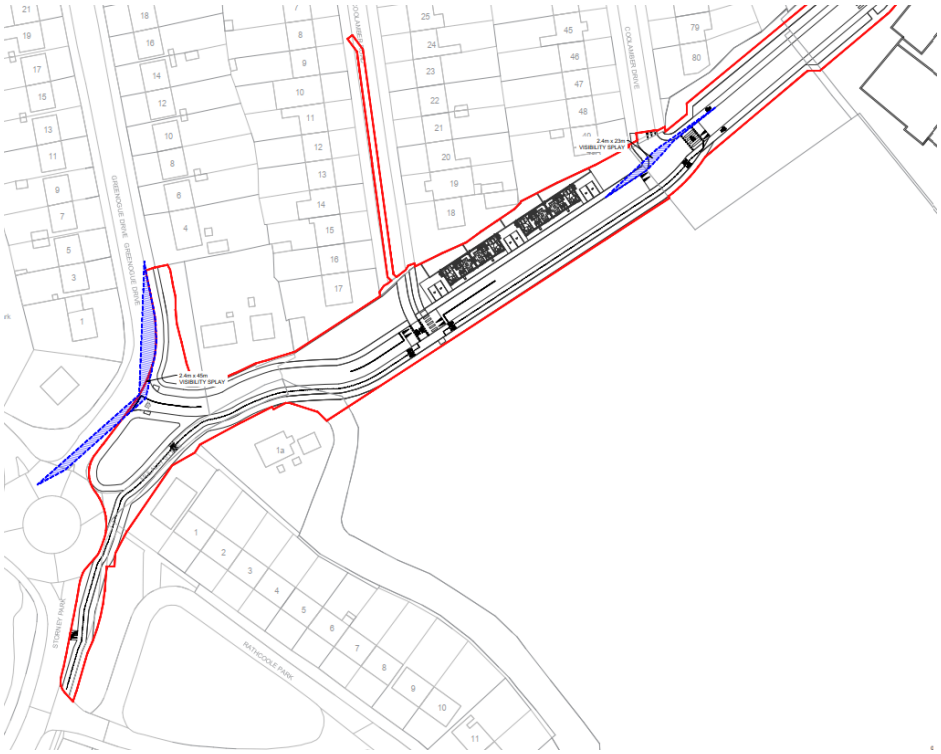


Figure 5-3 Proposed Visibility Splays Site Access

Source: AECOM drawing RATH-ACM-XX-00-DR-OT-000110



Figure 5-4 Proposed Visibility Splays Internal Accesses

Source: AECOM drawing RATH-ACM-XX-00-DR-OT-000111

5.4 Parking Strategy

5.4.1 Car Parking

The 'Sustainable Residential Development and Compact Settlements Guidelines for Planning Authorities' supersede any conflicting standards in the SDCC Development Plan. According to Table 3.8 of the Sustainable Residential Development and Compact Settlements Guidelines for Planning Authorities, the site's location in Rathcoole can be classified as 'Peripheral'.

The maximum car parking provision requirement for the subject site (SPPR3) in a peripheral location is 2no. spaces per dwelling, which would equate to a maximum provision of 260 spaces.

The scheme is proposing 143 residential car parking spaces, which equates to a shortfall of 117 spaces. However, it should be emphasised that the SPPR3 guidelines relate to maximum provision and given the site's accessibility to public transport, the planned BusConnects improvements, and the planned GDA cycle network proposals, the proposed parking provision is considered appropriate. Additionally, a GoCar facility is located on Main Street, approximately 600 metres away, offering a shared mobility option equivalent to 20no. private vehicles.

5.4.2 Cycle Parking

The provision of cycle parking has taken cognisance of the '*South Dublin County Development Plan (2022 – 2028)*' and the '*Sustainable Residential Development and Compact Settlements - Guidelines for Planning Authorities*' specific planning policy requirement (SPPR) 4 which supersedes any conflicting standards in the aforementioned Development Plan.

A total of 169 no. residential cycle parking spaces is provided, comprising 124 no. secure spaces for residents and 45 no. visitor spaces across the scheme, together with 12 no. spaces serving the GAA pitches.
All houses have access to ground level open space. For the apartment blocks (103 bedrooms), secure cycle parking on the ground floor of the buildings is provided with direct access to a shared private area that links to the road. For duplex units UT04 (8 bedrooms) cycle parking will be located in a secure location behind the units. Dedicated cycle parking is not considered relevant for the age friendly apartments (6 bedrooms). Considering the total of 117no. bedrooms in units without access to ground level open space, the 124no. secure cycle parking spaces provided accords with SPPR4 and is appropriate to meet the needs of residents and visitors for the profile of this future resident community.

5.4.3 Electric Vehicle Charging

Section 12.7.5 of the SDCC Development Plan states that commercial developments shall provide Electric Vehicle (EV) charging points at a minimum of 20% of all car parking spaces which equates to 29 no. EV parking spaces.

The development makes provision for 24 no. EV parking spaces and a further 15 no. EV/accessible parking spaces. All car parking spaces will be ducted to ensure that EV charging facilities can be easily retrofitted at a future date.

5.5 Emergency and Refuse Collection Arrangements

Emergency and refuse collection vehicles will access the site through the designated vehicle access locations, ensuring prompt response and seamless operational functionality. These access points have been strategically planned to optimise accessibility, allowing for swift and unimpeded movement of essential vehicles to cater to the site's emergency response, service delivery, and maintenance requirements.

An Autotrack analysis has been carried out at the site access, internal junctions and turning heads to ensure the safe manoeuvrability of a service (refuse) vehicle, with the swept paths included in **Appendix A**.

6 DMURS Statement of Compliance

6.1 General

This chapter comprises of a Statement of Compliance for the proposed development site with respect to DMURS and how the proposed development meets these standards.

6.2 Compliance with DMURS

The following measures are examples of where compliance with the DMURS guidelines has been demonstrated.

6.2.1 Internal Road Network

The internal layout has been informed by the DMURS guidelines. The following measures are examples of how the development is to comply with the DMURS guidelines:

- The proposed site access will be designed to achieve a recommended visibility of 2.4m x 45m onto Greenogue Drive.
- Design speed for internal roads of the development is 30kph with visibility splays of 2.4m x 23m provided at internal accesses throughout.
- Internal road width will typically be 6m to ensure compliant circulation aisle widths for parking spaces.
- Internal footpaths parallel with carriageway have been provided at a width of 2m, which is the space required to allow two wheelchairs to pass each other, as per Figure 4.34 of DMURS.
- The corner radii of the main link road and local streets are between 4.5m – 6m, as per Section 4.3.3 of DMURS.
- Forward visibility for the development, based on a design speed of 30km/h, complies with a 23m SSD, as per Section 4.4.4 and Table 4.2 of DMURS.
- Parking, proximity of trees, changes in road direction, bends and raised tables will keep speeds to a minimum by creating a sense of enclosure, as per Section 4.2 of DMURS.

6.2.2 Landscaping

Section 4.2.7 of DMURS recommends providing softer landscaping areas in order to promote a greener ‘living’ character within the development. The site therefore provides a significant amount of landscaping, including trees located along the access roads to provide a sense of enclosure.

6.2.3 Materials and Finishes

DMURS also gives guidance on the types of materials and finishes to be used in order to provide a sense of calm for traffic and improve legibility for vulnerable road users. The road markings will be flush so as to permit fire tenders manoeuvring within the development infrequently.

6.2.4 Signing and Lining

As per Section 4.2.4 of DMURS, signing and lining is to be provided appropriately at the required locations throughout the development. However, the proposed development is to be designed to have a self-regulating approach to increase the road safety as opposed to relying on mandatory and warning signs. As noted in the Manual for Streets (2007), there may also be traffic calming benefits of a ‘less is more’ approach to reinforce lower design speeds.

7 Trip Generation and Distribution

The purpose of this section is to determine the overall number of trips that will be generated by the proposed development in terms of vehicular traffic.

To understand the potential vehicular trip generation associated with the site, a review has been undertaken of the committed traffic upon the adjoining road network against the proposed trip generation, outlined in the subsequent sections.

7.1 Traffic Surveys

In order to establish the existing locality's traffic characteristics and subsequently enable the identification of the potential impact of the proposed development, traffic survey data, as recorded in October 2025 has been used for the purposes of this assessment.

The aforementioned traffic surveys (weekday classified JTCs) were conducted by Tracsis Transport Data Collection Company from 07:00 to 10:00 in the AM period and from 16:00 to 19:00 in the PM period. The JTCs were carried out at the following eight junctions as listed below and shown on Figure 7-1.

- J1 – N7 National Road / Rathcoole Main Street (On/Off Slip Road).
- J2 – Johnstown Road / Rathcoole Main Street (3 Arm Priority Junction).
- J3 – Stoney Lane / Rathcoole Main Street (3 Arm Priority Junction).
- J4 – Stoney Lane / Greenogue Drive / Mullally's Lane / Stoney Lane / Peyton Avenue (5 Arm Roundabout).
- J5 – Coolamber Road / Rathcoole Main Street (3 Arm Partially Signalised Junction).
- J6 – Rathcoole Main Street / R120 Bridge / R120 Fitzmaurice Road (3 Arm Roundabout).
- J7 – R120 Fitzmaurice Road / Beechwood Lawns (3 Arm Priority Junction).
- J8 – Fitzmaurice Road/ N7 Naas Bypass On-Slip Road / N7 Naas Bypass Off-Slip Road / Mill Road (4 Arm Roundabout).

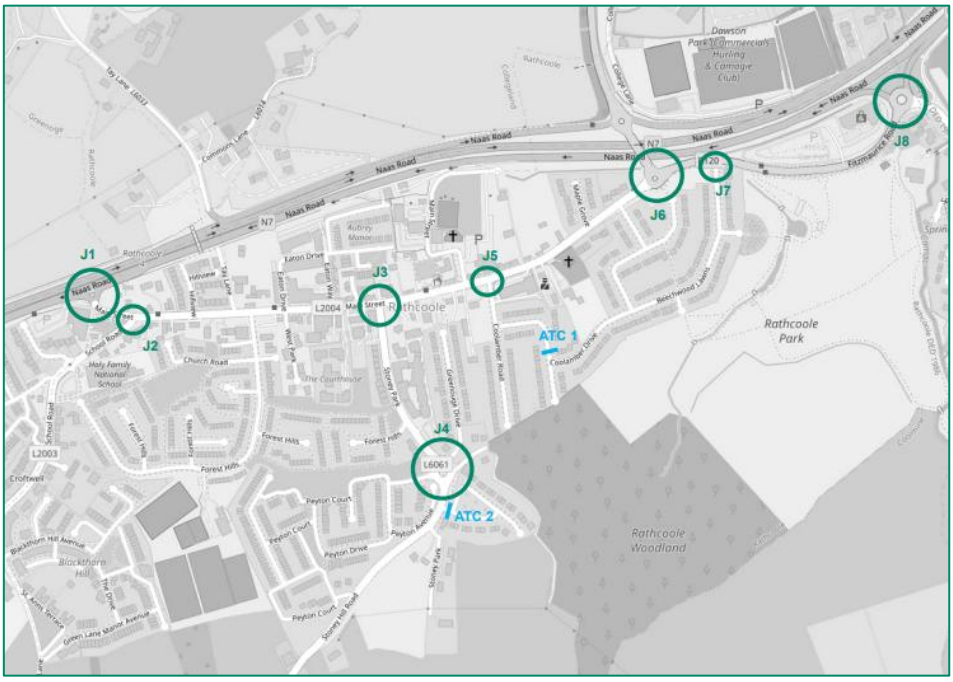


Figure 7-1 Rathcoole Traffic Survey Locations

7.2 Network Peak Hours

The 2025 traffic survey data was used to establish the existing weekday peak hours for the local highway network which are as follows:

- AM Peak: 07:45 to 08:45.
- PM Peak: 16:45 to 17:45.

Table 7-1 - Identification of Peak Periods (PCUs)

Time Period	Site 1 Naas Bypass / Main Street	Site 2 Main Street / Johnstown Road	Site 3 Main Street / Stoney Lane	Site 4 Stoney Lane / Greenogue Drive / Mullalys Lane RB	Site 5 Main Street / Coolamber Road	Site 6 R120 / Beechwood Lawns RB	Site 7 R120 / Beechwood Lawns T Junction	Site 7 N7 Bypass / Mill Road / R120	Total
AM Peak Period									
0700-0800	6399	622	756	191	795	1679	1122	1181	12745
0715-0815	6292	621	743	217	755	1669	1139	1209	12645
0730-0830	6398	629	758	242	748	1680	1117	1190	12762
0745-0845	**6474**	**724**	**790**	**282**	**753**	**1703**	**1126**	**1211**	**13063**
0800-0900	6015	749	815	312	807	1751	1141	1240	12830
0815-0915	5774	740	862	317	881	1787	1163	1254	12778
0830-0930	5403	668	864	288	829	1750	1204	1306	12312
0845-0945	5012	558	792	222	776	1654	1169	1282	11465
0900-1000	5070	531	764	168	742	1573	1142	1267	11257
PM Peak Period									
1600-1700	8267	832	892	236	963	1917	1417	1691	16215
1615-1715	8274	881	973	241	999	1962	1453	1716	16499
1630-1730	8288	907	995	253	993	1972	1467	1718	16593
1645-1745	**8244**	**917**	**1007**	**267**	**1026**	**1973**	**1474**	**1709**	**16617**
1700-1800	8208	960	1040	262	1054	1984	1439	1659	16606
1715-1815	8004	949	1006	263	1067	1950	1411	1626	16276
1730-1830	7618	893	995	257	1017	1854	1337	1530	15501
1745-1845	7165	828	972	235	953	1780	1256	1422	14611
1800-1900	6657	805	999	216	938	1717	1210	1357	13899

Appendix B shows the 2025 baseline traffic data for both the AM and PM peak hours as derived from the commissioned surveys.

7.3 Committed Developments

AECOM has reviewed SDCC's planning and public consultation portals and An Coimisiún Pleanála's (ACP) portal to identify a list of local committed development schemes in in proximity of the site.

The identified committed development schemes were agreed in discussion with SDCC at pre-planning stage. Schemes that will generate significant traffic on the network will be assessed in this TTA. The committed developments identified within the locality are shown below in Table 7-2 overleaf.

Those developments considered in the assessment have been added to the forecast background traffic in the traffic flow diagrams provided in **Appendix B**. Developments ref no.1 and 2 in Table 7-2 overleaf required calculation of trip generations utilising the TRICS database V8.25.6 as trip generations were not available from the published applications online.

Table 7-2 Committed Developments

Ref	Development	Planning Reference	Development Description
1	Residential Development – Mill Road, Saggart	SHD3ABP-312501-22	Demolition of an existing dwelling, construction of 274 no. residential units (51 no. houses, 223 no. apartments), creche and associated site works.
2	Residential Development – Main Street	SD22A/0096	The demolition of existing structures on site & the construction of new two-storey mixed use shop & office development totalling 923 sq.m.
3	School Development	SD23A/0336	New primary school, including 20 classrooms, with a gross floor area of 3,449 sq.m over 3 storeys; The development will also include the provision of 1 ESB substation.

Source: Myplan.ie

7.4 Traffic Growth

The proposal has adopted an opening year of 2029. As such, in accordance with TII Guidance, Design year and Forecast Year (+5 and +10 years) of 2034 and 2044 were adopted. The TII 'Project Appraisal Guidelines for National Roads Unit 5.3 – Travel Demand Projections (May 2021)' sets out growth rates for forecasting future year traffic for use in scheme modelling and appraisal. For the purposes of this assessment and given the location of the proposed site, the Dublin Metropolitan Area Link-Based Growth Rates have been applied as shown in Table 7-3 below.

Table 7-3 Dublin Central Growth Rates

Year	LGV	HGV
2016 – 2030	1.0180	1.0317
2030 – 2040	1.0062	1.0139
2040 - 2050	1.0050	1.0158

Source: TII Project Appraisal Guidelines for National Roads Unit 5.3

The development has been assessed at opening year (2029) and the two horizon year assessments (2034 and 2044), as per the TII Traffic Assessment Guidelines. The following factors have been applied to the base traffic flows in order to generate opening year and forecast year background traffic flows:

- 2025 to 2029 (Opening Year) - LV - 1.0740 (or 7.4%) and HV – 1.133 (or 13.3%).
- 2025 to 2034 (Design Year) - LV - 1.1207 (or 12.07%) and HV – 1.235 (or 23.5%).
- 2025 to 2044 (Forecast Year) LV - 1.864 (or 18.64%) and HV – 1.429 (or 42.87%).

Background traffic flow diagrams for all assessment years are included in **Appendix B**.

7.5 Trip Generation

A review of trip generation factors contained within the TRICS database (version 8.25.6) was carried out. TRICS data is primarily UK based, although a number of Irish sites have recently been included and this continues to expand.

Notwithstanding the above, internal research undertaken by TRICS has shown that there is no direct evidence of trip rate variation by country or region. The use of English, Scottish or Welsh data can be equally applicable to Ireland if users take into account important site selection filtering factors such as levels of population, location type, local public transport provision, and development size and car ownership level, amongst others.

Data supplied for inclusion in TRICS undergoes a procedure of validation testing, and there is no evidence from this procedure which suggests that data from Ireland bears any significant fundamental differences to that from the

other countries included. Nevertheless, it is considered that TRICS provides a reasonable indication of traffic generation from the proposed development.

A summary of the adopted trip rates of the proposed development is provided in Table 7-4.

Table 7-4 Proposed Development Vehicle Trip Rates

Dwelling type	AM (07:45-08:45) arrivals	AM (07:45-08:45) Departures	Total	PM (16:45-17:45) Arrivals	PM (16:45-17:45) Departures	Total
Local Authority Houses	0.098	0.251	0.349	0.243	0.146	0.389
Local Authority Apartments	0.070	0.138	0.208	0.133	0.097	0.230
Total	0.168	0.389	0.557	0.376	0.243	0.619

Based on the above trip rates, the potential peak hour traffic generation has been calculated, as presented in Table 7-5, based on the proposed development schedule.

Table 7-5 Predicted Vehicle Trip Generation

Dwelling type	AM (07:45-08:45) arrivals	AM (07:45-08:45) Departures	Total	PM (16:45-17:45) Arrivals	PM (16:45-17:45) Departures	Total
Local Authority Houses	5	13	18	12	7	19
Local Authority Flats	6	11	17	11	8	19
Total	11	24	**35**	23	15	**38**

The trip generation analysis shows that the proposed development has the potential to generate total 35 two-way vehicle trips during the AM peak hour and 38 two-way vehicle trips during the PM peak hour period.

7.6 Trip Distribution and Assignment

To understand the potential distribution of trips arriving and departing the proposed development, the base traffic survey data has been interrogated. The observed traffic flows at the Stoney Lane / Greenogue Drive / Mulally's Lane Roundabout indicate that outbound trips associated with the proposed development during both the AM and PM peak periods will primarily travel north along Stoney Lane towards Main Street. In terms of inbound traffic, the surveyed flows suggest that arrivals to the proposed development will approximately evenly split between the northern approach via Stoney Lane and the southern approach via Stoney Hill during both peak periods.

The committed developments identified have been assigned on the local road network in accordance with the trip distribution methodologies set out within their respective approved Traffic and Transport Assessments. In regards to the proposed school development, traffic is assigned via Coolamber Road. Following the opening of this proposed development it is reassigned via Stoney Hill Roundabout to Mulally's Lane in accordance with the approved TTA.

7.7 Threshold Analysis

TII's document 'Traffic and Transport Assessment Guidelines (2014) 'states that the impact of a proposed development upon the local road network is considered material when the level of traffic it generates surpasses 10% and 5% on normal and congested networks respectively as outlined below:

- 'Traffic to and from the development exceeds 10% of the existing two-way traffic flow on the adjoining highway.'

- 'Traffic to and from the development exceeds 5% of the existing two-way flow on the adjoining highway, where traffic congestion exists or will exist within the assessment period or in other sensitive locations.'

When such levels of impact are generated, a more detailed assessment should be undertaken to ascertain the specific impact upon the network's operational performance.

In accordance with the TII guidelines, an assessment has been undertaken to establish the potential level of impact upon the key junctions of the local road network based on the 2029 opening year scenario.

It should be noted that only the opening year (2029) of the development has been assessed. Any future year base flows would be greater than the flows presented in Table 7-6, hence a smaller percentage impact in comparison to the development flows would be recorded.

Table 7-6 Percentage Impact Analysis (Opening Year 2029)

Junction	2029+Committed Development Total Flow		Development Total Flow		% Impact	
	AM	PM	AM	PM	AM	PM
Naas Bypass / Main Street	7879	9633	1	3	0.02%	0.03%
Main Street / Johnstown Road	878	1009	5	7	0.60%	0.68%
Main Street / Stoney Lane	1037	1103	29	26	2.84%	2.36%
Stoney Lane / Greenogue Drive / Mulally's Lane RB	470	412	34	38	7.25%	9.18%
Main Street / Coolamber Road	919	1125	24	19	2.63%	1.71%
R120 / Beechwood Lawns RB	2097	2287	22	18	1.05%	0.80%
R120 / Beechwood Lawns T- Junction	1470	1748	20	8	1.35%	0.44%
N7 Bypass / Mill Road / R120	1489	1946	20	8	1.31%	0.42%
New Site Access Mulally's Lane/ Greenogue Drive	0	0	34	38	100.00%	100.00%

7.8 Existing Modal Split

The Central Statistics Office's Census Interactive Map has been investigated to determine the travel trends within the local vicinity of the subject development.

Existing commuting habits of residents for the Rathcoole area have been extracted from the 2022 Census data and summarised in Table 7-5. It can be seen that approximately 53% of residents travel by private car (Car Driver, Car Passenger, Van), whilst 23% travel by foot. The volume of public transport users is noted to be low (approximately 7%) as are cyclists (1%).

Table 7-7 Means of Travel to Work, School, College or Childcare for Residents in Rathcoole

Means of Travel	2022	Mode Share (%)
On Foot	995	22.88%
Bicycle	59	1.36%
Bus, Minibus or Coach	211	4.85%
Train, DART or LUAS	74	1.70%

Motorcycle or Scooter	16	0.37%
Car Driver	1,594	36.66%
Car Passenger	604	13.89%
Van	120	2.76%
Other (incl. Lorry)	8	0.18%
Work Mainly at or from Home	331	7.61%
Not Stated	336	7.73%
Total	**4,348**	**100%**

Source: https://visual.cso.ie/

8 Network Impact Analysis

8.1 Introduction

This chapter summarises the impact analysis to identify the potential effects of the permitted development on the surrounding road network. As outlined in Chapter 6, both new proposed site access road of Mulally's Lane as well Stoney Lane / Greenogue Drive / Mulally's Lane roundabout is subject to detailed assessment. As both junctions are an unsignalised priority-controlled junction, it will be assessed using the industry standard Junctions 11 software developed by Transport Research Laboratory (TRL).

8.2 Junction Analysis Approach

In terms of Junctions 11, when considering priority-controlled junctions, a Ratio to Flow Capacity (RFC) value of 0.85 (85%) and less are indicators that a junction is operating within capacity. Where an RFC is between 0.85 – 0.90 the junction is approaching capacity, whilst RFC values between 0.9 – 0.99 are considered to be at capacity. A junction with an RFC greater than 1.0 is considered to be overcapacity.

Junction geometry has been determined from the latest Ordnance Survey mapping. Queue lengths are presented in Passenger Car Units (PCUs), with one PCU the equivalent of 5.75m. Detailed Junctions 11 outputs are included in Appendix C for all analysed junctions.

8.3 Modelling Scenario

For the purposes of the traffic modelling exercise, the following scenarios have been considered across both the morning and evening peak periods:

- 2029 (Opening Year) Base + Development.
- 2034 (Opening year+5years) Base + Development.
- 2044 (Opening year+10years) Base + Development.

8.4 New Site Access Mulally's Lane/ Greenogue Drive

Table 8-1 provides the model output for the junction including the proposed development traffic generations. It can be seen that the junction operates with spare capacity across all future year scenarios in both peak periods as RFC values remain significantly below 0.85 and queue lengths are minimal.

Table 8-1 New Site Access Mulally's Lane / Greenogue Drive with Development Junctions 11 Outputs

Assessment Year	Arm	AM Peak Queue (PCU)	RFC	PM Peak Queue (PCU)	RFC
2029 (Opening Year) + Development	Site Access	0.2	0.17	0.0	0.03
	Greenogue Drive	0.2	0.19	0.1	0.04
2034 (Opening Year +5) + Development	Site Access	0.2	0.17	0.0	0.03
	Greenogue Drive	0.2	0.19	0.1	0.04
2044 (Opening Year +15) + Development	Site Access	0.2	0.17	0.0	0.03
	Greenogue Drive	0.2	0.19	0.1	0.04

8.5 Stoney Lane/Greenogue Drive/Mulally's Lane Roundabout

Table 8-2 provides the model output for the junction including the proposed development traffic generations. It can be seen that the junction operates with spare capacity across all future year scenarios in both peak periods as RFC values remain significantly below 0.85 and queue lengths are minimal.

Table 8-2 Stoney Lane / Greenogue Drive / Mulally's Lane Roundabout with Development Junctions 11 Outputs

Assessment Year	Arm	AM Peak Queue (PCU)	RFC	PM Peak Queue (PCU)	RFC
2029 (Opening Year) + Development	Stoney Lane	0.1	0.12	0.2	0.17
	Greenogue Drive	0.1	0.12	0.0	0.03
	Stoney Hill	0.2	0.16	0.2	0.16
	Peyton Avenue	0.1	0.13	0.1	0.08
2034 (Opening Year +5) + Development	Stoney Lane	0.1	0.12	0.2	0.18
	Greenogue Drive	0.1	0.12	0.0	0.03
	Stoney Hill	0.2	0.17	0.2	0.17
	Peyton Avenue	0.2	0.13	0.1	0.08
2044 (Opening Year +15) + Development	Stoney Lane	0.1	0.12	0.2	0.19
	Greenogue Drive	0.1	0.12	0.0	0.03
	Stoney Hill	0.2	0.18	0.2	0.18
	Peyton Avenue	0.2	0.14	0.1	0.09

Based on the analysis above, no mitigation measures are deemed necessary for the junction to accommodate the proposed development. The junction is expected to operate efficiently in both the AM and PM peak periods across all forecast years.

8.6 Summary

Based upon the traffic impact threshold of 5.0%, as identified in the TII Traffic and Transport Guidelines (May 2014), both the new proposed access junction on Mulally's Lane and the Stoney Hill Roundabout required further analysis as the proposed development traffic exceeded the threshold at these locations.

A Junctions 11 analysis was conducted for the junction, confirming that the proposed development traffic will have a negligible impact and therefore, it can be concluded that the proposed development of 130 dwellings will not have a detrimental impact on the surrounding road network, and as such no mitigation measures are required.

9 Outline Construction Traffic Management Plan

9.1 Introduction

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

This chapter will provide an overview of the likely routing of construction vehicles, based on a most likely scenario of construction. It should be noted that the impacts of the construction will be temporary, and it will be the contractor's responsibility to prepare a Traffic Management Plan for the approval of South Dublin County Council in advance of any works.

9.2 Policy Guidance

Guidance for the temporary control of traffic at road works to facilitate the safety of the public during the works is provided below:

- Traffic Signs Manual Chapter 8 Temporary Traffic Measures and Sign Roadworks (2008);
- Addendum Transport Chapter 8, Temporary Traffic Measures and Sign Roadworks (2008);
- Traffic Management Guidelines, Department of Transport (2003);
- Requirements of Kildare County Council.

9.3 Indicative Construction Programme & Phasing

It is envisaged that the construction phase will span approximately two years, from June 2027 to May 2029. On-site construction is expected to begin in January 2028 and to complete in May 2029, with handover expected to be completed in 2030. The construction programme is expected to require up to two years to complete from occupation of the site.

Given the nature of the project and the need for flexibility to respond to market demand and to global social, economic and political disruptions, the development phases are indicative.

9.4 Construction Compounds

The site establishment works will be carried out by the appointed Contractor. The Main Contractor will identify a suitable location, of sufficient size and suitable for the majority of the works, for a site compound upon appointment and will construct the compound as part of the enabling works. The compound may be used as material staging areas, temporary car parking for construction workers, site offices and huts, welfare facilities for workers (including changing rooms and lockers), and/or the storage of plant and equipment. These locations are indicative and may be subject to change as the scheme is built out.

