Traffic & Transport Assessment

Proposed Development at New Road, Donabate, Co. Dublin

April 2024

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Comments

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1. Introduction

1.1 Context

This Traffic and Transport Assessment (TTA) has been prepared by Waterman Moylan on behalf of Fingal County Council, as part of a design pack for a proposed residential development in Donabate, Co. Dublin.

The development is proposed at a site of 4.72 hectares at New Road, Donabate, Co. Dublin. The site is generally bound by: a site which is currently being developed to the north; Lanestown View residential development to the east; New Road and existing residential dwellings fronting same to the south; and Saint Patrick's Park residential development to the west. The site includes: part of New Road for road junction, cycle track, footpath and water service connection works; and part of the site to the north for water service connection works.

The proposed development will principally comprise the construction of 175 No. residential dwellings (123 No. houses and 52 No. apartments) and a single-storey crèche of 365 sq m (with outdoor play area and external stores). The 123 No. houses, which are part-1-/part-2-storey and 2-storey in height, include 30 No. 2-bed units, 82 No. 3-bed units and 11 No. 4-bed units. The 52 No. apartments include 26 No. 1-bed units, 20 No. 2-bed units and 6 No. 3-bed units and are contained in a single block ranging in height from 1 No. to 4 No. storeys.

The development will also include the following: 2 No. new multi-modal entrances/exits at New Road; 2 No. multi-modal connections to existing and under construction residential developments to the east and north respectively; cycle track and footpath along New Road; 139 No. car parking spaces; 4 No. set down bays; 6 No. motorcycle parking spaces; cycle parking; hard and soft landscaping, including public open space, communal amenity space and private amenity spaces (which include gardens, balconies and terraces facing all directions); boundary treatments; 1 No. sub-station; bin stores; lighting; PV panels atop houses; green roofs, PV panels, lift overruns and plant atop the apartment block; green roofs and PV panels atop the crèche building; and all associated works above and below ground.

1.2 Scope

This Traffic and Transport Assessment is a comprehensive review of the potential transport impacts of the proposed development. The scope of the assessment includes a detailed description of the overall transportation system provided covering means of vehicular access, pedestrian, cyclist, and local public transport connections.

The principal objectives of this report are to identify the existing transport environment and quantify the level of impact the proposed development will add to the local road network.

1.3 Standards

This Traffic and Transport Assessment has been prepared in accordance with Section 14.17.4 (Objective DMSO113) of the Fingal Development Plan 2023 – 2029 and in accordance with the Traffic and Transport Assessment Guidelines published by Transport for Ireland (TII) / National Roads Authority (NRA) in May 2014.

1.4 Contents of the Transport Assessment

In accordance with Section 3.3 of the Traffic and Transport Assessment Guidelines (May 2014), the contents of this TTA include:

- Description of the existing and proposed traffic/transportation conditions including information on the current traffic, critical junctions, pedestrians, cycle, and public transport facilities.
- Description of the proposed development.
- The traffic and transportation implications of the development including consideration of trip generation and trip distribution.
- The time periods applicable to the TTA.
- Description and analysis of nearby developments in the surrounding area.
- The potential impact on the surrounding road network.
- Description of car and cycle parking requirements and proposals.

1.5 Site Location

The proposed residential development is located on New Road, Donabate, Co. Dublin, and is about 20 kilometres north-northeast of Dublin.

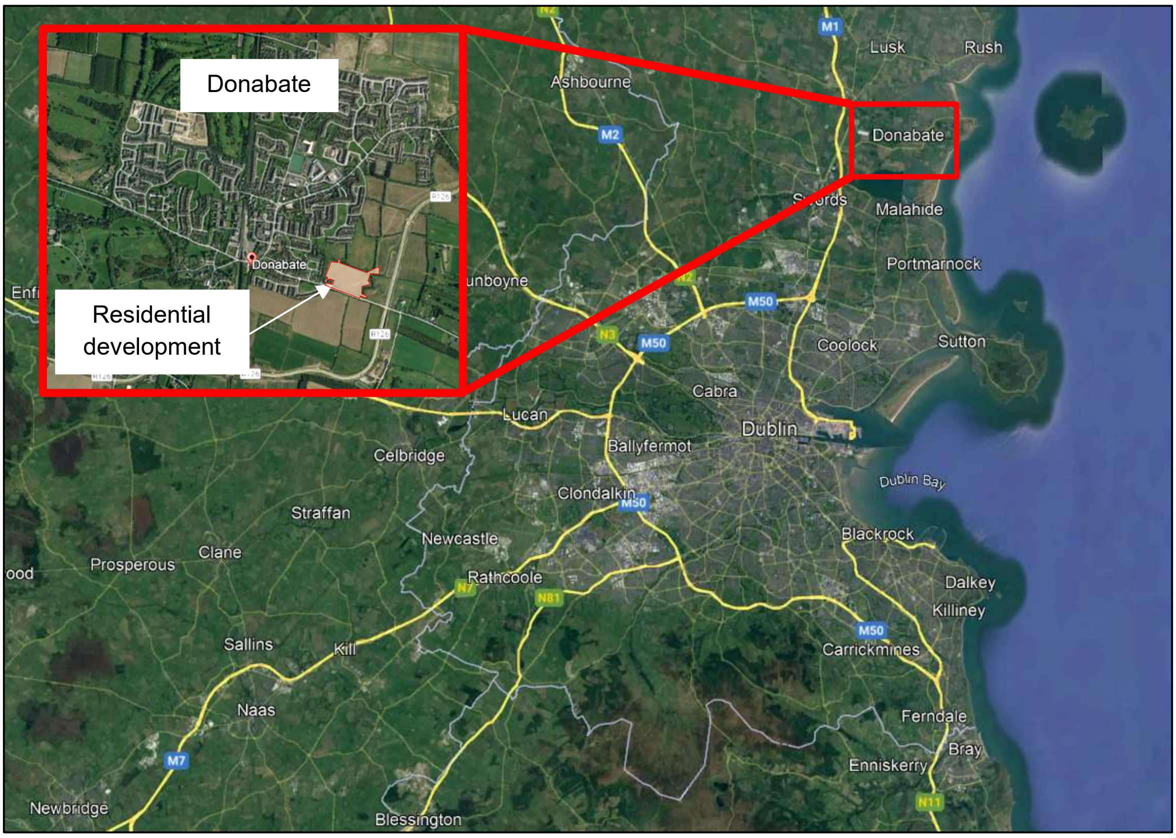

Figure 1 | Site Location (Source: Google Earth).

1.6 Programme

Based on the current programme at the time of writing, the first units in the development are expected to be occupied in Q4 2025.

1.7 Assessment Years

The years that have been assessed as part of this TTA are the following:

- Base Year: 2022.
- Opening Year (With / Without Development): 2025.
- Opening Year + 5 Years Forecast (With / Without Development): 2030.
- Opening Year + 15 Years Forecast (With / Without Development): 2040.

These assessment years are in line with the 'Transport Assessment Guidelines (May 2014)'.

Details of each assessment year is presented later in this report.

1.8 Documents Consulted

The following documents were consulted during the preparation of this Traffic and Transport Assessment:

1. Traffic and Transport Assessment Guidelines, TII/NRA, May 2014.
2. Project Appraisal Guidelines for National Roads Unit 5.3 - Travel Demand Projections, TII/NRA, October 2021
3. Fingal Development Plan 2023 – 2029.
4. Greater Dublin Area Transport Strategy 2022 – 2042.
5. GDA Cycle Network Plan, NTA, 2022.
6. Sustainable Urban Housing: Design Standards for New Apartments, December 2022.
7. Development to the East (new development): Traffic and Transport Assessment, Proposed Residential Development at Donabate, Co. Dublin, Waterman Moylan, March 2022.
8. Development to the North (land under construction): Traffic and Transport Assessment, Phase 1 Residential Development, Ballymastone, Donabate, Co. Dublin. DBFL Consulting Engineers, September 2022.

1.9 Report Structure

The report is structured into 11 chapters. The first chapter is the introduction, which includes basic information and documentation used for the report.

The second chapter contains a review of current policies, plans, and strategies at national, regional, and local levels, as well as a brief description of the main components related to the present TTA.

Chapter three describes the receiving environment around the subject development, including the existing road network, accessibility for walking and cycling, and the existing public transport near the site.

The fourth chapter presents the different transportation improvements expected in the area,

Chapter five introduces the existing travel patterns using Statistic Small Area - Census 2022.

Chapter six describes the proposed development, including the internal road layout and integration with surrounding developments.

The report, in chapter seven, discusses trip generation and distribution using TRICS to determine future car trips for the subject development. This section includes an assessment of car trip generation from other developments and a study of their impact on the subject development. This chapter analyses the trip distribution and traffic survey in the area, considering traffic growth rates and impact.

Chapter eight assesses the junctions using Picady for the priority T-junction and Transyt for the signalised crossroads. The assessment results consider different scenarios.

Chapter nine studies public transport capacity and assesses the demands of different developments in the area.

Chapter ten assesses both car parking and cycle parking.

Chapter eleven provides the report's conclusion.

2. Review of Current Policies, Plans and Strategies

2.1 National Policies and Strategies

2.1.1 National Planning Framework: A Roadmap for the Delivery of the National Planning Framework

The National Planning Framework (NPF) was published in December 2020 and last updated in February 2023. It is the Government's strategic plan for shaping future growth and development in the country. To deliver the NPF vision and the ten National Strategic Outcomes, it is critical to integrate land use and transport planning and promote sustainable transport.

Over a period of 20 years, the National Planning Framework (NPF) provides a central planning policy strategy that guides future development and investment decisions and informs regional strategies and county development plans. The NPF adopts a strategic approach that promotes sustainable land use and transport strategies in both urban and rural areas. The aim of this approach is to reduce emissions, address the necessity of adapting to climate change, and protect the environment and its amenities.

The NPF aims to alleviate the environmental pressure caused by urban sprawl and its negative impact on key infrastructures and facilities. It encourages the development of compact, higher density infill and brownfield sites that are well-served by existing facilities, amenities, and public transport services.

Facilitating smart and sustainable growth within existing settlements can improve the liveability of urban areas. The physical format of urban development affects the public realm, traffic and parking, access to amenities, and public transport.

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

The Guidelines set out policy and guidance in relation to the planning and development of urban and rural settlements, with a focus on sustainable residential development and the creation of compact settlements. They are accompanied by a companion non-statutory Design Manual that illustrates best practice examples of how the policies and objectives of the Guidelines can be applied.

These Guidelines replace the Sustainable Residential Development in Urban Areas Guidelines for Planning Authorities issued as Ministerial guidelines under Section 28 of the Act in 2009, which in turn replaced the Residential Density Guidelines issued in 1999.

They build on and update previous guidance to take account of current Government policy and economic, social, and environmental considerations. There is a renewed focus in the Guidelines on the renewal of existing settlements and on the interaction between residential density, housing standards and quality urban design and placemaking to support sustainable and compact growth.

The policies and objectives set out in the Guidelines are intended as a tool to guide the appropriate scale of development at different locations, rather than as a prescriptive methodology. Flexibility is offered so that planning authorities can operate a plan led approach and take the circumstances of a plan area or a site into account as part of the decision-making process.

2.1.3 Smarter Travel

Smarter Travel is a government policy which looks to reduce the share of travel demand which is car dependant thus reducing reliance on fossils fuels and maximising the efficiency of the transport network. Its main goal is to promote a significant modal shift from private transport to public transport and sustainable transport modes. The policy sets out a target of 55% mode share for walking, cycling and public transport which it aims to achieve through several actions themed around the following:

- Encouraging Smarter Travel.
- Delivering Alternative Ways of Travelling.
- Improving the Efficiency of Motorised Transport.
- Ensuring Integrated Delivery of the Policy.

Aligning spatial planning and transport to address urban sprawl and urban-generated one-off housing in peri-urban areas is identified as a key area to encourage smarter travel. Specifically, the policy encourages good public transport connections with safe routes for walking and cycling to access and the use of local area plans and Strategic Development Zones (SDZs) within major urban areas as a way of improving the land use-transport integration.

2.1.4 Cycle Design Manual (2023)

The Cycle Design Manual (CDM) has been prepared by the National Transport Authority (NTA) and overseen by the Department of Transport. It replaces the previous National Cycle Manual, published by the NTA in 2011, which is now withdrawn.

The CDM draws on the experience of delivering cycling infrastructure across Ireland over the last decade, as well as learning from international best practice, and has been guided by the need to deliver safe cycle facilities for people of all ages and abilities.

The new manual places more emphasis on the range of cycles that cycle infrastructure will have to accommodate and the recommendations focus on segregating cyclists from traffic where speeds and volumes make roads unsuitable for sharing. There is also a general presumption towards segregating pedestrians and cyclists where possible.

The CDM includes a number of new types of infrastructure such as protected junctions, Dutch style cycle-friendly roundabouts, and parallel crossings which are commonly used in other countries, and will now become an option for cycle infrastructure in Ireland. It should be noted that some newer features will require amendments to supporting Regulations and the Traffic Sign Manual so designers should consult with the relevant approving authority prior to installing any of the newer features to ensure applicability of designs/solutions.

It is intended that manual will be a live document which will be updated and expanded as required to reflect emerging best practice and feedback from user experience of the manual. For this reason, the latest version of the guidance should always be accessed through the NTA website.

2.2 Regional Plans and Strategies

2.2.1 Regional Spatial and Economic Strategy 2019 - 2031

The Regional Spatial and Economic Strategy is a strategic plan which shows regional assets, opportunities and pressures and provides policy responses in the form of Regional Policy Objectives. 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 and beyond.

The RSES provides a:

- Spatial Strategy – to manage future growth and ensure the creation of healthy and attractive places to live, work, study, visit and invest in.
- Economic Strategy – that builds on our strengths to sustain a strong economy and support the creation of quality jobs that ensure a good living standard for all.
- Metropolitan Plan – to ensure a supply of strategic development areas for the sustainable growth and continued success and competitiveness of the Dublin Metropolitan Area.
- Investment Framework – to prioritise the delivery of key enabling infrastructure and services by government and state agencies.
- Climate Action Strategy – to accelerate climate action, ensure a clean and healthy environment and to promote sustainable transport and strategic green infrastructure.

2.2.2 Greater Dublin Area Transport Strategy 2022-2042

The National Transport Authority has prepared and published the Transport Strategy for the Greater Dublin Area, 2022-2042 in accordance with Section 12 of the Dublin Transport Authority Act, 2008.

The strategy details the transportation development across the region, including Dublin, Meath, Wicklow, and Kildare, over the strategy period. It has received approval from the Minister for Transport in accordance with relevant legislation.

The strategy addresses challenges related to population growth, urbanization, and climate change. It presents four objectives: promoting walking, cycling, and public transport as alternatives to private car use for sustainable mobility; developing seamless connections between different transport modes for integrated networks; prioritizing low-carbon and environmentally friendly solutions for climate action; and aligning transport development with land-use planning for spatial planning and accessibility.

The strategy proposes measures to ensure equitable access to transport services. These measures include enhancing public transport services (bus, tram, rail), expanding cycling infrastructure and bike-sharing programs, improving pedestrian facilities, upgrading roads and developing park-and-ride facilities, and implementing smart mobility solutions.

The strategy acknowledges the significance of land use and transport planning in shaping people's travel choices. It advocates the use of local land use planning principles, such as promoting walking, cycling, and public transport by maximizing high-density residential development near local amenities, schools, and public transport.

In addition, the strategy sets out the requirements for new developments to prioritise walking, cycling and public transport and discourage the use of the private car. Maximum parking standards should be set for all new developments based on the level of public transport accessibility. The strategy therefore recommends that walking and cycling facilities should be easily accessible and retrofitted where practical.

2.2.3 New Dublin Area Bus Network

Following three rounds of public consultation which began in 2017, the National Transport Authority (NTA) published, in September 2020, the new Dublin Area bus network. This new bus network plan is the final version resulting from previous redesign proposals and with consideration given to issues raised by 72,000 submissions. The implementation of the New Network will take place on a phased basis over a number of years starting in 2021, subject to Government funding.

The new Dublin Area bus network will provide a more coherently planned, higher ability, more understandable network, delivering a better overall bus system for the Dublin region. It will consist of spines radiating from the city centre. Spines are very frequent routes made up of individual bus services timetabled to work together along a corridor. At the end of the corridor, the individual services branch off to serve different areas. The network will also include orbitals across the North, West and South areas of Dublin, added local area services, peak only and express services.

The new network will see increased evening and weekend services, with most frequent routes operating every 15 minutes or better on weekdays and Saturdays with most operating on Sundays also. There will be a number of routes that will run 24 hours a day. These services will operate throughout the night to support the night-time economy across Dublin. Overall, the level of bus services in the Dublin network will increase by 23% as a result of the new network. Other benefits of the New Network include:

- A 23% overall increase in bus services.
- Increased capacity, particularly for all day services.
- A more easily understood city network.
- Better access to bus services for passengers.
- New connections to schools, hospitals, and other essential services.

2.2.4 Greater Dublin Area Cycle Network Plan (2022)

The Greater Dublin Area Cycle Network Plan sets out a strategy to expand the urban cycle network, links cities and towns of over 5,000 people with a safe, connected and inviting cycle network. The proposed cycle network of approximately 3,500km will connect over 200 settlements and 2.8 million people. The network will consist of primary routes (serving the highest demand), secondary and feeder routes (Forecast to have lower demand) as well as Greenway routes (through parks, along waterways etc.)

The Plan will provide many benefits for cyclists and communities across Ireland, including:

- Ensuring delivery of a high-quality cycle network which will promote safety, comfort, and increased participation in cycling.
- Improving sustainable connectivity nationally and providing links with other networks such as CycleConnects, EuroVelo and Northern Ireland networks.
- Supporting both urban and rural economies through increased leisure and tourism cycling.
- Improving public health through well documented benefits of active travel.
- Guiding how local authorities prioritise exchequer-funded investments in cycle infrastructure.
- Making use of existing infrastructure wherever possible including greenways, road infrastructure, and declassified roads where safe and inviting cycle experiences can be provided.

2.2.5 Planning and Development of Large-Scale, Rail Focused Residential Areas in Dublin (NTA, 2013)

The purpose of this study was to assess the future delivery of rail-based large and medium scale residential development areas in Dublin. The study, which does not have a statutory basis, had the following key challenges:

- To examine current issues arising in relation to large and medium scale residential development areas due to the noted pressure to deliver development at densities lower than those set out in the planning frameworks, largely driven by perceived market trends and funding issues.
- To identify potential approaches that provide viable solutions to addressing these issues.

The approach to conducting the study broadly included 4 stages which were: -

1. Assessment of the current situation and trends in Dublin in relation to largescale residential development delivery.

2. Key principles of high-density schemes including case studies analysis.

3. Delivery & design considerations to achieving residential development in the current economic circumstances; and

4. Proof of Concept Analysis applied to one area.

The following are the key conclusions of the study: -

- Government policy in relation to sustainable residential density guidelines remains applicable.
- Government / public sector intervention is required to 'show confidence' in the delivery of strategic residential locations; and
- Flexibility in minimum densities should be considered subject to agreements being put in place to meet overall density targets.

2.2.6 Spatial Planning and National Roads: Guidelines for Planning Authorities (Department of Environment, Community and Local Government, 2012)

Spatial Planning and National Roads: Guidelines for Planning Authorities set out planning policy considerations relating to development affecting national primary and secondary roads, including motorways and associated junctions, outside the 50-60 km/h speed limit zones for cities, towns and villages.

The guidelines aim to facilitate a well-informed, integrated and consistent approach that affords maximum support for the goal of achieving and maintaining a safe and network of national roads in the broader context of sustainable development strategies, thereby facilitating continued economic growth and development throughout the country.

The following Key Principles have informed these guidelines:

- Land-use and transportation policies are highly interdependent.
- Proper planning is central to ensuring road safety.
- Development should be plan-led.
- Development Management is the key to Plan Implementation.
- Planning Authorities and National Roads Authority and other public transport bodies must work closely together.

2.3 Local Plans and Strategies

2.3.1 Fingal Development Plan (2023 – 2029)

The Fingal Development Plan (2023 – 2029) sets out the authority's policies and objectives for the development of the County for the period of 2023 to 2029. The Plan seeks to develop and improve in a sustainable manner the social, economic, cultural and environments assets of the county. The opening sentence of Chapter 6.5 Policies and Objectives reads: "*Reducing emissions from transport is one of the major challenges facing society and Fingal County Council acknowledges the importance of transitioning to low carbon mobility solutions to mitigate against climate change*", being a main policy of the development plan.

In the context of the subject development site and the proposed residential scheme a few of most relevant policies include:

(1) The Role of Transportation Policy in Addressing Climate Change

"Policy CMP1 – Decarbonisation of Motorised Transport: Support the decarbonisation of motorised transport and facilitate modal shift to walking, cycling and public transport and taking account of National and Regional policy and guidance, while supporting an efficient and effective transport system."

"Objective CMO1 – Transition to Sustainable Modes: Work with the NTA, TII and other transport agencies in facilitating the integrated set of transport objectives for the County as set out in this Plan, in line with National and Regional policy including the NTA's GDA Transport Strategy and any subsequent plan to encourage modal shift towards more sustainable modes of transport and patterns of commuting to reduce reliance on the private car."

"Objective CMO2 – Modal Shift: Work with the NTA to develop mode share targets for the County to achieve and monitor a transition to more sustainable modes including walking, cycling and public transport, during the lifetime of this Plan. This includes providing targeted infrastructure in the most appropriate locations and prioritising development at the most accessible locations to achieve the appropriate levels of integration and sustainable transport provision."

(2) Integrated Land Use and Transportation

"**Policy CMP3 – Integrated Land-Use and Transport Approach:** Provide for an integrated approach to land-use and transportation aimed at minimising the demand for travel and prioritising sustainable modes of transport including walking, cycling and public transport."

"**Objective CMO3 – Integration of Public Transport and Development:** Support and facilitate high-density, mixed-use development and trip intensive uses along public transport corridors and to ensure the integration of high-quality permeability links and public realm in conjunction with the delivery of public transport services through plan frameworks to generate and reinforce sustainable patterns of compact growth and development in the County."

(3) Mobility Management

"**Policy CMP5 – Mobility Management and Travel Planning:** Promote best practice mobility management and travel planning through the requirement for proactive mobility strategies for developments focussed on prioritising sustainable modes of travel including walking, cycling and public transport."

(4) Sustainable and Integrated Transport Network

"**Policy CMP6 – Integrated Transport Network:** Support and facilitate sustainable mobility objectives set out in the NPF, RSES, Smarter Travel and the NTA's GDA Transport Strategy and any subsequent plan to ensure the creation of a high-quality and integrated transport network to serves the needs of the County and the wider region."

(5) Walking and Cycling

"**Policy CMP7 – Pedestrian and Cycling Network:** Secure the development of a high-quality, connected and inclusive pedestrian and cycling network and provision of supporting facilities / infrastructure across the County, including the upgrade of the existing network and support the integration of walking, cycling and physical activity with placemaking including public realm improvements, in collaboration with the NTA, other relevant stakeholders, local communities and adjoining Local Authorities in the context of the impact of development schemes with cross boundary impacts and opportunities where appropriate. Routes within the network shall have regard to NTA and TII national standards and policies."

"**Policy CMP8 – Greenway Network:** Secure the development of an expanded Greenway network in collaboration with relevant stakeholders including the NTA, adjoining landowners, local communities and adjoining Local Authorities where appropriate and encourage and facilitate opportunities for enhanced linkage and connectivity to adjoining towns and villages and their services, amenities, attractions and public transport nodes and to cross-County, Regional and National Greenway projects."

"**Policy CMP9 – Prioritisation of Pedestrians and Cyclists:** Support the prioritisation of pedestrians and cyclists and the provision of improved public realm to make walking and cycling safer, healthier, quicker, more direct and more attractive."

"**Policy CMP10 – Bicycle Infrastructure:** Improve bicycle priority measures and cycle parking infrastructure throughout the County in accordance with best accessibility practice."

"**Objective CMO6 – Improvements to the Pedestrian and Cyclist Environment:** Maintain and improve the pedestrian and cyclist environment and promote the development of a network of pedestrian/cycle routes which link residential areas with schools, employment, recreational destinations and public transport stops to create a pedestrian/cyclist environment that is safe, accessible to all in accordance with best accessibility practice."

"**Objective CMO7 – Integration of Active:** Travel with Public Transport Work with the relevant transport providers, agencies and stakeholders to facilitate the integration of active travel (walking/cycling etc.) with public transport, ensuring ease of access for all."

"**Objective CMO8 – Active Travel Strategy:** Prepare an Active Travel Strategy to encourage active travel and modal shift to sustainable transport modes."

"**Objective CMO9 – Active Travel Audits:** Carry out active travel audits in towns and villages in collaboration with local communities and other relevant stakeholders to inform improvements to the public realm and the pedestrian and cycling network."

"**Objective CMO10 – Bicycle Parking:** Provide publicly accessible high-quality cycle parking spaces, both standard bicycle spaces and nonstandard for adapted and cargo bikes, in town and village centres and key destinations and near the entrance to all publicly accessible buildings as required."

“**Objective CMO11 – Walking and Cycling Infrastructure:** Support the provision of walking and cycling infrastructure, including bike parking, bike repair and support services, to increase footfall and economic activity in town and village centres while reducing emissions and improving quality of life.”

“**Objective CMO12 – Walking and Cycling and Green Infrastructure:** Network Ensure that new walking and cycling routes are designed, insofar as possible, to function as links in the County’s green infrastructure network and that adequate replacement and additional planting of native species and pollinators is provided and that SuDS approaches are used to treat surface water run-off.”

“**Objective CMO13 – Walking and Cycling Network and Tourist Trail:** Support the formulation and delivery of integrated pedestrian/cycle network plans which connect adjacent communities providing linkages to all modes of transport which will provide links to all destinations of the County creating the nucleus of a slow tourist trail.”

(6) Public Transport

“**Policy CMP18 – Public Transport:** Support the provision of a high-quality public transportation system that is accessible to all to serve the needs of the County and to enable a significant shift from car-based travel to public transport.”

“**Objective CMO22 – Enabling Public Transport Projects:** Support the delivery of key sustainable transport projects including MetroLink, BusConnects, DART+ and LUAS expansion programme so as to provide an integrated public transport network with efficient interchange between transport modes to serve needs of the County and the mid-east region in collaboration with the NTA, TII and Irish Rail and other relevant stakeholders.”

“**Objective CMO23:** Support NTA and other stakeholders in implementing the NTA Strategy including MetroLink, BusConnects, DART +, LUAS and the GDA Cycle Network.”

“**Objective CMO24:** Ensure that appropriate measures are put in place to mitigate the impacts of level crossing closures on the Maynooth rail line including protection measures for public transport and increased priority for cycling and walking.”

“**Objective CMO25:** Undertake a feasibility study for the progression of an orbital public transport route linking the Dublin–Belfast rail line, Swords, Dublin Airport, Finglas, Blanchardstown and surrounding areas along the route, during the lifetime of the Plan in consultation with the NTA and other stakeholders.”

“**Objective CMO26:** Work with the NTA and other relevant national transport agencies to establish future public transport routes that will support the County’s medium to long term development, including orbital routes to provide connectivity between key urban centres and outer suburban areas.”

“**Objective CMO27:** Work with relevant national transport agencies to create bus connectivity between Dublin 15, including the Blanchardstown Centre and Dublin Airport/Swords.”

“**Objective CMO28 – Integration of Public Transport Services and Development:** Work with the NTA, TII and other relevant national transport agencies to optimise accessibility to public transport, increase catchment and maximise permeability through the creation of high-quality walking and cycling routes linking to public transport stops.”

“**Objective CMO29 – South Fingal Transport Study:** Implement the recommendations of the South Fingal Transport Study 2019 in consultation with the relevant stakeholders.”

(7) Transport Interchange

"**Policy CMP21 – Park and Ride:** Support the provision of Park and Ride facilities in conjunction with supporting ancillary infrastructure to accommodate the transition to sustainable mobility modes at suitable locations in accordance with the large-scale transportation projects being delivered under the NTA Strategy."

(8) Car Parking Management

"**Policy CMP25 – Car Parking Management:** Implement a balanced approach to the provision of car parking with the aim of using parking as a demand management measure to promote a transition towards more sustainable forms of transportation, while meeting the needs of businesses and communities."

"**Objective CMO30 – Car Parking Standards:** Implement appropriate car parking standards for a range of land-use types, where provision is based on factors such as site location, level of public transport accessibility and impact of parking provision on local amenity."

"**Objective CMO31 – Accessible Car Parking:** Promote appropriate parking arrangements for specific user requirements in town and district centres, public transport nodes and other destinations."

(9) Roads and Streets Design

"**Policy CMP33 – Road and Street Design:** Ensure that roads and streets within the County are designed to balance the needs of all road users, including children and other vulnerable road users and promote road safety, place-making and sustainable movement, providing a street environment that prioritises active travel and public transport whilst ensuring the needs of commercial servicing is accommodated."

"**Objective CMO43 – Design Manual for Urban Roads and Streets:** Design new streets and roads within urban areas in accordance with the principles, approaches and standards contained within DMURS.

- Junctions will be designed with corner radius that reduce pedestrian crossing distances to the minimum allowable by DMURS wherever possible.
- The narrowest carriageway widths allowable by DMURS will be the default standard in Fingal wherever possible."

"**Objective CMO44 – Speed Limits and Traffic Calmed Areas:** Expand the 30kph speed limits and traffic calmed areas at appropriate locations throughout the County including in towns and village areas where appropriate and to all residential developments and at schools."

"Objective CMO45 – Road Safety and Rural Roads: Prioritise safety on rural roads and junctions, while having regard to the protection of biodiversity, Green Infrastructure and rural character present in roadside trees, hedgerows and banks."

"**Objective CMO46 – Roads and Streets and Green Infrastructure:** New roads and streets to incorporate Green Infrastructure elements such as sustainable drainage infrastructure, planting of native trees, hedgerows and pollinator species in medians and on roadside verges, as appropriate to the location."

2.3.2 Donabate Local Area Plan (2016)

The Donabate Local Area Plan, published by the Planning & Strategic Infrastructure Department of Fingal County Council in 2016 sets out the development strategy to set up a framework for the planned, co-ordinated, and sustainable development of undeveloped lands in Donabate for the period of 2016 to 2022.

In March 2021, the lifetime of the Donabate LAP was extended for a period of 5 years and is now valid until 7th March 2026.

(1) Strategic Vision

"The ambition of the LAP is to provide for the structured development of the identified new residential areas of Donabate such that they integrate into the established village and support the continued growth of a vibrant and attractive town for existing and future residents. New development will be accompanied by the required community, educational, transport, drainage, and recreational infrastructure to ensure the protection and enhancement of local amenities and the continued growth of local services in Donabate."

(2) Movement and Transport Objectives

"**Objective 3.1**: Provide a network of pedestrian and cycle access routes to Donabate Train Station from the new development lands."

"**Objective 3.2**: Support the NTA's proposed electrification of the Northern Line from Malahide to Balbriggan to allow an extension of DART services to Balbriggan."

"**Objective 3.4**: Implement local and strategic traffic relief measures to improve traffic free flow and safety – Donabate Village and on road networks serving schools through phased construction of a Distributor Road and a series of internal link roads through the LAP lands."

"**Objective 3.5**: Seek the implementation of DMURS to facilitate good quality permeability and places/public realm."

"**Objective 3.8**: Prioritise the movement of pedestrians and cyclists in proximity to public transport nodes and improve the walking and cycling environment in tandem with the emerging public transport and vehicular network."

"**Objective 3.9**: Continue to ensure walking and cycling facilities and networks are designed so that they are safe and also meet the needs of people with disabilities."

3. Receiving Environment

In this section, a review of the existing transport network was undertaken. Studying the environment where the project is being developed is important to understand the needs and movements of people.

3.1 Land use

According to the Fingal Development Plan 2023 – 2029 (FDP), the subject development site is in an area designated with Zoning Objective “RS – Residential: to provide for residential development and protect and improve residential amenity”. ***Figure 2*** is taken from Donabate / Portrane - Sheet No. 7 of the Development Plan.

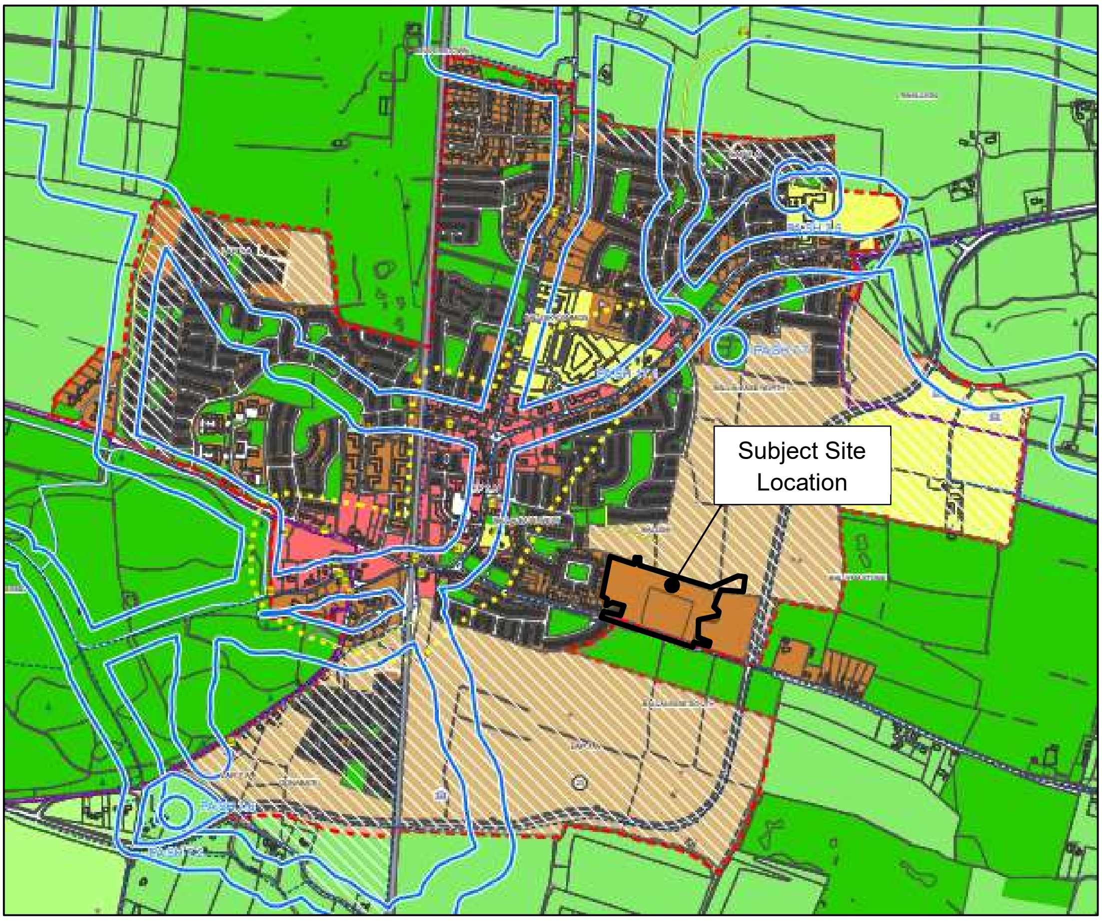

Figure 2 | *Site Location and Zoning (Source: Sheet No. 7 of the FDP 2023-2029).*

3.2 Local Amenities

The proposed development site is conveniently located near local amenities, as demonstrated in ***Figure 3*** below. The figure shows three equipotential circles indicating distances of 500m, 1000m, and 1500m from the site location. Various local amenities are situated near the site.

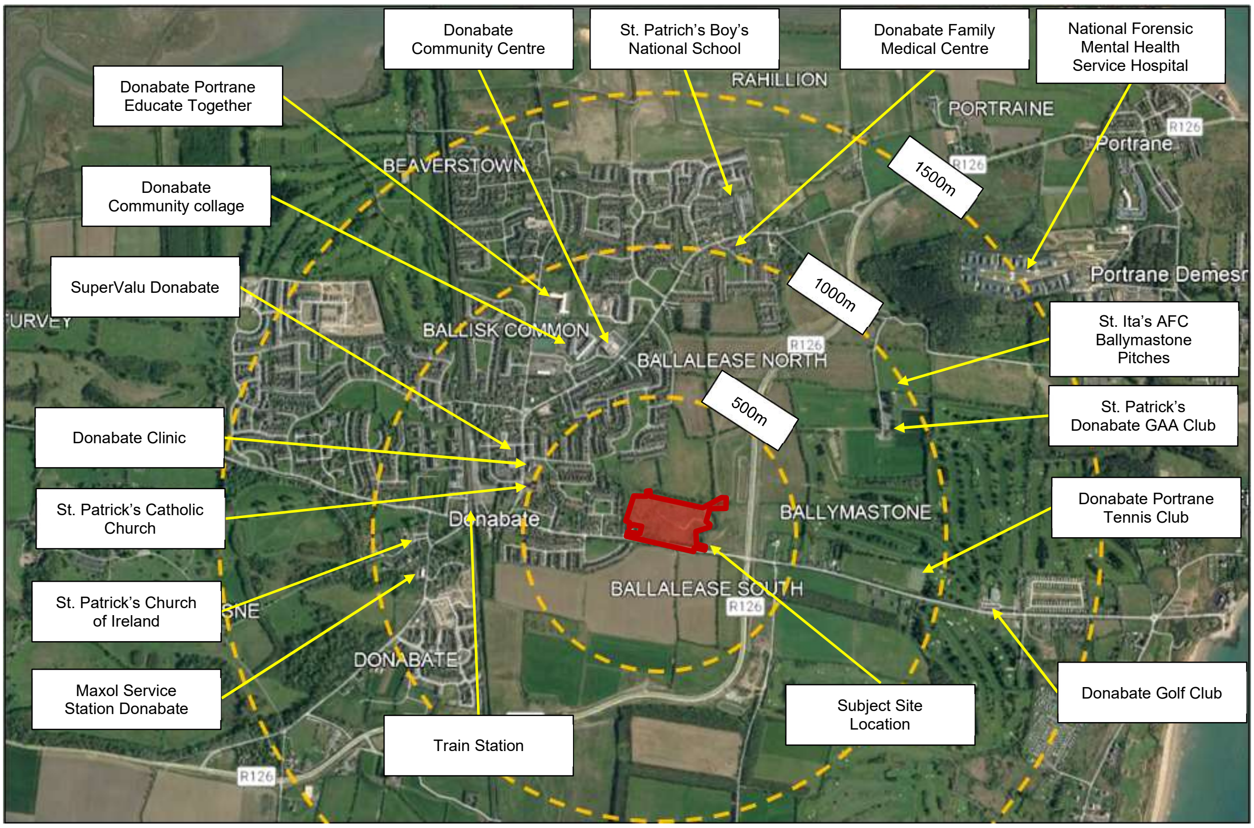

Figure 3 | *Site Location and Local Amenities (Source: Google Maps).*

3.3 Existing Road Network

The site has direct access to New Road, which connects the centre of Donabate with the Donabate Distributor Road. The latter is a significant road that provides access to different regions, as explained below. Access to the development will be provided through two new T-junctions on New Road, which will be controlled by a priority system.

New Road is a 2.4km long single carriageway that runs from L2170 at Donabate town centre to Donabate Beach. The speed limit on New Road is 50kph as specified in the 'Special Speed Limit Draft Bye-Laws' published by Fingal County Council in 2021 (refer to ***Figure 5*** extracted from Map 18 of that document). On the northern side, New Road has a 5.5m wide carriageway with a footpath and a cycle lane, , from the eastern boundary of the subject development to the junction with the Donabate Distributer Road.

The Donabate Distributor Road runs north-south, it is a two-way single lane carriageway with 3.75m wide traffic lanes in both directions. There are footpaths on both side of the road, and a cycle lane and street lighting on one side of the carriageway. The road is subject to a speed limit of 60kph (see ***Figure 5***). The Donabate Distributor Road is a Fingal County Council project constructed under the Rebuilding Ireland's Local Infrastructure Housing Activation Fund (LIHAF). It was officially opened to public on 6th March 2020.

The Donabate Distributor Road project involved the construction of 4.0km of new high-quality road to service new residential development around Donabate and provide a second bridge crossing over the

Dublin-Belfast railway line. It also provides alternative access to Portrane and the eastern parts of Donabate and helps alleviate traffic at Donabate village.

Approximately 5km from the junction of New Road and DDR, the M1 can be accessed via the Donabate Distributor Road and its continuation, the R126 West, at junction number 4. This provides access to Dublin Centre to the South and the M50, which offers strategic network access across the Greater Dublin Area and Dublin Airport. The M1 also provides access to destinations such as Drogheda and Dundalk to the North.

The intersection of the new route and the Donabate Distributor Road is significant due to Dublin City's status as a major travel attraction. Ensuring traffic flow at this intersection is crucial to minimize inconvenience to users. This study will focus on this intersection.

The junction between the Donabate Distributor Road and New Road (immediately southeast of the site) is a signalised 4-way intersection, with signalised pedestrian crossings provided on all approaches and cycle lanes with advanced cycle areas provided on the Donabate Distributor Road (southern and northern approaches).

The ***Figure 4*** below illustrates the location of the subject site within the context of the existing road network.

Figure 4 | *Site Location and Surrounding Road (Source: Openstreetmap).*

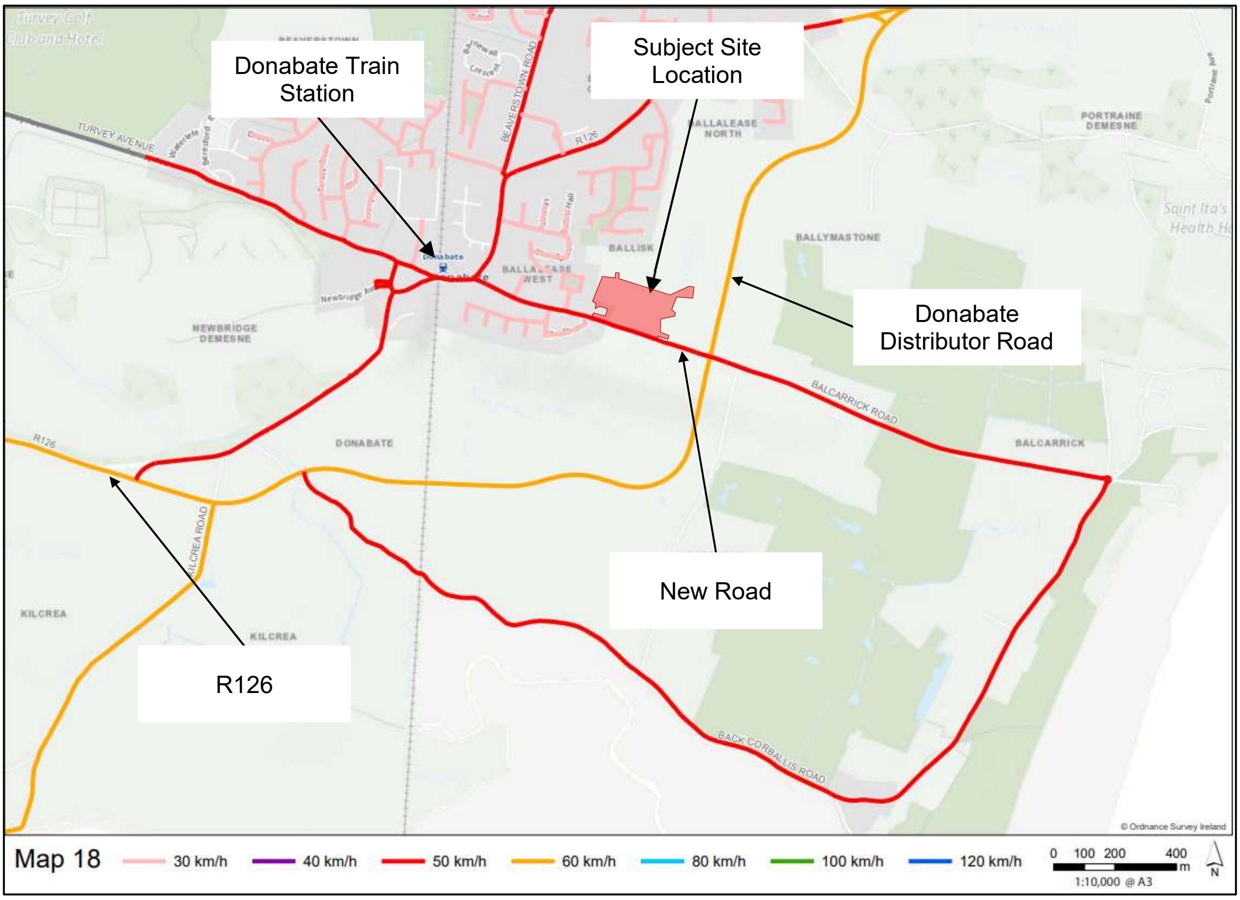

Figure 5 | *Site location and Posted Speed Limits along Surrounding Road (Source: Map 18 Special Speed Limit Draft Bye-Laws, Fingal County Council, 2021)*

3.3.1 Existing Junctions

The primary junction in the local area surrounding the site is the indicate on ***Figure 6***, located in the intersection between New Road and Donabate Distributor Road.

New intersections are currently being developed and will need to be analysed. See successive points for details.

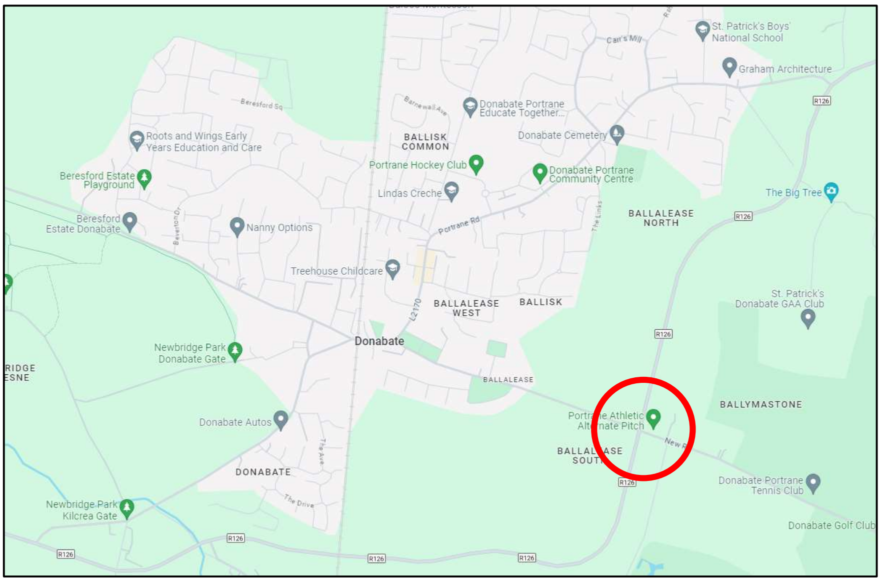

Figure 6 **|** *Existing Road Junctions (Source: Google Maps)*

3.4 Accessibility of the Site by Active Modes

3.4.1 Walking Accessibility

The key to pedestrian accessibility is short, convenient, and safe links. Walking is the most used form of transport. Nearly all journeys involve some walking, therefore better pedestrian facilities can have a wide impact. The existing pedestrian facilities in the surrounding area comprise of an inter-connected network of footways linking the various neighbourhoods to each other, to the existing schools and to the surrounding public network.

The *Guidelines for Providing for Journeys on Foot* published by the Institution of Highways & Transportation in 2000 is considered an evaluation tool for acceptable walking distances. It acknowledges that these distances will vary depending on individual circumstances, such as fitness levels, physical ability, and personal motivation, as well as the size of the city and the quality of the surrounding footpath network. This document provides walking distances and estimated times based on an average walking speed of 1.4m/sec (equivalent to 400m in five minutes). ***Table 1*** below summarises these suggestions.

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

Table 1 **|** *Ideal Walking Distances (Source: "Guidelines for Providing for Journeys on Foot")*

The *Figure 7* below presents the significant extent of pedestrian catchments accessible from the proposed development for different walking times ranging from 15 minutes to 25 minutes.

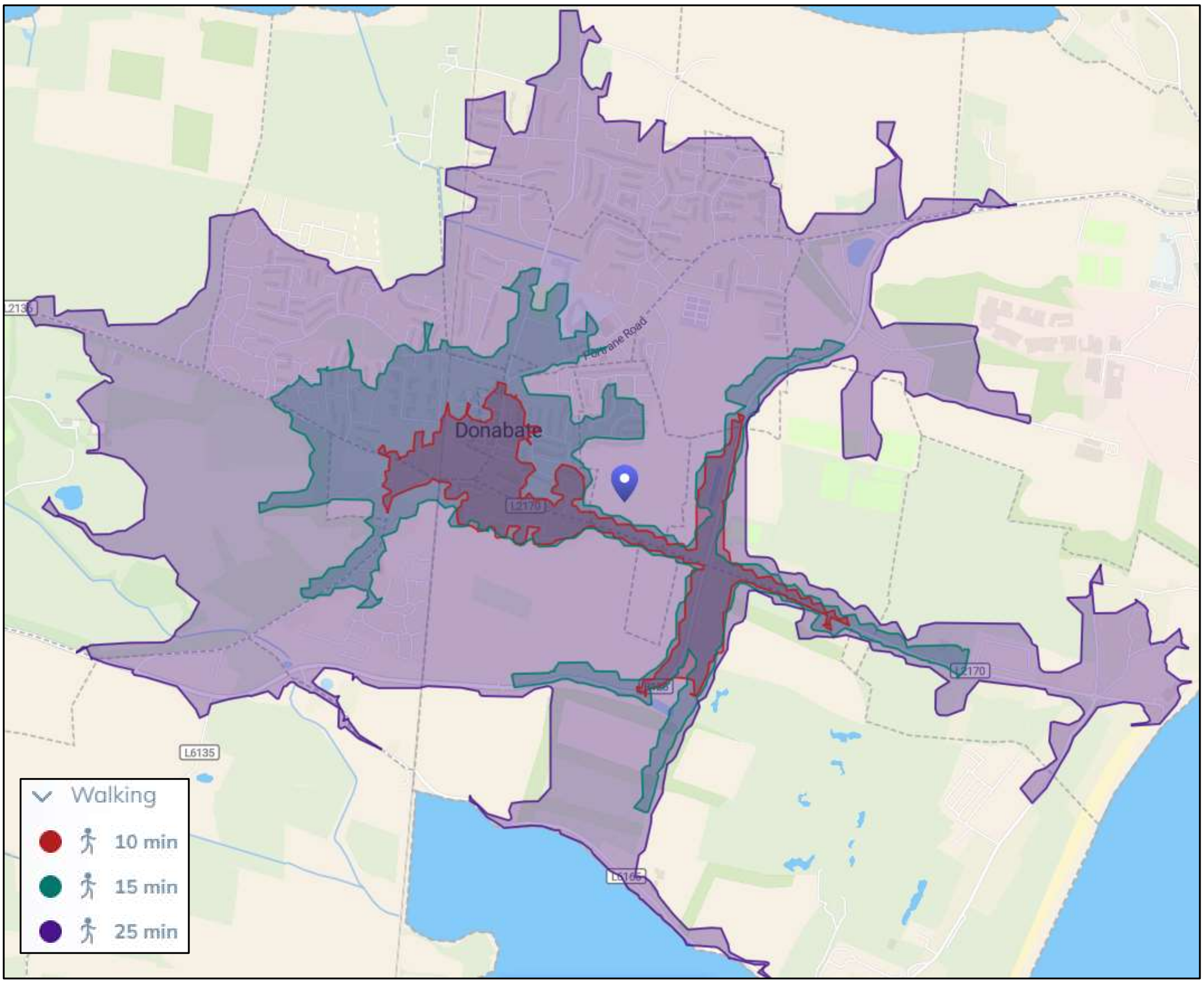

Figure 7 **|** *Site Accessibility – Isochrone map indicating walking accessibility (Source: Smappen)*

As can be seen from the figure above, Donabate village centre and associated facilities are reached within the 10-minute walking catchment. Donabate Train Station and the closest bus stops on Main Street are also in the 10-minute walking catchment.

3.4.2 Cycling Accessibility

As presented for walking, a similar catchment exercise has also been undertaken for the cycling mode of transport. Based on an average cycling speed of 3.3m/sec (i.e., 15km/h), ***Figure 8*** illustrates a 15-minute cycling isochrone to summarise the accessibility of the site by bicycle. A 15-minute cycling time equates to approximately 3.0km.

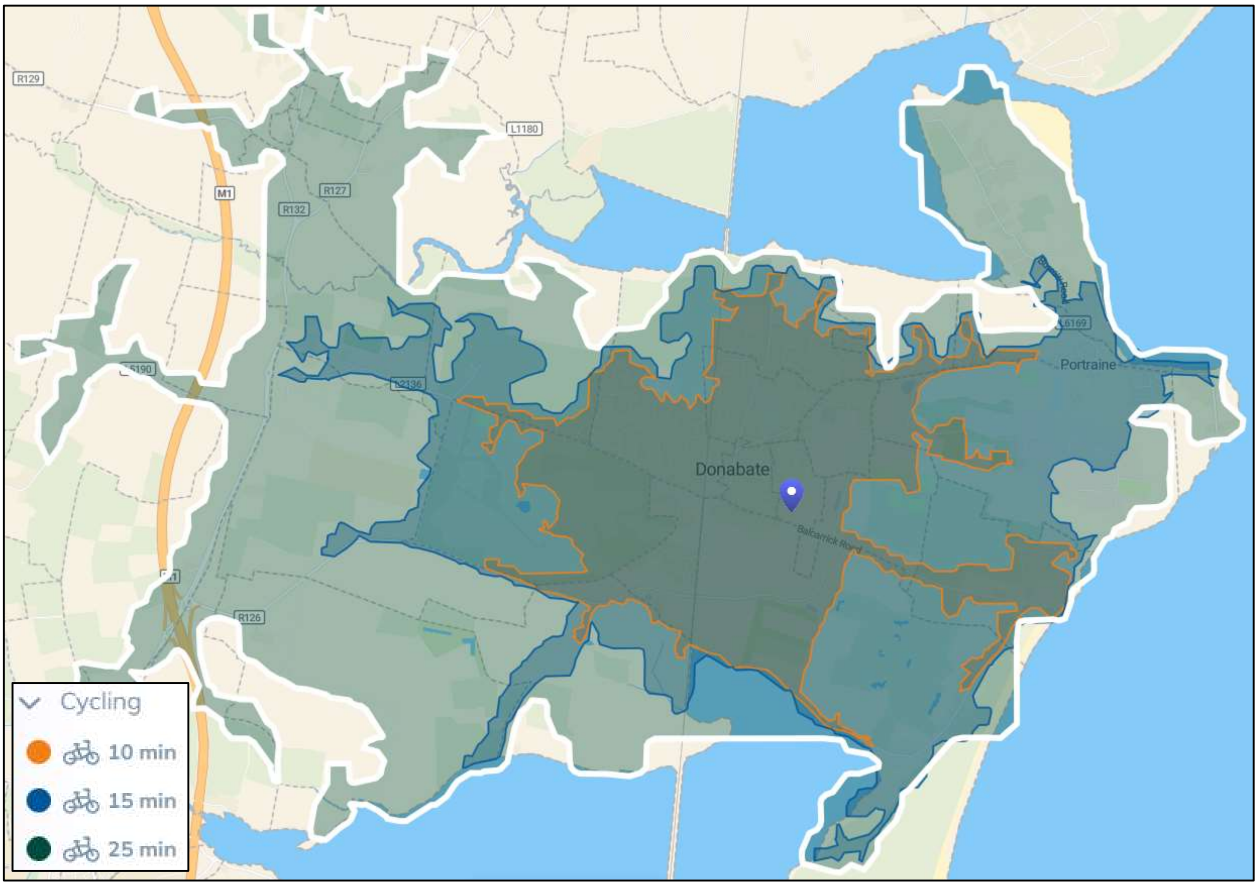

***Figure 8* |** *Site Accessibility – Isochrone map indicating cycling accessibility (Source: Smappen)*

As shown in***Figure 8 Figure 8***, the whole area of Donabate and Portrane villages can be reached within the 15-minute cycling catchment. As such, the use of a private car is not required as most work and education related facilities fall withing this catchment.

Some job and study opportunities fall within this catchment and can easily be reached on a bike, without the use of a private car.

3.5 Existing Public Transport

An assessment of the existing public transport service provision in Donabate and surrounding areas has been carried out. This includes detailed analysis of the modes of transport available, ease of access and frequency of service offered. The existing bus services across the village and the Donabate railway station are key elements to facilitate and improve public transport usage in the area.

3.5.1 Bus Network

Donabate Town is served by four public bus routes operated by Go-Ahead and Dublin Bus. The bus stops are distributed along Main Street (see ***Figure 9***). The closest bus stops are located on Main Street, bus stop 3780 to the north and the 7691 to the south (see ***Figure 10***). This bus stop is served by Dublin Bus Route 33D and Rout 33E, and by GoAhead route 33B and route 33T.

- Route 33B operates between Portrane and Swords, the route is presented in the ***Figure 11***.
- Route 33T operates between Donabate and Skerries, the route is presented in the ***Figure 12***.
- Route 33D operates between Portrane and St. Stephens Green in Dublin city centre, the route is presented in the ***Figure 13***.
- Route 33E operates between Lower Abbey St. in Dublin City and Skerries, the route is presented in the ***Figure 14***.

The routes serving these bus stops, and their associated weekday service frequency are outlined in table below.

Weekday Frequency						
Route No.	Direction	06:00 to 07:00	07:00 to 09:00	09:00 to 17:00	17:00 to 19:00	19:00 to 00:00
33b	From Portrane	3	4	7	2	4
	To Portrane	2	4	15	3	6
33d	From Portrane	1	-	-	-	-
	To Portrane	-	-	-	1	-
33e	From Dublin	-	1	-	-	-
	To Dublin	-	-	-	-	-
33T	From Donabate	-	1	-	-	-
	To Donabate	-	-	1	-	-
Saturday Frequency						
Route No.	Direction	06:00 to 07:00	07:00 to 09:00	09:00 to 17:00	17:00 to 19:00	19:00 to 00:00
33b	From Portrane	1	2	8	2	5
	To Portrane	1	2	15	3	6
33d	From Portrane	-	-	-	-	-
	To Portrane	-	-	-	-	-
33e	From Dublin	-	-	-	-	-
	To Dublin	-	-	-	-	-
33T	From Donabate	-	-	-	-	-
	To Donabate	-	-	-	-	-
Sunday Frequency						
Route No.	Direction	06:00 to 07:00	07:00 to 09:00	09:00 to 17:00	17:00 to 19:00	19:00 to 00:00
33b	From Portrane	-	1	8	2	5
	To Portrane	-	1	14	3	6
33d	From Portrane	-	-	-	-	-
	To Portrane	-	-	-	-	-
33e	From Dublin	-	-	-	-	-
	To Dublin	-	-	-	-	-
33T	From Donabate	-	-	-	-	-
	To Donabate	-	-	-	-	-

Table 2 | *Bus Routes through Donabate. (Source: Transport for Ireland)*

The following figure shows the location of the different bus stops near to the subject site location.

Figure 9 | *Location of Closest Bus Stops (Source: Google Earth)*

The closest bus stops in relation to the subject site are in Donabate Main Street (Stop No. 3780 Southbound and Stop No. 7691 Northbound), approximately 550 metres (8-minute walk) to the west – See Figure below. The walking route from the site towards the closest bus stops is via New Road, with footpaths and dedicated pedestrian crossings with dropped kerbs.

Figure 10 | *Location of Closest Bus Stops and Walking Route from the Site.*

The bus routes and the location of the subject site location are shown in the figures below.

Figure 11 | *Bus Route in Donabate – Route 33B (Source: Transport for Ireland)*

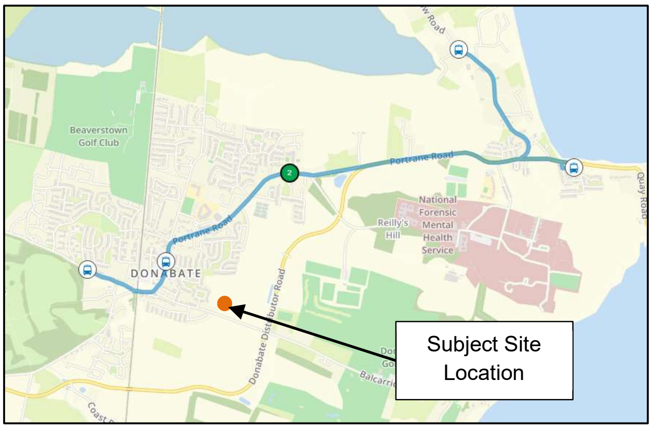

Figure 12 | *Bus Route in Donabate – Route 33T (Source: Transport for Ireland)*

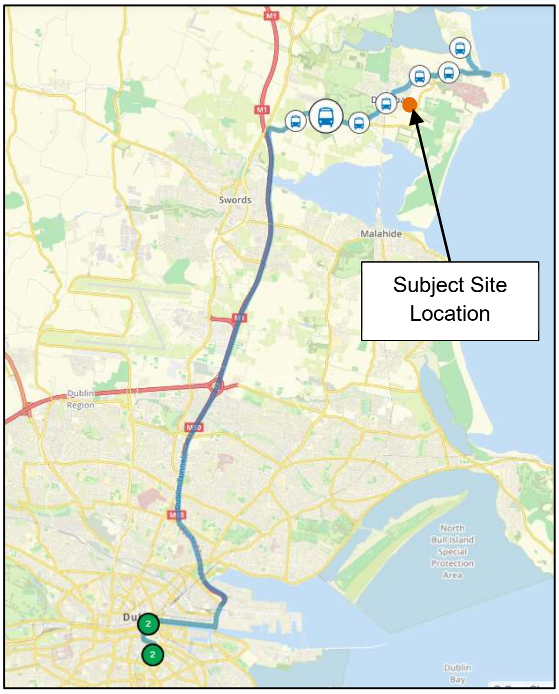

Figure 13 | *Bus Route in Donabate – Route 33D (Source: Transport for Ireland)*

Figure 14 | *Bus Route in Donabate – Route 33E (Source: Transport for Ireland)*

The journey time from Donabate bus stop to Dublin city centre is approximately 50 minutes on both the 33D and 33E routes.

3.5.2 Rail Network

Donabate Rail Station is located on the Dublin-Belfast Railway Line and provides rail connections to Dublin Centre and Bray to the south, and Newry to the north. These connections allow for further travel to other regional destinations as part of Irish Rail's regional and Dublin commuter service, as shown in ***Figure 15*** below.

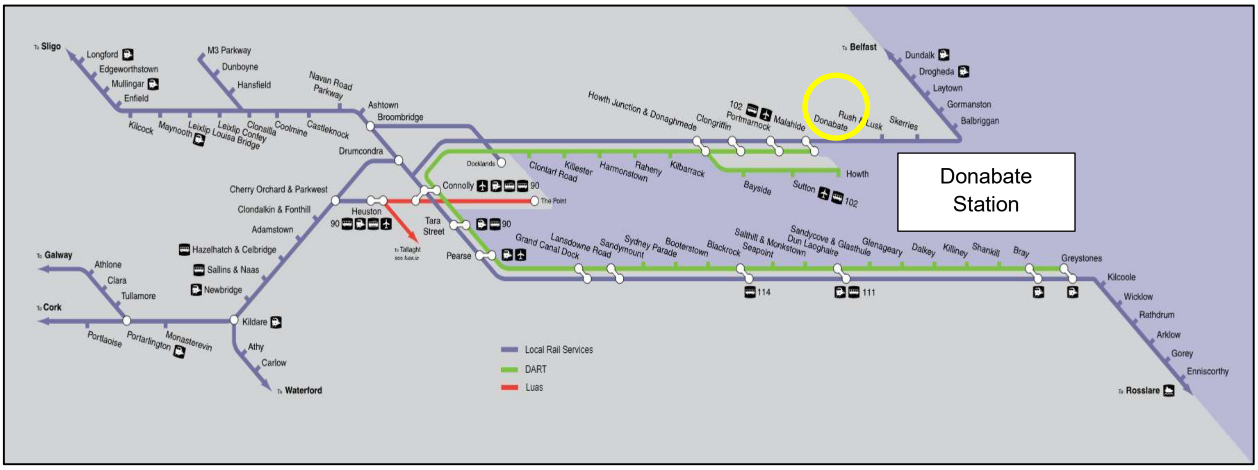

Figure 15 | *Irish Rail Network - Station and Route maps (Source: Irish Rail).*

Donabate Rail Station is located approximately (650 metres 9-minute walk) west of the subject site (see ***Figure 16***). The train routes serving Donabate are outlined below:

- Bray – Dublin – Dundalk
- Dublin Connolly – Belfast Central
- Irish Rail Commuter

The following table shows the timetables of the train services with the time that the train passes through Donabate station.

Weekday timetables					
Route	06:00 to 07:00	07:00 to 09:00	09:00 to 17:00	17:00 to 19:00	19:00 to 00:00
Irish Rail Commuter To Dublin	6:26	7:01, 7:16, 7:29, 7:38, 8:02, 8:32	9:02, 9:32, 10:12, 10:42, 11:11, 11:44, 12:12, 12:52, 13:12, 13:43, 14:12, 14:52, 15:22, 15:41, 16:21, 16:33	17:32, 18:15, 18:34	19:22, 20:32, 21:37, 22:37
Irish Rail Commuter To Drogheda		8:17, 8:30	10:29, 10:58, 11:28, 12:11, 12:48, 13:11, 13:50, 14:11, 14:50, 15:11, 15:49, 16:13, 16:50	17:23, 17:33, 18:01, 18:34, 18:50	19:07, 19:51, 20:47, 21:16, 22:13, 23:08, 00:12
Belfast Central – Dublin Connolly	-	7:54	-	-	-
Dublin Connolly – Belfast Central	-	-	-	17:46	-

Bray – Dublin – Dundalk		7:30	9:18		
Saturday timetables					
Route	06:00 to 07:00	07:00 to 09:00	09:00 to 17:00	17:00 to 19:00	19:00 to 00:00
Irish Rail Commuter To Dublin		7:01, 8:02, 8:30	9:07, 10:12, 11:12, 12:07, 12:52, 13:42, 14:10, 14:54, 15:12, 15:47, 16:42	17:42, 18:34	19:22, 20:42, 22:42,
Irish Rail Commuter To Drogheda		8:19	10:33, 11:09, 11:28, 12:14, 13:14, 14:11, 15:13, 16:08, 16:29, 16:57	17:47, 18:17, 18:45, 18:59	19:46, 20:44, 22:18, 23:18, 00:12
Belfast Central – Dublin Connolly	-	-	-	-	-
Dublin Connolly – Belfast Central	-	-	-	-	-
Bray – Dublin – Dundalk	-	-	-	-	-
Sunday timetables					
Route	06:00 to 07:00	07:00 to 09:00	09:00 to 17:00	17:00 to 19:00	19:00 to 00:00
Irish Rail Commuter To Dublin		8:21	9:26, 10:26, 11:26, 11:44, 12:36, 13:38, 14:36, 15:36, 16:36	17:36, 18:36,	19:26, 20:26, 21:26, 22:26,
Irish Rail Commuter To Drogheda			9:44, 10:46, 11:49, 12:45, 13:49, 14:41, 15:36, 16:44	17:44, 18:44	19:46, 21:08, 22:08, 23:01, 00:12
Belfast Central – Dublin Connolly	-	-	-	-	-
Dublin Connolly – Belfast Central	-	-	-	-	-
Bray – Dublin – Dundalk	-	-	-	-	-

***Table 3 |** Train through Donabate. (Source: Transport for Ireland)*

The table above shows that during the morning peak hour, 7no. trains pass through the Donabate Train Station with southern address. Also, indicates that the frequency is approximately every 15 minutes between 7 and 8 am and every 30 minutes between 8 and 9 am. Throughout the rest of the day, Donabate station experiences an average of one train per hour.

The frequency of services and range of destinations available via Donabate Railway Station are likely to attract several rail users with an ultimate multi-modal trip origin/destination within the potential future development.

Figure 16 | *Location of Donabate Train Station and Walking Route from the Site.*

The walking route to the Donabate Train Station is via New Road, with footpaths and dedicated pedestrian crossings with dropped kerbs.

3.5.3 GoCar

There is one GoCar station in Donabate, which is in the carpark of the Donabate Train Station. As shown in ***Figure 17***.

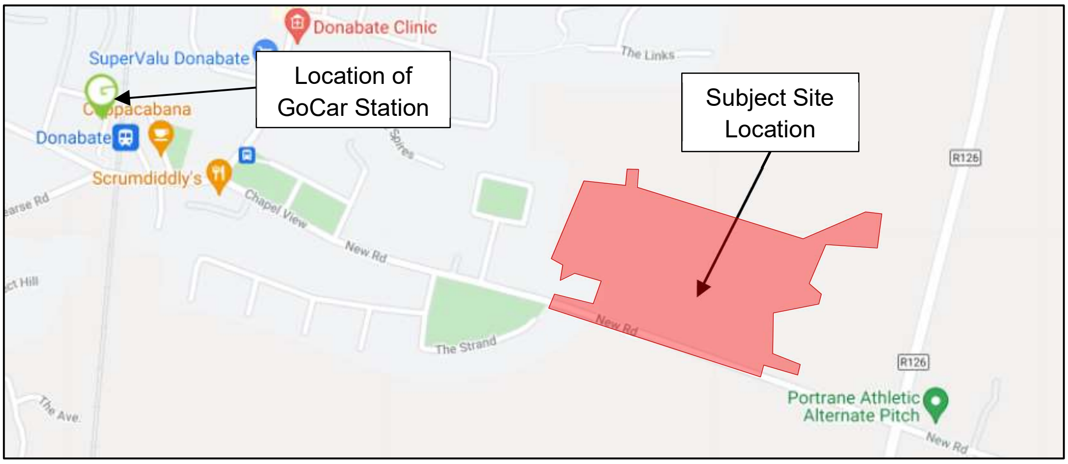

Figure 17 | Location of Nearest GoCar Station.

According to GoCar, carsharing is a sustainable service which allows multiple people to use the same vehicle at different times, which helps reduce car ownership, car dependency, congestion, noise, and air pollution.

3.6 Existing Cycle Infrastructure

The development is located on New Road which currently has no cycle facilities (see ***Figure 19***).

However, the development to the east will provide a cycle lane from the eastern boundary of the subject development to the junction between New Road and Donabate Distributer Road, and therefore the subject development will add a cycle lane on New Road.

The cycle lane connects to the segregated cycle lane on both sides of the Donabate Distributor Road, as illustrated in ***Figure 18***. Advanced stop lines for cyclists are present on the northern and southern approaches of the Donabate Distributor Road. These lanes offer a secure space for cyclists in front of vehicular queues and assist them in positioning themselves correctly for turning movements.

On New Road the proposed development will provide a cycle lane (see ***Figure 26***) to create a continuous facility for the cycle in accordance with the Dublin Area Cycle Network Plan (see ***Figure 22***).

***Figure 18* |** *Existing Cycle facilities currently exist at the intersection of Donabate Distributor Road and New Road (source Google July 2021).*

According to Sheet E10 of the Greater Dublin Area Cycle Network Plan, Donabate does not have any other cycle lanes. However, there is ongoing effort to become a cycling town, as outlined in the in the Greater Dublin Area Cycle Network Plan discussed below.

3.7 Existing Pedestrian Infrastructure

The existing pedestrian facilities on New Road comprise an inter-connected network of footways linking the various neighbourhoods to each other, to the existing schools, to local public transport facilities (bus stops and Donabate Station) and to the surrounding public network (see ***Figure 19***).

Figure 19 | *Existing footpath on New Road (source Google Nov 2022).*

4. Transportation Improvements

4.1 DART+: Dublin Area Rapid Transit Expansion Programme

Donabate Station is located approximately 650 metres west of the proposed development site and is part of the northern route of the future DART + railway network.

The DART+ Programme aims to modernise and provide an electrified, more frequent, and reliable rail service, enhancing capacity on the rail corridor across Dublin City and Greater Dublin. DART+ offers several benefits, including:

- Increase peak passenger capacity and increase train frequency between Dublin City Centre and Drogheda MacBride Station - inclusive of the Howth Branch - facilitating frequent and reliable transport to the surrounding communities.
- Facilitate the development and future growth of existing and new communities that will greatly benefit from the connectivity that the DART+ Coastal North project will deliver.
- Build a sustainable and connected city region, supporting the transition to a low carbon and climate resilient society.
- Facilitate people to make sustainable travel choices by encouraging a move away from private cars to a reliable, efficient, and safer public transport network.
- Improve multi-modal transport connectivity through the development of the wider DART+ Programme.

The DART train currently stops at Malahide Station, which is one stop before Donabate (see ***Figure 20***). It is expected that the new rail frequency will be in service at Donabate Station in the coming years.

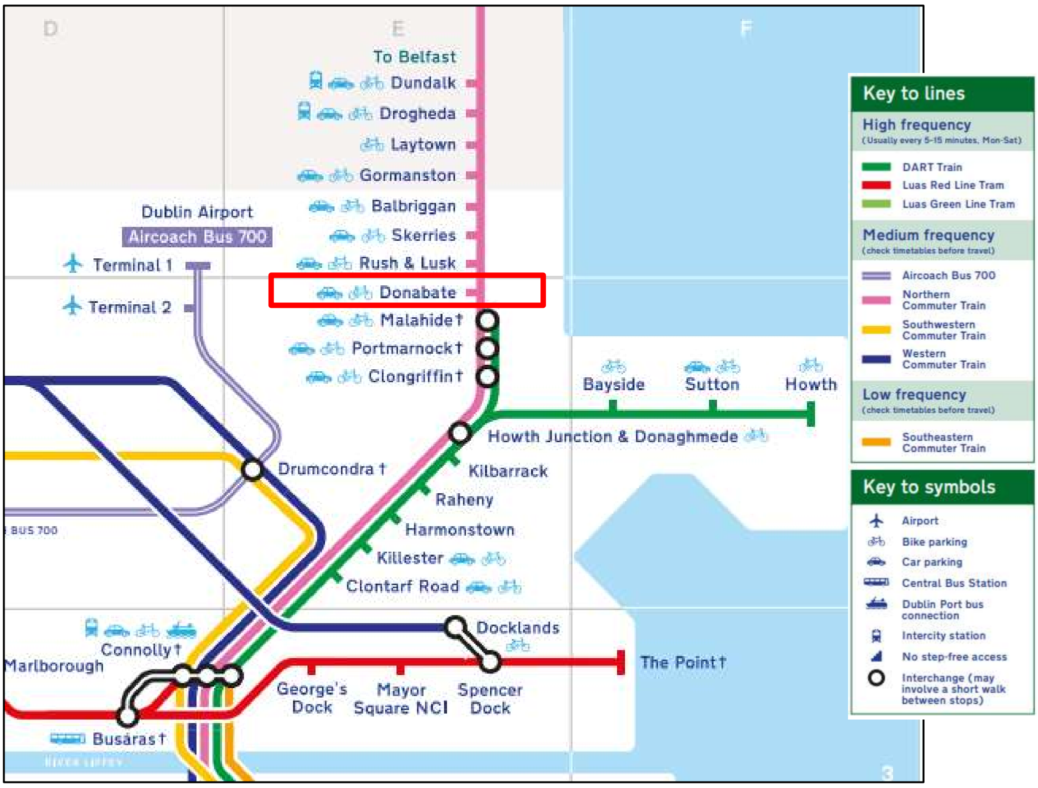

Figure 20 **|** *Dublin Rail Maps (source Dublin Public Transport).*

4.2 Bus Connects

The Bus Connects project currently being promoted by the National Transport Authority aims to deliver a much-enhanced bus service to the Greater Dublin Area (GDA). Donabate town is proposed to be served by the Local Route L83 and the Peak-Only Route X83 as shown in ***Figure 21***, extracted from Bus Connects *'Revised Network Map'*.

A summary of the frequency of these routes is shown in ***Table 4*** below.

Route	To and from	AM Peak (07:00 to 09:00)	PM Peak (17:00 to 19:00)
L83	Portrane – Donabate – Swords - Airport	Every 30 min	Every 30 min
X83	Portrane – Donabate – City Centre - UCD	1 service	1 service

Table 4 | *Summary of BusConnects Routes Frequency.*

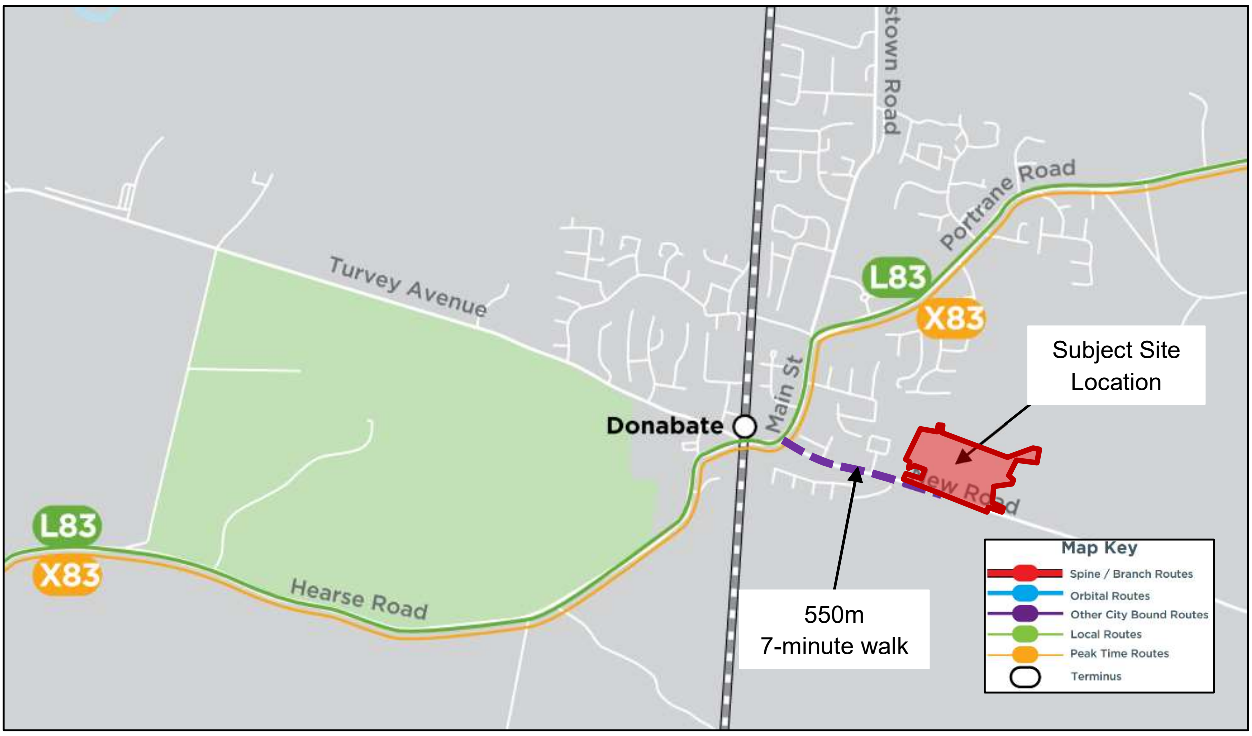

Figure 21 | *Bus Connects Routes in Donabate (Source: Bus Connects).*

4.3 Cycle

The National Transport Authority published proposals for the Greater Dublin Area Cycle Network Plan in 2022. The plan sets out a vision and a strategy for the construction and/or designation of a comprehensive network of cycling routes throughout the Greater Dublin Area (Counties Dublin, Meath, Kildare, and Wicklow).

An extract from Sheet N10 (Proposed Cycle Network Lusk, Rush & Donabate) is reproduced in ***Figure 22***.

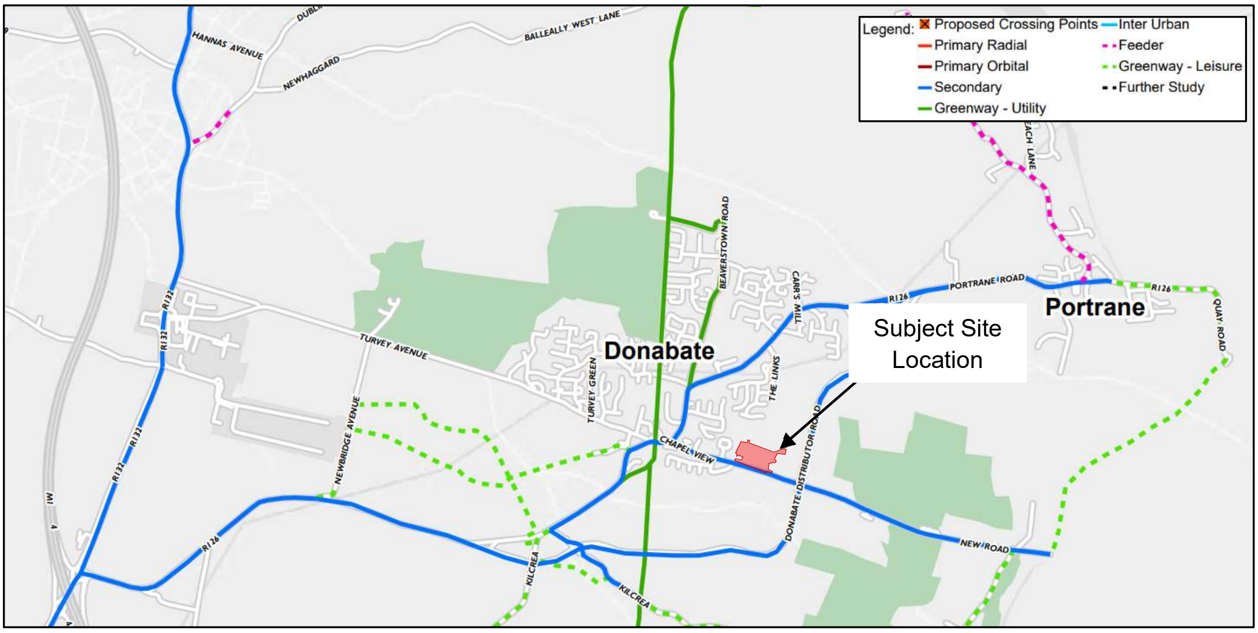

Figure 22 **|** *GDA Proposed Cycle Network Plan (Source: Greater Dublin Area Cycle Network Plan)*

As can be seen from the above, two Primary/Secondary cycle routes and one Greenway cycle route are proposed in Donabate town. These are:

- *"**Route D1**: R126 Hearse Road through Donabate Main Street to Portrane. At the southern end this route should extend to link with the proposed Broadmeadow Estuary crossing to Malahide."*
- *"**Route D2**: New Road to Donabate Beach."*
- *"**Route FG1/FG2/FG4:*** Broadmeadow Estuary Loop: Malahide - Swords - Donabate (greenway on eastern and southern sections, and on local roads on the north-western shore"

As part of the subject development works, the portion of the cycle Route D2 is proposed on the north side of New Road along the site frontage will be delivered.

4.4 Pedestrian

Additional pedestrian facilities, such as upgraded footpaths with dedicated pedestrian crossings are proposed on New Road fronting the site which, combined with the existing pedestrian network, will facilitate pedestrian progression towards the village and associated facilities.

All footpaths for the proposed development will be provided in accordance with Section 4.3.1 of the DMURS which suggests that a minimum 1.8m wide footpath should be provided.

As can be seen in the ***Figure 24***, there are pedestrian connections at 2 points to the site under construction to the north (1 roadside & 1 through open space) and 2 connections to the existing site to the east (1 roadside & 1 through a home zone).

5. Existing Travel Patterns

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

For this report, six representative areas have been selected to reflect the subject's development. It is important to choose a range of areas to obtain an average value that will allow us to approximate the future behaviour of the inhabitants in the subject's development. The consulted Small Areas are illustrated in ***Figure 23***.

Figure 23 | *Consulted Statistic Small Area - Census 2022.*

5.1 Modal Split

The "modal split of commuting to work, school or university" of the residents of the reference small areas, using the 2022 census survey as a reference, is presented below.

Zone	On foot	Bike	Bus, minibus, or coach	Train, DART, or LUAS	Motorcycle, Scooter, Car Driver, Car Passenger and VAN	Other or not stated	Total commuter + non stated
1	71	10	22	70	125	37	335
2	94	7	19	63	134	40	357
3	97	6	41	74	136	97	451
4	37	0	9	36	101	24	207
5	22	0	11	28	60	10	131
6	44	3	15	51	143	36	292
Tot	365	26	117	322	699	244	**1773**
	20.6%	**1.5%**	**6.6%**	**18.2%**	**39.4%**	**13.8%**	**100%**
Total Without "non-Stated"	**365** **23.9%**	**26** **1.7%**	**117** **7.7%**	**322** **21.1%**	**699** **45.7%**	**-**	**1529** **100%**

Table 5* | *Census 2022 – Surveyed Modal Split for the Journey to Work, School, or College.

The table indicates that 86.2% of the population make daily trips for work or study purposes. Of this percentage, 45.7% use a private vehicle, almost 29% use public transportation (bus or train), and almost 26% use a bicycle or walk.

5.2 Car Ownership

The results of the Census for car ownership in the consulted Small Area is presented in ***Table 6***.

Zone	Population [no.]	Housing [no.]	Car owners					Total private vehicles	Total P.V./ no. Housing
			0	1	2	3	4+		
1	561	156	4	38	63	6	1	186	1.19
2	420	116	2	33	63	14	2	209	1.80
3	561	156	5	53	54	4	1	177	1.13
4	291	103	6	41	40	13	1	164	1.59
5	196	81	16	37	16	7	3	102	1.26
6	385	132	14	55	47	9	2	184	1.39
Tot	**2,414**	**744**	**47**	**257**	**283**	**53**	**10**	**1,022**	**1.37**

Table 6* | *Census 2022 - Car Ownership.

The survey found that the 2,414 residents of the Small Areas surveyed owned 1,022 vehicles, equivalent to 1 car per 2.3 persons or 1.37 cars per residential unit.

6. Proposed Development

6.1 Development Description

The proposed development will principally comprise the construction of 175 No. residential dwellings (123 No. houses and 52 No. apartments) and a single-storey crèche of 365 sq m (with outdoor play area and external stores). The 123 No. houses, which are part-1-/part-2-storey and 2-storey in height, include 30 No. 2-bed units, 82 No. 3-bed units and 11 No. 4-bed units. The 52 No. apartments include 26 No. 1-bed units, 20 No. 2-bed units and 6 No. 3-bed units and are contained in a single block ranging in height from 1 No. to 4 No. storeys.

The schedule of accommodation is shows in ***Table 7*** below.

Unit Type	1-Bed	2-bed	3-bed	4-bed	Total
Houses					
2-Bed 4-Person 2-Storey Terraced House		30			30
3-Bed 5-Person 2-Storey Terraced House			82		82
4-Bed 7-Person 1&2-Storey Terraced House (Adaptable/medical needs - GF Bedroom & LAS))				11	11
Apartments					
1-Bed 2-Person	18				18
1-Bed 2-Person (UD)	8				8
2-Bed 3-Person		6			6
2-Bed 4-Person (UD)		14			14
3-Bed 5-Person (UD)			6		6
Total	**26**	**50**	**88**	**11**	**175**

Table 7 **|** *Proposed development / Breakdown of Residential Units.*

The development will also include the following: 2 No. new multi-modal entrances/exits at New Road; 2 No. multi-modal connections to existing and under construction residential developments to the east and north respectively; cycle track and footpath along New Road; 139 No. car parking spaces; 4 No. set down bays; 6 No. motorcycle parking spaces; cycle parking; hard and soft landscaping, including public open space, communal amenity space and private amenity spaces (which include gardens, balconies and terraces facing all directions); boundary treatments; 1 No. sub-station; bin stores; lighting; PV panels atop houses; green roofs, PV panels, lift overruns and plant atop the apartment block; green roofs and PV panels atop the crèche building; and all associated works above and below ground.

The site is generally bound by: a site which is currently being developed to the north; Lanestown View residential development to the east; New Road and existing residential dwellings fronting same to the south; and Saint Patrick’s Park residential development to the west. The site includes: part of New Road for road junction, cycle track, footpath and water service connection works; and part of the site to the north for water service connection works.

6.2 Internal Road Layout

The internal roads have been designed to comply with DMURS as required by the County Development Plan. The internal roads generally vary between 5.0m and 6.0m in width. All footpaths are 2.0m wide and connect the internal spaces.

All internal roads within the proposed development are designed for a speed limit of 30km/h. All junctions within the development itself will be priority junctions with raised tables where appropriate. The low design speeds and traffic calming measures will ensure the safe operation of these junctions and a safe/secure environment for pedestrians and cyclists.

The design and layout of the proposal has been prepared to fully follow the current relevant design standards and specifications applicable to this form of development.

Sufficient parallel and perpendicular parking spaces have been reserved in accordance with local guidelines.

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

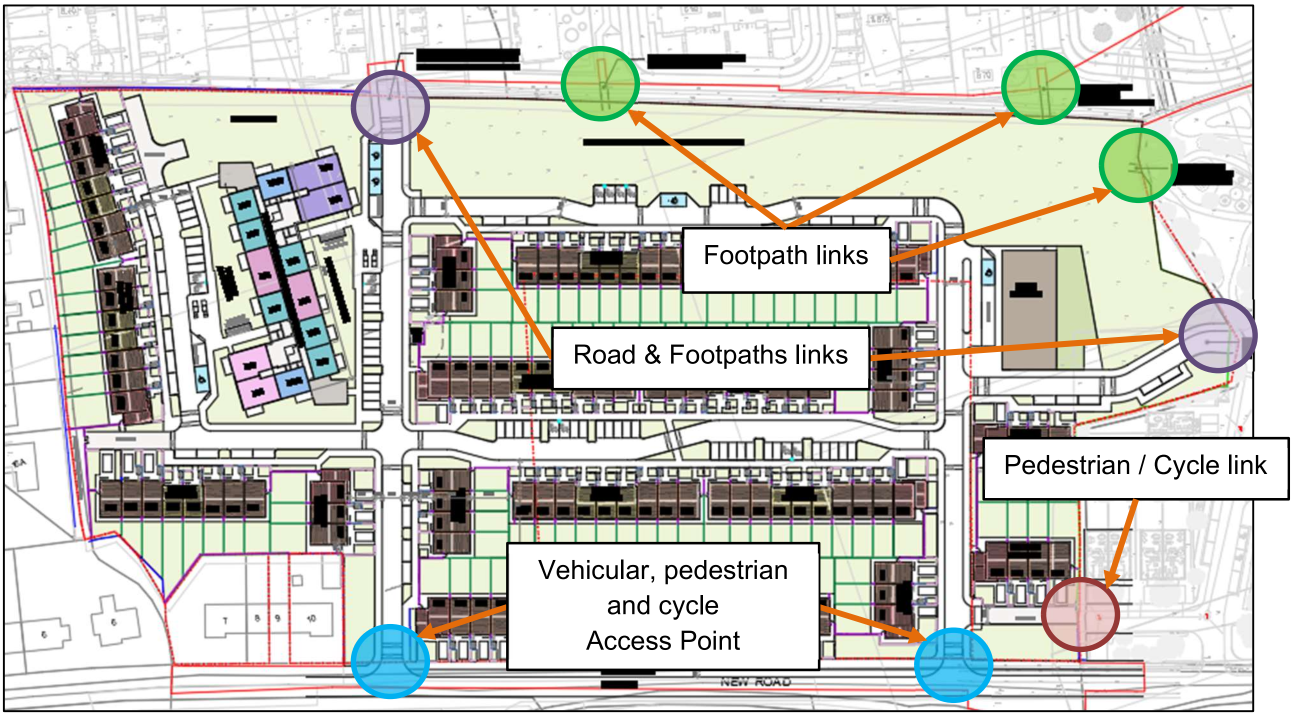

Figure 24 | *Proposed Site Access Points and Internal Road Layout*

6.3 Site Access Points

The proposed overall scheme includes two new priority T-junction for vehicular access on New Road, located approximately 150 m. apart. The visibility splay requirements for the proposed T-junction are based on the 50km/h design speed limit as set out under DMURS, which recommends a visibility splay of 2.4m x 45m on road without bus routes as can be seen in the figure below.

Figure 25 | *Visibility splay.*

A footpath and a cycle lane are proposed on New Road. The cycle lane on New Road will provide a link with the cycle lane from the development to the east which arrives at the eastern boundary of the subject development. The cycle lanes cross the two T-junctions that connect the internal road to the development with New Road, therefore the vehicle stop lane has been moved back from the junction to provide a safe condition for cycling (see ***Figure 26***). The cycle lane proposed is in accordance with the cycle network plan as previously shown in ***Figure 22***.

In addition, the internal road of the subject development has been designed to provide road links to both the north and east developments (see ***Figure 24***).

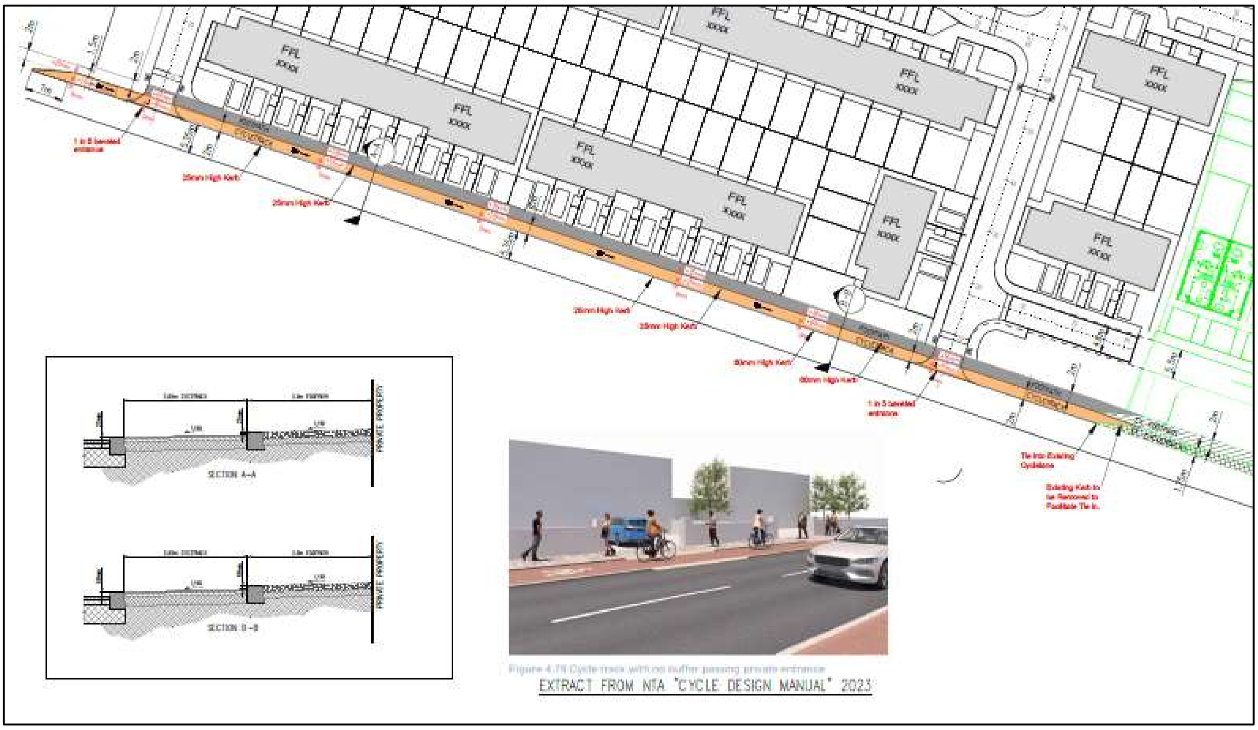

***Figure 26* |** *Future cycle path on New Route.*

6.4 Integration with other development

The site is bordered by a new development to the East, an ongoing development to the North, to the south by New Road and to the West consolidated urban area, as shown ***Figure 27.***

The Traffic and Transport Assessment for the development to the north and east of the subject development are available online on the Fingal County Council Planning Application Portal.

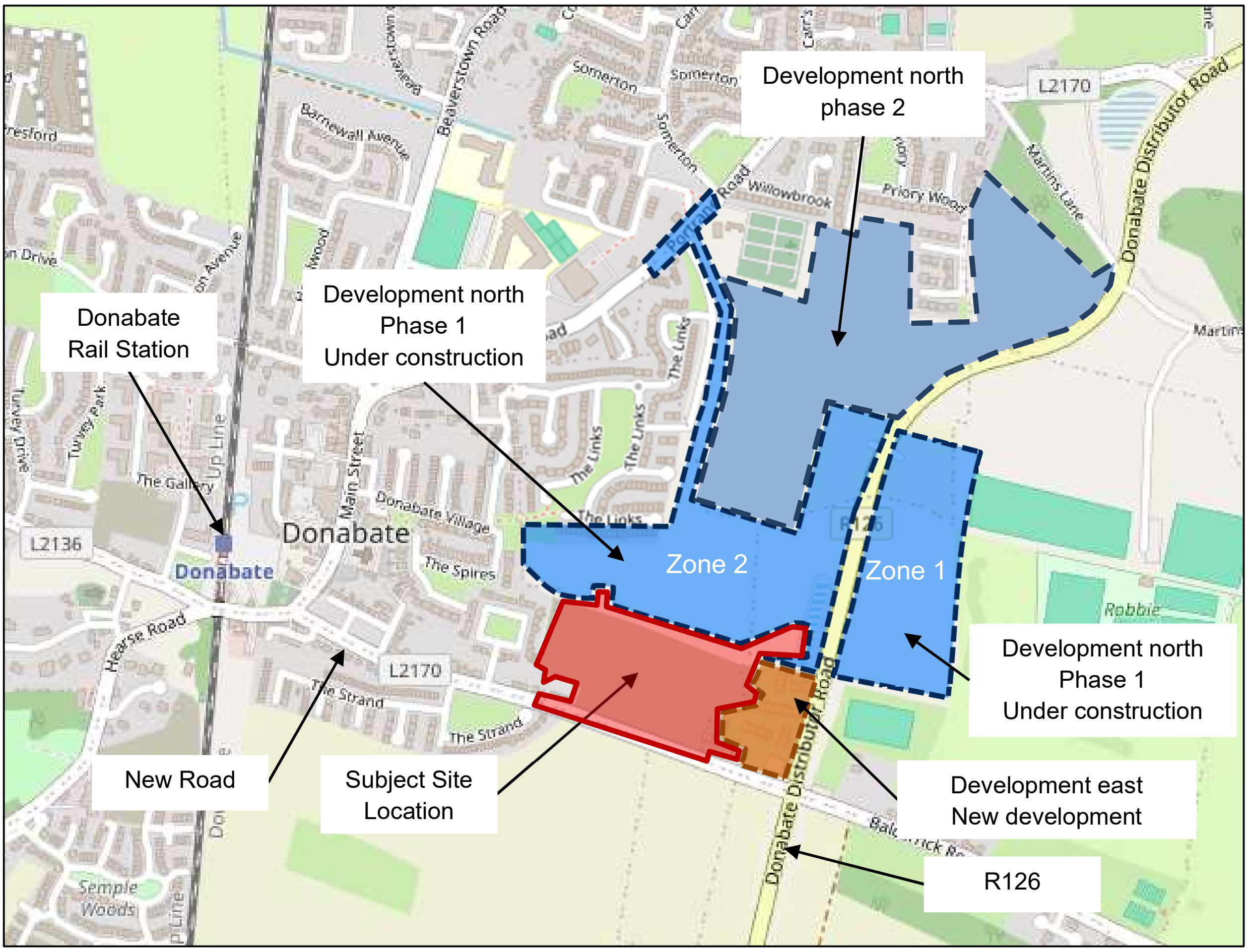

Figure 27 | *Site Location - Detail (Source: Openstreetmap)*

The North Development consists of two phases. Phase 1 includes 432 residential units (including of 93 apartments, 126 duplex units, and 213 houses). Phase 2 includes 762 residential units (including of 251 apartments, 118 duplex units, and 393 houses). Phase 1 is scheduled to open in 2024, while Phase 2 is expected to open in 2029.

The new development to the east comprises 154 no. apartments units.

The subject development will play a strategic role in improving the permeability of the neighbouring area as can see in ***Figure 28***. The figure indicates the internal roads of each development (including the proposed internal road in the northern area), as well as the various connections between the developments and the existing infrastructure.

Due to the configuration of the northern development, it should be considered that some neighbours (drivers and pedestrians) may use the street of the subject development as a link to New Road. As a result, there will be an increase in demand for transit across the subject development.

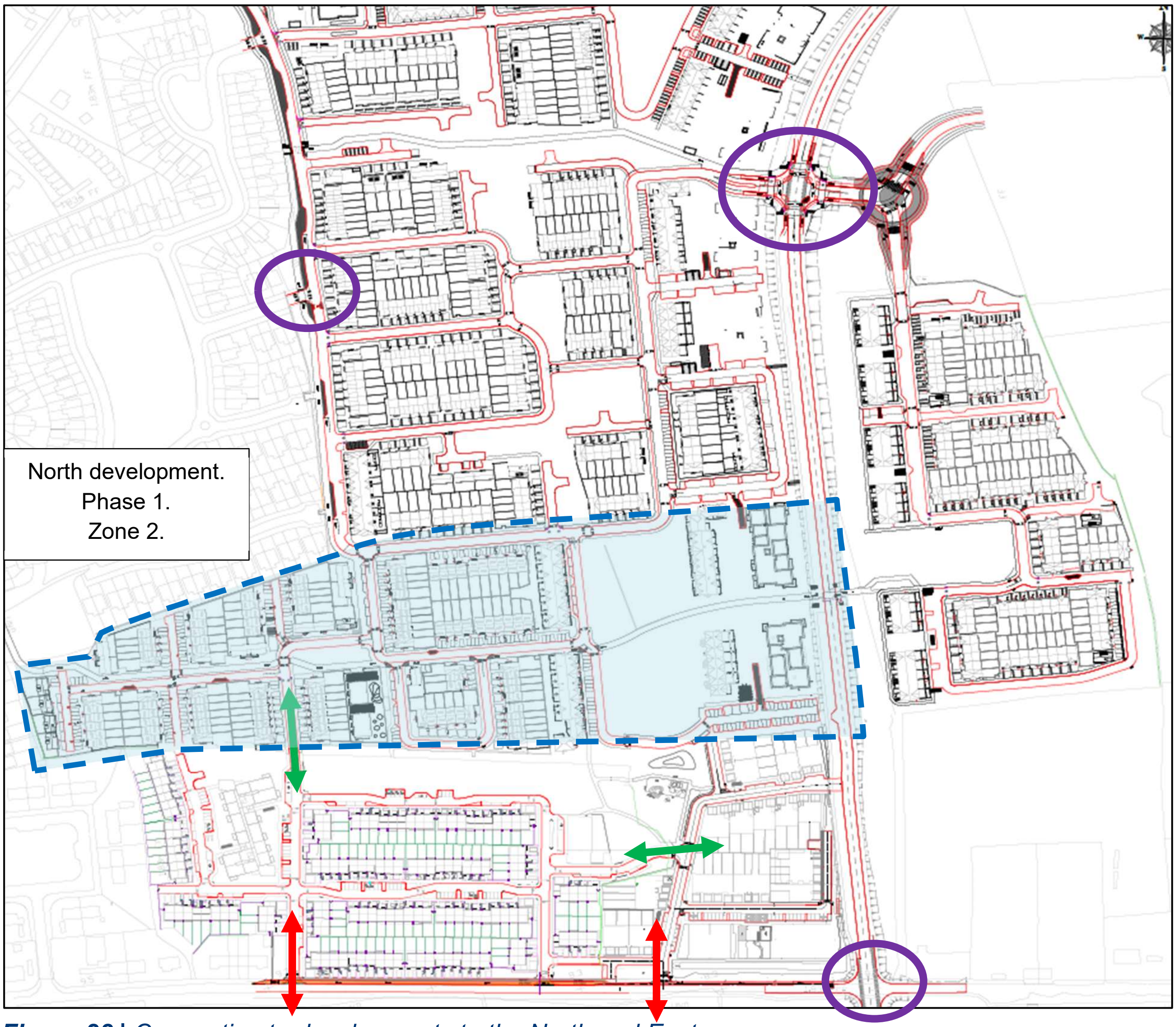

***Figure 28* |** *Connecting to developments to the North and East.*

The Figure above illustrates the vehicular connections between the subject development and other developments with a green arrow, the connections between the subject development and New Road with a red arrow, the connections between the other developments and the existing public roads with a violet circle.

6.5 DMURS

Waterman Moylan Consulting Engineers consider that the proposed development complies with the principles and guidance set out in the Design Manual for Urban Roads and Streets (DMURS). Below are some of the specific design features that have been incorporated into the proposed scheme with the aim of achieving a design that is fully compliant with DMURS, details of the specific design features are set out in the Waterman Moylan Drawing No. *23-129r.004 DMURS Report,* which is included in the documentation package.

In order of importance, DMURS prioritises pedestrians, cyclists, public transport, and private cars. The proposed development has been designed with pedestrians and cyclists taking precedence over other modes of transport. In this regard, footpaths are provided throughout the development, with the required pedestrian and cyclist linkages onto the facilities in the proximity of the site.

DMURS recommends using active edges to enliven the street and create a more engaging environment. This is achieved through frequent entrances and openings that overlook the street and generate pedestrian activity. The roads in the development have regular junctions and driveways in accordance with this recommendation.

On-street parking is proposed at several locations. On-street parking separates pedestrians from the vehicle roadway and, as per DMURS Section 4.4.9, can calm traffic by increasing driver caution, contribute to pedestrian comfort by providing a buffer between the vehicular carriageway and footpath and provide good levels of passive security.

Streets have been designed in accordance with the alignment and curvature recommendations set out in DMURS Section 4.4.6. The road layout is generally orthogonal. Section 3.3.1 of DMURS notes that street networks that are generally orthogonal in nature are the most effective in terms of permeability (and legibility). Regular junctions along with raised pedestrian tables/crossings at main pedestrian desire lines will encourage reduced driving speeds.

The proposed “home-zones” are designed primarily to meet the needs of pedestrians, cyclists, children, and residents and where the speed and dominance of cars will be reduced. The home-zones comprise of a shared-surface carriageway. Entry treatment to home-zones is provided in the form of a ramp up, which helps announce that a driver is entering into a home-zone. It is proposed to utilise a buff-coloured chipping / macadam at home-zones, in accordance with the landscape architect’s proposals and subject to Fingal County Council Roads and Transportation approval.

Suitable sightlines will be provided throughout the development, ensuring that localised planting does not obscure visibility as cars make turning manoeuvres, improving the pedestrian safety at crossing points.

Public areas fronting and within the proposed development will be designed by a multidisciplinary design team to accommodate pedestrians and cyclists in accordance with the appropriate principles and guidelines set out in DMURS. In particular, the vehicular access and public footways within the remit of the development will incorporate the relevant DMURS requirements and guidelines as set out above.

6.6 Access to Fire Tender and Refuse Vehicles

The proposed development will be accessible for fire tender and refuse vehicles. The Waterman Moylan Drawing package includes document No. 23-129-P151 Refuse Vehicle Swept Path Analysis, which analyses the movement of the refuse vehicle. It is acknowledged that verifying the swept path for the refuse vehicle is sufficient, as the fire truck has smaller dimensions and turning radii. Additionally, it is noted that the apartment block area will be served by a dry-riser system.

7. Trip Generation and distribution

7.1 TRICS Car Trip Rates

The traffic generation potential of the proposed development has been estimated using the TRICS software modelling database. TRICS is the national standard of trip generation and analysis in Ireland. TRICS data is primarily UK based, although a few Irish sites have been included, currently TRICS provide a reasonable indication of traffic generation from the proposed development.

The database system enables users to identify representative trip rates and establish potential levels of trip generation for various developments. To ensure a high probability of accurately representing the place, it is crucial to consider a diverse range of regions that closely align with the development in question. With this consideration, the following filter criteria are considered:

- Separate studies were conducted to identify the incidence of houses, apartments, and creche.
- Was considered areas between 2 and 10 hectares and dwellings between 110 and 150.
- Only sites categorised as Suburban or on Edge of Town with access to a multi-modal transport system were selected.
- The consideration of developments near big cities was excluded.
- A combination of suburban and outlying areas was selected, with access to multiple modes of transport and with building characteristics like the surrounding area.
- It has been verified that the distance between the different areas and their local facilities is like that of the development in question.
- The availability of parking spaces was restricted to identify areas without free parking.

the present report was carried out with the TRICS Database Version 7.8.2. Full trip rates have been provided in Appendix A.

The morning and evening peak hour trip rates are displayed in the following table:

Land Use	AM Peak Hour (08:00 to 09:00)		PM Peak Hour (17:00 to 18:00)	
	Arrivals	Departures	Arrivals	Departures
Houses [per unit]	0.115	0.355	0.301	0.162
Apartments [per unit]	0.038	0.146	0.197	0.105
Creche [per 100 sqm]	2.000	1.333	1.286	2.143

Table 8 | *TRICS – Car Trip Rates for Apartments – AM & PM Peak Hours.*

7.1.1 Car Trip Generation

The potential peak hour traffic generation for the proposed development calculated based on TRICS trip rates as summarised above are shown in ***Table 9***.

Whilst it is envisaged that the proposed Creche will solely serve the residents of the subject development, this may not always be the case. As such, to provide a robust assessment, it has been assumed that 50% of the traffic generation to/from the Creche will originate from the local road network external to the subject site and the remaining 50% will originate internally within the site. The trip generation calculation in ***Table 9*** has been discounted to reflect this.

Land Use	AM Peak Hour (08:00 to 09:00)		PM Peak Hour (17:00 to 18:00)	
	Trips IN	Trips OUT	Trips IN	Trips OUT
Houses (123 units)	15	44	38	20
Apartments (52 units)	2	18	25	13
Creche (365 sqm)	20	14	13	22
Total	**37**	**76**	**76**	**55**

Table 9* | *Proposed Development – Car Trip Generation – AM & PM Peak Hours.

The table above shows that it will be seen that the subject proposed development is estimated to generate a total of 113 car trips in the AM peak hour (37 inbound and 76 outbound) and a total of 131 car trips in the PM peak hour (76 inbound and 55 outbound).

7.2 Car Trip from other development

7.2.1 North development

As previously mentioned, due to the position of the subject development, it is expected that some of the traffic from the north development will use the proposed road network to access to New Road. This is also showed in the master plan for the development of the North (see ***Figure 31***), which indicates that some movement (vehicular and pedestrian) from the north development may use the roads of the subject development.

Despite the above, it is important to note that the TTA for the north development does not consider the subject development as a potential transit bypass. Therefore, its verifications are based on a different scenario than the one proposed in the potential report, which is part of the "do nothing" approach in the present assessment.

In relation to the existing junction that will form part of the analysis (see ***Figure 6***), the incidence of the north development is considered, with the urban growth proposed in the report prepared by DBFL Consulting Engineers. The traffic generation with the grown condition from the north development are presented below.

	AM				PM			
From / To	New Road (W)	New Road (E)	DDR (S)	DDR (N)	New Road (W)	New Road (E)	DDR (S)	DDR (N)
New Road (W)	0	0	0	4	0	0	0	11
New Road (E)	0	0	0	1	0	0	0	3
DDR (S)	0	0	0	22	0	0	0	54
DDR (N)	17	4	50	0	9	2	25	0

Table 10 | *North development - Car Trip 2024 – Junctions New Road – DDR - Do Nothing 2024.*

	AM				PM			
From / To	New Road (W)	New Road (E)	DDR (S)	DDR (N)	New Road (W)	New Road (E)	DDR (S)	DDR (N)
New Road (W)	0	0	0	11	0	0	0	32
New Road (E)	0	0	0	4	0	0	0	9
DDR (S)	0	0	0	63	0	0	0	92
DDR (N)	50	10	91	0	26	5	71	0

Table 11 | *North development - Car Trip 2029 – Junction New Road – DDR - Do Nothing 2029.*

As can be seen from the tables above, the northern development assumes that only phase 1 will be occupied in 2024 and that the full development (i.e. phase 1 and phase 2 of the northern development) will be occupied after 2029. For this reason, the growth in traffic from the northern development is constant after 2029.

A graphical representation of the above tables is incorporated below.

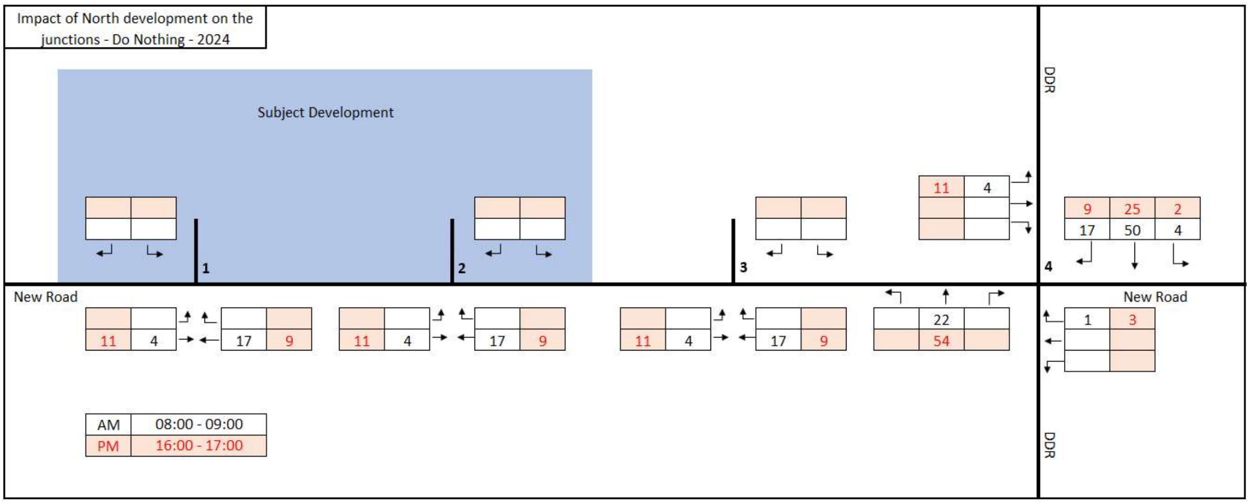

Figure 29 | *North Development– Impact on the Junction New Road – DDR – Do Nothing 2024.*

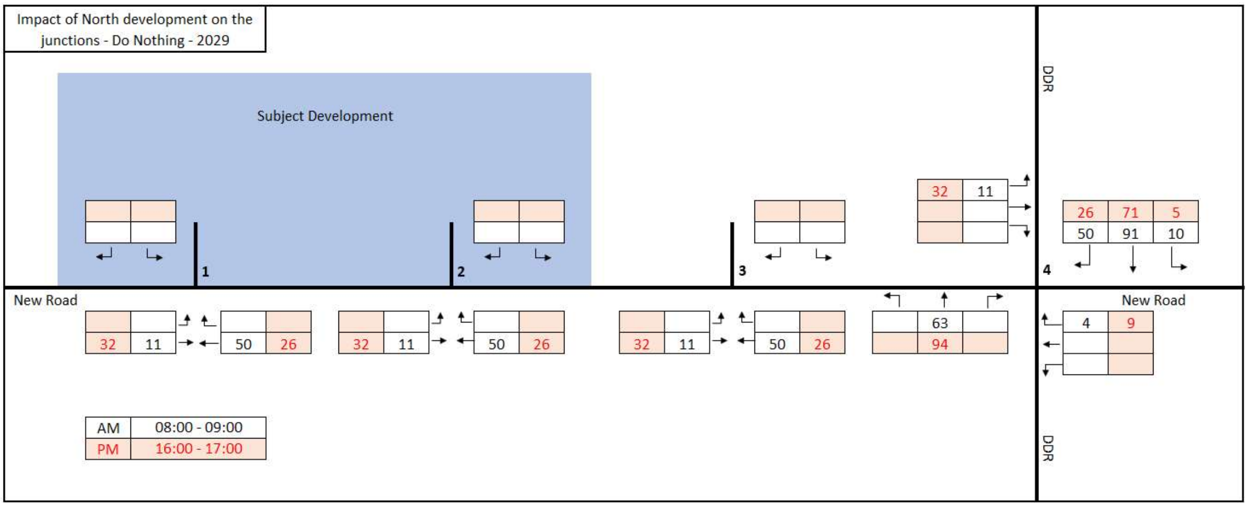

Figure 30* | *North Development– Impact on the Junction New Road – DDR – Do Nothing 2029.

On the other hand, when the subject development will be completed, the traffic generated in the northern development (Phase 1, Zone 2) is considered to pass through the subject development as indicated in the strategic plan generated by DBFL Consulting Engineers and is presented in ***Figure 31***. This is the "do something" situation in the present assessment. In ***Figure 32*** is shown in the same but with the division of the areas and with more details in the movement considered.

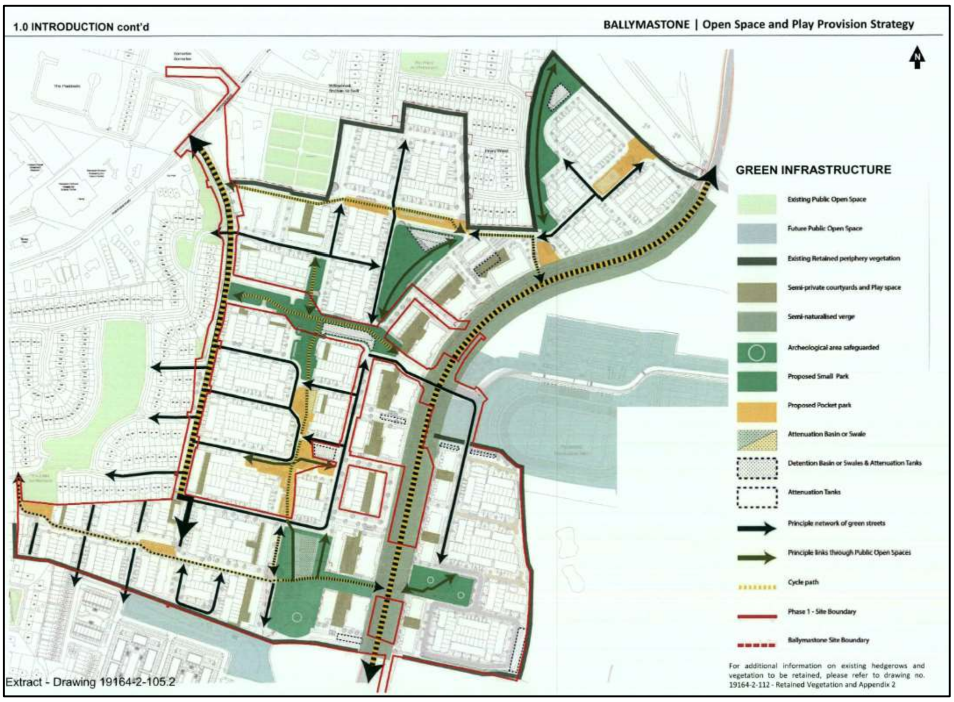

Figure 31* | *North Development - Land Planning & design (Source: Fingal Planning Application Portal)

Note that the ***Figure 31*** shows the previously approved planning permission layout for our subject site, and that now only one vehicular connection is being provided instead of the 2 indicated in the figure as shown in the figure below.

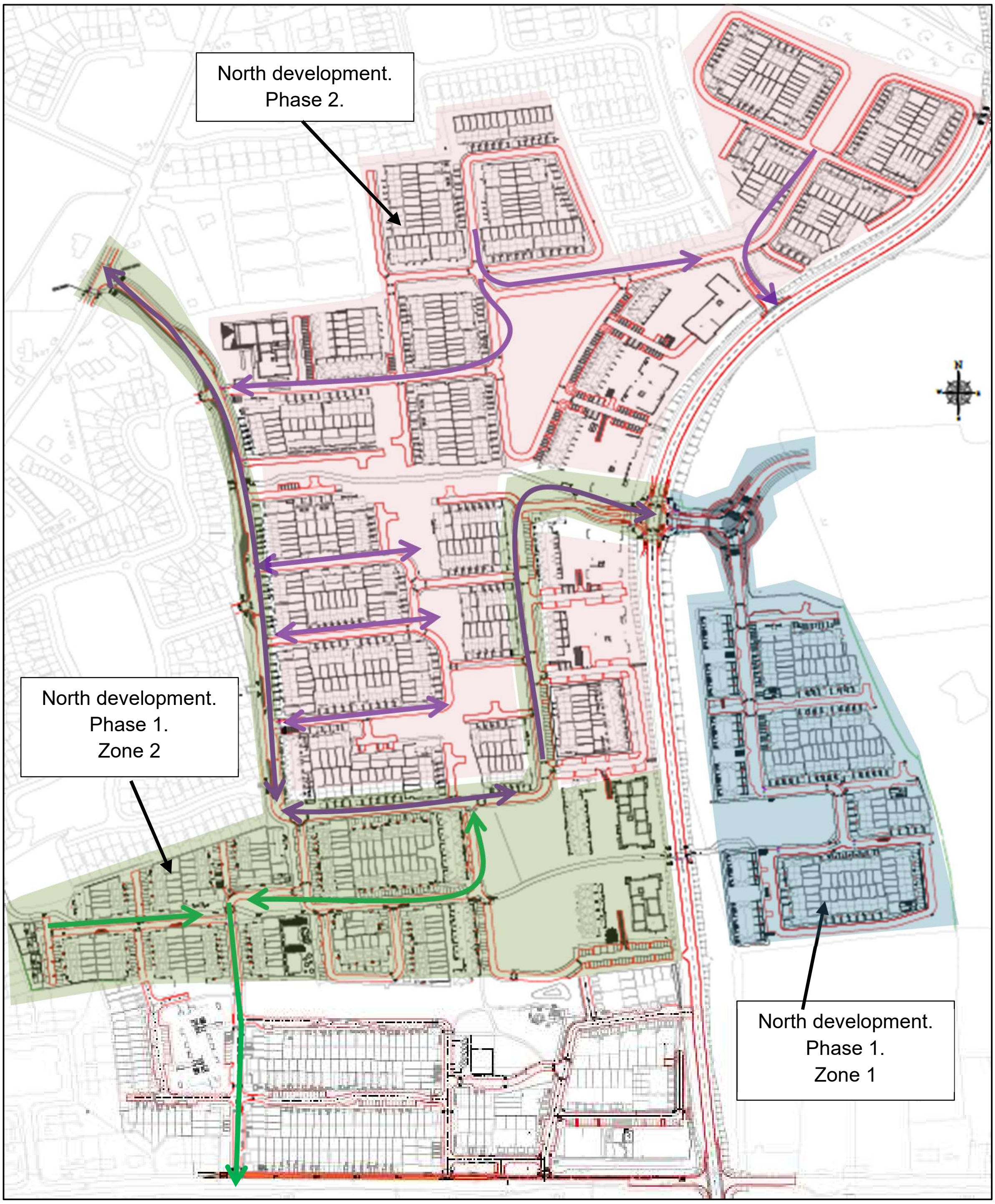

***Figure 32 |** North Development– Possible movements.*

Of the total number of vehicle movements generated daily in the north development (Phase 1, Zone 2) estimated in the assessment carried out by DBFL Consulting Engineers, it is estimated that 40% of these will change their behaviour when the subject development is completed and seek to travel through the subject development to reach the new route.

It should be noted that the TTA developed by DBFL Consulting Engineers considers the use of different connections to the existing infrastructure, under different working hypotheses and future urban behaviour. For this study, some of these movements have been identified and the present assessment has been developed in a conservative manner to achieve a better robustness of the results.

Vehicle estimates were based on information prepared by DBFL Consulting Engineers and available online in the Fingal County Council Planning application portal. Estimated morning and evening peak hour traffic flows prepared were considered from this report (Table 5.1: Proposed Development Trip Rates).

As a result, the trips generated in the northern region that pass through the study area are presented in the table below.

Land Use	AM Peak Hour (08:00 to 09:00)		PM Peak Hour (17:00 to 18:00)	
	IN	OUT	IN	OUT
Houses (Trip Rate)	0.067	0.191	0.192	0.108
Apartments (Trip Rate)	0.142	0.366	0.325	0.173
Houses (108 units * 40%)	3	9	9	5
Apartments/duplex (150 units* 40%)	9	22	20	11
Total	**12**	**31**	**29**	**16**

Table 12 | *North development - Proposed Development – Car Trip Generation – AM & PM Peak Hours.*

The distribution of cars on New Road from the north development was considered with the same behaviour as that the subject development, and indicated in *Chapter 7.3 Trip distribution* of this report. A graphical representation of the above tables is incorporated below.

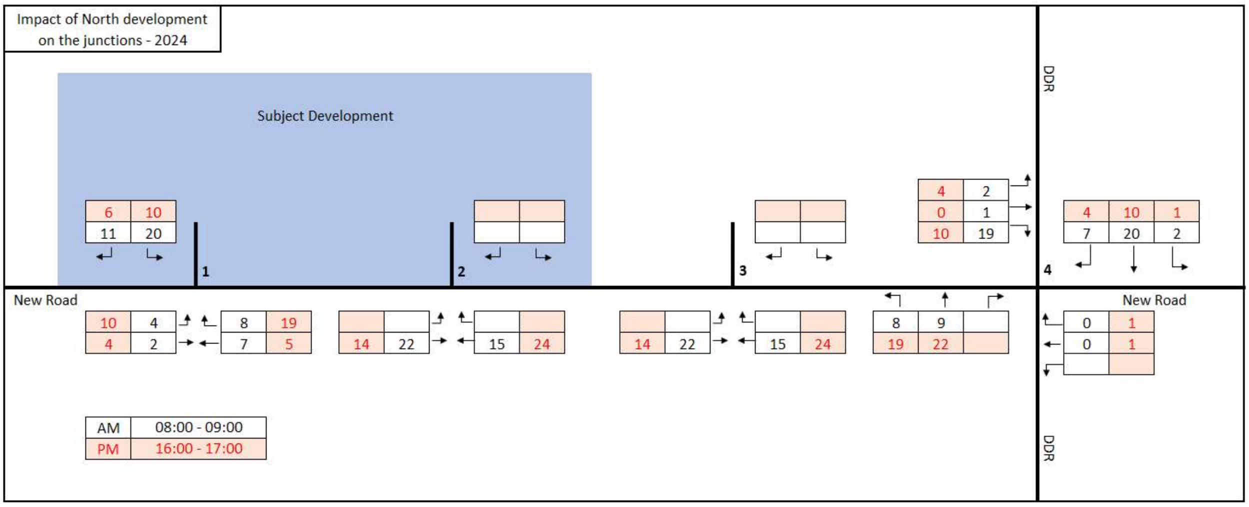

Figure 33 | *North Development– Impact on the Junction New Road – DDR – Do Something 2024.*

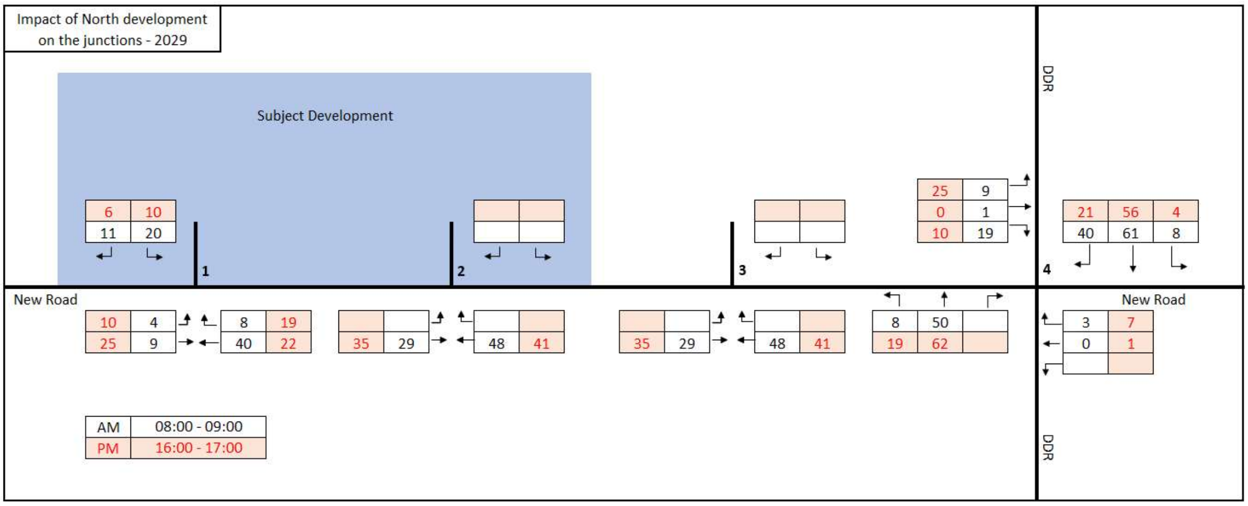

Figure 34 **|** *North Development– Impact on the Junction New Road – DDR – Do Something 2029.*

7.2.2 East development

The TTA produced by Waterman Moylan assessed the East development and studied the two intersections shown in the figure below.

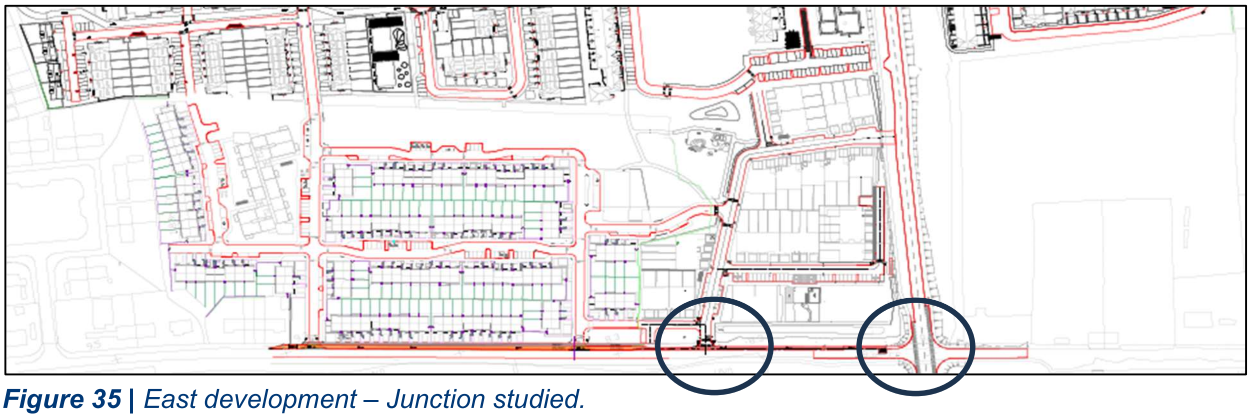

Figure 35 **|** *East development – Junction studied.*

It is considered that the east development does not use the internal roads to access to New Road, as the development has direct access to New Road as can be seen in ***Figure 28***.

However, for the purposes of this report, the traffic impact of the subject development at the junction between New Road and the road entrance to the east development is considered, as well as the impact of this development at the junction of New Road and Donabate Distributor Road (existing junction that will form part of the analysis, see ***Figure 6***).

The traffic flows generated by the eastern development at these two junctions are shown below.

	AM				PM			
From / To	New Road (W)	New Road (E)	DDR (S)	DDR (N)	New Road (W)	New Road (E)	DDR (S)	DDR (N)
New Road (W)	0	2	22	4	0	1	11	2
New Road (E)	1	0	0	0	2	0	0	0
DDR (S)	13	0	0	0	19	0	0	0
DDR (N)	3	0	0	0	4	0	0	0

Table 13 **|** *East development - Car Trip 2025 – Junctions New Road - DDR.*

	AM			PM		
From / To	New Road (W)	New Road (E)	East Dev. Road	New Road (W)	New Road (E)	East Dev. Road
New Road (W)	0	0	9	0	0	13
New Road (E)	0	0	17	0	0	24
East Dev. Road	15	29	0	8	14	0

Table 14 **|** *East development - Car Trip 2025 – Junctions New Road – East Development Road.*

A graphical representation of the above tables is incorporated below.

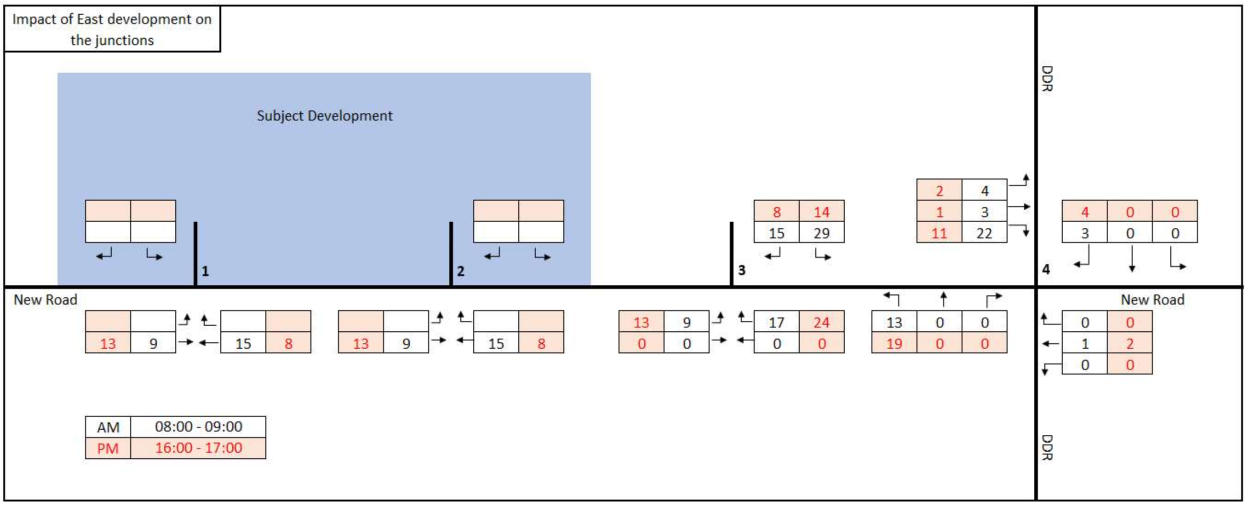

Figure 36 **|** *East development – Junction studied.*

7.3 Trip distribution

To determine how many new car trips are expected to travel through each surveyed junction near the proposed development site, the calculated car trips for the development have been distributed. The following considerations were considered:

- The development is located on New Road, which is more direct and has a higher speed limit than the internal roads of the subject and other developments. Therefore, all vehicles will prioritize the links to New Road instead of heading towards the other developments.
- The DDR is an important road which provides rapid access to the M1 linking Dublin Centre to the south, the M50 providing strategic access to the Greater Dublin Area and Dublin Airport, and destinations such as Drogheda and Dundalk to the north. For that reason, it is considered that the traffic distribution will be oriented towards the intersection of New Road and DDR. The trip distribution is assumed to have 35% of traffic to travel to/from Donabate, west of the proposed development. The remaining 65% will travel east on New Road. At junction 2, most trips will travel to/from DDR (South) towards the M1 and M50 towards the city centre.
- Vehicles coming from the north development, follow the direction shown in ***Figure 32*** and use link 1, indicated in the ***Figure 37***.
- A uniform distribution of drivers from the subject development to each connecting link to New Road, is considered.