The Main Contractor will propose a designated parking area to cater for the cars and vans of staff in order to minimise disruption to local amenities and parking facilities, and a safe and secure pedestrian walkway will be provided from the car park to the site compound.

Temporary hoarding and fencing will be installed to secure the site and, where required, to minimise nuisance effects such as noise emissions, visual impact and dust. Hoarding will be established around the site construction area, where required, before any significant construction activity takes place in accordance with the required specifications as defined by the Main Contractor.

9.5 Construction Route

As illustrated in Figure 8-1 overleaf, construction traffic should be directed to access the site via Junction 4 of the N7 and the R120 by travelling down Main Street, turning left onto Stoney Lane and continuing on to Mullally's Lane and then turning into the development. For outbound movements vehicles should follow Stoney Lane, turn right onto Main Street and rejoin the N7 using the R120 overpass.



Figure 8-1 Proposed Construction Traffic Route

Source: Bing Maps

9.6 Parking

All contractors' vehicles will park within the development site area, it is recommended that as part of the construction management plan, the contactor designates an area within the confines of the site dedicated to operative car parking. There will be no parking permitted on the surrounding road network or estate roads by the contractor or site operatives.

9.7 Mitigation Measures

A construction management plan will be developed by the contractor prior to the commencement of work on site and will be prepared in consultation with SDCC.

Construction debris particularly site clearance, spoil removal and dirty water run off can have a significant impact on footpaths and roads adjoining a construction site, if not adequately dealt with.

9.8 Hours of Operation

Site development and building works shall be carried out between the hours of operation recommended by SDCC to safeguard the residential amenities of properties in the vicinity. The typical hours of operation are as follows:

- Monday to Friday, 7am – 7pm, Saturdays 8am – 5pm and no works on Sundays or Public holidays.

9.9 Construction Traffic

For the purposes of this assessment the peak months for construction have been considered only as this results in the greatest impact on the road network. The peak months for construction are anticipated to occur from January 2028 to June 2028 in relation to site establishment, clearance and alteration, anticipated construction vehicles will be as follows:

- 40 daily construction vehicle trips (two-way).
- 60 construction staff trips (private car/vans) (two way).

It is expected that around 10% of these trips will occur during the AM and PM peak hours on the local network, resulting in an estimated ten combined HGV and staff vehicle trips during each peak period.

9.10 Traffic Management Measures

Below is a list of the proposed traffic management measures to be adopted during the construction works. Please note that this is not an exhaustive list, and that it will be the appointed contractor's responsibility to prepare a detailed construction management plan.

- Warning signs / Advanced warning signs will be installed at appropriate locations in advance of the construction access locations.
- Construction and delivery vehicles will be instructed to use only the approved and agreed means of access; and movement of construction vehicles will be restricted to these designated routes.
- Appropriate vehicles will be used to minimise environmental impacts from transporting construction material, for example the use of dust covers on trucks carrying dust producing material.
- Speed limits of construction vehicles to be managed by appropriate signage, to promote low vehicular speeds within the site.
- Parking of site vehicles will be managed and will not be permitted on public road, unless proposed within a designated area that is subject to traffic management measures and agreed with SDCC.
- A road sweeper will be employed to clean the public roads adjacent to the site of any residual debris that may be deposited on the public roads leading away from the construction works.
- On site wheel washing will be undertaken for construction trucks and vehicles to remove any debris prior to leaving the site, to remove any potential debris on the local roads.
- All vehicles will be suitably serviced and maintained to avoid any leaks or spillage of oil, petrol or diesel. Spill kits will be available on site. All scheduled maintenance carried out off-site will not be carried out on the public highway.
- Safe and secure pedestrian facilities are to be provided where construction works obscure any existing pedestrian footways. Alternative pedestrian facilities will be provided in these instances, supported by physical barriers to segregate traffic and pedestrian movements, and to be identified by appropriate signage.
- Pedestrian facilities will cater for vulnerable users including mobility impaired persons.

The mitigation measures will therefore ensure that the presence of construction traffic will not lead to any significant environmental degradation or safety concerns in the vicinity of the proposed works. Furthermore, it is in the interests of the construction programme that deliveries, particularly concrete deliveries are not unduly hampered by traffic congestion, and as a result continuous review of haulage routes, delivery timings and access arrangements will be undertaken as construction progresses to ensure smooth operation.

10 Summary & Conclusions

10.1 Summary

This Traffic and Transport Assessment (TTA) has been undertaken to quantify the potential influence of the proposed development at Rathcoole, Dublin upon the operational performance of the local area road network.

The proposed development comprises 130 residential units, playing pitches and associated infrastructure. Our methodology incorporated a number of key inter-related stages, including:

- Policy Review
- Traffic Surveys.
- Trip Generation, Distribution and Assignment.
- Network Impact Assessment.
- Junction Capacity Assessment.

10.2 Conclusion

The principal findings that can be drawn from this TTA are as follows: -

- The subject site is ideally located within an accessible suburban location in Rathcoole, benefiting from excellent connectivity to Dublin City Centre and the wider Dublin Metropolitan Area, enabling travel by sustainable modes including walking, cycling and public transport.
- The site is located in close proximity to high-frequency Dublin Bus and Go Ahead services as well as the Saggart Luas Station enabling convenient access to key destinations.
- The proposed development seeks to comply with the Sustainable Residential Development and Compact Settlements Guidelines and the South Dublin County Development Plan 2022–2028 in respect of car and cycle parking provision for various residential unit types.
- The trip generation, assignment and network assessment undertaken demonstrates that the proposed development will generate a relatively low level of vehicular traffic and will result in negligible impacts across the surrounding road network.
- The resulting percentage impact assessment indicated that the 5.0% threshold is only exceeded at the proposed site access junction and Stoney Hill Roundabout, thereby requiring further assessment:
- Junction modelling confirms that both the proposed site access and roundabout will operate within capacity in all assessed scenarios, including the opening and future design years, with minimal queueing and ample reserve capacity available.
- No mitigation measures are required to accommodate the proposed development traffic on the surrounding road network.

The assessment has fully considered the transport implications of the proposed development. It demonstrates that the development is appropriately located, provides a suitable and justified level of parking, and will have minimal impact on the operation of the local road network.

It is concluded that the proposed development will not result in any material deterioration of existing traffic conditions and will support and encourage travel by sustainable modes. As such, there are no significant traffic or transportation related reasons that should prevent the granting of planning permission for the proposed development.

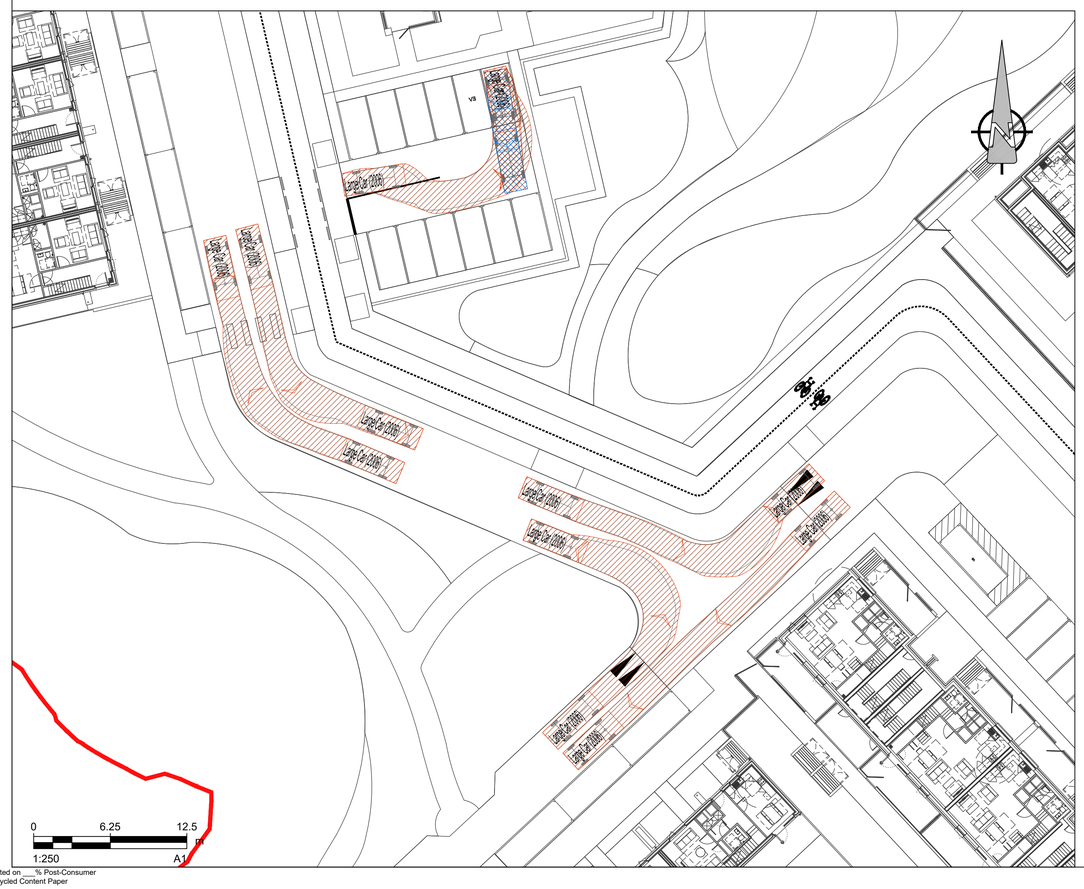
Appendix A Swept Path Analysis and Visibility Splays

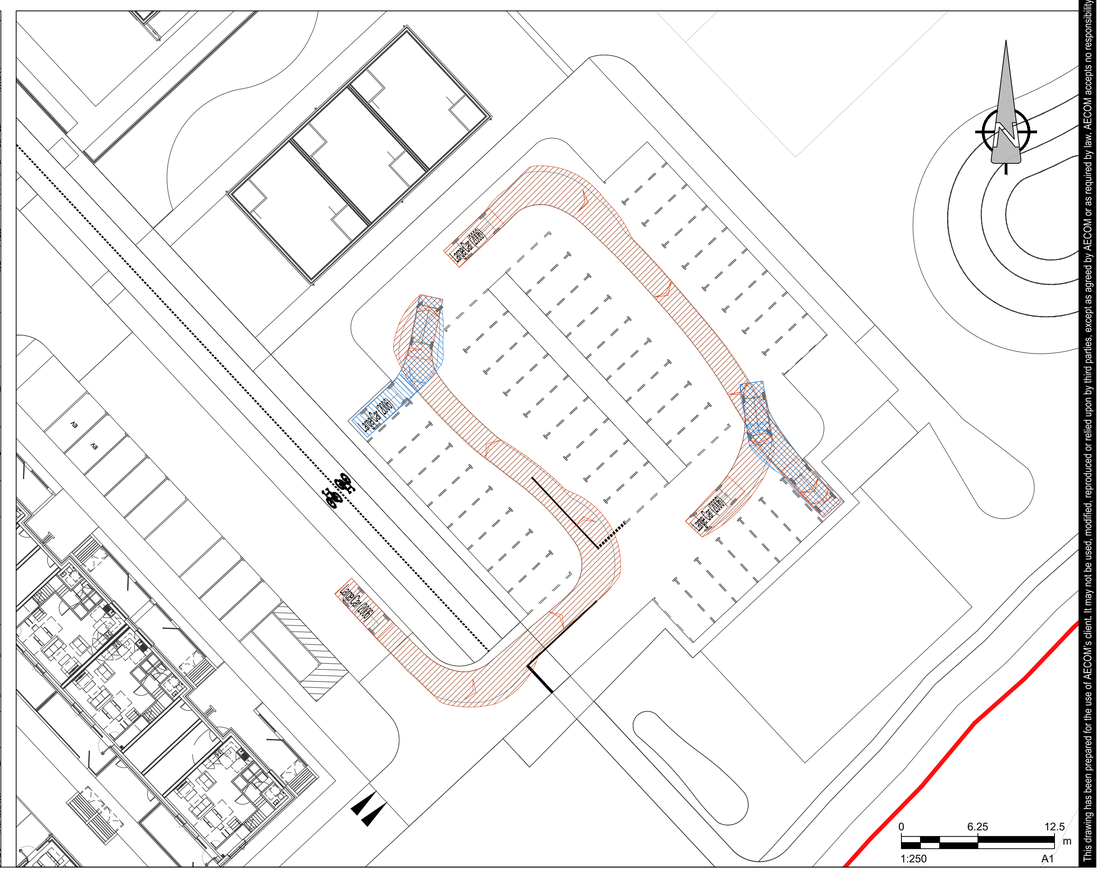
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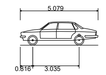
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LEGEND

LARGE CAR (2006)



Overall Length	5.079m
Overall Width	1.872m
Overall Body Height	1.525m
Min Body Ground Clearance	0.310m
Max Track Width	1.831m
Lock to Lock Time	4.00 sec
Kerb to Kerb Turning Radius	5.900m

FORWARD MOVE

BACKWARD MOVE

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KEY PLAN



ISSUE/REVISION

I/R	DATE	DESCRIPTION
04	09.10.2026	PLANNING ISSUE
03	30/06/2026	PLANNING ISSUE
02	20/05/2026	ISSUE FOR STAGE 1B
01	19/09/2025	ISSUE FOR STAGE 1B

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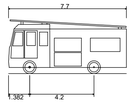
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PROPOSED SWEPTH PATH ANALYSIS
SHEET 1 OF 2

SHEET NUMBER

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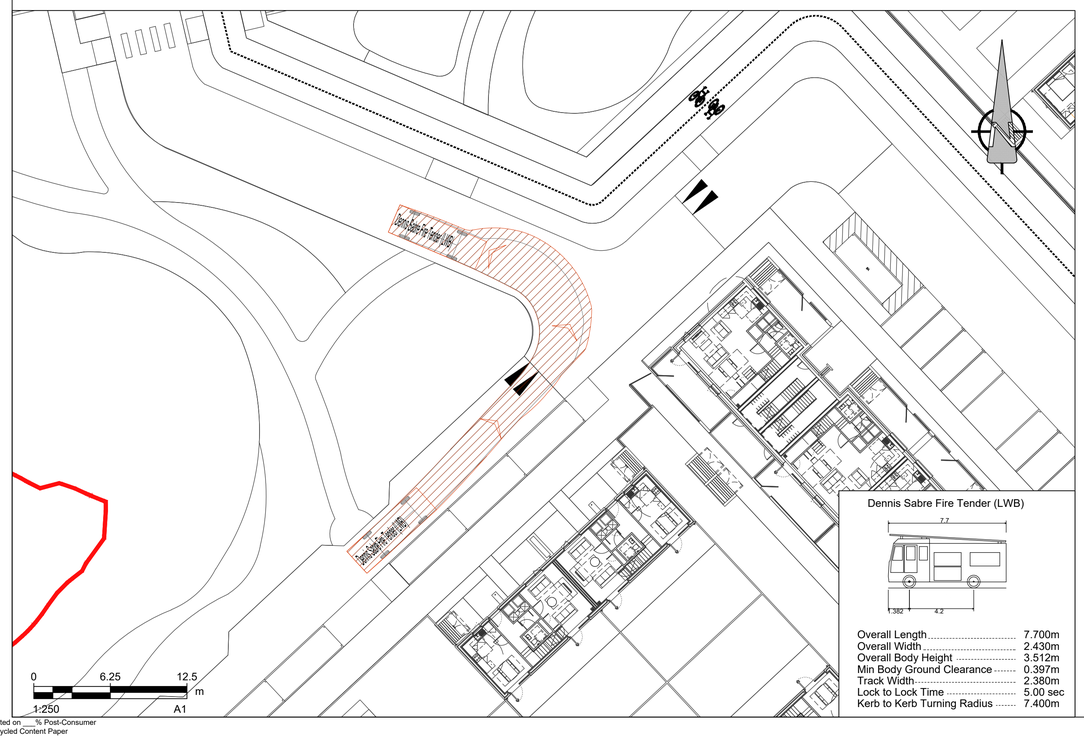
Dennis Sabre Fire Tender (LWB)



Overall Length	7.700m
Overall Width	2.430m
Overall Body Height	3.512m
Min Body Ground Clearance	0.397m
Track Width	2.380m
Lock to Lock Time	5.00 sec
Kerb to Kerb Turning Radius	7.400m

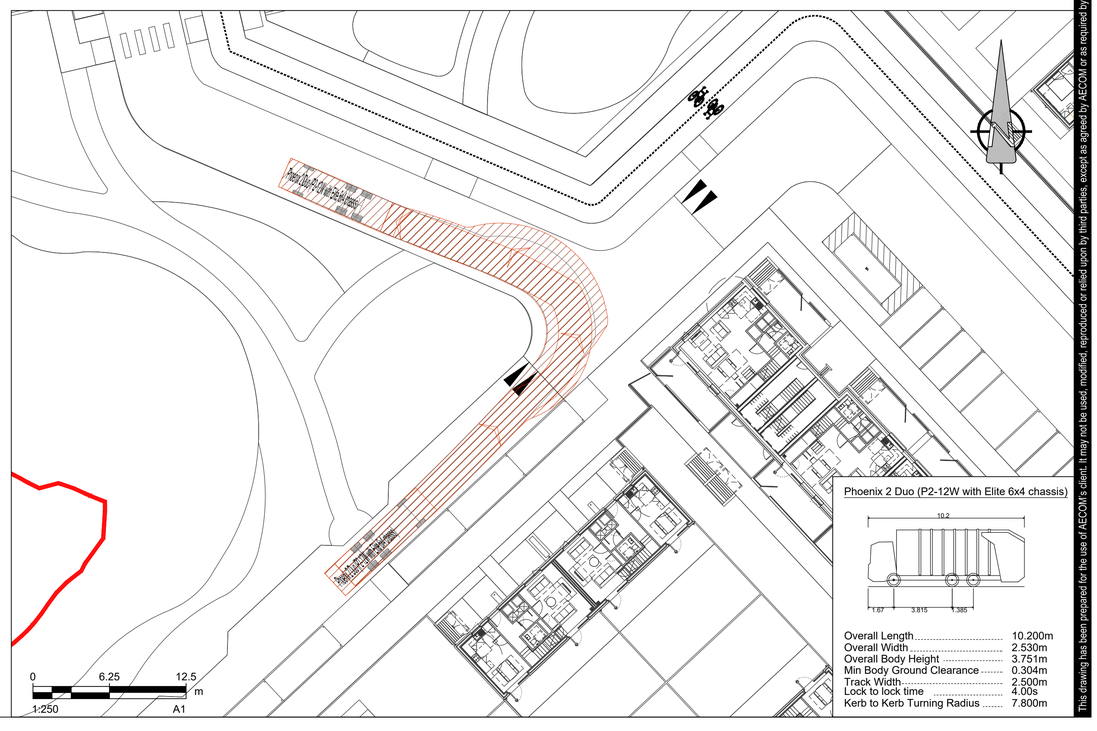
Phoenix 2 Duo (P2-12W with Elite 6x4 chassis)

Overall Length	10.200m
Overall Width	2.530m
Overall Body Height	3.751m
Min Body Ground Clearance	0.304m
Track Width	2.500m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	7.800m



Dennis Sabre Fire Tender (LWB)

Overall Length	7.700m
Overall Width	2.430m
Overall Body Height	3.512m
Min Body Ground Clearance	0.397m
Track Width	2.380m
Lock to Lock Time	5.00 sec
Kerb to Kerb Turning Radius	7.400m



Phoenix 2 Duo (P2-12W with Elite 6x4 chassis)

Overall Length	10.200m
Overall Width	2.530m
Overall Body Height	3.751m
Min Body Ground Clearance	0.304m
Track Width	2.500m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	7.800m

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LEGEND

FORWARD MOVE

BACKWARD MOVE

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PROPOSED SWEPTH PATH ANALYSIS
SHEET 2 OF 2

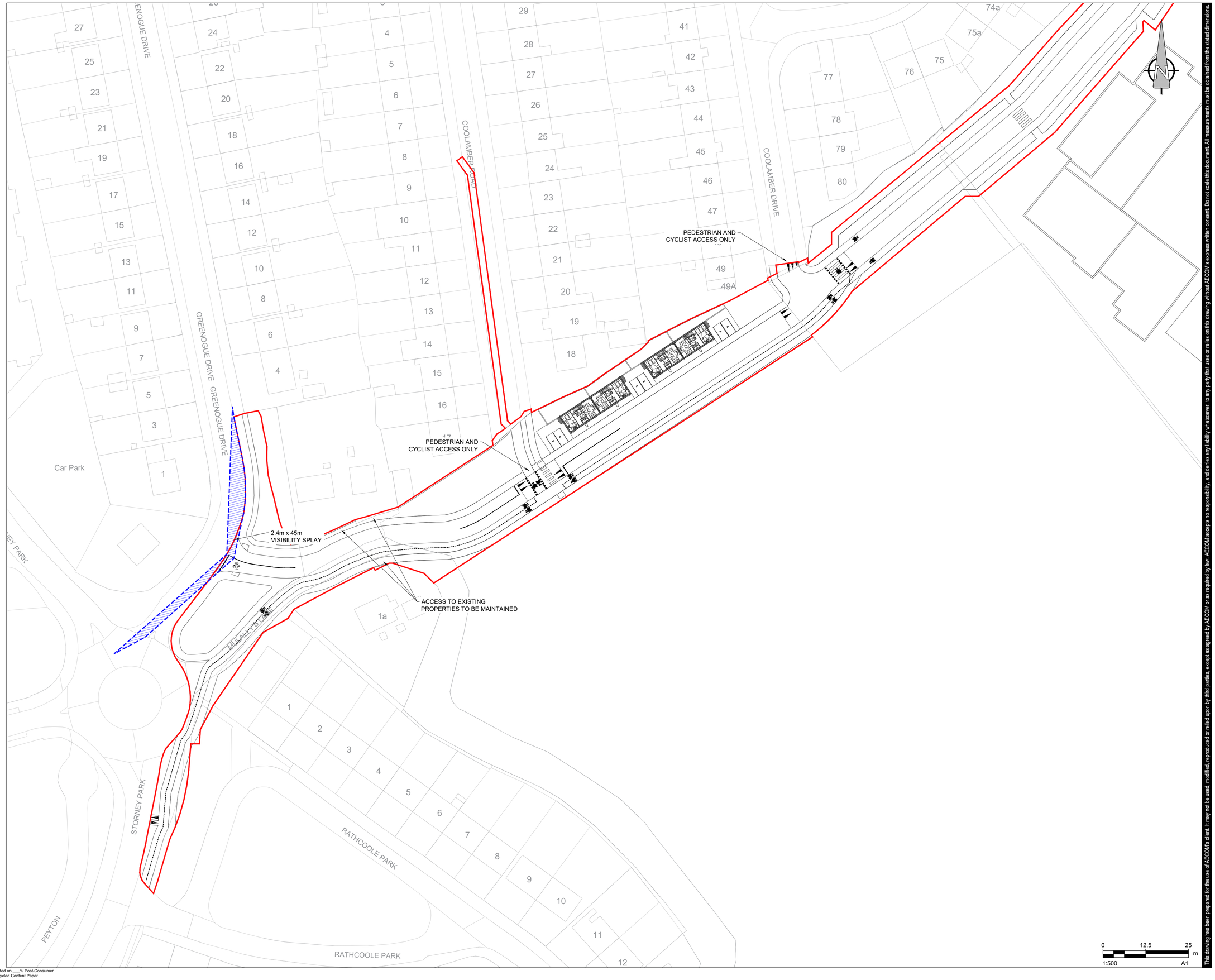
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02	09.10.2026	PLANNING ISSUE
01	26.08.2026	PLANNING ISSUE

PROJECT NUMBER

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SHEET TITLE

PROPOSED VISIBILITY SPLAYS
SHEET 1 OF 2

SHEET NUMBER

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PROJECT

SDCC RATHCOOLE

CLIENT

SOUTH DUBLIN COUNTY COUNCIL

CONSULTANT

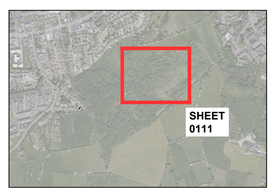
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NOTES

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2. ALL DIMENSIONS TO BE CHECKED BY THE CONTRACTOR ON SITE PRIOR TO COMMENCEMENT OF WORKS.
3. AECOM LIMITED TO BE INFORMED BY THE CONTRACTOR OF ANY DISCREPANCIES PRIOR TO THE COMMENCEMENT OF WORKS ON SITE.
4. DIMENSIONS OF ALL BOUNDARIES AND ADJOINING ROADS TO BE CHECKED ON SITE PRIOR TO COMMENCEMENT OF WORKS.
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FOR COMMENT