Based on the above, the traffic distribution of the subject development is shown in ***Figure 38***, while the trip assignment, taking into account what is indicated in ***Table 9***, is shown in ***Figure 39***.

Figure 37 | *Junction under assessment.*

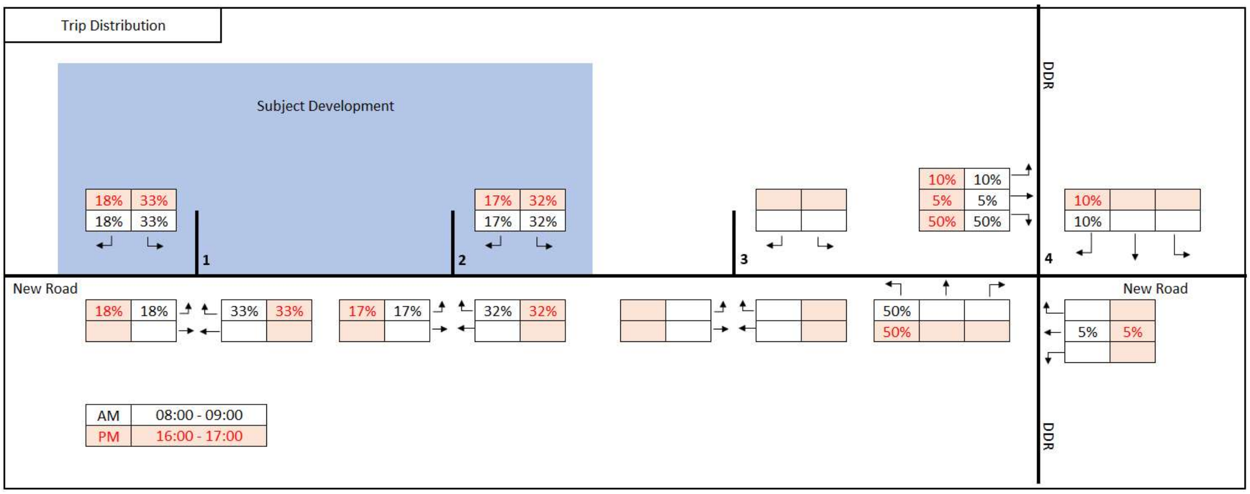

Figure 38 | *Proposed Development – Trip Distribution*

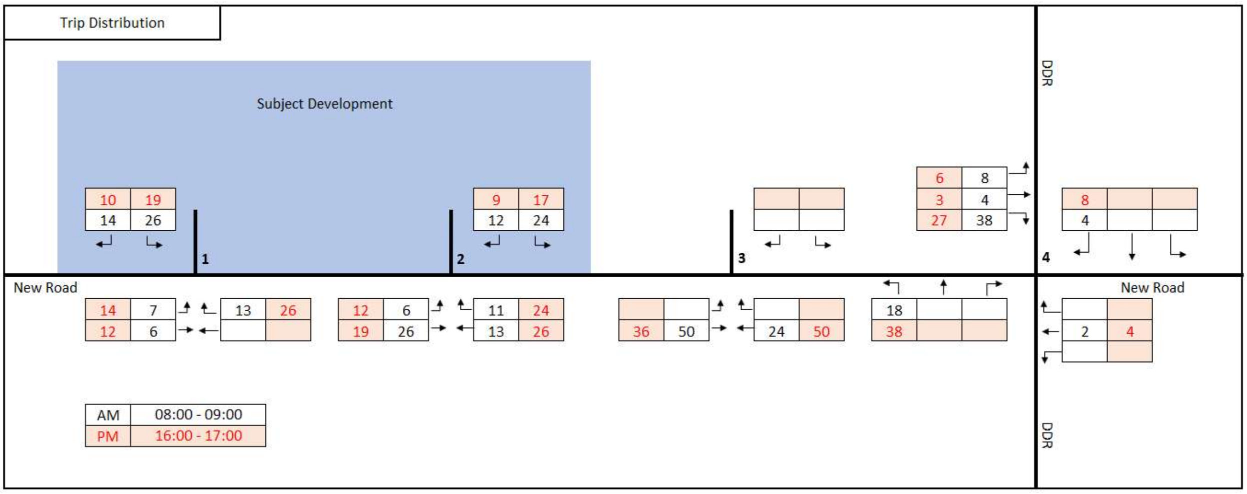

Figure 39 | *Proposed Development – Trip Assignment*

7.4 Traffic Survey

To determine the volume of traffic movements at key points on the road network surrounding the subject site, traffic count data has been assessed for the following two zones:

- **Location A:** Location on New Road
- **Location B:** Junction between New Road / R126 Donabate Distributor Road

Figure 40 | *Location of Traffic Survey*

Traffic Counts were performed by IDASO on Tuesday 11th January 2022 for both locations. The survey identified the peak hours within the 24 hours period for all junctions. These peak hours were 08:00 – 09:00 and 16:00 – 17:00. These identified peak hour volumes are illustrated in ***Figure 41*** below.

Full survey results are shown in Appendix B.

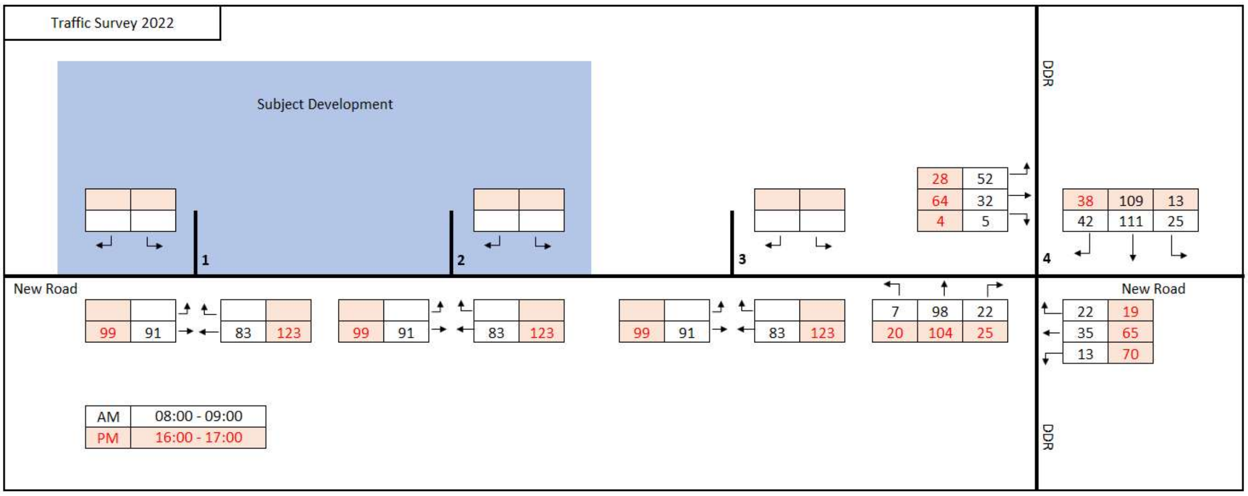

Figure 41 | *Traffic Counts 2022*

7.5 Traffic Growth Rates

It has been assumed within this TTA that the proposed development will be constructed with assumed year of opening is 2025. As per methodology adopted in the 'Transport Assessment Guidelines (May 2014)', which the subject TTA is based on, the surveyed junctions were also assessed for the future design years of 2030 (Opening year + 5 years) and 2040 (opening year +15 years).

The traffic growth rate used to factor up the 2022 base year traffic movements is in accordance with *Table 6.1: Link-Based Growth Rates: Metropolitan Area Annual Growth Rates'* within the *TII Publications – Project Appraisal Guidelines for National Roads, Unit 5.3 – Travel Demand Projections (October 2021)* and with the *Appendix 4* of the *Implementation Roadmap for the National Planning Framework (July 2018)* which defines the Dublin Metropolitan Area.

Based on the Traffic Survey, the urban growth area has been identified as the central area, where Light Vehicles are the predominant vehicle type.

The factors considered in the current assessment are shown below:

- Base line: 2022
- Opening year: 2025 = 1.055 (growth factor from 2022 to 2025)
- Opening year + 5: 2030 = 1.153 (growth factor from 2022 to 2030)
- Opening year + 15: 2040 = 1.219 (growth factor from 2022 to 2040)

Based on the above, the following figures show the expected traffic growth of the region in a "do nothing" scenario, where the subject development is not considering and, in 2025, the development of the east and the phase 1 of the development of the north will be completed. While for the years 2030 and 2040 the phase 2 of the development of the north is added.

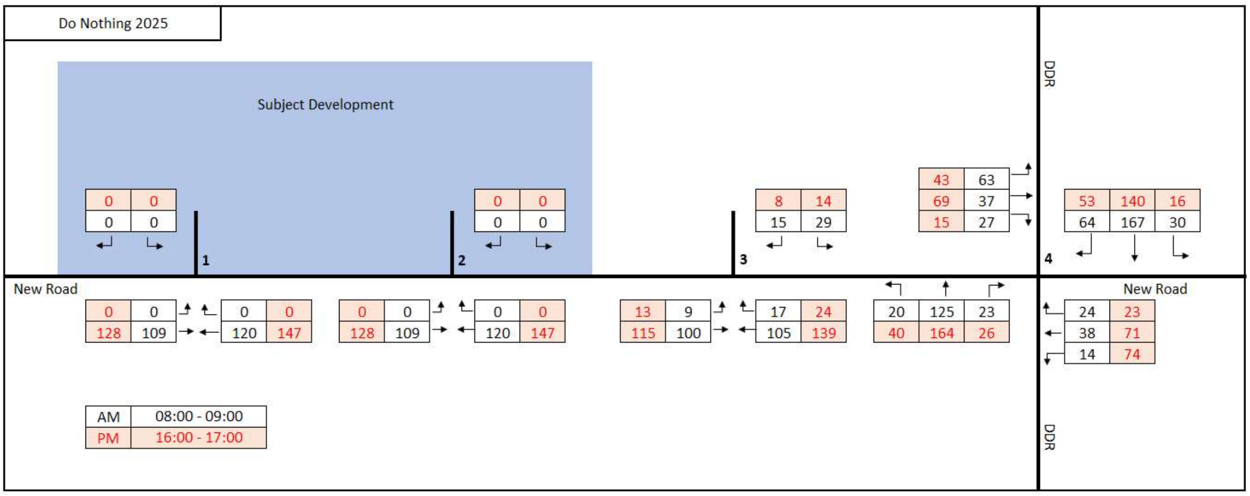

***Figure 42 |** Proposed Development – Do Nothing 2025*

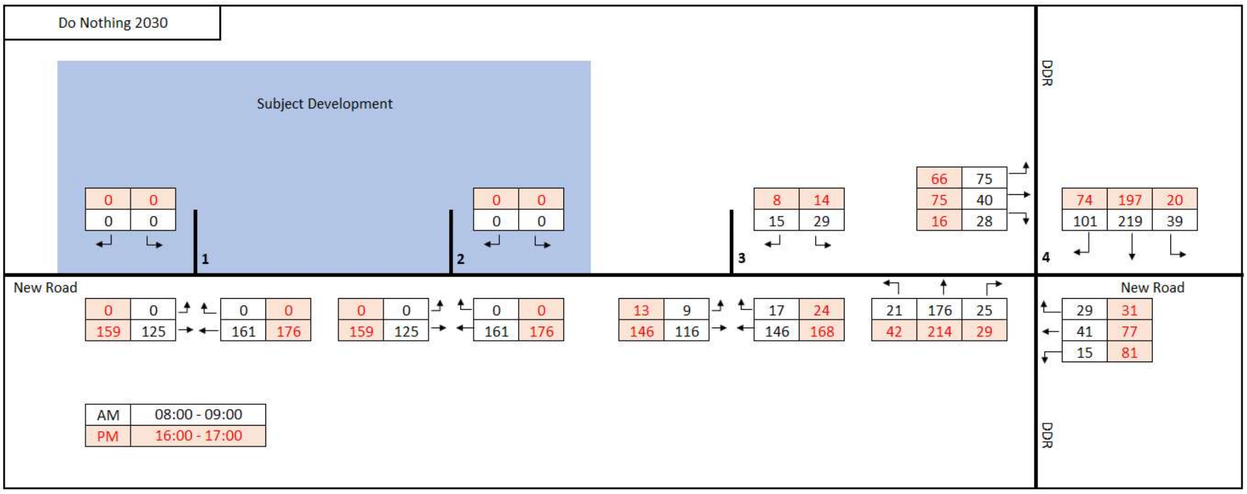

***Figure 43 |** Proposed Development – Do Nothing 2030*

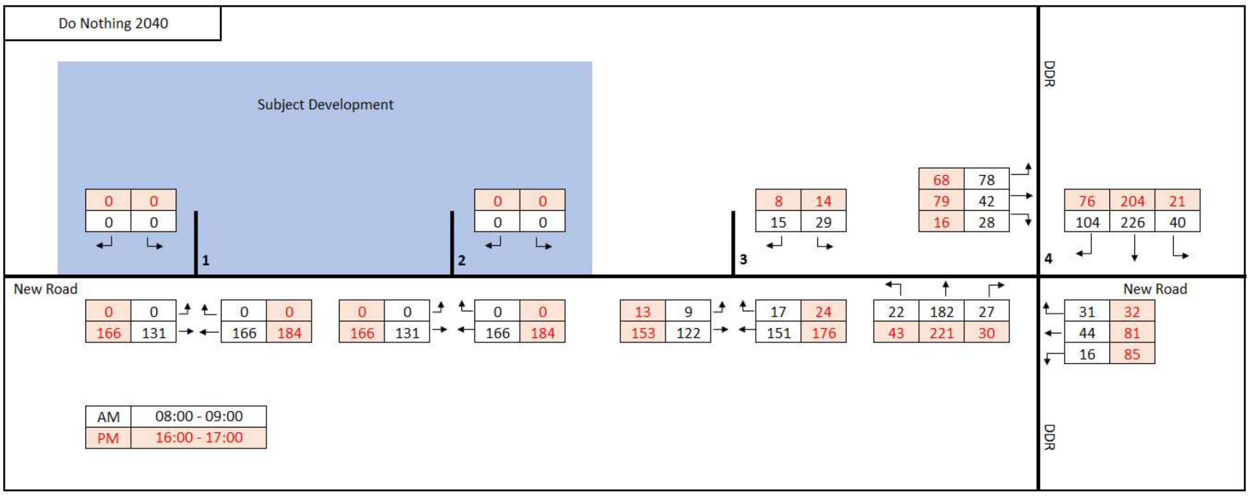

***Figure 44 |** Proposed Development – Do Nothing 2040*

The figures above show the roads without the subject development, which is equivalent to "do nothing", and is the basis for comparison that will later be used in the various models for each junction.

The following figures include the traffic impact of the subject development, which is equivalent to the "do something" situation.

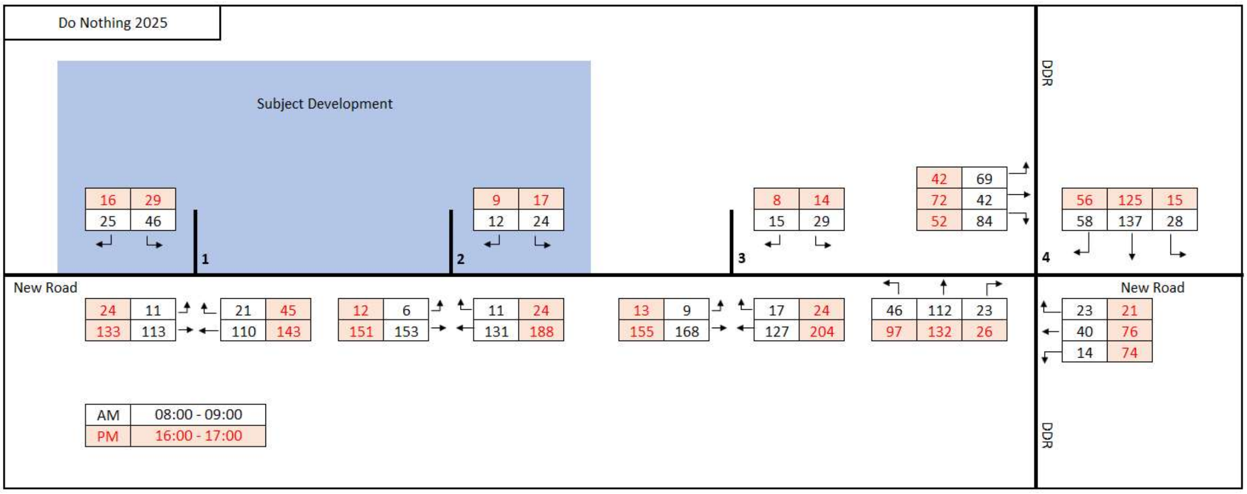

Figure 45 **|** *Proposed Development – Do Something 2025*

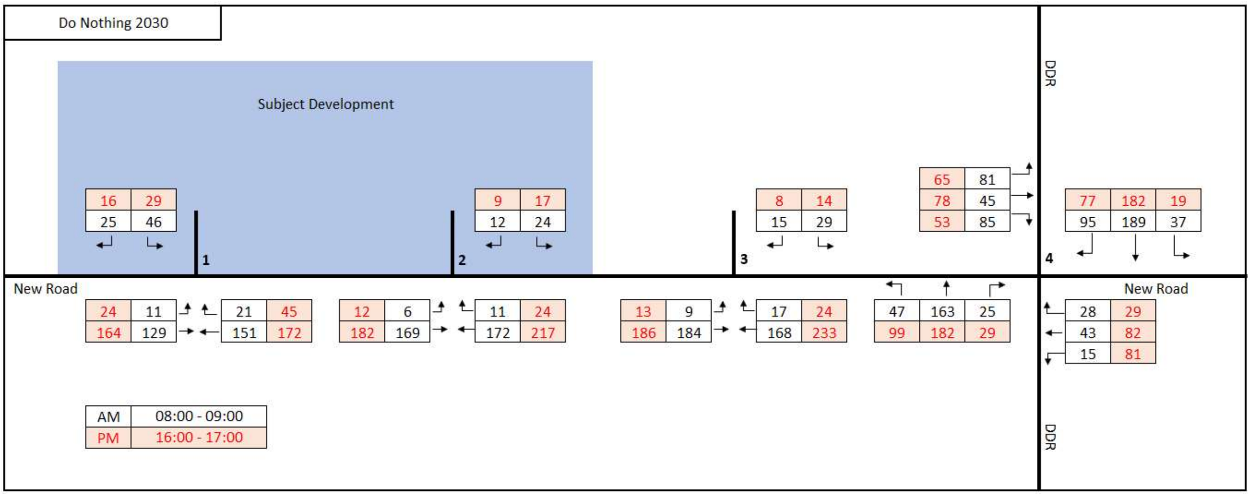

Figure 46 **|** *Proposed Development – Do Something 2030*

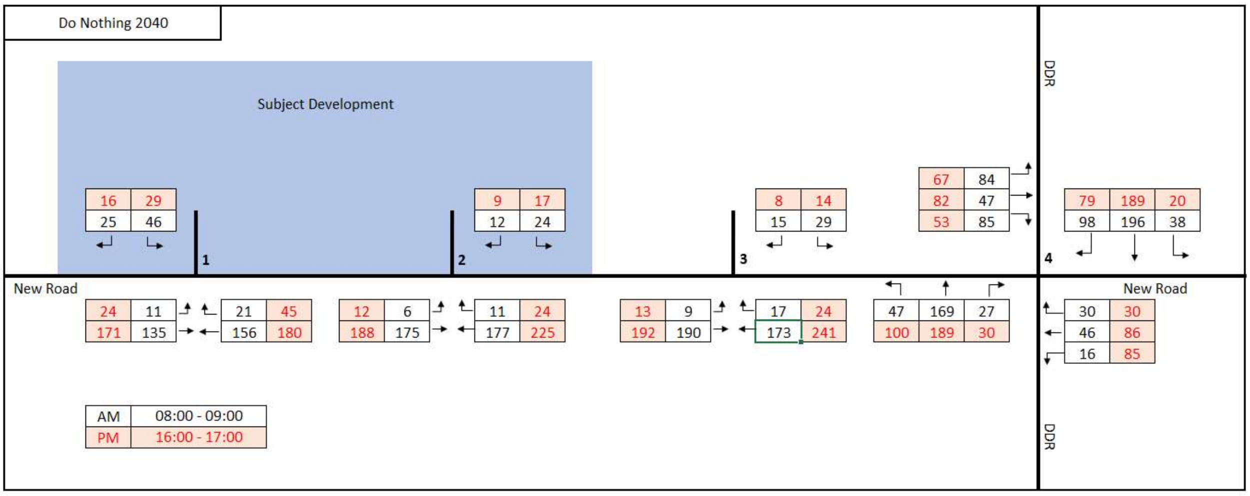

Figure 47 | *Proposed Development – Do Something 2040*

7.6 Traffic Impact of Proposed Development

With the goal to estimate the potential traffic impact expected to be generated by the proposed development on the local road network, it was needed to first understand the type of road surrounding the site (New Road and Donabate Distributor Road).

Table 1 of the "Design Manual for Roads and Bridges (DMRB), Volume 5 Assessment and Preparation of Road Schemes, Section 1" gives the description of road types based on different features such as speed limit and number of side roads per km. This is reproduced below.

Feature	ROAD TYPE				
	Urban Motorway	Urban All-purpose			
	UM	UAP1	UAP2	UAP3	UAP4
General Description	Through route with grade separated junctions, hardshoulders or hardstrips, and motorway restrictions.	High standard single/dual carriageway road carrying predominantly through traffic with limited access.	Good standard single/dual carriageway road with frontage access and more than two side roads per km.	Variable standard road carrying mixed traffic with frontage access, side roads, bus stops and at-grade pedestrian crossings.	Busy high street carrying predominantly local traffic with frontage activity including loading and unloading.
Speed Limit	60mph or less	40 to 60 mph for dual, & generally 40mph for single carriageway	Generally 40 mph	30 mph to 40 mph	30mph
Side Roads	None	0 to 2 per km	more than 2 per km	more than 2 per km	more than 2 per km
Access to roadside development	None. Grade separated for major only.	limited access	access to residential properties	frontage access	unlimited access to houses, shops & businesses
Parking and loading	none	restricted	restricted	unrestricted	unrestricted
Pedestrian crossings	grade separated	mostly grade separated	some at-grade	some at-grade	frequent at-grade
Bus stops	none	in lay-bys	at kerbside	at kerbside	at kerbside

Table 15* | *Types of Urban Roads and Features (DMRB TA 75/99).

Based on the above definitions and outlined features, both the New Road and the Donabate Distributor Road can be classified as Urban All-Purpose Road Type 2 (UAP2), with access to residential properties, restricted parking and loading and more than 2 side roads per km.

Table 2 – Section 5 of the aforementioned DMRB document provides information on the capacity of urban roads based on classification and width. Table 10 below reproduces the capacities of the various road types based on the DMRB and using a 60:40 split in flow.

		Two-way Single Carriageway- Busiest direction flow (Assumes a 60/40 directional split)									Dual Carriageway			
		Total number of Lanes									Number of Lanes in each direction			
		2				2-3	3	3-4	4	4+	2		3	4
Carriageway width		6.1m	6.75m	7.3m	9.0m	10.0m	12.3m	13.5m	14.6m	18.0m	6.75m	7.3m	11.0m	14.6m
Road type	**UM**	**Not applicable**										4000	5600	7200
	UAP1	1020	1320	1590	1860	2010	2550	2800	3050	3300	3350	3600	5200	*
	UAP2	1020	1260	1470	1550	1650	1700	1900	2100	2700	2950	3200	4800	*
	UAP3	900	1110	1300	1530	1620	*	*	*	*	2300	2600	3300	*
	UAP4	750	900	1140	1320	1410	*	*	*	*	*	*	*	*

Table 16 | *Capacities of Urban Roads One-Way Hourly Flows in Each Direction.*

The New Road and the Donabate Distributor Road comprise of a carriageway of c. 5.0m and c. 7.0m, respectively.

Based on the above and the road type class UAP2, it has been considered that New Road and the Donabate Distributor Road have theoretical capacities of c. 1,020 and 1,260 vehicles per hour, respectively.

As a result, the following theoretical capacities for each roadway:

- New Road: 1,020 veh/hour (two-way)
- Donabate Distributor Road: 1,260 veh/hour (two-way)

The capacity of the roads is not reached, as can be seen in the different figures above, according to the different assessment scenarios.

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

1- Traffic to and from the development exceeds 10% of the traffic flow on the adjoining road.

2- Traffic to and from the development exceeds 5% of the traffic flow on the adjoining road where congestion exists, or the location is sensitive.

3- Residential development in excess of 200 dwellings.

4- Retail and leisure development in excess of 1,000sqm.

5- Office, education, and hospital development in excess of 2,500sqm.

6- Industrial development in excess of 5,000sqm.

7- Distribution and warehousing in excess of 10,000sqm.

The ***Table 17*** below shows the assessment of each junction, where the traffic to and from the proposed development exceeds 10% of the survey traffic flows on New Road and therefore the location is considered sensitive in terms of road capacity and traffic congestions.

Junction	Junction Existing Flow - AM Peak Hour	Junction Existing Flow - PM Peak Hour	Additional Traffic Two-way Flow (AM)	Additional Traffic Two-way Flow (PM)	% Expected Increase (AM)	% Expected Increase (PM)
Junction 1	174	222	66	81	37.9%	36.5%
Junction 2	174	222	92	107	52.9%	48.2%
Junction 3	174	222	74	86	42.5%	38.7%
Junction 4	464	559	74	86	15.9%	15.4%

Table 17 | *Thresholds for Transport Assessment.*

As can be seen from above, the four junctions exceed the 10% of traffic increase threshold and therefore require further assessment.

8. Junction Assessment

8.1 Junctions Assessed

The junctions considered within this Traffic and Transport Assessment are shown in ***Figure 48***, and are as follows:

- **Location 1:** Located on New Road, west access to the subject development.
- **Location 2:** Located on New Road, east access to the subject development.
- **Location 3:** Junction between New Road and access point to the east development.
- **Location 4:** Junction between New Road / R126 Donabate Distributor Road.

Figure 48 **|** *Traffic survey – Junction studied.*

8.2 Modelling Background

There are various modelling software packages available to assess every type of junction. Waterman Moylan uses ARCADY, TRANSYT and PICADY to analyse roundabouts, signalised and priority junctions, respectively.

ARCADY is a software for modelling roundabouts. This programme utilises roundabouts geometry and traffic flows input by the user to determine Ratio of Flow to Capacity (RFC) and queue length for each link on the roundabout.

TRANSYT (Traffic Network Study Tool) software is a widely accepted software for modelling signalled controlled junctions. This programme utilises the phases input by the user and optimises their timings over a cycle time. The outputs of a TRANSYT assessment include a Degree of Saturation percentage (DOS%) figure and queue length for each link on the road network.

PICADY is a software for modelling priority-controlled junctions. This programme utilises junction's geometry and traffic flows input by the user to determine Ratio of Flow to Capacity (RFC) and queue length for each link on the junction.

Acceptable DOS% or RFC values are in the range from 80%/0.8 to 100%/1.0. A DoS% or RFC value above 100% corresponds to saturation and a queue will grow for as long as the specified flow conditions exist.

For values between 100% and 90%, users are likely to experience some inconvenience in the flow, where some temporary queues may occur, but these will later dissipate.

8.3 Assessment Scenarios

For the purposes of this TTA, several assessment scenarios were analysed for the proposed development, committed developments and the surrounding traffic network. A sensitivity analysis was also complete for the potential future developments in the area.

- Base line 2022: Traffic survey road network.
- Do nothing 2025: Base line 2022 + east development complete and north development phase 1, zones 1 and 2 finish.
- Do nothing 2030: Base line 2022 + With both east and north developments complete.
- Do nothing 2040: Base line 2022 + With both east and north developments complete.
- Do something 2025: Do nothing 2025 + subject development.
- Do something 2030: Do nothing 2030 + subject development.
- Do something 2040: Do nothing 2040 + subject development.

8.4 Junction Assessment

The main results of the traffic assessment for each section are presented below. Further details can be found in Appendix C.

8.4.1 Junction 1: Priority T-Junction

Junction 1 is a new three-armed priority-controlled junction located south-west of the proposed development site.

This junction has been modelled with PICADY and the results are summarised in table below. The arms of the junction were labelled as follows within the PICADY model:

- Arm A: New Road (W)
- Arm B: Site Access Junction
- Arm C: New Road (E)

Arm	**AM**			**PM**		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
			Base Year			
Stream B-AC	0.0	0.00	0.00	0.00	0.00	0.00
Stream C-AB	0.0	0.00	0.00	0.00	0.00	0.00
			Do Nothing 2025			
Stream B-AC	0.0	0.00	0.00	0.0	0.00	0.00
Stream C-AB	0.0	0.00	0.00	0.0	0.00	0.00
			Do Nothing 2030			
Stream B-AC	0.0	0.00	0.00	0.0	0.00	0.00
Stream C-AB	0.0	0.00	0.00	0.0	0.00	0.00
			Do Nothing 2040			
Stream B-AC	0.0	0.00	0.00	0.0	0.00	0.00
Stream C-AB	0.0	0.00	0.00	0.0	0.00	0.00
			Do Something 2025			

Stream B-AC	0.2	8.40	0.15	0.1	8.12	0.10
Stream C-AB	0.1	4.96	0.04	0.1	5.09	0.08
Do Something 2030						
Stream B-AC	0.2	8.54	0.16	0.1	8.31	0.10
Stream C-AB	0.1	4.86	0.04	0.1	5.03	0.08
Do Something 2040						
Stream B-AC	0.2	8.58	0.16	0.1	8.36	0.10
Stream C-AB	0.1	4.85	0.04	0.1	5.01	0.08

Table 18* | *Junction 1: West Access Junction PICADY Results

In the table above the junction will remain under capacity for Do Something 2040 with the highest RFC of 0.16 and a correspond queue of 0.2 vehicles in the AM peak hour and an RFC of 0.10 and corresponding queue of 0.1 in the PM peak hour.

8.4.2 Junction 2: Priority T-Junction

Junction 2 is a new three-armed priority-controlled junction located south-east of the proposed development site.

This junction has been modelled with PICADY and the results are summarised in table below. The arms of the junction were labelled as follows within the PICADY model:

- Arm A: New Road (W)
- Arm B: Site Access Junction
- Arm C: New Road (E)

Arm	**AM**			**PM**		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
Base Year						
Stream B-AC	0.0	0.00	0.00	0.00	0.00	0.00
Stream C-AB	0.0	0.00	0.00	0.00	0.00	0.00
Do Nothing 2025						
Stream B-AC	0.0	0.00	0.00	0.0	0.00	0.00
Stream C-AB	0.0	0.00	0.00	0.0	0.00	0.00
Do Nothing 2030						
Stream B-AC	0.0	0.00	0.00	0.0	0.00	0.00
Stream C-AB	0.0	0.00	0.00	0.0	0.00	0.00
Do Nothing 2040						
Stream B-AC	0.0	0.00	0.00	0.0	0.00	0.00
Stream C-AB	0.0	0.00	0.00	0.0	0.00	0.00
Do Something 2025						
Stream B-AC	0.1	7.81	0.08	0.1	7.78	0.06
Stream C-AB	0.0	4.88	0.02	0.1	4.80	0.04
Do Something 2030						
Stream B-AC	0.1	7.93	0.08	0.1	7.95	0.06
Stream C-AB	0.0	4.79	0.02	0.1	4.76	0.05
Do Something 2040						
Stream B-AC	0.1	7.97	0.08	0.1	7.99	0.06
Stream C-AB	0.0	4.78	0.02	0.1	4.74	0.05

Table 19* | *Junction 2: East Access Junction PICADY Results

In the table above the junction will remain under capacity for Do Something 2040 with the highest RFC of 0.08 and a correspond queue of 0.1 vehicles in the AM peak hour and an RFC of 0.06 and corresponding queue of 0.1 in the PM peak hour.

8.4.3 Junction 3: Priority T-Junction

Junction 3 is a future three-armed priority-controlled junction located to the east of the subject development site.

This junction has been modelled with PICADY and the results are summarised in table below. The arms of the junction were labelled as follows within the PICADY model:

- Arm A: New Road (W)
- Arm B: Site Access Junction
- Arm C: New Road (E)

Arm	AM			PM		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
Base Year						
Stream B-AC	0.0	0.00	0.00	0.0	0.00	0.00
Stream C-AB	0.0	0.00	0.00	0.0	0.00	0.00
Do Nothing 2025						
Stream B-AC	0.1	7.74	0.09	0.1	7.54	0.05
Stream C-AB	0.0	4.94	0.03	0.1	4.91	0.04
Do Nothing 2030						
Stream B-AC	0.1	7.86	0.10	0.1	7.71	0.05
Stream C-AB	0.0	4.85	0.03	0.1	4.87	0.04
Do Nothing 2040						
Stream B-AC	0.1	7.90	0.10	0.1	7.75	0.05
Stream C-AB	0.0	4.84	0.03	0.1	4.86	0.04
Do Something 2025						
Stream B-AC	0.1	8.07	0.10	0.1	7.79	0.05
Stream C-AB	0.0	4.96	0.03	0.1	4.76	0.05
Do Something 2030						
Stream B-AC	0.1	8.21	0.10	0.1	7.97	0.05
Stream C-AB	0.0	4.85	0.03	0.1	4.72	0.05
Do Something 2040						
Stream B-AC	0.1	8.24	0.10	0.1	8.01	0.05
Stream C-AB	0.1	4.85	0.05	0.1	4.70	0.05

***Table 20 |** Junction 1: East Development Access Junction PICADY Results*

In the table above the junction will remain under capacity for Do Something 2040 with the highest RFC of 0.10 and a correspond queue of 0.1 vehicles in the AM peak hour and an RFC of 0.05 and corresponding queue of 0.1 in the PM peak hour.

8.4.4 Junction 4: Signalised Crossroads

Junction 4 is an existing signalized crossroads junction located east of the proposed development. This junction is based on its current configuration and is analysed using the TRANSYT model.

The results of the analysis are shown below. The arms of the junction were labelled as follows within the TRANSYT model.

- Arm A: New Road (E)
- Arm B: DDR (S)
- Arm C: New Road (W)
- Arm D: DDR (N)

Arm	AM Peak Hour		PM Peak Hour	
	DOS%	Queue Length (Veh)	DOS%	Queue Length (Veh)
Traffic Survey 2022				
A	16	1.91	35	4.45
B	66	4.98	67	5.72
C	74	4.11	77	4.53
D	70	6.85	67	6.08
DO NOTHING 2025				
A	22	2.26	44	5.26
B	70	6.52	72	8.62
C	76	5.56	83	6.26
D	71	9.51	69	7.77
DO NOTHING 2030				
A	35	2.81	59	6.54
B	73	8.50	77	10.87
C	79	6.34	86	7.74
D	75	12.78	87	12.59
DO NOTHING 2040				
A	33	2.93	62	6.95
B	72	8.68	73	10.64
C	75	6.17	82	7.44
D	86	15.13	90	13.80
DO SOMETHING 2025				
A	19	2.16	51	5.63
B	71	7.02	70	9.19
C	76	7.85	73	6.65
D	82	9.44	82	8.57
DO SOMETHING 2030				
A	30	2.71	63	6.85
B	78	9.27	81	12.24
C	78	8.54	80	8.31
D	84	13.10	87	12.28
DO SOMETHING 2040				
A	30	2.90	63	7.07
B	85	10.52	87	13.75
C	79	8.85	83	8.82
D	87	13.94	90	13.55

Table 21 | *Junction 4: TRANSYT Analysis Results*

The analysis results as summarised above indicate that Junction 4 would operate within capacity for the 2040 DO NOTHING scenario and would continue to do so for the 2040 DO SOMETHING scenario with the highest DOS at 90% and a corresponding queue of 13.55 vehicles recorded on DDR (N) in the PM peak hour and with the highest DOS at 87% and a corresponding queue of 13.94 vehicles recorded on Glen DDR (N) in the AM peak hour.

9. Public Transport Capacity Assessment

9.1 Background and Methodology

The aim of this chapter is to identify the potential demand for public transport users, based on existing statistical information and considering current and surrounding developments. The impact on the existing public transport system will be analysed with this information.

9.2 Future Passenger Demand

Chapter 5 analysed travel patterns using Census 2022 data. The small areas examined had an average of 3.24 residents per house (2,414 no. resident and 744 no. houses).

Based on that the future residents in the new proposed, permitted, and potential future developments have been estimated.

- Subject development: 157 units x 3.24 residents/unit : 510 residents
- North development phase 1: 432 units x 3.24 residents/unit : 1,402 residents
- North development phase 2: 762 units x 3.24 residents/unit : 2,473 residents
- East development: 154 units x 3.24 residents/unit : 500 residents

The total of potential resident in all areas is 4,885 residents.

Based on the modal split (see ***Table 5***) it is expected that 6.6% of the population (323 users) travels by bus and 18.2% (890) travels by train.

Using the information from the 2022 census, it is possible to obtain the distribution of travel time, as shown in the following table. The consulted Small Areas are illustrated in ***Figure 23***.

Zone	before 7:00	7:00 – 8:00	8:00 – 9:00	After 9:00	Total
1	48	103	112	17	**280**
2	48	81	145	22	**296**
3	60	103	154	22	**339**
4	34	56	72	15	**177**
5	29	37	42	8	**116**
6	44	81	85	25	**235**
Tot	**263**	**461**	**610**	**109**	**1,443**
%	**18.2%**	**31.9%**	**42.3%**	**7.6%**	**100.0%**

Table 22 | *Consulted Static Small Area – Census 2022 – Hour times distribution.*

The table above shows that peak travel occurs between 8:00 and 9:00 AM, and secondly between 7:00 and 8:00 AM.

Considering the percentage of travellers in the morning peak hour (8:00 - 9:00) and the number of bus and train users determined before, it is expected that between 8:00 and 9:00, 137 people will travel by bus and 377 people by train

Based on the analysis of the behaviour observed during the surveys carried out, it can be assumed that in the case of the train, 90% of the users (340 people) travel south and 10% (37 people) travel north. In the case of buses, most users travel south/west, for the purposes of this TTA it is assumed that 80% of users (110 people) travelling by bus travel south/west and the 20% (27 people) travel north/east.

The table below summarizes the future passenger demand.

	Northbound	Southbound	Total between 8:00-9:00
Train	37	340	**377**
Bus	27	110	**137**
Total by direction	**78**	**436**	**514**

Table 23 | *Future passenger demand - Summary.*

Once the potential demand for public transport has been determined, the capacity of each transport system available in the Donabate area is analysed.

9.3 Public Transport Survey

As part of the transport capacity assessment, bus stops near the proposed development were surveyed. Waterman Moylan conducted bus capacity surveys during the AM peak hour at two bus stops (Stop No. 3780 Southbound and Stop No. 7691 Northbound) and one train station (Donabate Train Station - Both direction) on 22nd March 2024 between 7:30 and 9:00 AM.

The survey aimed to record the number of services passing through each bus stop and train station, as well as the number of users and passengers boarding and disembarking each means of transport, and the available capacity of each unit.

9.3.1 Survey Bus Capacity

Chapter 3 presents the public transport in the region, its shows that the lines that pass through Donabate area are 33B, 33T, 33D and 33E.

The table below presents the results of the survey carried out.

Bus Stop 3780 Southbound							
Hour arrival	Route No.	Deck	Capacity (seating + standing)	No. passenger Boarding	No. passenger disembarking	No. Passenger upon departure	Spare Capacity
7:31	33B	Single	47	4	0	11	36
7:33	33D	Double	96	0	2	40	56
8:05	*33B*	*Single*	*47*	*12*	*9*	*32*	*15*
8:10	*33E*	*Double*	*96*	*0*	*2*	*10*	*86*
8:25	*33B*	*Single*	*47*	*6*	*5*	*14*	*33*
8:58	*33B*	*Single*	*47*	*10*	*6*	*17*	*30*
Bus Stop 7691 Northbound							

7:46	33B	Single	47	0	2	5	42
7:52	33E	Double	96	0	1	9	87
8:26	*33T*	*Double*	*96*	*1*	*0*	*3*	*93*
8:31	*33B*	*Single*	*47*	*0*	*0*	*3*	*44*
9:00	*33B*	*Single*	*47*	*5*	*2*	*7*	*40*

Table 24* | *Bus Survey Result

The spare capacity on the Southbound direction was 164 passengers (***Table 24***), which is sufficient to cover the potential future passenger demand of 110 passengers shown in ***Table 23***. On the other direction, the spare capacity on the Northbound direction was 177 passengers (***Table 24***), which is sufficient to cover the potential future passenger demand of 27 passengers shown in ***Table 23***.

The additional demand for bus services can be accommodated within the existing services. In the future, more services will be covered by BusConects (see chapter 4). There will also be more than enough capacity on the further improved local services.

9.3.2 Train capacity

During the survey, five southbound trains and two northbound trains were surveyed. The following describes the type and capacity of each train:

(1) IE 22000 Class of 4-car sets. Has 376 seats.

(2) IE 22000 Class of 5-car sets. Has 304 seats.

(3) IE 29000 Class of one sets of 4-car: Has 185 seats and a capacity of 640 passenger (seated + standing).

(4) IE 29000 Class of two sets of 4-car. Has 370 seats and a capacity of 1,280 passengers (seated + standing).

The numbers of seats shown above are taken from the *Irish Rail Fleet information* website and the train capacities are taken from *Appendix C* from the *NTA Heavy Rail census 2019.*

The table below presents the results of the survey carried out.

	Southbound						
Hour arrival	Route	Type	Capacity (seated + standing)	No. passenger Boarding	No. passenger disembarking	No. Passenger upon departure	Spare Capacity
7:38	Commuter	(3)	185 + 455	50	2	161 + 30	24 + 423
8:00	*Belfast - Dublin*	*(2)*	*304*	*45*	*10*	*294 + 10*	*20*
8:15	*Commuter*	*(4)*	*370 + 910*	*95*	*16*	*330 + 38*	*40 + 872*
8:32	*Commuter*	*(4)*	*370 + 910*	*91*	*8*	*346 + 44*	*24 + 866*
9:00	*Commuter*	*(3)*	*185 + 455*	*62*	*21*	*141 + 5*	*44 + 450*
	Northbound						

8:17	Commuter	(1)	376	60	14	102 + 0	274
8:30	Commuter	(3)	*185 + 455*	42	8	91 + 0	94 + 455

***Table 25* |** *Rail Survey Result*

As a result of the survey, it was observed that, after the formation left the station, there were still some seats available with enough space to be able to travel standing up.

The spare capacity on the Southbound direction was 128 seated + 2,188 standing passengers (***Table 25***), which is sufficient to cover the potential future passenger demand of 340 passengers shown in ***Table 23***. On the other direction, the spare capacity on the Northbound direction was 368 seated + 455 standing passengers (***Table 25***), which is sufficient to cover the potential future passenger demand of 37 passengers shown in ***Table 23***.

The additional demand for rail services can be accommodated within the existing services. In the future, further services will be created as part of Dublin Area Rapid Transit – DART+ (see Chapter 4). There will also be more than enough capacity on the further improved local services.

10. Parking Strategy

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

- Sustainable Residential Development and Compact Settlements Guidelines for Planning Authorities (2024)
- Sustainable Urban Housing: Design Standards for New Apartments (July 2023)
- Fingal Development Plan 2023 – 2029 Standards

10.1 Car Parking

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

The Sustainable Residential Development and Compact Settlements Guidelines for Planning Authorities set national planning policy and guidance in relation to the planning and development of urban and rural settlements, with a focus on sustainable residential development and the creation of compact settlements.

The chapter 5.3.4 Car Parking – Quantum, Form and Location. In this chapter considerate three areas:

(i) In city centres and urban neighbourhoods of the five cities, defined in Chapter 3 of that document (Table 3.1 and Table 3.2) car-parking provision should be minimised, substantially reduced, or wholly eliminated. The maximum rate of car parking provision for residential development at these locations, where such provision is justified to the satisfaction of the planning authority, shall be 1 no. space per dwelling.

(ii) In accessible locations, defined in Chapter 3 of that document (Table 3.8) car- parking provision should be substantially reduced. The maximum rate of car parking provision for residential development, where such provision is justified to the satisfaction of the planning authority, shall be 1.5 no. spaces per dwelling.

(iii) In intermediate and peripheral locations, defined in Chapter 3 of that document (Table 3.8) the maximum rate of car parking provision for residential development, where such provision is justified to the satisfaction of the planning authority, shall be 2 no. spaces per dwelling.

The table 3.1 of Sustainable Residential Development and Compact Settlements Guidelines for Planning Authorities define:

City – Centre: The city centres of Dublin and Cork, comprising the city core and immediately surrounding neighbourhoods, are the most central and accessible urban locations nationally with the greatest intensity of land uses, including higher order employment, recreation, cultural, education, commercial and retail uses. It is a policy and objective of these Guidelines that residential densities in the range 100 dph to 300 dph (net) shall generally be applied in the centres of Dublin and Cork.

City - Urban Neighbourhoods: The city urban neighbourhoods category includes: (i) the compact medium density residential neighbourhoods around the city centre that have evolved overtime to include a greater range of land uses, (ii) strategic and sustainable development locations, (iii) town centres designated in a statutory development plan, and (iv) lands around existing or planned high-capacity public transport nodes or interchanges (defined in Table 3.8) – all within the city and suburbs area. These are highly accessible urban locations with good access to employment, education and institutional uses and public transport. It is a policy and objective of these Guidelines that residential densities in the range 50 dph to 250 dph (net) shall generally be applied in urban neighbourhoods of Dublin and Cork.

City - Suburban/Urban Extension: Suburban areas are the lower density car-orientated residential suburbs constructed at the edge of cities in the latter half of the 20th and early 21st century, while urban extension refers to the greenfield lands at the edge of the existing built-up footprint that are zoned for residential or mixed-use (including residential) development. It is a policy and objective of these Guidelines that residential densities in the range 40 dph to 80 dph (net) shall generally be applied at suburban and urban extension locations in Dublin and Cork, and that densities of up to 150 dph (net) shall be open for consideration at 'accessible' suburban / urban extension locations (as defined in Table 3.8).

The table 3.8 of Sustainable Residential Development and Compact Settlements Guidelines for Planning Authorities indicate:

High-Capacity Public Transport Node or Interchange: Lands within 1,000 metres (1km) walking distance of an existing or planned high-capacity urban public transport node or interchange, namely an interchange or node that includes DART, high frequency Commuter Rail, light rail or MetroLink services; or locations within 500 metres walking distance of an existing or planned BusConnects 'Core Bus Corridor'12 stop.

Accessible Location: Lands within 500 metres (i.e. up to 5–6-minute walk) of existing or planned high frequency (i.e. 10-minute peak hour frequency) urban bus services.

Intermediate Location: Lands within 500-1,000 metres (i.e. 10–12-minute walk) of existing or planned high frequency (i.e. 10-minute peak hour frequency) urban bus services; and Lands within 500 metres (i.e. 6-minute walk) of a reasonably frequent (minimum 15-minute peak hour frequency) urban bus service.

Peripheral: Lands that do not meet the proximity or accessibility criteria detailed above. This includes all lands in Small and Medium Sized Towns and in Rural Towns and Villages.

Based on the information provided in Chapters 3 and 4 of this TTA, the current development is situated in a *Peripheral* area.

The nearest bus station is approximately 550m away, which equates to a 7-minute walk. However, the bus service is infrequent, with only 4 buses running between 7:00 and 9:00, connecting Portrait and Sword. During the same hours, only 1 bus runs between Donabate and Dublin (refer to ***Table 2***). With the bus Connects projects, which will provide a bus (route L83) every 30 minutes during the AM and PM peak hours, a high frequency urban bus service will not be provided (see ***Table 4***).

Additionally, the train station is located approximately 650 metres away, which is a 9-minute walk. However, the frequency of the rail service is not high enough to be considered a high-frequency Commuter Rail (refer to ***Table 3***).

As a result, it is considered as an accessible location and 2 parking spaces per dwelling would be appropriate.

The table below summarises the number of car parking spaces required.

Land Use	Required parking space	Sustainable Residential Development and Compact Settlements Guidelines for Planning Authorities Car Parking spaces required
		Resident / Visitor
Houses: 175 un.	2	350
Crèche: 365 sqm.	-	-

Table 26 | Sustainable Residential Development and Compact Settlements Guidelines for Planning Authorities Required - *Car Parking Required*

10.1.2 Sustainable Urban Housing: Design Standards for New Apartments (July 2023)

Only to have a reference for the number of parking spaces associated with the plan "Sustainable Urban Housing: Design Standards for New Apartments' (DSNA) (July 2023 version), the parking requirements are assessed below.

Chapter 2 of the Design Standard for New Apartments sets out the following “types of location” which are defined by site’s accessibility and proximity to public transport and town/city centres:

1) Central and/or Accessible Urban Locations

- Sites within walking distance (i.e., up to 15 minutes or 1,000-1,500m), of principal city centres, or significant employment locations, that may include hospitals and third level institutions.
- Sites within reasonable walking distance (i.e., up to 10 minutes or 800-1,000m) to/from high-capacity urban public transport stops (such as DART or Luas).
- Sites within easy walking distance (i.e., up to 5 minutes or 400-500m) to/from high frequency (i.e., min 10-minute peak hour frequency) urban bus service.

2) Intermediate Urban Locations

- Sites within or close to i.e., within reasonable walking distance (i.e., up to 10 minutes or 800-1,000m), of principal town or suburban centres or employment locations, that may include hospitals and third level institutions.
- Sites within walking distance (i.e., between 10-15 minutes or 1,000-1,500m) of high-capacity urban public transport stops (such as DART, commuter rail or Luas) or within reasonable walking distance (i.e., between 5-10 minutes or up to 1,000m) of high frequency (i.e., min 10 minutes peak hour frequency) urban bus services or where such services can be provided.
- Sites within easy walking distance (i.e., up to 5 minutes or 400-500m) of reasonably frequent (min 15-minute peak hour frequency) urban bus services.

3) Peripheral and/or Less Accessible Urban Locations

- Sites in suburban development areas that do not meet proximity or accessibility criteria.
- Sites in small towns or villages.

Chapter 4 of the Design Standard for New Apartments sets out the quantum of car parking or the requirement for any such provision for apartment developments.

1) Central and/or Accessible Urban Locations

In larger scale and higher density developments, comprising wholly of apartments in more central locations that are well served by public transport, the default policy is for car parking provision to be minimised, substantially reduced, or wholly eliminated in certain circumstances. The policies above would be particularly applicable in highly accessible areas such as in or adjoining city cores or at a confluence of public transport systems such rail and bus stations located in proximity.

2) Intermediate Urban Locations

In suburban/urban locations served by public transport or close to town centres or employment areas and particularly for housing schemes with more than 45 dwellings per hectare net (18 per acre), planning authorities must consider a reduced overall car parking standard and apply an appropriate maximum car parking standard.

3) Peripheral and/or Less Accessible Urban Locations

As a benchmark guideline for apartments in relatively peripheral or less accessible urban locations, one car parking space per unit, together with an element of visitor parking, such as one space for every 3-4 apartments, should generally be required.

Based on the above description and considering the information in ***Chapter 3*** and ***4*** of this TTA, it is considered that the present development is located in a *Peripheral and/or Less Accessible Urban Locations.*

The nearest bus station is approximately 550m away, which is a 7-minute walk. However, the bus service is infrequent, with only 4 buses running between 7:00 and 9:00, connecting Portrait and Sword. During the same hours, there is only 1 bus runs between Donabate and Dublin (refer to ***Table 2***). The bus Connects projects, which will provide a bus (route L83) every 30 minutes during the AM and PM peak hours, will not provide a high frequency urban bus service.

Additionally, the train station is located approximately 650 metres away, which is a 9-minute walk. However, the frequency of the rail service is not high enough to be considered a high frequency commuter rail service (refer to ***Table 3***).

As a result, one space for every 3-4 apartments, should generally be required.

10.1.3 Fingal Development Plan 2023 – 2029 Standards

Standards for car parking in new developments are set out in Table 14.19 of the Fingal Development Plan 2023-2029 (FCC). The plan provides for the creation of two distinct parking zones to ensure adequate residential parking and to control destination parking. This approach also allows greater flexibility in the application of parking standards to sites in areas with varying levels of road and public transport provision. The areas defined by the Fingal Development Plan are:

- Zone 1: Relates to developments within 800m of Bus Connects spine route, or 1600m of an existing or planned Luas/Dart/Metro Rail station or within an area covered by a Section 49 scheme, or in lands zoned Major Town Centre.
- Zone 2: Relates to all other areas within the County.

This site is located approximately 650m east of Donabate train station, which is included in the DART+ North Coastal Route and therefore applies to *zone 1*. The car parking standards relevant to the proposed development are listed in Table below.

Land Use Category	Standard
Residential (1 – 2 Bedroom)	0.5 resident space per unit **maximum** without visitor spaces
Residential (3 – 3+Bedroom)	1 resident space per unit **maximum** without visitor spaces
Pre-school facilities/creche	0.5 spaces per classroom **maximum**

Table 27 **|** *Fingal Development Plan 2023 - 2029 - Car Parking Standards.*

Note that the table above includes all types of residential units, including traditional houses and multi-unit apartment schemes.

Table 28 below outlines the required parking for the proposed development based on the FCC standards set out in ***Table 27***.

Land Use	No. Units	Car Parking Spaces Required (max.)	
Type A 2-Bed 4-Person 2-Storey Terraced House	30	0.5 per unit	15
Type B 3-Bed 5-Person 2-Storey Terraced House	82	1 per unit	82
Type C 4-Bed 7-Person 1&2-Storey Terraced House (Adaptable/medical needs - GF Bedroom & LAS)	11	1 per unit	11
Type D 1-Bed 2-Person apartments	26	0.5 per unit	13
Type E 2-Bed 3-Person apartments	6	0.5 per unit	3
Type F 2-Bed 4-Person apartments (UD)	14	0.5 per unit	7
Type G 3-Bed 5-Person apartments (UD)	6	1 per unit	6
Creche	4 Classrooms	0.5 per classroom	2
	175 + Creche		**139**

Table 28 **|** *Fingal Development Plan 2023 - 2029 – Car Parking Spaces Required.*

The proposed development requires a total of 139 car parking spaces comprising of 137 spaces for residents, none for visitors and 2 parking spaces for the creche staff.

In addition to the above, the current Fingal Development Plan also sets out the following with regards to car parking:

- **Accessible Car Parking:** a minimum 5% of car parking spaces provided should be set aside for disabled car parking in non-residential developments.

- **Motorcycle Parking:** Parking spaces should be provided on the basis of one motorcycle parking bay per 10 car parking spaces provided for non-residential developments and apartment developments.
- **Electric Vehicle Parking:** All multi-unit residential developments shall incorporate EV charging points at 20% of the proposed parking spaces and appropriate infrastructure (e.g. ducting) to allow for future fit out of a charging point at all parking spaces.

10.1.4 Car parking proposed

Based on the guidelines/policies indicated above, it is considered that the *Fingal Development Plan 2023-2029 Standards* are the most restrictive standard for the subject development and is the reference for determining the proposed the car parking. Adhering to these standards will satisfy the requirements of other standards.

The proposed parking layout for the subject development is shown in the table below, and it meets the requirements of all applicable standards.

Land Use	No. Units	Car Parking Spaces Proposed FCC Standard	
Type A 2-Bed 4-Person 2-Storey Terraced House	30	0.5 per unit	15
Type B 3-Bed 5-Person 2-Storey Terraced House	82	1 per unit	82
Type C 4-Bed 7-Person 1&2-Storey Terraced House (Adaptable/medical needs - GF Bedroom & LAS)	11	1 per unit	11
Type D 1-Bed 2-Person apartments	26	0.5 per unit	13
Type E 2-Bed 3-Person apartments	6	0.5 per unit	3
Type F 2-Bed 4-Person apartments (UD)	14	0.5 per unit	7
Type G 3-Bed 5-Person apartments (UD)	6	1 per unit	6
Creche	4 Classrooms	0.5 per classroom	2
	175 + Creche		**139**

Table 29 **|** *Car Parking Spaces Proposed.*

The Subject Development proposes 137 parking spaces for residents, distributed evenly throughout the site for convenience and safety. While 47 no. spaces are in dedicated driveways, the majority are on-street.

The crèche has 2 no. parking (1 No. of which is a mobility-impaired/accessible space). In addition to the main parking area, are 3 no. designated spaces at the front (west) of the building for parents, guardians, or carers to drop off or collect children. These spaces are intended for parents, guardians, or carers to drop off or collect children and are not for long-term parking. Their purpose is to facilitate safe and easy access for children and prevent traffic congestion.

The proposal includes the following parking spaces:

- **Accessible Car Parking:** 4 accessible car parking spaces: 3 no. for general use and 1 no. for the creche.

- **Motorcycle Parking:** 6 motorcycle parking spaces: 4 no. for the apartments and 2 no. for the creche.
- **Electric Vehicle Parking:** 59 parking spaces: 47 driveway/in-curtilage spaces and 12 on-street/out-of-curtilage spaces will have EV charging capability, making up 43.1% of the total residential spaces (42.4% of over 139 total spaces), exceeding the 20% requirement set out in the Development Plan.

10.2 Cycle Parking

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

The Sustainable Residential Development and Compact Settlements Guidelines for Planning Authorities set national planning policy and guidance in relation to the planning and development of urban and rural settlements, with a focus on sustainable residential development and the creation of compact settlements.

The chapter *5.3.5 Bicycle Parking and Storage* indicate that in areas of high and medium accessibility, planning authorities must ensure that new residential developments have high quality cycle parking and cycle storage facilities for both residents and visitors. Access to secure storage of bicycles is a key concern for residents in more compact housing developments.

It is a specific planning policy requirement of these Guidelines that all new housing schemes (including mixed-use schemes that include housing) include safe and secure cycle storage facilities to meet the needs of residents and visitors. The following requirements for cycle parking and storage are recommended:

> (i) **Quantity** – in the case of residential units that do not have ground level open space or have smaller terraces, a general minimum standard of 1 cycle storage space per bedroom should be applied. Visitor cycle parking should also be provided. Any deviation from these standards shall be at the discretion of the planning authority and shall be justified with respect to factors such as location, quality of facilities proposed, flexibility for future enhancement/ enlargement, etc. It will be important to make provision for a mix of bicycle parking types including larger/heavier cargo and electric bikes and for individual lockers.
>
> (ii) **Design** – cycle storage facilities should be provided in a dedicated facility of permanent construction, within the building footprint or, where not feasible, within an adjacent or adjoining purpose-built structure of permanent construction. Cycle parking areas shall be designed so that cyclists feel safe. It is best practice that either secure cycle cage/compound or preferably locker facilities are provided.

For the bicycle parking proposal, the recommendations indicated above will be followed.

10.2.2 Sustainable Urban Housing: Design Standards for New Apartments (July 2023)

Only to have a reference for the number of cycle spaces associated with the plan "Sustainable Urban Housing: Design Standards for New Apartments' (DSNA) (July 2023 version), the parking requirements are assessed below. The following extract from the standard summarises the bicycle parking guidelines for new apartments:

> "*Quantity – a general minimum standard of 1 cycle storage space per bedroom shall be applied. For studio units, at least 1 cycle storage space shall be provided. Visitor cycle parking shall also be provided at a standard of 1 space per 2 residential units. Any deviation from these standards shall*

be at the discretion of the planning authority and shall be justified with respect to factors such as location, quality of facilities proposed, flexibility for future enhancement/enlargement, etc."

Based on the above, cycle parking required for the apartment units is set out below.

Land Use	No. Units	Standard (minimum) R + V	Cycle Parking Spaces Required		TOTAL
			Residents	Visitors	
Type A 2-Bed 4-Person 2-Storey Terraced House	30	2 + 0.5	60	15	75
Type B 3-Bed 5-Person 2-Storey Terraced House	82	3 + 0.5	246	41	287
Type C 4-Bed 7-Person 1&2-Storey Terraced House (Adaptable/medical needs - GF Bedroom & LAS)	11	4 + 0.5	44	6	50
Type D 1-Bed 2-Person apartments	26	1 + 0.5	26	13	29
Type E 2-Bed 3-Person apartments	6	2 + 0.5	12	3	15
Type F 2-Bed 4-Person apartments (UD	14	2 + 0.5	28	7	35
Type G 3-Bed 5-Person apartments (UD)	6	3 + 0.5	18	3	21
Creche	4 Classrooms	-	-	-	-
	175 + Creche		434	88	522

Table 30 | *Design Standards for New Apartments (July 2023) – Cycle Parking Spaces Required.*

10.2.3 Fingal Development Plan 2023 – 2029 Standards

Standards for cycle parking in new developments are set out in Table 14.17 of the Fingal Development plan 2023-2029. The cycle parking standards relevant to the proposed development are listed in the table below.

Land Use	Minimum Bicycle Parking Standard	
	Long-Stay	Short-Stay
Residential (1 – 2 Bedroom)	1 + 1 per bedroom	0.5 per unit (For apartment blocks only)
Residential (3 – 3+Bedroom)	2 + 1 per bedroom	0.5 per unit (For apartment blocks only)
Pre-school facilities/creche	1 per classroom	5 per classroom

Table 31 | *Fingal Development Plan 2023 - 2029 - Cycle Parking Standards.*

Table 32 below outlines the required cycle parking spaces for the proposed development based on FCC standards set out in ***Table 31***.

Land Use	No. Units	Standard (minimum) R + V	Cycle Parking Spaces Required		TOTAL
			Residents	Visitors	
Type A 2-Bed 4-Person 2-Storey Terraced House	30	3 + 0	90	0	90
Type B 3-Bed 5-Person 2-Storey Terraced House	57	5 + 0	285	0	285
Type B1 3-Bed 5-Person 2-Storey End-Terraced House	25	5 + 0	0	0	0
Type C 4-Bed 7-Person 1&2-Storey Terraced House (Adaptable/medical needs - GF Bedroom & LAS)	11	6 + 0	0	0	0
Type D 1-Bed 2-Person apartments	26	2 + 0.5	52	13	65
Type E 2-Bed 3-Person apartments	6	3 + 0.5	18	3	21
Type F 2-Bed 4-Person apartments (UD	14	3 + 0.5	42	7	49
Type G 3-Bed 5-Person apartments (UD)	6	5 + 0.5	30	3	33
Creche	4 Classrooms	1 + 5	4	20	24
	175 + Creche		521	46	567

Table 32 | *Fingal Development Plan 2023 - 2029 – Cycle Parking Spaces Required.*

10.2.4 Cycle parking proposed

Based on the guidelines/policies indicated above, it is considered that the *Fingal Development Plan 2023-2029 Standards* are the most restrictive standard for the subject development and is the reference for determining the proposed the cycle parking. Adhering to these standards will satisfy the requirements of other standards.

The ***Table 33*** below outlines the cycle parking spaces proposed to serve the subject development.

Land Use	No. Units	Cycle Parking Spaces Proposed FCC Standard		TOTAL
		Residents	Visitors	
Type A 2-Bed 4-Person 2-Storey Terraced House	30	90	0	90
Type B 3-Bed 5-Person 2-Storey Terraced House	57	285	0	285
Type B1 3-Bed 5-Person 2-Storey end-Terraced House	25	0	0	0
Type C 4-Bed 7-Person 1&2-Storey Terraced House (Adaptable/medical needs - GF Bedroom & LAS)	11	0	0	0
Type D 1-Bed 2-Person apartments	18	36	11	47
Type D1 1-Bed 2-Person apartments (UD)	8	16	4	20
Type E 2-Bed 3-Person apartments	6	18	3	21
Type F 2-Bed 4-Person apartments (UD	14	42	7	49
Type G 3-Bed 5-Person apartments (UD)	6	30	3	33
Creche	4 Classrooms	4	20	24
Public Open Space			42	42
	175 + Creche	521	90	611

Table 33 | *Cycle Parking Spaces Proposed.*

A total of 611 no. cycle parking spaces is proposed with 521 for resident and 90 for visitors.

It is considered that the end units, which are designed with private side access to rear gardens on one side, will be able to park their bicycles in the rear gardens of the units without having to pass through the interior of the houses.

11. Road Safety

11.1 Accidents

For the purposes of this chapter, the Road Safety Authority (RSA) collision database has been used. However, this database is not currently available online, so the information generated by other project developments was used. The period considered is 2005-2016. This review will assist to identify any potential safety concerns in relation to the existing road network. These incidents are categorised into class of severity, which includes minor, serious, or fatal collisions as shown in ***Figure 49*** below.