KEY PLAN



ISSUE/REVISION

I/R	DATE	DESCRIPTION
02	09.10.2026	PLANNING ISSUE
01	26/08/2026	PLANNING ISSUE

PROJECT NUMBER

60739527

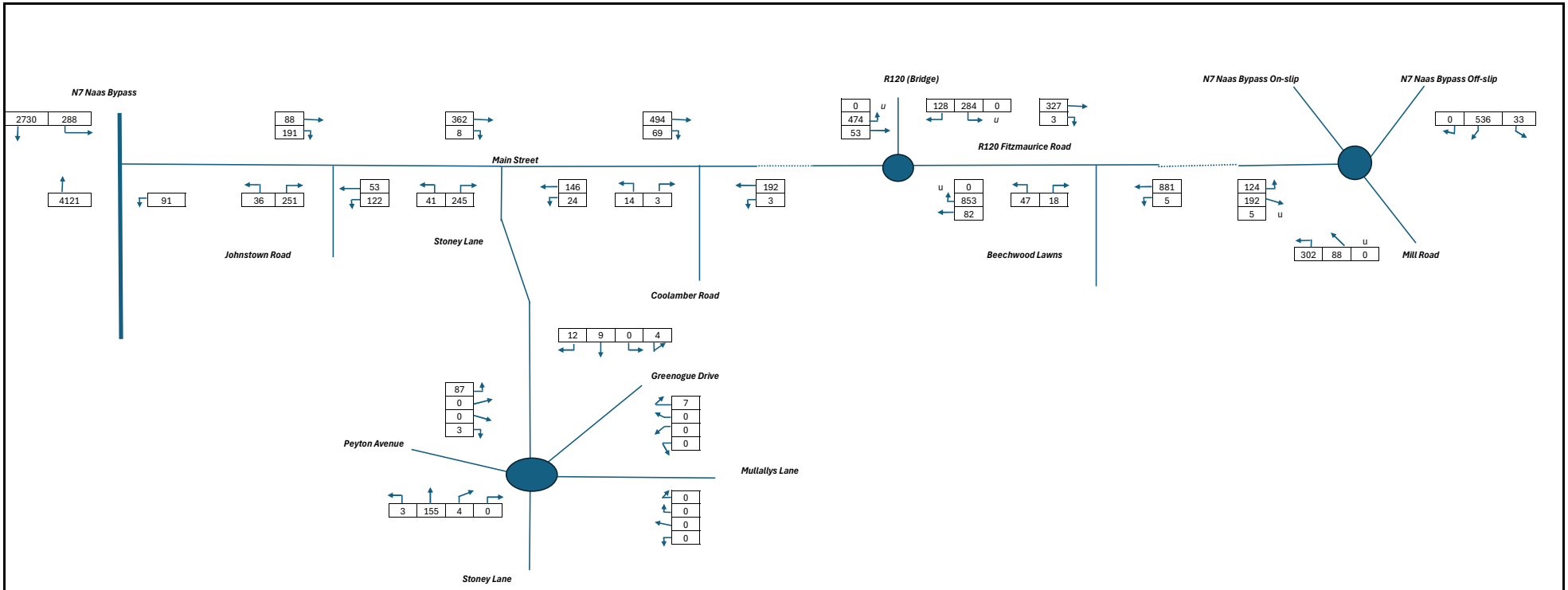
SHEET TITLE

PROPOSED VISIBILITY SPLAYS
SHEET 2 OF 2

SHEET NUMBER

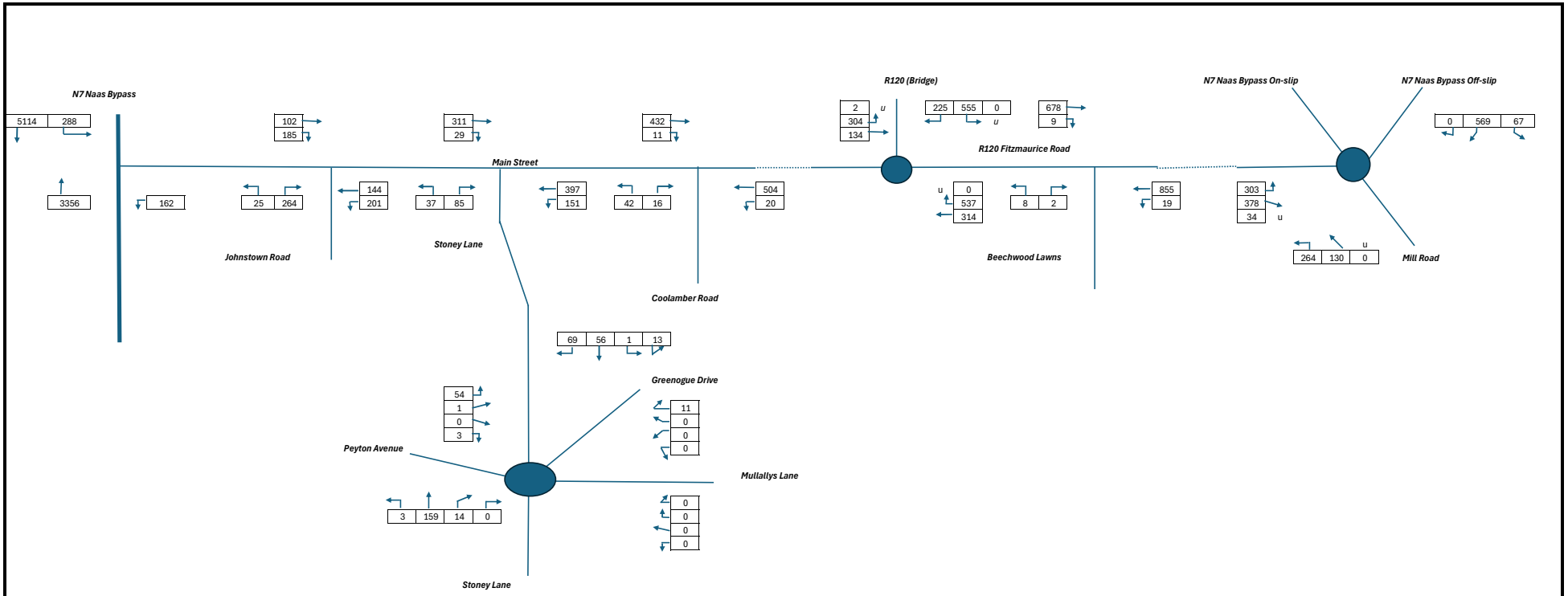
RATH-ACM-XX-00-DR-OT-000111

Appendix B Traffic Flow Diagrams



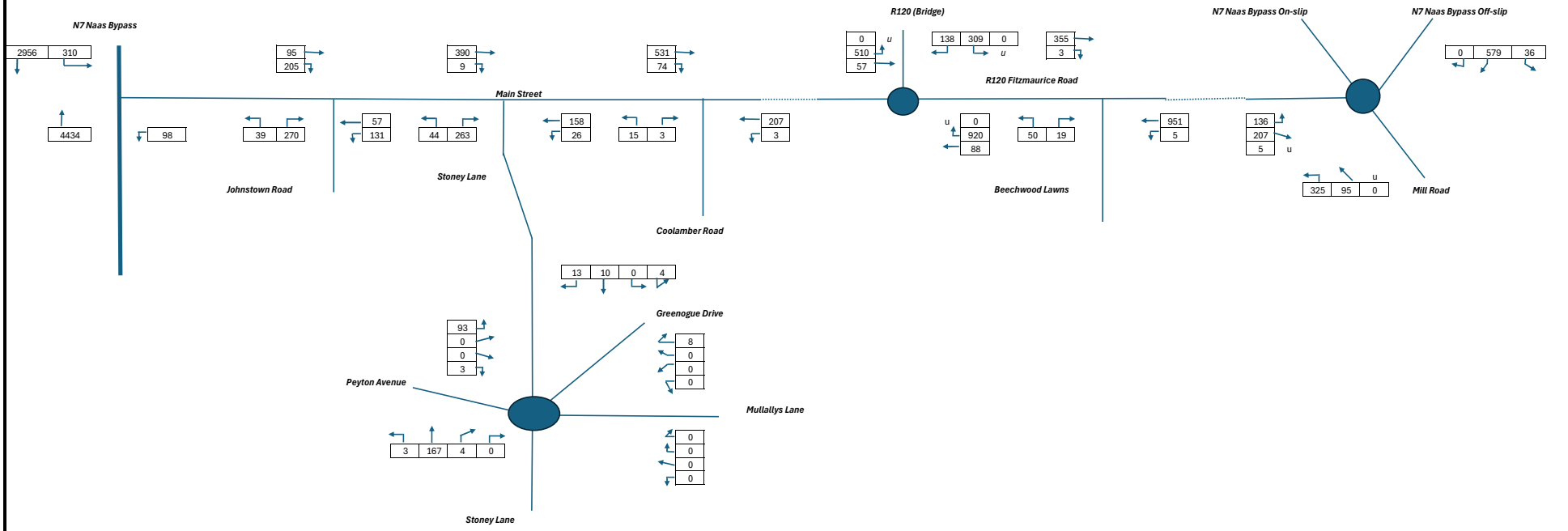
2025 AM Peak 07:45 - 08:45 (PCUs)

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Approved	MB



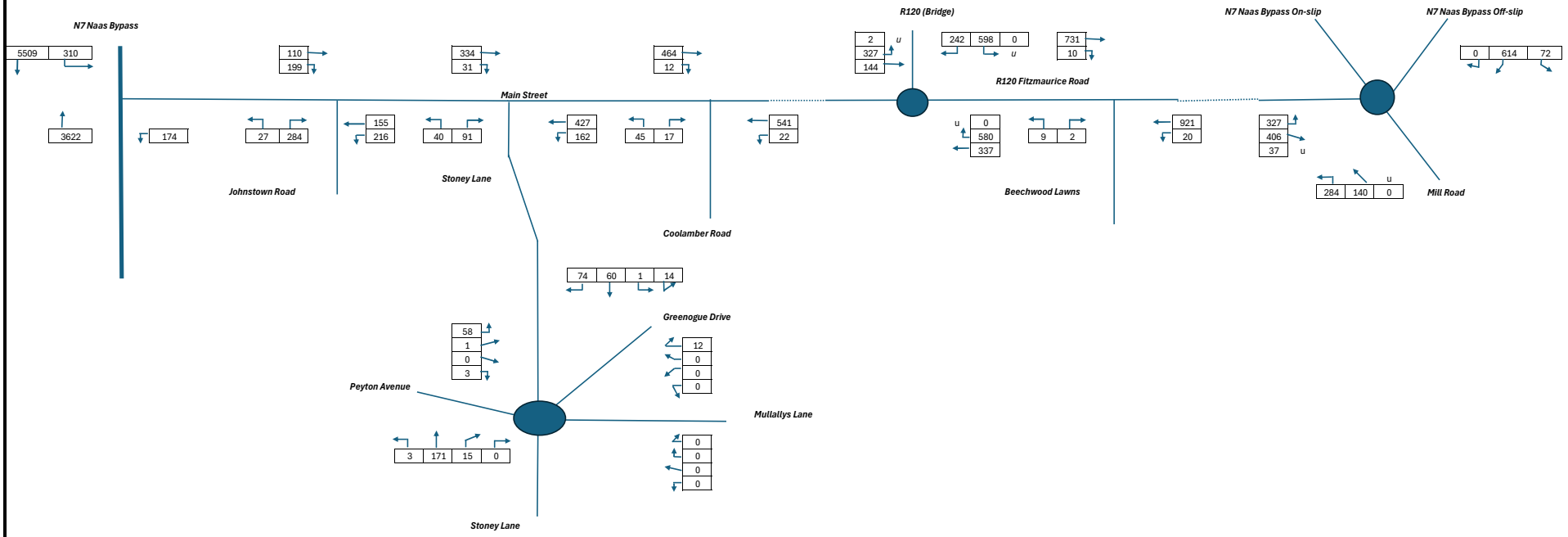
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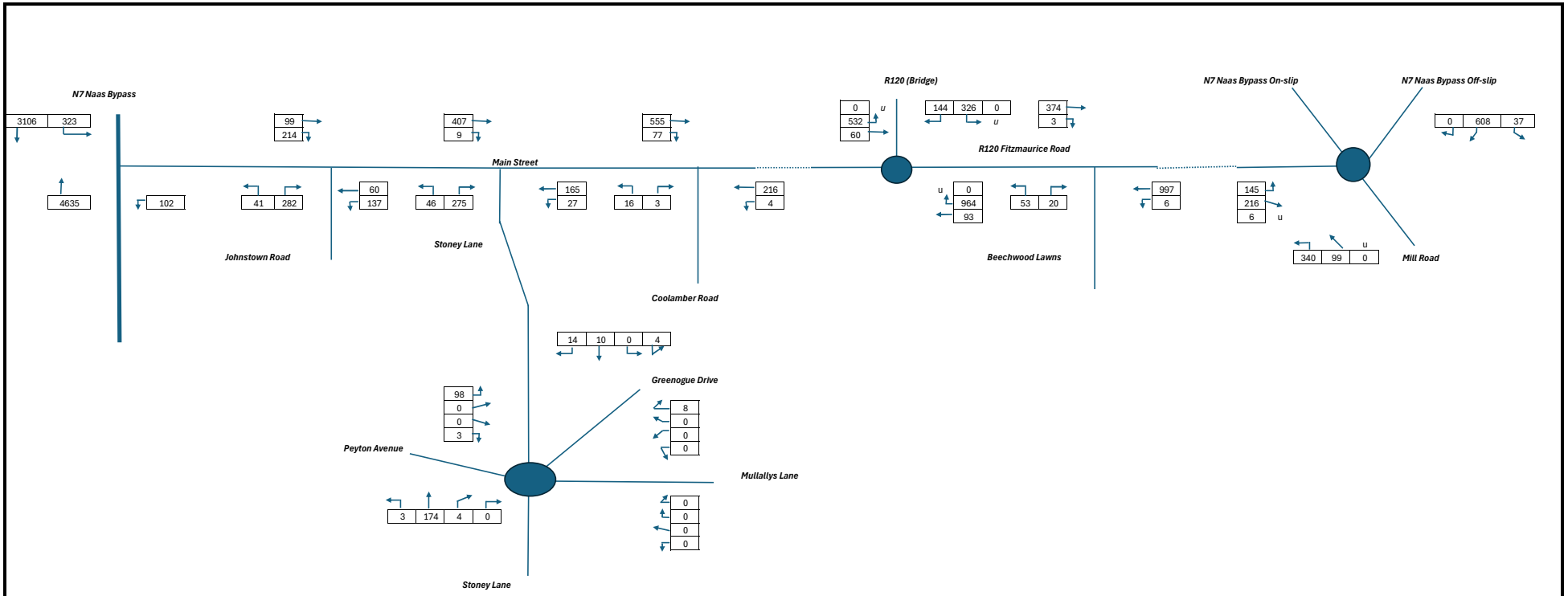
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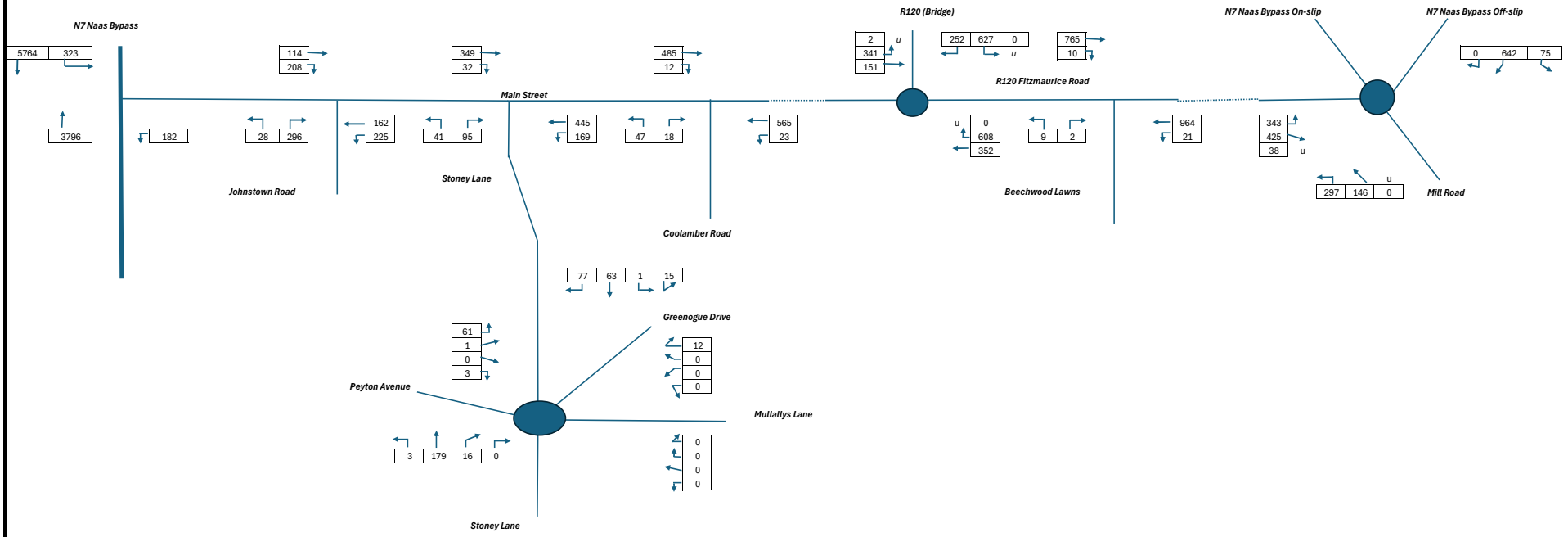
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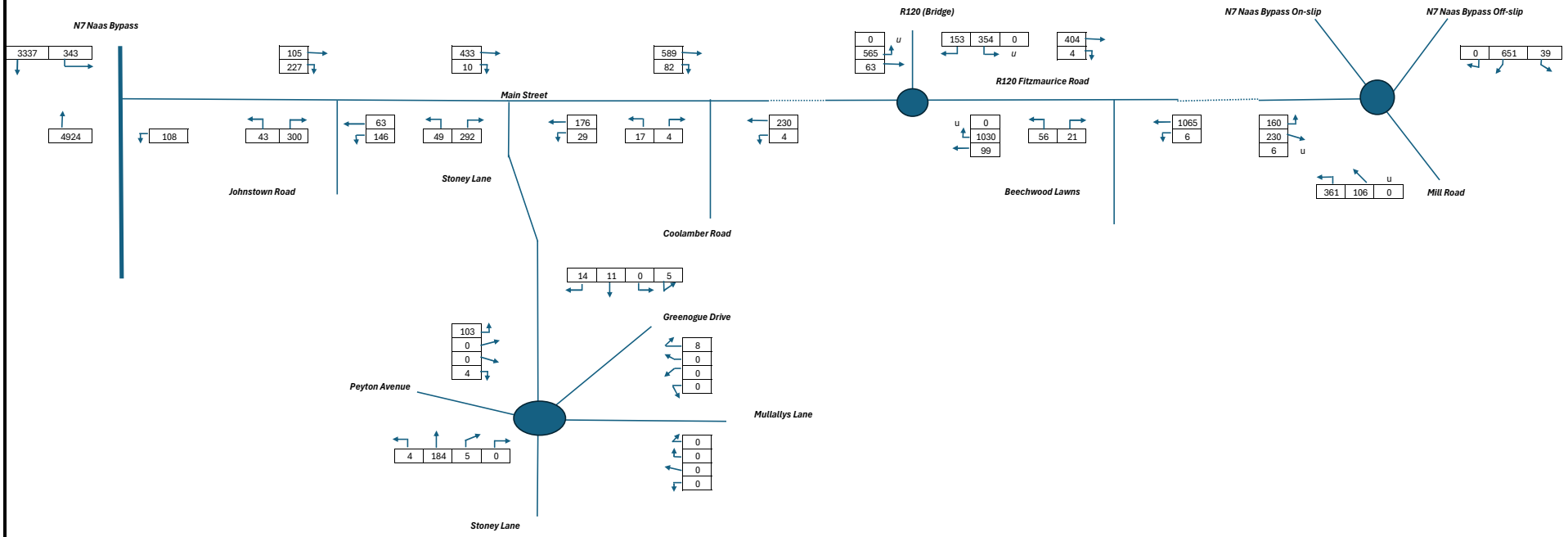
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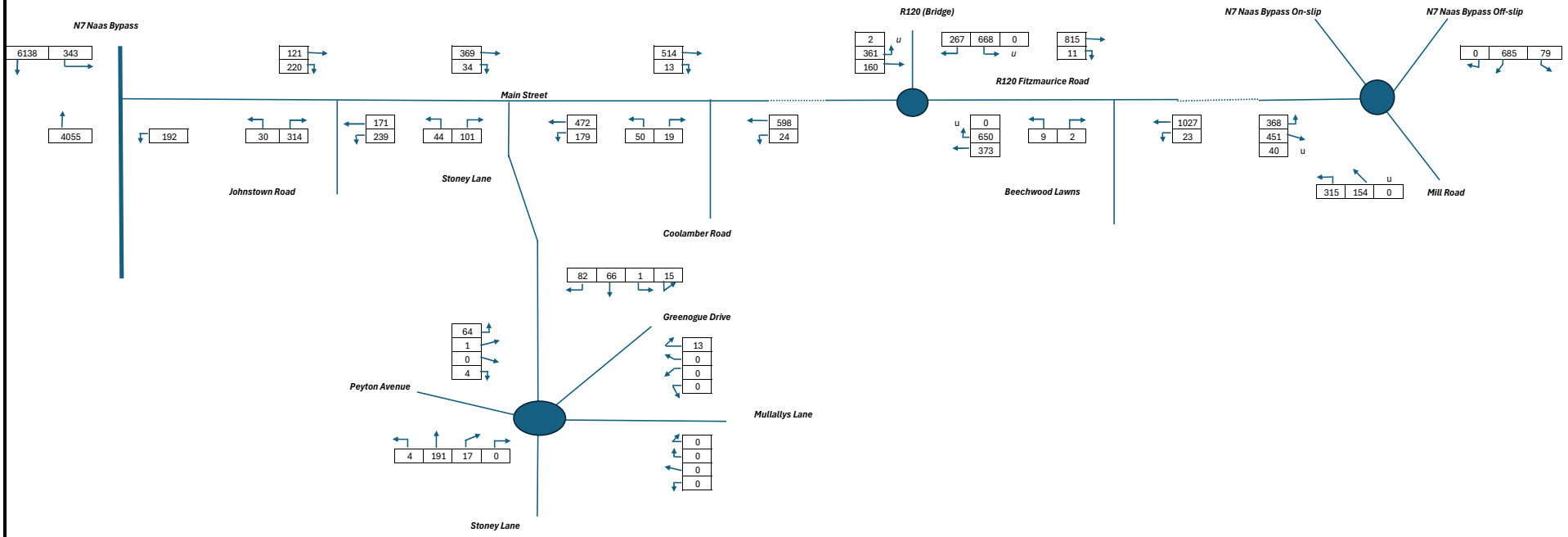
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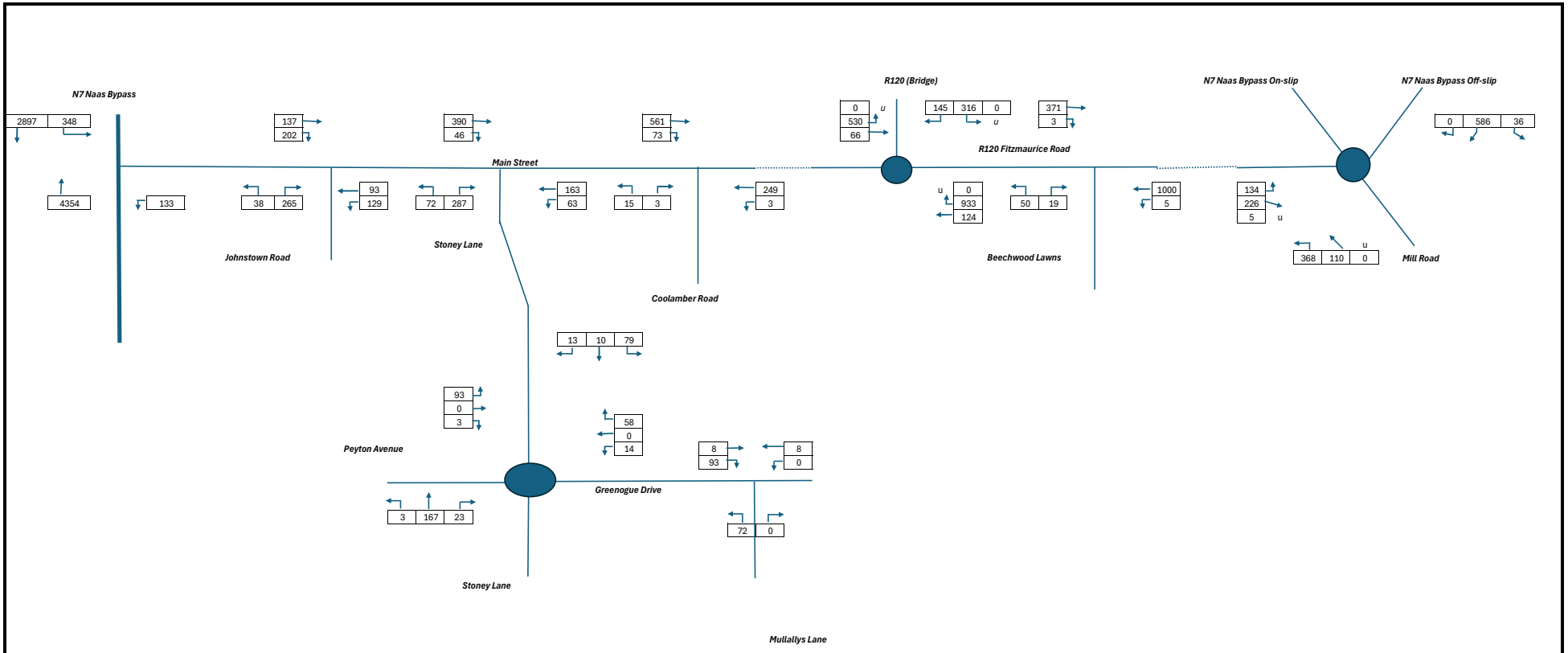
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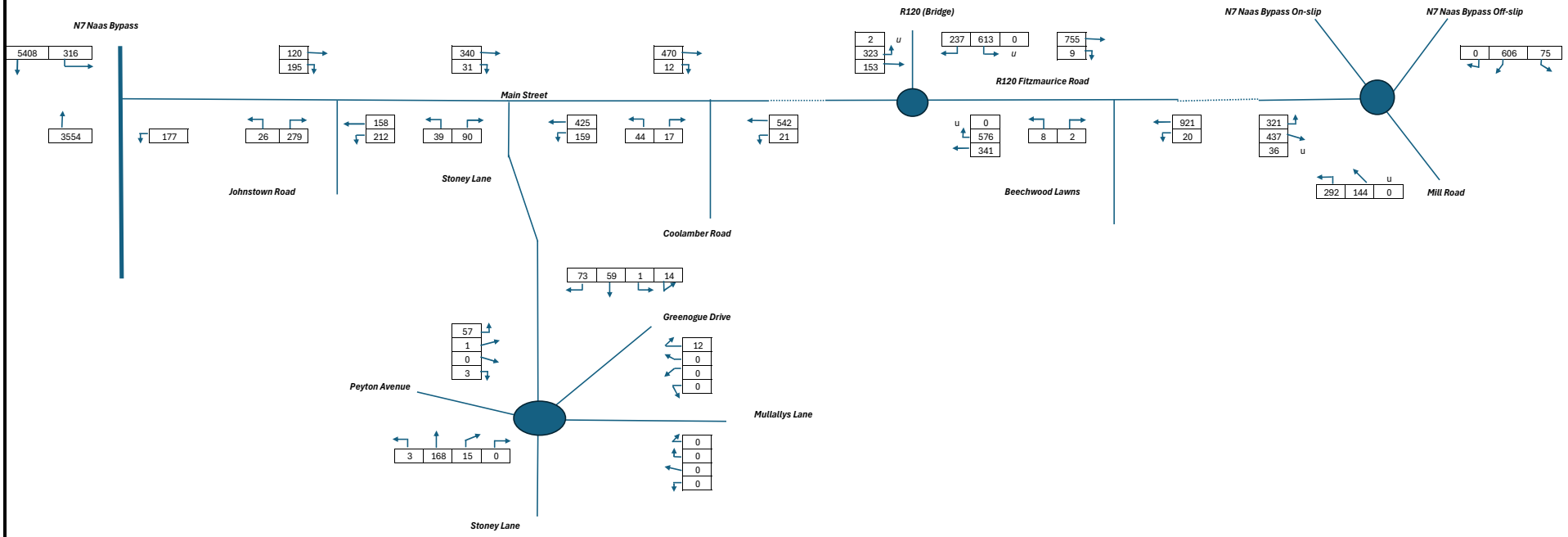
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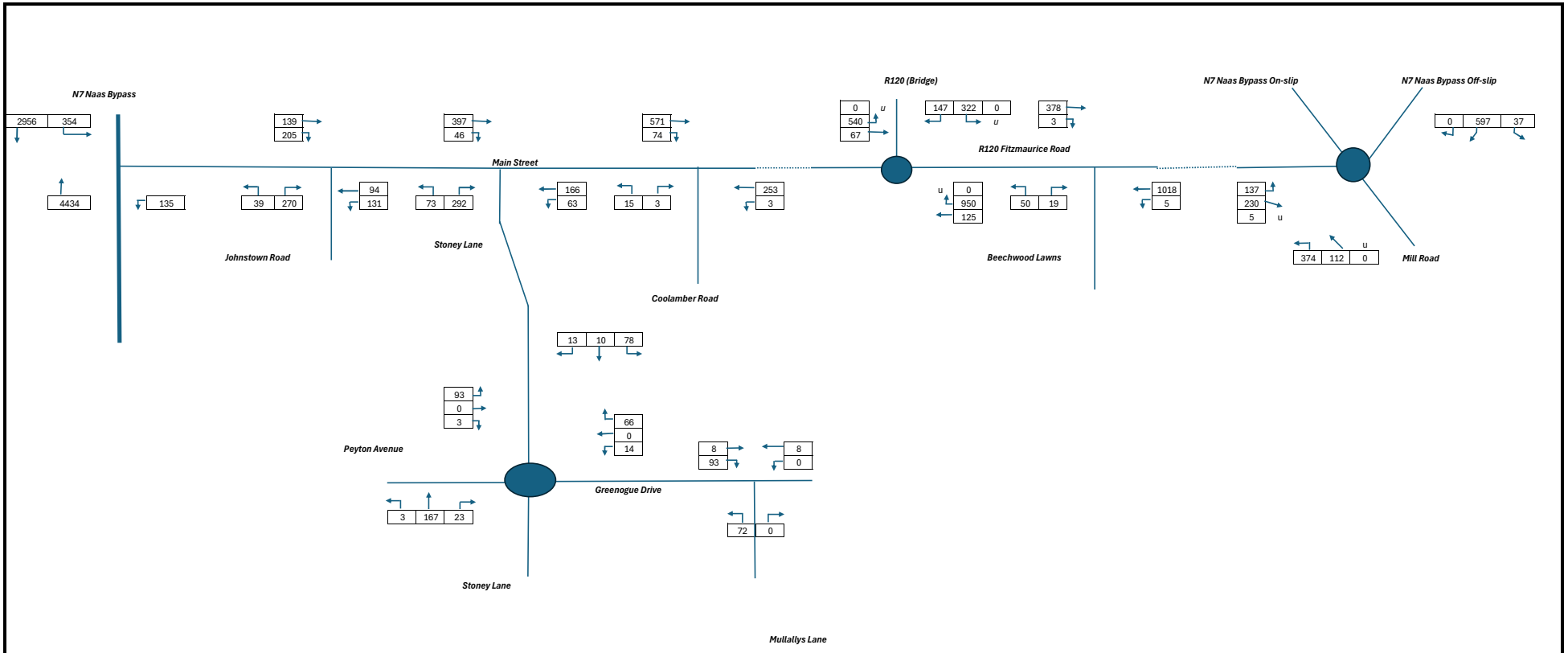
2028 AM Base + Committed Dev (school via Greenogue) (Construction)

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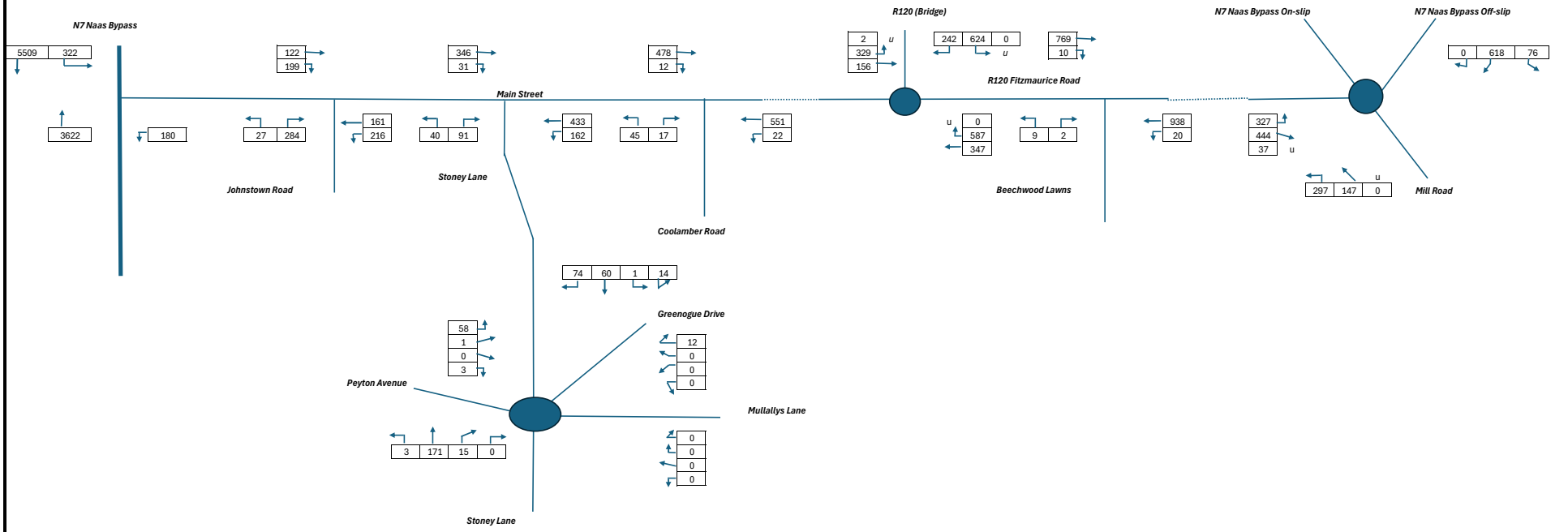
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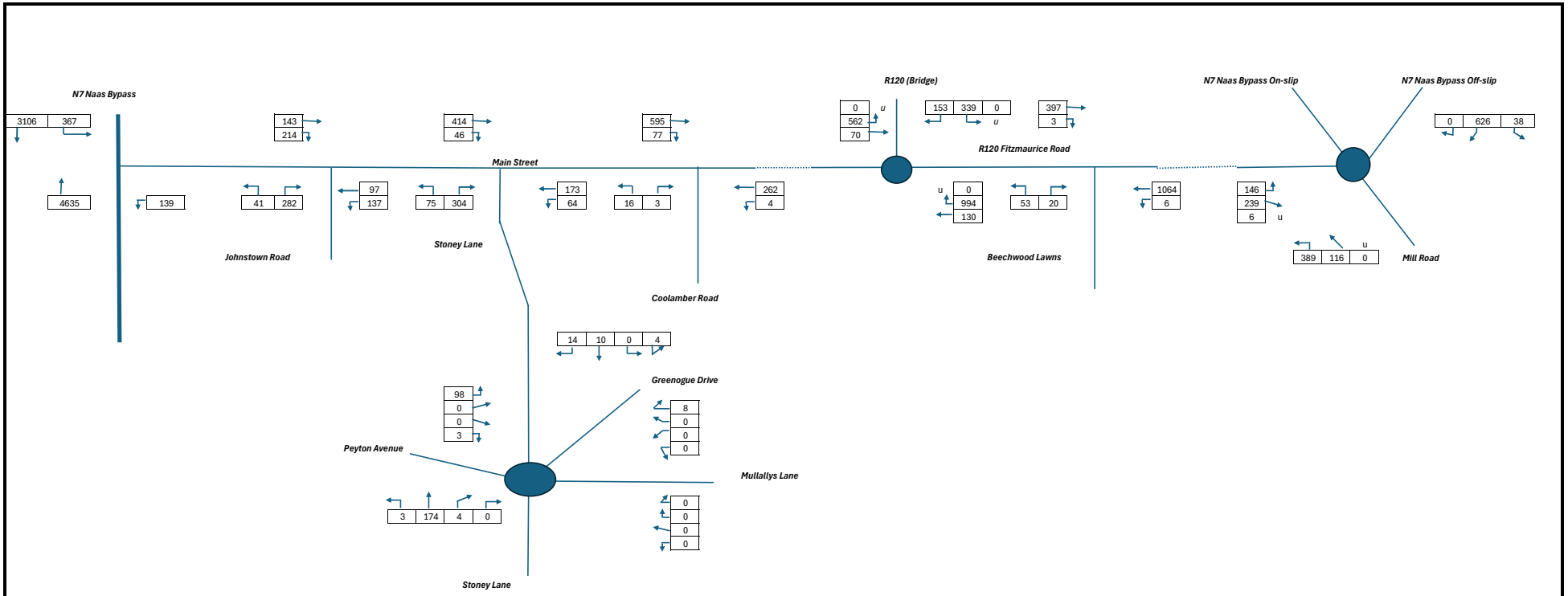
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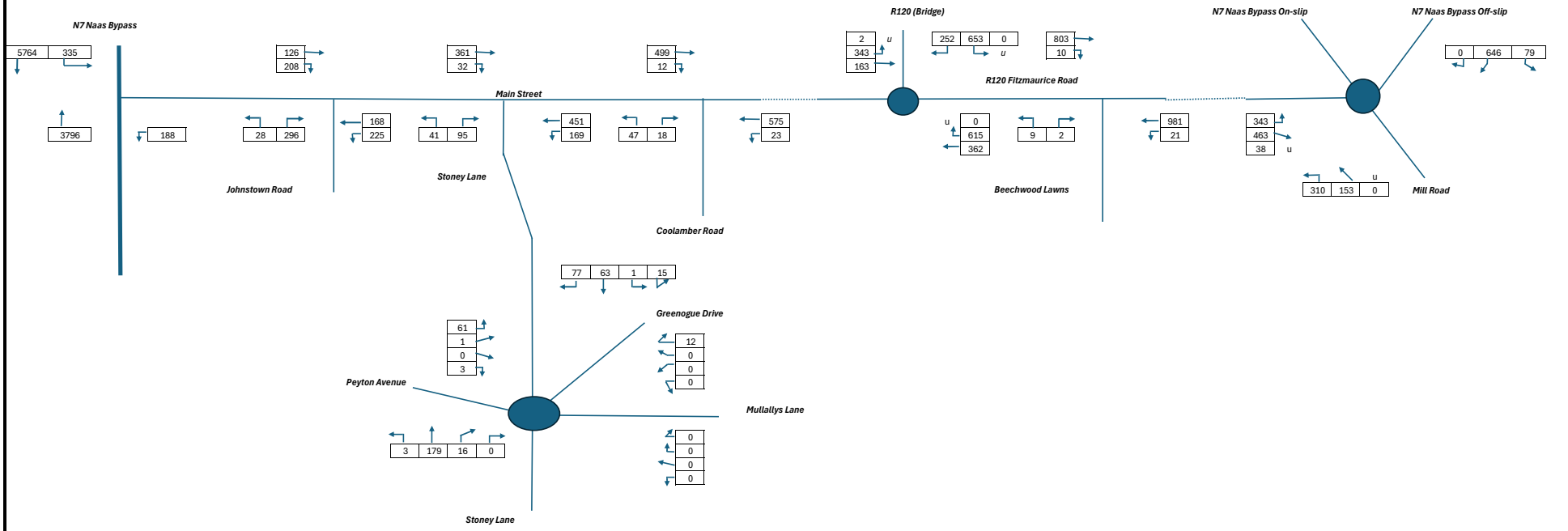
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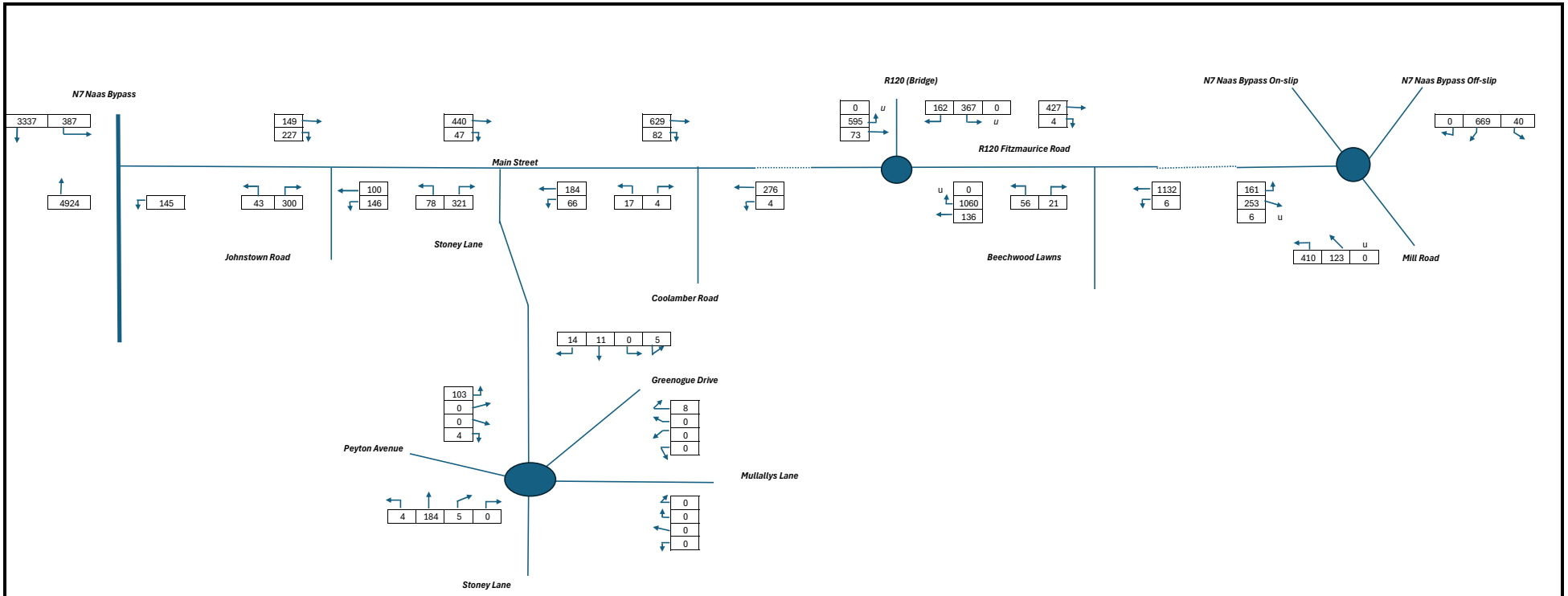
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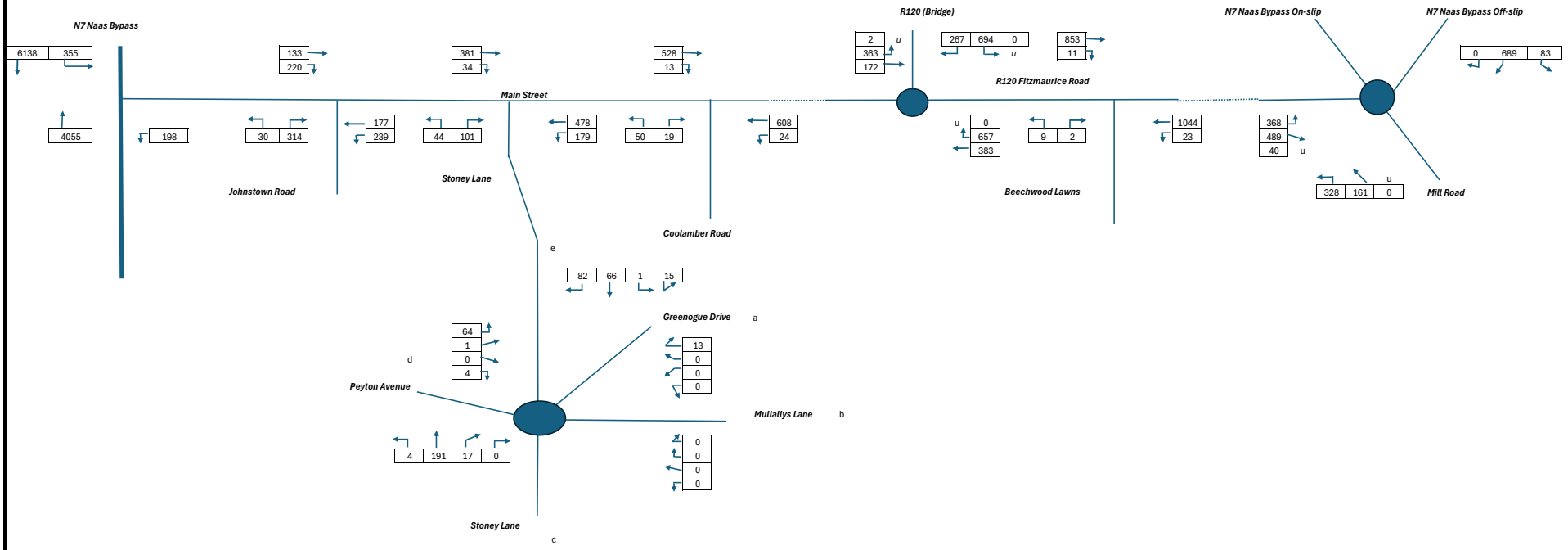
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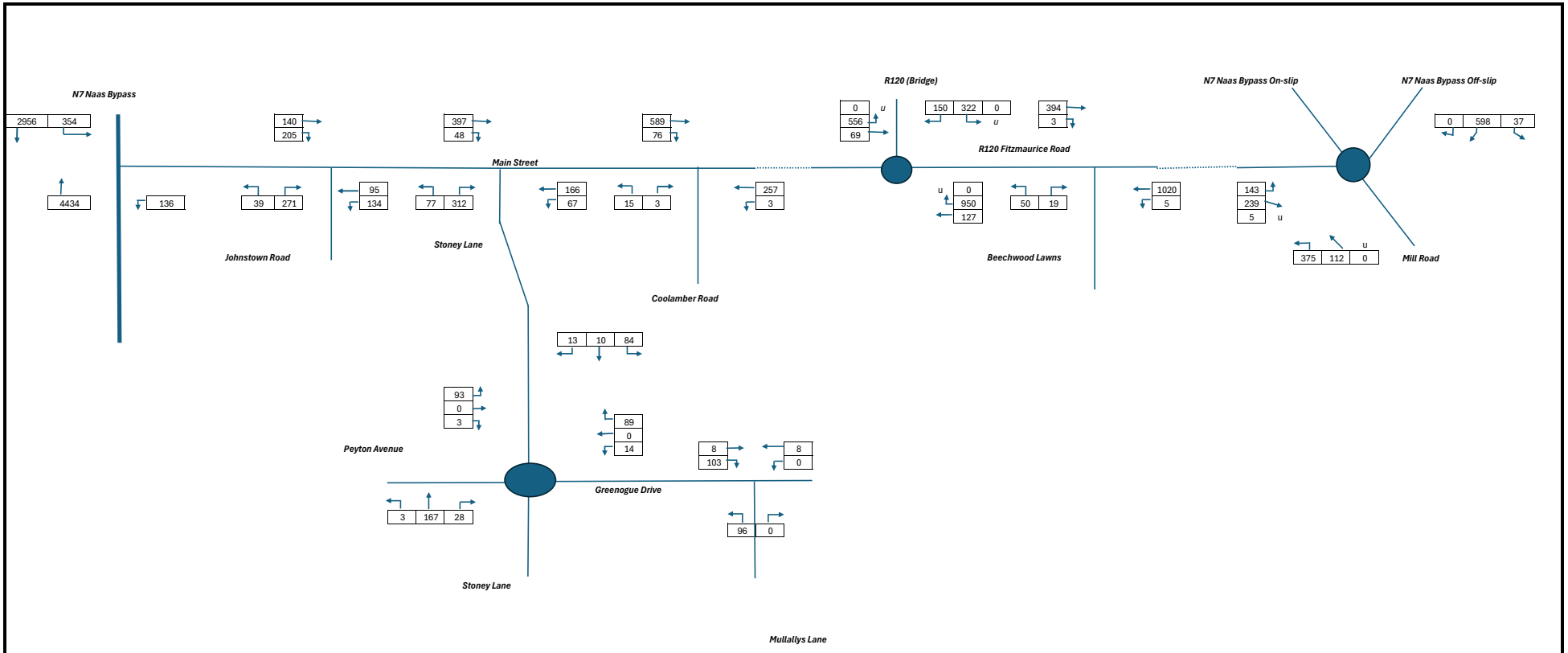
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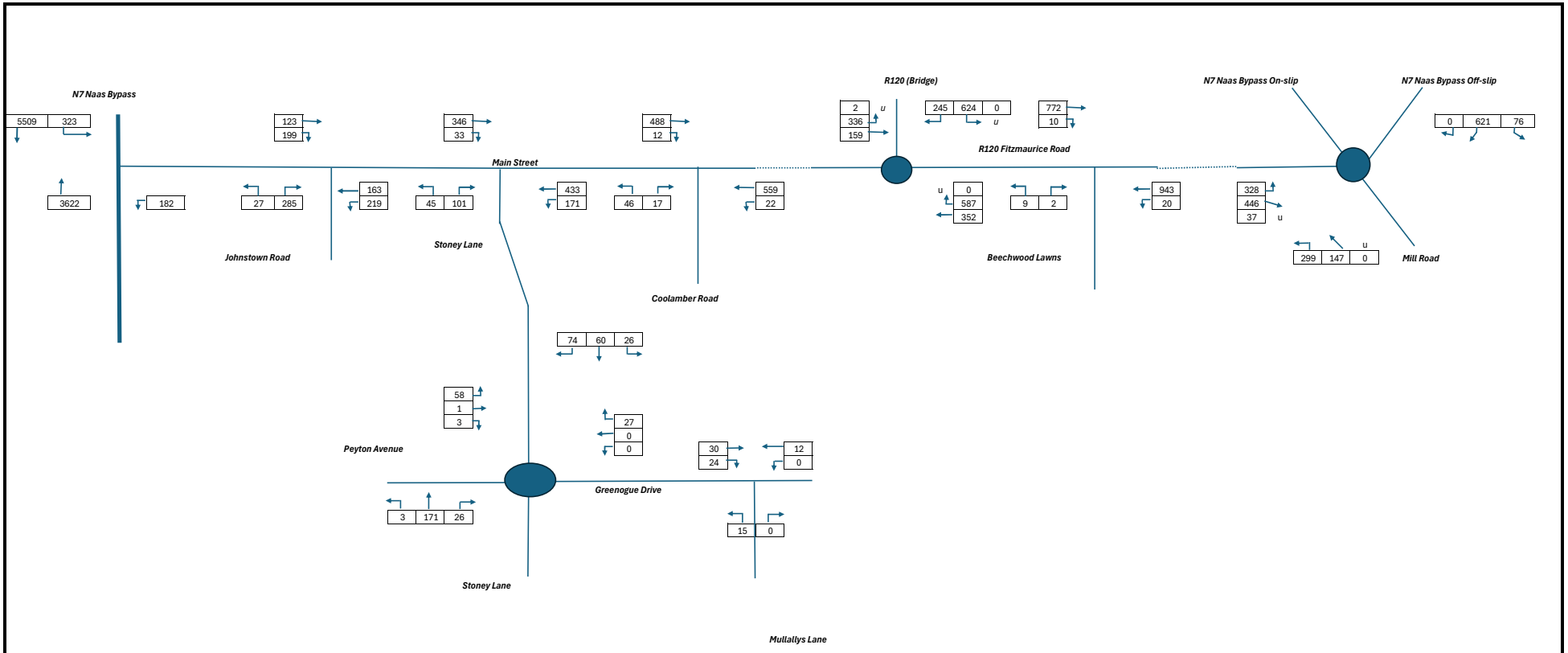
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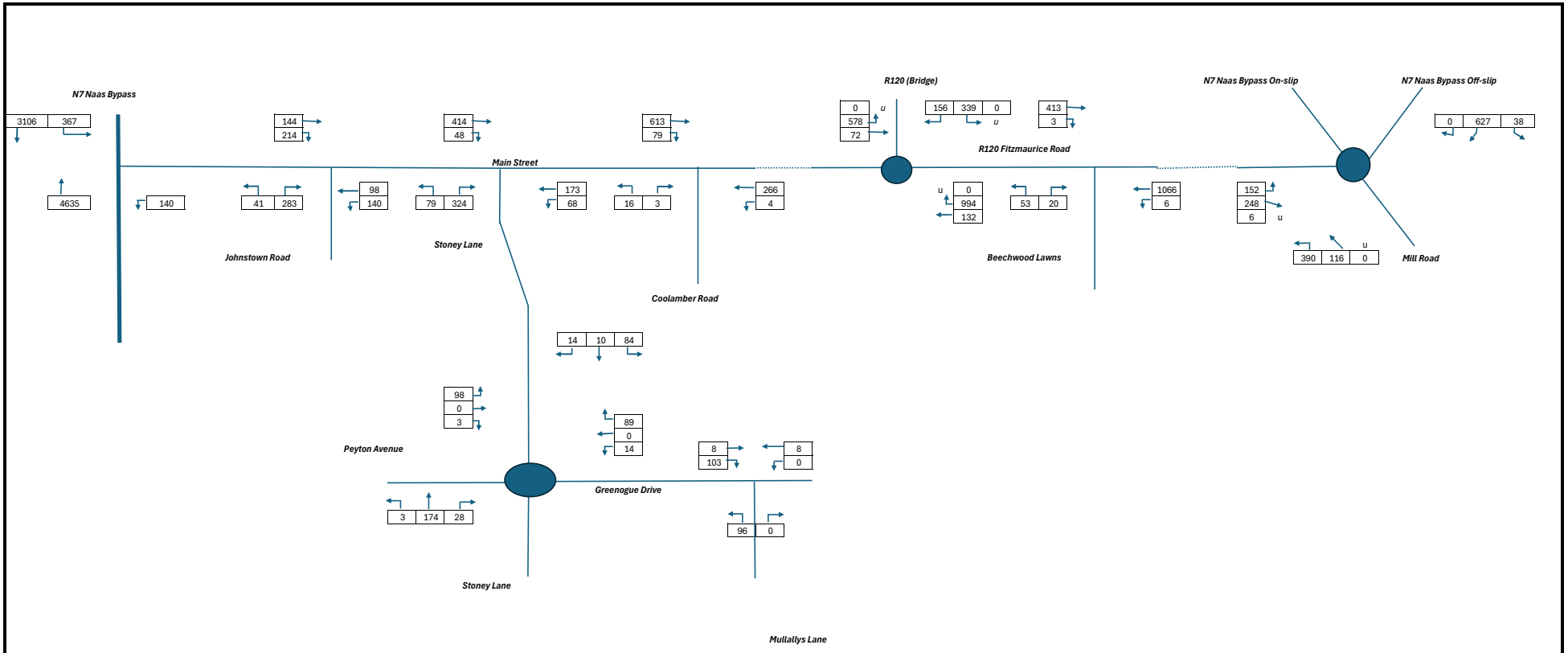
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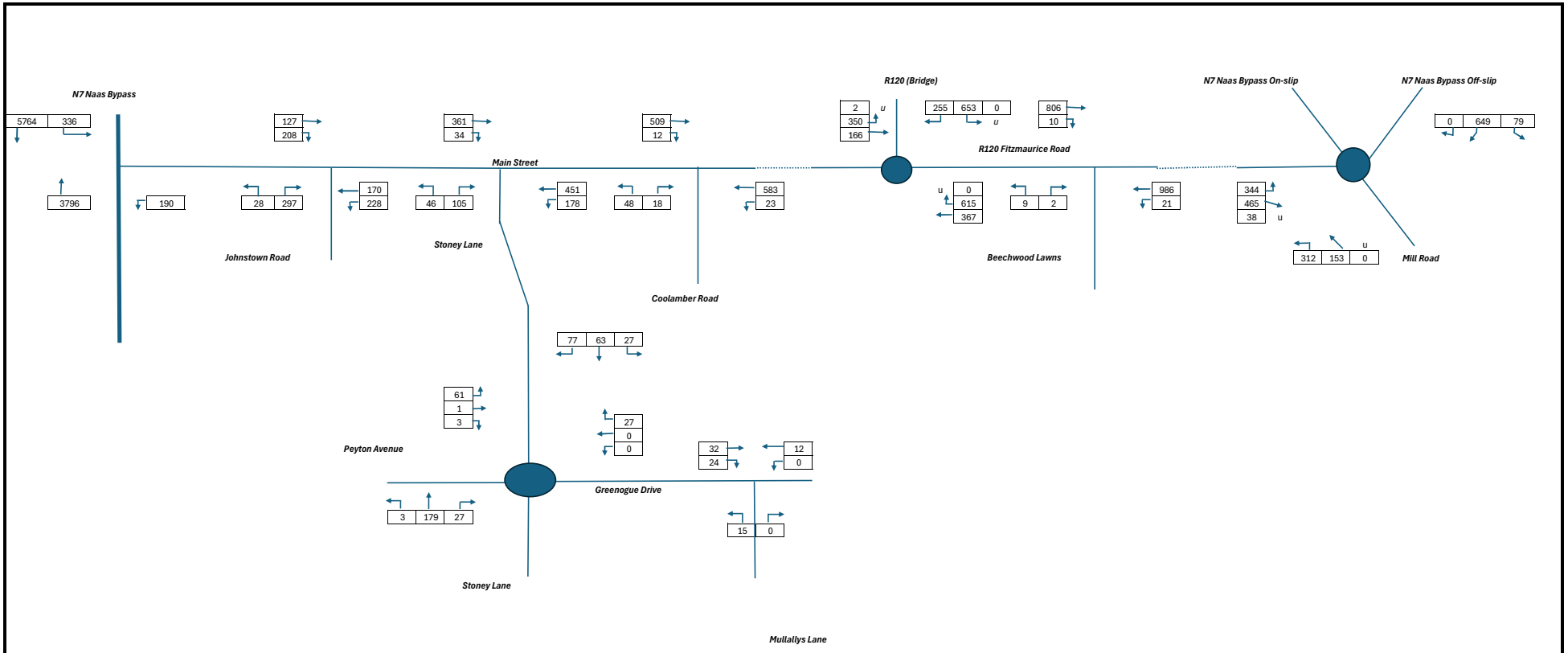
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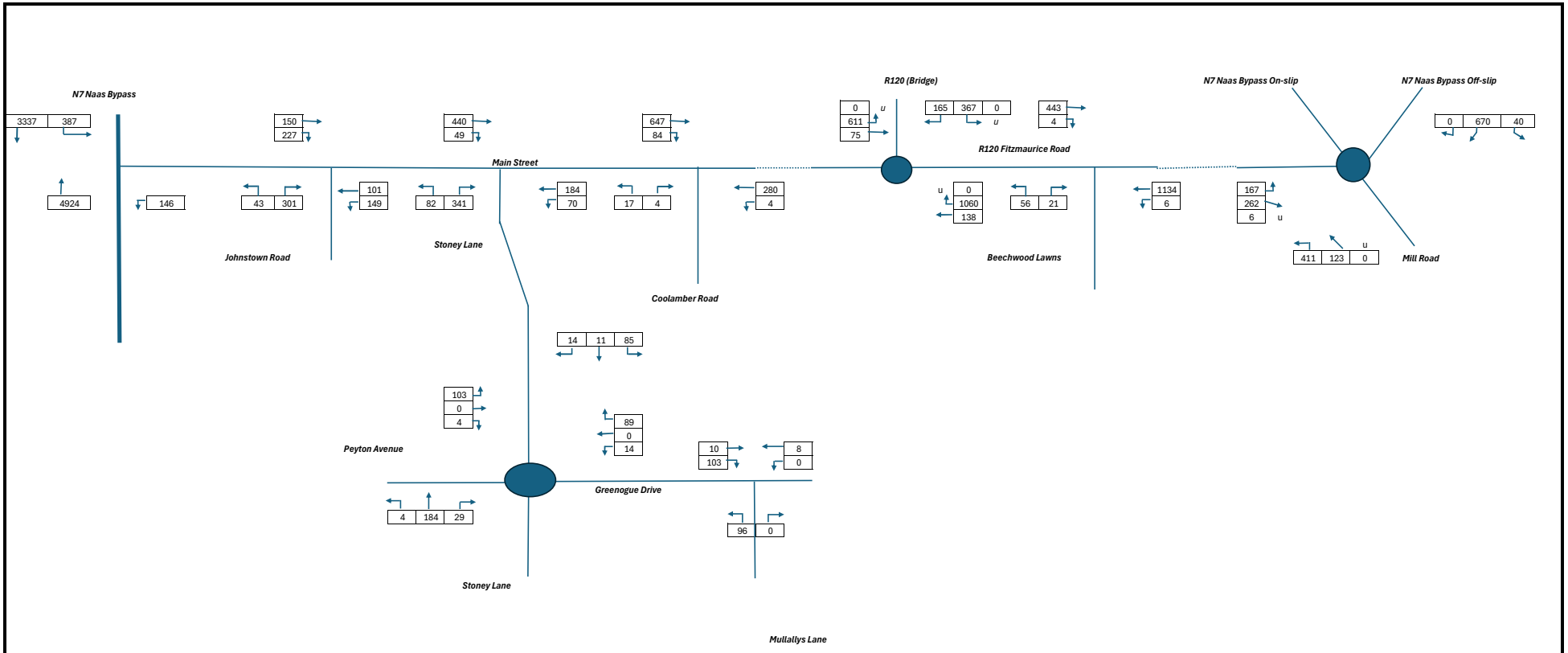
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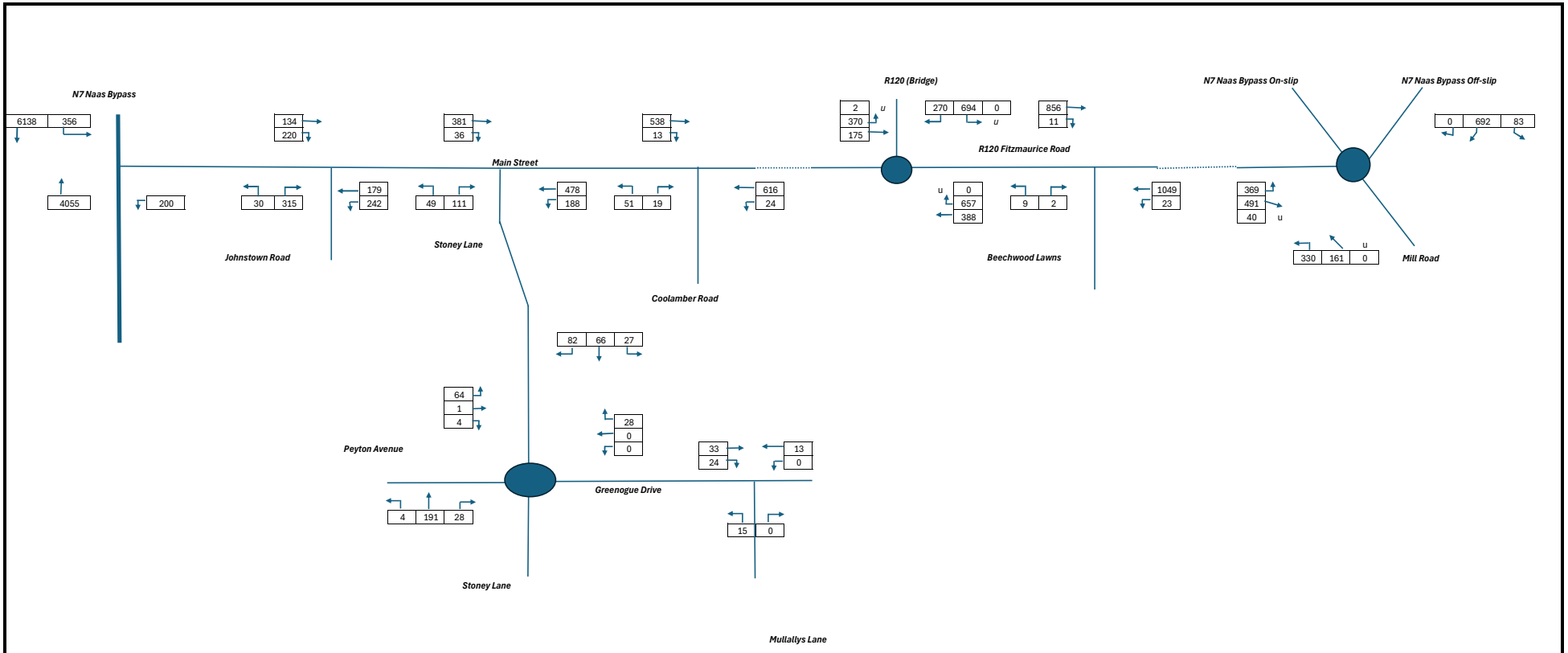
2034 PM Peak + Committed Development + Development 16:45 -17:45