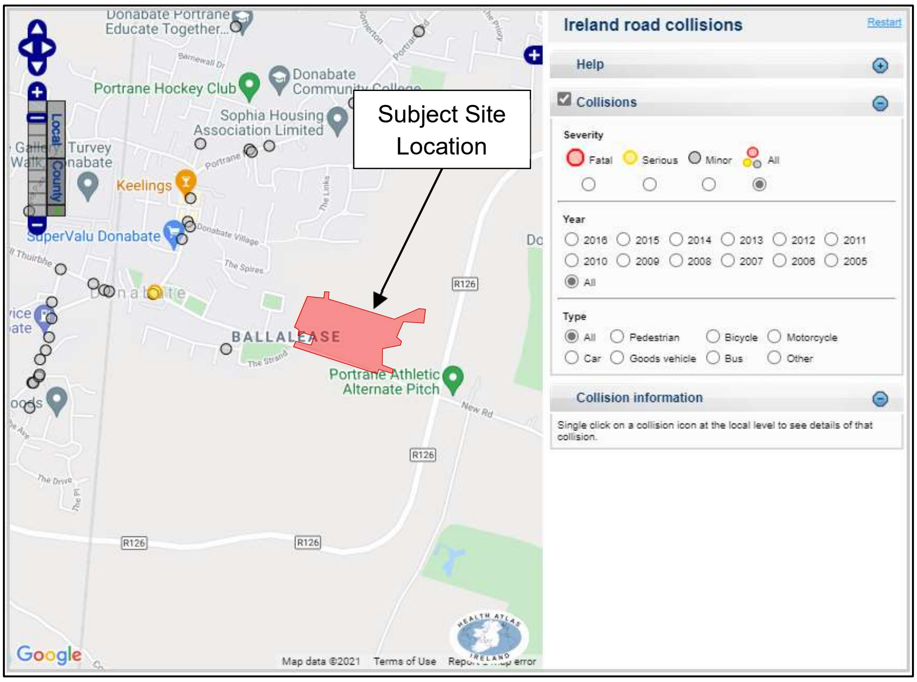

Figure 49 *| RSA Traffic Collision Data 2005 – 2016 (Source: RSA)*

The analysis showed that some minor and one serious incidents occurred in Donabate along the Main Street to the west of the proposed development site. A summary of the recorded serious incident is presented below.

Reference	Year	Vehicle	Circumstances	Day of Week	Times	Speed Limit
Serious	2005	Car	Single vehicle only	Saturday	03:00-07:00	50kph

Table 34 *| Summary of the Recorded Serious Collision (Source: RSA)*

11.2 Road Safety Audit

An independent Quality Audit (including a Road Safety Audit) has been carried out on the subject development.

The Quality Audit (QA) undertaken by *Bruton Consulting Engineers* is in accordance with DMURS and TII requirements.

The findings and associated recommendations of the audit process were issued in the final report dated March 2024. The full report is attached to the Waterman Moylan Drawing No. *23-129r.004 DMURS Report,* which is included in the documentation package.

The recommendations of the auditors have been incorporated into the final proposal presented for planning. The most significant amendment to the proposal included:

- Improve visibility of reversing drivers for units exiting onto New Road.
- Increase permeability of pedestrian/cycle links with other developments.
- Ensure sufficient protection for pedestrians and cyclists.

Whilst the site layout will still be subject to any specific planning conditions requested by the local road's authority during the planning process, the eventual layout will also be influenced by a Stage 2 Road Safety Audit during the detail design stage.

12. Summary and Conclusion

12.1 Summary

Waterman Moylan has been appointed by Fingal County Council to prepare this Traffic and Transport Assessment for a proposed residential development in Donabate, Co. Dublin.

The proposed development consists of a total of 175 no. units and a Creche with 365 sqm of area.

The site is bordered by a new development to the East, an ongoing development to the North, New Road to the South, and a consolidated urban area to the West. This report considers the impacts of these developments.

The site is located approximately 600-650 metres from Donabate town centre and associated public transport facilities such as bus stops on Main Street and Donabate Train Station.

Based on the current programme at the time of writing, the first units in the development are expected to be occupied in Q4 2025.

Access to the proposed development is project via two priority-controlled T-junction on New Road to the south of the site. A new cycle lane along the southern boundary of the site (on New Road) is proposed as part of the subject application and is in line with the future cycle network proposed under the GDA Cycle Network Plan.

12.2 Conclusion

Based on a thorough investigation, the TTA indicates the following:

Road Network Assessment

The following junctions were assessed as part of this TTA:

- **Location 1:** Located on New Road, west access within the subject development.
- **Location 2:** Located on New Road, east access within the subject development.
- **Location 3:** Junction between New Road and link to the east development.
- **Location 4:** Junction between New Road / R126 Donabate Distributor Road.

The junctions 1 and 2 are new three-armed priority-controlled junction located south of the proposed development site. Junction 3 is three-armed priority-controlled junction located to the east of the subject development site. These three junctions were analysed using Picady model. While Junction 4 is an existing signalized crossroads junction located east of the proposed development, this junction is based on its current configuration and was analysed using the Transyt model.

It was estimated that the proposed development will generate a total of 113 vehicle trips in the AM peak hour (37 inbound and 76 outbound) and a total of 131 vehicle trips in the PM peak hour (76 inbound and 55 outbound).

As part of the subject assessment the trip generation for some under-construction, permitted and potential future developments was also considered and included in the analysis.

The modelled scenarios are the following:

- **Base line 2022:** Traffic survey road network.
- **Do nothing 2025:** Base line 2022 + east development complete and north development phase 1, zones 1 and 2 finished.
- **Do nothing 2030:** Base line 2022 + With both east and north developments complete.
- **Do nothing 2040:** Base line 2022 + With both east and north developments complete.
- **Do something 2025:** Do nothing 2025 + subject development.
- **Do something 2030:** Do nothing 2030 + subject development.
- **Do something 2040:** Do nothing 2040 + subject development.

The analysis results for all Junctions indicate that they are currently operating within satisfactory capacity during both peak hours and would continue to do so for the 2040 Do Something scenario.

Public Transport Assessment

The proposed development will be ideally situated to benefit from a diverse range of public transport, bus and rail connections thereby providing very high levels of accessibility. Additionally, the range and proximity of future public transport services will, when implemented, further improve the accessibility of the proposed development.

The provision of additional footpaths and cycle lanes as indicated in The NTA's Cycle Network Plan for the Greater Dublin Area will enhance the attraction of walking and cycling in the vicinity of the proposed development.

The potential demand for public transport users will also be identified, based on existing statistical information, and considering current and surrounding developments. This information was used to analyse the impact on the existing public transport system. It was found that the relatively small additional demand for bus and rail services could be easily accommodated within existing services. As more services are created in the future as part of BusConnects DART+, there will be more than enough capacity on the further improved local services.

Parking Assessment

The proposed development has made provision for adequate and secure parking spaces in accordance with the *Sustainable Residential Development and Compact Settlements Guidelines for Planning Authorities (2024)*, the *Sustainable Urban Housing: Design Standards for New Apartments (July 2023)*, and the *Fingal Development Plan 2023 – 2029 Standards*.

As a result of the assessment, 139 No. car parking spaces, 4 No. parking bays, 6 No. motorcycle parking spaces and 611 No. cycle parking spaces are proposed.

Appendices

A. TRICS Trip Rates

Calculation Reference: AUDIT-561501-240209-0249

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
Category : A - HOUSES PRIVATELY OWNED
TOTAL VEHICLES

Selected regions and areas:

01	GREATER LONDON		
	BN	BARNET	1 days
02	SOUTH EAST		
	EX	ESSEX	1 days
	HC	HAMPSHIRE	1 days
04	EAST ANGLIA		
	NF	NORFOLK	3 days
11	SCOTLAND		
	AS	ABERDEENSHIRE	1 days
12	CONNAUGHT		
	GA	GALWAY	1 days

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

Primary Filtering selection:

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

Parameter: No of Dwellings
Actual Range: 123 to 143 (units:)
Range Selected by User: 123 to 150 (units:)

Parking Spaces Range: Selected: 150 to 350 Actual: 124 to 736

Parking Spaces per Dwelling Range: All Surveys Included

Bedrooms per Dwelling Range: Selected: 1 to 4.00 Actual: 2.50 to 4.00

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/02 to 29/09/22

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

Selected survey days:

Monday	2 days
Tuesday	1 days
Wednesday	4 days
Thursday	1 days

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

Selected survey types:

Manual count	7 days
Directional ATC Count	1 days

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

Selected Locations:

Edge of Town	6
Neighbourhood Centre (PPS6 Local Centre)	2

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

Selected Location Sub Categories:

Residential Zone	6
Village	1
No Sub Category	1

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

Inclusion of Servicing Vehicles Counts:

Servicing vehicles Included	1 days - Selected
Servicing vehicles Excluded	7 days - Selected

Secondary Filtering selection:

Use Class:

C3	8 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order (England) 2020 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 500m Range:
All Surveys Included

Secondary Filtering selection (Cont.):

Population within 1 mile:

1,001 to 5,000	4 days
5,001 to 10,000	1 days
20,001 to 25,000	2 days
25,001 to 50,000	1 days

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

Population within 5 miles:

5,001 to 25,000	3 days
50,001 to 75,000	1 days
100,001 to 125,000	1 days
125,001 to 250,000	1 days
250,001 to 500,000	1 days
500,001 or More	1 days

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

Car ownership within 5 miles:

0.6 to 1.0	2 days
1.1 to 1.5	6 days

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

Travel Plan:

Yes	5 days
No	3 days

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

PTAL Rating:

No PTAL Present	7 days
2 Poor	1 days

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

LIST OF SITES relevant to selection parameters

1 AS-03-A-02 MIXED HOUSES ABERDEENSHIRE
FARROCHIE ROAD
STONEHAVEN

Edge of Town
Residential Zone
Total No of Dwellings: 131
Survey date: WEDNESDAY 20/04/22 Survey Type: MANUAL

2 BN-03-A-03 MIXED HOUSES BARNET
SWEETS WAY
WHETSTONE

Neighbourhood Centre (PPS6 Local Centre)
Residential Zone
Total No of Dwellings: 133
Survey date: TUESDAY 10/09/19 Survey Type: MANUAL

3 EX-03-A-03 MIXED HOUSES ESSEX
KESTREL GROVE
RAYLEIGH

Edge of Town
Residential Zone
Total No of Dwellings: 123
Survey date: MONDAY 27/09/21 Survey Type: MANUAL

4 GA-03-A-01 SEMI DETACHED GALWAY
HEADFORD ROAD
GALWAY
KNOCKAYARRAGH
Edge of Town
No Sub Category
Total No of Dwellings: 123
Survey date: WEDNESDAY 20/09/06 Survey Type: MANUAL

5 HC-03-A-28 MIXED HOUSES & FLATS HAMPSHIRE
EAGLE AVENUE
WATERLOOVILLE
LOVEDEAN
Edge of Town
Residential Zone
Total No of Dwellings: 125
Survey date: MONDAY 08/11/21 Survey Type: MANUAL

6 NF-03-A-24 MIXED HOUSES & FLATS NORFOLK
HUNSTANTON ROAD
HUNSTANTON

Edge of Town
Residential Zone
Total No of Dwellings: 127
Survey date: WEDNESDAY 22/09/21 Survey Type: DIRECTIONAL ATC COUNT

7 NF-03-A-33 MIXED HOUSES NORFOLK
LONDON ROAD
ATTLEBOROUGH

Edge of Town
Residential Zone
Total No of Dwellings: 143
Survey date: THURSDAY 29/09/22 Survey Type: MANUAL

8 NF-03-A-43 MIXED HOUSES NORFOLK
MILL LANE
NEAR NORWICH
HORSFORD
Neighbourhood Centre (PPS6 Local Centre)
Village
Total No of Dwellings: 125
Survey date: WEDNESDAY 15/09/21 Survey Type: MANUAL

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

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
TOTAL VEHICLES
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	8	129	0.070	8	129	0.283	8	129	0.353
08:00 - 09:00	8	129	0.115	8	**129**	**0.355**	8	**129**	**0.470**
09:00 - 10:00	8	129	0.102	8	129	0.172	8	129	0.274
10:00 - 11:00	8	129	0.107	8	129	0.140	8	129	0.247
11:00 - 12:00	8	129	0.130	8	129	0.133	8	129	0.263
12:00 - 13:00	8	129	0.132	8	129	0.110	8	129	0.242
13:00 - 14:00	8	129	0.160	8	129	0.143	8	129	0.303
14:00 - 15:00	8	129	0.168	8	129	0.144	8	129	0.312
15:00 - 16:00	8	129	0.205	8	129	0.186	8	129	0.391
16:00 - 17:00	8	129	0.255	8	129	0.154	8	129	0.409
17:00 - 18:00	8	**129**	**0.301**	8	129	0.162	8	129	0.463
18:00 - 19:00	8	129	0.265	8	129	0.130	8	129	0.395
19:00 - 20:00	1	133	0.203	1	133	0.060	1	133	0.263
20:00 - 21:00	1	133	0.105	1	133	0.015	1	133	0.120
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.318			2.187			4.505

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

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

Parameter summary

Trip rate parameter range selected:	123 - 143 (units:)
Survey date date range:	01/01/02 - 29/09/22
Number of weekdays (Monday-Friday):	8
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

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

Calculation Reference: AUDIT-561501-240209-0231

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
Category : C - FLATS PRIVATELY OWNED

TOTAL VEHICLES

Selected regions and areas:

01	GREATER LONDON		
	BN	BARNET	1 days
	HG	HARINGEY	1 days
04	EAST ANGLIA		
	NF	NORFOLK	1 days
	PB	PETERBOROUGH	1 days
05	EAST MIDLANDS		
	DY	DERBY	1 days
11	SCOTLAND		
	SA	SOUTH AYRSHIRE	1 days

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

Primary Filtering selection:

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

Parameter: No of Dwellings
Actual Range: 30 to 51 (units:)
Range Selected by User: 30 to 69 (units:)

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: All Surveys Included

Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/09 to 09/06/22

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

Selected survey days:

Tuesday	2 days
Wednesday	2 days
Thursday	2 days

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

Selected survey types:

Manual count	6 days
Directional ATC Count	0 days

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

Selected Locations:

Edge of Town Centre	2
Suburban Area (PPS6 Out of Centre)	3
Neighbourhood Centre (PPS6 Local Centre)	1

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

Selected Location Sub Categories:

Residential Zone	4
Built-Up Zone	1
No Sub Category	1

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

Inclusion of Servicing Vehicles Counts:

Servicing vehicles Included	2 days - Selected
Servicing vehicles Excluded	4 days - Selected

Secondary Filtering selection:

Use Class:

C3	6 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order (England) 2020 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 500m Range:
All Surveys Included

Secondary Filtering selection (Cont.):

Population within 1 mile:

10,001 to 15,000	2 days
20,001 to 25,000	2 days
25,001 to 50,000	1 days
50,001 to 100,000	1 days

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

Population within 5 miles:

50,001 to 75,000	2 days
125,001 to 250,000	1 days
250,001 to 500,000	1 days
500,001 or More	2 days

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

Car ownership within 5 miles:

0.6 to 1.0	3 days
1.1 to 1.5	3 days

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

Travel Plan:

No	6 days

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

PTAL Rating:

No PTAL Present	4 days
3 Moderate	1 days
4 Good	1 days

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

LIST OF SITES relevant to selection parameters

1 BN-03-C-01 FLATS IN HOUSES BARNET
VICTORIA ROAD
NEW BARNET

Neighbourhood Centre (PPS6 Local Centre)
Residential Zone
Total No of Dwellings: 33
Survey date: THURSDAY 09/06/22 Survey Type: MANUAL

2 DY-03-C-03 BLOCKS OF FLATS DERBY
CAESAR STREET
DERBY

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 30
Survey date: WEDNESDAY 25/09/19 Survey Type: MANUAL

3 HG-03-C-02 BLOCK OF FLATS HARINGEY
HIGH ROAD
WOOD GREEN
WOODSIDE PARK
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 30
Survey date: WEDNESDAY 01/10/14 Survey Type: MANUAL

4 NF-03-C-01 BLOCKS OF FLATS NORFOLK
PAGE STAIR LANE
KING'S LYNN

Edge of Town Centre
Built-Up Zone
Total No of Dwellings: 51
Survey date: THURSDAY 11/12/14 Survey Type: MANUAL

5 PB-03-C-02 BLOCK OF FLATS PETERBOROUGH
WESTFIELD ROAD
PETERBOROUGH
NETHERTON
Suburban Area (PPS6 Out of Centre)
No Sub Category
Total No of Dwellings: 44
Survey date: TUESDAY 18/10/11 Survey Type: MANUAL

6 SA-03-C-01 BLOCK OF FLATS SOUTH AYRSHIRE
RACECOURSE ROAD
AYR

Edge of Town Centre
Residential Zone
Total No of Dwellings: 51
Survey date: TUESDAY 16/09/14 Survey Type: MANUAL

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

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED
TOTAL VEHICLES
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	6	40	0.046	6	40	0.079	6	40	0.125
08:00 - 09:00	6	40	0.038	6	40	0.146	6	40	0.184
09:00 - 10:00	6	40	0.071	6	40	0.088	6	40	0.159
10:00 - 11:00	6	40	0.117	6	40	0.117	6	40	0.234
11:00 - 12:00	6	40	0.092	6	40	0.113	6	40	0.205
12:00 - 13:00	6	40	0.092	6	40	0.084	6	40	0.176
13:00 - 14:00	6	40	0.079	6	40	0.105	6	40	0.184
14:00 - 15:00	6	40	0.092	6	40	0.105	6	40	0.197
15:00 - 16:00	6	40	0.121	6	40	0.100	6	40	0.221
16:00 - 17:00	6	40	0.126	6	40	0.079	6	40	0.205
17:00 - 18:00	6	40	0.197	6	40	0.105	6	40	0.302
18:00 - 19:00	6	40	0.130	6	40	0.079	6	40	0.209
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.201			1.200			2.401

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

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

Parameter summary

Trip rate parameter range selected:	30 - 51 (units:)
Survey date date range:	01/01/09 - 09/06/22
Number of weekdays (Monday-Friday):	6
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

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

Calculation Reference: AUDIT-561501-240209-0218

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 04 - EDUCATION
Category : D - NURSERY
TOTAL VEHICLES

Selected regions and areas:

05	EAST MIDLANDS		
	NN	NORTH NORTHAMPTONSHIRE	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE		
	DR	DONCASTER	1 days

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

Primary Filtering selection:

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

Parameter:	Gross floor area
Actual Range:	850 to 1250 (units: sqm)
Range Selected by User:	850 to 1250 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/15 to 07/06/22

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

Selected survey days:

Tuesday	1 days
Friday	1 days

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

Selected survey types:

Manual count	2 days
Directional ATC Count	0 days

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

Selected Locations:
Suburban Area (PPS6 Out of Centre) 2

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

Selected Location Sub Categories:
Residential Zone 2

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

Inclusion of Servicing Vehicles Counts:

Servicing vehicles Included	2 days - Selected
Servicing vehicles Excluded	X days - Selected

Secondary Filtering selection:

Use Class:
E(f) 2 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order (England) 2020 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 500m Range:
All Surveys Included
Population within 1 mile:

10,001 to 15,000	1 days
25,001 to 50,000	1 days

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

Secondary Filtering selection (Cont.):

Population within 5 miles:

25,001 to 50,000	1 days
75,001 to 100,000	1 days

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

Car ownership within 5 miles:

0.6 to 1.0	1 days
1.1 to 1.5	1 days

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

Travel Plan:

No	2 days

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

PTAL Rating:

No PTAL Present	2 days

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

LIST OF SITES relevant to selection parameters

1 DR-04-D-01 NURSERY DONCASTER
BAWTRY ROAD
DONCASTER

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Gross floor area: 1250 sqm
Survey date: FRIDAY 13/05/22 Survey Type: MANUAL

2 NN-04-D-01 NURSERY NORTH NORTHAMPTONSHIRE
ROCKINGHAM ROAD
KETTERING

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Gross floor area: 850 sqm
Survey date: TUESDAY 07/06/22 Survey Type: MANUAL

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

TRIP RATE for Land Use 04 - EDUCATION/D - NURSERY
TOTAL VEHICLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	2	1050	1.667	2	1050	0.524	2	1050	2.191
08:00 - 09:00	2	**1050**	**2.000**	2	1050	1.333	2	1050	3.333
09:00 - 10:00	2	1050	0.571	2	1050	0.524	2	1050	1.095
10:00 - 11:00	2	1050	0.143	2	1050	0.095	2	1050	0.238
11:00 - 12:00	2	1050	0.048	2	1050	0.048	2	1050	0.096
12:00 - 13:00	2	1050	0.762	2	1050	0.810	2	1050	1.572
13:00 - 14:00	2	1050	0.810	2	1050	1.048	2	1050	1.858
14:00 - 15:00	2	1050	0.190	2	1050	0.333	2	1050	0.523
15:00 - 16:00	2	1050	0.286	2	1050	0.286	2	1050	0.572
16:00 - 17:00	2	1050	0.429	2	1050	0.667	2	1050	1.096
17:00 - 18:00	2	1050	1.286	2	**1050**	**2.143**	2	**1050**	**3.429**
18:00 - 19:00	2	1050	0.048	2	1050	0.476	2	1050	0.524
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			8.240			8.287			16.527

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

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

Parameter summary

Trip rate parameter range selected:	850 - 1250 (units: sqm)
Survey date date range:	01/01/15 - 07/06/22
Number of weekdays (Monday-Friday):	2
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

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

B. Traffic Survey Results

IDASO
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Email: info@idaso.ie
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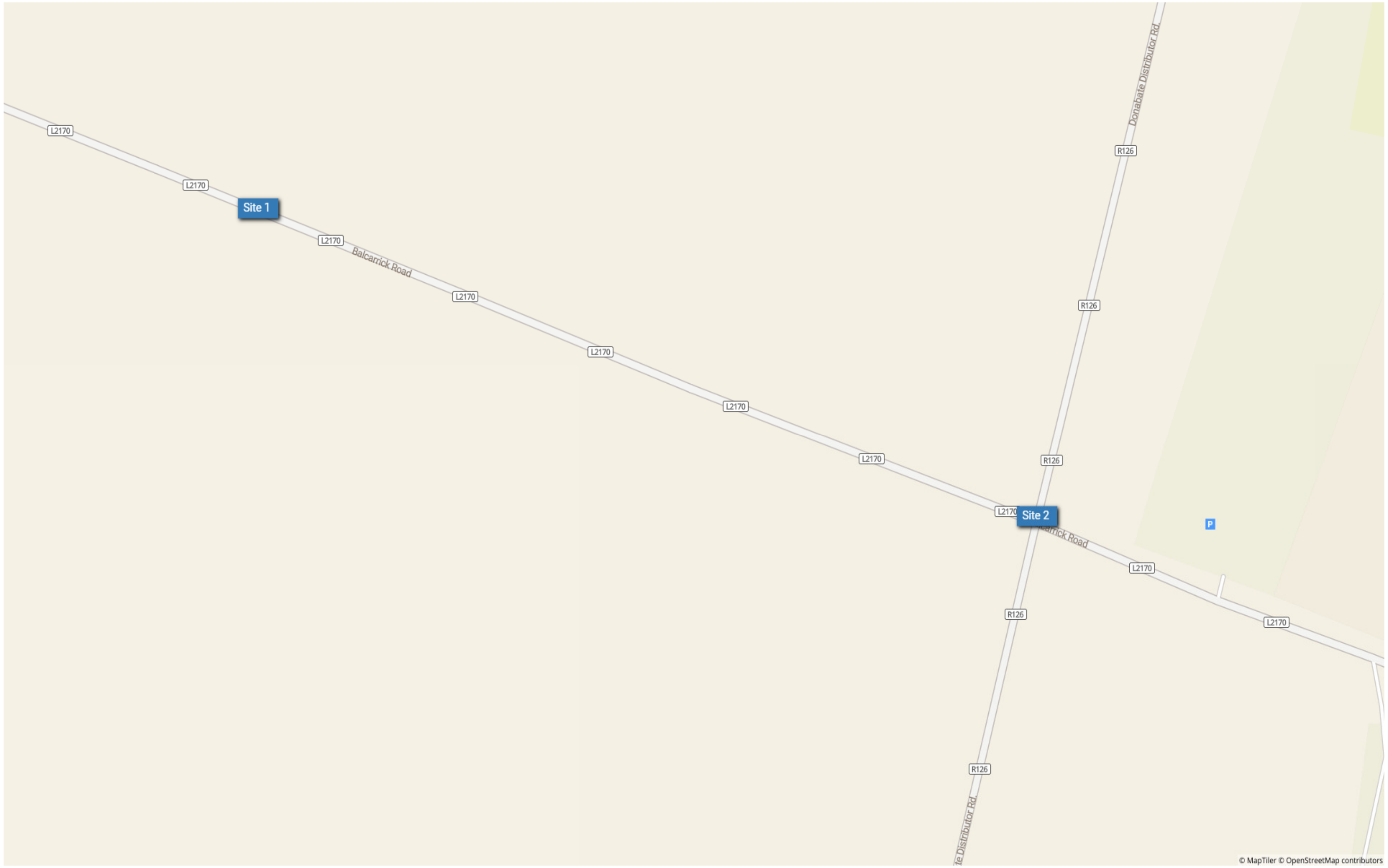
Data Analysis Services
Traffic-Transportation- Commercial-Innovation

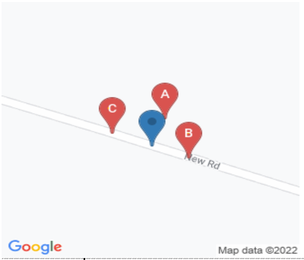
004 (22)21491 - Donabate Traffic Survey

with compliments

IDASO

Survey Name: 004 (22)21491 - Donabate Traffic Survey
Date: Tue 11 Jan 2022





IDASO

Survey Name: 004 (22)21491 - Donabate Traffic Survey
Site: Site 1
Location: Unnamed Road/New Road
Date: Tue 11-Jan-2022

	A => A										A => B										A => C										B => A									
TIME	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU
00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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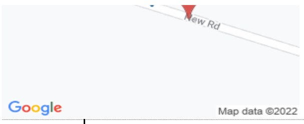

	A => A										A => B										A => C										B => A									
TIME	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24 TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1.5	0	0	0	0	0	0	0	0	0	0

B => B										B => C										C => A										C => B										C => C									
P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU
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B => B										B => C										C => A										C => B										C => C									
P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU
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0	0	0	0	0	0	0	0	0	0	2	1	54	0	12	4	0	0	73	72.8	0	0	0	0	0	0	0	0	0	0	4	0	54	0	10	3	1	0	72	71.6	0	0	0	0	0	0	0	0	0	0
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0	0	0	0	0	0	0	0	0	0	0	1	18	1	0	1	0	0	21	20.9	0	0	0	0	0	1	0	0	1	1.5	0	0	19	0	0	0	0	0	19	19	0	0	0	0	0	0	0	0	0	0
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0	0	0	0	0	0	0	0	0	0	0	0	25	0	4	0	0	0	29	29	0	0	0	0	0	0	0	0	0	0	2	0	21	0	0	1	1	0	25	25.2	0	0	0	0	0	0	0	0	0	0
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0	0	0	0	0	0	0	0	0	0	28	3	1000	8	100	21	1	0	1161	1148.6	0	0	0	0	0	1	0	0	1	1.5	32	1	950	7	99	13	5	0	1107	1093.8	0	0	0	0	0	0	0	0	0	0

IDASO

Survey Name:	004 (22)21491 - Donabate Traffic Survey
Site:	Site 2
Location:	R126 New Donabate Distributor Road/New Road
Date:	Tue 11-Jan-2022

	A => A										A => B									
TIME	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU
00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:45	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1
03:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:30	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	2	1.2
06:45	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1
H/TOT	0	0	0	0	0	0	0	0	0	0	1	0	2	0	0	0	0	0	3	2.2
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1
07:30	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	2
07:45	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	2
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	5	5
08:00	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	2
08:15	0	0	0	0	0	0	0	0	0	0	0	0	5	0	1	1	0	0	7	7.5
08:30	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	9	9
08:45	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0	7	7
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	23	0	1	1	0	0	25	25.5
09:00	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	6	6
09:15	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3	3
09:30	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	2	1.2
09:45	0	0	0	0	0	0	0	0	0	0	1	0	2	0	0	0	0	0	3	2.2
H/TOT	0	0	0	0	0	0	0	0	0	0	2	0	12	0	0	0	0	0	14	12.4
10:00	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1
10:15	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	4	4
10:30	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	2
10:45	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	5	5
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0	0	0	0	12	12
11:00	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3	3
11:15	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1
11:30	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3	3
11:45	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	0	0	0	3	3
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	8	0	2	0	0	0	10	10
12:00	0	0	0	0	0	0	0	0	0	0	1	0	4	0	0	0	0	0	5	4.2
12:15	0	0	0	0	0	0	0	0	0	0	0	0	4	0	1	0	0	0	5	5
12:30	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	2
12:45	0	0	0	0	0	0	0	0	0	0	1	0	4	0	0	0	0	0	5	4.2
H/TOT	0	0	0	0	0	0	0	0	0	0	2	0	14	0	1	0	0	0	17	15.4
13:00	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	4	4
13:15	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	5	5
13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:45	0	0	0	0	0	0	0	0	0	0	1	1	3	0	0	0	0	0	5	3.6

	A => C										A => D									
TIME	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU
00:00	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1
00:15	0	0	2	0	0	0	0	1	3	4	0	0	0	0	0	0	0	0	0	0
00:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	2	0	0	0	0	1	3	4	0	0	1	0	0	0	0	0	1	1
01:00	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
01:15	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
01:30	0	0	2	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0
01:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	4	0	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	1	0	0	1	1.5	0	0	0	0	0	0	0	0	0	0
03:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	1	0	0	1	1.5	0	0	0	0	0	0	0	0	0	0
04:00	0	0	1	0	1	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0
04:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30	0	0	0	1	1	0	0	0	2	2	0	0	1	0	0	0	0	0	1	1
04:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	1	1	2	0	0	0	4	4	0	0	1	0	0	0	0	0	1	1
05:00	0	0	2	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0
05:15	0	0	3	0	1	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0
05:30	0	0	1	0	0	0	0	0	1	1	0	0	1	0	0	0	0	0	1	1
05:45	0	0	4	0	1	0	0	0	5	5	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	10	0	2	0	0	0	12	12	0	0	1	0	0	0	0	0	1	1
06:00	0	0	4	0	2	0	0	0	6	6	0	0	1	0	0	0	0	0	1	1
06:15	0	0	3	0	0	0	0	0	3	3	0	0	1	0	0	0	0	0	1	1
06:30	0	0	7	0	1	0	0	0	8	8	0	0	1	0	2	0	0	0	3	3
06:45	0	0	10	0	3	1	0	0	14	14.5	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	24	0	6	1	0	0	31	31.5	0	0	3	0	2	0	0	0	5	5
07:00	0	0	20	0	5	0	0	0	25	25	0	0	1	0	0	0	0	0	1	1
07:15	0	0	17	0	4	1	0	0	22	22.5	1	1	6	0	0	0	0	0	8	6.6
07:30	0	0	23	0	1	0	0	0	24	24	0	0	8	0	1	0	0	0	9	9
07:45	0	0	23	0	3	2	0	0	28	29	0	0	4	0	0	0	0	0	4	4
H/TOT	0	0	83	0	13	3	0	0	99	100.5	1	1	19	0	1	0	0	0	22	20.6
08:00	0	0	28	0	3	0	0	0	31	31	0	0	4	0	2	0	0	0	6	6
08:15	0	0	26	0	1	0	0	0	27	27	0	0	11	1	0	1	0	0	13	13.5
08:30	0	0	26	0	6	0	0	1	33	34	0	0	6	0	0	0	0	0	6	6
08:45	0	0	17	0	3	0	0	0	20	20	0	0	15	0	2	0	0	0	17	17
H/TOT	0	0	97	0	13	0	0	1	111	112	0	0	36	1	4	1	0	0	42	42.5
09:00	0	0	15	0	3	0	0	0	18	18	0	0	11	0	1	0	0	0	12	12
09:15	0	0	13	0	5	3	0	0	21	22.5	1	0	5	0	0	1	0	0	7	6.7
09:30	0	0	19	0	2	1	0	0	22	22.5	0	0	2	0	1	1	0	0	4	4.5
09:45	0	0	8	0	1	1	0	0	10	10.5	0	0	3	0	1	0	0	0	4	4
H/TOT	0	0	55	0	11	5	0	0	71	73.5	1	0	21	0	3	2	0	0	27	27.2
10:00	0	0	11	0	2	2	0	0	15	16	0	0	3	0	2	0	0	0	5	5
10:15	0	0	12	0	5	0	0	0	17	17	0	0	2	0	0	1	0	0	3	3.5
10:30	0	0	16	0	3	0	0	0	19	19	0	0	5	0	2	0	0	0	7	7
10:45	0	0	18	0	1	0	0	0	19	19	0	0	2	0	1	1	0	0	4	4.5
H/TOT	0	0	57	0	11	2	0	0	70	71	0	0	12	0	5	2	0	0	19	20
11:00	0	0	16	0	0	1	0	0	17	17.5	0	1	3	0	2	1	0	0	7	6.9
11:15	0	0	12	0	0	0	0	0	12	12	0	0	3	0	0	0	0	0	3	3
11:30	0	0	13	0	4	0	1	0	18	19.3	0	0	4	0	0	2	0	0	6	7
11:45	0	0	16	0	1	1	0	0	18	18.5	0	0	1	0	1	0	0	0	2	2
H/TOT	0	0	57	0	5	2	1	0	65	67.3	0	1	11	0	3	3	0	0	18	18.9
12:00	0	0	16	0	3	1	0	0	20	20.5	0	0	8	0	3	1	0	0	12	12.5
12:15	1	0	19	0	5	0	0	0	25	24.2	0	0	6	1	1	0	0	0	8	8
12:30	0	0	14	1	0	0	0	0	15	15	0	0	5	0	0	0	0	0	5	5
12:45	0	0	22	0	1	2	1	0	26	28.3	2	0	5	0	0	0	0	0	7	5.4
H/TOT	1	0	71	1	9	3	1	0	86	88	2	0	24	1	4	1	0	0	32	30.9
13:00	0	0	13	0	0	0	0	0	13	13	0	0	1	0	3	0	0	0	4	4
13:15	0	0	16	0	1	1	0	0	18	18.5	0	0	2	0	2	0	0	0	4	4
13:30	0	0	16	0	2	0	0	0	18	18	0	0	5	0	1	1	0	0	7	7.5
13:45	0	0	15	1	0	3	0	0	19	20.5	0	0	9	0	0	0	0	0	9	9

	B => A											
TIME	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C
00:00	0	0	0	0	0	0	0	0	0	0	0	0
00:15	0	0	0	0	0	0	0	0	0	0	0	0
00:30	0	0	0	0	0	0	0	0	0	0	0	0
00:45	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0	0	0	0
01:15	0	0	0	0	0	0	0	0	0	0	0	0
01:30	0	0	0	0	0	0	0	0	0	0	0	0
01:45	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0
02:15	0	0	0	0	0	0	0	0	0	0	0	0
02:30	0	0	0	0	0	0	0	0	0	0	0	0
02:45	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0
03:15	0	0	0	0	0	0	0	0	0	0	0	0
03:30	0	0	0	0	0	0	0	0	0	0	0	0
03:45	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	0	0	0	0	0	0
04:15	0	0	0	0	0	0	0	0	0	0	0	0
04:30	0	0	0	0	0	0	0	0	0	0	0	0
04:45	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	0	0	0	0	0	0	0	0	0	0	0
05:15	0	0	0	0	0	0	0	0	0	0	0	0
05:30	0	0	0	0	0	0	0	0	0	0	0	0
05:45	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0
06:00	0	0	0	0	0	0	0	0	0	0	0	0
06:15	0	0	0	0	0	0	0	0	0	0	0	0
06:30	0	0	0	0	0	0	0	0	0	0	0	0
06:45	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0
07:00	0	0	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0
08:00	0	0	2	0	0	0	0	0	2	2	0	0
08:15	0	0	8	0	0	0	0	0	8	8	0	0
08:30	1	0	5	0	0	0	0	0	6	5.2	0	0
08:45	0	0	6	0	0	0	0	0	6	6	0	0
H/TOT	1	0	21	0	0	0	0	0	22	21.2	0	0
09:00	0	0	2	0	0	0	0	0	2	2	0	0
09:15	0	0	0	0	1	0	0	0	1	1	0	0
09:30	0	0	1	0	0	0	0	0	1	1	0	0
09:45	0	0	2	0	0	0	0	0	2	2	0	0
H/TOT	0	0	5	0	1	0	0	0	6	6	0	0
10:00	0	0	1	0	0	0	0	0	1	1	0	0
10:15	1	0	5	0	0	0	0	0	6	5.2	0	0
10:30	0	0	2	0	0	0	0	0	2	2	0	0
10:45	0	0	0	0	1	0	0	0	1	1	0	0
H/TOT	1	0	8	0	1	0	0	0	10	9.2	0	0
11:00	0	0	2	0	0	0	0	0	2	2	0	0
11:15	0	0	2	0	0	0	0	0	2	2	0	0
11:30	0	0	9	0	0	0	0	0	9	9	0	0
11:45	2	0	4	0	0	0	0	0	6	4.4	0	0
H/TOT	2	0	17	0	0	0	0	0	19	17.4	0	0
12:00	0	0	4	0	0	0	0	0	4	4	0	0
12:15	0	0	1	0	2	0	0	0	3	3	0	0
12:30	0	0	3	0	1	0	0	0	4	4	0	0
12:45	0	0	2	0	0	0	0	0	2	2	0	0
H/TOT	0	0	10	0	3	0	0	0	13	13	0	0
13:00	0	0	4	0	0	0	0	0	4	4	0	0
13:15	0	0	3	0	0	0	0	0	3	3	0	0
13:30	0	0	3	0	0	0	0	0	3	3	0	0
13:45	0	0	4	0	0	0	0	0	4	4	0	0

IDASO

Survey Name: 004 (22)21491 - Donabate Traffic Survey
Site: Site 2
Location: R126 New Donabate Distributor Road/New Road
Date: Tue 11-Jan-2022

	A => A										A => B									
TIME	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU
H/TOT	0	0	0	0	0	0	0	0	0	0	1	1	12	0	0	0	0	0	14	12.6
14:00	0	0	0	0	0	0	0	0	0	0	0	0	4	0	1	0	0	0	5	5
14:15	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3	3
14:30	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	6	6
14:45	0	0	0	0	0	0	0	0	0	0	0	0	4	0	1	0	0	0	5	5
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	17	0	2	0	0	0	19	19
15:00	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	1	0	0	6	6.5
15:15	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	8	8
15:30	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3	3
15:45	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	4	4
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	20	0	0	1	0	0	21	21.5
16:00	0	0	0	0	0	0	0	0	0	0	1	0	3	0	0	0	0	0	4	3.2
16:15	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	5	5
16:30	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1
16:45	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1	0	0	0	3	3
H/TOT	0	0	0	0	0	0	0	0	0	0	1	0	11	0	1	0	0	0	13	12.2
17:00	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1	0	0	0	3	3
17:15	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1
17:30	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	2
17:45	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	6	0	1	0	0	0	7	7
18:00	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	5	5
18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	4	4
18:45	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	4	4
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	13	0	0	0	0	0	13	13
19:00	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1	0	0	0	3	3
19:15	0	0	0	0	0	0	0	0	0	0	1	0	2	0	0	0	0	0	3	2.2
19:30	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	2
19:45	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	2
H/TOT	0	0	0	0	0	0	0	0	0	0	1	0	8	0	1	0	0	0	10	9.2
20:00	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	2
20:15	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3	3
20:30	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	2
20:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0	7	7
21:00	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	2
21:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:45	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3	3
22:00	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0.2
22:15	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1
22:30	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1
22:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	1	0	2	0	0	0	0	0	3	2.2
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
23:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
24 TOT	0	0	0	0	0	0	0	0	0	0	9	1	177	0	10	2	0	0	199	192.2

	A => C										A => D									
TIME	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU
H/TOT	0	0	60	1	3	4	0	0	68	70	0	0	17	0	6	1	0	0	24	24.5
14:00	0	0	13	1	2	0	0	0	16	16	0	0	7	0	1	1	0	0	9	9.5
14:15	0	0	7	0	3	1	0	1	12	13.5	2	0	3	0	0	0	0	0	5	3.4
14:30	0	0	10	1	1	2	0	0	14	15	0	0	11	0	0	0	0	0	11	11
14:45	0	0	28	0	2	0	0	0	30	30	0	0	8	0	0	0	0	0	8	8
H/TOT	0	0	58	2	8	3	0	1	72	74.5	2	0	29	0	1	1	0	0	33	31.9
15:00	1	0	22	0	3	0	1	0	27	27.5	0	0	10	0	0	1	0	0	11	11.5
15:15	0	0	21	1	4	0	1	1	28	30.3	0	0	8	0	1	0	0	0	9	9
15:30	0	0	23	0	0	0	0	0	23	23	0	0	5	0	0	0	0	0	5	5
15:45	0	0	14	0	2	0	0	0	16	16	0	1	3	1	0	0	0	0	5	4.4
H/TOT	1	0	80	1	9	0	2	1	94	96.8	0	1	26	1	1	1	0	0	30	29.9
16:00	1	0	25	1	5	1	1	0	34	35	0	0	8	0	2	0	0	0	10	10
16:15	1	0	17	1	8	0	0	0	27	26.2	0	0	5	0	0	0	0	0	5	5
16:30	0	0	19	0	6	0	0	1	26	27	0	0	7	0	3	0	0	0	10	10
16:45	0	0	21	1	0	0	0	0	22	22	0	0	11	0	2	0	0	0	13	13
H/TOT	2	0	82	3	19	1	1	1	109	110.2	0	0	31	0	7	0	0	0	38	38
17:00	2	0	26	0	1	0	0	0	29	27.4	0	0	10	0	0	0	0	0	10	10
17:15	0	0	17	0	3	0	0	0	20	20	0	0	6	0	0	0	0	0	6	6
17:30	0	0	19	0	1	0	0	0	20	20	0	0	10	0	0	0	0	0	10	10
17:45	0	0	4	0	1	0	0	0	5	5	0	0	13	0	0	0	0	0	13	13
H/TOT	2	0	66	0	6	0	0	0	74	72.4	0	0	39	0	0	0	0	0	39	39
18:00	0	0	13	0	2	0	0	0	15	15	0	0	14	0	0	0	0	0	14	14
18:15	0	0	16	0	2	0	0	1	19	20	0	0	5	0	0	0	0	0	5	5
18:30	0	0	14	0	0	0	0	0	14	14	0	0	10	0	0	0	0	0	10	10
18:45	0	0	7	0	1	0	0	0	8	8	0	0	4	0	0	0	0	0	4	4
H/TOT	0	0	50	0	5	0	0	1	56	57	0	0	33	0	0	0	0	0	33	33
19:00	0	0	12	0	1	0	0	0	13	13	0	0	26	1	0	0	0	0	27	27
19:15	0	0	8	0	1	0	0	0	9	9	0	0	4	0	0	0	0	0	4	4
19:30	0	0	9	0	0	0	0	0	9	9	0	0	12	0	0	0	0	0	12	12
19:45	1	0	10	0	1	0	0	0	12	11.2	0	0	13	0	0	0	0	0	13	13
H/TOT	1	0	39	0	3	0	0	0	43	42.2	0	0	55	1	0	0	0	0	56	56
20:00	0	0	10	0	1	0	0	0	11	11	0	0	9	0	0	0	0	0	9	9
20:15	0	0	8	0	0	0	0	0	8	8	0	0	9	0	0	0	0	0	9	9
20:30	0	0	10	0	0	0	0	0	10	10	0	0	3	0	1	0	0	0	4	4
20:45	0	0	2	0	0	0	0	0	2	2	0	0	3	0	0	0	0	0	3	3
H/TOT	0	0	30	0	1	0	0	0	31	31	0	0	24	0	1	0	0	0	25	25
21:00	0	0	7	0	1	0	0	0	8	8	0	0	4	0	0	0	0	0	4	4
21:15	0	0	6	0	1	0	0	0	7	7	0	0	1	0	0	0	0	0	1	1
21:30	0	0	9	0	0	0	0	0	9	9	0	0	11	0	0	0	0	0	11	11
21:45	0	0	4	0	0	0	0	0	4	4	0	0	6	0	1	0	0	0	7	7
H/TOT	0	0	26	0	2	0	0	0	28	28	0	0	22	0	1	0	0	0	23	23
22:00	0	0	4	0	0	0	0	0	4	4	1	0	9	0	0	0	0	0	10	9.2
22:15	0	1	7	0	0	0	0	0	8	7.4	0	0	0	0	0	0	0	0	0	0
22:30	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1
22:45	0	0	1	0	1	0	0	0	2	2	0	0	1	0	0	0	0	0	1	1
H/TOT	0	1	12	0	1	0	0	0	14	13.4	1	0	11	0	0	0	0	0	12	11.2
23:00	0	0	3	0	0	0	0	0	3	3	0	0	4	0	0	0	0	0	4	4
23:15	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
23:30	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1
23:45	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	5	0	0	0	0	0	5	5	0	0	5	0	0	0	0	0	5	5
24 TOT	7	1	970	9	129	25	5	6	1152	1170.8	7	3	421	4	39	12	0	0	486	484.6

	B => A											
TIME	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C
H/TOT	0	0	14	0	0	0	0	0	14	14	0	0
14:00	0	0	6	0	0	0	0	0	6	6	0	0
14:15	0	0	2	0	0	0	0	0	2	2	0	0
14:30	0	0	7	0	0	0	0	0	7	7	0	0
14:45	0	0	4	0	0	0	0	0	4	4	0	0
H/TOT	0	0	19	0	0	0	0	0	19	19	0	0
15:00	0	0	3	0	0	0	0	0	3	3	0	0
15:15	0	0	3	0	0	0	0	0	3	3	0	0
15:30	0	0	5	1	0	0	0	0	6	6	0	0
15:45	0	0	5	0	0	0	0	0	5	5	0	0
H/TOT	0	0	16	1	0	0	0	0	17	17	0	0
16:00	0	0	4	0	2	0	0	0	6	6	0	0
16:15	1	0	7	0	0	0	0	0	8	7.2	0	0
16:30	0	0	2	0	0	0	0	0	2	2	0	0
16:45	0	0	3	0	0	0	0	0	3	3	0	0
H/TOT	1	0	16	0	2	0	0	0	19	18.2	0	0
17:00	0	0	7	0	1	0	0	0	8	8	0	0
17:15	0	0	4	0	1	0	0	0	5	5	0	0
17:30	0	0	4	0	0	0	0	0	4	4	0	0
17:45	0	0	2	0	0	0	0	0	2	2	0	0
H/TOT	0	0	17	0	2	0	0	0	19	19	0	0
18:00	0	0	2	0	0	0	0	0	2	2	0	0
18:15	0	0	3	0	0	0	0	0	3	3	0	0
18:30	0	0	2	0	0	0	0	0	2	2	0	0
18:45	1	0	0	0	0	0	0	0	1	0.2	0	0
H/TOT	1	0	7	0	0	0	0	0	8	7.2	0	0
19:00	0	0	3	0	0	0	0	0	3	3	0	0
19:15	0	0	2	0	0	0	0	0	2	2	0	0
19:30	0	0	5	0	0	0	0	0	5	5	0	0
19:45	1	0	2	0	1	0	0	0	4	3.2	0	0
H/TOT	1	0	12	0	1	0	0	0	14	13.2	0	0
20:00	1	0	3	0	0	0	0	0	4	3.2	0	0
20:15	0	0	1	0	0	0	0	0	1	1	0	0
20:30	0	0	3	0	0	0	0	0	3	3	0	0
20:45	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	1	0	7	0	0	0	0	0	8	7.2	0	0
21:00	2	0	1	0	0	0	0	0	3	1.4	0	0
21:15	0	0	1	0	0	0	0	0	1	1	0	0
21:30	0	0	0	0	0	0	0	0	0	0	0	0
21:45	0	0	1	0	0	0	0	0	1	1	0	0
H/TOT	2	0	3	0	0	0	0	0	5	3.4	0	0
22:00	0	0	3	0	0	0	0	0	3	3	0	0
22:15	0	0	0	0	1	0	0	0	1	1	0	0
22:30	0	0	0	0	0	0	0	0	0	0	0	0
22:45	0	0	0	0	0	0	0	0	0	0	0	0
H/TOT	0	0	3	0	1	0	0	0	4	4	0	0
23:00	0	0	0	0	0	0	0	0	0	0	0	0
23:15	0	0	0	0	0	0	0	0	0	0	0	0
23:30	0	0	0	0	0	0	0	0	0	0	0	0
23:45	0	0	1	0	0	0	0	0	1	1	0	0
H/TOT	0	0	1	0	0	0	0	0	1	1	0	0
24 TOT	10	0	176	1	11	0	0	0	198	190	0	0

B => B								B => C										B => D										C => A										C => B										C => C					
CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	0	0	5	0	0	0	0	0	5	5	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	0	2	0	0	0	0	0	2	2	0	0	2	0	0	0	0	0	2	2	0	0	0	1	0	0	0	0	1	1	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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B => B								B => C										B => D										C => A										C => B										C => C					
CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1
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				C => D										D => A										D => B										D => C										D => D									
OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU
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				C => D										D => A										D => B										D => C										D => D									
OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU	P/C	M/C	CAR	TAXI	LGV	OGV1	OGV2	PSV	TOT	PCU
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0	0	0	0	0	0	1	0	0	0	0	0	1	1	0	0	3	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	1	0	0	0	0	0	1	1	0	0	4	0	0	0	0	0	4	4	2	0	2	0	0	0	0	0	4	2.4	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
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0	0	0	0	1	0	1	0	0	0	0	0	2	1.2	0	0	0	0	0	0	0	0	0	0	1	0	3	0	0	0	0	0	4	3.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	1	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	2	2	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	1	0	0	0	0	0	1	1	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	1	0	0	0	0	0	1	1	0	0	1	0	0	0	0	0	1	1	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	1	0	4	0	0	0	0	0	5	4.2	0	0	4	0	0	0	0	0	4	4	1	0	5	0	0	0	0	0	6	5.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	3	3	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	1	1	5	0	98	1	11	2	1	0	118	116.3	11	1	372	1	33	4	1	0	423	416.9	19	0	508	6	62	7	0	0	602	590.3	3	0	64	2	8	2	4	0	83	86.8	0	0	0	0	0	0	0	0	0	0

C. Junction Analysis Results

Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9.5.1.7462

For sales and distribution information, program advice and maintenance, contact TRL:
+44 (0)1344 379777 software@trl.co.uk www.trlsoftware.co.uk

Filename: Junction 1 - West Access.j9
Path: M:\Projects\23\23-129 New Road Donabate\Documents\Reports\Appendices, Figures, & Tables\TTA\Appendix C - Junctions assessment
Report generation date: 15/02/2024 14:15:12

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	Junction 1 - Site Access Junctions - Base Year 2022							
Stream B-AC	0.0	0.00	0.00	A	0.0	0.00	0.00	A
Stream C-AB	0.0	0.00	0.00	A	0.0	0.00	0.00	A
	Junction 1 - Site Access Junctions - Do Nothing 2025							
Stream B-AC	0.0	0.00	0.00	A	0.0	0.00	0.00	A
Stream C-AB	0.0	0.00	0.00	A	0.0	0.00	0.00	A
	Junction 1 - Site Access Junctions - Do Nothing 2030							
Stream B-AC	0.0	0.00	0.00	A	0.0	0.00	0.00	A
Stream C-AB	0.0	0.00	0.00	A	0.0	0.00	0.00	A
	Junction 1 - Site Access Junctions - Do Nothing 2040							
Stream B-AC	0.0	0.00	0.00	A	0.0	0.00	0.00	A
Stream C-AB	0.0	0.00	0.00	A	0.0	0.00	0.00	A
	Junction 1 - Site Access Junctions - Do Something 2025							
Stream B-AC	0.2	8.40	0.15	A	0.1	8.12	0.10	A
Stream C-AB	0.0	4.96	0.04	A	0.1	5.09	0.08	A
	Junction 1 - Site Access Junctions - Do Something 2030							
Stream B-AC	0.2	8.54	0.16	A	0.1	8.31	0.10	A
Stream C-AB	0.1	4.86	0.04	A	0.1	5.03	0.08	A
	Junction 1 - Site Access Junctions - Do Something 2040							
Stream B-AC	0.2	8.58	0.16	A	0.1	8.36	0.10	A
Stream C-AB	0.1	4.85	0.04	A	0.1	5.01	0.08	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.

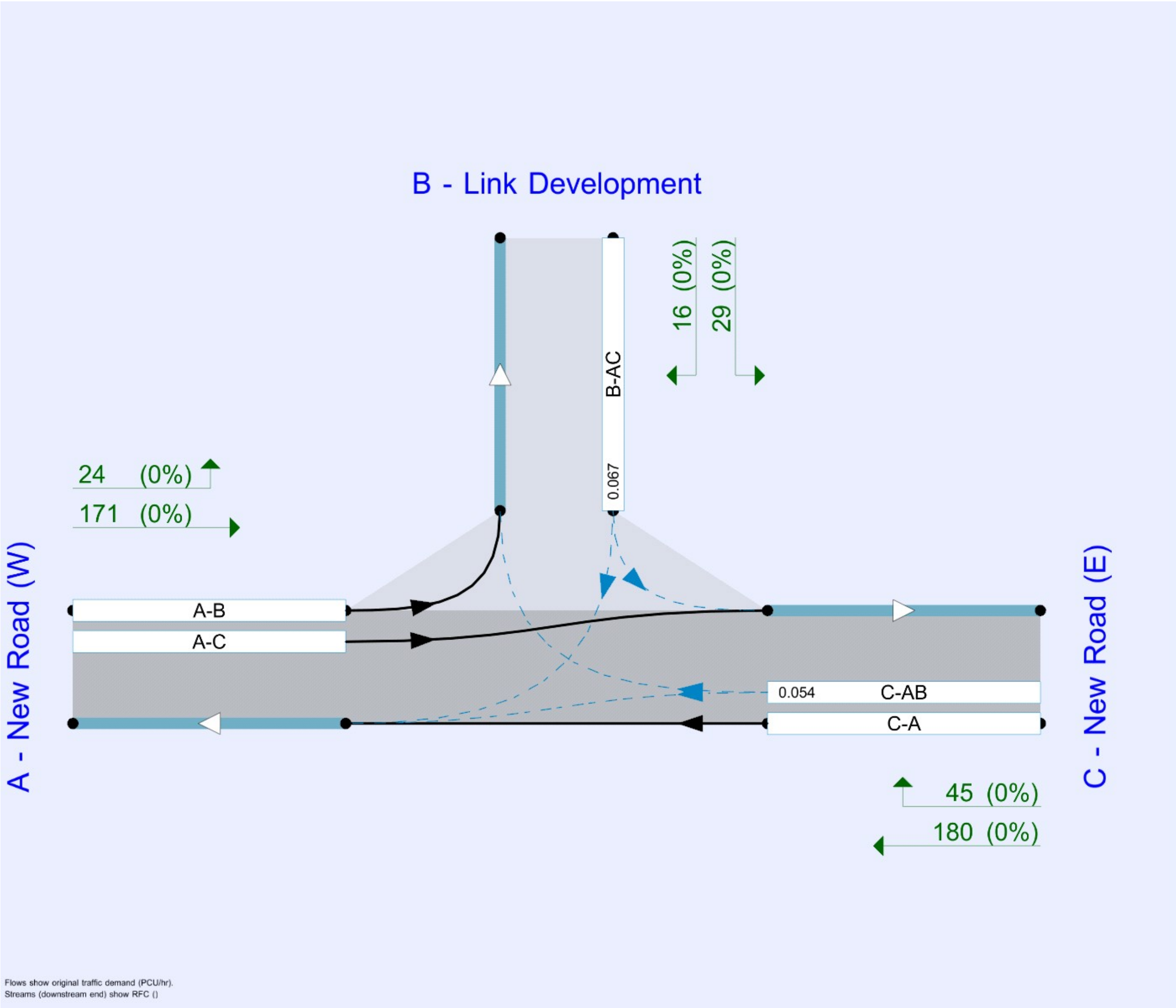
File summary

File Description

Title	Junction 1 - West Site Access
Location	Donabate
Site number	
Date	14/02/2024
Version	1
Status	(new file)
Identifier	
Client	
Jobnumber	23-129
Enumerator	DOMAIN\l.byrne
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



The junction diagram reflects the last run of Junctions.

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Base Year 2022	AM	ONE HOUR	08:00	09:30	15	✓
D2	Base Year 2022	PM	ONE HOUR	17:00	18:30	15	✓
D3	Do Nothing 2025	AM	ONE HOUR	08:00	09:30	15	✓
D4	Do Nothing 2025	PM	ONE HOUR	17:00	18:30	15	✓
D5	Do Nothing 2030	AM	ONE HOUR	08:00	09:30	15	✓
D6	Do Nothing 2030	PM	ONE HOUR	17:00	18:30	15	✓
D7	Do Nothing 2040	AM	ONE HOUR	08:00	09:30	15	✓
D8	Do Nothing 2040	PM	ONE HOUR	17:00	18:30	15	✓
D9	Do Something 2025	AM	ONE HOUR	08:00	09:30	15	✓
D10	Do Something 2025	PM	ONE HOUR	17:00	18:30	15	✓
D11	Do Something 2030	AM	ONE HOUR	08:00	09:30	15	✓
D12	Do Something 2030	PM	ONE HOUR	17:00	18:30	15	✓
D13	Do Something 2040	AM	ONE HOUR	08:00	09:30	15	✓
D14	Do Something 2040	PM	ONE HOUR	17:00	18:30	15	✓

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	Junction 1 - Site Access Junctions	✓	100.000	100.000

Junction 1 - Site Access Junctions - Base Year 2022, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		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.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.00	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	New Road (W)		Major
B	Link Development		Minor
C	New Road (E)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - New Road (E)	6.00			250.0	✓	0.00

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - Link Development	One lane	2.20	45	45

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	473	0.086	0.218	0.137	0.311
B-C	600	0.092	0.232	-	-
C-B	719	0.278	0.278	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Base Year 2022	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - New Road (W)		ONE HOUR	✓	91	100.000
B - Link Development		ONE HOUR	✓	0	100.000
C - New Road (E)		ONE HOUR	✓	83	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - New Road (W)	B - Link Development	C - New Road (E)
From	A - New Road (W)	0	0	91
	B - Link Development	0	0	0
	C - New Road (E)	83	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - New Road (W)	B - Link Development	C - New Road (E)
From	A - New Road (W)	0	0	0
	B - Link Development	0	0	0
	C - New Road (E)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.00	0.00	0.0	A	0	0
C-AB	0.00	0.00	0.0	A	0	0
C-A					76	114
A-B					0	0
A-C					84	125

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	508	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	700	0.000	0	0.0	0.0	0.000	A
C-A	62	16			62				
A-B	0	0			0				
A-C	69	17			69				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	504	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	696	0.000	0	0.0	0.0	0.000	A
C-A	75	19			75				
A-B	0	0			0				
A-C	82	20			82				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	498	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	691	0.000	0	0.0	0.0	0.000	A
C-A	91	23			91				
A-B	0	0			0				
A-C	100	25			100				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	498	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	691	0.000	0	0.0	0.0	0.000	A
C-A	91	23			91				
A-B	0	0			0				
A-C	100	25			100				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	504	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	696	0.000	0	0.0	0.0	0.000	A
C-A	75	19			75				
A-B	0	0			0				
A-C	82	20			82				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	508	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	700	0.000	0	0.0	0.0	0.000	A
C-A	62	16			62				
A-B	0	0			0				
A-C	69	17			69				

Junction 1 - Site Access Junctions - Base Year 2022, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		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.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.00	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	Base Year 2022	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - New Road (W)		ONE HOUR	✓	99	100.000
B - Link Development		ONE HOUR	✓	0	100.000
C - New Road (E)		ONE HOUR	✓	123	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - New Road (W)	B - Link Development	C - New Road (E)
From	A - New Road (W)	0	0	99
	B - Link Development	0	0	0
	C - New Road (E)	123	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - New Road (W)	B - Link Development	C - New Road (E)
From	A - New Road (W)	0	0	0
	B - Link Development	0	0	0
	C - New Road (E)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.00	0.00	0.0	A	0	0
C-AB	0.00	0.00	0.0	A	0	0
C-A					113	169
A-B					0	0
A-C					91	136

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	504	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	698	0.000	0	0.0	0.0	0.000	A
C-A	93	23			93				
A-B	0	0			0				
A-C	75	19			75				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	499	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	694	0.000	0	0.0	0.0	0.000	A
C-A	111	28			111				
A-B	0	0			0				
A-C	89	22			89				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	492	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	688	0.000	0	0.0	0.0	0.000	A
C-A	135	34			135				
A-B	0	0			0				
A-C	109	27			109				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	492	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	688	0.000	0	0.0	0.0	0.000	A
C-A	135	34			135				
A-B	0	0			0				
A-C	109	27			109				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	499	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	694	0.000	0	0.0	0.0	0.000	A
C-A	111	28			111				
A-B	0	0			0				
A-C	89	22			89				

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	504	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	698	0.000	0	0.0	0.0	0.000	A
C-A	93	23			93				
A-B	0	0			0				
A-C	75	19			75				

Junction 1 - Site Access Junctions - Do Nothing 2025, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.00	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	Do Nothing 2025	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - New Road (W)		ONE HOUR	✓	109	100.000
B - Link Development		ONE HOUR	✓	0	100.000
C - New Road (E)		ONE HOUR	✓	120	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - New Road (W)	B - Link Development	C - New Road (E)
From	A - New Road (W)	0	0	109
	B - Link Development	0	0	0
	C - New Road (E)	120	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - New Road (W)	B - Link Development	C - New Road (E)
From	A - New Road (W)	0	0	2
	B - Link Development	0	0	0
	C - New Road (E)	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.00	0.00	0.0	A	0	0
C-AB	0.00	0.00	0.0	A	0	0
C-A					110	165
A-B					0	0
A-C					100	150

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	503	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	696	0.000	0	0.0	0.0	0.000	A
C-A	90	23			90				
A-B	0	0			0				
A-C	82	21			82				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	497	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	691	0.000	0	0.0	0.0	0.000	A
C-A	108	27			108				
A-B	0	0			0				
A-C	98	24			98				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	490	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	685	0.000	0	0.0	0.0	0.000	A
C-A	132	33			132				
A-B	0	0			0				
A-C	120	30			120				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	490	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	685	0.000	0	0.0	0.0	0.000	A
C-A	132	33			132				
A-B	0	0			0				
A-C	120	30			120				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	497	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	691	0.000	0	0.0	0.0	0.000	A
C-A	108	27			108				
A-B	0	0			0				
A-C	98	24			98				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	503	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	696	0.000	0	0.0	0.0	0.000	A
C-A	90	23			90				
A-B	0	0			0				
A-C	82	21			82				

Junction 1 - Site Access Junctions - Do Nothing 2025, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.00	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	Do Nothing 2025	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - New Road (W)		ONE HOUR	✓	128	100.000
B - Link Development		ONE HOUR	✓	0	100.000
C - New Road (E)		ONE HOUR	✓	147	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - New Road (W)	B - Link Development	C - New Road (E)
From	A - New Road (W)	0	0	128
	B - Link Development	0	0	0
	C - New Road (E)	147	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - New Road (W)	B - Link Development	C - New Road (E)
From	A - New Road (W)	0	0	2
	B - Link Development	0	0	0
	C - New Road (E)	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.00	0.00	0.0	A	0	0
C-AB	0.00	0.00	0.0	A	0	0
C-A					135	202
A-B					0	0
A-C					117	176

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	498	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	692	0.000	0	0.0	0.0	0.000	A
C-A	111	28			111				
A-B	0	0			0				
A-C	96	24			96				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	491	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	687	0.000	0	0.0	0.0	0.000	A
C-A	132	33			132				
A-B	0	0			0				
A-C	115	29			115				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	483	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	679	0.000	0	0.0	0.0	0.000	A
C-A	162	40			162				
A-B	0	0			0				
A-C	141	35			141				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	483	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	679	0.000	0	0.0	0.0	0.000	A
C-A	162	40			162				
A-B	0	0			0				
A-C	141	35			141				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	491	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	687	0.000	0	0.0	0.0	0.000	A
C-A	132	33			132				
A-B	0	0			0				
A-C	115	29			115				

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	498	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	692	0.000	0	0.0	0.0	0.000	A
C-A	111	28			111				
A-B	0	0			0				
A-C	96	24			96				

Junction 1 - Site Access Junctions - Do Nothing 2030, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.00	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	Do Nothing 2030	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - New Road (W)		ONE HOUR	✓	125	100.000
B - Link Development		ONE HOUR	✓	0	100.000
C - New Road (E)		ONE HOUR	✓	161	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - New Road (W)	B - Link Development	C - New Road (E)
From	A - New Road (W)	0	0	125
	B - Link Development	0	0	0
	C - New Road (E)	161	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - New Road (W)	B - Link Development	C - New Road (E)
From	A - New Road (W)	0	0	2
	B - Link Development	0	0	0
	C - New Road (E)	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.00	0.00	0.0	A	0	0
C-AB	0.00	0.00	0.0	A	0	0
C-A					148	222
A-B					0	0
A-C					115	172

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	497	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	693	0.000	0	0.0	0.0	0.000	A
C-A	121	30			121				
A-B	0	0			0				
A-C	94	24			94				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	491	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	687	0.000	0	0.0	0.0	0.000	A
C-A	145	36			145				
A-B	0	0			0				
A-C	112	28			112				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	482	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	680	0.000	0	0.0	0.0	0.000	A
C-A	177	44			177				
A-B	0	0			0				
A-C	138	34			138				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	482	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	680	0.000	0	0.0	0.0	0.000	A
C-A	177	44			177				
A-B	0	0			0				
A-C	138	34			138				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	491	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	687	0.000	0	0.0	0.0	0.000	A
C-A	145	36			145				
A-B	0	0			0				
A-C	112	28			112				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	497	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	693	0.000	0	0.0	0.0	0.000	A
C-A	121	30			121				
A-B	0	0			0				
A-C	94	24			94				

Junction 1 - Site Access Junctions - Do Nothing 2030, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.00	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	Do Nothing 2030	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - New Road (W)		ONE HOUR	✓	159	100.000
B - Link Development		ONE HOUR	✓	0	100.000
C - New Road (E)		ONE HOUR	✓	176	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - New Road (W)	B - Link Development	C - New Road (E)
From	A - New Road (W)	0	0	159
	B - Link Development	0	0	0
	C - New Road (E)	176	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - New Road (W)	B - Link Development	C - New Road (E)
From	A - New Road (W)	0	0	2
	B - Link Development	0	0	0
	C - New Road (E)	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.00	0.00	0.0	A	0	0
C-AB	0.00	0.00	0.0	A	0	0
C-A					162	242
A-B					0	0
A-C					146	219

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	490	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	685	0.000	0	0.0	0.0	0.000	A
C-A	133	33			133				
A-B	0	0			0				
A-C	120	30			120				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	483	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	679	0.000	0	0.0	0.0	0.000	A
C-A	158	40			158				
A-B	0	0			0				
A-C	143	36			143				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	472	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	670	0.000	0	0.0	0.0	0.000	A
C-A	194	48			194				
A-B	0	0			0				
A-C	175	44			175				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	472	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	670	0.000	0	0.0	0.0	0.000	A
C-A	194	48			194				
A-B	0	0			0				
A-C	175	44			175				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	483	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	679	0.000	0	0.0	0.0	0.000	A
C-A	158	40			158				
A-B	0	0			0				
A-C	143	36			143				

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	490	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	685	0.000	0	0.0	0.0	0.000	A
C-A	133	33			133				
A-B	0	0			0				
A-C	120	30			120				

Junction 1 - Site Access Junctions - Do Nothing 2040, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.00	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	Do Nothing 2040	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - New Road (W)		ONE HOUR	✓	131	100.000
B - Link Development		ONE HOUR	✓	0	100.000
C - New Road (E)		ONE HOUR	✓	166	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - New Road (W)	B - Link Development	C - New Road (E)
From	A - New Road (W)	0	0	131
	B - Link Development	0	0	0
	C - New Road (E)	166	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - New Road (W)	B - Link Development	C - New Road (E)
From	A - New Road (W)	0	0	2
	B - Link Development	0	0	0
	C - New Road (E)	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.00	0.00	0.0	A	0	0
C-AB	0.00	0.00	0.0	A	0	0
C-A					152	228
A-B					0	0
A-C					120	180

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	496	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	691	0.000	0	0.0	0.0	0.000	A
C-A	125	31			125				
A-B	0	0			0				
A-C	99	25			99				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	489	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	686	0.000	0	0.0	0.0	0.000	A
C-A	149	37			149				
A-B	0	0			0				
A-C	118	29			118				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	480	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	679	0.000	0	0.0	0.0	0.000	A
C-A	183	46			183				
A-B	0	0			0				
A-C	144	36			144				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	480	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	679	0.000	0	0.0	0.0	0.000	A
C-A	183	46			183				
A-B	0	0			0				
A-C	144	36			144				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	489	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	686	0.000	0	0.0	0.0	0.000	A
C-A	149	37			149				
A-B	0	0			0				
A-C	118	29			118				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	496	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	691	0.000	0	0.0	0.0	0.000	A
C-A	125	31			125				
A-B	0	0			0				
A-C	99	25			99				

Junction 1 - Site Access Junctions - Do Nothing 2040, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.00	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	Do Nothing 2040	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - New Road (W)		ONE HOUR	✓	166	100.000
B - Link Development		ONE HOUR	✓	0	100.000
C - New Road (E)		ONE HOUR	✓	184	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - New Road (W)	**B - Link Development**	**C - New Road (E)**
From	**A - New Road (W)**	0	0	166
	B - Link Development	0	0	0
	C - New Road (E)	184	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - New Road (W)	**B - Link Development**	**C - New Road (E)**
From	**A - New Road (W)**	0	0	2
	B - Link Development	0	0	0
	C - New Road (E)	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.00	0.00	0.0	A	0	0
C-AB	0.00	0.00	0.0	A	0	0
C-A					169	253
A-B					0	0
A-C					152	228

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	489	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	684	0.000	0	0.0	0.0	0.000	A
C-A	139	35			139				
A-B	0	0			0				
A-C	125	31			125				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	481	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	677	0.000	0	0.0	0.0	0.000	A
C-A	165	41			165				
A-B	0	0			0				
A-C	149	37			149				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	470	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	668	0.000	0	0.0	0.0	0.000	A
C-A	203	51			203				
A-B	0	0			0				
A-C	183	46			183				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	470	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	668	0.000	0	0.0	0.0	0.000	A
C-A	203	51			203				
A-B	0	0			0				
A-C	183	46			183				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	481	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	677	0.000	0	0.0	0.0	0.000	A
C-A	165	41			165				
A-B	0	0			0				
A-C	149	37			149				

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	489	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	684	0.000	0	0.0	0.0	0.000	A
C-A	139	35			139				
A-B	0	0			0				
A-C	125	31			125				

Junction 1 - Site Access Junctions - Do Something 2025, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		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.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		2.20	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D9	Do Something 2025	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - New Road (W)		ONE HOUR	✓	124	100.000
B - Link Development		ONE HOUR	✓	71	100.000
C - New Road (E)		ONE HOUR	✓	131	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - New Road (W)	B - Link Development	C - New Road (E)
From	A - New Road (W)	0	11	113
	B - Link Development	25	0	46
	C - New Road (E)	110	21	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - New Road (W)	B - Link Development	C - New Road (E)
From	A - New Road (W)	0	0	0
	B - Link Development	0	0	0
	C - New Road (E)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.15	8.40	0.2	A	65	98
C-AB	0.04	4.96	0.0	A	22	34
C-A					98	147
A-B					10	15
A-C					104	156

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	53	13	520	0.103	53	0.0	0.1	7.700	A
C-AB	18	4	744	0.024	18	0.0	0.0	4.958	A
C-A	81	20			81				
A-B	8	2			8				
A-C	85	21			85				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	64	16	515	0.124	64	0.1	0.1	7.982	A
C-AB	22	5	749	0.029	22	0.0	0.0	4.951	A
C-A	96	24			96				
A-B	10	2			10				
A-C	102	25			102				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	78	20	507	0.154	78	0.1	0.2	8.393	A
C-AB	28	7	756	0.036	28	0.0	0.0	4.941	A
C-A	117	29			117				
A-B	12	3			12				
A-C	124	31			124				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	78	20	507	0.154	78	0.2	0.2	8.396	A
C-AB	28	7	756	0.036	28	0.0	0.0	4.943	A
C-A	117	29			117				
A-B	12	3			12				
A-C	124	31			124				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	64	16	515	0.124	64	0.2	0.1	7.993	A
C-AB	22	5	749	0.029	22	0.0	0.0	4.952	A
C-A	96	24			96				
A-B	10	2			10				
A-C	102	25			102				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	53	13	520	0.103	54	0.1	0.1	7.717	A
C-AB	18	4	744	0.024	18	0.0	0.0	4.959	A
C-A	81	20			81				
A-B	8	2			8				
A-C	85	21			85				

Junction 1 - Site Access Junctions - Do Something 2025, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		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.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.65	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D10	Do Something 2025	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - New Road (W)		ONE HOUR	✓	157	100.000
B - Link Development		ONE HOUR	✓	45	100.000
C - New Road (E)		ONE HOUR	✓	188	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - New Road (W)	B - Link Development	C - New Road (E)
From	A - New Road (W)	0	24	133
	B - Link Development	16	0	29
	C - New Road (E)	143	45	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - New Road (W)	B - Link Development	C - New Road (E)
From	A - New Road (W)	0	0	0
	B - Link Development	0	0	0
	C - New Road (E)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.10	8.12	0.1	A	41	62
C-AB	0.08	5.09	0.1	A	50	75
C-A					122	183
A-B					22	33
A-C					122	183

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	34	8	511	0.066	34	0.0	0.1	7.543	A
C-AB	40	10	752	0.053	39	0.0	0.1	5.047	A
C-A	102	26			102				
A-B	18	5			18				
A-C	100	25			100				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	40	10	503	0.080	40	0.1	0.1	7.776	A
C-AB	49	12	759	0.064	49	0.1	0.1	5.064	A
C-A	120	30			120				
A-B	22	5			22				
A-C	120	30			120				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	50	12	493	0.100	49	0.1	0.1	8.113	A
C-AB	62	16	769	0.081	62	0.1	0.1	5.091	A
C-A	145	36			145				
A-B	26	7			26				
A-C	146	37			146				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	50	12	493	0.100	50	0.1	0.1	8.117	A
C-AB	62	16	769	0.081	62	0.1	0.1	5.094	A
C-A	145	36			145				
A-B	26	7			26				
A-C	146	37			146				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	40	10	503	0.080	41	0.1	0.1	7.782	A
C-AB	49	12	760	0.064	49	0.1	0.1	5.069	A
C-A	120	30			120				
A-B	22	5			22				
A-C	120	30			120				

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	34	8	511	0.066	34	0.1	0.1	7.552	A
C-AB	40	10	753	0.053	40	0.1	0.1	5.052	A
C-A	102	25			102				
A-B	18	5			18				
A-C	100	25			100				

Junction 1 - Site Access Junctions - Do Something 2030, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		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.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.91	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D11	Do Something 2030	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - New Road (W)		ONE HOUR	✓	140	100.000
B - Link Development		ONE HOUR	✓	71	100.000
C - New Road (E)		ONE HOUR	✓	172	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - New Road (W)	B - Link Development	C - New Road (E)
From	A - New Road (W)	0	11	129
	B - Link Development	25	0	46
	C - New Road (E)	151	21	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - New Road (W)	B - Link Development	C - New Road (E)
From	A - New Road (W)	0	0	0
	B - Link Development	0	0	0
	C - New Road (E)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.16	8.54	0.2	A	65	98
C-AB	0.04	4.86	0.1	A	24	35
C-A					134	201
A-B					10	15
A-C					118	178

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	53	13	515	0.104	53	0.0	0.1	7.779	A
C-AB	19	5	760	0.024	18	0.0	0.0	4.858	A
C-A	111	28			111				
A-B	8	2			8				
A-C	97	24			97				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	64	16	509	0.125	64	0.1	0.1	8.088	A
C-AB	23	6	768	0.030	23	0.0	0.0	4.832	A
C-A	132	33			132				
A-B	10	2			10				
A-C	116	29			116				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	78	20	500	0.156	78	0.1	0.2	8.533	A
C-AB	29	7	780	0.038	29	0.0	0.1	4.798	A
C-A	160	40			160				
A-B	12	3			12				
A-C	142	36			142				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	78	20	500	0.156	78	0.2	0.2	8.540	A
C-AB	29	7	780	0.038	29	0.1	0.1	4.798	A
C-A	160	40			160				
A-B	12	3			12				
A-C	142	36			142				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	64	16	509	0.125	64	0.2	0.1	8.099	A
C-AB	23	6	768	0.030	23	0.1	0.0	4.833	A
C-A	132	33			132				
A-B	10	2			10				
A-C	116	29			116				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	53	13	515	0.104	54	0.1	0.1	7.801	A
C-AB	19	5	760	0.025	19	0.0	0.0	4.859	A
C-A	111	28			111				
A-B	8	2			8				
A-C	97	24			97				

Junction 1 - Site Access Junctions - Do Something 2030, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		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.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.47	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D12	Do Something 2030	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - New Road (W)		ONE HOUR	✓	188	100.000
B - Link Development		ONE HOUR	✓	45	100.000
C - New Road (E)		ONE HOUR	✓	217	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - New Road (W)	B - Link Development	C - New Road (E)
From	A - New Road (W)	0	24	164
	B - Link Development	16	0	29
	C - New Road (E)	172	45	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - New Road (W)	B - Link Development	C - New Road (E)
From	A - New Road (W)	0	0	0
	B - Link Development	0	0	0
	C - New Road (E)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.10	8.31	0.1	A	41	62
C-AB	0.08	5.03	0.1	A	52	79
C-A					147	220
A-B					22	33
A-C					150	226

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	34	8	504	0.067	34	0.0	0.1	7.651	A
C-AB	41	10	760	0.054	41	0.0	0.1	5.003	A
C-A	123	31			123				
A-B	18	5			18				
A-C	123	31			123				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	40	10	495	0.082	40	0.1	0.1	7.918	A
C-AB	51	13	769	0.066	51	0.1	0.1	5.016	A
C-A	144	36			144				
A-B	22	5			22				
A-C	147	37			147				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	50	12	483	0.103	49	0.1	0.1	8.306	A
C-AB	66	16	781	0.084	65	0.1	0.1	5.033	A
C-A	173	43			173				
A-B	26	7			26				
A-C	181	45			181				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	50	12	483	0.103	50	0.1	0.1	8.309	A
C-AB	66	16	781	0.084	66	0.1	0.1	5.035	A
C-A	173	43			173				
A-B	26	7			26				
A-C	181	45			181				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	40	10	495	0.082	41	0.1	0.1	7.925	A
C-AB	51	13	769	0.066	51	0.1	0.1	5.018	A
C-A	144	36			144				
A-B	22	5			22				
A-C	147	37			147				

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	34	8	504	0.067	34	0.1	0.1	7.666	A
C-AB	41	10	760	0.054	41	0.1	0.1	5.009	A
C-A	122	31			122				
A-B	18	5			18				
A-C	123	31			123				

Junction 1 - Site Access Junctions - Do Something 2040, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		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.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.87	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D13	Do Something 2040	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - New Road (W)		ONE HOUR	✓	146	100.000
B - Link Development		ONE HOUR	✓	71	100.000
C - New Road (E)		ONE HOUR	✓	177	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - New Road (W)	B - Link Development	C - New Road (E)
From	A - New Road (W)	0	11	135
	B - Link Development	25	0	46
	C - New Road (E)	156	21	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - New Road (W)	B - Link Development	C - New Road (E)
From	A - New Road (W)	0	0	0
	B - Link Development	0	0	0
	C - New Road (E)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.16	8.58	0.2	A	65	98
C-AB	0.04	4.85	0.1	A	24	36
C-A					139	208
A-B					10	15
A-C					124	186

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	53	13	514	0.104	53	0.0	0.1	7.802	A
C-AB	19	5	761	0.025	19	0.0	0.0	4.851	A
C-A	115	29			115				
A-B	8	2			8				
A-C	102	25			102				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	64	16	507	0.126	64	0.1	0.1	8.116	A
C-AB	23	6	769	0.030	23	0.0	0.0	4.824	A
C-A	136	34			136				
A-B	10	2			10				
A-C	121	30			121				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	78	20	498	0.157	78	0.1	0.2	8.572	A
C-AB	30	7	781	0.038	30	0.0	0.1	4.788	A
C-A	165	41			165				
A-B	12	3			12				
A-C	149	37			149				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	78	20	498	0.157	78	0.2	0.2	8.579	A
C-AB	30	7	781	0.038	30	0.1	0.1	4.790	A
C-A	165	41			165				
A-B	12	3			12				
A-C	149	37			149				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	64	16	507	0.126	64	0.2	0.1	8.127	A
C-AB	23	6	769	0.030	23	0.1	0.0	4.827	A
C-A	136	34			136				
A-B	10	2			10				
A-C	121	30			121				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	53	13	514	0.104	54	0.1	0.1	7.823	A
C-AB	19	5	761	0.025	19	0.0	0.0	4.854	A
C-A	115	29			115				
A-B	8	2			8				
A-C	102	25			102				

Junction 1 - Site Access Junctions - Do Something 2040, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		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.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.43	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D14	Do Something 2040	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - New Road (W)		ONE HOUR	✓	195	100.000
B - Link Development		ONE HOUR	✓	45	100.000
C - New Road (E)		ONE HOUR	✓	225	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - New Road (W)	B - Link Development	C - New Road (E)
From	A - New Road (W)	0	24	171
	B - Link Development	16	0	29
	C - New Road (E)	180	45	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - New Road (W)	B - Link Development	C - New Road (E)
From	A - New Road (W)	0	0	0
	B - Link Development	0	0	0
	C - New Road (E)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.10	8.36	0.1	A	41	62
C-AB	0.08	5.01	0.1	A	53	79
C-A					153	230
A-B					22	33
A-C					157	235

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	34	8	502	0.067	34	0.0	0.1	7.679	A
C-AB	41	10	762	0.054	41	0.0	0.1	4.989	A
C-A	128	32			128				
A-B	18	5			18				
A-C	129	32			129				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	40	10	493	0.082	40	0.1	0.1	7.953	A
C-AB	51	13	772	0.066	51	0.1	0.1	4.997	A
C-A	151	38			151				
A-B	22	5			22				
A-C	154	38			154				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	50	12	480	0.103	49	0.1	0.1	8.353	A
C-AB	66	17	785	0.085	66	0.1	0.1	5.013	A
C-A	181	45			181				
A-B	26	7			26				
A-C	188	47			188				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	50	12	480	0.103	50	0.1	0.1	8.356	A
C-AB	66	17	785	0.085	66	0.1	0.1	5.013	A
C-A	181	45			181				
A-B	26	7			26				
A-C	188	47			188				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	40	10	493	0.082	41	0.1	0.1	7.960	A
C-AB	51	13	772	0.066	51	0.1	0.1	5.002	A
C-A	151	38			151				
A-B	22	5			22				
A-C	154	38			154				

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	34	8	502	0.067	34	0.1	0.1	7.691	A
C-AB	41	10	762	0.054	41	0.1	0.1	4.993	A
C-A	128	32			128				
A-B	18	5			18				
A-C	129	32			129				

Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9.5.1.7462

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Filename: Junction 2 - East Access.j9
Path: M:\Projects\23\23-129 New Road Donabate\Documents\Reports\Appendices, Figures, & Tables\TTA\Appendix C - Junctions assessment
Report generation date: 15/02/2024 14:22:53

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	Junction 2 - Site Access Junctions - Base Year 2022							
Stream B-AC	0.0	0.00	0.00	A	0.0	0.00	0.00	A
Stream C-AB	0.0	0.00	0.00	A	0.0	0.00	0.00	A
	Junction 2 - Site Access Junctions - Do Nothing 2025							
Stream B-AC	0.0	0.00	0.00	A	0.0	0.00	0.00	A
Stream C-AB	0.0	0.00	0.00	A	0.0	0.00	0.00	A
	Junction 2 - Site Access Junctions - Do Nothing 2030							
Stream B-AC	0.0	0.00	0.00	A	0.0	0.00	0.00	A
Stream C-AB	0.0	0.00	0.00	A	0.0	0.00	0.00	A
	Junction 2 - Site Access Junctions - Do Nothing 2040							
Stream B-AC	0.0	0.00	0.00	A	0.0	0.00	0.00	A
Stream C-AB	0.0	0.00	0.00	A	0.0	0.00	0.00	A
	Junction 2 - Site Access Junctions - Do Something 2025							
Stream B-AC	0.1	7.81	0.08	A	0.1	7.78	0.06	A
Stream C-AB	0.0	4.88	0.02	A	0.1	4.80	0.04	A
	Junction 2 - Site Access Junctions - Do Something 2030							
Stream B-AC	0.1	7.93	0.08	A	0.1	7.95	0.06	A
Stream C-AB	0.0	4.79	0.02	A	0.1	4.76	0.05	A
	Junction 2 - Site Access Junctions - Do Something 2040							
Stream B-AC	0.1	7.97	0.08	A	0.1	7.99	0.06	A
Stream C-AB	0.0	4.78	0.02	A	0.1	4.74	0.05	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.

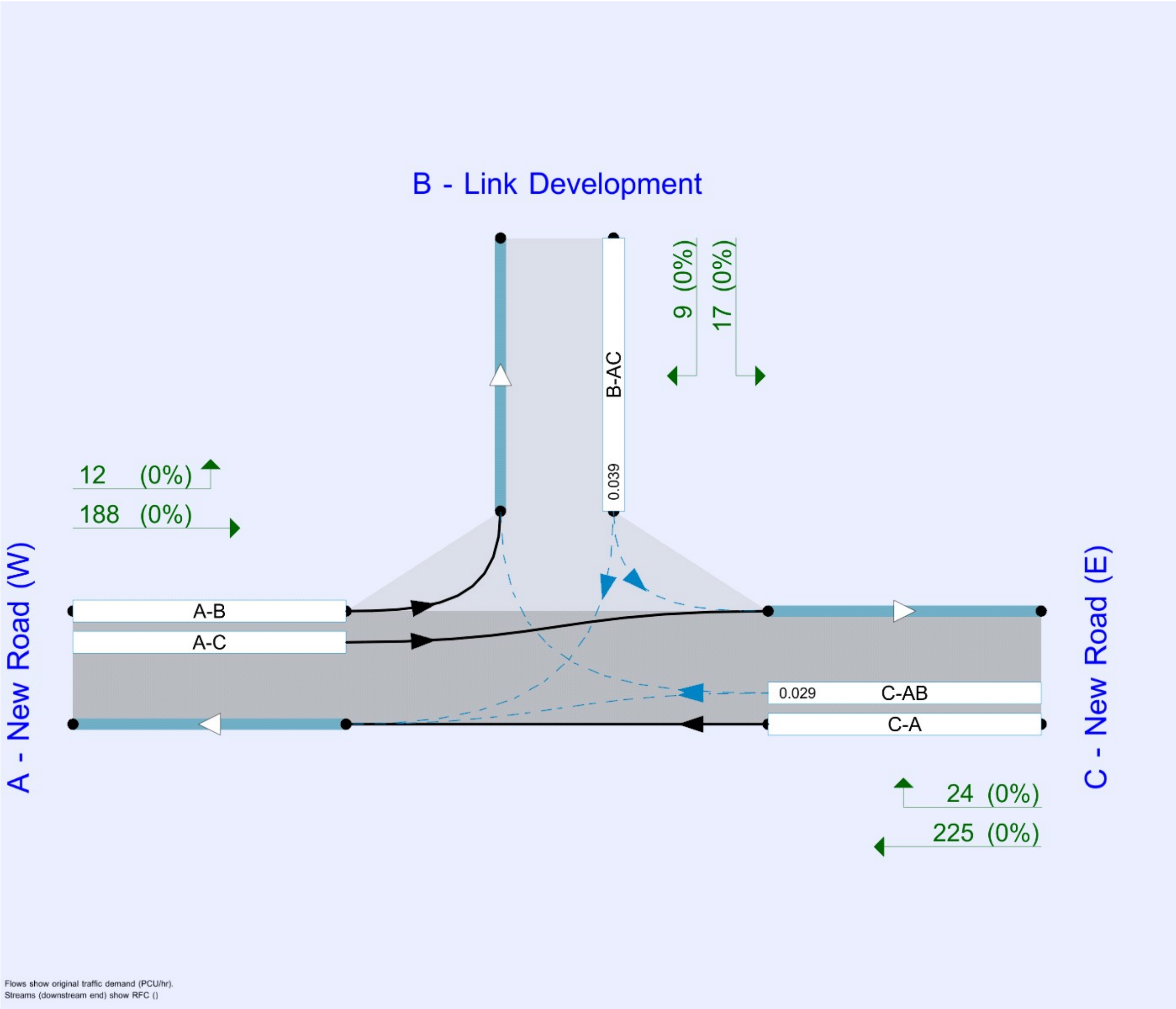
File summary

File Description

Title	Junction 2 - East Site Access
Location	Donabate
Site number	
Date	14/02/2024
Version	1
Status	(new file)
Identifier	
Client	
Jobnumber	23-129
Enumerator	DOMAIN\l.byrne
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



The junction diagram reflects the last run of Junctions.

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Base Year 2022	AM	ONE HOUR	08:00	09:30	15	✓
D2	Base Year 2022	PM	ONE HOUR	17:00	18:30	15	✓
D3	Do Nothing 2025	AM	ONE HOUR	08:00	09:30	15	✓
D4	Do Nothing 2025	PM	ONE HOUR	17:00	18:30	15	✓
D5	Do Nothing 2030	AM	ONE HOUR	08:00	09:30	15	✓
D6	Do Nothing 2030	PM	ONE HOUR	17:00	18:30	15	✓
D7	Do Nothing 2040	AM	ONE HOUR	08:00	09:30	15	✓
D8	Do Nothing 2040	PM	ONE HOUR	17:00	18:30	15	✓
D9	Do Something 2025	AM	ONE HOUR	08:00	09:30	15	✓
D10	Do Something 2025	PM	ONE HOUR	17:00	18:30	15	✓
D11	Do Something 2030	AM	ONE HOUR	08:00	09:30	15	✓
D12	Do Something 2030	PM	ONE HOUR	17:00	18:30	15	✓
D13	Do Something 2040	AM	ONE HOUR	08:00	09:30	15	✓
D14	Do Something 2040	PM	ONE HOUR	17:00	18:30	15	✓

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A2	Junction 2 - Site Access Junctions	✓	100.000	100.000

Junction 2 - Site Access Junctions - Base Year 2022, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		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.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
2	East Access	T-Junction	Two-way		0.00	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	New Road (W)		Major
B	Link Development		Minor
C	New Road (E)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - New Road (E)	6.00			250.0	✓	0.00

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - Link Development	One lane	2.20	45	45

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	473	0.086	0.218	0.137	0.311
B-C	600	0.092	0.232	-	-
C-B	719	0.278	0.278	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Base Year 2022	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - New Road (W)		ONE HOUR	✓	91	100.000
B - Link Development		ONE HOUR	✓	0	100.000
C - New Road (E)		ONE HOUR	✓	83	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - New Road (W)	B - Link Development	C - New Road (E)
From	A - New Road (W)	0	0	91
	B - Link Development	0	0	0
	C - New Road (E)	83	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - New Road (W)	B - Link Development	C - New Road (E)
From	A - New Road (W)	0	0	0
	B - Link Development	0	0	0
	C - New Road (E)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.00	0.00	0.0	A	0	0
C-AB	0.00	0.00	0.0	A	0	0
C-A					76	114
A-B					0	0
A-C					84	125

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	508	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	700	0.000	0	0.0	0.0	0.000	A
C-A	62	16			62				
A-B	0	0			0				
A-C	69	17			69				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	504	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	696	0.000	0	0.0	0.0	0.000	A
C-A	75	19			75				
A-B	0	0			0				
A-C	82	20			82				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	498	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	691	0.000	0	0.0	0.0	0.000	A
C-A	91	23			91				
A-B	0	0			0				
A-C	100	25			100				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	498	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	691	0.000	0	0.0	0.0	0.000	A
C-A	91	23			91				
A-B	0	0			0				
A-C	100	25			100				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	504	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	696	0.000	0	0.0	0.0	0.000	A
C-A	75	19			75				
A-B	0	0			0				
A-C	82	20			82				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	508	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	700	0.000	0	0.0	0.0	0.000	A
C-A	62	16			62				
A-B	0	0			0				
A-C	69	17			69				

Junction 2 - Site Access Junctions - Base Year 2022, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		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.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
2	East Access	T-Junction	Two-way		0.00	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	Base Year 2022	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - New Road (W)		ONE HOUR	✓	99	100.000
B - Link Development		ONE HOUR	✓	0	100.000
C - New Road (E)		ONE HOUR	✓	123	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - New Road (W)	B - Link Development	C - New Road (E)
From	A - New Road (W)	0	0	99
	B - Link Development	0	0	0
	C - New Road (E)	123	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - New Road (W)	B - Link Development	C - New Road (E)
From	A - New Road (W)	0	0	0
	B - Link Development	0	0	0
	C - New Road (E)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.00	0.00	0.0	A	0	0
C-AB	0.00	0.00	0.0	A	0	0
C-A					113	169
A-B					0	0
A-C					91	136

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	504	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	698	0.000	0	0.0	0.0	0.000	A
C-A	93	23			93				
A-B	0	0			0				
A-C	75	19			75				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	499	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	694	0.000	0	0.0	0.0	0.000	A
C-A	111	28			111				
A-B	0	0			0				
A-C	89	22			89				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	492	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	688	0.000	0	0.0	0.0	0.000	A
C-A	135	34			135				
A-B	0	0			0				
A-C	109	27			109				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	492	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	688	0.000	0	0.0	0.0	0.000	A
C-A	135	34			135				
A-B	0	0			0				
A-C	109	27			109				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	499	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	694	0.000	0	0.0	0.0	0.000	A
C-A	111	28			111				
A-B	0	0			0				
A-C	89	22			89				

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	504	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	698	0.000	0	0.0	0.0	0.000	A
C-A	93	23			93				
A-B	0	0			0				
A-C	75	19			75				

Junction 2 - Site Access Junctions - Do Nothing 2025, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
2	East Access	T-Junction	Two-way		0.00	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	Do Nothing 2025	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - New Road (W)		ONE HOUR	✓	109	100.000
B - Link Development		ONE HOUR	✓	0	100.000
C - New Road (E)		ONE HOUR	✓	120	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - New Road (W)	B - Link Development	C - New Road (E)
From	A - New Road (W)	0	0	109
	B - Link Development	0	0	0
	C - New Road (E)	120	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - New Road (W)	B - Link Development	C - New Road (E)
From	A - New Road (W)	0	0	2
	B - Link Development	0	0	0
	C - New Road (E)	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.00	0.00	0.0	A	0	0
C-AB	0.00	0.00	0.0	A	0	0
C-A					110	165
A-B					0	0
A-C					100	150

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	503	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	696	0.000	0	0.0	0.0	0.000	A
C-A	90	23			90				
A-B	0	0			0				
A-C	82	21			82				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	497	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	691	0.000	0	0.0	0.0	0.000	A
C-A	108	27			108				
A-B	0	0			0				
A-C	98	24			98				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	490	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	685	0.000	0	0.0	0.0	0.000	A
C-A	132	33			132				
A-B	0	0			0				
A-C	120	30			120				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	490	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	685	0.000	0	0.0	0.0	0.000	A
C-A	132	33			132				
A-B	0	0			0				
A-C	120	30			120				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	497	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	691	0.000	0	0.0	0.0	0.000	A
C-A	108	27			108				
A-B	0	0			0				
A-C	98	24			98				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	503	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	696	0.000	0	0.0	0.0	0.000	A
C-A	90	23			90				
A-B	0	0			0				
A-C	82	21			82				

Junction 2 - Site Access Junctions - Do Nothing 2025, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
2	East Access	T-Junction	Two-way		0.00	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	Do Nothing 2025	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - New Road (W)		ONE HOUR	✓	128	100.000
B - Link Development		ONE HOUR	✓	0	100.000
C - New Road (E)		ONE HOUR	✓	147	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - New Road (W)	B - Link Development	C - New Road (E)
From	A - New Road (W)	0	0	128
	B - Link Development	0	0	0
	C - New Road (E)	147	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - New Road (W)	B - Link Development	C - New Road (E)
From	A - New Road (W)	0	0	2
	B - Link Development	0	0	0
	C - New Road (E)	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.00	0.00	0.0	A	0	0
C-AB	0.00	0.00	0.0	A	0	0
C-A					135	202
A-B					0	0
A-C					117	176

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	498	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	692	0.000	0	0.0	0.0	0.000	A
C-A	111	28			111				
A-B	0	0			0				
A-C	96	24			96				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	491	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	687	0.000	0	0.0	0.0	0.000	A
C-A	132	33			132				
A-B	0	0			0				
A-C	115	29			115				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	483	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	679	0.000	0	0.0	0.0	0.000	A
C-A	162	40			162				
A-B	0	0			0				
A-C	141	35			141				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	483	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	679	0.000	0	0.0	0.0	0.000	A
C-A	162	40			162				
A-B	0	0			0				
A-C	141	35			141				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	491	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	687	0.000	0	0.0	0.0	0.000	A
C-A	132	33			132				
A-B	0	0			0				
A-C	115	29			115				

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	498	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	692	0.000	0	0.0	0.0	0.000	A
C-A	111	28			111				
A-B	0	0			0				
A-C	96	24			96				

Junction 2 - Site Access Junctions - Do Nothing 2030, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
2	East Access	T-Junction	Two-way		0.00	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	Do Nothing 2030	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - New Road (W)		ONE HOUR	✓	125	100.000
B - Link Development		ONE HOUR	✓	0	100.000
C - New Road (E)		ONE HOUR	✓	161	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - New Road (W)	B - Link Development	C - New Road (E)
From	A - New Road (W)	0	0	125
	B - Link Development	0	0	0
	C - New Road (E)	161	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - New Road (W)	B - Link Development	C - New Road (E)
From	A - New Road (W)	0	0	2
	B - Link Development	0	0	0
	C - New Road (E)	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.00	0.00	0.0	A	0	0
C-AB	0.00	0.00	0.0	A	0	0
C-A					148	222
A-B					0	0
A-C					115	172

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	497	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	693	0.000	0	0.0	0.0	0.000	A
C-A	121	30			121				
A-B	0	0			0				
A-C	94	24			94				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	491	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	687	0.000	0	0.0	0.0	0.000	A
C-A	145	36			145				
A-B	0	0			0				
A-C	112	28			112				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	482	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	680	0.000	0	0.0	0.0	0.000	A
C-A	177	44			177				
A-B	0	0			0				
A-C	138	34			138				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	482	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	680	0.000	0	0.0	0.0	0.000	A
C-A	177	44			177				
A-B	0	0			0				
A-C	138	34			138				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	491	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	687	0.000	0	0.0	0.0	0.000	A
C-A	145	36			145				
A-B	0	0			0				
A-C	112	28			112				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	497	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	693	0.000	0	0.0	0.0	0.000	A
C-A	121	30			121				
A-B	0	0			0				
A-C	94	24			94				

Junction 2 - Site Access Junctions - Do Nothing 2030, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
2	East Access	T-Junction	Two-way		0.00	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	Do Nothing 2030	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - New Road (W)		ONE HOUR	✓	159	100.000
B - Link Development		ONE HOUR	✓	0	100.000
C - New Road (E)		ONE HOUR	✓	176	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - New Road (W)	B - Link Development	C - New Road (E)
From	A - New Road (W)	0	0	159
	B - Link Development	0	0	0
	C - New Road (E)	176	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - New Road (W)	B - Link Development	C - New Road (E)
From	A - New Road (W)	0	0	2
	B - Link Development	0	0	0
	C - New Road (E)	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.00	0.00	0.0	A	0	0
C-AB	0.00	0.00	0.0	A	0	0
C-A					162	242
A-B					0	0
A-C					146	219

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	490	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	685	0.000	0	0.0	0.0	0.000	A
C-A	133	33			133				
A-B	0	0			0				
A-C	120	30			120				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	483	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	679	0.000	0	0.0	0.0	0.000	A
C-A	158	40			158				
A-B	0	0			0				
A-C	143	36			143				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	472	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	670	0.000	0	0.0	0.0	0.000	A
C-A	194	48			194				
A-B	0	0			0				
A-C	175	44			175				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	472	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	670	0.000	0	0.0	0.0	0.000	A
C-A	194	48			194				
A-B	0	0			0				
A-C	175	44			175				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	483	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	679	0.000	0	0.0	0.0	0.000	A
C-A	158	40			158				
A-B	0	0			0				
A-C	143	36			143				

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	490	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	685	0.000	0	0.0	0.0	0.000	A
C-A	133	33			133				
A-B	0	0			0				
A-C	120	30			120				

Junction 2 - Site Access Junctions - Do Nothing 2040, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
2	East Access	T-Junction	Two-way		0.00	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	Do Nothing 2040	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - New Road (W)		ONE HOUR	✓	131	100.000
B - Link Development		ONE HOUR	✓	0	100.000
C - New Road (E)		ONE HOUR	✓	166	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - New Road (W)	B - Link Development	C - New Road (E)
From	A - New Road (W)	0	0	131
	B - Link Development	0	0	0
	C - New Road (E)	166	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - New Road (W)	B - Link Development	C - New Road (E)
From	A - New Road (W)	0	0	2
	B - Link Development	0	0	0
	C - New Road (E)	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.00	0.00	0.0	A	0	0
C-AB	0.00	0.00	0.0	A	0	0
C-A					152	228
A-B					0	0
A-C					120	180

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	496	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	691	0.000	0	0.0	0.0	0.000	A
C-A	125	31			125				
A-B	0	0			0				
A-C	99	25			99				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	489	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	686	0.000	0	0.0	0.0	0.000	A
C-A	149	37			149				
A-B	0	0			0				
A-C	118	29			118				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	480	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	679	0.000	0	0.0	0.0	0.000	A
C-A	183	46			183				
A-B	0	0			0				
A-C	144	36			144				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	480	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	679	0.000	0	0.0	0.0	0.000	A
C-A	183	46			183				
A-B	0	0			0				
A-C	144	36			144				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	489	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	686	0.000	0	0.0	0.0	0.000	A
C-A	149	37			149				
A-B	0	0			0				
A-C	118	29			118				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	496	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	691	0.000	0	0.0	0.0	0.000	A
C-A	125	31			125				
A-B	0	0			0				
A-C	99	25			99				

Junction 2 - Site Access Junctions - Do Nothing 2040, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
2	East Access	T-Junction	Two-way		0.00	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	Do Nothing 2040	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - New Road (W)		ONE HOUR	✓	166	100.000
B - Link Development		ONE HOUR	✓	0	100.000
C - New Road (E)		ONE HOUR	✓	184	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - New Road (W)	B - Link Development	C - New Road (E)
From	A - New Road (W)	0	0	166
	B - Link Development	0	0	0
	C - New Road (E)	184	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - New Road (W)	B - Link Development	C - New Road (E)
From	A - New Road (W)	0	0	2
	B - Link Development	0	0	0
	C - New Road (E)	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.00	0.00	0.0	A	0	0
C-AB	0.00	0.00	0.0	A	0	0
C-A					169	253
A-B					0	0
A-C					152	228

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	489	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	684	0.000	0	0.0	0.0	0.000	A
C-A	139	35			139				
A-B	0	0			0				
A-C	125	31			125				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	481	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	677	0.000	0	0.0	0.0	0.000	A
C-A	165	41			165				
A-B	0	0			0				
A-C	149	37			149				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	470	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	668	0.000	0	0.0	0.0	0.000	A
C-A	203	51			203				
A-B	0	0			0				
A-C	183	46			183				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	470	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	668	0.000	0	0.0	0.0	0.000	A
C-A	203	51			203				
A-B	0	0			0				
A-C	183	46			183				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	481	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	677	0.000	0	0.0	0.0	0.000	A
C-A	165	41			165				
A-B	0	0			0				
A-C	149	37			149				

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	489	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	684	0.000	0	0.0	0.0	0.000	A
C-A	139	35			139				
A-B	0	0			0				
A-C	125	31			125				

Junction 2 - Site Access Junctions - Do Something 2025, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		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.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
2	East Access	T-Junction	Two-way		1.03	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D9	Do Something 2025	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - New Road (W)		ONE HOUR	✓	159	100.000
B - Link Development		ONE HOUR	✓	36	100.000
C - New Road (E)		ONE HOUR	✓	142	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - New Road (W)	B - Link Development	C - New Road (E)
From	A - New Road (W)	0	6	153
	B - Link Development	12	0	24
	C - New Road (E)	131	11	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - New Road (W)	B - Link Development	C - New Road (E)
From	A - New Road (W)	0	0	0
	B - Link Development	0	0	0
	C - New Road (E)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.08	7.81	0.1	A	33	50
C-AB	0.02	4.88	0.0	A	12	18
C-A					118	177
A-B					6	8
A-C					140	211

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	27	7	516	0.052	27	0.0	0.1	7.349	A
C-AB	10	2	746	0.013	9	0.0	0.0	4.884	A
C-A	97	24			97				
A-B	5	1			5				
A-C	115	29			115				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	32	8	510	0.063	32	0.1	0.1	7.539	A
C-AB	12	3	752	0.016	12	0.0	0.0	4.860	A
C-A	116	29			116				
A-B	5	1			5				
A-C	138	34			138				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	40	10	500	0.079	40	0.1	0.1	7.810	A
C-AB	15	4	761	0.020	15	0.0	0.0	4.827	A
C-A	141	35			141				
A-B	7	2			7				
A-C	168	42			168				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	40	10	500	0.079	40	0.1	0.1	7.812	A
C-AB	15	4	761	0.020	15	0.0	0.0	4.830	A
C-A	141	35			141				
A-B	7	2			7				
A-C	168	42			168				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	32	8	510	0.063	32	0.1	0.1	7.542	A
C-AB	12	3	752	0.016	12	0.0	0.0	4.861	A
C-A	116	29			116				
A-B	5	1			5				
A-C	138	34			138				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	27	7	516	0.052	27	0.1	0.1	7.356	A
C-AB	10	2	746	0.013	10	0.0	0.0	4.884	A
C-A	97	24			97				
A-B	5	1			5				
A-C	115	29			115				

Junction 2 - Site Access Junctions - Do Something 2025, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		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.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
2	East Access	T-Junction	Two-way		0.88	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D10	Do Something 2025	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - New Road (W)		ONE HOUR	✓	163	100.000
B - Link Development		ONE HOUR	✓	26	100.000
C - New Road (E)		ONE HOUR	✓	212	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - New Road (W)	B - Link Development	C - New Road (E)
From	A - New Road (W)	0	12	151
	B - Link Development	9	0	17
	C - New Road (E)	188	24	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - New Road (W)	B - Link Development	C - New Road (E)
From	A - New Road (W)	0	0	0
	B - Link Development	0	0	0
	C - New Road (E)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.06	7.78	0.1	A	24	36
C-AB	0.04	4.80	0.1	A	28	43
C-A					166	249
A-B					11	17
A-C					139	208

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	20	5	510	0.038	19	0.0	0.0	7.336	A
C-AB	22	6	772	0.029	22	0.0	0.0	4.798	A
C-A	137	34			137				
A-B	9	2			9				
A-C	114	28			114				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	23	6	502	0.047	23	0.0	0.0	7.515	A
C-AB	28	7	783	0.035	28	0.0	0.0	4.764	A
C-A	163	41			163				
A-B	11	3			11				
A-C	136	34			136				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	29	7	492	0.058	29	0.0	0.1	7.775	A
C-AB	36	9	799	0.045	36	0.0	0.1	4.718	A
C-A	198	49			198				
A-B	13	3			13				
A-C	166	42			166				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	29	7	492	0.058	29	0.1	0.1	7.776	A
C-AB	36	9	799	0.045	36	0.1	0.1	4.717	A
C-A	198	49			198				
A-B	13	3			13				
A-C	166	42			166				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	23	6	502	0.047	23	0.1	0.0	7.520	A
C-AB	28	7	783	0.035	28	0.1	0.0	4.764	A
C-A	163	41			163				
A-B	11	3			11				
A-C	136	34			136				

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	20	5	510	0.038	20	0.0	0.0	7.340	A
C-AB	22	6	772	0.029	22	0.0	0.0	4.799	A
C-A	137	34			137				
A-B	9	2			9				
A-C	114	28			114				

Junction 2 - Site Access Junctions - Do Something 2030, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		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.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
2	East Access	T-Junction	Two-way		0.89	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D11	Do Something 2030	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - New Road (W)		ONE HOUR	✓	175	100.000
B - Link Development		ONE HOUR	✓	36	100.000
C - New Road (E)		ONE HOUR	✓	183	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - New Road (W)	B - Link Development	C - New Road (E)
From	A - New Road (W)	0	6	169
	B - Link Development	12	0	24
	C - New Road (E)	172	11	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - New Road (W)	B - Link Development	C - New Road (E)
From	A - New Road (W)	0	0	0
	B - Link Development	0	0	0
	C - New Road (E)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.08	7.93	0.1	A	33	50
C-AB	0.02	4.79	0.0	A	13	19
C-A					155	233
A-B					6	8
A-C					155	233

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	27	7	512	0.053	27	0.0	0.1	7.422	A
C-AB	10	2	762	0.013	10	0.0	0.0	4.783	A
C-A	128	32			128				
A-B	5	1			5				
A-C	127	32			127				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	32	8	504	0.064	32	0.1	0.1	7.632	A
C-AB	12	3	772	0.016	12	0.0	0.0	4.741	A
C-A	152	38			152				
A-B	5	1			5				
A-C	152	38			152				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	40	10	493	0.080	40	0.1	0.1	7.933	A
C-AB	16	4	784	0.020	16	0.0	0.0	4.683	A
C-A	186	46			186				
A-B	7	2			7				
A-C	186	47			186				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	40	10	493	0.080	40	0.1	0.1	7.935	A
C-AB	16	4	785	0.020	16	0.0	0.0	4.685	A
C-A	185	46			185				
A-B	7	2			7				
A-C	186	47			186				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	32	8	504	0.064	32	0.1	0.1	7.634	A
C-AB	12	3	772	0.016	12	0.0	0.0	4.741	A
C-A	152	38			152				
A-B	5	1			5				
A-C	152	38			152				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	27	7	512	0.053	27	0.1	0.1	7.432	A
C-AB	10	2	762	0.013	10	0.0	0.0	4.785	A
C-A	128	32			128				
A-B	5	1			5				
A-C	127	32			127				

Junction 2 - Site Access Junctions - Do Something 2030, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		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.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
2	East Access	T-Junction	Two-way		0.78	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D12	Do Something 2030	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - New Road (W)		ONE HOUR	✓	194	100.000
B - Link Development		ONE HOUR	✓	26	100.000
C - New Road (E)		ONE HOUR	✓	241	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - New Road (W)	B - Link Development	C - New Road (E)
From	A - New Road (W)	0	12	182
	B - Link Development	9	0	17
	C - New Road (E)	217	24	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - New Road (W)	B - Link Development	C - New Road (E)
From	A - New Road (W)	0	0	0
	B - Link Development	0	0	0
	C - New Road (E)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.06	7.95	0.1	A	24	36
C-AB	0.05	4.76	0.1	A	30	45
C-A					191	287
A-B					11	17
A-C					167	251

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	20	5	503	0.039	19	0.0	0.0	7.440	A
C-AB	23	6	780	0.029	23	0.0	0.0	4.754	A
C-A	159	40			159				
A-B	9	2			9				
A-C	137	34			137				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	23	6	494	0.047	23	0.0	0.0	7.648	A
C-AB	29	7	793	0.036	29	0.0	0.0	4.713	A
C-A	188	47			188				
A-B	11	3			11				
A-C	164	41			164				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	29	7	481	0.059	29	0.0	0.1	7.950	A
C-AB	38	9	811	0.046	37	0.0	0.1	4.655	A
C-A	228	57			228				
A-B	13	3			13				
A-C	200	50			200				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	29	7	481	0.059	29	0.1	0.1	7.952	A
C-AB	38	9	811	0.046	38	0.1	0.1	4.656	A
C-A	228	57			228				
A-B	13	3			13				
A-C	200	50			200				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	23	6	494	0.047	23	0.1	0.1	7.650	A
C-AB	29	7	793	0.036	29	0.1	0.1	4.713	A
C-A	188	47			188				
A-B	11	3			11				
A-C	164	41			164				

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	20	5	503	0.039	20	0.1	0.0	7.448	A
C-AB	23	6	780	0.029	23	0.1	0.0	4.757	A
C-A	159	40			159				
A-B	9	2			9				
A-C	137	34			137				

Junction 2 - Site Access Junctions - Do Something 2040, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		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.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
2	East Access	T-Junction	Two-way		0.87	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D13	Do Something 2040	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - New Road (W)		ONE HOUR	✓	181	100.000
B - Link Development		ONE HOUR	✓	36	100.000
C - New Road (E)		ONE HOUR	✓	188	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - New Road (W)	B - Link Development	C - New Road (E)
From	A - New Road (W)	0	6	175
	B - Link Development	12	0	24
	C - New Road (E)	177	11	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - New Road (W)	B - Link Development	C - New Road (E)
From	A - New Road (W)	0	0	0
	B - Link Development	0	0	0
	C - New Road (E)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.08	7.97	0.1	A	33	50
C-AB	0.02	4.78	0.0	A	13	19
C-A					160	239
A-B					6	8
A-C					161	241

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	27	7	510	0.053	27	0.0	0.1	7.442	A
C-AB	10	3	764	0.013	10	0.0	0.0	4.776	A
C-A	132	33			132				
A-B	5	1			5				
A-C	132	33			132				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	32	8	502	0.064	32	0.1	0.1	7.657	A
C-AB	12	3	773	0.016	12	0.0	0.0	4.732	A
C-A	157	39			157				
A-B	5	1			5				
A-C	157	39			157				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	40	10	491	0.081	40	0.1	0.1	7.967	A
C-AB	16	4	786	0.021	16	0.0	0.0	4.673	A
C-A	191	48			191				
A-B	7	2			7				
A-C	193	48			193				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	40	10	491	0.081	40	0.1	0.1	7.968	A
C-AB	16	4	786	0.021	16	0.0	0.0	4.675	A
C-A	191	48			191				
A-B	7	2			7				
A-C	193	48			193				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	32	8	502	0.064	32	0.1	0.1	7.659	A
C-AB	12	3	773	0.016	12	0.0	0.0	4.735	A
C-A	157	39			157				
A-B	5	1			5				
A-C	157	39			157				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	27	7	510	0.053	27	0.1	0.1	7.449	A
C-AB	10	3	764	0.013	10	0.0	0.0	4.778	A
C-A	131	33			131				
A-B	5	1			5				
A-C	132	33			132				

Junction 2 - Site Access Junctions - Do Something 2040, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		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.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
2	East Access	T-Junction	Two-way		0.76	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D14	Do Something 2040	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - New Road (W)		ONE HOUR	✓	200	100.000
B - Link Development		ONE HOUR	✓	26	100.000
C - New Road (E)		ONE HOUR	✓	249	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - New Road (W)	B - Link Development	C - New Road (E)
From	A - New Road (W)	0	12	188
	B - Link Development	9	0	17
	C - New Road (E)	225	24	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - New Road (W)	B - Link Development	C - New Road (E)
From	A - New Road (W)	0	0	0
	B - Link Development	0	0	0
	C - New Road (E)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.06	7.99	0.1	A	24	36
C-AB	0.05	4.74	0.1	A	30	45
C-A					198	298
A-B					11	17
A-C					173	259

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	20	5	502	0.039	19	0.0	0.0	7.463	A
C-AB	23	6	783	0.029	23	0.0	0.0	4.739	A
C-A	164	41			164				
A-B	9	2			9				
A-C	142	35			142				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	23	6	492	0.047	23	0.0	0.0	7.676	A
C-AB	29	7	796	0.036	29	0.0	0.0	4.695	A
C-A	195	49			195				
A-B	11	3			11				
A-C	169	42			169				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	29	7	479	0.060	29	0.0	0.1	7.989	A
C-AB	38	10	815	0.047	38	0.0	0.1	4.634	A
C-A	236	59			236				
A-B	13	3			13				
A-C	207	52			207				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	29	7	479	0.060	29	0.1	0.1	7.990	A
C-AB	38	10	815	0.047	38	0.1	0.1	4.637	A
C-A	236	59			236				
A-B	13	3			13				
A-C	207	52			207				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	23	6	492	0.047	23	0.1	0.1	7.678	A
C-AB	29	7	796	0.036	29	0.1	0.1	4.697	A
C-A	195	49			195				
A-B	11	3			11				
A-C	169	42			169				

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	20	5	502	0.039	20	0.1	0.0	7.467	A
C-AB	23	6	783	0.030	23	0.1	0.0	4.740	A
C-A	164	41			164				
A-B	9	2			9				
A-C	142	35			142				

Junctions 9

PICADY 9 - Priority Intersection Module

Filename: Junction 3 - East Development.j9
Path: M:\Projects\23\23-129 New Road Donabate\Documents\Reports\Appendices, Figures, & Tables\TTA\Appendix C - Junctions assessment
Report generation date: 15/02/2024 14:29:30

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	Junction 3 - East Development Access Junctions - Base Year 2022							
Stream B-AC	0.0	0.00	0.00	A	0.0	0.00	0.00	A
Stream C-AB	0.0	0.00	0.00	A	0.0	0.00	0.00	A
	Junction 3 - East Development Access Junctions - Do Nothing 2025							
Stream B-AC	0.1	7.74	0.09	A	0.1	7.54	0.05	A
Stream C-AB	0.0	4.94	0.03	A	0.1	4.91	0.04	A
	Junction 3 - East Development Access Junctions - Do Nothing 2030							
Stream B-AC	0.1	7.86	0.10	A	0.1	7.71	0.05	A
Stream C-AB	0.0	4.85	0.03	A	0.1	4.87	0.04	A
	Junction 3 - East Development Access Junctions - Do Nothing 2040							
Stream B-AC	0.1	7.90	0.10	A	0.1	7.75	0.05	A
Stream C-AB	0.0	4.84	0.03	A	0.1	4.86	0.04	A
	Junction 3 - East Development Access Junctions - Do Something 2025							
Stream B-AC	0.1	8.07	0.10	A	0.1	7.79	0.05	A
Stream C-AB	0.0	4.96	0.03	A	0.1	4.76	0.05	A
	Junction 3 - East Development Access Junctions - Do Something 2030							
Stream B-AC	0.1	8.21	0.10	A	0.1	7.97	0.05	A
Stream C-AB	0.0	4.85	0.03	A	0.1	4.72	0.05	A
	Junction 3 - East Development Access Junctions - Do Something 2040							
Stream B-AC	0.1	8.24	0.10	A	0.1	8.01	0.05	A
Stream C-AB	0.0	4.85	0.03	A	0.1	4.70	0.05	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.

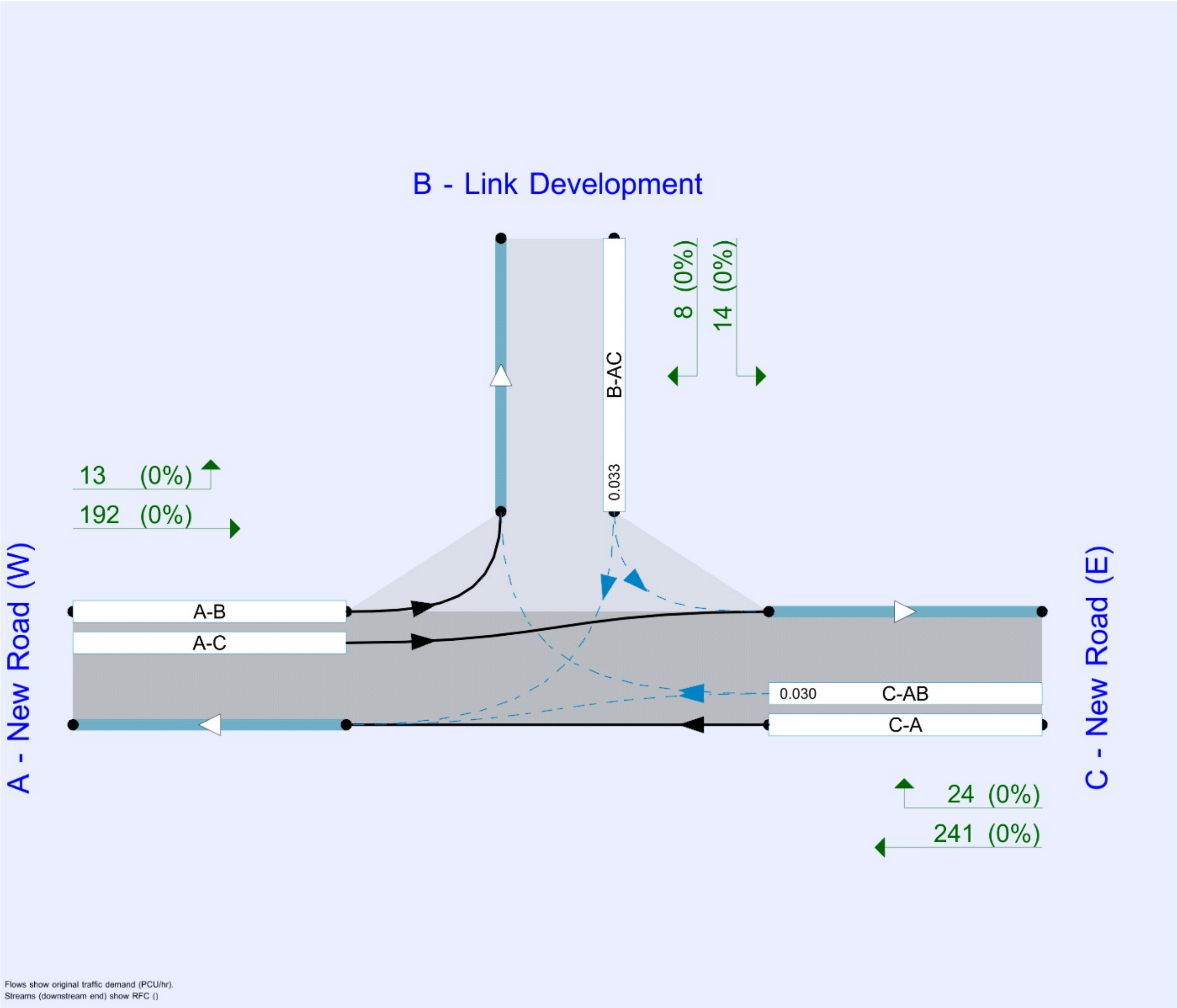
File summary

File Description

Title	Junction 3 - East Development Access
Location	Donabate
Site number	
Date	14/02/2024
Version	1
Status	(new file)
Identifier	
Client	
Jobnumber	23-129
Enumerator	DOMAIN\l.byrne
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



The junction diagram reflects the last run of Junctions.

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Base Year 2022	AM	ONE HOUR	08:00	09:30	15	✓
D2	Base Year 2022	PM	ONE HOUR	17:00	18:30	15	✓
D3	Do Nothing 2025	AM	ONE HOUR	08:00	09:30	15	✓
D4	Do Nothing 2025	PM	ONE HOUR	17:00	18:30	15	✓
D5	Do Nothing 2030	AM	ONE HOUR	08:00	09:30	15	✓
D6	Do Nothing 2030	PM	ONE HOUR	17:00	18:30	15	✓
D7	Do Nothing 2040	AM	ONE HOUR	08:00	09:30	15	✓
D8	Do Nothing 2040	PM	ONE HOUR	17:00	18:30	15	✓
D9	Do Something 2025	AM	ONE HOUR	08:00	09:30	15	✓
D10	Do Something 2025	PM	ONE HOUR	17:00	18:30	15	✓
D11	Do Something 2030	AM	ONE HOUR	08:00	09:30	15	✓
D12	Do Something 2030	PM	ONE HOUR	17:00	18:30	15	✓
D13	Do Something 2040	AM	ONE HOUR	08:00	09:30	15	✓
D14	Do Something 2040	PM	ONE HOUR	17:00	18:30	15	✓

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A3	Junction 3 - East Development Access Junctions	✓	100.000	100.000

Junction 3 - East Development Access Junctions - Base Year 2022, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		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.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
3	East Development	T-Junction	Two-way		0.00	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	New Road (W)		Major
B	Link Development		Minor
C	New Road (E)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - New Road (E)	6.00			250.0	✓	0.00

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - Link Development	One lane	2.20	45	45

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	473	0.086	0.218	0.137	0.311
B-C	600	0.092	0.232	-	-
C-B	719	0.278	0.278	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Base Year 2022	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - New Road (W)		ONE HOUR	✓	91	100.000
B - Link Development		ONE HOUR	✓	0	100.000
C - New Road (E)		ONE HOUR	✓	83	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - New Road (W)	B - Link Development	C - New Road (E)
From	A - New Road (W)	0	0	91
	B - Link Development	0	0	0
	C - New Road (E)	83	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - New Road (W)	B - Link Development	C - New Road (E)
From	A - New Road (W)	0	0	0
	B - Link Development	0	0	0
	C - New Road (E)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.00	0.00	0.0	A	0	0
C-AB	0.00	0.00	0.0	A	0	0
C-A					76	114
A-B					0	0
A-C					84	125

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	508	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	700	0.000	0	0.0	0.0	0.000	A
C-A	62	16			62				
A-B	0	0			0				
A-C	69	17			69				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	504	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	696	0.000	0	0.0	0.0	0.000	A
C-A	75	19			75				
A-B	0	0			0				
A-C	82	20			82				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	498	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	691	0.000	0	0.0	0.0	0.000	A
C-A	91	23			91				
A-B	0	0			0				
A-C	100	25			100				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	498	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	691	0.000	0	0.0	0.0	0.000	A
C-A	91	23			91				
A-B	0	0			0				
A-C	100	25			100				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	504	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	696	0.000	0	0.0	0.0	0.000	A
C-A	75	19			75				
A-B	0	0			0				
A-C	82	20			82				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	508	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	700	0.000	0	0.0	0.0	0.000	A
C-A	62	16			62				
A-B	0	0			0				
A-C	69	17			69				

Junction 3 - East Development Access Junctions - Base Year 2022, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		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.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
3	East Development	T-Junction	Two-way		0.00	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	Base Year 2022	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - New Road (W)		ONE HOUR	✓	99	100.000
B - Link Development		ONE HOUR	✓	0	100.000
C - New Road (E)		ONE HOUR	✓	123	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - New Road (W)	B - Link Development	C - New Road (E)
From	A - New Road (W)	0	0	99
	B - Link Development	0	0	0
	C - New Road (E)	123	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - New Road (W)	B - Link Development	C - New Road (E)
From	A - New Road (W)	0	0	0
	B - Link Development	0	0	0
	C - New Road (E)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.00	0.00	0.0	A	0	0
C-AB	0.00	0.00	0.0	A	0	0
C-A					113	169
A-B					0	0
A-C					91	136

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	504	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	698	0.000	0	0.0	0.0	0.000	A
C-A	93	23			93				
A-B	0	0			0				
A-C	75	19			75				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	499	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	694	0.000	0	0.0	0.0	0.000	A
C-A	111	28			111				
A-B	0	0			0				
A-C	89	22			89				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	492	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	688	0.000	0	0.0	0.0	0.000	A
C-A	135	34			135				
A-B	0	0			0				
A-C	109	27			109				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	492	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	688	0.000	0	0.0	0.0	0.000	A
C-A	135	34			135				
A-B	0	0			0				
A-C	109	27			109				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	499	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	694	0.000	0	0.0	0.0	0.000	A
C-A	111	28			111				
A-B	0	0			0				
A-C	89	22			89				

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	0	0	504	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	698	0.000	0	0.0	0.0	0.000	A
C-A	93	23			93				
A-B	0	0			0				
A-C	75	19			75				

Junction 3 - East Development Access Junctions - Do Nothing 2025, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
3	East Development	T-Junction	Two-way		1.59	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	Do Nothing 2025	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - New Road (W)		ONE HOUR	✓	109	100.000
B - Link Development		ONE HOUR	✓	44	100.000
C - New Road (E)		ONE HOUR	✓	122	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - New Road (W)	B - Link Development	C - New Road (E)
From	A - New Road (W)	0	9	100
	B - Link Development	15	0	29
	C - New Road (E)	105	17	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - New Road (W)	B - Link Development	C - New Road (E)
From	A - New Road (W)	0	0	2
	B - Link Development	0	0	0
	C - New Road (E)	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.09	7.74	0.1	A	40	61
C-AB	0.03	4.94	0.0	A	18	27
C-A					94	141
A-B					8	12
A-C					92	138

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	33	8	525	0.063	33	0.0	0.1	7.313	A
C-AB	14	4	744	0.019	14	0.0	0.0	4.940	A
C-A	78	19			78				
A-B	7	2			7				
A-C	75	19			75				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	40	10	520	0.076	39	0.1	0.1	7.491	A
C-AB	17	4	750	0.023	17	0.0	0.0	4.928	A
C-A	92	23			92				
A-B	8	2			8				
A-C	90	22			90				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	48	12	513	0.094	48	0.1	0.1	7.743	A
C-AB	22	6	757	0.029	22	0.0	0.0	4.912	A
C-A	112	28			112				
A-B	10	2			10				
A-C	110	28			110				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	48	12	513	0.094	48	0.1	0.1	7.744	A
C-AB	22	6	757	0.029	22	0.0	0.0	4.915	A
C-A	112	28			112				
A-B	10	2			10				
A-C	110	28			110				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	40	10	520	0.076	40	0.1	0.1	7.497	A
C-AB	18	4	750	0.023	18	0.0	0.0	4.933	A
C-A	92	23			92				
A-B	8	2			8				
A-C	90	22			90				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	33	8	525	0.063	33	0.1	0.1	7.324	A
C-AB	14	4	744	0.019	14	0.0	0.0	4.944	A
C-A	78	19			78				
A-B	7	2			7				
A-C	75	19			75				

Junction 3 - East Development Access Junctions - Do Nothing 2025, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
3	East Development	T-Junction	Two-way		0.98	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	Do Nothing 2025	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - New Road (W)		ONE HOUR	✓	128	100.000
B - Link Development		ONE HOUR	✓	22	100.000
C - New Road (E)		ONE HOUR	✓	163	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - New Road (W)	B - Link Development	C - New Road (E)
From	A - New Road (W)	0	13	115
	B - Link Development	8	0	14
	C - New Road (E)	139	24	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - New Road (W)	B - Link Development	C - New Road (E)
From	A - New Road (W)	0	0	2
	B - Link Development	0	0	0
	C - New Road (E)	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.05	7.54	0.1	A	20	30
C-AB	0.04	4.91	0.1	A	27	40
C-A					123	184
A-B					12	18
A-C					106	158

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	17	4	516	0.032	16	0.0	0.0	7.204	A
C-AB	21	5	756	0.028	21	0.0	0.0	4.908	A
C-A	102	25			102				
A-B	10	2			10				
A-C	87	22			87				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	20	5	510	0.039	20	0.0	0.0	7.343	A
C-AB	26	6	764	0.034	26	0.0	0.0	4.891	A
C-A	121	30			121				
A-B	12	3			12				
A-C	103	26			103				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	24	6	502	0.048	24	0.0	0.1	7.541	A
C-AB	33	8	775	0.043	33	0.0	0.1	4.871	A
C-A	146	37			146				
A-B	14	4			14				
A-C	127	32			127				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	24	6	502	0.048	24	0.1	0.1	7.541	A
C-AB	33	8	775	0.043	33	0.1	0.1	4.872	A
C-A	146	37			146				
A-B	14	4			14				
A-C	127	32			127				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	20	5	510	0.039	20	0.1	0.0	7.347	A
C-AB	26	6	764	0.034	26	0.1	0.0	4.895	A
C-A	121	30			121				
A-B	12	3			12				
A-C	103	26			103				

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	17	4	516	0.032	17	0.0	0.0	7.210	A
C-AB	21	5	756	0.028	21	0.0	0.0	4.910	A
C-A	102	25			102				
A-B	10	2			10				
A-C	87	22			87				

Junction 3 - East Development Access Junctions - Do Nothing 2030, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
3	East Development	T-Junction	Two-way		1.34	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	Do Nothing 2030	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - New Road (W)		ONE HOUR	✓	125	100.000
B - Link Development		ONE HOUR	✓	44	100.000
C - New Road (E)		ONE HOUR	✓	163	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - New Road (W)	B - Link Development	C - New Road (E)
From	A - New Road (W)	0	9	116
	B - Link Development	15	0	29
	C - New Road (E)	146	17	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - New Road (W)	B - Link Development	C - New Road (E)
From	A - New Road (W)	0	0	2
	B - Link Development	0	0	0
	C - New Road (E)	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.10	7.86	0.1	A	40	61
C-AB	0.03	4.85	0.0	A	19	29
C-A					131	196
A-B					8	12
A-C					106	160

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	33	8	520	0.064	33	0.0	0.1	7.385	A
C-AB	15	4	760	0.020	15	0.0	0.0	4.844	A
C-A	108	27			108				
A-B	7	2			7				
A-C	87	22			87				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	40	10	514	0.077	39	0.1	0.1	7.582	A
C-AB	18	5	769	0.024	18	0.0	0.0	4.813	A
C-A	128	32			128				
A-B	8	2			8				
A-C	104	26			104				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	48	12	506	0.096	48	0.1	0.1	7.861	A
C-AB	24	6	780	0.030	24	0.0	0.0	4.774	A
C-A	156	39			156				
A-B	10	2			10				
A-C	128	32			128				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	48	12	506	0.096	48	0.1	0.1	7.865	A
C-AB	24	6	780	0.030	24	0.0	0.0	4.778	A
C-A	156	39			156				
A-B	10	2			10				
A-C	128	32			128				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	40	10	514	0.077	40	0.1	0.1	7.588	A
C-AB	18	5	769	0.024	18	0.0	0.0	4.819	A
C-A	128	32			128				
A-B	8	2			8				
A-C	104	26			104				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	33	8	520	0.064	33	0.1	0.1	7.393	A
C-AB	15	4	760	0.020	15	0.0	0.0	4.846	A
C-A	108	27			108				
A-B	7	2			7				
A-C	87	22			87				