Created	MC
Checked	CMcC
Approved	MB



2044 AM Peak + Committed Development + Development 07:45 -08:45

Created	MC
Checked	CMcC
Approved	MB



2044 PM Peak + Committed Development + Development 16:45 -17:45

Created	MC
Checked	CMcC
Approved	MB

Appendix C Junctions 11 Outputs

Junctions 11

ARCADY 11 - Roundabout Module
PICADY 11 - Priority Intersection Module

Version: 11.1.1.2424
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Filename: Import of J11 - Roundabout access Do Something.j11
Path: C:\Users\StevensonK\AECOM\SDCC Rath - 434_TechnicalArea_TR\01 Reports\03 TTA\Junctions 11
Report generation date: 07/07/2026 16:06:23

»Do Minimum Via Greenogue - D1 - 2029 | DM Via Green | AM
»Do Minimum Via Greenogue - D2 - 2029 | DM | PM
»Do Minimum Via Greenogue - D3 - 2034 | DM Via Green | AM
»Do Minimum Via Greenogue - D4 - 2034 | DM | PM
»Do Minimum Via Greenogue - D5 - 2044 | DM Via Green | AM
»Do Minimum Via Greenogue - D6 - 2044 | DM | PM
»Do Something - D7 - 2029 | DS | AM
»Do Something - D8 - 2029 | DS | PM
»Do Something - D9 - 2034 | DS | AM
»Do Something - D10 - 2034 | DS | PM
»Do Something - D11 - 2044 | DS | AM
»Do Something - D12 - 2044 | DS | PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	Do Minimum Via Greenogue - 2029 - DM Via Green									
Junction 1 - Arm 1	A1 D1	0.1	4.04	0.09	A					
Junction 1 - Arm 3		0.2	3.15	0.16	A					
Junction 1 - Arm 4		0.1	4.88	0.13	A					
Junction 1 - Arm 5		0.1	4.02	0.11	A					
Junction 2 - Stream B-AC		0.1	6.55	0.13	A					
Junction 2 - Stream C-AB		0.2	7.16	0.17	A					
	Do Minimum Via Greenogue - 2029 - DM									
Junction 1 - Arm 1						A1 D2	0.0	3.93	0.01	A
Junction 1 - Arm 3							0.2	3.14	0.15	A
Junction 1 - Arm 4							0.1	4.44	0.08	A
Junction 1 - Arm 5							0.2	4.24	0.16	A
Junction 2 - Stream B-AC							0.0	0.00	0.00	A
Junction 2 - Stream C-AB							0.0	5.85	0.00	A
	Do Minimum Via Greenogue - 2034 - DM Via Green									
Junction 1 - Arm 1	A1 D3	0.1	4.04	0.09	A					
Junction 1 - Arm 3		0.2	3.17	0.16	A					
Junction 1 - Arm 4		0.2	4.93	0.13	A					
Junction 1 - Arm 5		0.1	4.01	0.11	A					
Junction 2 - Stream B-AC		0.1	6.55	0.13	A					
Junction 2 - Stream C-AB		0.2	7.16	0.17	A					

	Do Minimum Via Greenogue - 2034 - DM									
Junction 1 - Arm 1						A1 D4	0.0	3.97	0.02	A
Junction 1 - Arm 3							0.2	3.18	0.16	A
Junction 1 - Arm 4							0.1	4.49	0.08	A
Junction 1 - Arm 5							0.2	4.28	0.17	A
Junction 2 - Stream B-AC							0.0	0.00	0.00	A
Junction 2 - Stream C-AB							0.0	5.84	0.00	A
	Do Minimum Via Greenogue - 2044 - DM Via Green									
Junction 1 - Arm 1	A1 D5	0.1	4.05	0.09	A					
Junction 1 - Arm 3		0.2	3.19	0.17	A					
Junction 1 - Arm 4		0.2	4.98	0.14	A					
Junction 1 - Arm 5		0.0	3.68	0.03	A					
Junction 2 - Stream B-AC		0.1	6.55	0.13	A					
Junction 2 - Stream C-AB		0.2	7.14	0.17	A					
	Do Minimum Via Greenogue - 2044 - DM									
Junction 1 - Arm 1						A1 D6	0.0	3.95	0.01	A
Junction 1 - Arm 3							0.2	3.23	0.17	A
Junction 1 - Arm 4							0.1	4.52	0.08	A
Junction 1 - Arm 5							0.2	4.32	0.18	A
Junction 2 - Stream B-AC							0.0	0.00	0.00	A
Junction 2 - Stream C-AB							0.0	5.84	0.00	A

	AM					**PM**				
	Set ID	**Queue (PCU)**	**Delay (s)**	**RFC**	**LOS**	**Set ID**	**Queue (PCU)**	**Delay (s)**	**RFC**	**LOS**
	Do Something - 2029 - DS									
Junction 1 - Arm 1	A2 D7	0.1	4.16	0.12	A	A2 D8	0.0	4.02	0.03	A
Junction 1 - Arm 3		0.2	3.21	0.16	A		0.2	3.21	0.16	A
Junction 1 - Arm 4		0.1	4.97	0.13	A		0.1	4.53	0.08	A
Junction 1 - Arm 5		0.1	4.05	0.12	A		0.2	4.33	0.17	A
Junction 2 - Stream B-AC		0.2	6.88	0.17	A		0.0	5.89	0.03	A
Junction 2 - Stream C-AB		0.2	7.32	0.19	A		0.1	6.06	0.04	A
	Do Something - 2034 - DS									
Junction 1 - Arm 1	A2 D9	0.1	4.16	0.12	A	A2 D10	0.0	4.04	0.03	A
Junction 1 - Arm 3		0.2	3.23	0.17	A		0.2	3.25	0.17	A
Junction 1 - Arm 4		0.2	5.04	0.13	A		0.1	4.58	0.08	A
Junction 1 - Arm 5		0.1	4.06	0.12	A		0.2	4.38	0.18	A
Junction 2 - Stream B-AC		0.2	6.88	0.17	A		0.0	5.89	0.03	A
Junction 2 - Stream C-AB		0.2	7.32	0.19	A		0.1	6.04	0.04	A
	Do Something - 2044 - DS									
Junction 1 - Arm 1	A2 D11	0.1	4.16	0.12	A	A2 D12	0.0	4.06	0.03	A
Junction 1 - Arm 3		0.2	3.27	0.18	A		0.2	3.30	0.18	A
Junction 1 - Arm 4		0.2	5.13	0.14	A		0.1	4.65	0.09	A
Junction 1 - Arm 5		0.1	4.07	0.12	A		0.2	4.43	0.19	A
Junction 2 - Stream B-AC		0.2	6.88	0.17	A		0.0	5.89	0.03	A
Junction 2 - Stream C-AB		0.2	7.30	0.19	A		0.1	6.04	0.04	A

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

File summary

File Description

Title	
Location	
Site number	
Date	09/12/2024
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	EU\michael.collins
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	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

PICADY short flare model	Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use simulation for HCM roundabouts	Use iterations for HCM roundabouts
PICADY 4.1	5.75						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)	Run automatically
D1	2029	DM Via Green	AM	ONE HOUR	07:30	09:00	15	✓
D2	2029	DM	PM	ONE HOUR	16:30	18:00	15	✓
D3	2034	DM Via Green	AM	ONE HOUR	07:30	09:00	15	✓
D4	2034	DM	PM	ONE HOUR	16:30	18:00	15	✓
D5	2044	DM Via Green	AM	ONE HOUR	07:30	09:00	15	✓
D6	2044	DM	PM	ONE HOUR	16:30	18:00	15	✓
D7	2029	DS	AM	ONE HOUR	07:30	09:00	15	✓
D8	2029	DS	PM	ONE HOUR	16:30	18:00	15	✓
D9	2034	DS	AM	ONE HOUR	07:30	09:00	15	✓
D10	2034	DS	PM	ONE HOUR	16:30	18:00	15	✓
D11	2044	DS	AM	ONE HOUR	07:30	09:00	15	✓
D12	2044	DS	PM	ONE HOUR	16:30	18:00	15	✓

Do Minimum Via Greenogue - D1 - 2029 | DM Via Green | AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix	Junction 1	HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Vehicle Mix	Junction 2	HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	1	0.09	4.04	0.1	A	73	110
	3	0.16	3.15	0.2	A	177	266
	4	0.13	4.88	0.1	A	88	132
	5	0.11	4.02	0.1	A	95	142

Results Summary for whole modelled period

Junction	Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
2	B-AC	0.13	6.55	0.1	A	66	99
	C-AB	0.17	7.16	0.2	A	86	130
	C-A					6	9
	A-B					0	0
	A-C					7	11

Main Results for each time segment

07:30 - 07:45

Junction	Arm	Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	-	60	15	21		983	0.061	60	76	0.0	0.1	3.901	A
	3	-	145	36	61		1371	0.106	145	20	0.0	0.1	2.936	A
	4	-	72	18	194		888	0.081	72	12	0.0	0.1	4.407	A
	5	-	78	19	20		1013	0.077	77	246	0.0	0.1	3.846	A
2	-	B-AC	54	14		0.00	629	0.086	54		0.0	0.1	6.249	A
	-	C-AB	71	18		0.00	606	0.117	70		0.0	0.1	6.719	A
	-	C-A	5	1		0.00			5					
	-	A-B	0	0		0.00			0					
	-	A-C	6	2		0.00			6					

07:45 - 08:00

Junction	Arm	Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	-	72	18	25		981	0.073	72	91	0.1	0.1	3.961	A
	3	-	174	43	73		1364	0.127	173	24	0.1	0.1	3.024	A
	4	-	86	22	232		870	0.099	86	14	0.1	0.1	4.596	A
	5	-	93	23	23		1011	0.092	93	295	0.1	0.1	3.918	A
2	-	B-AC	65	16		0.00	629	0.103	65		0.1	0.1	6.376	A
	-	C-AB	85	21		0.00	606	0.140	84		0.1	0.2	6.899	A
	-	C-A	6	2		0.00			6					
	-	A-B	0	0		0.00			0					
	-	A-C	7	2		0.00			7					

08:00 - 08:15

Junction	Arm	Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	-	88	22	31		978	0.090	88	111	0.1	0.1	4.044	A
	3	-	212	53	89		1354	0.157	212	30	0.1	0.2	3.153	A
	4	-	106	26	284		844	0.125	106	18	0.1	0.1	4.875	A
	5	-	113	28	29		1009	0.112	113	361	0.1	0.1	4.020	A
2	-	B-AC	79	20		0.00	629	0.126	79		0.1	0.1	6.547	A
	-	C-AB	104	26		0.00	607	0.171	104		0.2	0.2	7.154	A
	-	C-A	7	2		0.00			7					
	-	A-B	0	0		0.00			0					
	-	A-C	9	2		0.00			9					

08:15 - 08:30

Junction	Arm	Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	-	88	22	31		978	0.090	88	111	0.1	0.1	4.044	A
	3	-	212	53	89		1354	0.157	212	30	0.2	0.2	3.153	A
	4	-	106	26	284		844	0.125	106	18	0.1	0.1	4.876	A
	5	-	113	28	29		1009	0.112	113	361	0.1	0.1	4.020	A
2	-	B-AC	79	20		0.00	629	0.126	79		0.1	0.1	6.549	A
	-	C-AB	104	26		0.00	607	0.171	104		0.2	0.2	7.156	A
	-	C-A	7	2		0.00			7					
	-	A-B	0	0		0.00			0					
	-	A-C	9	2		0.00			9					

08:30 - 08:45

Junction	Arm	Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	-	72	18	25		981	0.073	72	91	0.1	0.1	3.961	A
	3	-	174	43	73		1364	0.127	174	24	0.2	0.1	3.027	A
	4	-	86	22	232		869	0.099	86	14	0.1	0.1	4.600	A
	5	-	93	23	23		1011	0.092	93	295	0.1	0.1	3.919	A
2	-	B-AC	65	16		0.00	629	0.103	65		0.1	0.1	6.379	A
	-	C-AB	85	21		0.00	606	0.140	85		0.2	0.2	6.906	A
	-	C-A	6	2		0.00			6					
	-	A-B	0	0		0.00			0					
	-	A-C	7	2		0.00			7					

08:45 - 09:00

Junction	Arm	Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	-	60	15	21		983	0.061	60	76	0.1	0.1	3.905	A
	3	-	145	36	61		1371	0.106	145	20	0.1	0.1	2.940	A
	4	-	72	18	194		888	0.081	72	12	0.1	0.1	4.414	A
	5	-	78	19	20		1013	0.077	78	247	0.1	0.1	3.849	A
2	-	B-AC	54	14		0.00	629	0.086	54		0.1	0.1	6.259	A
	-	C-AB	71	18		0.00	606	0.117	71		0.2	0.1	6.735	A
	-	C-A	5	1		0.00			5					
	-	A-B	0	0		0.00			0					
	-	A-C	6	2		0.00			6					

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Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix	Junction 1	HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Vehicle Mix	Junction 2	HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	1	0.01	3.93	0.0	A	7	11
	3	0.15	3.14	0.2	A	173	260
	4	0.08	4.44	0.1	A	56	84
	5	0.16	4.24	0.2	A	137	205

Results Summary for whole modelled period

Junction	Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
2	B-AC	0.00	0.00	0.0	A	0	0
	C-AB	0.00	5.85	0.0	A	0.96	1
	C-A					27	41
	A-B					0	0
	A-C					11	17

Main Results for each time segment

16:30 - 16:45

Junction	Arm	Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	-	6	2	103		946	0.006	6	22	0.0	0.0	3.828	A
	3	-	142	36	61		1370	0.104	142	47	0.0	0.1	2.930	A
	4	-	46	11	146		912	0.050	46	58	0.0	0.1	4.155	A
	5	-	112	28	14		1016	0.110	112	178	0.0	0.1	3.981	A
2	-	B-AC	0	0		0.00	547	0.000	0		0.0	0.0	0.000	A
	-	C-AB	0.78	0.20		0.00	616	0.001	0.78		0.0	0.0	5.851	A
	-	C-A	23	6		0.00			23					
	-	A-B	0	0		0.00			0					
	-	A-C	9	2		0.00			9					

16:45 - 17:00

Junction	Arm	Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	-	7	2	123		937	0.008	7	27	0.0	0.0	3.871	A
	3	-	170	42	74		1363	0.125	170	57	0.1	0.1	3.016	A
	4	-	55	14	174		898	0.061	55	69	0.1	0.1	4.270	A
	5	-	134	33	16		1014	0.132	134	213	0.1	0.2	4.088	A
2	-	B-AC	0	0		0.00	546	0.000	0		0.0	0.0	0.000	A
	-	C-AB	0.94	0.24		0.00	619	0.002	0.94		0.0	0.0	5.828	A
	-	C-A	27	7		0.00			27					
	-	A-B	0	0		0.00			0					
	-	A-C	11	3		0.00			11					

17:00 - 17:15

Junction	Arm	Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	-	9	2	151		925	0.010	9	33	0.0	0.0	3.930	A
	3	-	208	52	90		1353	0.154	208	69	0.1	0.2	3.142	A
	4	-	67	17	213		879	0.076	67	85	0.1	0.1	4.436	A
	5	-	164	41	20		1013	0.162	164	261	0.2	0.2	4.239	A
2	-	B-AC	0	0		0.00	545	0.000	0		0.0	0.0	0.000	A
	-	C-AB	1	0.29		0.00	622	0.002	1		0.0	0.0	5.797	A
	-	C-A	33	8		0.00			33					
	-	A-B	0	0		0.00			0					
	-	A-C	13	3		0.00			13					

17:15 - 17:30

Junction	Arm	Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	-	9	2	151		925	0.010	9	33	0.0	0.0	3.930	A
	3	-	208	52	90		1353	0.154	208	69	0.2	0.2	3.143	A
	4	-	67	17	214		878	0.076	67	85	0.1	0.1	4.437	A
	5	-	164	41	20		1013	0.162	164	261	0.2	0.2	4.241	A
2	-	B-AC	0	0		0.00	545	0.000	0		0.0	0.0	0.000	A
	-	C-AB	1	0.29		0.00	622	0.002	1		0.0	0.0	5.797	A
	-	C-A	33	8		0.00			33					
	-	A-B	0	0		0.00			0					
	-	A-C	13	3		0.00			13					

17:30 - 17:45

Junction	Arm	Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	-	7	2	123		937	0.008	7	27	0.0	0.0	3.873	A
	3	-	170	42	74		1363	0.125	170	57	0.2	0.1	3.017	A
	4	-	55	14	175		898	0.061	55	69	0.1	0.1	4.273	A
	5	-	134	33	16		1014	0.132	134	213	0.2	0.2	4.091	A
2	-	B-AC	0	0		0.00	546	0.000	0		0.0	0.0	0.000	A
	-	C-AB	0.94	0.24		0.00	619	0.002	0.94		0.0	0.0	5.830	A
	-	C-A	27	7		0.00			27					
	-	A-B	0	0		0.00			0					
	-	A-C	11	3		0.00			11					

17:45 - 18:00

Junction	Arm	Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	-	6	2	103		946	0.006	6	23	0.0	0.0	3.832	A
	3	-	142	36	62		1370	0.104	142	47	0.1	0.1	2.931	A
	4	-	46	11	146		912	0.050	46	58	0.1	0.1	4.159	A
	5	-	112	28	14		1016	0.110	112	179	0.2	0.1	3.986	A
2	-	B-AC	0	0		0.00	547	0.000	0		0.0	0.0	0.000	A
	-	C-AB	0.78	0.20		0.00	616	0.001	0.78		0.0	0.0	5.851	A
	-	C-A	23	6		0.00			23					
	-	A-B	0	0		0.00			0					
	-	A-C	9	2		0.00			9					

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Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix	Junction 1	HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Vehicle Mix	Junction 2	HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	1	0.09	4.04	0.1	A	73	110
	3	0.16	3.17	0.2	A	184	275
	4	0.13	4.93	0.2	A	93	139
	5	0.11	4.01	0.1	A	94	140

Results Summary for whole modelled period

Junction	Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
2	B-AC	0.13	6.55	0.1	A	66	99
	C-AB	0.17	7.16	0.2	A	86	130
	C-A					6	9
	A-B					0	0
	A-C					7	11

Main Results for each time segment

07:30 - 07:45

Junction	Arm	Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	-	60	15	20		983	0.061	60	76	0.0	0.1	3.899	A
	3	-	151	38	60		1371	0.110	150	20	0.0	0.1	2.946	A
	4	-	76	19	197		886	0.086	76	13	0.0	0.1	4.438	A
	5	-	77	19	20		1013	0.076	76	253	0.0	0.1	3.843	A
2	-	B-AC	54	14		0.00	629	0.086	54		0.0	0.1	6.249	A
	-	C-AB	71	18		0.00	606	0.117	70		0.0	0.1	6.719	A
	-	C-A	5	1		0.00			5					
	-	A-B	0	0		0.00			0					
	-	A-C	6	2		0.00			6					

07:45 - 08:00

Junction	Arm	Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	-	72	18	24		981	0.073	72	91	0.1	0.1	3.959	A
	3	-	180	45	72		1364	0.132	180	24	0.1	0.2	3.038	A
	4	-	91	23	236		867	0.105	91	15	0.1	0.1	4.635	A
	5	-	92	23	23		1011	0.091	92	304	0.1	0.1	3.914	A
2	-	B-AC	65	16		0.00	629	0.103	65		0.1	0.1	6.376	A
	-	C-AB	85	21		0.00	606	0.140	84		0.1	0.2	6.899	A
	-	C-A	6	2		0.00			6					
	-	A-B	0	0		0.00			0					
	-	A-C	7	2		0.00			7					

08:00 - 08:15

Junction	Arm	Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	-	88	22	30		979	0.090	88	111	0.1	0.1	4.041	A
	3	-	220	55	88		1355	0.163	220	30	0.2	0.2	3.172	A
	4	-	111	28	289		841	0.132	111	19	0.1	0.2	4.930	A
	5	-	112	28	29		1009	0.111	112	372	0.1	0.1	4.015	A
2	-	B-AC	79	20		0.00	629	0.126	79		0.1	0.1	6.547	A
	-	C-AB	104	26		0.00	607	0.171	104		0.2	0.2	7.154	A
	-	C-A	7	2		0.00			7					
	-	A-B	0	0		0.00			0					
	-	A-C	9	2		0.00			9					

08:15 - 08:30

Junction	Arm	Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	-	88	22	30		979	0.090	88	111	0.1	0.1	4.041	A
	3	-	220	55	88		1355	0.163	220	30	0.2	0.2	3.172	A
	4	-	111	28	290		841	0.132	111	19	0.2	0.2	4.931	A
	5	-	112	28	29		1009	0.111	112	372	0.1	0.1	4.015	A
2	-	B-AC	79	20		0.00	629	0.126	79		0.1	0.1	6.549	A
	-	C-AB	104	26		0.00	607	0.171	104		0.2	0.2	7.156	A
	-	C-A	7	2		0.00			7					
	-	A-B	0	0		0.00			0					
	-	A-C	9	2		0.00			9					

08:30 - 08:45

Junction	Arm	Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	-	72	18	24		981	0.073	72	91	0.1	0.1	3.960	A
	3	-	180	45	72		1364	0.132	180	24	0.2	0.2	3.042	A
	4	-	91	23	237		867	0.105	91	15	0.2	0.1	4.640	A
	5	-	92	23	23		1011	0.091	92	304	0.1	0.1	3.915	A
2	-	B-AC	65	16		0.00	629	0.103	65		0.1	0.1	6.379	A
	-	C-AB	85	21		0.00	606	0.140	85		0.2	0.2	6.906	A
	-	C-A	6	2		0.00			6					
	-	A-B	0	0		0.00			0					
	-	A-C	7	2		0.00			7					

08:45 - 09:00

Junction	Arm	Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	-	60	15	20		983	0.061	60	76	0.1	0.1	3.902	A
	3	-	151	38	60		1371	0.110	151	20	0.2	0.1	2.951	A
	4	-	76	19	198		886	0.086	76	13	0.1	0.1	4.446	A
	5	-	77	19	20		1013	0.076	77	255	0.1	0.1	3.845	A
2	-	B-AC	54	14		0.00	629	0.086	54		0.1	0.1	6.259	A
	-	C-AB	71	18		0.00	606	0.117	71		0.2	0.1	6.735	A
	-	C-A	5	1		0.00			5					
	-	A-B	0	0		0.00			0					
	-	A-C	6	2		0.00			6					