Junction 3 - East Development Access Junctions - Do Nothing 2030, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
3	East Development	T-Junction	Two-way		0.85	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	Do Nothing 2030	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - New Road (W)		ONE HOUR	✓	159	100.000
B - Link Development		ONE HOUR	✓	22	100.000
C - New Road (E)		ONE HOUR	✓	192	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - New Road (W)	B - Link Development	C - New Road (E)
From	A - New Road (W)	0	13	146
	B - Link Development	8	0	14
	C - New Road (E)	168	24	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - New Road (W)	B - Link Development	C - New Road (E)
From	A - New Road (W)	0	0	2
	B - Link Development	0	0	0
	C - New Road (E)	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.05	7.71	0.1	A	20	30
C-AB	0.04	4.87	0.1	A	28	42
C-A					148	223
A-B					12	18
A-C					134	201

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	17	4	509	0.033	16	0.0	0.0	7.305	A
C-AB	22	5	764	0.028	22	0.0	0.0	4.866	A
C-A	123	31			123				
A-B	10	2			10				
A-C	110	27			110				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	20	5	502	0.039	20	0.0	0.0	7.469	A
C-AB	27	7	773	0.035	27	0.0	0.0	4.841	A
C-A	146	36			146				
A-B	12	3			12				
A-C	131	33			131				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	24	6	491	0.049	24	0.0	0.1	7.706	A
C-AB	35	9	786	0.044	35	0.0	0.1	4.810	A
C-A	177	44			177				
A-B	14	4			14				
A-C	161	40			161				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	24	6	491	0.049	24	0.1	0.1	7.707	A
C-AB	35	9	786	0.044	35	0.1	0.1	4.812	A
C-A	177	44			177				
A-B	14	4			14				
A-C	161	40			161				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	20	5	502	0.039	20	0.1	0.0	7.471	A
C-AB	27	7	773	0.035	27	0.1	0.0	4.846	A
C-A	146	36			146				
A-B	12	3			12				
A-C	131	33			131				

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	17	4	509	0.033	17	0.0	0.0	7.309	A
C-AB	22	5	764	0.028	22	0.0	0.0	4.869	A
C-A	123	31			123				
A-B	10	2			10				
A-C	110	27			110				

Junction 3 - East Development Access Junctions - Do Nothing 2040, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
3	East Development	T-Junction	Two-way		1.31	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	Do Nothing 2040	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - New Road (W)		ONE HOUR	✓	131	100.000
B - Link Development		ONE HOUR	✓	44	100.000
C - New Road (E)		ONE HOUR	✓	168	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - New Road (W)	B - Link Development	C - New Road (E)
From	A - New Road (W)	0	9	122
	B - Link Development	15	0	29
	C - New Road (E)	151	17	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - New Road (W)	B - Link Development	C - New Road (E)
From	A - New Road (W)	0	0	2
	B - Link Development	0	0	0
	C - New Road (E)	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.10	7.90	0.1	A	40	61
C-AB	0.03	4.84	0.0	A	19	29
C-A					135	203
A-B					8	12
A-C					112	168

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	33	8	519	0.064	33	0.0	0.1	7.405	A
C-AB	15	4	761	0.020	15	0.0	0.0	4.837	A
C-A	111	28			111				
A-B	7	2			7				
A-C	92	23			92				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	40	10	513	0.077	39	0.1	0.1	7.607	A
C-AB	19	5	770	0.024	19	0.0	0.0	4.806	A
C-A	132	33			132				
A-B	8	2			8				
A-C	110	27			110				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	48	12	504	0.096	48	0.1	0.1	7.894	A
C-AB	24	6	782	0.030	24	0.0	0.0	4.765	A
C-A	161	40			161				
A-B	10	2			10				
A-C	134	34			134				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	48	12	504	0.096	48	0.1	0.1	7.898	A
C-AB	24	6	782	0.030	24	0.0	0.0	4.768	A
C-A	161	40			161				
A-B	10	2			10				
A-C	134	34			134				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	40	10	513	0.077	40	0.1	0.1	7.610	A
C-AB	19	5	770	0.024	19	0.0	0.0	4.810	A
C-A	132	33			132				
A-B	8	2			8				
A-C	110	27			110				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	33	8	519	0.064	33	0.1	0.1	7.413	A
C-AB	15	4	761	0.020	15	0.0	0.0	4.839	A
C-A	111	28			111				
A-B	7	2			7				
A-C	92	23			92				

Junction 3 - East Development Access Junctions - Do Nothing 2040, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
3	East Development	T-Junction	Two-way		0.82	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	Do Nothing 2040	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - New Road (W)		ONE HOUR	✓	166	100.000
B - Link Development		ONE HOUR	✓	22	100.000
C - New Road (E)		ONE HOUR	✓	200	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - New Road (W)	B - Link Development	C - New Road (E)
From	A - New Road (W)	0	13	153
	B - Link Development	8	0	14
	C - New Road (E)	176	24	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - New Road (W)	B - Link Development	C - New Road (E)
From	A - New Road (W)	0	0	2
	B - Link Development	0	0	0
	C - New Road (E)	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.05	7.75	0.1	A	20	30
C-AB	0.04	4.86	0.1	A	28	42
C-A					155	233
A-B					12	18
A-C					140	211

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	17	4	507	0.033	16	0.0	0.0	7.329	A
C-AB	22	5	766	0.029	22	0.0	0.0	4.853	A
C-A	129	32			129				
A-B	10	2			10				
A-C	115	29			115				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	20	5	500	0.040	20	0.0	0.0	7.500	A
C-AB	27	7	776	0.035	27	0.0	0.0	4.825	A
C-A	153	38			153				
A-B	12	3			12				
A-C	138	34			138				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	24	6	489	0.050	24	0.0	0.1	7.747	A
C-AB	35	9	790	0.044	35	0.0	0.1	4.793	A
C-A	185	46			185				
A-B	14	4			14				
A-C	168	42			168				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	24	6	489	0.050	24	0.1	0.1	7.747	A
C-AB	35	9	790	0.044	35	0.1	0.1	4.795	A
C-A	185	46			185				
A-B	14	4			14				
A-C	168	42			168				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	20	5	500	0.040	20	0.1	0.0	7.504	A
C-AB	27	7	776	0.035	27	0.1	0.0	4.830	A
C-A	153	38			153				
A-B	12	3			12				
A-C	138	34			138				

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	17	4	507	0.033	17	0.0	0.0	7.333	A
C-AB	22	5	766	0.029	22	0.0	0.0	4.857	A
C-A	129	32			129				
A-B	10	2			10				
A-C	115	29			115				

Junction 3 - East Development Access Junctions - Do Something 2025, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		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.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
3	East Development	T-Junction	Two-way		1.25	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D9	Do Something 2025	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - New Road (W)		ONE HOUR	✓	177	100.000
B - Link Development		ONE HOUR	✓	44	100.000
C - New Road (E)		ONE HOUR	✓	144	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - New Road (W)	B - Link Development	C - New Road (E)
From	A - New Road (W)	0	9	168
	B - Link Development	15	0	29
	C - New Road (E)	127	17	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - New Road (W)	B - Link Development	C - New Road (E)
From	A - New Road (W)	0	0	0
	B - Link Development	0	0	0
	C - New Road (E)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.10	8.07	0.1	A	40	61
C-AB	0.03	4.96	0.0	A	19	28
C-A					114	170
A-B					8	12
A-C					154	231

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	33	8	512	0.065	33	0.0	0.1	7.509	A
C-AB	15	4	741	0.020	15	0.0	0.0	4.955	A
C-A	94	23			94				
A-B	7	2			7				
A-C	126	32			126				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	40	10	505	0.078	39	0.1	0.1	7.738	A
C-AB	18	5	746	0.024	18	0.0	0.0	4.946	A
C-A	111	28			111				
A-B	8	2			8				
A-C	151	38			151				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	48	12	494	0.098	48	0.1	0.1	8.069	A
C-AB	23	6	753	0.031	23	0.0	0.0	4.933	A
C-A	136	34			136				
A-B	10	2			10				
A-C	185	46			185				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	48	12	494	0.098	48	0.1	0.1	8.072	A
C-AB	23	6	753	0.031	23	0.0	0.0	4.933	A
C-A	136	34			136				
A-B	10	2			10				
A-C	185	46			185				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	40	10	505	0.078	40	0.1	0.1	7.744	A
C-AB	18	5	746	0.024	18	0.0	0.0	4.946	A
C-A	111	28			111				
A-B	8	2			8				
A-C	151	38			151				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	33	8	512	0.065	33	0.1	0.1	7.518	A
C-AB	15	4	741	0.020	15	0.0	0.0	4.958	A
C-A	94	23			94				
A-B	7	2			7				
A-C	126	32			126				

Junction 3 - East Development Access Junctions - Do Something 2025, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		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.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
3	East Development	T-Junction	Two-way		0.77	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D10	Do Something 2025	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - New Road (W)		ONE HOUR	✓	168	100.000
B - Link Development		ONE HOUR	✓	22	100.000
C - New Road (E)		ONE HOUR	✓	228	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - New Road (W)	B - Link Development	C - New Road (E)
From	A - New Road (W)	0	13	155
	B - Link Development	8	0	14
	C - New Road (E)	204	24	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - New Road (W)	B - Link Development	C - New Road (E)
From	A - New Road (W)	0	0	0
	B - Link Development	0	0	0
	C - New Road (E)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.05	7.79	0.1	A	20	30
C-AB	0.05	4.76	0.1	A	29	44
C-A					180	270
A-B					12	18
A-C					142	213

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	17	4	506	0.033	16	0.0	0.0	7.357	A
C-AB	23	6	779	0.029	22	0.0	0.0	4.759	A
C-A	149	37			149				
A-B	10	2			10				
A-C	117	29			117				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	20	5	497	0.040	20	0.0	0.0	7.535	A
C-AB	28	7	791	0.036	28	0.0	0.0	4.719	A
C-A	177	44			177				
A-B	12	3			12				
A-C	139	35			139				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	24	6	486	0.050	24	0.0	0.1	7.794	A
C-AB	37	9	809	0.045	37	0.0	0.1	4.663	A
C-A	214	54			214				
A-B	14	4			14				
A-C	171	43			171				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	24	6	486	0.050	24	0.1	0.1	7.794	A
C-AB	37	9	809	0.045	37	0.1	0.1	4.663	A
C-A	214	54			214				
A-B	14	4			14				
A-C	171	43			171				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	20	5	497	0.040	20	0.1	0.0	7.540	A
C-AB	28	7	791	0.036	28	0.1	0.0	4.719	A
C-A	177	44			177				
A-B	12	3			12				
A-C	139	35			139				

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	17	4	506	0.033	17	0.0	0.0	7.364	A
C-AB	23	6	779	0.029	23	0.0	0.0	4.762	A
C-A	149	37			149				
A-B	10	2			10				
A-C	117	29			117				

Junction 3 - East Development Access Junctions - Do Something 2030, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		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.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
3	East Development	T-Junction	Two-way		1.10	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D11	Do Something 2030	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - New Road (W)		ONE HOUR	✓	193	100.000
B - Link Development		ONE HOUR	✓	44	100.000
C - New Road (E)		ONE HOUR	✓	185	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - New Road (W)	B - Link Development	C - New Road (E)
From	A - New Road (W)	0	9	184
	B - Link Development	15	0	29
	C - New Road (E)	168	17	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - New Road (W)	B - Link Development	C - New Road (E)
From	A - New Road (W)	0	0	0
	B - Link Development	0	0	0
	C - New Road (E)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.10	8.21	0.1	A	40	61
C-AB	0.03	4.85	0.0	A	20	30
C-A					150	225
A-B					8	12
A-C					169	253

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	33	8	507	0.065	33	0.0	0.1	7.586	A
C-AB	15	4	757	0.020	15	0.0	0.0	4.853	A
C-A	124	31			124				
A-B	7	2			7				
A-C	139	35			139				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	40	10	499	0.079	39	0.1	0.1	7.836	A
C-AB	19	5	765	0.025	19	0.0	0.0	4.824	A
C-A	147	37			147				
A-B	8	2			8				
A-C	165	41			165				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	48	12	487	0.099	48	0.1	0.1	8.202	A
C-AB	25	6	777	0.032	25	0.0	0.0	4.785	A
C-A	179	45			179				
A-B	10	2			10				
A-C	203	51			203				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	48	12	487	0.099	48	0.1	0.1	8.205	A
C-AB	25	6	777	0.032	25	0.0	0.0	4.788	A
C-A	179	45			179				
A-B	10	2			10				
A-C	203	51			203				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	40	10	499	0.079	40	0.1	0.1	7.843	A
C-AB	19	5	765	0.025	19	0.0	0.0	4.827	A
C-A	147	37			147				
A-B	8	2			8				
A-C	165	41			165				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	33	8	507	0.065	33	0.1	0.1	7.595	A
C-AB	15	4	757	0.020	15	0.0	0.0	4.853	A
C-A	124	31			124				
A-B	7	2			7				
A-C	139	35			139				

Junction 3 - East Development Access Junctions - Do Something 2030, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		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.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
3	East Development	T-Junction	Two-way		0.69	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D12	Do Something 2030	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - New Road (W)		ONE HOUR	✓	199	100.000
B - Link Development		ONE HOUR	✓	22	100.000
C - New Road (E)		ONE HOUR	✓	257	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - New Road (W)	B - Link Development	C - New Road (E)
From	A - New Road (W)	0	13	186
	B - Link Development	8	0	14
	C - New Road (E)	233	24	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - New Road (W)	B - Link Development	C - New Road (E)
From	A - New Road (W)	0	0	0
	B - Link Development	0	0	0
	C - New Road (E)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.05	7.97	0.1	A	20	30
C-AB	0.05	4.72	0.1	A	30	46
C-A					205	308
A-B					12	18
A-C					171	256

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	17	4	499	0.033	16	0.0	0.0	7.463	A
C-AB	23	6	786	0.030	23	0.0	0.0	4.716	A
C-A	170	43			170				
A-B	10	2			10				
A-C	140	35			140				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	20	5	489	0.040	20	0.0	0.0	7.670	A
C-AB	29	7	801	0.037	29	0.0	0.0	4.667	A
C-A	202	50			202				
A-B	12	3			12				
A-C	167	42			167				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	24	6	476	0.051	24	0.0	0.1	7.971	A
C-AB	39	10	821	0.047	38	0.0	0.1	4.604	A
C-A	244	61			244				
A-B	14	4			14				
A-C	205	51			205				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	24	6	476	0.051	24	0.1	0.1	7.972	A
C-AB	39	10	821	0.047	39	0.1	0.1	4.605	A
C-A	244	61			244				
A-B	14	4			14				
A-C	205	51			205				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	20	5	489	0.040	20	0.1	0.0	7.674	A
C-AB	29	7	801	0.037	29	0.1	0.1	4.670	A
C-A	202	50			202				
A-B	12	3			12				
A-C	167	42			167				

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	17	4	499	0.033	17	0.0	0.0	7.471	A
C-AB	23	6	786	0.030	23	0.1	0.0	4.717	A
C-A	170	43			170				
A-B	10	2			10				
A-C	140	35			140				

Junction 3 - East Development Access Junctions - Do Something 2040, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		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.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
3	East Development	T-Junction	Two-way		1.08	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D13	Do Something 2040	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - New Road (W)		ONE HOUR	✓	199	100.000
B - Link Development		ONE HOUR	✓	44	100.000
C - New Road (E)		ONE HOUR	✓	190	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - New Road (W)	B - Link Development	C - New Road (E)
From	A - New Road (W)	0	9	190
	B - Link Development	15	0	29
	C - New Road (E)	173	17	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - New Road (W)	B - Link Development	C - New Road (E)
From	A - New Road (W)	0	0	0
	B - Link Development	0	0	0
	C - New Road (E)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.10	8.24	0.1	A	40	61
C-AB	0.03	4.85	0.0	A	20	30
C-A					155	232
A-B					8	12
A-C					174	262

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	33	8	506	0.065	33	0.0	0.1	7.607	A
C-AB	15	4	758	0.020	15	0.0	0.0	4.845	A
C-A	128	32			128				
A-B	7	2			7				
A-C	143	36			143				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	40	10	497	0.080	39	0.1	0.1	7.863	A
C-AB	19	5	767	0.025	19	0.0	0.0	4.815	A
C-A	152	38			152				
A-B	8	2			8				
A-C	171	43			171				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	48	12	485	0.100	48	0.1	0.1	8.238	A
C-AB	25	6	779	0.032	25	0.0	0.0	4.775	A
C-A	184	46			184				
A-B	10	2			10				
A-C	209	52			209				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	48	12	485	0.100	48	0.1	0.1	8.241	A
C-AB	25	6	779	0.032	25	0.0	0.0	4.775	A
C-A	184	46			184				
A-B	10	2			10				
A-C	209	52			209				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	40	10	497	0.080	40	0.1	0.1	7.870	A
C-AB	19	5	767	0.025	19	0.0	0.0	4.818	A
C-A	152	38			152				
A-B	8	2			8				
A-C	171	43			171				

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	33	8	506	0.065	33	0.1	0.1	7.615	A
C-AB	15	4	758	0.020	16	0.0	0.0	4.848	A
C-A	128	32			128				
A-B	7	2			7				
A-C	143	36			143				

Junction 3 - East Development Access Junctions - Do Something 2040, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		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.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
3	East Development	T-Junction	Two-way		0.68	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D14	Do Something 2040	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - New Road (W)		ONE HOUR	✓	205	100.000
B - Link Development		ONE HOUR	✓	22	100.000
C - New Road (E)		ONE HOUR	✓	265	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - New Road (W)	B - Link Development	C - New Road (E)
From	A - New Road (W)	0	13	192
	B - Link Development	8	0	14
	C - New Road (E)	241	24	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - New Road (W)	B - Link Development	C - New Road (E)
From	A - New Road (W)	0	0	0
	B - Link Development	0	0	0
	C - New Road (E)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.05	8.01	0.1	A	20	30
C-AB	0.05	4.70	0.1	A	31	46
C-A					212	319
A-B					12	18
A-C					176	264

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	17	4	497	0.033	16	0.0	0.0	7.486	A
C-AB	23	6	789	0.030	23	0.0	0.0	4.701	A
C-A	176	44			176				
A-B	10	2			10				
A-C	145	36			145				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	20	5	487	0.041	20	0.0	0.0	7.700	A
C-AB	30	7	804	0.037	30	0.0	0.1	4.651	A
C-A	209	52			209				
A-B	12	3			12				
A-C	173	43			173				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	24	6	474	0.051	24	0.0	0.1	8.010	A
C-AB	39	10	825	0.047	39	0.1	0.1	4.584	A
C-A	253	63			253				
A-B	14	4			14				
A-C	211	53			211				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	24	6	474	0.051	24	0.1	0.1	8.012	A
C-AB	39	10	825	0.047	39	0.1	0.1	4.585	A
C-A	253	63			253				
A-B	14	4			14				
A-C	211	53			211				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	20	5	487	0.041	20	0.1	0.0	7.701	A
C-AB	30	7	804	0.037	30	0.1	0.1	4.652	A
C-A	209	52			209				
A-B	12	3			12				
A-C	173	43			173				

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	17	4	497	0.033	17	0.0	0.0	7.494	A
C-AB	24	6	789	0.030	24	0.1	0.0	4.702	A
C-A	176	44			176				
A-B	10	2			10				
A-C	145	36			145				

TRANSYT 15

Version: 15.5.2.7994

For sales and distribution information, program advice and maintenance, contact TRL:
+44 (0)1344 379777 software@trl.co.uk www.trlsoftware.co.uk

Filename: Junction 4 - AM.t15
Path: M:\Projects\23\23-129 New Road Donabate\Documents\Reports\Appendices, Figures, & Tables\TTA\Appendix C - Junctions assessment
Report generation date: 15/02/2024 16:43:33

File summary

File description

File title	Junction 4 - AM
Location	Donabate
Site number	
UTCRegion	
Driving side	Left
Date	15/02/2024
Version	1
Status	(new file)
Identifier	
Client	
Jobnumber	23-129
Enumerator	DOMAIN\l.byrne
Description	

Model and Results

Enable controller offsets	Enable fuel consumption	Enable quick flares	Display journey time results	Display level of service results	Display blocking and starvation results	Display end of red and green queue results	Display excess queue results	Display separate uniform and random results	Display unweighted results	Display TRANSYT 12 style timings	Display effective greens in results	Display Red-With-Amber	Display End-Of-Green Amber
			✓		✓		✓	✓					

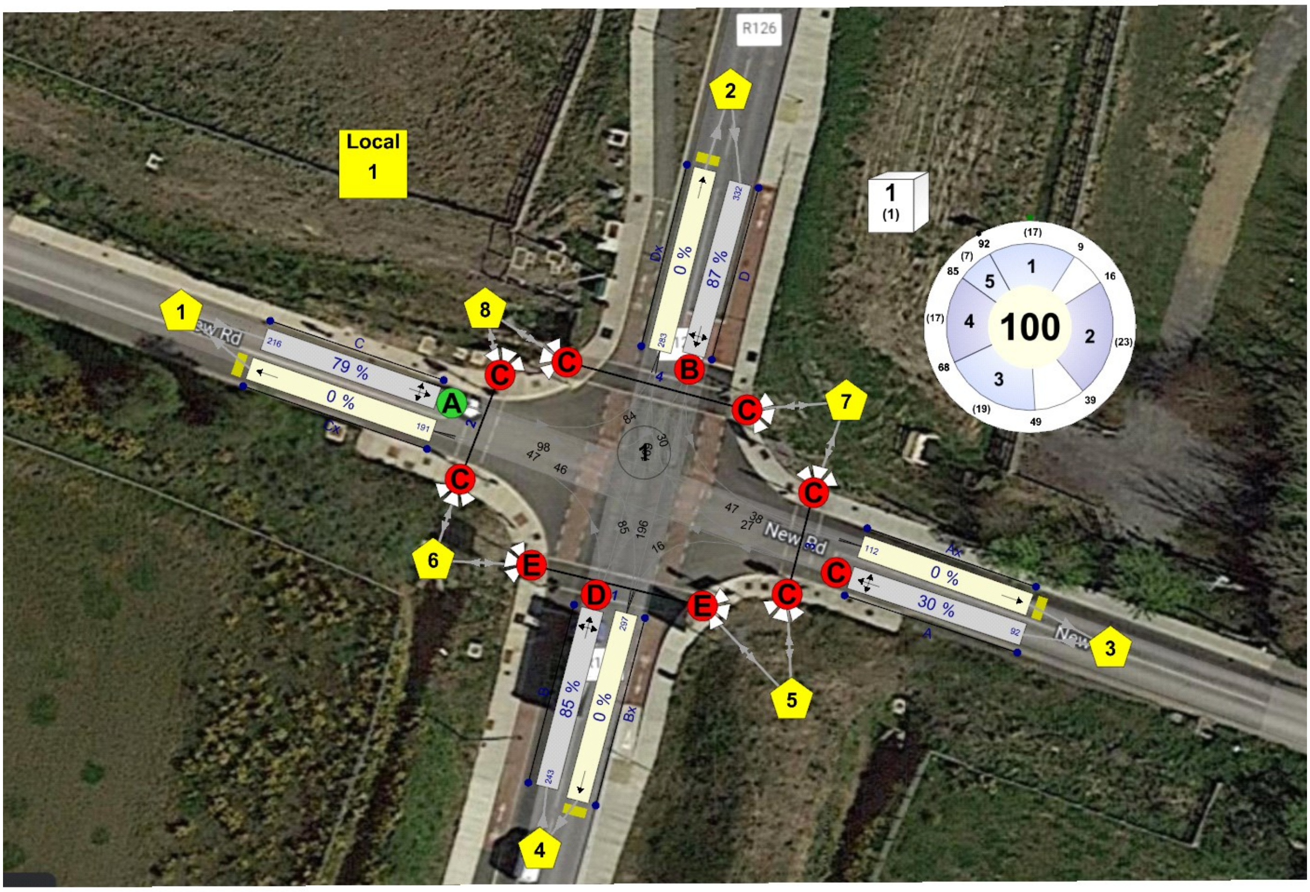
Units

Cost units	Speed units	Distance units	Fuel economy units	Fuel rate units	Mass units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
£	kph	m	mpg	l/h	kg	PCU	PCU	perHour	s	-Hour	perHour

Sorting

Show names instead of IDs	Sorting direction	Sorting type	Ignore prefixes when sorting	Analysis/demand set sorting	Link grouping	Source grouping	Colour Analysis/Demand Sets
	Ascending	Numerical		ID	Normal	Normal	✓

Network Diagrams



Junction 4 - AM
Diagram produced using TRANSYT 15.5.2.7994

A1 - Baseline 2022
D1 - Baseline 2022*

Summary

Data Errors and Warnings

Severity	Area	Item	Description
Info	Traffic Options	Traffic options	Flow scaling factor for Vehicles is not set to 100% (current value: 130)

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
1	15/02/2024 16:43:04	15/02/2024 16:43:04	08:00	100	584.24	40.59	73.75	C/1	0	0	C/1	Dx/1	C/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
Baseline 2022		D1	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
Baseline 2022				08:00	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)		✓	47.88	✓	Sum of lanes	1993	✓		Normal	
Ax	1	(untitled)		✓	140.68						Normal	
B	1	(untitled)		✓	48.35	✓	Sum of lanes	2084	✓		Normal	
Bx	1	(untitled)		✓	126.97						Normal	
C	1	(untitled)		✓	48.24	✓	Sum of lanes	1983	✓		Normal	
Cx	1	(untitled)		✓	142.05						Normal	
D	1	(untitled)		✓	46.91	✓	Sum of lanes	2073	✓		Normal	
Dx	1	(untitled)		✓	126.14						Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Surface condition	Site quality factor	Gradient (%)	Width (m)	Use connector turning radius	Proportion that turn (%)	Turning radius (m)	Nearside lane	Saturation flow (PCU/hr)
A	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	50	24.11		1993
Ax	1	1	(untitled)											
B	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	23	33.77		2084
Bx	1	1	(untitled)											
C	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	64	26.44		1983
Cx	1	1	(untitled)											
D	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	38	37.16		2073
Dx	1	1	(untitled)											

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
(ALL)	1	NetworkDefault	100	100	100		0.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	1	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	1	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)
A	1	70	70
Ax	1	79	79
B	1	127	127
Bx	1	129	129
C	1	89	89
Cx	1	84	84
D	1	178	178
Dx	1	172	172

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled
A	1	1	C	
B	1	1	D	
C	1	1	A	
D	1	1	B	

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
A	1	5.75	30.00
B	1	5.80	30.00
C	1	5.79	30.00
D	1	5.63	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
Ax	1	1	C/1	Ax/1	16.88	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	15.24	30.00	✓	Nearside	24.11
Cx	1	1	A/1	Cx/1	17.05	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	15.14	30.00	✓	Nearside	26.44
Ax	1	2	B/1	Ax/1	16.88	30.00	✓	Offside	33.77
Bx	1	2	D/1	Bx/1	15.24	30.00	✓	Straight	Straight Movement
Cx	1	2	B/1	Cx/1	17.05	30.00	✓	Nearside	35.22
Dx	1	2	A/1	Dx/1	15.14	30.00	✓	Offside	45.74
Ax	1	3	D/1	Ax/1	16.88	30.00	✓	Nearside	37.16
Bx	1	3	C/1	Bx/1	15.24	30.00	✓	Offside	42.22
Cx	1	3	D/1	Cx/1	17.05	30.00	✓	Offside	37.43
Dx	1	3	B/1	Dx/1	15.14	30.00	✓	Straight	Straight Movement

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	7.00	4.67	5.40
2	(untitled)		1		Farside	8.00	5.33	5.40
3	(untitled)		1		Farside	8.00	5.33	5.40
4	(untitled)		1		Farside	7.00	4.67	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
1	1	E	
2	1	C	
3	1	C	
4	1	C	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Signal Timings

Network Default: 100s cycle time; 100 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	(untitled)		1	NetworkDefault	100

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	7	300	0	0	Unknown	
	B	(untitled)	7	300	0	0	Unknown	
	C	(untitled)	7	300	0	0	Unknown	
	D	(untitled)	7	300	0	0	Unknown	
	E	(untitled)	7	300	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	A	1
	2	C	1
	3	B	1
	4	E	1
	5	D	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2, 3, 4, 5	9, 47, 72, 91, 2
	2	(untitled)	Single	1, 2, 3, 5, 4	16, 42, 68, 84, 0
	3	(untitled)	Single	1, 2, 4, 3, 5	18, 46, 64, 82, 0
	4	(untitled)	Single	1, 2, 4, 5, 3	17, 44, 61, 77, 93
	5	(untitled)	Single	1, 2, 5, 3, 4	18, 46, 64, 82, 0
	6	(untitled)	Single	1, 2, 5, 4, 3	17, 44, 61, 77, 93
	7	(untitled)	Single	1, 3, 2, 4, 5	17, 41, 68, 84, 0
	8	(untitled)	Single	1, 3, 2, 5, 4	17, 41, 68, 84, 0
	9	(untitled)	Single	1, 3, 4, 2, 5	19, 45, 64, 82, 0
	10	(untitled)	Single	1, 3, 4, 5, 2	17, 41, 58, 74, 90

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A		7	10		
	B	7		10		
	C	10	10			
	D					
	E					

Banned Stage transitions for Controller Stream 1

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

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	10	7	0	0
	2	10	0	10	0	0
	3	7	10	0	0	0
	4	0	0	0	0	0
	5	0	0	0	0	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	A	2	9	7	1	7
	2	✓	2	C	19	47	28	1	7
	3	✓	3	B	57	72	15	1	7
	4	✓	4	E	72	91	19	1	7
	5	✓	5	D	91	2	11	1	7

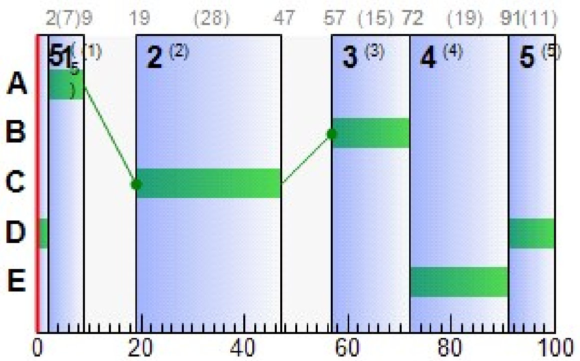
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	2	9	7
	B	1	✓	57	72	15
	C	1	✓	19	47	28
	D	1	✓	91	2	11
	E	1	✓	72	91	19

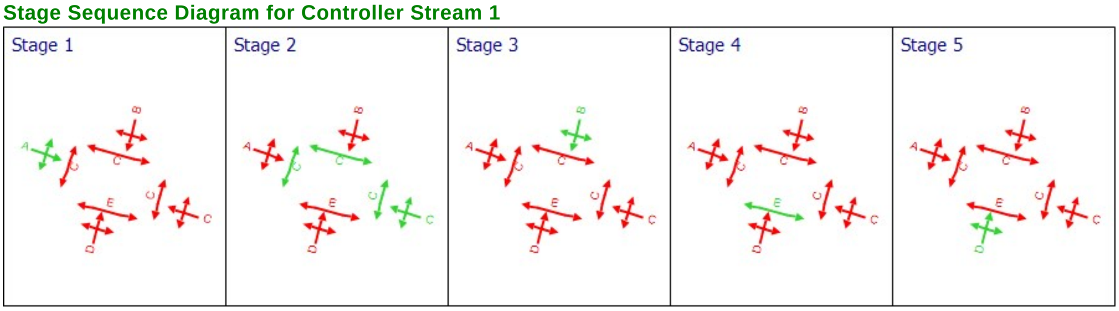
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	C	19	47	28
B	1	1	1	D	91	2	11
C	1	1	1	A	2	9	7
D	1	1	1	B	57	72	15

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
08:00-09:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	16	465	92	1993	28	27.04	1.91	22.89	9.81	0.85	10.66
	Ax	1	0	Unrestricted	104	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	66	36	165	2084	11	55.62	4.98	59.16	36.20	2.21	38.41
	Bx	1	0	Unrestricted	168	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	74	22	117	1983	7	74.48	4.11	49.00	34.37	1.81	36.18
	Cx	1	0	Unrestricted	110	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	70	29	232	2073	15	52.00	6.85	83.95	47.59	3.04	50.63
	Dx	1	0	Unrestricted	224	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Calculated sat flow (PCU/hr)	Calculated capacity (PCU/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	A	1	92	92	-1		1993	578	16		465	0.00	28
	Ax	1	104	104	-1	✓	Unrestricted	Unrestricted	0		Unrestricted	1.00	100
	B	1	165	165	0		2084	250	66		36	0.00	11
	Bx	1	168	168	0		Unrestricted	Unrestricted	0		Unrestricted	1.22	100
	C	1	117	117	-1		1983	159	74		22	0.00	7
	Cx	1	110	110	-1		Unrestricted	Unrestricted	0		Unrestricted	0.88	100
	D	1	232	232	-1	✓	2073	332	70		29	0.00	15
	Dx	1	224	224	0		Unrestricted	Unrestricted	0		Unrestricted	1.21	100

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	A	1	5.75	27.04	0.68	0.02	9.81	73.41	66.99	0.54	0.85
	Ax	1	16.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	5.80	55.62	1.93	0.62	36.20	106.89	154.75	21.62	2.21
	Bx	1	15.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	5.79	74.48	1.46	0.96	34.37	123.23	112.11	32.08	1.81
	Cx	1	17.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	5.63	52.00	2.56	0.79	47.59	104.63	215.13	27.60	3.04
	Dx	1	15.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (PCU)	Mean max queue (PCU)	Max queue storage (PCU)	Utilised storage (%)	Average storage excess queue (PCU)	Average limit excess queue (PCU)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
08:00-09:00	A	1	0.00	1.91	8.33	22.89	0.00	0.00	0.00	0.00	0.00	0.00	
	Ax	1	0.00	0.00	24.47	0.00	0.00	0.00	0.00	54.00	0.00	54.00	
	B	1	0.00	4.98	8.41	59.16	0.00	0.00	0.00	0.00	0.00	0.00	
	Bx	1	0.00	0.00	22.08	0.00	0.00	0.00	0.00	61.00	0.00	61.00	
	C	1	0.00	4.11	8.39	49.00	0.00	0.00	0.00	0.00	0.00	0.00	
	Cx	1	0.00	0.00	24.70	0.00	0.00	0.00	0.00	51.00	0.00	51.00	
	D	1	0.00	6.85	8.16	83.95	0.00	0.00	0.00	0.00	0.00	0.00	
	Dx	1	0.00	0.00	21.94	0.00	0.00	0.00	0.00	58.00	0.00	58.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	A	1	4.40	0.84	5.26	32.78
	Ax	1	14.63	0.49	30.00	16.88
	B	1	7.98	2.81	2.83	61.42
	Bx	1	21.33	0.71	30.00	15.24
	C	1	5.64	2.61	2.16	80.26
	Cx	1	15.63	0.52	30.00	17.05
	D	1	10.88	3.71	2.93	57.63
	Dx	1	28.25	0.94	30.00	15.14

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (PCU)	Max End of Green Queue EoTS (PCU)	Max End of Red Queue EoTS (PCU)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	0.00	0.00	✓	1.91	0.02	1.83	1.00	0.00	10.66
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	4.98	0.63	4.66	1.00	0.00	38.41
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	4.15	0.99	3.98	1.00	0.00	36.18
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	1	0.00	0.00	✓	6.86	0.80	6.22	1.00	0.00	50.63
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	24	500	11000	19	34.38	11.25	67.81	67.81
		2	24	500	11000	19	34.38	11.25	67.81	67.81
	2	1	16	500	11000	28	26.43	9.86	52.13	52.13
		2	16	500	11000	28	26.43	9.86	52.13	52.13
	3	1	16	500	11000	28	26.43	9.86	52.13	52.13
		2	16	500	11000	28	26.43	9.86	52.13	52.13
	4	1	16	500	11000	28	26.43	9.86	52.13	52.13
		2	16	500	11000	28	26.43	9.86	52.13	52.13

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	1	1	500	500	0		11000	2090	24		276	0.00	19
		2	500	500	0		11000	2090	24		276	0.00	19
	2	1	500	500	0		11000	3190	16		474	0.00	28
		2	500	500	0		11000	3190	16		474	0.00	28
	3	1	500	500	0		11000	3190	16		474	0.00	28
		2	500	500	0		11000	3190	16		474	0.00	28
	4	1	500	500	0		11000	3190	16		474	0.00	28
		2	500	500	0		11000	3190	16		474	0.00	28

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
08:00-09:00	1	1	5.67	34.38	4.78	0.00	67.81
		2	5.67	34.38	4.78	0.00	67.81
	2	1	6.33	26.43	3.67	0.00	52.13
		2	6.33	26.43	3.67	0.00	52.13
	3	1	6.33	26.43	3.67	0.00	52.13
		2	6.33	26.43	3.67	0.00	52.13
	4	1	5.67	26.43	3.67	0.00	52.13
		2	5.67	26.43	3.67	0.00	52.13

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
08:00-09:00	1	1	11.25	10.00	112.50	0.06	0.00	0.00
		2	11.25	10.00	112.50	0.06	0.00	0.00
	2	1	9.86	10.00	98.61	0.00	0.00	0.00
		2	9.86	10.00	98.61	0.00	0.00	0.00
	3	1	9.86	10.00	98.61	0.00	0.00	0.00
		2	9.86	10.00	98.61	0.00	0.00	0.00
	4	1	9.86	10.00	98.61	0.00	0.00	0.00
		2	9.86	10.00	98.61	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	1	1	4.00	5.56	0.72	40.05
		2	4.00	5.56	0.72	40.05
	2	1	4.50	4.55	0.99	32.76
		2	4.50	4.55	0.99	32.76
	3	1	4.50	4.55	0.99	32.76
		2	4.50	4.55	0.99	32.76
	4	1	4.00	4.46	0.90	32.10
		2	4.00	4.46	0.90	32.10

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	0.00	0.00	11.25	1.00	0.00	67.81
		2	0.00	0.00	11.25	1.00	0.00	67.81
	2	1	0.00	0.00	9.86	1.00	0.00	52.13
		2	0.00	0.00	9.86	1.00	0.00	52.13
	3	1	0.00	0.00	9.86	1.00	0.00	52.13
		2	0.00	0.00	9.86	1.00	0.00	52.13
	4	1	0.00	0.00	9.86	1.00	0.00	52.13
		2	0.00	0.00	9.86	1.00	0.00	52.13

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
1	15/02/2024 16:43:04	15/02/2024 16:43:04	08:00	100	584.24	40.59	73.75	C/1	0	0	C/1	Dx/1	C/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	74	0	1212	461	26.77	127.97	7.91	135.87

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	24	4000	206	28.42	448.37	448.37

Network Results: Flows and signals

Time Segment	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))
08:00-09:00	5212	5212	-6	✓	74		22	667

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	7.11	28.03	38.20	2.38	576.33	12.10	548.98	81.84	7.91

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))
08:00-09:00	112.50	0.00	224.00	0.00	224.00

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
08:00-09:00	142.75	50.88	2.81

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	0.00	0.00	✓	1.00	0.00	0.00	584.24

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	95.4	97.1	95.5	0.0	0.0	0.0	0.0
	2	74.7	0.0	74.5	72.9	0.0	0.0	0.0	0.0
	3	49.8	47.9	0.0	48.0	0.0	0.0	0.0	0.0
	4	78.5	76.6	78.3	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	40.0	32.8	0.0
	6	0.0	0.0	0.0	0.0	40.0	0.0	0.0	32.8
	7	0.0	0.0	0.0	0.0	32.8	0.0	0.0	32.1
	8	0.0	0.0	0.0	0.0	0.0	32.8	32.1	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (PCU/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Calculated Total Flow (PCU/hr)	Avg journey time (s)
1	1	2	52		95.40		52	95.40
2	1	3	32		97.14		32	97.14
3	1	4	5		95.50		5	95.50
5	2	3	25		74.51		25	74.51
6	2	4	111		72.87		111	72.87
7	2	1	42		74.68		42	74.68
8	3	2	22		47.92		22	47.92
9	3	4	13		48.02		13	48.02
10	3	1	35		49.83		35	49.83
11	4	2	98		76.55		98	76.55
12	4	3	22		78.30		22	78.30
13	4	1	7		78.46		7	78.46
17	8	7		500		32.10	500	32.10
18	8	6		500		32.76	500	32.76
22	5	7		500		32.76	500	32.76
23	5	6		500		40.05	500	40.05
34	6	8		500		32.76	500	32.76
35	6	5		500		40.05	500	40.05
41	7	8		500		32.10	500	32.10
42	7	5		500		32.76	500	32.76

Final Prediction Table

Traffic Stream Results

			SIGNALS			FLOWS		PERFORMANCE				PER PCU			QUEUES
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (PCU)
A	1	(untitled)	1	1	C	92	1993	28	0.00	16	465	32.78	27.04	73.41	1.91
Ax	1	(untitled)				104	Unrestricted	100	54.00	0	Unrestricted	16.88	0.00	0.00	0.00
B	1	(untitled)	1	1	D	165	2084	11	0.00	66	36	61.42	55.62	106.89	4.98
Bx	1	(untitled)				168	Unrestricted	100	61.00	0	Unrestricted	15.24	0.00	0.00	0.00
C	1	(untitled)	1	1	A	117	1983	7	0.00	74	22	80.26	74.48	123.23	4.11
Cx	1	(untitled)				110	Unrestricted	100	51.00	0	Unrestricted	17.05	0.00	0.00	0.00
D	1	(untitled)	1	1	B	232	2073	15	0.00	70	29	57.63	52.00	104.63	6.85
Dx	1	(untitled)				224	Unrestricted	100	58.00	0	Unrestricted	15.14	0.00	0.00	0.00

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	**Side**	**Name**	**Traffic node**	**Controller stream**	**Phase**	**Calculated Flow Entering (Ped/hr)**	**Calculated sat flow (Ped/hr)**	**Actual green (s (per cycle))**	**Degree of saturation (%)**	**Practical reserve capacity (%)**	**JourneyTime (s)**	**Mean Delay per Ped (s)**	**Mean max queue (Ped)**	**Delay weighting (%)**	**Co tra pen (£ p**
1	**1**	(untitled)	1	1	E	500 <	11000	19	24	276	40.05	34.38	11.25 +	100	0
	2	(untitled)	1	1	E	500 <	11000	19	24	276	40.05	34.38	11.25 +	100	0
2	**1**	(untitled)	1	1	C	500	11000	28	16	474	32.76	26.43	9.86	100	0
	2	(untitled)	1	1	C	500	11000	28	16	474	32.76	26.43	9.86	100	0
3	**1**	(untitled)	1	1	C	500	11000	28	16	474	32.76	26.43	9.86	100	0
	2	(untitled)	1	1	C	500	11000	28	16	474	32.76	26.43	9.86	100	0
4	**1**	(untitled)	1	1	C	500	11000	28	16	474	32.10	26.43	9.86	100	0
	2	(untitled)	1	1	C	500	11000	28	16	474	32.10	26.43	9.86	100	0

Network Results

	Distance travelled (PCU-km/hr)	**Time spent (PCU-hr/hr)**	**Mean journey speed (kph)**	**Uniform delay (PCU-hr/hr)**	**Random plus oversat delay (PCU-hr/hr)**	**Weighted cost of delay (£ per hr)**	**Weighted cost of stops (£ per hr)**	**Excess queue penalty (£ per hr)**	**Performance Index (£ per hr)**
Normal traffic	108.75	12.64	8.61	6.63	2.38	127.97	7.91	0.00	135.87
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	34.00	38.24	0.89	31.57	0.00	448.36	0.00	0.00	448.36
TOTAL	142.75	50.88	2.81	38.20	2.38	576.33	7.91	0.00	584.24

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A2 - DO NOTHING 2025
D2 - DO NOTHING 2025*

Summary

Data Errors and Warnings

Severity	Area	Item	Description
Info	Traffic Options	Traffic options	Flow scaling factor for Vehicles is not set to 100% (current value: 130)

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
2	15/02/2024 16:43:05	15/02/2024 16:43:06	08:00	100	706.89	49.04	75.95	C/1	0	0	C/1	Dx/1	C/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
DO NOTHING 2025		D2	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
DO NOTHING 2025				08:00	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)		✓	47.88	✓	Sum of lanes	1993	✓		Normal	
Ax	1	(untitled)		✓	140.68						Normal	
B	1	(untitled)		✓	48.35	✓	Sum of lanes	2081	✓		Normal	
Bx	1	(untitled)		✓	126.97						Normal	
C	1	(untitled)		✓	48.24	✓	Sum of lanes	1975	✓		Normal	
Cx	1	(untitled)		✓	142.05						Normal	
D	1	(untitled)		✓	46.91	✓	Sum of lanes	2075	✓		Normal	
Dx	1	(untitled)		✓	126.14						Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Surface condition	Site quality factor	Gradient (%)	Width (m)	Use connector turning radius	Proportion that turn (%)	Turning radius (m)	Nearside lane	Saturation flow (PCU/hr)
A	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	50	24.11		1993
Ax	1	1	(untitled)											
B	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	26	33.77		2081
Bx	1	1	(untitled)											
C	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	71	26.44		1975
Cx	1	1	(untitled)											
D	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	36	37.16		2075
Dx	1	1	(untitled)											

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
(ALL)	1	NetworkDefault	100	100	100		0.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	1	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	1	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)
A	1	76	76
Ax	1	90	90
B	1	168	168
Bx	1	208	208
C	1	127	127
Cx	1	122	122
D	1	261	261
Dx	1	212	212

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled
A	1	1	C	
B	1	1	D	
C	1	1	A	
D	1	1	B	

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
A	1	5.75	30.00
B	1	5.80	30.00
C	1	5.79	30.00
D	1	5.63	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
Ax	1	1	C/1	Ax/1	16.88	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	15.24	30.00	✓	Nearside	24.11
Cx	1	1	A/1	Cx/1	17.05	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	15.14	30.00	✓	Nearside	26.44
Ax	1	2	B/1	Ax/1	16.88	30.00	✓	Offside	33.77
Bx	1	2	D/1	Bx/1	15.24	30.00	✓	Straight	Straight Movement
Cx	1	2	B/1	Cx/1	17.05	30.00	✓	Nearside	35.22
Dx	1	2	A/1	Dx/1	15.14	30.00	✓	Offside	45.74
Ax	1	3	D/1	Ax/1	16.88	30.00	✓	Nearside	37.16
Bx	1	3	C/1	Bx/1	15.24	30.00	✓	Offside	42.22
Cx	1	3	D/1	Cx/1	17.05	30.00	✓	Offside	37.43
Dx	1	3	B/1	Dx/1	15.14	30.00	✓	Straight	Straight Movement

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	7.00	4.67	5.40
2	(untitled)		1		Farside	8.00	5.33	5.40
3	(untitled)		1		Farside	8.00	5.33	5.40
4	(untitled)		1		Farside	7.00	4.67	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
1	1	E	
2	1	C	
3	1	C	
4	1	C	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Signal Timings

Network Default: 100s cycle time; 100 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	(untitled)		1	NetworkDefault	100

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	7	300	0	0	Unknown	
	B	(untitled)	7	300	0	0	Unknown	
	C	(untitled)	7	300	0	0	Unknown	
	D	(untitled)	7	300	0	0	Unknown	
	E	(untitled)	7	300	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	A	1
	2	C	1
	3	B	1
	4	E	1
	5	D	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2, 3, 4, 5	11, 42, 74, 87, 1
	2	(untitled)	Single	1, 2, 3, 5, 4	16, 42, 68, 84, 0
	3	(untitled)	Single	1, 2, 4, 3, 5	18, 46, 64, 82, 0
	4	(untitled)	Single	1, 2, 4, 5, 3	17, 44, 61, 77, 93
	5	(untitled)	Single	1, 2, 5, 3, 4	18, 46, 64, 82, 0
	6	(untitled)	Single	1, 2, 5, 4, 3	17, 44, 61, 77, 93
	7	(untitled)	Single	1, 3, 2, 4, 5	17, 41, 68, 84, 0
	8	(untitled)	Single	1, 3, 2, 5, 4	17, 41, 68, 84, 0
	9	(untitled)	Single	1, 3, 4, 2, 5	19, 45, 64, 82, 0
	10	(untitled)	Single	1, 3, 4, 5, 2	17, 41, 58, 74, 90

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A		7	10		
	B	7		10		
	C	10	10			
	D					
	E					

Banned Stage transitions for Controller Stream 1

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

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	10	7	0	0
	2	10	0	10	0	0
	3	7	10	0	0	0
	4	0	0	0	0	0
	5	0	0	0	0	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	A	1	11	10	1	7
	2	✓	2	C	21	42	21	1	7
	3	✓	3	B	52	74	22	1	7
	4	✓	4	E	74	87	13	1	7
	5	✓	5	D	87	1	14	1	7

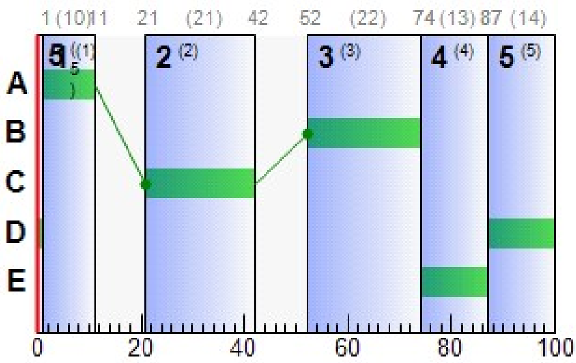
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	1	11	10
	B	1	✓	52	74	22
	C	1	✓	21	42	21
	D	1	✓	87	1	14
	E	1	✓	74	87	13

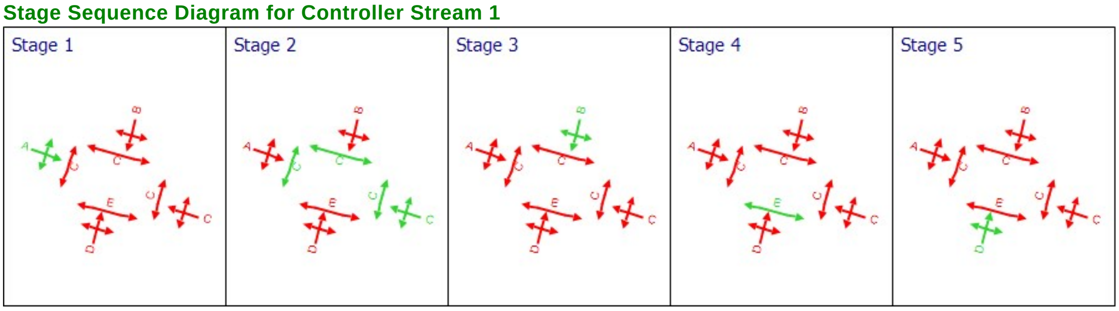
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	C	21	42	21
B	1	1	1	D	87	1	14
C	1	1	1	A	1	11	10
D	1	1	1	B	52	74	22

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
08:00-09:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	22	303	98	1993	21	33.18	2.26	27.19	12.82	1.00	13.82
	Ax	1	0	Unrestricted	117	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	70	28	219	2081	14	53.51	6.52	77.50	46.22	2.90	49.12
	Bx	1	0	Unrestricted	270	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	76	19	165	1975	10	67.63	5.56	66.34	44.02	2.45	46.47
	Cx	1	0	Unrestricted	158	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	71	27	339	2075	22	44.48	9.51	116.64	59.48	4.20	63.67
	Dx	1	0	Unrestricted	276	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Calculated sat flow (PCU/hr)	Calculated capacity (PCU/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	A	1	98	98	1		1993	438	22		303	0.00	21
	Ax	1	117	117	0		Unrestricted	Unrestricted	0		Unrestricted	0.84	100
	B	1	219	219	-1		2081	312	70		28	0.00	14
	Bx	1	270	270	0		Unrestricted	Unrestricted	0		Unrestricted	1.04	100
	C	1	165	165	0		1975	217	76		19	0.00	10
	Cx	1	158	158	1		Unrestricted	Unrestricted	0		Unrestricted	0.75	100
	D	1	339	339	0		2075	477	71		27	0.00	22
	Dx	1	276	276	0		Unrestricted	Unrestricted	0		Unrestricted	1.14	100

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	A	1	5.75	33.18	0.87	0.03	12.82	81.35	78.57	1.15	1.00
	Ax	1	16.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	5.80	53.51	2.46	0.80	46.22	105.53	203.26	27.84	2.90
	Bx	1	15.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	5.79	67.63	1.98	1.12	44.02	118.39	157.42	37.92	2.45
	Cx	1	17.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	5.63	44.48	3.34	0.85	59.48	98.70	304.62	29.98	4.20
	Dx	1	15.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (PCU)	Mean max queue (PCU)	Max queue storage (PCU)	Utilised storage (%)	Average storage excess queue (PCU)	Average limit excess queue (PCU)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
08:00-09:00	A	1	0.00	2.26	8.33	27.19	0.00	0.00	0.00	0.00	0.00	0.00	
	Ax	1	0.00	0.00	24.47	0.00	0.00	0.00	0.00	45.00	0.00	45.00	
	B	1	0.00	6.52	8.41	77.50	0.00	0.00	0.00	0.00	0.00	0.00	
	Bx	1	0.00	0.00	22.08	0.00	0.00	0.00	0.00	41.00	0.00	41.00	
	C	1	0.00	5.56	8.39	66.34	0.00	0.00	0.00	0.00	0.00	0.00	
	Cx	1	0.00	0.00	24.70	0.00	0.00	0.00	0.00	34.00	0.00	34.00	
	D	1	0.00	9.51	8.16	116.64	0.10	0.00	0.00	0.00	0.00	0.00	
	Dx	1	0.00	0.00	21.94	0.00	0.00	0.00	0.00	50.00	0.00	50.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	A	1	4.69	1.06	4.43	38.92
	Ax	1	16.46	0.55	30.00	16.88
	B	1	10.59	3.61	2.93	59.31
	Bx	1	34.28	1.14	30.00	15.24
	C	1	7.96	3.37	2.37	73.42
	Cx	1	22.44	0.75	30.00	17.05
	D	1	15.90	4.72	3.37	50.11
	Dx	1	34.81	1.16	30.00	15.14

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (PCU)	Max End of Green Queue EoTS (PCU)	Max End of Red Queue EoTS (PCU)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	0.00	0.00	✓	2.26	0.03	2.16	1.00	0.00	13.82
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	6.53	0.81	5.98	1.00	0.00	49.12
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	5.60	1.16	5.24	1.00	0.00	46.47
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	1	0.00	0.00	✓	9.52	0.86	8.11	1.00	0.00	63.67
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	35	500	11000	13	39.66	12.08	78.22	78.22
		2	35	500	11000	13	39.66	12.08	78.22	78.22
	2	1	21	500	11000	21	31.89	10.83	62.89	62.89
		2	21	500	11000	21	31.89	10.83	62.89	62.89
	3	1	21	500	11000	21	31.89	10.83	62.89	62.89
		2	21	500	11000	21	31.89	10.83	62.89	62.89
	4	1	21	500	11000	21	31.89	10.83	62.89	62.89
		2	21	500	11000	21	31.89	10.83	62.89	62.89

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	1	1	500	500	0		11000	1430	35		157	0.00	13
		2	500	500	0		11000	1430	35		157	0.00	13
	2	1	500	500	0		11000	2420	21		336	0.00	21
		2	500	500	0		11000	2420	21		336	0.00	21
	3	1	500	500	0		11000	2420	21		336	0.00	21
		2	500	500	0		11000	2420	21		336	0.00	21
	4	1	500	500	0		11000	2420	21		336	0.00	21
		2	500	500	0		11000	2420	21		336	0.00	21

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
08:00-09:00	1	1	5.67	39.66	5.51	0.00	78.22
		2	5.67	39.66	5.51	0.00	78.22
	2	1	6.33	31.89	4.43	0.00	62.89
		2	6.33	31.89	4.43	0.00	62.89
	3	1	6.33	31.89	4.43	0.00	62.89
		2	6.33	31.89	4.43	0.00	62.89
	4	1	5.67	31.89	4.43	0.00	62.89
		2	5.67	31.89	4.43	0.00	62.89

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
08:00-09:00	1	1	12.08	10.00	120.83	0.17	0.00	0.00
		2	12.08	10.00	120.83	0.17	0.00	0.00
	2	1	10.83	10.00	108.33	0.03	0.00	0.00
		2	10.83	10.00	108.33	0.03	0.00	0.00
	3	1	10.83	10.00	108.33	0.03	0.00	0.00
		2	10.83	10.00	108.33	0.03	0.00	0.00
	4	1	10.83	10.00	108.33	0.03	0.00	0.00
		2	10.83	10.00	108.33	0.03	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	1	1	4.00	6.30	0.64	45.33
		2	4.00	6.30	0.64	45.33
	2	1	4.50	5.31	0.85	38.22
		2	4.50	5.31	0.85	38.22
	3	1	4.50	5.31	0.85	38.22
		2	4.50	5.31	0.85	38.22
	4	1	4.00	5.22	0.77	37.56
		2	4.00	5.22	0.77	37.56

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	0.00	0.00	12.08	1.00	0.00	78.22
		2	0.00	0.00	12.08	1.00	0.00	78.22
	2	1	0.00	0.00	10.83	1.00	0.00	62.89
		2	0.00	0.00	10.83	1.00	0.00	62.89
	3	1	0.00	0.00	10.83	1.00	0.00	62.89
		2	0.00	0.00	10.83	1.00	0.00	62.89
	4	1	0.00	0.00	10.83	1.00	0.00	62.89
		2	0.00	0.00	10.83	1.00	0.00	62.89

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
2	15/02/2024 16:43:05	15/02/2024 16:43:06	08:00	100	706.89	49.04	75.95	C/1	0	0	C/1	Dx/1	C/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	76	0	1642	467	25.10	162.54	10.54	173.08

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	35	4000	152	33.83	533.80	533.80

Network Results: Flows and signals

Time Segment	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))
08:00-09:00	5642	5642	1		76		19	619

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	7.38	31.29	46.24	2.80	696.34	14.90	743.87	96.89	10.54

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))
08:00-09:00	120.83	0.00	170.00	0.00	170.00

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
08:00-09:00	181.14	60.61	2.99

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	0.00	0.00	✓	1.00	0.00	0.00	706.89

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	88.6	90.3	88.7	0.0	0.0	0.0	0.0
	2	67.2	0.0	67.0	65.3	0.0	0.0	0.0	0.0
	3	56.0	54.1	0.0	54.2	0.0	0.0	0.0	0.0
	4	76.4	74.4	76.2	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	45.3	38.2	0.0
	6	0.0	0.0	0.0	0.0	45.3	0.0	0.0	38.2
	7	0.0	0.0	0.0	0.0	38.2	0.0	0.0	37.6
	8	0.0	0.0	0.0	0.0	0.0	38.2	37.6	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (PCU/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Calculated Total Flow (PCU/hr)	Avg journey time (s)
1	1	2	63		88.56		63	88.56
2	1	3	37		90.30		37	90.30
3	1	4	27		88.66		27	88.66
5	2	3	30		66.99		30	66.99
6	2	4	167		65.34		167	65.34
7	2	1	64		67.15		64	67.15
8	3	2	24		54.06		24	54.06
9	3	4	14		54.16		14	54.16
10	3	1	38		55.97		38	55.97
11	4	2	125		74.45		125	74.45
12	4	3	23		76.19		23	76.19
13	4	1	20		76.36		20	76.36
17	8	7		500		37.56	500	37.56
18	8	6		500		38.22	500	38.22
22	5	7		500		38.22	500	38.22
23	5	6		500		45.33	500	45.33
34	6	8		500		38.22	500	38.22
35	6	5		500		45.33	500	45.33
41	7	8		500		37.56	500	37.56
42	7	5		500		38.22	500	38.22

Final Prediction Table

Traffic Stream Results

				SIGNALS		FLOWS		PERFORMANCE				PER PCU			QUEUES
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (PCU)
A	1	(untitled)	1	1	C	98	1993	21	0.00	22	303	38.92	33.18	81.35	2.26
Ax	1	(untitled)				117	Unrestricted	100	45.00	0	Unrestricted	16.88	0.00	0.00	0.00
B	1	(untitled)	1	1	D	219	2081	14	0.00	70	28	59.31	53.51	105.53	6.52
Bx	1	(untitled)				270	Unrestricted	100	41.00	0	Unrestricted	15.24	0.00	0.00	0.00
C	1	(untitled)	1	1	A	165	1975	10	0.00	76	19	73.42	67.63	118.39	5.56
Cx	1	(untitled)				158	Unrestricted	100	34.00	0	Unrestricted	17.05	0.00	0.00	0.00
D	1	(untitled)	1	1	B	339 <	2075	22	0.00	71	27	50.11	44.48	98.70	9.51 +
Dx	1	(untitled)				276	Unrestricted	100	50.00	0	Unrestricted	15.14	0.00	0.00	0.00

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	**Side**	**Name**	**Traffic node**	**Controller stream**	**Phase**	**Calculated Flow Entering (Ped/hr)**	**Calculated sat flow (Ped/hr)**	**Actual green (s (per cycle))**	**Degree of saturation (%)**	**Practical reserve capacity (%)**	**JourneyTime (s)**	**Mean Delay per Ped (s)**	**Mean max queue (Ped)**	**Delay weighting (%)**	**Co tra pen (£ p**
1	**1**	(untitled)	1	1	E	500 <	11000	13	35	157	45.33	39.66	12.08 +	100	0
	2	(untitled)	1	1	E	500 <	11000	13	35	157	45.33	39.66	12.08 +	100	0
2	**1**	(untitled)	1	1	C	500 <	11000	21	21	336	38.22	31.89	10.83 +	100	0
	2	(untitled)	1	1	C	500 <	11000	21	21	336	38.22	31.89	10.83 +	100	0
3	**1**	(untitled)	1	1	C	500 <	11000	21	21	336	38.22	31.89	10.83 +	100	0
	2	(untitled)	1	1	C	500 <	11000	21	21	336	38.22	31.89	10.83 +	100	0
4	**1**	(untitled)	1	1	C	500 <	11000	21	21	336	37.56	31.89	10.83 +	100	0
	2	(untitled)	1	1	C	500 <	11000	21	21	336	37.56	31.89	10.83 +	100	0

Network Results

	Distance travelled (PCU-km/hr)	**Time spent (PCU-hr/hr)**	**Mean journey speed (kph)**	**Uniform delay (PCU-hr/hr)**	**Random plus oversat delay (PCU-hr/hr)**	**Weighted cost of delay (£ per hr)**	**Weighted cost of stops (£ per hr)**	**Excess queue penalty (£ per hr)**	**Performance Index (£ per hr)**
Normal traffic	147.14	16.35	9.00	8.64	2.80	162.54	10.54	0.00	173.08
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	34.00	44.26	0.77	37.59	0.00	533.80	0.00	0.00	533.80
TOTAL	181.14	60.61	2.99	46.24	2.80	696.34	10.54	0.00	706.89

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A3 - DO NOTHING 2030
D3 - DO NOTHING 2030*

Summary

Data Errors and Warnings

Severity	Area	Item	Description
Info	Traffic Options	Traffic options	Flow scaling factor for Vehicles is not set to 100% (current value: 130)

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
3	15/02/2024 16:43:06	15/02/2024 16:43:07	08:00	100	828.40	57.39	78.52	C/1	0	0	C/1	Dx/1	C/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
DO NOTHING 2030		D3	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
DO NOTHING 2030				08:00	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)		✓	47.88	✓	Sum of lanes	1991	✓		Normal	
Ax	1	(untitled)		✓	140.68						Normal	
B	1	(untitled)		✓	48.35	✓	Sum of lanes	2086	✓		Normal	
Bx	1	(untitled)		✓	126.97						Normal	
C	1	(untitled)		✓	48.24	✓	Sum of lanes	1974	✓		Normal	
Cx	1	(untitled)		✓	142.05						Normal	
D	1	(untitled)		✓	46.91	✓	Sum of lanes	2072	✓		Normal	
Dx	1	(untitled)		✓	126.14						Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Surface condition	Site quality factor	Gradient (%)	Width (m)	Use connector turning radius	Proportion that turn (%)	Turning radius (m)	Nearside lane	Saturation flow (PCU/hr)
A	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	52	24.11		1991
Ax	1	1	(untitled)											
B	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	21	33.77		2086
Bx	1	1	(untitled)											
C	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	72	26.44		1974
Cx	1	1	(untitled)											
D	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	39	37.16		2072
Dx	1	1	(untitled)											

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
(ALL)	1	NetworkDefault	100	100	100		0.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	1	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	1	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)
A	1	85	85
Ax	1	104	104
B	1	222	222
Bx	1	262	262
C	1	143	143
Cx	1	163	163
D	1	359	359
Dx	1	280	280

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled
A	1	1	C	
B	1	1	D	
C	1	1	A	
D	1	1	B	

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
A	1	5.75	30.00
B	1	5.80	30.00
C	1	5.79	30.00
D	1	5.63	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
Ax	1	1	C/1	Ax/1	16.88	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	15.24	30.00	✓	Nearside	24.11
Cx	1	1	A/1	Cx/1	17.05	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	15.14	30.00	✓	Nearside	26.44
Ax	1	2	B/1	Ax/1	16.88	30.00	✓	Offside	33.77
Bx	1	2	D/1	Bx/1	15.24	30.00	✓	Straight	Straight Movement
Cx	1	2	B/1	Cx/1	17.05	30.00	✓	Nearside	35.22
Dx	1	2	A/1	Dx/1	15.14	30.00	✓	Offside	45.74
Ax	1	3	D/1	Ax/1	16.88	30.00	✓	Nearside	37.16
Bx	1	3	C/1	Bx/1	15.24	30.00	✓	Offside	42.22
Cx	1	3	D/1	Cx/1	17.05	30.00	✓	Offside	37.43
Dx	1	3	B/1	Dx/1	15.14	30.00	✓	Straight	Straight Movement

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	7.00	4.67	5.40
2	(untitled)		1		Farside	8.00	5.33	5.40
3	(untitled)		1		Farside	8.00	5.33	5.40
4	(untitled)		1		Farside	7.00	4.67	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
1	1	E	
2	1	C	
3	1	C	
4	1	C	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Signal Timings

Network Default: 100s cycle time; 100 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	(untitled)		1	NetworkDefault	100

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	7	300	0	0	Unknown	
	B	(untitled)	7	300	0	0	Unknown	
	C	(untitled)	7	300	0	0	Unknown	
	D	(untitled)	7	300	0	0	Unknown	
	E	(untitled)	7	300	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	A	1
	2	C	1
	3	B	1
	4	E	1
	5	D	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2, 3, 4, 5	13, 38, 77, 84, 2
	2	(untitled)	Single	1, 2, 3, 5, 4	16, 42, 68, 84, 0
	3	(untitled)	Single	1, 2, 4, 3, 5	18, 46, 64, 82, 0
	4	(untitled)	Single	1, 2, 4, 5, 3	17, 44, 61, 77, 93
	5	(untitled)	Single	1, 2, 5, 3, 4	18, 46, 64, 82, 0
	6	(untitled)	Single	1, 2, 5, 4, 3	17, 44, 61, 77, 93
	7	(untitled)	Single	1, 3, 2, 4, 5	17, 41, 68, 84, 0
	8	(untitled)	Single	1, 3, 2, 5, 4	17, 41, 68, 84, 0
	9	(untitled)	Single	1, 3, 4, 2, 5	19, 45, 64, 82, 0
	10	(untitled)	Single	1, 3, 4, 5, 2	17, 41, 58, 74, 90

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A		7	10		
	B	7		10		
	C	10	10			
	D					
	E					

Banned Stage transitions for Controller Stream 1

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

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	10	7	0	0
	2	10	0	10	0	0
	3	7	10	0	0	0
	4	0	0	0	0	0
	5	0	0	0	0	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	A	2	13	11	1	7
	2	✓	2	C	23	38	15	1	7
	3	✓	3	B	48	77	29	1	7
	4	✓	4	E	77	84	7	1	7
	5	✓	5	D	84	2	18	1	7

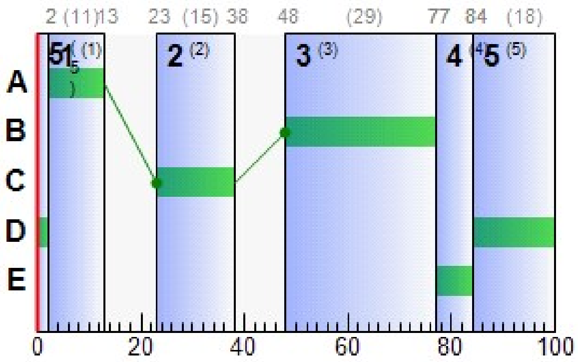
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	2	13	11
	B	1	✓	48	77	29
	C	1	✓	23	38	15
	D	1	✓	84	2	18
	E	1	✓	77	84	7

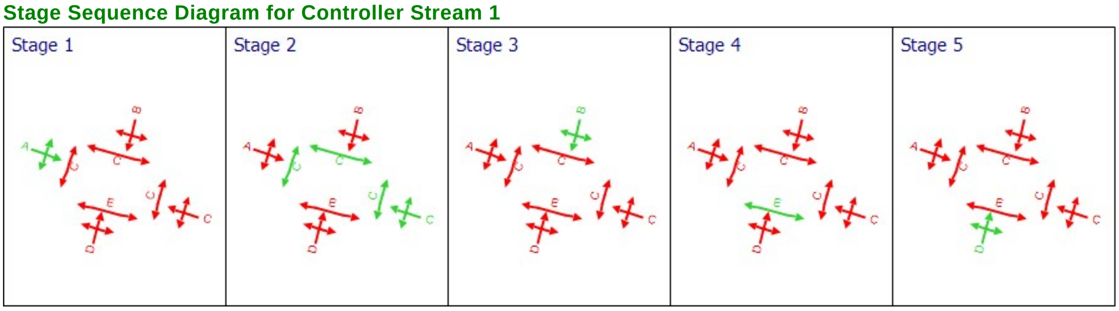
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	C	23	38	15
B	1	1	1	D	84	2	18
C	1	1	1	A	2	13	11
D	1	1	1	B	48	77	29

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
08:00-09:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	35	158	111	1991	15	40.38	2.81	33.70	17.68	1.25	18.93
	Ax	1	0	Unrestricted	136	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	73	23	289	2086	18	49.94	8.50	101.05	56.93	3.75	60.67
	Bx	1	0	Unrestricted	341	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	79	15	186	1974	11	68.41	6.34	75.54	50.19	2.79	52.98
	Cx	1	0	Unrestricted	211	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	75	20	467	2072	29	40.17	12.78	156.70	74.00	5.66	79.66
	Dx	1	0	Unrestricted	365	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Calculated sat flow (PCU/hr)	Calculated capacity (PCU/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	A	1	111	111	-1		1991	319	35		158	0.00	15
	Ax	1	136	136	-1	✓	Unrestricted	Unrestricted	0		Unrestricted	0.68	100
	B	1	289	289	0	✓	2086	396	73		23	0.00	18
	Bx	1	341	341	0		Unrestricted	Unrestricted	0		Unrestricted	0.98	100
	C	1	186	186	0		1974	237	79		15	0.00	11
	Cx	1	211	211	1		Unrestricted	Unrestricted	0		Unrestricted	0.73	100
	D	1	467	467	0		2072	622	75		20	0.00	29
	Dx	1	365	365	-1		Unrestricted	Unrestricted	0		Unrestricted	1.08	100

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	A	1	5.75	40.38	1.15	0.09	17.68	89.80	96.37	3.31	1.25
	Ax	1	16.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	5.80	49.94	3.06	0.95	56.93	103.39	265.52	33.27	3.75
	Bx	1	15.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	5.79	68.41	2.21	1.33	50.19	119.52	177.53	44.79	2.79
	Cx	1	17.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	5.63	40.17	4.10	1.11	74.00	96.68	412.44	39.05	5.66
	Dx	1	15.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (PCU)	Mean max queue (PCU)	Max queue storage (PCU)	Utilised storage (%)	Average storage excess queue (PCU)	Average limit excess queue (PCU)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
08:00-09:00	A	1	0.00	2.81	8.33	33.70	0.00	0.00	0.00	0.00	0.00	0.00	
	Ax	1	0.00	0.00	24.47	0.00	0.00	0.00	0.00	32.00	0.00	32.00	
	B	1	0.00	8.50	8.41	101.05	0.00	0.00	0.00	0.00	0.00	0.00	
	Bx	1	0.00	0.00	22.08	0.00	0.00	0.00	0.00	31.00	0.00	31.00	
	C	1	0.00	6.34	8.39	75.54	0.00	0.00	0.00	0.00	0.00	0.00	
	Cx	1	0.00	0.00	24.70	0.00	0.00	0.00	0.00	25.00	0.00	25.00	
	D	1	0.00	12.78	8.16	156.70	0.85	0.00	0.00	0.00	0.00	0.00	
	Dx	1	0.00	0.00	21.94	0.00	0.00	0.00	0.00	44.00	0.00	44.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	A	1	5.31	1.42	3.74	46.12
	Ax	1	19.13	0.64	30.00	16.88
	B	1	13.97	4.47	3.12	55.74
	Bx	1	43.30	1.44	30.00	15.24
	C	1	8.97	3.83	2.34	74.20
	Cx	1	29.97	1.00	30.00	17.05
	D	1	21.91	5.94	3.69	45.80
	Dx	1	46.04	1.53	30.00	15.14

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (PCU)	Max End of Green Queue EoTS (PCU)	Max End of Red Queue EoTS (PCU)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	0.00	0.00	✓	2.81	0.09	2.68	1.00	0.00	18.93
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	8.51	0.97	7.47	1.00	0.00	60.67
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	6.39	1.38	5.92	1.00	0.00	52.98
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	1	0.00	0.00	✓	12.80	1.12	10.20	1.00	0.00	79.66
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	65	500	11000	7	45.33	12.92	89.40	89.40
		2	65	500	11000	7	45.33	12.92	89.40	89.40
	2	1	28	500	11000	15	36.96	11.67	72.89	72.89
		2	28	500	11000	15	36.96	11.67	72.89	72.89
	3	1	28	500	11000	15	36.96	11.67	72.89	72.89
		2	28	500	11000	15	36.96	11.67	72.89	72.89
	4	1	28	500	11000	15	36.96	11.67	72.89	72.89
		2	28	500	11000	15	36.96	11.67	72.89	72.89

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	1	1	500	500	0		11000	770	65		39	0.00	7
		2	500	500	0		11000	770	65		39	0.00	7
	2	1	500	500	0		11000	1760	28		217	0.00	15
		2	500	500	0		11000	1760	28		217	0.00	15
	3	1	500	500	0		11000	1760	28		217	0.00	15
		2	500	500	0		11000	1760	28		217	0.00	15
	4	1	500	500	0		11000	1760	28		217	0.00	15
		2	500	500	0		11000	1760	28		217	0.00	15

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
08:00-09:00	1	1	5.67	45.33	6.30	0.00	89.40
		2	5.67	45.33	6.30	0.00	89.40
	2	1	6.33	36.96	5.13	0.00	72.89
		2	6.33	36.96	5.13	0.00	72.89
	3	1	6.33	36.96	5.13	0.00	72.89
		2	6.33	36.96	5.13	0.00	72.89
	4	1	5.67	36.96	5.13	0.00	72.89
		2	5.67	36.96	5.13	0.00	72.89

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
08:00-09:00	1	1	12.92	10.00	129.17	0.32	0.00	0.00
		2	12.92	10.00	129.17	0.32	0.00	0.00
	2	1	11.67	10.00	116.67	0.11	0.00	0.00
		2	11.67	10.00	116.67	0.11	0.00	0.00
	3	1	11.67	10.00	116.67	0.11	0.00	0.00
		2	11.67	10.00	116.67	0.11	0.00	0.00
	4	1	11.67	10.00	116.67	0.11	0.00	0.00
		2	11.67	10.00	116.67	0.11	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	1	1	4.00	7.08	0.56	51.00
		2	4.00	7.08	0.56	51.00
	2	1	4.50	6.01	0.75	43.29
		2	4.50	6.01	0.75	43.29
	3	1	4.50	6.01	0.75	43.29
		2	4.50	6.01	0.75	43.29
	4	1	4.00	5.92	0.68	42.63
		2	4.00	5.92	0.68	42.63

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	0.00	0.00	12.92	1.00	0.00	89.40
		2	0.00	0.00	12.92	1.00	0.00	89.40
	2	1	0.00	0.00	11.67	1.00	0.00	72.89
		2	0.00	0.00	11.67	1.00	0.00	72.89
	3	1	0.00	0.00	11.67	1.00	0.00	72.89
		2	0.00	0.00	11.67	1.00	0.00	72.89
	4	1	0.00	0.00	11.67	1.00	0.00	72.89
		2	0.00	0.00	11.67	1.00	0.00	72.89

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
3	15/02/2024 16:43:06	15/02/2024 16:43:07	08:00	100	828.40	57.39	78.52	C/1	0	0	C/1	Dx/1	C/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	79	0	2106	473	23.93	198.80	13.44	212.24

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	65	4000	104	39.05	616.16	616.16

Network Results: Flows and signals

Time Segment	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))
08:00-09:00	6106	6106	-3	✓	79		15	577

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	7.64	33.84	53.91	3.48	814.96	17.56	951.86	120.42	13.44

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))
08:00-09:00	156.70	0.00	132.00	0.00	132.00

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
08:00-09:00	222.61	70.35	3.16

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	0.00	0.00	✓	1.00	0.00	0.00	828.40

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	89.3	91.1	89.4	0.0	0.0	0.0	0.0
	2	62.8	0.0	62.7	61.0	0.0	0.0	0.0	0.0
	3	63.2	61.3	0.0	61.4	0.0	0.0	0.0	0.0
	4	72.8	70.9	72.6	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	51.0	43.3	0.0
	6	0.0	0.0	0.0	0.0	51.0	0.0	0.0	43.3
	7	0.0	0.0	0.0	0.0	43.3	0.0	0.0	42.6
	8	0.0	0.0	0.0	0.0	0.0	43.3	42.6	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (PCU/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Calculated Total Flow (PCU/hr)	Avg journey time (s)
1	1	2	75		89.33		75	89.33
2	1	3	40		91.08		40	91.08
3	1	4	28		89.43		28	89.43
5	2	3	39		62.68		39	62.68
6	2	4	219		61.04		219	61.04
7	2	1	101		62.85		101	62.85
8	3	2	29		61.26		29	61.26
9	3	4	15		61.36		15	61.36
10	3	1	41		63.17		41	63.17
11	4	2	176		70.88		176	70.88
12	4	3	25		72.62		25	72.62
13	4	1	21		72.79		21	72.79
17	8	7		500		42.63	500	42.63
18	8	6		500		43.29	500	43.29
22	5	7		500		43.29	500	43.29
23	5	6		500		51.00	500	51.00
34	6	8		500		43.29	500	43.29
35	6	5		500		51.00	500	51.00
41	7	8		500		42.63	500	42.63
42	7	5		500		43.29	500	43.29

Final Prediction Table

Traffic Stream Results

			SIGNALS			FLOWS		PERFORMANCE				PER PCU			QUEUES
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (PCU)
A	1	(untitled)	1	1	C	111	1991	15	0.00	35	158	46.12	40.38	89.80	2.81
Ax	1	(untitled)				136	Unrestricted	100	32.00	0	Unrestricted	16.88	0.00	0.00	0.00
B	1	(untitled)	1	1	D	289 <	2086	18	0.00	73	23	55.74	49.94	103.39	8.50 +
Bx	1	(untitled)				341	Unrestricted	100	31.00	0	Unrestricted	15.24	0.00	0.00	0.00
C	1	(untitled)	1	1	A	186	1974	11	0.00	79	15	74.20	68.41	119.52	6.34
Cx	1	(untitled)				211	Unrestricted	100	25.00	0	Unrestricted	17.05	0.00	0.00	0.00
D	1	(untitled)	1	1	B	467 <	2072	29	0.00	75	20	45.80	40.17	96.68	12.78 +
Dx	1	(untitled)				365	Unrestricted	100	44.00	0	Unrestricted	15.14	0.00	0.00	0.00

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	**Side**	**Name**	**Traffic node**	**Controller stream**	**Phase**	**Calculated Flow Entering (Ped/hr)**	**Calculated sat flow (Ped/hr)**	**Actual green (s (per cycle))**	**Degree of saturation (%)**	**Practical reserve capacity (%)**	**JourneyTime (s)**	**Mean Delay per Ped (s)**	**Mean max queue (Ped)**	**Delay weighting (%)**	**Co tra pen (£ p**
1	**1**	(untitled)	1	1	E	500 <	11000	7	65	39	51.00	45.33	12.92 +	100	0
	2	(untitled)	1	1	E	500 <	11000	7	65	39	51.00	45.33	12.92 +	100	0
2	**1**	(untitled)	1	1	C	500 <	11000	15	28	217	43.29	36.96	11.67 +	100	0
	2	(untitled)	1	1	C	500 <	11000	15	28	217	43.29	36.96	11.67 +	100	0
3	**1**	(untitled)	1	1	C	500 <	11000	15	28	217	43.29	36.96	11.67 +	100	0
	2	(untitled)	1	1	C	500 <	11000	15	28	217	43.29	36.96	11.67 +	100	0
4	**1**	(untitled)	1	1	C	500 <	11000	15	28	217	42.63	36.96	11.67 +	100	0
	2	(untitled)	1	1	C	500 <	11000	15	28	217	42.63	36.96	11.67 +	100	0

Network Results

	Distance travelled (PCU-km/hr)	**Time spent (PCU-hr/hr)**	**Mean journey speed (kph)**	**Uniform delay (PCU-hr/hr)**	**Random plus oversat delay (PCU-hr/hr)**	**Weighted cost of delay (£ per hr)**	**Weighted cost of stops (£ per hr)**	**Excess queue penalty (£ per hr)**	**Performance Index (£ per hr)**
Normal traffic	188.61	20.29	9.30	10.52	3.48	198.80	13.44	0.00	212.24
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	34.00	50.06	0.68	43.39	0.00	616.16	0.00	0.00	616.16
TOTAL	222.61	70.35	3.16	53.91	3.48	814.96	13.44	0.00	828.40

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A4 - DO NOTHING 2040
D4 - DO NOTHING 2040*

Summary

Data Errors and Warnings

Severity	Area	Item	Description
Info	Traffic Options	Traffic options	Flow scaling factor for Vehicles is not set to 100% (current value: 130)

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
4	15/02/2024 16:43:07	15/02/2024 16:43:08	08:00	100	824.80	57.06	85.98	D/1	0	0	D/1	Dx/1	D/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
DO NOTHING 2040		D4	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
DO NOTHING 2040				08:00	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)		✓	47.88	✓	Sum of lanes	1991	✓		Normal	
Ax	1	(untitled)		✓	140.68						Normal	
B	1	(untitled)		✓	48.35	✓	Sum of lanes	2086	✓		Normal	
Bx	1	(untitled)		✓	126.97						Normal	
C	1	(untitled)		✓	48.24	✓	Sum of lanes	1974	✓		Normal	
Cx	1	(untitled)		✓	142.05						Normal	
D	1	(untitled)		✓	46.91	✓	Sum of lanes	2072	✓		Normal	
Dx	1	(untitled)		✓	126.14						Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Surface condition	Site quality factor	Gradient (%)	Width (m)	Use connector turning radius	Proportion that turn (%)	Turning radius (m)	Nearside lane	Saturation flow (PCU/hr)
A	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	52	24.11		1991
Ax	1	1	(untitled)											
B	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	21	33.77		2086
Bx	1	1	(untitled)											
C	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	72	26.44		1974
Cx	1	1	(untitled)											
D	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	39	37.16		2072
Dx	1	1	(untitled)											

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
(ALL)	1	NetworkDefault	100	100	100		0.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	1	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	1	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)
A	1	91	91
Ax	1	109	109
B	1	231	231
Bx	1	270	270
C	1	148	148
Cx	1	170	170
D	1	370	370
Dx	1	291	291

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled
A	1	1	C	
B	1	1	D	
C	1	1	A	
D	1	1	B	

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
A	1	5.75	30.00
B	1	5.80	30.00
C	1	5.79	30.00
D	1	5.63	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
Ax	1	1	C/1	Ax/1	16.88	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	15.24	30.00	✓	Nearside	24.11
Cx	1	1	A/1	Cx/1	17.05	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	15.14	30.00	✓	Nearside	26.44
Ax	1	2	B/1	Ax/1	16.88	30.00	✓	Offside	33.77
Bx	1	2	D/1	Bx/1	15.24	30.00	✓	Straight	Straight Movement
Cx	1	2	B/1	Cx/1	17.05	30.00	✓	Nearside	35.22
Dx	1	2	A/1	Dx/1	15.14	30.00	✓	Offside	45.74
Ax	1	3	D/1	Ax/1	16.88	30.00	✓	Nearside	37.16
Bx	1	3	C/1	Bx/1	15.24	30.00	✓	Offside	42.22
Cx	1	3	D/1	Cx/1	17.05	30.00	✓	Offside	37.43
Dx	1	3	B/1	Dx/1	15.14	30.00	✓	Straight	Straight Movement

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	7.00	4.67	5.40
2	(untitled)		1		Farside	8.00	5.33	5.40
3	(untitled)		1		Farside	8.00	5.33	5.40
4	(untitled)		1		Farside	7.00	4.67	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
1	1	E	
2	1	C	
3	1	C	
4	1	C	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Signal Timings

Network Default: 100s cycle time; 100 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	(untitled)		1	NetworkDefault	100

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	7	300	0	0	Unknown	
	B	(untitled)	7	300	0	0	Unknown	
	C	(untitled)	7	300	0	0	Unknown	
	D	(untitled)	7	300	0	0	Unknown	
	E	(untitled)	7	300	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	A	1
	2	B	1
	3	C	1
	4	D	1
	5	E	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2, 3, 4, 5	9, 42, 69, 88, 97
	2	(untitled)	Single	1, 2, 3, 5, 4	17, 41, 68, 84, 0
	3	(untitled)	Single	1, 2, 4, 3, 5	19, 45, 64, 82, 0
	4	(untitled)	Single	1, 2, 4, 5, 3	17, 41, 58, 74, 90
	5	(untitled)	Single	1, 2, 5, 3, 4	19, 45, 64, 82, 0
	6	(untitled)	Single	1, 2, 5, 4, 3	17, 41, 58, 74, 90
	7	(untitled)	Single	1, 3, 2, 4, 5	16, 42, 68, 84, 0
	8	(untitled)	Single	1, 3, 2, 5, 4	16, 42, 68, 84, 0
	9	(untitled)	Single	1, 3, 4, 2, 5	18, 46, 64, 82, 0
	10	(untitled)	Single	1, 3, 4, 5, 2	17, 44, 61, 77, 93

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A		7	10		
	B	7		10		
	C	10	10			
	D					
	E					

Banned Stage transitions for Controller Stream 1

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

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	7	10	0	0
	2	7	0	10	0	0
	3	10	10	0	0	0
	4	0	0	0	0	0
	5	0	0	0	0	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	A	97	9	12	1	7
	2	✓	2	B	16	42	26	1	7
	3	✓	3	C	52	69	17	1	7
	4	✓	4	D	69	88	19	1	7
	5	✓	5	E	88	97	9	1	7

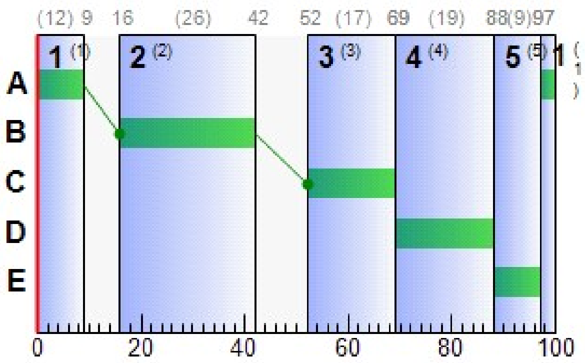
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	97	9	12
	B	1	✓	16	42	26
	C	1	✓	52	69	17
	D	1	✓	69	88	19
	E	1	✓	88	97	9

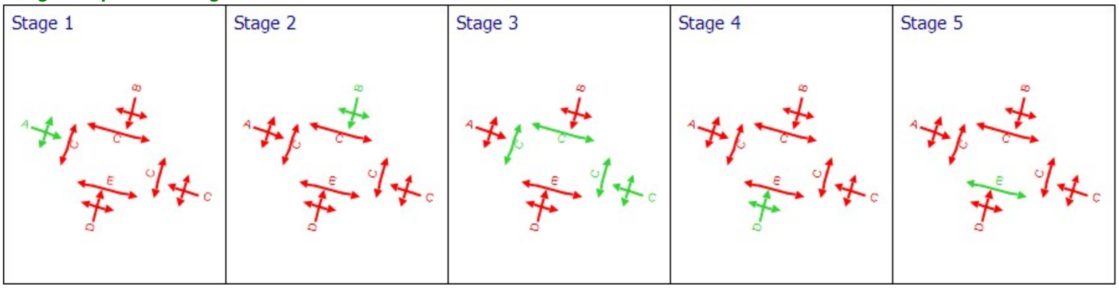
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	C	52	69	17
B	1	1	1	D	69	88	19
C	1	1	1	A	97	9	12
D	1	1	1	B	16	42	26

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
08:00-09:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	33	173	118	1991	17	38.21	2.93	35.22	17.78	1.30	19.09
	Ax	1	0	Unrestricted	142	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	72	25	301	2086	19	48.27	8.68	103.27	57.32	3.86	61.17
	Bx	1	0	Unrestricted	351	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	75	20	192	1974	12	61.68	6.17	73.59	46.71	2.73	49.44
	Cx	1	0	Unrestricted	221	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	86	5	481	2072	26	52.91	15.13	185.41	100.38	6.64	107.02
	Dx	1	0	Unrestricted	378	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Calculated sat flow (PCU/hr)	Calculated capacity (PCU/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	A	1	118	118	0		1991	358	33		173	0.00	17
	Ax	1	142	142	0		Unrestricted	Unrestricted	0		Unrestricted	0.63	100
	B	1	301	301	-1		2086	417	72		25	0.00	19
	Bx	1	351	351	0		Unrestricted	Unrestricted	0		Unrestricted	1.01	100
	C	1	192	192	0		1974	257	75		20	0.00	12
	Cx	1	221	221	0		Unrestricted	Unrestricted	0		Unrestricted	0.75	100
	D	1	481	481	0		2072	559	86		5	0.00	26
	Dx	1	378	378	0		Unrestricted	Unrestricted	0		Unrestricted	0.95	100

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	A	1	5.75	38.21	1.17	0.08	17.78	88.04	101.00	2.88	1.30
	Ax	1	16.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	5.80	48.27	3.13	0.91	57.32	102.20	275.77	31.85	3.86
	Bx	1	15.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	5.79	61.68	2.24	1.05	46.71	113.46	181.75	36.10	2.73
	Cx	1	17.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	5.63	52.91	4.64	2.43	100.38	110.17	446.23	83.69	6.64
	Dx	1	15.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (PCU)	Mean max queue (PCU)	Max queue storage (PCU)	Utilised storage (%)	Average storage excess queue (PCU)	Average limit excess queue (PCU)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
08:00-09:00	A	1	0.00	2.93	8.33	35.22	0.00	0.00	0.00	0.00	0.00	0.00	
	Ax	1	0.00	0.00	24.47	0.00	0.00	0.00	0.00	30.00	0.00	30.00	
	B	1	0.00	8.68	8.41	103.27	0.01	0.00	0.00	0.00	0.00	0.00	
	Bx	1	0.00	0.00	22.08	0.00	0.00	0.00	0.00	34.00	0.00	34.00	
	C	1	0.00	6.17	8.39	73.59	0.00	0.00	0.00	0.00	0.00	0.00	
	Cx	1	0.00	0.00	24.70	0.00	0.00	0.00	0.00	27.00	0.00	27.00	
	D	1	0.00	15.13	8.16	185.41	1.85	0.00	0.00	0.00	0.00	0.00	
	Dx	1	0.00	0.00	21.94	0.00	0.00	0.00	0.00	33.00	0.00	33.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	A	1	5.65	1.44	3.92	43.95
	Ax	1	19.98	0.67	30.00	16.88
	B	1	14.55	4.52	3.22	54.08
	Bx	1	44.57	1.49	30.00	15.24
	C	1	9.26	3.60	2.57	67.46
	Cx	1	31.39	1.05	30.00	17.05
	D	1	22.56	7.82	2.88	58.53
	Dx	1	47.68	1.59	30.00	15.14

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (PCU)	Max End of Green Queue EoTS (PCU)	Max End of Red Queue EoTS (PCU)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	0.00	0.00	✓	2.93	0.08	2.77	1.00	0.00	19.09
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	8.70	0.92	7.61	1.00	0.00	61.17
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	6.20	1.08	5.72	1.00	0.00	49.44
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	1	0.00	0.00	✓	15.22	2.53	12.28	1.00	0.00	107.02
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	51	500	11000	9	43.40	12.64	85.59	85.59
		2	51	500	11000	9	43.40	12.64	85.59	85.59
	2	1	25	500	11000	17	35.23	11.39	69.48	69.48
		2	25	500	11000	17	35.23	11.39	69.48	69.48
	3	1	25	500	11000	17	35.23	11.39	69.48	69.48
		2	25	500	11000	17	35.23	11.39	69.48	69.48
	4	1	25	500	11000	17	35.23	11.39	69.48	69.48
		2	25	500	11000	17	35.23	11.39	69.48	69.48

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	1	1	500	500	0		11000	990	51		78	0.00	9
		2	500	500	0		11000	990	51		78	0.00	9
	2	1	500	500	0		11000	1980	25		256	0.00	17
		2	500	500	0		11000	1980	25		256	0.00	17
	3	1	500	500	0		11000	1980	25		256	0.00	17
		2	500	500	0		11000	1980	25		256	0.00	17
	4	1	500	500	0		11000	1980	25		256	0.00	17
		2	500	500	0		11000	1980	25		256	0.00	17

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
08:00-09:00	1	1	5.67	43.40	6.03	0.00	85.59
		2	5.67	43.40	6.03	0.00	85.59
	2	1	6.33	35.23	4.89	0.00	69.48
		2	6.33	35.23	4.89	0.00	69.48
	3	1	6.33	35.23	4.89	0.00	69.48
		2	6.33	35.23	4.89	0.00	69.48
	4	1	5.67	35.23	4.89	0.00	69.48
		2	5.67	35.23	4.89	0.00	69.48

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
08:00-09:00	1	1	12.64	10.00	126.39	0.26	0.00	0.00
		2	12.64	10.00	126.39	0.26	0.00	0.00
	2	1	11.39	10.00	113.89	0.08	0.00	0.00
		2	11.39	10.00	113.89	0.08	0.00	0.00
	3	1	11.39	10.00	113.89	0.08	0.00	0.00
		2	11.39	10.00	113.89	0.08	0.00	0.00
	4	1	11.39	10.00	113.89	0.08	0.00	0.00
		2	11.39	10.00	113.89	0.08	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	1	1	4.00	6.81	0.59	49.07
		2	4.00	6.81	0.59	49.07
	2	1	4.50	5.77	0.78	41.56
		2	4.50	5.77	0.78	41.56
	3	1	4.50	5.77	0.78	41.56
		2	4.50	5.77	0.78	41.56
	4	1	4.00	5.68	0.70	40.90
		2	4.00	5.68	0.70	40.90

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	0.00	0.00	12.64	1.00	0.00	85.59
		2	0.00	0.00	12.64	1.00	0.00	85.59
	2	1	0.00	0.00	11.39	1.00	0.00	69.48
		2	0.00	0.00	11.39	1.00	0.00	69.48
	3	1	0.00	0.00	11.39	1.00	0.00	69.48
		2	0.00	0.00	11.39	1.00	0.00	69.48
	4	1	0.00	0.00	11.39	1.00	0.00	69.48
		2	0.00	0.00	11.39	1.00	0.00	69.48

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
4	15/02/2024 16:43:07	15/02/2024 16:43:08	08:00	100	824.80	57.06	85.98	D/1	0	0	D/1	Dx/1	D/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	86	0	2184	474	25.79	222.18	14.54	236.72

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	51	4000	120	37.27	588.08	588.08

Network Results: Flows and signals

Time Segment	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))
08:00-09:00	6184	6184	0		86		5	594

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	7.68	33.22	52.59	4.47	810.26	18.75	1004.76	154.52	14.54

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))
08:00-09:00	185.41	0.00	124.00	0.00	124.00

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
08:00-09:00	229.64	70.25	3.27

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	0.00	0.00	✓	1.00	0.00	0.00	824.80

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	82.6	84.3	82.7	0.0	0.0	0.0	0.0
	2	75.6	0.0	75.4	73.8	0.0	0.0	0.0	0.0
	3	61.0	59.1	0.0	59.2	0.0	0.0	0.0	0.0
	4	71.1	69.2	71.0	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	49.1	41.6	0.0
	6	0.0	0.0	0.0	0.0	49.1	0.0	0.0	41.6
	7	0.0	0.0	0.0	0.0	41.6	0.0	0.0	40.9
	8	0.0	0.0	0.0	0.0	0.0	41.6	40.9	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (PCU/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Calculated Total Flow (PCU/hr)	Avg journey time (s)
1	1	2	78		82.60		78	82.60
2	1	3	42		84.35		42	84.35
3	1	4	28		82.70		28	82.70
5	2	3	40		75.42		40	75.42
6	2	4	226		73.77		226	73.77
7	2	1	104		75.58		104	75.58
8	3	2	31		59.09		31	59.09
9	3	4	16		59.19		16	59.19
10	3	1	44		61.00		44	61.00
11	4	2	182		69.21		182	69.21
12	4	3	27		70.96		27	70.96
13	4	1	22		71.12		22	71.12
17	8	7		500		40.90	500	40.90
18	8	6		500		41.56	500	41.56
22	5	7		500		41.56	500	41.56
23	5	6		500		49.07	500	49.07
34	6	8		500		41.56	500	41.56
35	6	5		500		49.07	500	49.07
41	7	8		500		40.90	500	40.90
42	7	5		500		41.56	500	41.56

Final Prediction Table

Traffic Stream Results

			SIGNALS			FLOWS		PERFORMANCE				PER PCU			QUEUES
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (PCU)
A	1	(untitled)	1	1	C	118	1991	17	0.00	33	173	43.95	38.21	88.04	2.93
Ax	1	(untitled)				142	Unrestricted	100	30.00	0	Unrestricted	16.88	0.00	0.00	0.00
B	1	(untitled)	1	1	D	301 <	2086	19	0.00	72	25	54.08	48.27	102.20	8.68 +
Bx	1	(untitled)				351	Unrestricted	100	34.00	0	Unrestricted	15.24	0.00	0.00	0.00
C	1	(untitled)	1	1	A	192	1974	12	0.00	75	20	67.46	61.68	113.46	6.17
Cx	1	(untitled)				221	Unrestricted	100	27.00	0	Unrestricted	17.05	0.00	0.00	0.00
D	1	(untitled)	1	1	B	481 <	2072	26	0.00	86	5	58.53	52.91	110.17	15.13 +
Dx	1	(untitled)				378	Unrestricted	100	33.00	0	Unrestricted	15.14	0.00	0.00	0.00

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	Co tra pen (£ p
1	1	(untitled)	1	1	E	500 <	11000	9	51	78	49.07	43.40	12.64 +	100	0
	2	(untitled)	1	1	E	500 <	11000	9	51	78	49.07	43.40	12.64 +	100	0
2	1	(untitled)	1	1	C	500 <	11000	17	25	256	41.56	35.23	11.39 +	100	0
	2	(untitled)	1	1	C	500 <	11000	17	25	256	41.56	35.23	11.39 +	100	0
3	1	(untitled)	1	1	C	500 <	11000	17	25	256	41.56	35.23	11.39 +	100	0
	2	(untitled)	1	1	C	500 <	11000	17	25	256	41.56	35.23	11.39 +	100	0
4	1	(untitled)	1	1	C	500 <	11000	17	25	256	40.90	35.23	11.39 +	100	0
	2	(untitled)	1	1	C	500 <	11000	17	25	256	40.90	35.23	11.39 +	100	0

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	195.64	22.17	8.83	11.17	4.47	222.18	14.54	0.00	236.72
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	34.00	48.08	0.71	41.41	0.00	588.08	0.00	0.00	588.08
TOTAL	229.64	70.25	3.27	52.59	4.47	810.26	14.54	0.00	824.80

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A5 - DO SOMETHING 2025
D5 - DO SOMETHING 2025*

Summary

Data Errors and Warnings

Severity	Area	Item	Description
Info	Traffic Options	Traffic options	Flow scaling factor for Vehicles is not set to 100% (current value: 130)

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
5	15/02/2024 16:43:08	15/02/2024 16:43:09	08:00	100	702.24	48.63	82.05	D/1	0	0	D/1	Dx/1	D/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
DO SOMETHING 2025		D5	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
DO SOMETHING 2025				08:00	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)		✓	47.88	✓	Sum of lanes	1995	✓		Normal	
Ax	1	(untitled)		✓	140.68						Normal	
B	1	(untitled)		✓	48.35	✓	Sum of lanes	2070	✓		Normal	
Bx	1	(untitled)		✓	126.97						Normal	
C	1	(untitled)		✓	48.24	✓	Sum of lanes	1968	✓		Normal	
Cx	1	(untitled)		✓	142.05						Normal	
D	1	(untitled)		✓	46.91	✓	Sum of lanes	2072	✓		Normal	
Dx	1	(untitled)		✓	126.14						Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Surface condition	Site quality factor	Gradient (%)	Width (m)	Use connector turning radius	Proportion that turn (%)	Turning radius (m)	Nearside lane	Saturation flow (PCU/hr)
A	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	48	24.11		1995
Ax	1	1	(untitled)											
B	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	38	33.77		2070
Bx	1	1	(untitled)											
C	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	78	26.44		1968
Cx	1	1	(untitled)											
D	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	39	37.16		2072
Dx	1	1	(untitled)											

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
(ALL)	1	NetworkDefault	100	100	100		0.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	1	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	1	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)
A	1	77	77
Ax	1	93	93
B	1	181	181
Bx	1	235	235
C	1	195	195
Cx	1	144	144
D	1	223	223
Dx	1	204	204

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled
A	1	1	C	
B	1	1	D	
C	1	1	A	
D	1	1	B	

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
A	1	5.75	30.00
B	1	5.80	30.00
C	1	5.79	30.00
D	1	5.63	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
Ax	**1**	**1**	C/1	Ax/1	16.88	30.00	✓	Straight	Straight Movement
Bx	**1**	**1**	A/1	Bx/1	15.24	30.00	✓	Nearside	24.11
Cx	**1**	**1**	A/1	Cx/1	17.05	30.00	✓	Straight	Straight Movement
Dx	**1**	**1**	C/1	Dx/1	15.14	30.00	✓	Nearside	26.44
Ax	**1**	**2**	B/1	Ax/1	16.88	30.00	✓	Offside	33.77
Bx	**1**	**2**	D/1	Bx/1	15.24	30.00	✓	Straight	Straight Movement
Cx	**1**	**2**	B/1	Cx/1	17.05	30.00	✓	Nearside	35.22
Dx	**1**	**2**	A/1	Dx/1	15.14	30.00	✓	Offside	45.74
Ax	**1**	**3**	D/1	Ax/1	16.88	30.00	✓	Nearside	37.16
Bx	**1**	**3**	C/1	Bx/1	15.24	30.00	✓	Offside	42.22
Cx	**1**	**3**	D/1	Cx/1	17.05	30.00	✓	Offside	37.43
Dx	**1**	**3**	B/1	Dx/1	15.14	30.00	✓	Straight	Straight Movement

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	7.00	4.67	5.40
2	(untitled)		1		Farside	8.00	5.33	5.40
3	(untitled)		1		Farside	8.00	5.33	5.40
4	(untitled)		1		Farside	7.00	4.67	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
1	1	E	
2	1	C	
3	1	C	
4	1	C	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	**(ALL)**	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	**(ALL)**	100	100		0.00		

Signal Timings

Network Default: 100s cycle time; 100 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	(untitled)		1	NetworkDefault	100

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	7	300	0	0	Unknown	
	B	(untitled)	7	300	0	0	Unknown	
	C	(untitled)	7	300	0	0	Unknown	
	D	(untitled)	7	300	0	0	Unknown	
	E	(untitled)	7	300	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	A	1
	2	B	1
	3	C	1
	4	D	1
	5	E	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2, 3, 4, 5	13, 36, 71, 86, 97
	2	(untitled)	Single	1, 2, 3, 5, 4	17, 41, 68, 84, 0
	3	(untitled)	Single	1, 2, 4, 3, 5	19, 45, 64, 82, 0
	4	(untitled)	Single	1, 2, 4, 5, 3	17, 41, 58, 74, 90
	5	(untitled)	Single	1, 2, 5, 3, 4	19, 45, 64, 82, 0
	6	(untitled)	Single	1, 2, 5, 4, 3	17, 41, 58, 74, 90
	7	(untitled)	Single	1, 3, 2, 4, 5	16, 42, 68, 84, 0
	8	(untitled)	Single	1, 3, 2, 5, 4	16, 42, 68, 84, 0
	9	(untitled)	Single	1, 3, 4, 2, 5	18, 46, 64, 82, 0
	10	(untitled)	Single	1, 3, 4, 5, 2	17, 44, 61, 77, 93

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A		7	10		
	B	7		10		
	C	10	10			
	D					
	E					

Banned Stage transitions for Controller Stream 1

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

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	7	10	0	0
	2	7	0	10	0	0
	3	10	10	0	0	0
	4	0	0	0	0	0
	5	0	0	0	0	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	A	97	13	16	1	7
	2	✓	2	B	20	36	16	1	7
	3	✓	3	C	46	71	25	1	7
	4	✓	4	D	71	86	15	1	7
	5	✓	5	E	86	97	11	1	7

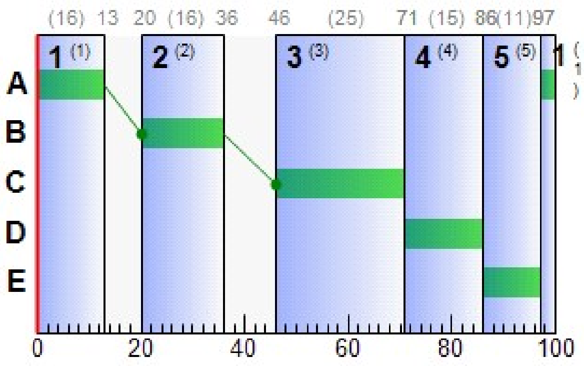
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	97	13	16
	B	1	✓	20	36	16
	C	1	✓	46	71	25
	D	1	✓	71	86	15
	E	1	✓	86	97	11

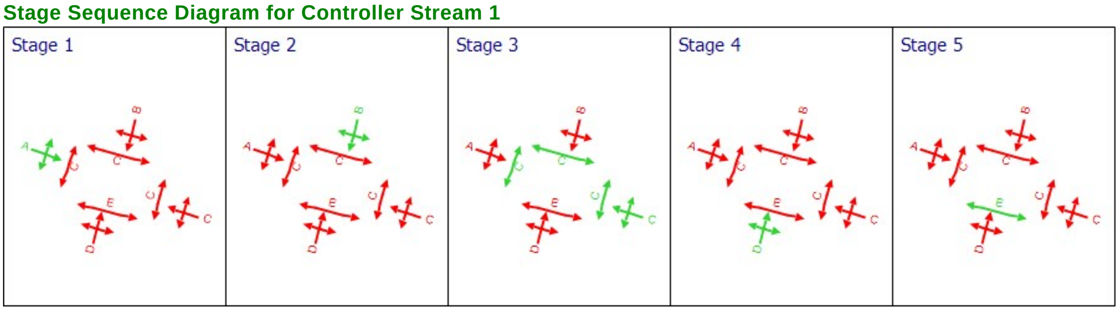
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	C	46	71	25
B	1	1	1	D	71	86	15
C	1	1	1	A	97	13	16
D	1	1	1	B	20	36	16

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
08:00-09:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	19	367	100	1995	25	29.66	2.16	25.96	11.70	0.96	12.66
	Ax	1	0	Unrestricted	121	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	71	26	236	2070	15	52.87	7.02	83.45	49.22	3.12	52.34
	Bx	1	0	Unrestricted	305	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	76	19	254	1968	16	55.76	7.85	93.53	55.86	3.47	59.34
	Cx	1	0	Unrestricted	187	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	82	10	289	2072	16	61.65	9.44	115.73	70.27	4.17	74.44
	Dx	1	0	Unrestricted	266	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Calculated sat flow (PCU/hr)	Calculated capacity (PCU/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	A	1	100	100	0		1995	519	19		367	0.00	25
	Ax	1	121	121	0		Unrestricted	Unrestricted	0		Unrestricted	0.76	100
	B	1	236	236	-1		2070	331	71		26	0.00	15
	Bx	1	305	305	1		Unrestricted	Unrestricted	0		Unrestricted	0.98	100
	C	1	254	254	-1		1968	335	76		19	0.00	16
	Cx	1	187	187	0		Unrestricted	Unrestricted	0		Unrestricted	0.77	100
	D	1	289	289	1		2072	352	82		10	0.00	16
	Dx	1	266	266	-1		Unrestricted	Unrestricted	0		Unrestricted	0.92	100

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	A	1	5.75	29.66	0.80	0.02	11.70	76.64	75.82	0.83	0.96
	Ax	1	16.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	5.80	52.87	2.61	0.86	49.22	105.41	218.97	29.80	3.12
	Bx	1	15.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	5.79	55.76	2.79	1.14	55.86	109.09	237.57	39.53	3.47
	Cx	1	17.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	5.63	61.65	3.21	1.73	70.27	115.09	273.42	59.20	4.17
	Dx	1	15.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (PCU)	Mean max queue (PCU)	Max queue storage (PCU)	Utilised storage (%)	Average storage excess queue (PCU)	Average limit excess queue (PCU)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
08:00-09:00	A	1	0.00	2.16	8.33	25.96	0.00	0.00	0.00	0.00	0.00	0.00	
	Ax	1	0.00	0.00	24.47	0.00	0.00	0.00	0.00	39.00	0.00	39.00	
	B	1	0.00	7.02	8.41	83.45	0.00	0.00	0.00	0.00	0.00	0.00	
	Bx	1	0.00	0.00	22.08	0.00	0.00	0.00	0.00	40.00	0.00	40.00	
	C	1	0.00	7.85	8.39	93.53	0.00	0.00	0.00	0.00	0.00	0.00	
	Cx	1	0.00	0.00	24.70	0.00	0.00	0.00	0.00	28.00	0.00	28.00	
	D	1	0.00	9.44	8.16	115.73	0.11	0.00	0.00	0.00	0.00	0.00	
	Dx	1	0.00	0.00	21.94	0.00	0.00	0.00	0.00	37.00	0.00	37.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	A	1	4.79	0.98	4.87	35.41
	Ax	1	17.02	0.57	30.00	16.88
	B	1	11.41	3.85	2.97	58.67
	Bx	1	38.73	1.29	30.00	15.24
	C	1	12.25	4.34	2.82	61.54
	Cx	1	26.56	0.89	30.00	17.05
	D	1	13.56	5.40	2.51	67.27
	Dx	1	33.55	1.12	30.00	15.14

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (PCU)	Max End of Green Queue EoTS (PCU)	Max End of Red Queue EoTS (PCU)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	0.00	0.00	✓	2.16	0.02	2.08	1.00	0.00	12.66
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	7.03	0.87	6.38	1.00	0.00	52.34
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	7.87	1.17	7.03	1.00	0.00	59.34
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	1	0.00	0.00	✓	9.51	1.80	8.46	1.00	0.00	74.44
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	41	500	11000	11	41.51	12.36	81.87	81.87
		2	41	500	11000	11	41.51	12.36	81.87	81.87
	2	1	17	500	11000	25	28.71	10.28	56.62	56.62
		2	17	500	11000	25	28.71	10.28	56.62	56.62
	3	1	17	500	11000	25	28.71	10.28	56.62	56.62
		2	17	500	11000	25	28.71	10.28	56.62	56.62
	4	1	17	500	11000	25	28.71	10.28	56.62	56.62
		2	17	500	11000	25	28.71	10.28	56.62	56.62

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	1	1	500	500	0		11000	1210	41		118	0.00	11
		2	500	500	0		11000	1210	41		118	0.00	11
	2	1	500	500	0		11000	2860	17		415	0.00	25
		2	500	500	0		11000	2860	17		415	0.00	25
	3	1	500	500	0		11000	2860	17		415	0.00	25
		2	500	500	0		11000	2860	17		415	0.00	25
	4	1	500	500	0		11000	2860	17		415	0.00	25
		2	500	500	0		11000	2860	17		415	0.00	25

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
08:00-09:00	1	1	5.67	41.51	5.77	0.00	81.87
		2	5.67	41.51	5.77	0.00	81.87
	2	1	6.33	28.71	3.99	0.00	56.62
		2	6.33	28.71	3.99	0.00	56.62
	3	1	6.33	28.71	3.99	0.00	56.62
		2	6.33	28.71	3.99	0.00	56.62
	4	1	5.67	28.71	3.99	0.00	56.62
		2	5.67	28.71	3.99	0.00	56.62

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
08:00-09:00	1	1	12.36	10.00	123.61	0.21	0.00	0.00
		2	12.36	10.00	123.61	0.21	0.00	0.00
	2	1	10.28	10.00	102.78	0.00	0.00	0.00
		2	10.28	10.00	102.78	0.00	0.00	0.00
	3	1	10.28	10.00	102.78	0.00	0.00	0.00
		2	10.28	10.00	102.78	0.00	0.00	0.00
	4	1	10.28	10.00	102.78	0.00	0.00	0.00
		2	10.28	10.00	102.78	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	1	1	4.00	6.55	0.61	47.18
		2	4.00	6.55	0.61	47.18
	2	1	4.50	4.87	0.92	35.04
		2	4.50	4.87	0.92	35.04
	3	1	4.50	4.87	0.92	35.04
		2	4.50	4.87	0.92	35.04
	4	1	4.00	4.77	0.84	34.38
		2	4.00	4.77	0.84	34.38

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	0.00	0.00	12.36	1.00	0.00	81.87
		2	0.00	0.00	12.36	1.00	0.00	81.87
	2	1	0.00	0.00	10.28	1.00	0.00	56.62
		2	0.00	0.00	10.28	1.00	0.00	56.62
	3	1	0.00	0.00	10.28	1.00	0.00	56.62
		2	0.00	0.00	10.28	1.00	0.00	56.62
	4	1	0.00	0.00	10.28	1.00	0.00	56.62
		2	0.00	0.00	10.28	1.00	0.00	56.62

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
5	15/02/2024 16:43:08	15/02/2024 16:43:09	08:00	100	702.24	48.63	82.05	D/1	0	0	D/1	Dx/1	D/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	82	0	1758	472	26.97	187.05	11.73	198.77

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	41	4000	172	31.91	503.47	503.47

Network Results: Flows and signals

Time Segment	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))
08:00-09:00	5758	5758	0		82		10	644

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	7.46	30.40	44.87	3.76	690.52	16.24	805.77	129.35	11.73

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))
08:00-09:00	123.61	0.00	144.00	0.00	144.00

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
08:00-09:00	191.87	60.56	3.17

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	0.00	0.00	✓	1.00	0.00	0.00	702.24

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	76.7	78.4	76.8	0.0	0.0	0.0	0.0
	2	84.3	0.0	84.2	82.5	0.0	0.0	0.0	0.0
	3	52.5	50.5	0.0	50.6	0.0	0.0	0.0	0.0
	4	75.7	73.8	75.6	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	47.2	35.0	0.0
	6	0.0	0.0	0.0	0.0	47.2	0.0	0.0	35.0
	7	0.0	0.0	0.0	0.0	35.0	0.0	0.0	34.4
	8	0.0	0.0	0.0	0.0	0.0	35.0	34.4	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (PCU/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Calculated Total Flow (PCU/hr)	Avg journey time (s)
1	1	2	69		76.68		69	76.68
2	1	3	42		78.43		42	78.43
3	1	4	84		76.78		84	76.78
5	2	3	28		84.16		28	84.16
6	2	4	137		82.51		137	82.51
7	2	1	58		84.32		58	84.32
8	3	2	23		50.54		23	50.54
9	3	4	14		50.64		14	50.64
10	3	1	40		52.45		40	52.45
11	4	2	112		73.81		112	73.81
12	4	3	23		75.55		23	75.55
13	4	1	46		75.72		46	75.72
17	8	7		500		34.38	500	34.38
18	8	6		500		35.04	500	35.04
22	5	7		500		35.04	500	35.04
23	5	6		500		47.18	500	47.18
34	6	8		500		35.04	500	35.04
35	6	5		500		47.18	500	47.18
41	7	8		500		34.38	500	34.38
42	7	5		500		35.04	500	35.04

Final Prediction Table

Traffic Stream Results

				SIGNALS		FLOWS		PERFORMANCE				PER PCU			QUEUES
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (PCU)
A	1	(untitled)	1	1	C	100	1995	25	0.00	19	367	35.41	29.66	76.64	2.16
Ax	1	(untitled)				121	Unrestricted	100	39.00	0	Unrestricted	16.88	0.00	0.00	0.00
B	1	(untitled)	1	1	D	236	2070	15	0.00	71	26	58.67	52.87	105.41	7.02
Bx	1	(untitled)				305	Unrestricted	100	40.00	0	Unrestricted	15.24	0.00	0.00	0.00
C	1	(untitled)	1	1	A	254	1968	16	0.00	76	19	61.54	55.76	109.09	7.85
Cx	1	(untitled)				187	Unrestricted	100	28.00	0	Unrestricted	17.05	0.00	0.00	0.00
D	1	(untitled)	1	1	B	289 <	2072	16	0.00	82	10	67.27	61.65	115.09	9.44 +
Dx	1	(untitled)				266	Unrestricted	100	37.00	0	Unrestricted	15.14	0.00	0.00	0.00

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	**Side**	**Name**	**Traffic node**	**Controller stream**	**Phase**	**Calculated Flow Entering (Ped/hr)**	**Calculated sat flow (Ped/hr)**	**Actual green (s (per cycle))**	**Degree of saturation (%)**	**Practical reserve capacity (%)**	**JourneyTime (s)**	**Mean Delay per Ped (s)**	**Mean max queue (Ped)**	**Delay weighting (%)**	**Co tra pen (£ p**
1	**1**	(untitled)	1	1	E	500 <	11000	11	41	118	47.18	41.51	12.36 +	100	0
	2	(untitled)	1	1	E	500 <	11000	11	41	118	47.18	41.51	12.36 +	100	0
2	**1**	(untitled)	1	1	C	500 <	11000	25	17	415	35.04	28.71	10.28 +	100	0
	2	(untitled)	1	1	C	500 <	11000	25	17	415	35.04	28.71	10.28 +	100	0
3	**1**	(untitled)	1	1	C	500 <	11000	25	17	415	35.04	28.71	10.28 +	100	0
	2	(untitled)	1	1	C	500 <	11000	25	17	415	35.04	28.71	10.28 +	100	0
4	**1**	(untitled)	1	1	C	500 <	11000	25	17	415	34.38	28.71	10.28 +	100	0
	2	(untitled)	1	1	C	500 <	11000	25	17	415	34.38	28.71	10.28 +	100	0

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	157.87	18.43	8.56	9.42	3.76	187.05	11.73	0.00	198.77
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	34.00	42.12	0.81	35.46	0.00	503.47	0.00	0.00	503.47
TOTAL	191.87	60.56	3.17	44.87	3.76	690.52	11.73	0.00	702.24

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A6 - DO SOMETHING 2030
D6 - DO SOMETHING 2030*

Summary

Data Errors and Warnings

Severity	Area	Item	Description
Info	Traffic Options	Traffic options	Flow scaling factor for Vehicles is not set to 100% (current value: 130)

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
6	15/02/2024 16:43:09	15/02/2024 16:43:10	08:00	100	831.12	57.48	84.10	D/1	0	0	D/1	Dx/1	D/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
DO SOMETHING 2030		D6	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
DO SOMETHING 2030				08:00	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)		✓	47.88	✓	Sum of lanes	1993	✓		Normal	
Ax	1	(untitled)		✓	140.68						Normal	
B	1	(untitled)		✓	48.35	✓	Sum of lanes	2076	✓		Normal	
Bx	1	(untitled)		✓	126.97						Normal	
C	1	(untitled)		✓	48.24	✓	Sum of lanes	1967	✓		Normal	
Cx	1	(untitled)		✓	142.05						Normal	
D	1	(untitled)		✓	46.91	✓	Sum of lanes	2071	✓		Normal	
Dx	1	(untitled)		✓	126.14						Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Surface condition	Site quality factor	Gradient (%)	Width (m)	Use connector turning radius	Proportion that turn (%)	Turning radius (m)	Nearside lane	Saturation flow (PCU/hr)
A	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	50	24.11		1993
Ax	1	1	(untitled)											
B	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	31	33.77		2076
Bx	1	1	(untitled)											
C	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	79	26.44		1967
Cx	1	1	(untitled)											
D	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	41	37.16		2071
Dx	1	1	(untitled)											

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
(ALL)	1	NetworkDefault	100	100	100		0.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	1	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	1	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)
A	1	86	86
Ax	1	107	107
B	1	235	235
Bx	1	289	289
C	1	211	211
Cx	1	185	185
D	1	321	321
Dx	1	272	272

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled
A	1	1	C	
B	1	1	D	
C	1	1	A	
D	1	1	B	

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
A	1	5.75	30.00
B	1	5.80	30.00
C	1	5.79	30.00
D	1	5.63	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
Ax	1	1	C/1	Ax/1	16.88	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	15.24	30.00	✓	Nearside	24.11
Cx	1	1	A/1	Cx/1	17.05	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	15.14	30.00	✓	Nearside	26.44
Ax	1	2	B/1	Ax/1	16.88	30.00	✓	Offside	33.77
Bx	1	2	D/1	Bx/1	15.24	30.00	✓	Straight	Straight Movement
Cx	1	2	B/1	Cx/1	17.05	30.00	✓	Nearside	35.22
Dx	1	2	A/1	Dx/1	15.14	30.00	✓	Offside	45.74
Ax	1	3	D/1	Ax/1	16.88	30.00	✓	Nearside	37.16
Bx	1	3	C/1	Bx/1	15.24	30.00	✓	Offside	42.22
Cx	1	3	D/1	Cx/1	17.05	30.00	✓	Offside	37.43
Dx	1	3	B/1	Dx/1	15.14	30.00	✓	Straight	Straight Movement

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	7.00	4.67	5.40
2	(untitled)		1		Farside	8.00	5.33	5.40
3	(untitled)		1		Farside	8.00	5.33	5.40
4	(untitled)		1		Farside	7.00	4.67	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
1	1	E	
2	1	C	
3	1	C	
4	1	C	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Signal Timings

Network Default: 100s cycle time; 100 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	(untitled)		1	NetworkDefault	100

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	7	300	0	0	Unknown	
	B	(untitled)	7	300	0	0	Unknown	
	C	(untitled)	7	300	0	0	Unknown	
	D	(untitled)	7	300	0	0	Unknown	
	E	(untitled)	7	300	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	A	1
	2	B	1
	3	C	1
	4	D	1
	5	E	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2, 3, 4, 5	9, 39, 67, 85, 92
	2	(untitled)	Single	1, 2, 3, 5, 4	17, 41, 68, 84, 0
	3	(untitled)	Single	1, 2, 4, 3, 5	19, 45, 64, 82, 0
	4	(untitled)	Single	1, 2, 4, 5, 3	17, 41, 58, 74, 90
	5	(untitled)	Single	1, 2, 5, 3, 4	19, 45, 64, 82, 0
	6	(untitled)	Single	1, 2, 5, 4, 3	17, 41, 58, 74, 90
	7	(untitled)	Single	1, 3, 2, 4, 5	16, 42, 68, 84, 0
	8	(untitled)	Single	1, 3, 2, 5, 4	16, 42, 68, 84, 0
	9	(untitled)	Single	1, 3, 4, 2, 5	18, 46, 64, 82, 0
	10	(untitled)	Single	1, 3, 4, 5, 2	17, 44, 61, 77, 93

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A		7	10		
	B	7		10		
	C	10	10			
	D					
	E					

Banned Stage transitions for Controller Stream 1

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

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	7	10	0	0
	2	7	0	10	0	0
	3	10	10	0	0	0
	4	0	0	0	0	0
	5	0	0	0	0	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	A	92	9	17	1	7
	2	✓	2	B	16	39	23	1	7
	3	✓	3	C	49	67	18	1	7
	4	✓	4	D	67	85	18	1	7
	5	✓	5	E	85	92	7	1	7

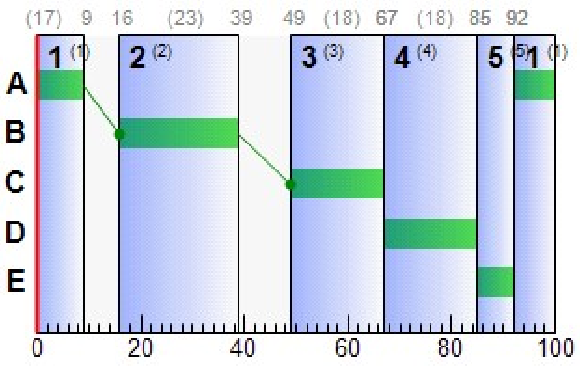
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	92	9	17
	B	1	✓	16	39	23
	C	1	✓	49	67	18
	D	1	✓	67	85	18
	E	1	✓	85	92	7

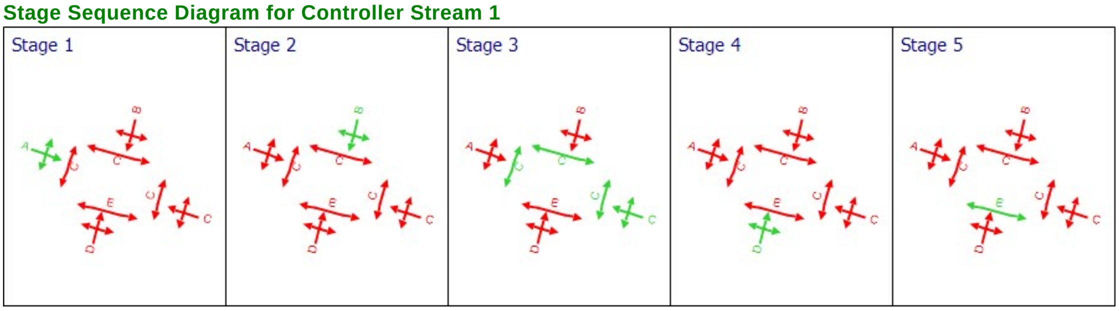
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	C	49	67	18
B	1	1	1	D	67	85	18
C	1	1	1	A	92	9	17
D	1	1	1	B	16	39	23

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
08:00-09:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	30	204	112	1993	18	36.76	2.71	32.50	16.24	1.20	17.45
	Ax	1	0	Unrestricted	140	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	78	16	306	2076	18	53.56	9.27	110.26	64.65	4.12	68.77
	Bx	1	0	Unrestricted	377	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	78	16	275	1967	17	55.90	8.54	101.81	60.64	3.78	64.42
	Cx	1	0	Unrestricted	241	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	84	7	418	2071	23	54.03	13.10	160.60	89.08	5.78	94.86
	Dx	1	0	Unrestricted	353	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Calculated sat flow (PCU/hr)	Calculated capacity (PCU/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	A	1	112	112	0		1993	379	30		204	0.00	18
	Ax	1	140	140	-1	✓	Unrestricted	Unrestricted	0		Unrestricted	0.63	100
	B	1	306	306	-1	✓	2076	394	78		16	0.00	18
	Bx	1	377	377	-1	✓	Unrestricted	Unrestricted	0		Unrestricted	0.89	100
	C	1	275	275	-1	✓	1967	354	78		16	0.00	17
	Cx	1	241	241	-1		Unrestricted	Unrestricted	0		Unrestricted	0.69	100
	D	1	418	418	-1		2071	497	84		7	0.00	23
	Dx	1	353	353	1		Unrestricted	Unrestricted	0		Unrestricted	0.91	100

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	A	1	5.75	36.76	1.08	0.06	16.24	85.80	93.88	2.22	1.20
	Ax	1	16.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	5.80	53.56	3.27	1.28	64.65	107.32	283.91	44.47	4.12
	Bx	1	15.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	5.79	55.90	2.99	1.28	60.64	109.65	257.20	44.34	3.78
	Cx	1	17.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	5.63	54.03	4.20	2.07	89.08	110.27	389.61	71.34	5.78
	Dx	1	15.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (PCU)	Mean max queue (PCU)	Max queue storage (PCU)	Utilised storage (%)	Average storage excess queue (PCU)	Average limit excess queue (PCU)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
08:00-09:00	A	1	0.00	2.71	8.33	32.50	0.00	0.00	0.00	0.00	0.00	0.00	
	Ax	1	0.00	0.00	24.47	0.00	0.00	0.00	0.00	29.00	0.00	29.00	
	B	1	0.00	9.27	8.41	110.26	0.05	0.00	0.00	0.00	0.00	0.00	
	Bx	1	0.00	0.00	22.08	0.00	0.00	0.00	0.00	30.00	0.00	30.00	
	C	1	0.00	8.54	8.39	101.81	0.00	0.00	0.00	0.00	0.00	0.00	
	Cx	1	0.00	0.00	24.70	0.00	0.00	0.00	0.00	25.00	0.00	25.00	
	D	1	0.00	13.10	8.16	160.60	1.08	0.00	0.00	0.00	0.00	0.00	
	Dx	1	0.00	0.00	21.94	0.00	0.00	0.00	0.00	32.00	0.00	32.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	A	1	5.36	1.32	4.05	42.51
	Ax	1	19.69	0.66	30.00	16.88
	B	1	14.80	5.05	2.93	59.37
	Bx	1	47.87	1.60	30.00	15.24
	C	1	13.26	4.71	2.81	61.69
	Cx	1	34.23	1.14	30.00	17.05
	D	1	19.61	6.93	2.83	59.65
	Dx	1	44.53	1.48	30.00	15.14

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (PCU)	Max End of Green Queue EoTS (PCU)	Max End of Red Queue EoTS (PCU)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	0.00	0.00	✓	2.71	0.06	2.58	1.00	0.00	17.45
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	9.30	1.31	8.20	1.00	0.00	68.77
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	8.57	1.32	7.58	1.00	0.00	64.42
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	1	0.00	0.00	✓	13.17	2.14	10.97	1.00	0.00	94.86
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	65	500	11000	7	45.33	12.92	89.40	89.40
		2	65	500	11000	7	45.33	12.92	89.40	89.40
	2	1	24	500	11000	18	34.38	11.25	67.81	67.81
		2	24	500	11000	18	34.38	11.25	67.81	67.81
	3	1	24	500	11000	18	34.38	11.25	67.81	67.81
		2	24	500	11000	18	34.38	11.25	67.81	67.81
	4	1	24	500	11000	18	34.38	11.25	67.81	67.81
		2	24	500	11000	18	34.38	11.25	67.81	67.81

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	1	1	500	500	0		11000	770	65		39	0.00	7
		2	500	500	0		11000	770	65		39	0.00	7
	2	1	500	500	0		11000	2090	24		276	0.00	18
		2	500	500	0		11000	2090	24		276	0.00	18
	3	1	500	500	0		11000	2090	24		276	0.00	18
		2	500	500	0		11000	2090	24		276	0.00	18
	4	1	500	500	0		11000	2090	24		276	0.00	18
		2	500	500	0		11000	2090	24		276	0.00	18

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
08:00-09:00	1	1	5.67	45.33	6.30	0.00	89.40
		2	5.67	45.33	6.30	0.00	89.40
	2	1	6.33	34.38	4.78	0.00	67.81
		2	6.33	34.38	4.78	0.00	67.81
	3	1	6.33	34.38	4.78	0.00	67.81
		2	6.33	34.38	4.78	0.00	67.81
	4	1	5.67	34.38	4.78	0.00	67.81
		2	5.67	34.38	4.78	0.00	67.81

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
08:00-09:00	1	1	12.92	10.00	129.17	0.32	0.00	0.00
		2	12.92	10.00	129.17	0.32	0.00	0.00
	2	1	11.25	10.00	112.50	0.06	0.00	0.00
		2	11.25	10.00	112.50	0.06	0.00	0.00
	3	1	11.25	10.00	112.50	0.06	0.00	0.00
		2	11.25	10.00	112.50	0.06	0.00	0.00
	4	1	11.25	10.00	112.50	0.06	0.00	0.00
		2	11.25	10.00	112.50	0.06	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	1	1	4.00	7.08	0.56	51.00
		2	4.00	7.08	0.56	51.00
	2	1	4.50	5.65	0.80	40.71
		2	4.50	5.65	0.80	40.71
	3	1	4.50	5.65	0.80	40.71
		2	4.50	5.65	0.80	40.71
	4	1	4.00	5.56	0.72	40.05
		2	4.00	5.56	0.72	40.05

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	0.00	0.00	12.92	1.00	0.00	89.40
		2	0.00	0.00	12.92	1.00	0.00	89.40
	2	1	0.00	0.00	11.25	1.00	0.00	67.81
		2	0.00	0.00	11.25	1.00	0.00	67.81
	3	1	0.00	0.00	11.25	1.00	0.00	67.81
		2	0.00	0.00	11.25	1.00	0.00	67.81
	4	1	0.00	0.00	11.25	1.00	0.00	67.81
		2	0.00	0.00	11.25	1.00	0.00	67.81