Do Minimum Via Greenogue - D4 - 2034 | DM | PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix	Junction 1	HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Vehicle Mix	Junction 2	HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	1	0.02	3.97	0.0	A	13	19
	3	0.16	3.18	0.2	A	182	273
	4	0.08	4.49	0.1	A	59	88
	5	0.17	4.28	0.2	A	142	213

Results Summary for whole modelled period

Junction	Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
2	B-AC	0.00	0.00	0.0	A	0	0
	C-AB	0.00	5.84	0.0	A	0.96	1
	C-A					29	44
	A-B					0	0
	A-C					11	17

Main Results for each time segment

16:30 - 16:45

Junction	Arm	Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	-	11	3	107		944	0.011	10	23	0.0	0.0	3.855	A
	3	-	149	37	67		1367	0.109	149	51	0.0	0.1	2.952	A
	4	-	48	12	155		907	0.053	48	60	0.0	0.1	4.189	A
	5	-	117	29	14		1015	0.115	116	189	0.0	0.1	4.002	A
2	-	B-AC	0	0		0.00	547	0.000	0		0.0	0.0	0.000	A
	-	C-AB	0.78	0.20		0.00	617	0.001	0.78		0.0	0.0	5.841	A
	-	C-A	24	6		0.00			24					
	-	A-B	0	0		0.00			0					
	-	A-C	9	2		0.00			9					

16:45 - 17:00

Junction	Arm	Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	-	13	3	128		935	0.013	13	28	0.0	0.0	3.904	A
	3	-	178	44	80		1359	0.131	178	61	0.1	0.2	3.046	A
	4	-	58	14	186		892	0.065	57	72	0.1	0.1	4.313	A
	5	-	139	35	17		1014	0.137	139	226	0.1	0.2	4.115	A
2	-	B-AC	0	0		0.00	546	0.000	0		0.0	0.0	0.000	A
	-	C-AB	0.94	0.24		0.00	620	0.002	0.94		0.0	0.0	5.817	A
	-	C-A	29	7		0.00			29					
	-	A-B	0	0		0.00			0					
	-	A-C	11	3		0.00			11					

17:00 - 17:15

Junction	Arm	Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	-	15	4	157		922	0.017	15	34	0.0	0.0	3.971	A
	3	-	218	55	98		1349	0.162	218	75	0.2	0.2	3.183	A
	4	-	70	18	228		871	0.081	70	88	0.1	0.1	4.493	A
	5	-	171	43	21		1012	0.169	170	277	0.2	0.2	4.275	A
2	-	B-AC	0	0		0.00	545	0.000	0		0.0	0.0	0.000	A
	-	C-AB	1	0.29		0.00	624	0.002	1		0.0	0.0	5.783	A
	-	C-A	35	9		0.00			35					
	-	A-B	0	0		0.00			0					
	-	A-C	13	3		0.00			13					

17:15 - 17:30

Junction	Arm	Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	-	15	4	157		922	0.017	15	34	0.0	0.0	3.971	A
	3	-	218	55	98		1349	0.162	218	75	0.2	0.2	3.183	A
	4	-	70	18	228		871	0.081	70	88	0.1	0.1	4.494	A
	5	-	171	43	21		1012	0.169	171	277	0.2	0.2	4.276	A
2	-	B-AC	0	0		0.00	545	0.000	0		0.0	0.0	0.000	A
	-	C-AB	1	0.29		0.00	624	0.002	1		0.0	0.0	5.783	A
	-	C-A	35	9		0.00			35					
	-	A-B	0	0		0.00			0					
	-	A-C	13	3		0.00			13					

17:30 - 17:45

Junction	Arm	Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	-	13	3	129		935	0.013	13	28	0.0	0.0	3.906	A
	3	-	178	44	80		1359	0.131	178	61	0.2	0.2	3.050	A
	4	-	58	14	186		892	0.065	58	72	0.1	0.1	4.315	A
	5	-	139	35	17		1014	0.137	140	227	0.2	0.2	4.118	A
2	-	B-AC	0	0		0.00	546	0.000	0		0.0	0.0	0.000	A
	-	C-AB	0.94	0.24		0.00	620	0.002	0.94		0.0	0.0	5.819	A
	-	C-A	29	7		0.00			29					
	-	A-B	0	0		0.00			0					
	-	A-C	11	3		0.00			11					

17:45 - 18:00

Junction	Arm	Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	-	11	3	108		944	0.011	11	23	0.0	0.0	3.858	A
	3	-	149	37	67		1367	0.109	149	51	0.2	0.1	2.955	A
	4	-	48	12	156		907	0.053	48	60	0.1	0.1	4.194	A
	5	-	117	29	14		1015	0.115	117	190	0.2	0.1	4.008	A
2	-	B-AC	0	0		0.00	547	0.000	0		0.0	0.0	0.000	A
	-	C-AB	0.78	0.20		0.00	617	0.001	0.78		0.0	0.0	5.841	A
	-	C-A	24	6		0.00			24					
	-	A-B	0	0		0.00			0					
	-	A-C	9	2		0.00			9					

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Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix	Junction 1	HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Vehicle Mix	Junction 2	HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	1	0.09	4.05	0.1	A	73	110
	3	0.17	3.19	0.2	A	188	282
	4	0.14	4.98	0.2	A	96	145
	5	0.03	3.68	0.0	A	29	44

Results Summary for whole modelled period

Junction	Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
2	B-AC	0.13	6.55	0.1	A	66	99
	C-AB	0.17	7.14	0.2	A	87	130
	C-A					8	12
	A-B					0	0
	A-C					7	11

Main Results for each time segment

07:30 - 07:45

Junction	Arm	Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	-	60	15	24		981	0.061	60	14	0.0	0.1	3.907	A
	3	-	154	39	61		1370	0.113	154	22	0.0	0.1	2.957	A
	4	-	79	20	202		884	0.089	79	13	0.0	0.1	4.467	A
	5	-	24	6	14		1015	0.024	24	266	0.0	0.0	3.630	A
2	-	B-AC	54	14		0.00	629	0.086	54		0.0	0.1	6.249	A
	-	C-AB	71	18		0.00	607	0.117	70		0.0	0.1	6.708	A
	-	C-A	7	2		0.00			7					
	-	A-B	0	0		0.00			0					
	-	A-C	6	2		0.00			6					

07:45 - 08:00

Junction	Arm	Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	-	72	18	29		979	0.073	72	17	0.1	0.1	3.968	A
	3	-	184	46	74		1363	0.135	184	27	0.1	0.2	3.053	A
	4	-	94	24	242		865	0.109	94	16	0.1	0.1	4.673	A
	5	-	29	7	17		1014	0.028	29	319	0.0	0.0	3.652	A
2	-	B-AC	65	16		0.00	629	0.103	65		0.1	0.1	6.376	A
	-	C-AB	85	21		0.00	607	0.140	85		0.1	0.2	6.886	A
	-	C-A	8	2		0.00			8					
	-	A-B	0	0		0.00			0					
	-	A-C	7	2		0.00			7					

08:00 - 08:15

Junction	Arm	Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	-	88	22	35		976	0.090	88	21	0.1	0.1	4.053	A
	3	-	226	56	90		1353	0.167	226	33	0.2	0.2	3.191	A
	4	-	116	29	296		838	0.138	115	20	0.1	0.2	4.980	A
	5	-	35	9	21		1012	0.035	35	390	0.0	0.0	3.683	A
2	-	B-AC	79	20		0.00	629	0.126	79		0.1	0.1	6.547	A
	-	C-AB	104	26		0.00	608	0.171	104		0.2	0.2	7.138	A
	-	C-A	9	2		0.00			9					
	-	A-B	0	0		0.00			0					
	-	A-C	9	2		0.00			9					

08:15 - 08:30

Junction	Arm	Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	-	88	22	35		976	0.090	88	21	0.1	0.1	4.053	A
	3	-	226	56	90		1353	0.167	226	33	0.2	0.2	3.192	A
	4	-	116	29	296		838	0.138	116	20	0.2	0.2	4.983	A
	5	-	35	9	21		1012	0.035	35	391	0.0	0.0	3.683	A
2	-	B-AC	79	20		0.00	629	0.126	79		0.1	0.1	6.549	A
	-	C-AB	104	26		0.00	608	0.171	104		0.2	0.2	7.144	A
	-	C-A	9	2		0.00			9					
	-	A-B	0	0		0.00			0					
	-	A-C	9	2		0.00			9					

08:30 - 08:45

Junction	Arm	Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	-	72	18	29		979	0.073	72	17	0.1	0.1	3.970	A
	3	-	184	46	74		1363	0.135	184	27	0.2	0.2	3.054	A
	4	-	94	24	242		864	0.109	95	16	0.2	0.1	4.676	A
	5	-	29	7	17		1014	0.028	29	319	0.0	0.0	3.653	A
2	-	B-AC	65	16		0.00	629	0.103	65		0.1	0.1	6.379	A
	-	C-AB	85	21		0.00	607	0.140	85		0.2	0.2	6.897	A
	-	C-A	8	2		0.00			8					
	-	A-B	0	0		0.00			0					
	-	A-C	7	2		0.00			7					

08:45 - 09:00

Junction	Arm	Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	-	60	15	24		981	0.061	60	14	0.1	0.1	3.909	A
	3	-	154	39	62		1370	0.113	154	23	0.2	0.1	2.960	A
	4	-	79	20	203		884	0.089	79	14	0.1	0.1	4.474	A
	5	-	24	6	14		1015	0.024	24	268	0.0	0.0	3.633	A
2	-	B-AC	54	14		0.00	629	0.086	54		0.1	0.1	6.259	A
	-	C-AB	71	18		0.00	607	0.117	71		0.2	0.1	6.725	A
	-	C-A	7	2		0.00			7					
	-	A-B	0	0		0.00			0					
	-	A-C	6	2		0.00			6					

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Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix	Junction 1	HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Vehicle Mix	Junction 2	HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	1	0.01	3.95	0.0	A	7	11
	3	0.17	3.23	0.2	A	195	292
	4	0.08	4.52	0.1	A	59	88
	5	0.18	4.32	0.2	A	150	226

Results Summary for whole modelled period

Junction	Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
2	B-AC	0.00	0.00	0.0	A	0	0
	C-AB	0.00	5.84	0.0	A	0.97	1
	C-A					30	45
	A-B					0	0
	A-C					12	18

Main Results for each time segment

16:30 - 16:45

Junction	Arm	Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	-	6	2	111		942	0.006	6	25	0.0	0.0	3.844	A
	3	-	160	40	67		1367	0.117	159	49	0.0	0.1	2.979	A
	4	-	48	12	162		904	0.053	48	64	0.0	0.1	4.205	A
	5	-	123	31	13		1016	0.122	123	197	0.0	0.1	4.028	A
2	-	B-AC	0	0		0.00	546	0.000	0		0.0	0.0	0.000	A
	-	C-AB	0.78	0.20		0.00	617	0.001	0.78		0.0	0.0	5.838	A
	-	C-A	25	6		0.00			25					
	-	A-B	0	0		0.00			0					
	-	A-C	10	2		0.00			10					

16:45 - 17:00

Junction	Arm	Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	-	7	2	133		933	0.008	7	30	0.0	0.0	3.889	A
	3	-	191	48	81		1359	0.140	190	59	0.1	0.2	3.080	A
	4	-	58	14	194		888	0.065	57	77	0.1	0.1	4.334	A
	5	-	147	37	15		1015	0.145	147	236	0.1	0.2	4.149	A
2	-	B-AC	0	0		0.00	546	0.000	0		0.0	0.0	0.000	A
	-	C-AB	0.94	0.24		0.00	620	0.002	0.94		0.0	0.0	5.813	A
	-	C-A	30	7		0.00			30					
	-	A-B	0	0		0.00			0					
	-	A-C	12	3		0.00			12					

17:00 - 17:15

Junction	Arm	Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	-	9	2	163		919	0.010	9	36	0.0	0.0	3.953	A
	3	-	233	58	99		1348	0.173	233	73	0.2	0.2	3.229	A
	4	-	70	18	238		867	0.081	70	95	0.1	0.1	4.521	A
	5	-	181	45	19		1013	0.178	180	289	0.2	0.2	4.320	A
2	-	B-AC	0	0		0.00	544	0.000	0		0.0	0.0	0.000	A
	-	C-AB	1	0.29		0.00	624	0.002	1		0.0	0.0	5.779	A
	-	C-A	36	9		0.00			36					
	-	A-B	0	0		0.00			0					
	-	A-C	14	4		0.00			14					

17:15 - 17:30

Junction	Arm	Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	-	9	2	163		919	0.010	9	36	0.0	0.0	3.953	A
	3	-	233	58	99		1348	0.173	233	73	0.2	0.2	3.229	A
	4	-	70	18	238		867	0.081	70	95	0.1	0.1	4.521	A
	5	-	181	45	19		1013	0.178	181	290	0.2	0.2	4.322	A
2	-	B-AC	0	0		0.00	544	0.000	0		0.0	0.0	0.000	A
	-	C-AB	1	0.29		0.00	624	0.002	1		0.0	0.0	5.779	A
	-	C-A	36	9		0.00			36					
	-	A-B	0	0		0.00			0					
	-	A-C	14	4		0.00			14					

17:30 - 17:45

Junction	Arm	Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	-	7	2	133		933	0.008	7	30	0.0	0.0	3.890	A
	3	-	191	48	81		1359	0.140	191	59	0.2	0.2	3.084	A
	4	-	58	14	194		888	0.065	58	77	0.1	0.1	4.336	A
	5	-	147	37	15		1015	0.145	148	237	0.2	0.2	4.151	A
2	-	B-AC	0	0		0.00	546	0.000	0		0.0	0.0	0.000	A
	-	C-AB	0.94	0.24		0.00	620	0.002	0.95		0.0	0.0	5.813	A
	-	C-A	30	7		0.00			30					
	-	A-B	0	0		0.00			0					
	-	A-C	12	3		0.00			12					

17:45 - 18:00

Junction	Arm	Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	-	6	2	112		942	0.006	6	25	0.0	0.0	3.846	A
	3	-	160	40	68		1367	0.117	160	50	0.2	0.1	2.982	A
	4	-	48	12	163		903	0.053	48	65	0.1	0.1	4.209	A
	5	-	123	31	13		1016	0.122	124	198	0.2	0.1	4.035	A
2	-	B-AC	0	0		0.00	546	0.000	0		0.0	0.0	0.000	A
	-	C-AB	0.78	0.20		0.00	617	0.001	0.79		0.0	0.0	5.840	A
	-	C-A	25	6		0.00			25					
	-	A-B	0	0		0.00			0					
	-	A-C	10	2		0.00			10					

Do Something - D7 - 2029 | DS | AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix	Junction 1	HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Vehicle Mix	Junction 2	HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	1	0.12	4.16	0.1	A	95	142
	3	0.16	3.21	0.2	A	182	273
	4	0.13	4.97	0.1	A	88	132
	5	0.12	4.05	0.1	A	98	147

Results Summary for whole modelled period

Junction	Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
2	B-AC	0.17	6.88	0.2	A	88	132
	C-AB	0.19	7.32	0.2	A	96	144
	C-A					6	9
	A-B					0	0
	A-C					7	11

Main Results for each time segment

07:30 - 07:45

Junction	Arm	Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	-	78	19	19		983	0.079	77	84	0.0	0.1	3.973	A
	3	-	149	37	76		1361	0.109	149	20	0.0	0.1	2.966	A
	4	-	72	18	213		879	0.082	72	12	0.0	0.1	4.460	A
	5	-	81	20	23		1011	0.080	80	262	0.0	0.1	3.866	A
2	-	B-AC	72	18		0.00	629	0.115	72		0.0	0.1	6.449	A
	-	C-AB	78	20		0.00	606	0.129	78		0.0	0.1	6.813	A
	-	C-A	5	1		0.00			5					
	-	A-B	0	0		0.00			0					
	-	A-C	6	2		0.00			6					

07:45 - 08:00

Junction	Arm	Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	-	93	23	23		982	0.094	93	101	0.1	0.1	4.049	A
	3	-	178	44	92		1352	0.132	178	24	0.1	0.2	3.064	A
	4	-	86	22	255		858	0.101	86	14	0.1	0.1	4.664	A
	5	-	96	24	28		1009	0.095	96	313	0.1	0.1	3.942	A
2	-	B-AC	86	22		0.00	629	0.137	86		0.1	0.2	6.627	A
	-	C-AB	94	23		0.00	606	0.155	94		0.1	0.2	7.021	A
	-	C-A	6	2		0.00			6					
	-	A-B	0	0		0.00			0					
	-	A-C	7	2		0.00			7					

08:00 - 08:15

Junction	Arm	Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	-	113	28	29		979	0.116	113	123	0.1	0.1	4.157	A
	3	-	218	55	112		1340	0.163	218	30	0.2	0.2	3.207	A
	4	-	106	26	312		830	0.127	106	18	0.1	0.1	4.970	A
	5	-	118	29	34		1006	0.117	118	384	0.1	0.1	4.051	A
2	-	B-AC	106	26		0.00	629	0.168	106		0.2	0.2	6.877	A
	-	C-AB	115	29		0.00	607	0.190	115		0.2	0.2	7.313	A
	-	C-A	7	2		0.00			7					
	-	A-B	0	0		0.00			0					
	-	A-C	9	2		0.00			9					

08:15 - 08:30

Junction	Arm	Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	-	113	28	29		979	0.116	113	123	0.1	0.1	4.157	A
	3	-	218	55	112		1340	0.163	218	30	0.2	0.2	3.207	A
	4	-	106	26	313		830	0.127	106	18	0.1	0.1	4.971	A
	5	-	118	29	34		1006	0.117	118	384	0.1	0.1	4.051	A
2	-	B-AC	106	26		0.00	629	0.168	106		0.2	0.2	6.880	A
	-	C-AB	115	29		0.00	607	0.190	115		0.2	0.2	7.322	A
	-	C-A	7	2		0.00			7					
	-	A-B	0	0		0.00			0					
	-	A-C	9	2		0.00			9					

08:30 - 08:45

Junction	Arm	Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	-	93	23	23		981	0.094	93	101	0.1	0.1	4.052	A
	3	-	178	44	92		1352	0.132	178	24	0.2	0.2	3.065	A
	4	-	86	22	256		858	0.101	86	14	0.1	0.1	4.669	A
	5	-	96	24	28		1009	0.095	96	314	0.1	0.1	3.943	A
2	-	B-AC	86	22		0.00	629	0.137	86		0.2	0.2	6.636	A
	-	C-AB	94	23		0.00	606	0.155	94		0.2	0.2	7.030	A
	-	C-A	6	2		0.00			6					
	-	A-B	0	0		0.00			0					
	-	A-C	7	2		0.00			7					

08:45 - 09:00

Junction	Arm	Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	-	78	19	20		983	0.079	78	84	0.1	0.1	3.977	A
	3	-	149	37	77		1361	0.110	149	20	0.2	0.1	2.972	A
	4	-	72	18	214		878	0.082	72	12	0.1	0.1	4.469	A
	5	-	81	20	23		1011	0.080	81	263	0.1	0.1	3.870	A
2	-	B-AC	72	18		0.00	629	0.115	72		0.2	0.1	6.462	A
	-	C-AB	78	20		0.00	606	0.129	78		0.2	0.2	6.830	A
	-	C-A	5	1		0.00			5					
	-	A-B	0	0		0.00			0					
	-	A-C	6	2		0.00			6					

Do Something - D8 - 2029 | DS | PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix	Junction 1	HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Vehicle Mix	Junction 2	HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	1	0.03	4.02	0.0	A	25	37
	3	0.16	3.21	0.2	A	184	275
	4	0.08	4.53	0.1	A	57	85
	5	0.17	4.33	0.2	A	147	220

Results Summary for whole modelled period

Junction	Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
2	B-AC	0.03	5.89	0.0	A	14	21
	C-AB	0.04	6.06	0.1	A	23	35
	C-A					26	40
	A-B					0	0
	A-C					11	17

Main Results for each time segment

16:30 - 16:45

Junction	Arm	Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	-	20	5	103		946	0.021	20	40	0.0	0.0	3.888	A
	3	-	151	38	76		1362	0.111	150	47	0.0	0.1	2.968	A
	4	-	47	12	168		901	0.052	46	58	0.0	0.1	4.212	A
	5	-	120	30	23		1012	0.119	120	192	0.0	0.1	4.034	A
2	-	B-AC	11	3		0.00	629	0.018	11		0.0	0.0	5.829	A
	-	C-AB	19	5		0.00	616	0.030	19		0.0	0.0	6.024	A
	-	C-A	22	5		0.00			22					
	-	A-B	0	0		0.00			0					
	-	A-C	9	2		0.00			9					

16:45 - 17:00

Junction	Arm	Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	-	24	6	123		937	0.026	24	48	0.0	0.0	3.943	A
	3	-	180	45	91		1353	0.133	180	57	0.1	0.2	3.067	A
	4	-	56	14	201		884	0.063	56	69	0.1	0.1	4.343	A
	5	-	144	36	27		1010	0.142	144	230	0.1	0.2	4.157	A
2	-	B-AC	13	3		0.00	628	0.021	13		0.0	0.0	5.853	A
	-	C-AB	23	6		0.00	619	0.036	23		0.0	0.0	6.039	A
	-	C-A	26	6		0.00			26					
	-	A-B	0	0		0.00			0					
	-	A-C	11	3		0.00			11					

17:00 - 17:15

Junction	Arm	Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	-	30	7	151		925	0.032	30	58	0.0	0.0	4.022	A
	3	-	220	55	111		1341	0.164	220	69	0.2	0.2	3.211	A
	4	-	68	17	246		862	0.079	68	85	0.1	0.1	4.533	A
	5	-	176	44	33		1007	0.175	176	282	0.2	0.2	4.331	A
2	-	B-AC	17	4		0.00	628	0.026	16		0.0	0.0	5.888	A
	-	C-AB	28	7		0.00	622	0.045	28		0.0	0.1	6.058	A
	-	C-A	32	8		0.00			32					
	-	A-B	0	0		0.00			0					
	-	A-C	13	3		0.00			13					

17:15 - 17:30

Junction	Arm	Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	-	30	7	151		925	0.032	30	58	0.0	0.0	4.022	A
	3	-	220	55	111		1341	0.164	220	69	0.2	0.2	3.212	A
	4	-	68	17	247		862	0.079	68	85	0.1	0.1	4.533	A
	5	-	176	44	33		1007	0.175	176	282	0.2	0.2	4.333	A
2	-	B-AC	17	4		0.00	628	0.026	17		0.0	0.0	5.888	A
	-	C-AB	28	7		0.00	622	0.045	28		0.1	0.1	6.058	A
	-	C-A	32	8		0.00			32					
	-	A-B	0	0		0.00			0					
	-	A-C	13	3		0.00			13					

17:30 - 17:45

Junction	Arm	Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	-	24	6	123		937	0.026	24	48	0.0	0.0	3.945	A
	3	-	180	45	91		1353	0.133	180	57	0.2	0.2	3.069	A
	4	-	56	14	202		884	0.063	56	69	0.1	0.1	4.346	A
	5	-	144	36	27		1010	0.142	144	230	0.2	0.2	4.161	A
2	-	B-AC	13	3		0.00	628	0.021	14		0.0	0.0	5.856	A
	-	C-AB	23	6		0.00	619	0.036	23		0.1	0.0	6.043	A
	-	C-A	26	6		0.00			26					
	-	A-B	0	0		0.00			0					
	-	A-C	11	3		0.00			11					

17:45 - 18:00

Junction	Arm	Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	-	20	5	103		946	0.021	20	40	0.0	0.0	3.889	A
	3	-	151	38	76		1362	0.111	151	47	0.2	0.1	2.974	A
	4	-	47	12	169		900	0.052	47	58	0.1	0.1	4.218	A
	5	-	120	30	23		1012	0.119	121	193	0.2	0.1	4.040	A
2	-	B-AC	11	3		0.00	629	0.018	11		0.0	0.0	5.831	A
	-	C-AB	19	5		0.00	616	0.030	19		0.0	0.0	6.027	A
	-	C-A	22	5		0.00			22					
	-	A-B	0	0		0.00			0					
	-	A-C	9	2		0.00			9					

Do Something - D9 - 2034 | DS | AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix	Junction 1	HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Vehicle Mix	Junction 2	HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	1	0.12	4.16	0.1	A	95	142
	3	0.17	3.23	0.2	A	188	282
	4	0.13	5.04	0.2	A	93	139
	5	0.12	4.06	0.1	A	99	149

Results Summary for whole modelled period

Junction	Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
2	B-AC	0.17	6.88	0.2	A	88	132
	C-AB	0.19	7.32	0.2	A	96	144
	C-A					6	9
	A-B					0	0
	A-C					7	11

Main Results for each time segment

07:30 - 07:45

Junction	Arm	Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	-	78	19	20		983	0.079	77	84	0.0	0.1	3.974	A
	3	-	154	39	77		1361	0.113	154	20	0.0	0.1	2.980	A
	4	-	76	19	218		876	0.087	76	13	0.0	0.1	4.495	A
	5	-	81	20	23		1011	0.080	81	271	0.0	0.1	3.869	A
2	-	B-AC	72	18		0.00	629	0.115	72		0.0	0.1	6.449	A
	-	C-AB	78	20		0.00	606	0.129	78		0.0	0.1	6.813	A
	-	C-A	5	1		0.00			5					
	-	A-B	0	0		0.00			0					
	-	A-C	6	2		0.00			6					

07:45 - 08:00

Junction	Arm	Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	-	93	23	24		981	0.094	93	101	0.1	0.1	4.051	A
	3	-	184	46	93		1352	0.136	184	24	0.1	0.2	3.082	A
	4	-	91	23	261		855	0.106	91	15	0.1	0.1	4.710	A
	5	-	97	24	28		1009	0.096	97	324	0.1	0.1	3.946	A
2	-	B-AC	86	22		0.00	629	0.137	86		0.1	0.2	6.627	A
	-	C-AB	94	23		0.00	606	0.155	94		0.1	0.2	7.021	A
	-	C-A	6	2		0.00			6					
	-	A-B	0	0		0.00			0					
	-	A-C	7	2		0.00			7					

08:00 - 08:15

Junction	Arm	Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	-	113	28	30		979	0.116	113	123	0.1	0.1	4.160	A
	3	-	226	56	113		1339	0.169	226	30	0.2	0.2	3.231	A
	4	-	111	28	320		826	0.135	111	19	0.1	0.2	5.032	A
	5	-	119	30	34		1006	0.118	119	397	0.1	0.1	4.056	A
2	-	B-AC	106	26		0.00	629	0.168	106		0.2	0.2	6.877	A
	-	C-AB	115	29		0.00	607	0.190	115		0.2	0.2	7.313	A
	-	C-A	7	2		0.00			7					
	-	A-B	0	0		0.00			0					
	-	A-C	9	2		0.00			9					

08:15 - 08:30

Junction	Arm	Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	-	113	28	30		979	0.116	113	123	0.1	0.1	4.160	A
	3	-	226	56	113		1339	0.169	226	30	0.2	0.2	3.231	A
	4	-	111	28	320		826	0.135	111	19	0.2	0.2	5.035	A
	5	-	119	30	34		1006	0.118	119	397	0.1	0.1	4.056	A
2	-	B-AC	106	26		0.00	629	0.168	106		0.2	0.2	6.880	A
	-	C-AB	115	29		0.00	607	0.190	115		0.2	0.2	7.322	A
	-	C-A	7	2		0.00			7					
	-	A-B	0	0		0.00			0					
	-	A-C	9	2		0.00			9					

08:30 - 08:45

Junction	Arm	Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	-	93	23	24		981	0.094	93	101	0.1	0.1	4.052	A
	3	-	184	46	93		1352	0.136	184	24	0.2	0.2	3.086	A
	4	-	91	23	262		855	0.106	91	15	0.2	0.1	4.713	A
	5	-	97	24	28		1009	0.096	97	325	0.1	0.1	3.949	A
2	-	B-AC	86	22		0.00	629	0.137	86		0.2	0.2	6.636	A
	-	C-AB	94	23		0.00	606	0.155	94		0.2	0.2	7.030	A
	-	C-A	6	2		0.00			6					
	-	A-B	0	0		0.00			0					
	-	A-C	7	2		0.00			7					

08:45 - 09:00

Junction	Arm	Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	-	78	19	20		983	0.079	78	84	0.1	0.1	3.978	A
	3	-	154	39	78		1361	0.113	154	20	0.2	0.1	2.986	A
	4	-	76	19	219		876	0.087	76	13	0.1	0.1	4.502	A
	5	-	81	20	23		1011	0.080	81	272	0.1	0.1	3.873	A
2	-	B-AC	72	18		0.00	629	0.115	72		0.2	0.1	6.462	A
	-	C-AB	78	20		0.00	606	0.129	78		0.2	0.2	6.830	A
	-	C-A	5	1		0.00			5					
	-	A-B	0	0		0.00			0					
	-	A-C	6	2		0.00			6					

Do Something - D10 - 2034 | DS | PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix	Junction 1	HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Vehicle Mix	Junction 2	HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	1	0.03	4.04	0.0	A	25	37
	3	0.17	3.25	0.2	A	192	288
	4	0.08	4.58	0.1	A	60	89
	5	0.18	4.38	0.2	A	153	230

Results Summary for whole modelled period

Junction	Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
2	B-AC	0.03	5.89	0.0	A	14	21
	C-AB	0.04	6.04	0.1	A	23	35
	C-A					28	42
	A-B					0	0
	A-C					11	17

Main Results for each time segment

16:30 - 16:45

Junction	Arm	Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	-	20	5	107		944	0.022	20	41	0.0	0.0	3.896	A
	3	-	157	39	78		1361	0.116	157	49	0.0	0.1	2.988	A
	4	-	49	12	175		897	0.055	49	60	0.0	0.1	4.240	A
	5	-	126	31	23		1011	0.124	125	200	0.0	0.1	4.060	A
2	-	B-AC	11	3		0.00	629	0.018	11		0.0	0.0	5.829	A
	-	C-AB	19	5		0.00	617	0.030	19		0.0	0.0	6.015	A
	-	C-A	23	6		0.00			23					
	-	A-B	0	0		0.00			0					
	-	A-C	9	2		0.00			9					

16:45 - 17:00

Junction	Arm	Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	-	24	6	128		935	0.026	24	49	0.0	0.0	3.954	A
	3	-	188	47	93		1351	0.139	188	59	0.1	0.2	3.093	A
	4	-	58	15	209		881	0.066	58	72	0.1	0.1	4.378	A
	5	-	150	38	28		1009	0.149	150	240	0.1	0.2	4.190	A
2	-	B-AC	13	3		0.00	628	0.021	13		0.0	0.0	5.853	A
	-	C-AB	23	6		0.00	620	0.037	23		0.0	0.0	6.028	A
	-	C-A	28	7		0.00			28					
	-	A-B	0	0		0.00			0					
	-	A-C	11	3		0.00			11					

17:00 - 17:15

Junction	Arm	Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	-	30	7	157		922	0.032	30	60	0.0	0.0	4.035	A
	3	-	230	58	114		1339	0.172	230	73	0.2	0.2	3.246	A
	4	-	72	18	256		857	0.083	71	88	0.1	0.1	4.580	A
	5	-	184	46	34		1006	0.183	184	294	0.2	0.2	4.374	A
2	-	B-AC	17	4		0.00	628	0.026	16		0.0	0.0	5.888	A
	-	C-AB	28	7		0.00	624	0.045	28		0.0	0.1	6.044	A
	-	C-A	34	8		0.00			34					
	-	A-B	0	0		0.00			0					
	-	A-C	13	3		0.00			13					

17:15 - 17:30

Junction	Arm	Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	-	30	7	157		922	0.032	30	61	0.0	0.0	4.035	A
	3	-	230	58	115		1339	0.172	230	73	0.2	0.2	3.246	A
	4	-	72	18	257		857	0.083	72	88	0.1	0.1	4.580	A
	5	-	184	46	34		1006	0.183	184	294	0.2	0.2	4.376	A
2	-	B-AC	17	4		0.00	628	0.026	17		0.0	0.0	5.888	A
	-	C-AB	28	7		0.00	624	0.045	28		0.1	0.1	6.045	A
	-	C-A	34	8		0.00			34					
	-	A-B	0	0		0.00			0					
	-	A-C	13	3		0.00			13					

17:30 - 17:45

Junction	Arm	Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	-	24	6	129		935	0.026	24	49	0.0	0.0	3.954	A
	3	-	188	47	94		1351	0.139	188	59	0.2	0.2	3.097	A
	4	-	58	15	210		880	0.066	59	72	0.1	0.1	4.382	A
	5	-	150	38	28		1009	0.149	150	240	0.2	0.2	4.193	A
2	-	B-AC	13	3		0.00	628	0.021	14		0.0	0.0	5.856	A
	-	C-AB	23	6		0.00	620	0.037	23		0.1	0.0	6.029	A
	-	C-A	28	7		0.00			28					
	-	A-B	0	0		0.00			0					
	-	A-C	11	3		0.00			11					

17:45 - 18:00

Junction	Arm	Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	-	20	5	108		944	0.022	20	41	0.0	0.0	3.897	A
	3	-	157	39	78		1360	0.116	157	50	0.2	0.1	2.992	A
	4	-	49	12	176		897	0.055	49	60	0.1	0.1	4.244	A
	5	-	126	31	23		1011	0.124	126	201	0.2	0.1	4.068	A
2	-	B-AC	11	3		0.00	629	0.018	11		0.0	0.0	5.831	A
	-	C-AB	19	5		0.00	617	0.030	19		0.0	0.0	6.020	A
	-	C-A	23	6		0.00			23					
	-	A-B	0	0		0.00			0					
	-	A-C	9	2		0.00			9					

Do Something - D11 - 2044 | DS | AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix	Junction 1	HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Vehicle Mix	Junction 2	HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	1	0.12	4.16	0.1	A	95	142
	3	0.18	3.27	0.2	A	199	299
	4	0.14	5.13	0.2	A	98	147
	5	0.12	4.07	0.1	A	101	151

Results Summary for whole modelled period

Junction	Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
2	B-AC	0.17	6.88	0.2	A	88	132
	C-AB	0.19	7.30	0.2	A	96	144
	C-A					8	12
	A-B					0	0
	A-C					7	11

Main Results for each time segment

07:30 - 07:45

Junction	Arm	Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	-	78	19	22		982	0.079	77	85	0.0	0.1	3.977	A
	3	-	163	41	77		1361	0.120	163	22	0.0	0.1	3.002	A
	4	-	81	20	227		872	0.092	80	13	0.0	0.1	4.544	A
	5	-	83	21	25		1011	0.082	82	282	0.0	0.1	3.879	A
2	-	B-AC	72	18		0.00	629	0.115	72		0.0	0.1	6.449	A
	-	C-AB	79	20		0.00	607	0.129	78		0.0	0.1	6.802	A
	-	C-A	7	2		0.00			7					
	-	A-B	0	0		0.00			0					
	-	A-C	6	2		0.00			6					

07:45 - 08:00

Junction	Arm	Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	-	93	23	26		980	0.094	93	102	0.1	0.1	4.055	A
	3	-	195	49	93		1352	0.144	195	26	0.1	0.2	3.111	A
	4	-	96	24	271		850	0.113	96	16	0.1	0.1	4.774	A
	5	-	99	25	30		1008	0.098	99	338	0.1	0.1	3.957	A
2	-	B-AC	86	22		0.00	629	0.137	86		0.1	0.2	6.627	A
	-	C-AB	94	23		0.00	607	0.155	94		0.1	0.2	7.009	A
	-	C-A	8	2		0.00			8					
	-	A-B	0	0		0.00			0					
	-	A-C	7	2		0.00			7					

08:00 - 08:15

Junction	Arm	Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	-	113	28	32		978	0.116	113	125	0.1	0.1	4.164	A
	3	-	239	60	113		1339	0.178	239	32	0.2	0.2	3.270	A
	4	-	118	29	332		820	0.144	118	20	0.1	0.2	5.122	A
	5	-	121	30	36		1005	0.120	121	414	0.1	0.1	4.070	A
2	-	B-AC	106	26		0.00	629	0.168	106		0.2	0.2	6.877	A
	-	C-AB	116	29		0.00	608	0.190	115		0.2	0.2	7.298	A
	-	C-A	9	2		0.00			9					
	-	A-B	0	0		0.00			0					
	-	A-C	9	2		0.00			9					

08:15 - 08:30

Junction	Arm	Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	-	113	28	32		978	0.116	113	126	0.1	0.1	4.164	A
	3	-	239	60	113		1339	0.178	239	32	0.2	0.2	3.270	A
	4	-	118	29	333		820	0.144	118	20	0.2	0.2	5.125	A
	5	-	121	30	36		1005	0.120	121	414	0.1	0.1	4.070	A
2	-	B-AC	106	26		0.00	629	0.168	106		0.2	0.2	6.880	A
	-	C-AB	116	29		0.00	608	0.190	116		0.2	0.2	7.304	A
	-	C-A	9	2		0.00			9					
	-	A-B	0	0		0.00			0					
	-	A-C	9	2		0.00			9					

08:30 - 08:45

Junction	Arm	Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	-	93	23	26		980	0.094	93	103	0.1	0.1	4.057	A
	3	-	195	49	93		1352	0.144	195	26	0.2	0.2	3.112	A
	4	-	96	24	272		850	0.113	96	16	0.2	0.1	4.779	A
	5	-	99	25	30		1008	0.098	99	338	0.1	0.1	3.960	A
2	-	B-AC	86	22		0.00	629	0.137	86		0.2	0.2	6.636	A
	-	C-AB	94	24		0.00	607	0.155	94		0.2	0.2	7.017	A
	-	C-A	8	2		0.00			8					
	-	A-B	0	0		0.00			0					
	-	A-C	7	2		0.00			7					

08:45 - 09:00

Junction	Arm	Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	-	78	19	22		982	0.079	78	86	0.1	0.1	3.981	A
	3	-	163	41	78		1361	0.120	163	22	0.2	0.1	3.008	A
	4	-	81	20	228		872	0.092	81	14	0.1	0.1	4.551	A
	5	-	83	21	25		1011	0.082	83	283	0.1	0.1	3.882	A
2	-	B-AC	72	18		0.00	629	0.115	72		0.2	0.1	6.462	A
	-	C-AB	79	20		0.00	607	0.129	79		0.2	0.2	6.820	A
	-	C-A	7	2		0.00			7					
	-	A-B	0	0		0.00			0					
	-	A-C	6	2		0.00			6					

Do Something - D12 - 2044 | DS | PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix	Junction 1	HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Vehicle Mix	Junction 2	HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	1	0.03	4.06	0.0	A	26	39
	3	0.18	3.30	0.2	A	205	307
	4	0.09	4.65	0.1	A	63	95
	5	0.19	4.43	0.2	A	161	241

Results Summary for whole modelled period

Junction	Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
2	B-AC	0.03	5.89	0.0	A	14	21
	C-AB	0.04	6.04	0.1	A	23	35
	C-A					29	44
	A-B					0	0
	A-C					12	18

Main Results for each time segment

16:30 - 16:45

Junction	Arm	Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	-	21	5	114		941	0.022	21	42	0.0	0.0	3.912	A
	3	-	168	42	82		1358	0.124	167	52	0.0	0.1	3.022	A
	4	-	52	13	185		892	0.058	52	64	0.0	0.1	4.281	A
	5	-	132	33	25		1011	0.130	131	212	0.0	0.1	4.091	A
2	-	B-AC	11	3		0.00	629	0.018	11		0.0	0.0	5.831	A
	-	C-AB	19	5		0.00	617	0.031	19		0.0	0.0	6.012	A
	-	C-A	24	6		0.00			24					
	-	A-B	0	0		0.00			0					
	-	A-C	10	2		0.00			10					

16:45 - 17:00

Junction	Arm	Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	-	25	6	137		931	0.027	25	50	0.0	0.0	3.973	A
	3	-	200	50	99		1348	0.149	200	63	0.1	0.2	3.136	A
	4	-	62	16	222		874	0.071	62	77	0.1	0.1	4.431	A
	5	-	157	39	30		1008	0.156	157	254	0.1	0.2	4.229	A
2	-	B-AC	13	3		0.00	628	0.021	13		0.0	0.0	5.855	A
	-	C-AB	23	6		0.00	620	0.037	23		0.0	0.0	6.024	A
	-	C-A	29	7		0.00			29					
	-	A-B	0	0		0.00			0					
	-	A-C	12	3		0.00			12					

17:00 - 17:15

Junction	Arm	Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	-	31	8	167		917	0.034	31	62	0.0	0.0	4.060	A
	3	-	246	61	121		1335	0.184	245	77	0.2	0.2	3.303	A
	4	-	76	19	272		850	0.089	76	95	0.1	0.1	4.651	A
	5	-	193	48	36		1005	0.192	192	311	0.2	0.2	4.427	A
2	-	B-AC	17	4		0.00	628	0.026	16		0.0	0.0	5.890	A
	-	C-AB	28	7		0.00	624	0.045	28		0.0	0.1	6.040	A
	-	C-A	35	9		0.00			35					
	-	A-B	0	0		0.00			0					
	-	A-C	14	4		0.00			14					

17:15 - 17:30

Junction	Arm	Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	-	31	8	167		917	0.034	31	62	0.0	0.0	4.060	A
	3	-	246	61	121		1335	0.184	246	77	0.2	0.2	3.304	A
	4	-	76	19	272		850	0.089	76	95	0.1	0.1	4.651	A
	5	-	193	48	36		1005	0.192	193	312	0.2	0.2	4.429	A
2	-	B-AC	17	4		0.00	628	0.026	17		0.0	0.0	5.890	A
	-	C-AB	28	7		0.00	624	0.045	28		0.1	0.1	6.042	A
	-	C-A	35	9		0.00			35					
	-	A-B	0	0		0.00			0					
	-	A-C	14	4		0.00			14					

17:30 - 17:45

Junction	Arm	Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	-	25	6	137		931	0.027	25	50	0.0	0.0	3.976	A
	3	-	200	50	99		1348	0.149	201	63	0.2	0.2	3.139	A
	4	-	62	16	222		874	0.071	62	77	0.1	0.1	4.434	A
	5	-	157	39	30		1008	0.156	158	255	0.2	0.2	4.233	A
2	-	B-AC	13	3		0.00	628	0.021	14		0.0	0.0	5.858	A
	-	C-AB	23	6		0.00	620	0.037	23		0.1	0.0	6.025	A
	-	C-A	29	7		0.00			29					
	-	A-B	0	0		0.00			0					
	-	A-C	12	3		0.00			12					

17:45 - 18:00

Junction	Arm	Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	1	-	21	5	115		941	0.022	21	42	0.0	0.0	3.915	A
	3	-	168	42	83		1358	0.124	168	53	0.2	0.1	3.028	A
	4	-	52	13	186		892	0.058	52	65	0.1	0.1	4.286	A
	5	-	132	33	25		1011	0.130	132	213	0.2	0.2	4.099	A
2	-	B-AC	11	3		0.00	629	0.018	11		0.0	0.0	5.833	A
	-	C-AB	19	5		0.00	617	0.031	19		0.0	0.0	6.017	A
	-	C-A	24	6		0.00			24					
	-	A-B	0	0		0.00			0					
	-	A-C	10	2		0.00			10					

Junctions 11

ARCADY 11 - Roundabout Module

Version: 11.1.1.2424
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Filename: Import of J11- Stoney Hill Roundabout model.j11
Path: C:\Users\StevensonK\AECOM\SDCC Rath - 434_TechnicalArea_TR\01 Reports\03 TTA\Junctions 11
Report generation date: 07/07/2026 16:07:42

»Do Nothing - D1 - 2025 | DN - | AM
»Do Nothing - D2 - 2025 | DN - | PM
»Do Minimum Via Coolamber - D3 - 2029 | DM - Via Cool | AM
»Do Minimum Via Coolamber - D4 - 2029 | DM | PM
»Do Minimum Via Coolamber - D5 - 2034 | DM - Via Cool | AM
»Do Minimum Via Coolamber - D6 - 2034 | DM | PM
»Do Minimum Via Coolamber - D7 - 2044 | DM - Via Cool | AM
»Do Minimum Via Coolamber - D8 - 2044 | DM | PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	Do Nothing - 2025 - DN									
Arm 1	A1 D1	0.0	3.70	0.01	A	A1 D2	0.0	3.93	0.01	A
Arm 2		0.0	0.00	0.00	A		0.0	0.00	0.00	A
Arm 3		0.1	2.96	0.13	A		0.2	3.10	0.14	A
Arm 4		0.1	4.53	0.11	A		0.1	4.39	0.07	A
Arm 5		0.0	3.63	0.03	A		0.2	4.19	0.15	A

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	Do Minimum Via Coolamber - 2029 - DM - Via Cool									
Arm 1	A2 D3	0.0	3.73	0.01	A					
Arm 2		0.0	0.00	0.00	A					
Arm 3		0.2	3.05	0.15	A					
Arm 4		0.1	4.67	0.12	A					
Arm 5		0.0	3.70	0.04	A					
	Do Minimum Via Coolamber - 2029 - DM									
Arm 1						A2 D4	0.0	3.95	0.01	A
Arm 2							0.0	0.00	0.00	A
Arm 3							0.2	3.15	0.15	A
Arm 4							0.1	4.45	0.08	A
Arm 5							0.2	4.24	0.16	A
	Do Minimum Via Coolamber - 2034 - DM - Via Cool									
Arm 1	A2 D5	0.0	3.74	0.01	A					
Arm 2		0.0	0.00	0.00	A					
Arm 3		0.2	3.07	0.16	A					
Arm 4		0.1	4.73	0.13	A					
Arm 5		0.0	3.70	0.05	A					
	Do Minimum Via Coolamber - 2034 - DM									
Arm 1						A2 D6	0.0	3.96	0.01	A
Arm 2							0.0	0.00	0.00	A
Arm 3							0.2	3.18	0.16	A
Arm 4							0.1	4.50	0.08	A
Arm 5							0.2	4.28	0.17	A
	Do Minimum Via Coolamber - 2044 - DM - Via Cool									
Arm 1	A2 D7	0.0	3.74	0.01	A					
Arm 2		0.0	0.00	0.00	A					
Arm 3		0.2	3.10	0.17	A					
Arm 4		0.2	4.81	0.14	A					
Arm 5		0.0	3.71	0.05	A					
	Do Minimum Via Coolamber - 2044 - DM									
Arm 1						A2 D8	0.0	3.99	0.02	A
Arm 2							0.0	0.00	0.00	A
Arm 3							0.2	3.24	0.17	A
Arm 4							0.1	4.57	0.09	A
Arm 5							0.2	4.34	0.18	A

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

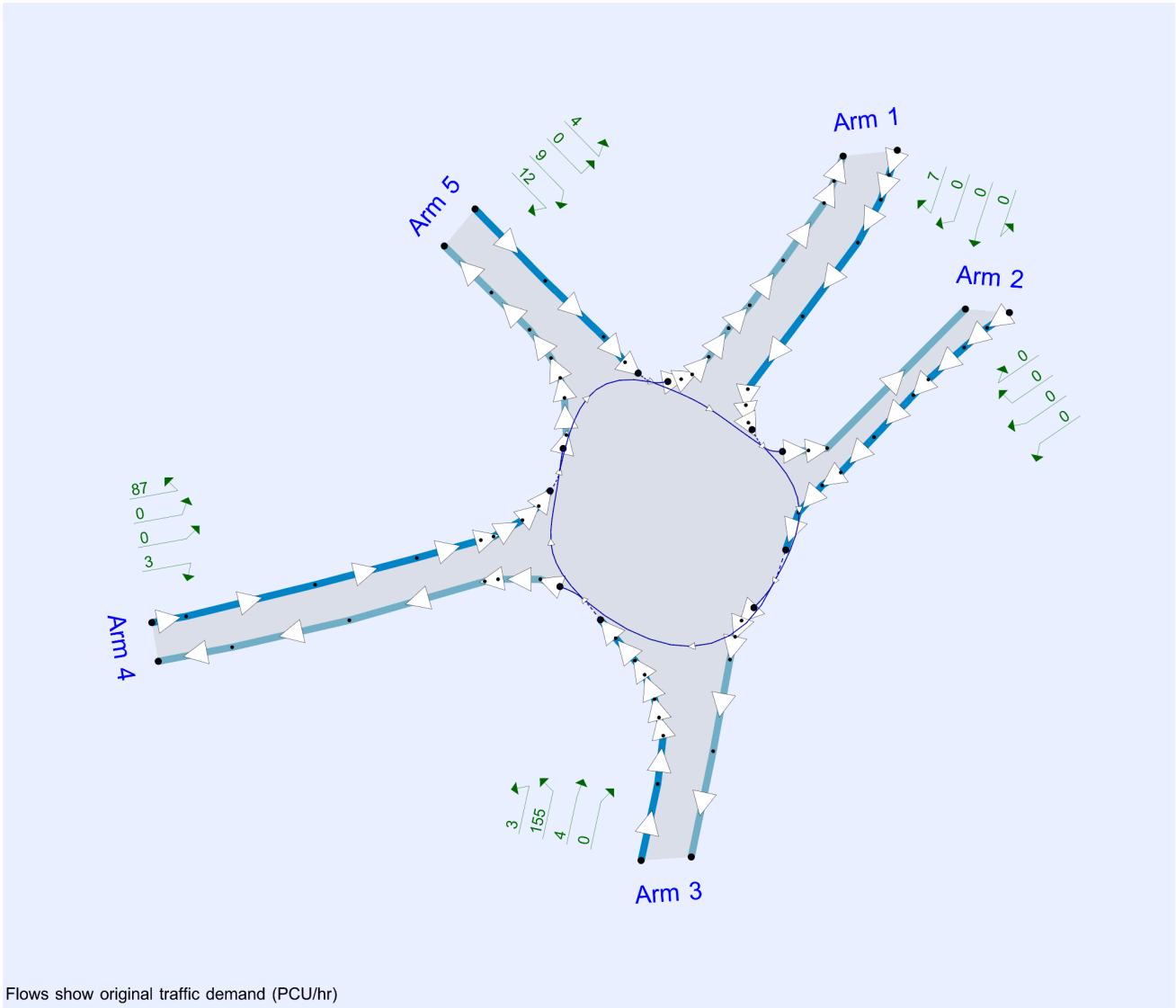
File summary

File Description

Title	
Location	
Site number	
Date	09/12/2024
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	EU\michael.collins
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	PCU	PCU	perHour	s	-Min	perMin



Flows show original traffic demand (PCU/hr)

The junction diagram reflects the last run of Junctions.

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use simulation for HCM roundabouts	Use iterations for HCM roundabouts
5.75						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)	Run automatically
D1	2025	DN -	AM	ONE HOUR	07:30	09:00	15	✓
D2	2025	DN -	PM	ONE HOUR	16:30	18:00	15	✓
D3	2029	DM - Via Cool	AM	ONE HOUR	07:30	09:00	15	✓
D4	2029	DM	PM	ONE HOUR	16:30	18:00	15	✓
D5	2034	DM - Via Cool	AM	ONE HOUR	07:30	09:00	15	✓
D6	2034	DM	PM	ONE HOUR	16:30	18:00	15	✓
D7	2044	DM - Via Cool	AM	ONE HOUR	07:30	09:00	15	✓
D8	2044	DM	PM	ONE HOUR	16:30	18:00	15	✓

Do Nothing - D1 - 2025 | DN - | AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix	Junction 1	HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Analysis Set Details

ID	Name	Include in report	Use specific Demand Set(s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	Do Nothing	✓	✓	D1,D2	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4, 5	3.53	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.53	A

Arms

Arms

Arm	Name	Description	No give-way line
1	untitled		
2	Mullally Lane		
3	untitled		
4	untitled		
5	untitled		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1	3.80	4.30	2.5	5.7	35.0	53.0		
2	2.00	4.10	2.0	10.8	35.0	8.0		
3	3.60	5.20	8.0	41.5	35.0	33.0		
4	3.00	4.40	1.9	17.0	35.0	42.0		
5	3.60	5.20	3.3	8.2	35.0	68.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.446	992
2	0.475	778
3	0.597	1407
4	0.491	983
5	0.452	1022

The slope and intercept shown above include any corrections and adjustments.

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)	Run automatically
D1	2025	DN -	AM	ONE HOUR	07:30	09:00	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	7	100.000
2		ONE HOUR	✓	0	100.000
3		ONE HOUR	✓	162	100.000
4		ONE HOUR	✓	90	100.000
5		ONE HOUR	✓	25	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1	2	3	4	5
From	1	0	0	0	0	7
	2	0	0	0	0	0
	3	4	0	0	3	155
	4	0	0	3	0	87
	5	4	0	9	12	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To				
		1	2	3	4	5
From	1	0	0	0	0	0
	2	0	0	0	0	0
	3	0	0	0	0	0
	4	0	0	0	0	0
	5	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.01	3.70	0.0	A	6	10
2	0.00	0.00	0.0	A	0	0
3	0.13	2.96	0.1	A	149	223
4	0.11	4.53	0.1	A	83	124
5	0.03	3.63	0.0	A	23	34

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	5	1	18	984	0.005	5	6	0.0	0.0	3.677	A
2	0	0	23	767	0.000	0	0	0.0	0.0	0.000	A
3	122	30	14	1399	0.087	122	9	0.0	0.1	2.819	A
4	68	17	125	922	0.073	67	11	0.0	0.1	4.211	A
5	19	5	5	1019	0.018	19	187	0.0	0.0	3.596	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	6	2	22	982	0.006	6	7	0.0	0.0	3.687	A
2	0	0	28	765	0.000	0	0	0.0	0.0	0.000	A
3	146	36	17	1397	0.104	146	11	0.1	0.1	2.876	A
4	81	20	149	910	0.089	81	13	0.1	0.1	4.341	A
5	22	6	6	1019	0.022	22	224	0.0	0.0	3.611	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	8	2	26	980	0.008	8	9	0.0	0.0	3.701	A
2	0	0	34	762	0.000	0	0	0.0	0.0	0.000	A
3	178	45	21	1395	0.128	178	13	0.1	0.1	2.959	A
4	99	25	183	894	0.111	99	17	0.1	0.1	4.530	A
5	28	7	8	1018	0.027	28	274	0.0	0.0	3.632	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	8	2	26	980	0.008	8	9	0.0	0.0	3.701	A
2	0	0	34	762	0.000	0	0	0.0	0.0	0.000	A
3	178	45	21	1395	0.128	178	13	0.1	0.1	2.959	A
4	99	25	183	894	0.111	99	17	0.1	0.1	4.530	A
5	28	7	8	1018	0.027	28	274	0.0	0.0	3.632	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	6	2	22	982	0.006	6	7	0.0	0.0	3.690	A
2	0	0	28	765	0.000	0	0	0.0	0.0	0.000	A
3	146	36	17	1397	0.104	146	11	0.1	0.1	2.877	A
4	81	20	149	910	0.089	81	13	0.1	0.1	4.343	A
5	22	6	6	1019	0.022	22	224	0.0	0.0	3.614	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	5	1	18	984	0.005	5	6	0.0	0.0	3.677	A
2	0	0	23	767	0.000	0	0	0.0	0.0	0.000	A
3	122	30	14	1399	0.087	122	9	0.1	0.1	2.819	A
4	68	17	125	922	0.074	68	11	0.1	0.1	4.216	A
5	19	5	5	1019	0.018	19	188	0.0	0.0	3.599	A

Do Nothing - D2 - 2025 | DN - | PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix	Junction 1	HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Analysis Set Details

ID	Name	Include in report	Use specific Demand Set(s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	Do Nothing	✓	✓	D1,D2	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4, 5	3.71	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.71	A

Arms

Arms

Arm	Name	Description	No give-way line
1	untitled		
2	Mullally Lane		
3	untitled		
4	untitled		
5	untitled		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1	3.80	4.30	2.5	5.7	35.0	53.0		
2	2.00	4.10	2.0	10.8	35.0	8.0		
3	3.60	5.20	8.0	41.5	35.0	33.0		
4	3.00	4.40	1.9	17.0	35.0	42.0		
5	3.60	5.20	3.3	8.2	35.0	68.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.446	992
2	0.475	778
3	0.597	1407
4	0.491	983
5	0.452	1022

The slope and intercept shown above include any corrections and adjustments.

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)	Run automatically
D2	2025	DN -	PM	ONE HOUR	16:30	18:00	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	11	100.000
2		ONE HOUR	✓	0	100.000
3		ONE HOUR	✓	176	100.000
4		ONE HOUR	✓	58	100.000
5		ONE HOUR	✓	139	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1	2	3	4	5
From	1	0	0	0	0	11
	2	0	0	0	0	0
	3	14	0	0	3	159
	4	1	0	3	0	54
	5	13	1	56	69	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To				
		1	2	3	4	5
From	1	0	0	0	0	0
	2	0	0	0	0	0
	3	0	0	0	0	0
	4	0	0	0	0	0
	5	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.01	3.93	0.0	A	10	15
2	0.00	0.00	0.0	A	0	0
3	0.14	3.10	0.2	A	162	242
4	0.07	4.39	0.1	A	53	80
5	0.15	4.19	0.2	A	128	191

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	8	2	97	949	0.009	8	21	0.0	0.0	3.826	A
2	0	0	104	728	0.000	0	0.75	0.0	0.0	0.000	A
3	133	33	60	1371	0.097	132	44	0.0	0.1	2.905	A
4	44	11	138	916	0.048	43	54	0.0	0.0	4.127	A
5	105	26	14	1016	0.103	104	168	0.0	0.1	3.948	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	10	2	116	940	0.011	10	25	0.0	0.0	3.869	A
2	0	0	125	719	0.000	0	0.90	0.0	0.0	0.000	A
3	158	40	72	1364	0.116	158	53	0.1	0.1	2.984	A
4	52	13	165	902	0.058	52	65	0.0	0.1	4.234	A
5	125	31	16	1014	0.123	125	201	0.1	0.1	4.046	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	12	3	142	929	0.013	12	31	0.0	0.0	3.927	A
2	0	0	153	705	0.000	0	1	0.0	0.0	0.000	A
3	194	48	88	1355	0.143	194	65	0.1	0.2	3.100	A
4	64	16	202	884	0.072	64	79	0.1	0.1	4.389	A
5	153	38	20	1013	0.151	153	246	0.1	0.2	4.186	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	12	3	142	929	0.013	12	31	0.0	0.0	3.927	A
2	0	0	153	705	0.000	0	1	0.0	0.0	0.000	A
3	194	48	88	1355	0.143	194	65	0.2	0.2	3.100	A
4	64	16	203	884	0.072	64	79	0.1	0.1	4.390	A
5	153	38	20	1013	0.151	153	247	0.2	0.2	4.186	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	10	2	116	940	0.011	10	25	0.0	0.0	3.871	A
2	0	0	125	719	0.000	0	0.90	0.0	0.0	0.000	A
3	158	40	72	1364	0.116	158	53	0.2	0.1	2.985	A
4	52	13	166	902	0.058	52	65	0.1	0.1	4.236	A
5	125	31	16	1014	0.123	125	202	0.2	0.1	4.049	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	8	2	97	949	0.009	8	21	0.0	0.0	3.827	A
2	0	0	105	728	0.000	0	0.75	0.0	0.0	0.000	A
3	133	33	60	1371	0.097	133	44	0.1	0.1	2.908	A
4	44	11	139	915	0.048	44	54	0.1	0.1	4.130	A
5	105	26	14	1016	0.103	105	169	0.1	0.1	3.953	A

Do Minimum Via Coolamber - D3 - 2029 | DM - Via Cool | AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix	Junction 1	HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Analysis Set Details

ID	Name	Include in report	Use specific Demand Set(s)	Specific Demand Set (s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A2	Do Minimum Via Coolamber	✓	✓	D3,D4,D5,D6,D7,D8	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4, 5	3.60	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.60	A

Arms

Arms

Arm	Name	Description	No give-way line
1	untitled		
2	Mullally Lane		
3	untitled		
4	untitled		
5	untitled		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1	3.80	4.30	2.5	5.7	35.0	53.0		
2	2.00	4.10	2.0	10.8	35.0	8.0		
3	3.60	5.20	8.0	41.5	35.0	33.0		
4	3.00	4.40	1.9	17.0	35.0	42.0		
5	3.60	5.20	3.3	8.2	35.0	68.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.446	992
2	0.475	778
3	0.597	1407
4	0.491	983
5	0.452	1022

The slope and intercept shown above include any corrections and adjustments.

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)	Run automatically
D3	2029	DM - Via Cool	AM	ONE HOUR	07:30	09:00	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	8	100.000
2		ONE HOUR	✓	0	100.000
3		ONE HOUR	✓	193	100.000
4		ONE HOUR	✓	96	100.000
5		ONE HOUR	✓	41	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1	2	3	4	5
From	1	0	0	0	0	8
	2	0	0	0	0	0
	3	4	0	0	3	186
	4	0	0	3	0	93
	5	4	0	24	13	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To				
		1	2	3	4	5
From	1	0	0	0	0	0
	2	0	0	0	0	0
	3	0	0	0	0	0
	4	0	0	0	0	0
	5	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.01	3.73	0.0	A	7	11
2	0.00	0.00	0.0	A	0	0
3	0.15	3.05	0.2	A	177	266
4	0.12	4.67	0.1	A	88	132
5	0.04	3.70	0.0	A	38	56

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	6	2	30	979	0.006	6	6	0.0	0.0	3.700	A
2	0	0	36	761	0.000	0	0	0.0	0.0	0.000	A
3	145	36	16	1398	0.104	145	20	0.0	0.1	2.873	A
4	72	18	149	910	0.079	72	12	0.0	0.1	4.291	A
5	31	8	5	1019	0.030	31	215	0.0	0.0	3.640	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	7	2	36	976	0.007	7	7	0.0	0.0	3.715	A
2	0	0	43	758	0.000	0	0	0.0	0.0	0.000	A
3	174	43	19	1396	0.124	173	24	0.1	0.1	2.944	A
4	86	22	178	896	0.096	86	14	0.1	0.1	4.445	A
5	37	9	6	1019	0.036	37	258	0.0	0.0	3.664	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	9	2	44	972	0.009	9	9	0.0	0.0	3.735	A
2	0	0	53	753	0.000	0	0	0.0	0.0	0.000	A
3	212	53	23	1393	0.153	212	30	0.1	0.2	3.048	A
4	106	26	218	876	0.121	106	18	0.1	0.1	4.670	A
5	45	11	8	1018	0.044	45	316	0.0	0.0	3.698	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	9	2	44	972	0.009	9	9	0.0	0.0	3.735	A
2	0	0	53	753	0.000	0	0	0.0	0.0	0.000	A
3	212	53	23	1393	0.153	212	30	0.2	0.2	3.048	A
4	106	26	218	876	0.121	106	18	0.1	0.1	4.671	A
5	45	11	8	1018	0.044	45	316	0.0	0.0	3.698	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	7	2	36	976	0.007	7	7	0.0	0.0	3.715	A
2	0	0	43	757	0.000	0	0	0.0	0.0	0.000	A
3	174	43	19	1396	0.124	174	24	0.2	0.1	2.947	A
4	86	22	178	896	0.096	86	14	0.1	0.1	4.447	A
5	37	9	6	1019	0.036	37	258	0.0	0.0	3.667	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	6	2	30	978	0.006	6	6	0.0	0.0	3.703	A
2	0	0	36	761	0.000	0	0	0.0	0.0	0.000	A
3	145	36	16	1398	0.104	145	20	0.1	0.1	2.876	A
4	72	18	149	910	0.079	72	12	0.1	0.1	4.299	A
5	31	8	5	1019	0.030	31	216	0.0	0.0	3.641	A

Do Minimum Via Coolamber - D4 - 2029 | DM | PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix	Junction 1	HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Analysis Set Details

ID	Name	Include in report	Use specific Demand Set(s)	Specific Demand Set (s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A2	Do Minimum Via Coolamber	✓	✓	D3,D4,D5,D6,D7,D8	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4, 5	3.76	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.76	A

Arms

Arms

Arm	Name	Description	No give-way line
1	untitled		
2	Mullally Lane		
3	untitled		
4	untitled		
5	untitled		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1	3.80	4.30	2.5	5.7	35.0	53.0		
2	2.00	4.10	2.0	10.8	35.0	8.0		
3	3.60	5.20	8.0	41.5	35.0	33.0		
4	3.00	4.40	1.9	17.0	35.0	42.0		
5	3.60	5.20	3.3	8.2	35.0	68.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.446	992
2	0.475	778
3	0.597	1407
4	0.491	983
5	0.452	1022

The slope and intercept shown above include any corrections and adjustments.

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)	Run automatically
D4	2029	DM	PM	ONE HOUR	16:30	18:00	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	12	100.000
2		ONE HOUR	✓	0	100.000
3		ONE HOUR	✓	189	100.000
4		ONE HOUR	✓	62	100.000
5		ONE HOUR	✓	149	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1	2	3	4	5
From	1	0	0	0	0	12
	2	0	0	0	0	0
	3	15	0	0	3	171
	4	1	0	3	0	58
	5	14	1	60	74	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To				
		1	2	3	4	5
From	1	0	0	0	0	0
	2	0	0	0	0	0
	3	0	0	0	0	0
	4	0	0	0	0	0
	5	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.01	3.95	0.0	A	11	17
2	0.00	0.00	0.0	A	0	0
3	0.15	3.15	0.2	A	173	260
4	0.08	4.45	0.1	A	57	85
5	0.16	4.24	0.2	A	137	205

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	9	2	103	946	0.010	9	22	0.0	0.0	3.842	A
2	0	0	112	725	0.000	0	0.75	0.0	0.0	0.000	A
3	142	36	64	1369	0.104	142	47	0.0	0.1	2.934	A
4	47	12	149	910	0.051	46	58	0.0	0.1	4.166	A
5	112	28	14	1015	0.110	112	181	0.0	0.1	3.982	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	11	3	124	937	0.012	11	27	0.0	0.0	3.887	A
2	0	0	134	714	0.000	0	0.90	0.0	0.0	0.000	A
3	170	42	77	1361	0.125	170	57	0.1	0.1	3.021	A
4	56	14	178	896	0.062	56	69	0.1	0.1	4.284	A
5	134	33	17	1014	0.132	134	217	0.1	0.2	4.090	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	13	3	152	924	0.014	13	33	0.0	0.0	3.951	A
2	0	0	164	700	0.000	0	1	0.0	0.0	0.000	A
3	208	52	95	1351	0.154	208	69	0.1	0.2	3.150	A
4	68	17	218	876	0.078	68	85	0.1	0.1	4.454	A
5	164	41	21	1012	0.162	164	265	0.2	0.2	4.241	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	13	3	152	924	0.014	13	33	0.0	0.0	3.951	A
2	0	0	164	700	0.000	0	1	0.0	0.0	0.000	A
3	208	52	95	1351	0.154	208	69	0.2	0.2	3.150	A
4	68	17	218	876	0.078	68	85	0.1	0.1	4.455	A
5	164	41	21	1012	0.162	164	265	0.2	0.2	4.243	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	11	3	124	937	0.012	11	27	0.0	0.0	3.890	A
2	0	0	134	714	0.000	0	0.90	0.0	0.0	0.000	A
3	170	42	77	1361	0.125	170	57	0.2	0.1	3.022	A
4	56	14	178	896	0.062	56	69	0.1	0.1	4.285	A
5	134	33	17	1014	0.132	134	217	0.2	0.2	4.091	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	9	2	104	946	0.010	9	23	0.0	0.0	3.843	A
2	0	0	112	725	0.000	0	0.75	0.0	0.0	0.000	A
3	142	36	65	1368	0.104	142	47	0.1	0.1	2.935	A
4	47	12	149	910	0.051	47	58	0.1	0.1	4.169	A
5	112	28	14	1015	0.110	112	182	0.2	0.1	3.988	A

Do Minimum Via Coolamber - D5 - 2034 | DM - Via Cool | AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix	Junction 1	HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Analysis Set Details

ID	Name	Include in report	Use specific Demand Set(s)	Specific Demand Set (s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A2	Do Minimum Via Coolamber	✓	✓	D3,D4,D5,D6,D7,D8	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4, 5	3.64	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.64	A

Arms

Arms

Arm	Name	Description	No give-way line
1	untitled		
2	Mullally Lane		
3	untitled		
4	untitled		
5	untitled		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1	3.80	4.30	2.5	5.7	35.0	53.0		
2	2.00	4.10	2.0	10.8	35.0	8.0		
3	3.60	5.20	8.0	41.5	35.0	33.0		
4	3.00	4.40	1.9	17.0	35.0	42.0		
5	3.60	5.20	3.3	8.2	35.0	68.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.446	992
2	0.475	778
3	0.597	1407
4	0.491	983
5	0.452	1022

The slope and intercept shown above include any corrections and adjustments.

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)	Run automatically
D5	2034	DM - Via Cool	AM	ONE HOUR	07:30	09:00	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	8	100.000
2		ONE HOUR	✓	0	100.000
3		ONE HOUR	✓	200	100.000
4		ONE HOUR	✓	101	100.000
5		ONE HOUR	✓	42	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1	2	3	4	5
From	1	0	0	0	0	8
	2	0	0	0	0	0
	3	4	0	0	3	193
	4	0	0	3	0	98
	5	4	0	24	14	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To				
		1	2	3	4	5
From	1	0	0	0	0	0
	2	0	0	0	0	0
	3	0	0	0	0	0
	4	0	0	0	0	0
	5	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.01	3.74	0.0	A	7	11
2	0.00	0.00	0.0	A	0	0
3	0.16	3.07	0.2	A	184	275
4	0.13	4.73	0.1	A	93	139
5	0.05	3.70	0.0	A	39	58

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	6	2	31	978	0.006	6	6	0.0	0.0	3.702	A
2	0	0	37	761	0.000	0	0	0.0	0.0	0.000	A
3	151	38	16	1397	0.108	150	20	0.0	0.1	2.887	A
4	76	19	154	908	0.084	76	13	0.0	0.1	4.324	A
5	32	8	5	1019	0.031	31	224	0.0	0.0	3.643	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	7	2	37	976	0.007	7	7	0.0	0.0	3.716	A
2	0	0	44	757	0.000	0	0	0.0	0.0	0.000	A
3	180	45	20	1395	0.129	180	24	0.1	0.1	2.961	A
4	91	23	184	893	0.102	91	15	0.1	0.1	4.487	A
5	38	9	6	1019	0.037	38	269	0.0	0.0	3.668	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	9	2	45	972	0.009	9	9	0.0	0.0	3.737	A
2	0	0	54	752	0.000	0	0	0.0	0.0	0.000	A
3	220	55	24	1393	0.158	220	30	0.1	0.2	3.069	A
4	111	28	226	873	0.127	111	19	0.1	0.1	4.727	A
5	46	12	8	1018	0.045	46	329	0.0	0.0	3.702	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	9	2	45	972	0.009	9	9	0.0	0.0	3.737	A
2	0	0	54	752	0.000	0	0	0.0	0.0	0.000	A
3	220	55	24	1393	0.158	220	30	0.2	0.2	3.069	A
4	111	28	226	872	0.127	111	19	0.1	0.1	4.728	A
5	46	12	8	1018	0.045	46	329	0.0	0.0	3.702	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	7	2	37	975	0.007	7	7	0.0	0.0	3.719	A
2	0	0	44	757	0.000	0	0	0.0	0.0	0.000	A
3	180	45	20	1395	0.129	180	24	0.2	0.1	2.964	A
4	91	23	184	893	0.102	91	15	0.1	0.1	4.491	A
5	38	9	6	1019	0.037	38	269	0.0	0.0	3.671	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	6	2	31	978	0.006	6	6	0.0	0.0	3.705	A
2	0	0	37	760	0.000	0	0	0.0	0.0	0.000	A
3	151	38	17	1397	0.108	151	20	0.1	0.1	2.887	A
4	76	19	154	907	0.084	76	13	0.1	0.1	4.330	A
5	32	8	5	1019	0.031	32	225	0.0	0.0	3.646	A

Do Minimum Via Coolamber - D6 - 2034 | DM | PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix	Junction 1	HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Analysis Set Details

ID	Name	Include in report	Use specific Demand Set(s)	Specific Demand Set (s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A2	Do Minimum Via Coolamber	✓	✓	D3,D4,D5,D6,D7,D8	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4, 5	3.80	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.80	A

Arms

Arms

Arm	Name	Description	No give-way line
1	untitled		
2	Mullally Lane		
3	untitled		
4	untitled		
5	untitled		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1	3.80	4.30	2.5	5.7	35.0	53.0		
2	2.00	4.10	2.0	10.8	35.0	8.0		
3	3.60	5.20	8.0	41.5	35.0	33.0		
4	3.00	4.40	1.9	17.0	35.0	42.0		
5	3.60	5.20	3.3	8.2	35.0	68.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.446	992
2	0.475	778
3	0.597	1407
4	0.491	983
5	0.452	1022

The slope and intercept shown above include any corrections and adjustments.

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)	Run automatically
D6	2034	DM	PM	ONE HOUR	16:30	18:00	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	12	100.000
2		ONE HOUR	✓	0	100.000
3		ONE HOUR	✓	198	100.000
4		ONE HOUR	✓	65	100.000
5		ONE HOUR	✓	156	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1	2	3	4	5
From	1	0	0	0	0	12
	2	0	0	0	0	0
	3	16	0	0	3	179
	4	1	0	3	0	61
	5	15	1	63	77	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To				
		1	2	3	4	5
From	1	0	0	0	0	0
	2	0	0	0	0	0
	3	0	0	0	0	0
	4	0	0	0	0	0
	5	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.01	3.96	0.0	A	11	17
2	0.00	0.00	0.0	A	0	0
3	0.16	3.18	0.2	A	182	273
4	0.08	4.50	0.1	A	60	89
5	0.17	4.28	0.2	A	143	215

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	9	2	108	944	0.010	9	24	0.0	0.0	3.850	A
2	0	0	116	723	0.000	0	0.75	0.0	0.0	0.000	A
3	149	37	67	1367	0.109	149	49	0.0	0.1	2.952	A
4	49	12	155	907	0.054	49	60	0.0	0.1	4.193	A
5	117	29	15	1015	0.116	117	189	0.0	0.1	4.007	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	11	3	129	934	0.012	11	29	0.0	0.0	3.898	A
2	0	0	139	712	0.000	0	0.90	0.0	0.0	0.000	A
3	178	44	80	1359	0.131	178	59	0.1	0.2	3.046	A
4	58	15	186	892	0.066	58	72	0.1	0.1	4.318	A
5	140	35	18	1014	0.138	140	226	0.1	0.2	4.121	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	13	3	158	921	0.014	13	35	0.0	0.0	3.964	A
2	0	0	170	697	0.000	0	1	0.0	0.0	0.000	A
3	218	55	98	1349	0.162	218	73	0.2	0.2	3.183	A
4	72	18	228	871	0.082	71	88	0.1	0.1	4.500	A
5	172	43	22	1012	0.170	172	277	0.2	0.2	4.283	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	13	3	159	921	0.014	13	35	0.0	0.0	3.964	A
2	0	0	171	697	0.000	0	1	0.0	0.0	0.000	A
3	218	55	98	1349	0.162	218	73	0.2	0.2	3.183	A
4	72	18	228	871	0.082	72	88	0.1	0.1	4.500	A
5	172	43	22	1012	0.170	172	277	0.2	0.2	4.284	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	11	3	130	934	0.012	11	29	0.0	0.0	3.898	A
2	0	0	140	712	0.000	0	0.90	0.0	0.0	0.000	A
3	178	44	80	1359	0.131	178	59	0.2	0.2	3.047	A
4	58	15	186	892	0.066	59	72	0.1	0.1	4.321	A
5	140	35	18	1014	0.138	140	227	0.2	0.2	4.123	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	9	2	109	944	0.010	9	24	0.0	0.0	3.852	A
2	0	0	117	722	0.000	0	0.75	0.0	0.0	0.000	A
3	149	37	67	1367	0.109	149	50	0.2	0.1	2.955	A
4	49	12	156	907	0.054	49	60	0.1	0.1	4.198	A
5	117	29	15	1015	0.116	118	190	0.2	0.1	4.011	A

Do Minimum Via Coolamber - D7 - 2044 | DM - Via Cool | AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix	Junction 1	HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Analysis Set Details

ID	Name	Include in report	Use specific Demand Set(s)	Specific Demand Set (s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A2	Do Minimum Via Coolamber	✓	✓	D3,D4,D5,D6,D7,D8	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4, 5	3.68	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.68	A

Arms

Arms

Arm	Name	Description	No give-way line
1	untitled		
2	Mullally Lane		
3	untitled		
4	untitled		
5	untitled		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1	3.80	4.30	2.5	5.7	35.0	53.0		
2	2.00	4.10	2.0	10.8	35.0	8.0		
3	3.60	5.20	8.0	41.5	35.0	33.0		
4	3.00	4.40	1.9	17.0	35.0	42.0		
5	3.60	5.20	3.3	8.2	35.0	68.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.446	992
2	0.475	778
3	0.597	1407
4	0.491	983
5	0.452	1022

The slope and intercept shown above include any corrections and adjustments.

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)	Run automatically
D7	2044	DM - Via Cool	AM	ONE HOUR	07:30	09:00	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	8	100.000
2		ONE HOUR	✓	0	100.000
3		ONE HOUR	✓	212	100.000
4		ONE HOUR	✓	107	100.000
5		ONE HOUR	✓	44	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1	2	3	4	5
From	1	0	0	0	0	8
	2	0	0	0	0	0
	3	5	0	0	4	203
	4	0	0	4	0	103
	5	5	0	25	14	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To				
		1	2	3	4	5
From	1	0	0	0	0	0
	2	0	0	0	0	0
	3	0	0	0	0	0
	4	0	0	0	0	0
	5	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.01	3.74	0.0	A	7	11
2	0.00	0.00	0.0	A	0	0
3	0.17	3.10	0.2	A	195	292
4	0.14	4.81	0.2	A	98	147
5	0.05	3.71	0.0	A	40	61

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	6	2	32	978	0.006	6	8	0.0	0.0	3.704	A
2	0	0	38	760	0.000	0	0	0.0	0.0	0.000	A
3	160	40	16	1397	0.114	159	22	0.0	0.1	2.905	A
4	81	20	162	904	0.089	80	13	0.0	0.1	4.369	A
5	33	8	7	1019	0.033	33	236	0.0	0.0	3.651	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	7	2	39	975	0.007	7	9	0.0	0.0	3.719	A
2	0	0	46	756	0.000	0	0	0.0	0.0	0.000	A
3	191	48	20	1395	0.137	190	26	0.1	0.2	2.987	A
4	96	24	194	888	0.108	96	16	0.1	0.1	4.546	A
5	40	10	8	1018	0.039	40	282	0.0	0.0	3.677	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	9	2	47	971	0.009	9	11	0.0	0.0	3.741	A
2	0	0	56	751	0.000	0	0	0.0	0.0	0.000	A
3	233	58	24	1393	0.168	233	32	0.2	0.2	3.104	A
4	118	29	238	867	0.136	118	20	0.1	0.2	4.807	A
5	48	12	10	1017	0.048	48	345	0.0	0.0	3.714	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	9	2	47	971	0.009	9	11	0.0	0.0	3.741	A
2	0	0	56	751	0.000	0	0	0.0	0.0	0.000	A
3	233	58	24	1393	0.168	233	32	0.2	0.2	3.104	A
4	118	29	238	867	0.136	118	20	0.2	0.2	4.807	A
5	48	12	10	1017	0.048	48	346	0.0	0.0	3.714	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	7	2	39	975	0.007	7	9	0.0	0.0	3.720	A
2	0	0	46	756	0.000	0	0	0.0	0.0	0.000	A
3	191	48	20	1395	0.137	191	26	0.2	0.2	2.990	A
4	96	24	194	888	0.108	96	16	0.2	0.1	4.548	A
5	40	10	8	1018	0.039	40	283	0.0	0.0	3.678	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	6	2	32	977	0.006	6	8	0.0	0.0	3.704	A
2	0	0	38	760	0.000	0	0	0.0	0.0	0.000	A
3	160	40	17	1397	0.114	160	22	0.2	0.1	2.911	A
4	81	20	163	903	0.089	81	14	0.1	0.1	4.375	A
5	33	8	7	1019	0.033	33	237	0.0	0.0	3.651	A

Do Minimum Via Coolamber - D8 - 2044 | DM | PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix	Junction 1	HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Analysis Set Details

ID	Name	Include in report	Use specific Demand Set(s)	Specific Demand Set (s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A2	Do Minimum Via Coolamber	✓	✓	D3,D4,D5,D6,D7,D8	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout	1, 2, 3, 4, 5	3.85	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.85	A

Arms

Arms

Arm	Name	Description	No give-way line
1	untitled		
2	Mullally Lane		
3	untitled		
4	untitled		
5	untitled		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1	3.80	4.30	2.5	5.7	35.0	53.0		
2	2.00	4.10	2.0	10.8	35.0	8.0		
3	3.60	5.20	8.0	41.5	35.0	33.0		
4	3.00	4.40	1.9	17.0	35.0	42.0		
5	3.60	5.20	3.3	8.2	35.0	68.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.446	992
2	0.475	778
3	0.597	1407
4	0.491	983
5	0.452	1022

The slope and intercept shown above include any corrections and adjustments.

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)	Run automatically
D8	2044	DM	PM	ONE HOUR	16:30	18:00	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	13	100.000
2		ONE HOUR	✓	0	100.000
3		ONE HOUR	✓	212	100.000
4		ONE HOUR	✓	69	100.000
5		ONE HOUR	✓	164	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1	2	3	4	5
From	1	0	0	0	0	13
	2	0	0	0	0	0
	3	17	0	0	4	191
	4	1	0	4	0	64
	5	15	1	66	82	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To				
		1	2	3	4	5
From	1	0	0	0	0	0
	2	0	0	0	0	0
	3	0	0	0	0	0
	4	0	0	0	0	0
	5	0	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.02	3.99	0.0	A	12	18
2	0.00	0.00	0.0	A	0	0
3	0.17	3.24	0.2	A	195	292
4	0.09	4.57	0.1	A	63	95
5	0.18	4.34	0.2	A	150	226

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	10	2	115	941	0.010	10	25	0.0	0.0	3.866	A
2	0	0	124	719	0.000	0	0.75	0.0	0.0	0.000	A
3	160	40	71	1365	0.117	159	52	0.0	0.1	2.984	A
4	52	13	166	902	0.058	52	64	0.0	0.1	4.233	A
5	123	31	17	1014	0.122	123	201	0.0	0.1	4.036	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	12	3	137	931	0.013	12	30	0.0	0.0	3.917	A
2	0	0	148	708	0.000	0	0.90	0.0	0.0	0.000	A
3	191	48	85	1356	0.141	190	63	0.1	0.2	3.087	A
4	62	16	199	886	0.070	62	77	0.1	0.1	4.369	A
5	147	37	20	1013	0.146	147	241	0.1	0.2	4.159	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	14	4	168	917	0.016	14	36	0.0	0.0	3.988	A
2	0	0	181	692	0.000	0	1	0.0	0.0	0.000	A
3	233	58	104	1345	0.174	233	77	0.2	0.2	3.238	A
4	76	19	243	864	0.088	76	95	0.1	0.1	4.568	A
5	181	45	24	1011	0.179	180	295	0.2	0.2	4.333	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	14	4	168	917	0.016	14	36	0.0	0.0	3.988	A
2	0	0	182	692	0.000	0	1	0.0	0.0	0.000	A
3	233	58	105	1345	0.174	233	77	0.2	0.2	3.238	A
4	76	19	243	864	0.088	76	95	0.1	0.1	4.568	A
5	181	45	24	1011	0.179	181	295	0.2	0.2	4.335	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	12	3	138	931	0.013	12	30	0.0	0.0	3.919	A
2	0	0	149	707	0.000	0	0.90	0.0	0.0	0.000	A
3	191	48	86	1356	0.141	191	63	0.2	0.2	3.089	A
4	62	16	199	886	0.070	62	77	0.1	0.1	4.371	A
5	147	37	20	1013	0.146	148	241	0.2	0.2	4.162	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	10	2	115	941	0.010	10	25	0.0	0.0	3.867	A
2	0	0	124	719	0.000	0	0.75	0.0	0.0	0.000	A
3	160	40	72	1364	0.117	160	53	0.2	0.1	2.988	A
4	52	13	167	902	0.058	52	65	0.1	0.1	4.237	A
5	123	31	17	1014	0.122	124	202	0.2	0.1	4.042	A