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
6	15/02/2024 16:43:09	15/02/2024 16:43:10	08:00	100	831.12	57.48	84.10	D/1	0	0	D/1	Dx/1	D/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	84	0	2222	476	26.31	230.60	14.88	245.49

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	65	4000	122	37.12	585.63	585.63

Network Results: Flows and signals

Time Segment	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))
08:00-09:00	6222	6222	-4	✓	84		7	598

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	7.70	33.26	52.78	4.70	816.24	19.08	1024.60	162.36	14.88

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))
08:00-09:00	160.60	0.00	116.00	0.00	116.00

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
08:00-09:00	233.35	70.79	3.30

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	0.00	0.00	✓	1.00	0.00	0.00	831.12

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	76.8	78.6	76.9	0.0	0.0	0.0	0.0
	2	76.7	0.0	76.5	74.9	0.0	0.0	0.0	0.0
	3	59.6	57.6	0.0	57.7	0.0	0.0	0.0	0.0
	4	76.4	74.5	76.2	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	51.0	40.7	0.0
	6	0.0	0.0	0.0	0.0	51.0	0.0	0.0	40.7
	7	0.0	0.0	0.0	0.0	40.7	0.0	0.0	40.0
	8	0.0	0.0	0.0	0.0	0.0	40.7	40.0	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (PCU/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Calculated Total Flow (PCU/hr)	Avg journey time (s)
1	1	2	81		76.82		81	76.82
2	1	3	45		78.57		45	78.57
3	1	4	85		76.92		85	76.92
5	2	3	37		76.54		37	76.54
6	2	4	189		74.89		189	74.89
7	2	1	95		76.70		95	76.70
8	3	2	28		57.64		28	57.64
9	3	4	15		57.74		15	57.74
10	3	1	43		59.55		43	59.55
11	4	2	163		74.50		163	74.50
12	4	3	25		76.25		25	76.25
13	4	1	47		76.41		47	76.41
17	8	7		500		40.05	500	40.05
18	8	6		500		40.71	500	40.71
22	5	7		500		40.71	500	40.71
23	5	6		500		51.00	500	51.00
34	6	8		500		40.71	500	40.71
35	6	5		500		51.00	500	51.00
41	7	8		500		40.05	500	40.05
42	7	5		500		40.71	500	40.71

Final Prediction Table

Traffic Stream Results

			SIGNALS			FLOWS		PERFORMANCE				PER PCU			QUEUES
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (PCU)
A	1	(untitled)	1	1	C	112	1993	18	0.00	30	204	42.51	36.76	85.80	2.71
Ax	1	(untitled)				140	Unrestricted	100	29.00	0	Unrestricted	16.88	0.00	0.00	0.00
B	1	(untitled)	1	1	D	306 <	2076	18	0.00	78	16	59.37	53.56	107.32	9.27 +
Bx	1	(untitled)				377	Unrestricted	100	30.00	0	Unrestricted	15.24	0.00	0.00	0.00
C	1	(untitled)	1	1	A	275 <	1967	17	0.00	78	16	61.69	55.90	109.65	8.54 +
Cx	1	(untitled)				241	Unrestricted	100	25.00	0	Unrestricted	17.05	0.00	0.00	0.00
D	1	(untitled)	1	1	B	418 <	2071	23	0.00	84	7	59.65	54.03	110.27	13.10 +
Dx	1	(untitled)				353	Unrestricted	100	32.00	0	Unrestricted	15.14	0.00	0.00	0.00

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	Co tra pen (£ p
1	1	(untitled)	1	1	E	500 <	11000	7	65	39	51.00	45.33	12.92 +	100	0
	2	(untitled)	1	1	E	500 <	11000	7	65	39	51.00	45.33	12.92 +	100	0
2	1	(untitled)	1	1	C	500 <	11000	18	24	276	40.71	34.38	11.25 +	100	0
	2	(untitled)	1	1	C	500 <	11000	18	24	276	40.71	34.38	11.25 +	100	0
3	1	(untitled)	1	1	C	500 <	11000	18	24	276	40.71	34.38	11.25 +	100	0
	2	(untitled)	1	1	C	500 <	11000	18	24	276	40.71	34.38	11.25 +	100	0
4	1	(untitled)	1	1	C	500 <	11000	18	24	276	40.05	34.38	11.25 +	100	0
	2	(untitled)	1	1	C	500 <	11000	18	24	276	40.05	34.38	11.25 +	100	0

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	199.35	22.88	8.71	11.54	4.70	230.60	14.88	0.00	245.49
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	34.00	47.91	0.71	41.24	0.00	585.63	0.00	0.00	585.63
TOTAL	233.35	70.79	3.30	52.78	4.70	816.24	14.88	0.00	831.12

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A7 - DO SOMETHING 2040
D7 - DO SOMETHING 2040*

Summary

Data Errors and Warnings

Severity	Area	Item	Description
Info	Traffic Options	Traffic options	Flow scaling factor for Vehicles is not set to 100% (current value: 130)

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
7	15/02/2024 16:43:10	15/02/2024 16:43:11	08:00	100	850.18	58.74	86.71	D/1	0	0	D/1	Dx/1	D/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
DO SOMETHING 2040		D7	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
DO SOMETHING 2040				08:00	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)		✓	47.88	✓	Sum of lanes	1993	✓		Normal	
Ax	1	(untitled)		✓	140.68						Normal	
B	1	(untitled)		✓	48.35	✓	Sum of lanes	2077	✓		Normal	
Bx	1	(untitled)		✓	126.97						Normal	
C	1	(untitled)		✓	48.24	✓	Sum of lanes	1968	✓		Normal	
Cx	1	(untitled)		✓	142.05						Normal	
D	1	(untitled)		✓	46.91	✓	Sum of lanes	2071	✓		Normal	
Dx	1	(untitled)		✓	126.14						Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Surface condition	Site quality factor	Gradient (%)	Width (m)	Use connector turning radius	Proportion that turn (%)	Turning radius (m)	Nearside lane	Saturation flow (PCU/hr)
A	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	50	24.11		1993
Ax	1	1	(untitled)											
B	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	30	33.77		2077
Bx	1	1	(untitled)											
C	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	78	26.44		1968
Cx	1	1	(untitled)											
D	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	41	37.16		2071
Dx	1	1	(untitled)											

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
(ALL)	1	NetworkDefault	100	100	100		0.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	1	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	1	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)
A	1	92	92
Ax	1	112	112
B	1	243	243
Bx	1	297	297
C	1	216	216
Cx	1	191	191
D	1	332	332
Dx	1	283	283

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled
A	1	1	C	
B	1	1	D	
C	1	1	A	
D	1	1	B	

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
A	1	5.75	30.00
B	1	5.80	30.00
C	1	5.79	30.00
D	1	5.63	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
Ax	1	1	C/1	Ax/1	16.88	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	15.24	30.00	✓	Nearside	24.11
Cx	1	1	A/1	Cx/1	17.05	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	15.14	30.00	✓	Nearside	26.44
Ax	1	2	B/1	Ax/1	16.88	30.00	✓	Offside	33.77
Bx	1	2	D/1	Bx/1	15.24	30.00	✓	Straight	Straight Movement
Cx	1	2	B/1	Cx/1	17.05	30.00	✓	Nearside	35.22
Dx	1	2	A/1	Dx/1	15.14	30.00	✓	Offside	45.74
Ax	1	3	D/1	Ax/1	16.88	30.00	✓	Nearside	37.16
Bx	1	3	C/1	Bx/1	15.24	30.00	✓	Offside	42.22
Cx	1	3	D/1	Cx/1	17.05	30.00	✓	Offside	37.43
Dx	1	3	B/1	Dx/1	15.14	30.00	✓	Straight	Straight Movement

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	7.00	4.67	5.40
2	(untitled)		1		Farside	8.00	5.33	5.40
3	(untitled)		1		Farside	8.00	5.33	5.40
4	(untitled)		1		Farside	7.00	4.67	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
1	1	E	
2	1	C	
3	1	C	
4	1	C	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Signal Timings

Network Default: 100s cycle time; 100 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	(untitled)		1	NetworkDefault	100

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	7	300	0	0	Unknown	
	B	(untitled)	7	300	0	0	Unknown	
	C	(untitled)	7	300	0	0	Unknown	
	D	(untitled)	7	300	0	0	Unknown	
	E	(untitled)	7	300	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	A	1
	2	B	1
	3	C	1
	4	D	1
	5	E	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2, 3, 4, 5	9, 39, 68, 85, 92
	2	(untitled)	Single	1, 2, 3, 5, 4	17, 41, 68, 84, 0
	3	(untitled)	Single	1, 2, 4, 3, 5	19, 45, 64, 82, 0
	4	(untitled)	Single	1, 2, 4, 5, 3	17, 41, 58, 74, 90
	5	(untitled)	Single	1, 2, 5, 3, 4	19, 45, 64, 82, 0
	6	(untitled)	Single	1, 2, 5, 4, 3	17, 41, 58, 74, 90
	7	(untitled)	Single	1, 3, 2, 4, 5	16, 42, 68, 84, 0
	8	(untitled)	Single	1, 3, 2, 5, 4	16, 42, 68, 84, 0
	9	(untitled)	Single	1, 3, 4, 2, 5	18, 46, 64, 82, 0
	10	(untitled)	Single	1, 3, 4, 5, 2	17, 44, 61, 77, 93

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A		7	10		
	B	7		10		
	C	10	10			
	D					
	E					

Banned Stage transitions for Controller Stream 1

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

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	7	10	0	0
	2	7	0	10	0	0
	3	10	10	0	0	0
	4	0	0	0	0	0
	5	0	0	0	0	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	A	92	9	17	1	7
	2	✓	2	B	16	39	23	1	7
	3	✓	3	C	49	68	19	1	7
	4	✓	4	D	68	85	17	1	7
	5	✓	5	E	85	92	7	1	7

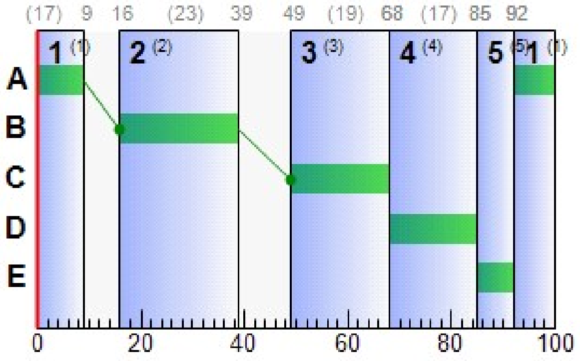
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	92	9	17
	B	1	✓	16	39	23
	C	1	✓	49	68	19
	D	1	✓	68	85	17
	E	1	✓	85	92	7

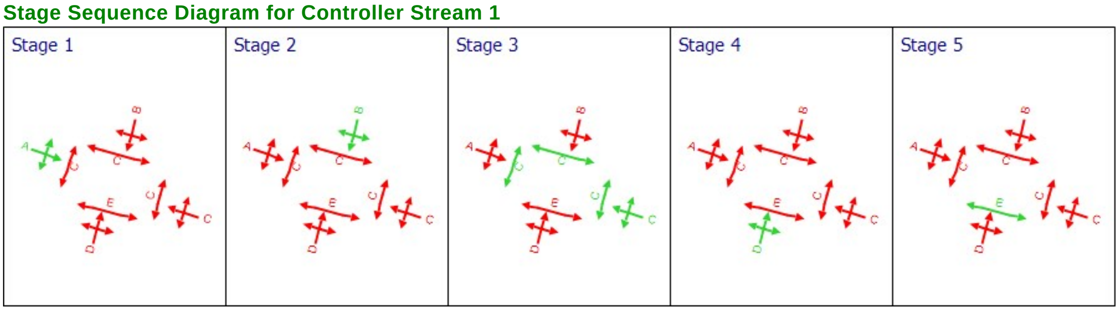
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	C	49	68	19
B	1	1	1	D	68	85	17
D	1	1	1	B	16	39	23

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
08:00-09:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	30	199	120	1993	19	36.00	2.90	34.80	17.04	1.29	18.33
	Ax	1	0	Unrestricted	145	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	85	6	316	2077	17	63.53	10.52	125.12	79.19	4.64	83.83
	Bx	1	0	Unrestricted	387	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	79	13	281	1968	17	57.61	8.85	105.50	63.85	3.92	67.77
	Cx	1	0	Unrestricted	248	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	87	4	431	2071	23	57.88	13.94	170.84	98.41	6.16	104.56
	Dx	1	0	Unrestricted	368	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Calculated sat flow (PCU/hr)	Calculated capacity (PCU/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	A	1	120	120	0		1993	399	30		199	0.00	19
	Ax	1	145	145	1		Unrestricted	Unrestricted	0		Unrestricted	0.62	100
	B	1	316	316	0		2077	374	85		6	0.00	17
	Bx	1	387	387	-1	✓	Unrestricted	Unrestricted	0		Unrestricted	0.88	100
	C	1	281	281	0	✓	1968	354	79		13	0.00	17
	Cx	1	248	248	0		Unrestricted	Unrestricted	0		Unrestricted	0.68	100
	D	1	431	431	1		2071	497	87		4	0.00	23
	Dx	1	368	368	0		Unrestricted	Unrestricted	0		Unrestricted	0.90	100

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	A	1	5.75	36.00	1.14	0.06	17.04	85.45	100.23	2.32	1.29
	Ax	1	16.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	5.80	63.53	3.48	2.10	79.19	117.20	299.24	71.11	4.64
	Bx	1	15.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	5.79	57.61	3.06	1.43	63.85	111.25	263.28	49.34	3.92
	Cx	1	17.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	5.63	57.88	4.37	2.56	98.41	113.97	403.70	87.52	6.16
	Dx	1	15.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (PCU)	Mean max queue (PCU)	Max queue storage (PCU)	Utilised storage (%)	Average storage excess queue (PCU)	Average limit excess queue (PCU)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
08:00-09:00	A	1	0.00	2.90	8.33	34.80	0.00	0.00	0.00	0.00	0.00	0.00	
	Ax	1	0.00	0.00	24.47	0.00	0.00	0.00	0.00	27.00	0.00	27.00	
	B	1	0.00	10.52	8.41	125.12	0.26	0.00	0.00	0.00	0.00	0.00	
	Bx	1	0.00	0.00	22.08	0.00	0.00	0.00	0.00	30.00	0.00	30.00	
	C	1	0.00	8.85	8.39	105.50	0.02	0.00	0.00	0.00	0.00	0.00	
	Cx	1	0.00	0.00	24.70	0.00	0.00	0.00	0.00	23.00	0.00	23.00	
	D	1	0.00	13.94	8.16	170.84	1.42	0.00	0.00	0.00	0.00	0.00	
	Dx	1	0.00	0.00	21.94	0.00	0.00	0.00	0.00	32.00	0.00	32.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	A	1	5.75	1.39	4.13	41.74
	Ax	1	20.40	0.68	30.00	16.88
	B	1	15.28	6.09	2.51	69.33
	Bx	1	49.14	1.64	30.00	15.24
	C	1	13.55	4.95	2.74	63.39
	Cx	1	35.23	1.17	30.00	17.05
	D	1	20.22	7.60	2.66	63.51
	Dx	1	46.42	1.55	30.00	15.14

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (PCU)	Max End of Green Queue EoTS (PCU)	Max End of Red Queue EoTS (PCU)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	0.00	0.00	✓	2.90	0.06	2.73	1.00	0.00	18.33
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	10.62	2.19	9.39	1.00	0.00	83.83
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	8.89	1.48	7.88	1.00	0.00	67.77
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	1	0.00	0.00	✓	14.06	2.69	11.78	1.00	0.00	104.56
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	65	500	11000	7	45.33	12.92	89.40	89.40
		2	65	500	11000	7	45.33	12.92	89.40	89.40
	2	1	23	500	11000	19	33.54	11.11	66.15	66.15
		2	23	500	11000	19	33.54	11.11	66.15	66.15
	3	1	23	500	11000	19	33.54	11.11	66.15	66.15
		2	23	500	11000	19	33.54	11.11	66.15	66.15
	4	1	23	500	11000	19	33.54	11.11	66.15	66.15
		2	23	500	11000	19	33.54	11.11	66.15	66.15

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	1	1	500	500	0		11000	770	65		39	0.00	7
		2	500	500	0		11000	770	65		39	0.00	7
	2	1	500	500	0		11000	2200	23		296	0.00	19
		2	500	500	0		11000	2200	23		296	0.00	19
	3	1	500	500	0		11000	2200	23		296	0.00	19
		2	500	500	0		11000	2200	23		296	0.00	19
	4	1	500	500	0		11000	2200	23		296	0.00	19
		2	500	500	0		11000	2200	23		296	0.00	19

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
08:00-09:00	1	1	5.67	45.33	6.30	0.00	89.40
		2	5.67	45.33	6.30	0.00	89.40
	2	1	6.33	33.54	4.66	0.00	66.15
		2	6.33	33.54	4.66	0.00	66.15
	3	1	6.33	33.54	4.66	0.00	66.15
		2	6.33	33.54	4.66	0.00	66.15
	4	1	5.67	33.54	4.66	0.00	66.15
		2	5.67	33.54	4.66	0.00	66.15

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
08:00-09:00	1	1	12.92	10.00	129.17	0.32	0.00	0.00
		2	12.92	10.00	129.17	0.32	0.00	0.00
	2	1	11.11	10.00	111.11	0.05	0.00	0.00
		2	11.11	10.00	111.11	0.05	0.00	0.00
	3	1	11.11	10.00	111.11	0.05	0.00	0.00
		2	11.11	10.00	111.11	0.05	0.00	0.00
	4	1	11.11	10.00	111.11	0.05	0.00	0.00
		2	11.11	10.00	111.11	0.05	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	1	1	4.00	7.08	0.56	51.00
		2	4.00	7.08	0.56	51.00
	2	1	4.50	5.54	0.81	39.87
		2	4.50	5.54	0.81	39.87
	3	1	4.50	5.54	0.81	39.87
		2	4.50	5.54	0.81	39.87
	4	1	4.00	5.45	0.73	39.21
		2	4.00	5.45	0.73	39.21

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	0.00	0.00	12.92	1.00	0.00	89.40
		2	0.00	0.00	12.92	1.00	0.00	89.40
	2	1	0.00	0.00	11.11	1.00	0.00	66.15
		2	0.00	0.00	11.11	1.00	0.00	66.15
	3	1	0.00	0.00	11.11	1.00	0.00	66.15
		2	0.00	0.00	11.11	1.00	0.00	66.15
	4	1	0.00	0.00	11.11	1.00	0.00	66.15
		2	0.00	0.00	11.11	1.00	0.00	66.15

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
7	15/02/2024 16:43:10	15/02/2024 16:43:11	08:00	100	850.18	58.74	86.71	D/1	0	0	D/1	Dx/1	D/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	87	0	2296	476	28.54	258.48	16.01	274.49

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	65	4000	128	36.49	575.69	575.69

Network Results: Flows and signals

Time Segment	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))
08:00-09:00	6296	6296	0	✓	87		4	604

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	7.74	33.59	52.59	6.16	834.17	20.28	1066.45	210.29	16.01

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))
08:00-09:00	170.84	0.00	112.00	0.00	112.00

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
08:00-09:00	239.98	72.28	3.32

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	0.00	0.00	✓	1.00	0.00	0.00	850.18

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	78.5	80.3	78.6	0.0	0.0	0.0	0.0
	2	80.6	0.0	80.4	78.7	0.0	0.0	0.0	0.0
	3	58.8	56.9	0.0	57.0	0.0	0.0	0.0	0.0
	4	86.4	84.5	86.2	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	51.0	39.9	0.0
	6	0.0	0.0	0.0	0.0	51.0	0.0	0.0	39.9
	7	0.0	0.0	0.0	0.0	39.9	0.0	0.0	39.2
	8	0.0	0.0	0.0	0.0	0.0	39.9	39.2	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (PCU/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Calculated Total Flow (PCU/hr)	Avg journey time (s)
1	1	2	84		78.53		84	78.53
2	1	3	47		80.28		47	80.28
3	1	4	85		78.63		85	78.63
5	2	3	38		80.39		38	80.39
6	2	4	196		78.75		196	78.75
7	2	1	98		80.56		98	80.56
8	3	2	30		56.88		30	56.88
9	3	4	16		56.98		16	56.98
10	3	1	46		58.79		46	58.79
11	4	2	169		84.47		169	84.47
12	4	3	27		86.22		27	86.22
13	4	1	47		86.38		47	86.38
17	8	7		500		39.21	500	39.21
18	8	6		500		39.87	500	39.87
22	5	7		500		39.87	500	39.87
23	5	6		500		51.00	500	51.00
34	6	8		500		39.87	500	39.87
35	6	5		500		51.00	500	51.00
41	7	8		500		39.21	500	39.21
42	7	5		500		39.87	500	39.87

Final Prediction Table

Traffic Stream Results

			SIGNALS			FLOWS		PERFORMANCE				PER PCU			QUEUES
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (PCU)
A	1	(untitled)	1	1	C	120	1993	19	0.00	30	199	41.74	36.00	85.45	2.90
Ax	1	(untitled)				145	Unrestricted	100	27.00	0	Unrestricted	16.88	0.00	0.00	0.00
B	1	(untitled)	1	1	D	316 <	2077	17	0.00	85	6	69.33	63.53	117.20	10.52 +
Bx	1	(untitled)				387	Unrestricted	100	30.00	0	Unrestricted	15.24	0.00	0.00	0.00
C	1	(untitled)	1	1	A	281 <	1968	17	0.00	79	13	63.39	57.61	111.25	8.85 +
Cx	1	(untitled)				248	Unrestricted	100	23.00	0	Unrestricted	17.05	0.00	0.00	0.00
D	1	(untitled)	1	1	B	431 <	2071	23	0.00	87	4	63.51	57.88	113.97	13.94 +
Dx	1	(untitled)				368	Unrestricted	100	32.00	0	Unrestricted	15.14	0.00	0.00	0.00

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	Co tra pen (£ p
1	1	(untitled)	1	1	E	500 <	11000	7	65	39	51.00	45.33	12.92 +	100	0
	2	(untitled)	1	1	E	500 <	11000	7	65	39	51.00	45.33	12.92 +	100	0
2	1	(untitled)	1	1	C	500 <	11000	19	23	296	39.87	33.54	11.11 +	100	0
	2	(untitled)	1	1	C	500 <	11000	19	23	296	39.87	33.54	11.11 +	100	0
3	1	(untitled)	1	1	C	500 <	11000	19	23	296	39.87	33.54	11.11 +	100	0
	2	(untitled)	1	1	C	500 <	11000	19	23	296	39.87	33.54	11.11 +	100	0
4	1	(untitled)	1	1	C	500 <	11000	19	23	296	39.21	33.54	11.11 +	100	0
	2	(untitled)	1	1	C	500 <	11000	19	23	296	39.21	33.54	11.11 +	100	0

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	205.98	25.07	8.22	12.04	6.16	258.48	16.01	0.00	274.49
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	34.00	47.21	0.72	40.54	0.00	575.69	0.00	0.00	575.69
TOTAL	239.98	72.28	3.32	52.59	6.16	834.17	16.01	0.00	850.18

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

TRANSYT 15

Filename: Junction 4 - PM.t15
Path: M:\Projects\23\23-129 New Road Donabate\Documents\Reports\Appendices, Figures, & Tables\TTA\Appendix C - Junctions assessment
Report generation date: 15/02/2024 16:36:35

»A1 - Baseline 2022 : D1 - Baseline 2022* :
»A2 - DO NOTHING 2025 : D2 - DO NOTHING 2025* :
»A3 - DO NOTHING 2030 : D3 - DO NOTHING 2030* :
»A4 - DO NOTHING 2040 : D4 - DO NOTHING 2040* :
»A5 - DO SOMETHING 2025 : D5 - DO SOMETHING 2025* :
»A6 - DO SOMETHING 2030 : D6 - DO SOMETHING 2030* :
»A7 - DO SOMETHING 2040 : D7 - DO SOMETHING 2040* :

File summary

File description

File title	Junction 4 - PM
Location	Donabate
Site number	
UTCRegion	
Driving side	Left
Date	15/02/2024
Version	1
Status	(new file)
Identifier	
Client	
Jobnumber	23-129
Enumerator	DOMAIN\l.byrne
Description	

Model and Results

Enable controller offsets	Enable fuel consumption	Enable quick flares	Display journey time results	Display level of service results	Display blocking and starvation results	Display end of red and green queue results	Display excess queue results	Display separate uniform and random results	Display unweighted results	Display TRANSYT 12 style timings	Display effective greens in results	Display Red-With-Amber	Display End-Of-Green Amber
			✓		✓		✓	✓					

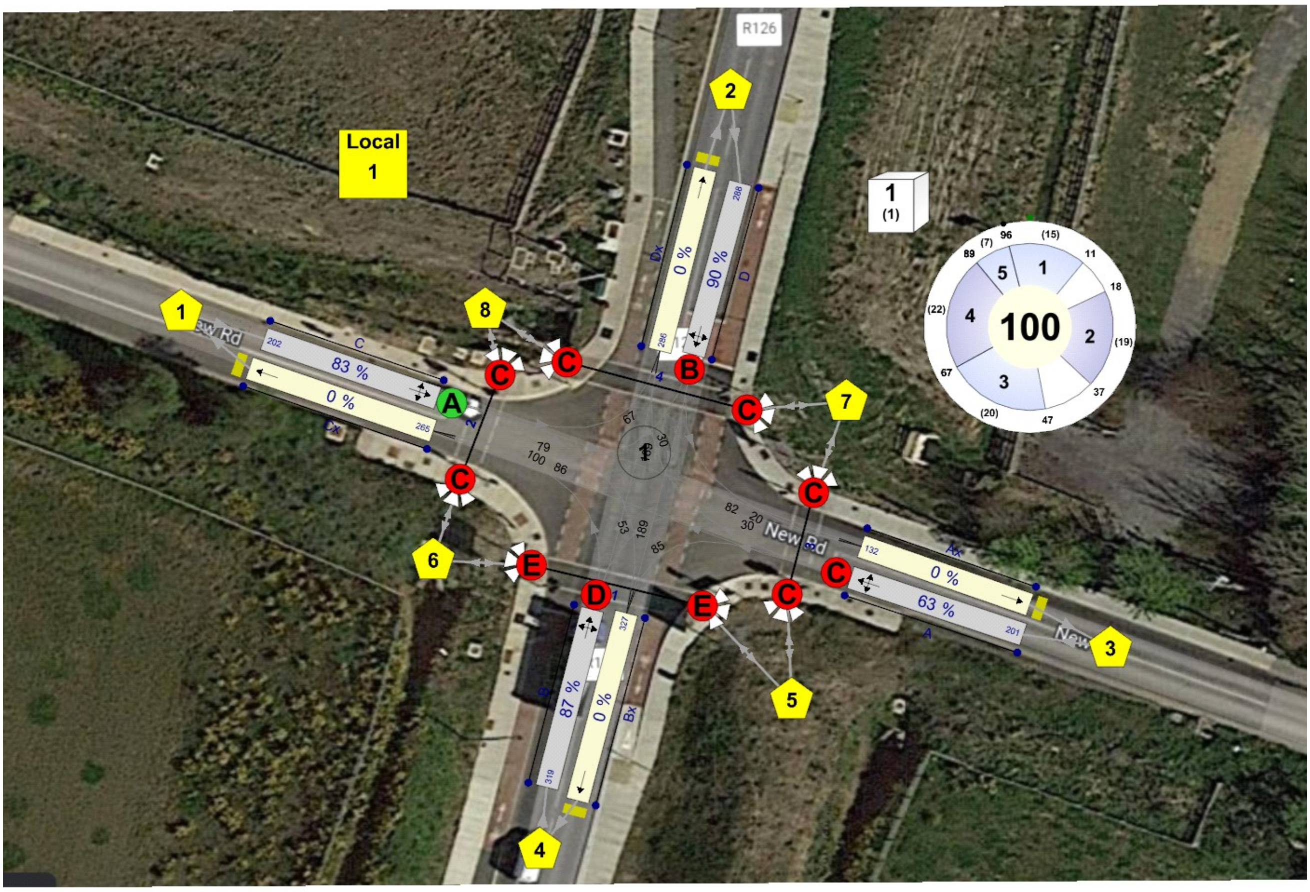
Units

Cost units	Speed units	Distance units	Fuel economy units	Fuel rate units	Mass units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
£	kph	m	mpg	l/h	kg	PCU	PCU	perHour	s	-Hour	perHour

Sorting

Show names instead of IDs	Sorting direction	Sorting type	Ignore prefixes when sorting	Analysis/demand set sorting	Link grouping	Source grouping	Colour Analysis/Demand Sets
	Ascending	Numerical		ID	Normal	Normal	✓

Network Diagrams



Junction 4 - PM
Diagram produced using TRANSYT 15.5.2.7994

A1 - Baseline 2022
D1 - Baseline 2022*

Summary

Data Errors and Warnings

Severity	Area	Item	Description
Info	Traffic Options	Traffic options	Flow scaling factor for Vehicles is not set to 100% (current value: 130)

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
1	15/02/2024 16:36:06	15/02/2024 16:36:07	08:00	100	605.64	42.00	76.85	C/1	0	0	C/1	Dx/1	C/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
Baseline 2022		D1	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
Baseline 2022				08:00	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)			100.00	✓	Sum of lanes	1983	✓		Normal	
Ax	1	(untitled)		✓	140.68						Normal	
B	1	(untitled)			100.00	✓	Sum of lanes	2077	✓		Normal	
Bx	1	(untitled)		✓	126.97						Normal	
C	1	(untitled)			100.00	✓	Sum of lanes	2017	✓		Normal	
Cx	1	(untitled)		✓	142.05						Normal	
D	1	(untitled)			100.00	✓	Sum of lanes	2078	✓		Normal	
Dx	1	(untitled)		✓	126.14						Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Surface condition	Site quality factor	Gradient (%)	Width (m)	Use connector turning radius	Proportion that turn (%)	Turning radius (m)	Nearside lane	Saturation flow (PCU/hr)
A	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	58	24.11		1983
Ax	1	1	(untitled)											
B	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	30	33.77		2077
Bx	1	1	(untitled)											
C	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	33	26.44		2017
Cx	1	1	(untitled)											
D	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	32	37.16		2078
Dx	1	1	(untitled)											

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
(ALL)	1	NetworkDefault	100	100	100		0.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	1	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	1	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)
A	1	154	154
Ax	1	102	102
B	1	149	149
Bx	1	183	183
C	1	96	96
Cx	1	123	123
D	1	160	160
Dx	1	151	151

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled
A	1	1	C	
B	1	1	D	
C	1	1	A	
D	1	1	B	

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
(ALL)	1	12.00	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
Ax	1	1	C/1	Ax/1	16.88	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	15.24	30.00	✓	Nearside	24.11
Cx	1	1	A/1	Cx/1	17.05	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	15.14	30.00	✓	Nearside	26.44
Ax	1	2	B/1	Ax/1	16.88	30.00	✓	Offside	33.77
Bx	1	2	D/1	Bx/1	15.24	30.00	✓	Straight	Straight Movement
Cx	1	2	B/1	Cx/1	17.05	30.00	✓	Nearside	35.22
Dx	1	2	A/1	Dx/1	15.14	30.00	✓	Offside	45.74
Ax	1	3	D/1	Ax/1	16.88	30.00	✓	Nearside	37.16
Bx	1	3	C/1	Bx/1	15.24	30.00	✓	Offside	42.22
Cx	1	3	D/1	Cx/1	17.05	30.00	✓	Offside	37.43
Dx	1	3	B/1	Dx/1	15.14	30.00	✓	Straight	Straight Movement

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	7.00	4.67	5.40
2	(untitled)		1		Farside	8.00	5.33	5.40
3	(untitled)		1		Farside	8.00	5.33	5.40
4	(untitled)		1		Farside	7.00	4.67	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
1	1	E	
2	1	C	
3	1	C	
4	1	C	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Signal Timings

Network Default: 100s cycle time; 100 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	(untitled)		1	NetworkDefault	100

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	7	300	0	0	Unknown	
	B	(untitled)	7	300	0	0	Unknown	
	C	(untitled)	7	300	0	0	Unknown	
	D	(untitled)	7	300	0	0	Unknown	
	E	(untitled)	7	300	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	A	1
	2	C	1
	3	B	1
	4	E	1
	5	D	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2, 3, 4, 5	10, 48, 72, 90, 3
	2	(untitled)	Single	1, 2, 3, 5, 4	16, 42, 68, 84, 0
	3	(untitled)	Single	1, 2, 4, 3, 5	18, 46, 64, 82, 0
	4	(untitled)	Single	1, 2, 4, 5, 3	17, 44, 61, 77, 93
	5	(untitled)	Single	1, 2, 5, 3, 4	18, 46, 64, 82, 0
	6	(untitled)	Single	1, 2, 5, 4, 3	17, 44, 61, 77, 93
	7	(untitled)	Single	1, 3, 2, 4, 5	17, 41, 68, 84, 0
	8	(untitled)	Single	1, 3, 2, 5, 4	17, 41, 68, 84, 0
	9	(untitled)	Single	1, 3, 4, 2, 5	19, 45, 64, 82, 0
	10	(untitled)	Single	1, 3, 4, 5, 2	17, 41, 58, 74, 90

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A		7	10		
	B	7		10		
	C	10	10			
	D					
	E					

Banned Stage transitions for Controller Stream 1

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

Interstage Matrix for Controller Stream 1

	To					
		1	2	3	4	5
From	1	0	10	7	0	0
	2	10	0	10	0	0
	3	7	10	0	0	0
	4	0	0	0	0	0
	5	0	0	0	0	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	A	3	10	7	1	7
	2	✓	2	C	20	48	28	1	7
	3	✓	3	B	58	72	14	1	7
	4	✓	4	E	72	90	18	1	7
	5	✓	5	D	90	3	13	1	7

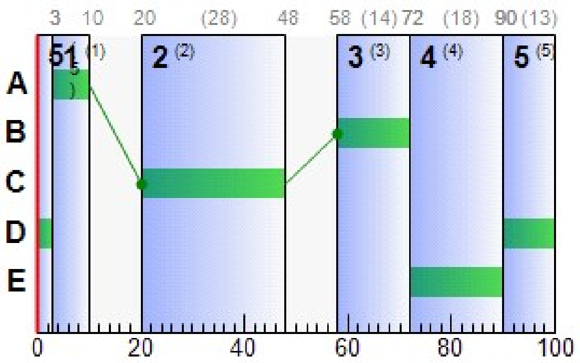
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	3	10	7
	B	1	✓	58	72	14
	C	1	✓	20	48	28
	D	1	✓	90	3	13
	E	1	✓	72	90	18

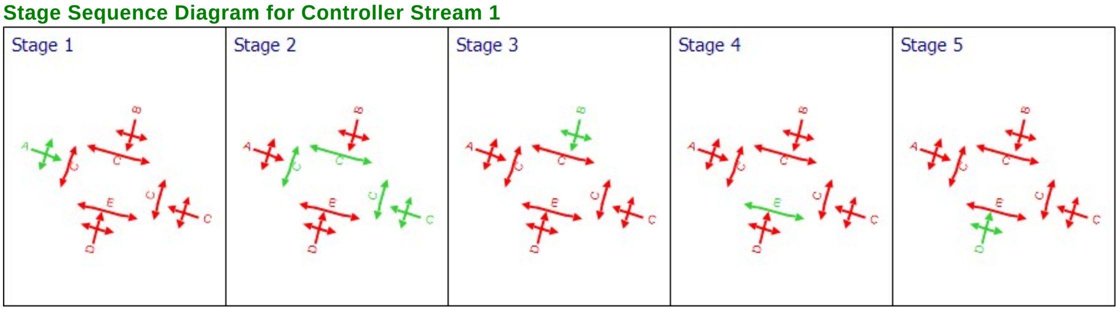
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	C	20	48	28
B	1	1	1	D	90	3	13
C	1	1	1	A	3	10	7
D	1	1	1	B	58	72	14

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
08:00-09:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	35	157	201	1983	28	29.73	4.45	25.58	23.57	1.98	25.55
	Ax	1	0	Unrestricted	133	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	67	35	194	2077	13	52.88	5.72	32.87	40.46	2.54	43.00
	Bx	1	0	Unrestricted	238	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	77	17	124	2017	7	78.67	4.53	26.06	38.48	1.97	40.45
	Cx	1	0	Unrestricted	160	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	67	35	208	2078	14	51.45	6.08	34.98	42.21	2.70	44.92
	Dx	1	0	Unrestricted	196	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Calculated sat flow (PCU/hr)	Calculated capacity (PCU/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	A	1	201	201	-1	✓	1983	575	35		157	0.00	28
	Ax	1	133	133	0	✓	Unrestricted	Unrestricted	0		Unrestricted	1.07	100
	B	1	194	194	0	✓	2077	291	67		35	0.00	13
	Bx	1	238	238	0		Unrestricted	Unrestricted	0		Unrestricted	1.03	100
	C	1	124	124	1		2017	161	77		17	0.00	7
	Cx	1	160	160	0	✓	Unrestricted	Unrestricted	0		Unrestricted	0.74	100
	D	1	208	208	0		2078	312	67		35	0.00	14
	Dx	1	196	196	0		Unrestricted	Unrestricted	0		Unrestricted	1.17	100

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	A	1	12.00	29.73	1.57	0.09	23.57	78.53	154.48	3.36	1.98
	Ax	1	16.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	12.00	52.88	2.20	0.65	40.46	104.54	180.06	22.74	2.54
	Bx	1	15.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	12.00	78.67	1.55	1.16	38.48	126.95	119.09	38.33	1.97
	Cx	1	17.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	12.00	51.45	2.32	0.65	42.21	103.68	192.82	22.84	2.70
	Dx	1	15.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (PCU)	Mean max queue (PCU)	Max queue storage (PCU)	Utilised storage (%)	Average storage excess queue (PCU)	Average limit excess queue (PCU)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
08:00-09:00	A	1	0.00	4.45	17.39	25.58	0.00	0.00	0.00	0.00	0.00	0.00	
	Ax	1	0.00	0.00	24.47	0.00	0.00	0.00	0.00	54.00	0.00	54.00	
	B	1	0.00	5.72	17.39	32.87	0.00	0.00	0.00	0.00	0.00	0.00	
	Bx	1	0.00	0.00	22.08	0.00	0.00	0.00	0.00	45.00	0.00	45.00	
	C	1	0.00	4.53	17.39	26.06	0.00	0.00	0.00	0.00	0.00	0.00	
	Cx	1	0.00	0.00	24.70	0.00	0.00	0.00	0.00	34.00	0.00	34.00	
	D	1	0.00	6.08	17.39	34.98	0.00	0.00	0.00	0.00	0.00	0.00	
	Dx	1	0.00	0.00	21.94	0.00	0.00	0.00	0.00	55.00	0.00	55.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	A	1	20.10	2.33	8.63	41.73
	Ax	1	18.71	0.62	30.00	16.88
	B	1	19.40	3.50	5.55	64.88
	Bx	1	30.22	1.01	30.00	15.24
	C	1	12.40	3.12	3.97	90.67
	Cx	1	22.73	0.76	30.00	17.05
	D	1	20.80	3.67	5.67	63.45
	Dx	1	24.72	0.82	30.00	15.14

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (PCU)	Max End of Green Queue EoTS (PCU)	Max End of Red Queue EoTS (PCU)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	0.00	0.00	✓	4.45	0.09	4.06	1.00	0.00	25.55
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	5.73	0.66	5.29	1.00	0.00	43.00
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	4.59	1.21	4.38	1.00	0.00	40.45
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	1	0.00	0.00	✓	6.09	0.66	5.57	1.00	0.00	44.92
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	25	500	11000	18	35.23	11.39	69.48	69.48
		2	25	500	11000	18	35.23	11.39	69.48	69.48
	2	1	16	500	11000	28	26.43	9.86	52.13	52.13
		2	16	500	11000	28	26.43	9.86	52.13	52.13
	3	1	16	500	11000	28	26.43	9.86	52.13	52.13
		2	16	500	11000	28	26.43	9.86	52.13	52.13
	4	1	16	500	11000	28	26.43	9.86	52.13	52.13
		2	16	500	11000	28	26.43	9.86	52.13	52.13

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	1	1	500	500	0		11000	1980	25		256	0.00	18
		2	500	500	0		11000	1980	25		256	0.00	18
	2	1	500	500	0		11000	3190	16		474	0.00	28
		2	500	500	0		11000	3190	16		474	0.00	28
	3	1	500	500	0		11000	3190	16		474	0.00	28
		2	500	500	0		11000	3190	16		474	0.00	28
	4	1	500	500	0		11000	3190	16		474	0.00	28
		2	500	500	0		11000	3190	16		474	0.00	28

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
08:00-09:00	1	1	5.67	35.23	4.89	0.00	69.48
		2	5.67	35.23	4.89	0.00	69.48
	2	1	6.33	26.43	3.67	0.00	52.13
		2	6.33	26.43	3.67	0.00	52.13
	3	1	6.33	26.43	3.67	0.00	52.13
		2	6.33	26.43	3.67	0.00	52.13
	4	1	5.67	26.43	3.67	0.00	52.13
		2	5.67	26.43	3.67	0.00	52.13

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
08:00-09:00	1	1	11.39	10.00	113.89	0.08	0.00	0.00
		2	11.39	10.00	113.89	0.08	0.00	0.00
	2	1	9.86	10.00	98.61	0.00	0.00	0.00
		2	9.86	10.00	98.61	0.00	0.00	0.00
	3	1	9.86	10.00	98.61	0.00	0.00	0.00
		2	9.86	10.00	98.61	0.00	0.00	0.00
	4	1	9.86	10.00	98.61	0.00	0.00	0.00
		2	9.86	10.00	98.61	0.00	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	1	1	4.00	5.68	0.70	40.90
		2	4.00	5.68	0.70	40.90
	2	1	4.50	4.55	0.99	32.76
		2	4.50	4.55	0.99	32.76
	3	1	4.50	4.55	0.99	32.76
		2	4.50	4.55	0.99	32.76
	4	1	4.00	4.46	0.90	32.10
		2	4.00	4.46	0.90	32.10

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	0.00	0.00	11.39	1.00	0.00	69.48
		2	0.00	0.00	11.39	1.00	0.00	69.48
	2	1	0.00	0.00	9.86	1.00	0.00	52.13
		2	0.00	0.00	9.86	1.00	0.00	52.13
	3	1	0.00	0.00	9.86	1.00	0.00	52.13
		2	0.00	0.00	9.86	1.00	0.00	52.13
	4	1	0.00	0.00	9.86	1.00	0.00	52.13
		2	0.00	0.00	9.86	1.00	0.00	52.13

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
1	15/02/2024 16:36:06	15/02/2024 16:36:07	08:00	100	605.64	42.00	76.85	C/1	0	0	C/1	Dx/1	C/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	77	0	1454	462	25.23	144.72	9.20	153.92

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	25	4000	204	28.63	451.72	451.72

Network Results: Flows and signals

Time Segment	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))
08:00-09:00	5454	5454	-1	✓	77		17	666

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	8.12	27.72	39.45	2.55	596.44	13.45	646.45	87.27	9.20

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))
08:00-09:00	113.89	0.00	188.00	0.00	188.00

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
08:00-09:00	203.08	54.31	3.74

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	0.00	0.00	✓	1.00	0.00	0.00	605.64

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	105.8	107.6	105.9	0.0	0.0	0.0	0.0
	2	80.5	0.0	80.3	78.7	0.0	0.0	0.0	0.0
	3	58.8	56.9	0.0	57.0	0.0	0.0	0.0	0.0
	4	81.9	80.0	81.8	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	40.9	32.8	0.0
	6	0.0	0.0	0.0	0.0	40.9	0.0	0.0	32.8
	7	0.0	0.0	0.0	0.0	32.8	0.0	0.0	32.1
	8	0.0	0.0	0.0	0.0	0.0	32.8	32.1	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (PCU/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Calculated Total Flow (PCU/hr)	Avg journey time (s)
1	1	2	28		105.81		28	105.81
2	1	3	64		107.55		64	107.55
3	1	4	4		105.91		4	105.91
5	2	3	13		80.33		13	80.33
6	2	4	109		78.69		109	78.69
7	2	1	38		80.50		38	80.50
8	3	2	19		56.86		19	56.86
9	3	4	70		56.96		70	56.96
10	3	1	65		58.77		65	58.77
11	4	2	104		80.01		104	80.01
12	4	3	25		81.76		25	81.76
13	4	1	20		81.92		20	81.92
17	8	7		500		32.10	500	32.10
18	8	6		500		32.76	500	32.76
22	5	7		500		32.76	500	32.76
23	5	6		500		40.90	500	40.90
34	6	8		500		32.76	500	32.76
35	6	5		500		40.90	500	40.90
41	7	8		500		32.10	500	32.10
42	7	5		500		32.76	500	32.76

Final Prediction Table

Traffic Stream Results

				SIGNALS		FLOWS		PERFORMANCE				PER PCU			QUEUES
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (PCU)
A	1	(untitled)	1	1	C	201	1983	28	0.00	35	157	41.73	29.73	78.53	4.45
Ax	1	(untitled)				133	Unrestricted	100	54.00	0	Unrestricted	16.88	0.00	0.00	0.00
B	1	(untitled)	1	1	D	194	2077	13	0.00	67	35	64.88	52.88	104.54	5.72
Bx	1	(untitled)				238	Unrestricted	100	45.00	0	Unrestricted	15.24	0.00	0.00	0.00
C	1	(untitled)	1	1	A	124	2017	7	0.00	77	17	90.67	78.67	126.95	4.53
Cx	1	(untitled)				160	Unrestricted	100	34.00	0	Unrestricted	17.05	0.00	0.00	0.00
D	1	(untitled)	1	1	B	208	2078	14	0.00	67	35	63.45	51.45	103.68	6.08
Dx	1	(untitled)				196	Unrestricted	100	55.00	0	Unrestricted	15.14	0.00	0.00	0.00

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	**Side**	**Name**	**Traffic node**	**Controller stream**	**Phase**	**Calculated Flow Entering (Ped/hr)**	**Calculated sat flow (Ped/hr)**	**Actual green (s (per cycle))**	**Degree of saturation (%)**	**Practical reserve capacity (%)**	**JourneyTime (s)**	**Mean Delay per Ped (s)**	**Mean max queue (Ped)**	**Delay weighting (%)**	**Co tra pen (£ p**
1	**1**	(untitled)	1	1	E	500 <	11000	18	25	256	40.90	35.23	11.39 +	100	0
	2	(untitled)	1	1	E	500 <	11000	18	25	256	40.90	35.23	11.39 +	100	0
2	**1**	(untitled)	1	1	C	500	11000	28	16	474	32.76	26.43	9.86	100	0
	2	(untitled)	1	1	C	500	11000	28	16	474	32.76	26.43	9.86	100	0
3	**1**	(untitled)	1	1	C	500	11000	28	16	474	32.76	26.43	9.86	100	0
	2	(untitled)	1	1	C	500	11000	28	16	474	32.76	26.43	9.86	100	0
4	**1**	(untitled)	1	1	C	500	11000	28	16	474	32.10	26.43	9.86	100	0
	2	(untitled)	1	1	C	500	11000	28	16	474	32.10	26.43	9.86	100	0

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	169.08	15.83	10.68	7.64	2.55	144.72	9.20	0.00	153.92
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	34.00	38.48	0.88	31.81	0.00	451.72	0.00	0.00	451.72
TOTAL	203.08	54.31	3.74	39.45	2.55	596.44	9.20	0.00	605.64

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A2 - DO NOTHING 2025
D2 - DO NOTHING 2025*

Summary

Data Errors and Warnings

Severity	Area	Item	Description
Info	Traffic Options	Traffic options	Flow scaling factor for Vehicles is not set to 100% (current value: 130)

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
2	15/02/2024 16:36:07	15/02/2024 16:36:08	08:00	100	720.00	49.84	82.88	C/1	0	0	C/1	Dx/1	C/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
DO NOTHING 2025		D2	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
DO NOTHING 2025				08:00	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)			100.00	✓	Sum of lanes	1983	✓		Normal	
Ax	1	(untitled)		✓	140.68						Normal	
B	1	(untitled)			100.00	✓	Sum of lanes	2078	✓		Normal	
Bx	1	(untitled)		✓	126.97						Normal	
C	1	(untitled)			100.00	✓	Sum of lanes	2003	✓		Normal	
Cx	1	(untitled)		✓	142.05						Normal	
D	1	(untitled)			100.00	✓	Sum of lanes	2077	✓		Normal	
Dx	1	(untitled)		✓	126.14						Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Surface condition	Site quality factor	Gradient (%)	Width (m)	Use connector turning radius	Proportion that turn (%)	Turning radius (m)	Nearside lane	Saturation flow (PCU/hr)
A	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	58	24.11		1983
Ax	1	1	(untitled)											
B	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	29	33.77		2078
Bx	1	1	(untitled)											
C	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	46	26.44		2003
Cx	1	1	(untitled)											
D	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	33	37.16		2077
Dx	1	1	(untitled)											

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
(ALL)	1	NetworkDefault	100	100	100		0.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	1	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	1	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)
A	1	168	168
Ax	1	111	111
B	1	230	230
Bx	1	229	229
C	1	127	127
Cx	1	164	164
D	1	209	209
Dx	1	230	230

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled
A	1	1	C	
B	1	1	D	
C	1	1	A	
D	1	1	B	

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
(ALL)	1	12.00	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
Ax	1	1	C/1	Ax/1	16.88	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	15.24	30.00	✓	Nearside	24.11
Cx	1	1	A/1	Cx/1	17.05	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	15.14	30.00	✓	Nearside	26.44
Ax	1	2	B/1	Ax/1	16.88	30.00	✓	Offside	33.77
Bx	1	2	D/1	Bx/1	15.24	30.00	✓	Straight	Straight Movement
Cx	1	2	B/1	Cx/1	17.05	30.00	✓	Nearside	35.22
Dx	1	2	A/1	Dx/1	15.14	30.00	✓	Offside	45.74
Ax	1	3	D/1	Ax/1	16.88	30.00	✓	Nearside	37.16
Bx	1	3	C/1	Bx/1	15.24	30.00	✓	Offside	42.22
Cx	1	3	D/1	Cx/1	17.05	30.00	✓	Offside	37.43
Dx	1	3	B/1	Dx/1	15.14	30.00	✓	Straight	Straight Movement

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	7.00	4.67	5.40
2	(untitled)		1		Farside	8.00	5.33	5.40
3	(untitled)		1		Farside	8.00	5.33	5.40
4	(untitled)		1		Farside	7.00	4.67	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
1	1	E	
2	1	C	
3	1	C	
4	1	C	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Signal Timings

Network Default: 100s cycle time; 100 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	(untitled)		1	NetworkDefault	100

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	7	300	0	0	Unknown	
	B	(untitled)	7	300	0	0	Unknown	
	C	(untitled)	7	300	0	0	Unknown	
	D	(untitled)	7	300	0	0	Unknown	
	E	(untitled)	7	300	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	A	1
	2	C	1
	3	B	1
	4	E	1
	5	D	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2, 3, 4, 5	12, 46, 74, 84, 3
	2	(untitled)	Single	1, 2, 3, 5, 4	16, 42, 68, 84, 0
	3	(untitled)	Single	1, 2, 4, 3, 5	18, 46, 64, 82, 0
	4	(untitled)	Single	1, 2, 4, 5, 3	17, 44, 61, 77, 93
	5	(untitled)	Single	1, 2, 5, 3, 4	18, 46, 64, 82, 0
	6	(untitled)	Single	1, 2, 5, 4, 3	17, 44, 61, 77, 93
	7	(untitled)	Single	1, 3, 2, 4, 5	17, 41, 68, 84, 0
	8	(untitled)	Single	1, 3, 2, 5, 4	17, 41, 68, 84, 0
	9	(untitled)	Single	1, 3, 4, 2, 5	19, 45, 64, 82, 0
	10	(untitled)	Single	1, 3, 4, 5, 2	17, 41, 58, 74, 90

Intergreen Matrix for Controller Stream 1

	To					
		A	B	C	D	E
From	A		7	10		
	B	7		10		
	C	10	10			
	D					
	E					

Banned Stage transitions for Controller Stream 1

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

Interstage Matrix for Controller Stream 1

		To				
		1	**2**	**3**	**4**	**5**
From	**1**	0	10	7	0	0
	2	10	0	10	0	0
	3	7	10	0	0	0
	4	0	0	0	0	0
	5	0	0	0	0	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	**1**	✓	1	A	3	12	9	1	7
	2	✓	2	C	22	46	24	1	7
	3	✓	3	B	56	74	18	1	7
	4	✓	4	E	74	84	10	1	7
	5	✓	5	D	84	3	19	1	7

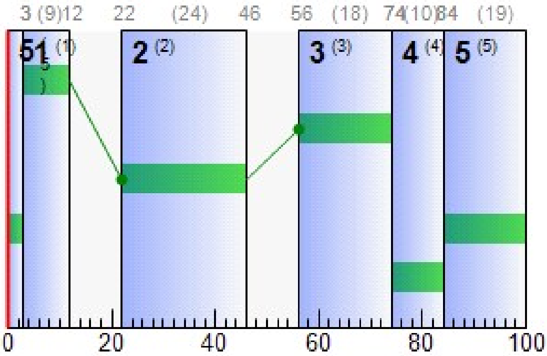
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	**A**	**1**	✓	3	12	9
	B	**1**	✓	56	74	18
	C	**1**	✓	22	46	24
	D	**1**	✓	84	3	19
	E	**1**	✓	74	84	10

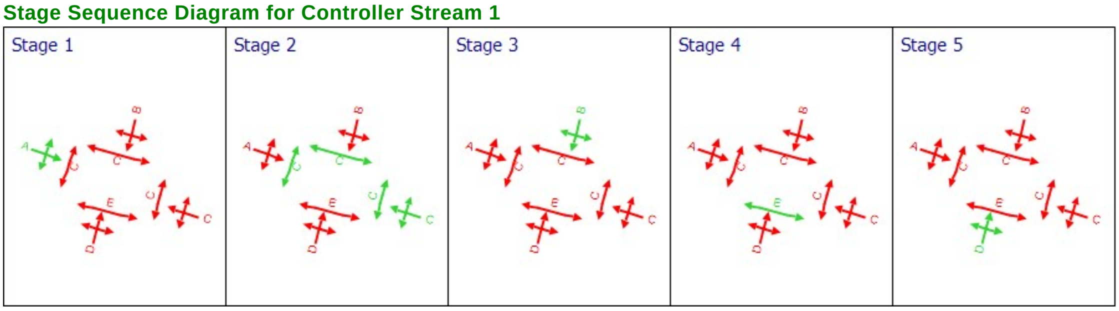
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	**1**	1	1	C	22	46	24
B	**1**	1	1	D	84	3	19
C	**1**	1	1	A	3	12	9
D	**1**	1	1	B	56	74	18

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
08:00-09:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	44	105	218	1983	24	34.44	5.26	30.24	29.62	2.33	31.95
	Ax	1	0	Unrestricted	145	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	72	25	299	2078	19	48.19	8.62	49.58	56.84	3.83	60.67
	Bx	1	0	Unrestricted	298	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	83	9	166	2003	9	82.00	6.26	36.01	53.69	2.72	56.42
	Cx	1	0	Unrestricted	213	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	69	31	272	2077	18	47.64	7.77	44.70	51.11	3.45	54.56
	Dx	1	0	Unrestricted	299	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Calculated sat flow (PCU/hr)	Calculated capacity (PCU/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	A	1	218	218	0		1983	496	44		105	0.00	24
	Ax	1	145	145	-1		Unrestricted	Unrestricted	0		Unrestricted	0.93	100
	B	1	299	299	0		2078	416	72		25	0.00	19
	Bx	1	298	298	0		Unrestricted	Unrestricted	0		Unrestricted	0.93	100
	C	1	166	166	-1		2003	200	83		9	0.00	9
	Cx	1	213	213	0		Unrestricted	Unrestricted	0		Unrestricted	0.66	100
	D	1	272	272	0		2077	395	69		31	0.00	18
	Dx	1	299	299	0		Unrestricted	Unrestricted	0		Unrestricted	1.09	100

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	A	1	12.00	34.44	1.91	0.17	29.62	85.36	179.94	6.14	2.33
	Ax	1	16.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	12.00	48.19	3.11	0.90	56.84	102.11	273.86	31.46	3.83
	Bx	1	15.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	12.00	82.00	2.04	1.74	53.69	130.91	160.09	57.22	2.72
	Cx	1	17.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	12.00	47.64	2.85	0.75	51.11	101.07	248.66	26.24	3.45
	Dx	1	15.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (PCU)	Mean max queue (PCU)	Max queue storage (PCU)	Utilised storage (%)	Average storage excess queue (PCU)	Average limit excess queue (PCU)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
08:00-09:00	A	1	0.00	5.26	17.39	30.24	0.00	0.00	0.00	0.00	0.00	0.00	
	Ax	1	0.00	0.00	24.47	0.00	0.00	0.00	0.00	44.00	0.00	44.00	
	B	1	0.00	8.62	17.39	49.58	0.00	0.00	0.00	0.00	0.00	0.00	
	Bx	1	0.00	0.00	22.08	0.00	0.00	0.00	0.00	31.00	0.00	31.00	
	C	1	0.00	6.26	17.39	36.01	0.00	0.00	0.00	0.00	0.00	0.00	
	Cx	1	0.00	0.00	24.70	0.00	0.00	0.00	0.00	24.00	0.00	24.00	
	D	1	0.00	7.77	17.39	44.70	0.00	0.00	0.00	0.00	0.00	0.00	
	Dx	1	0.00	0.00	21.94	0.00	0.00	0.00	0.00	44.00	0.00	44.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	A	1	21.80	2.81	7.75	46.44
	Ax	1	20.40	0.68	30.00	16.88
	B	1	29.90	5.00	5.98	60.19
	Bx	1	37.84	1.26	30.00	15.24
	C	1	16.60	4.33	3.83	94.00
	Cx	1	30.26	1.01	30.00	17.05
	D	1	27.20	4.51	6.04	59.64
	Dx	1	37.71	1.26	30.00	15.14

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (PCU)	Max End of Green Queue EoTS (PCU)	Max End of Red Queue EoTS (PCU)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	0.00	0.00	✓	5.26	0.17	4.71	1.00	0.00	31.95
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	8.63	0.91	7.55	1.00	0.00	60.67
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	6.38	1.86	6.01	1.00	0.00	56.42
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	1	0.00	0.00	✓	7.78	0.76	6.88	1.00	0.00	54.56
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	45	500	11000	10	42.45	12.50	83.72	83.72
		2	45	500	11000	10	42.45	12.50	83.72	83.72
	2	1	18	500	11000	24	29.49	10.42	58.16	58.16
		2	18	500	11000	24	29.49	10.42	58.16	58.16
	3	1	18	500	11000	24	29.49	10.42	58.16	58.16
		2	18	500	11000	24	29.49	10.42	58.16	58.16
	4	1	18	500	11000	24	29.49	10.42	58.16	58.16
		2	18	500	11000	24	29.49	10.42	58.16	58.16

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	1	1	500	500	0		11000	1100	45		98	0.00	10
		2	500	500	0		11000	1100	45		98	0.00	10
	2	1	500	500	0		11000	2750	18		395	0.00	24
		2	500	500	0		11000	2750	18		395	0.00	24
	3	1	500	500	0		11000	2750	18		395	0.00	24
		2	500	500	0		11000	2750	18		395	0.00	24
	4	1	500	500	0		11000	2750	18		395	0.00	24
		2	500	500	0		11000	2750	18		395	0.00	24

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
08:00-09:00	1	1	5.67	42.45	5.90	0.00	83.72
		2	5.67	42.45	5.90	0.00	83.72
	2	1	6.33	29.49	4.10	0.00	58.16
		2	6.33	29.49	4.10	0.00	58.16
	3	1	6.33	29.49	4.10	0.00	58.16
		2	6.33	29.49	4.10	0.00	58.16
	4	1	5.67	29.49	4.10	0.00	58.16
		2	5.67	29.49	4.10	0.00	58.16

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
08:00-09:00	1	1	12.50	10.00	125.00	0.24	0.00	0.00
		2	12.50	10.00	125.00	0.24	0.00	0.00
	2	1	10.42	10.00	104.17	0.01	0.00	0.00
		2	10.42	10.00	104.17	0.01	0.00	0.00
	3	1	10.42	10.00	104.17	0.01	0.00	0.00
		2	10.42	10.00	104.17	0.01	0.00	0.00
	4	1	10.42	10.00	104.17	0.01	0.00	0.00
		2	10.42	10.00	104.17	0.01	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	1	1	4.00	6.68	0.60	48.12
		2	4.00	6.68	0.60	48.12
	2	1	4.50	4.98	0.90	35.82
		2	4.50	4.98	0.90	35.82
	3	1	4.50	4.98	0.90	35.82
		2	4.50	4.98	0.90	35.82
	4	1	4.00	4.88	0.82	35.16
		2	4.00	4.88	0.82	35.16

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	0.00	0.00	12.50	1.00	0.00	83.72
		2	0.00	0.00	12.50	1.00	0.00	83.72
	2	1	0.00	0.00	10.42	1.00	0.00	58.16
		2	0.00	0.00	10.42	1.00	0.00	58.16
	3	1	0.00	0.00	10.42	1.00	0.00	58.16
		2	0.00	0.00	10.42	1.00	0.00	58.16
	4	1	0.00	0.00	10.42	1.00	0.00	58.16
		2	0.00	0.00	10.42	1.00	0.00	58.16

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
2	15/02/2024 16:36:07	15/02/2024 16:36:08	08:00	100	720.00	49.84	82.88	C/1	0	0	C/1	Dx/1	C/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	83	0	1910	470	25.39	191.26	12.33	203.59

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	45	4000	164	32.73	516.41	516.41

Network Results: Flows and signals

Time Segment	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))
08:00-09:00	5910	5910	-2		83		9	634

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	8.56	30.36	46.27	3.56	707.67	16.64	862.56	121.05	12.33

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))
08:00-09:00	125.00	0.00	143.00	0.00	143.00

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
08:00-09:00	255.71	63.89	4.00

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	0.00	0.00	✓	1.00	0.00	0.00	720.00

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	109.1	110.9	109.2	0.0	0.0	0.0	0.0
	2	76.7	0.0	76.5	74.9	0.0	0.0	0.0	0.0
	3	63.5	61.6	0.0	61.7	0.0	0.0	0.0	0.0
	4	77.2	75.3	77.1	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	48.1	35.8	0.0
	6	0.0	0.0	0.0	0.0	48.1	0.0	0.0	35.8
	7	0.0	0.0	0.0	0.0	35.8	0.0	0.0	35.2
	8	0.0	0.0	0.0	0.0	0.0	35.8	35.2	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (PCU/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Calculated Total Flow (PCU/hr)	Avg journey time (s)
1	1	2	43		109.14		43	109.14
2	1	3	69		110.88		69	110.88
3	1	4	15		109.24		15	109.24
5	2	3	16		76.52		16	76.52
6	2	4	140		74.88		140	74.88
7	2	1	53		76.69		53	76.69
8	3	2	23		61.58		23	61.58
9	3	4	74		61.68		74	61.68
10	3	1	71		63.49		71	63.49
11	4	2	164		75.33		164	75.33
12	4	3	26		77.07		26	77.07
13	4	1	40		77.24		40	77.24
17	8	7		500		35.16	500	35.16
18	8	6		500		35.82	500	35.82
22	5	7		500		35.82	500	35.82
23	5	6		500		48.12	500	48.12
34	6	8		500		35.82	500	35.82
35	6	5		500		48.12	500	48.12
41	7	8		500		35.16	500	35.16
42	7	5		500		35.82	500	35.82

Final Prediction Table

Traffic Stream Results

				SIGNALS		FLOWS		PERFORMANCE				PER PCU			QUEUES
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (PCU)
A	1	(untitled)	1	1	C	218	1983	24	0.00	44	105	46.44	34.44	85.36	5.26
Ax	1	(untitled)				145	Unrestricted	100	44.00	0	Unrestricted	16.88	0.00	0.00	0.00
B	1	(untitled)	1	1	D	299	2078	19	0.00	72	25	60.19	48.19	102.11	8.62
Bx	1	(untitled)				298	Unrestricted	100	31.00	0	Unrestricted	15.24	0.00	0.00	0.00
C	1	(untitled)	1	1	A	166	2003	9	0.00	83	9	94.00	82.00	130.91	6.26
Cx	1	(untitled)				213	Unrestricted	100	24.00	0	Unrestricted	17.05	0.00	0.00	0.00
D	1	(untitled)	1	1	B	272	2077	18	0.00	69	31	59.64	47.64	101.07	7.77
Dx	1	(untitled)				299	Unrestricted	100	44.00	0	Unrestricted	15.14	0.00	0.00	0.00

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	Co tra pen (£ p
1	1	(untitled)	1	1	E	500 <	11000	10	45	98	48.12	42.45	12.50 +	100	0
	2	(untitled)	1	1	E	500 <	11000	10	45	98	48.12	42.45	12.50 +	100	0
2	1	(untitled)	1	1	C	500 <	11000	24	18	395	35.82	29.49	10.42 +	100	0
	2	(untitled)	1	1	C	500 <	11000	24	18	395	35.82	29.49	10.42 +	100	0
3	1	(untitled)	1	1	C	500 <	11000	24	18	395	35.82	29.49	10.42 +	100	0
	2	(untitled)	1	1	C	500 <	11000	24	18	395	35.82	29.49	10.42 +	100	0
4	1	(untitled)	1	1	C	500 <	11000	24	18	395	35.16	29.49	10.42 +	100	0
	2	(untitled)	1	1	C	500 <	11000	24	18	395	35.16	29.49	10.42 +	100	0

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	221.71	20.86	10.63	9.91	3.56	191.26	12.33	0.00	203.59
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	34.00	43.03	0.79	36.37	0.00	516.41	0.00	0.00	516.41
TOTAL	255.71	63.89	4.00	46.27	3.56	707.67	12.33	0.00	720.00

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A3 - DO NOTHING 2030
D3 - DO NOTHING 2030*

Summary

Data Errors and Warnings

Severity	Area	Item	Description
Info	Traffic Options	Traffic options	Flow scaling factor for Vehicles is not set to 100% (current value: 130)

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
3	15/02/2024 16:36:08	15/02/2024 16:36:09	08:00	100	852.05	58.83	86.62	D/1	0	0	D/1	Dx/1	D/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
DO NOTHING 2030		D3	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
DO NOTHING 2030				08:00	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)			100.00	✓	Sum of lanes	1982	✓		Normal	
Ax	1	(untitled)		✓	140.68						Normal	
B	1	(untitled)			100.00	✓	Sum of lanes	2082	✓		Normal	
Bx	1	(untitled)		✓	126.97						Normal	
C	1	(untitled)			100.00	✓	Sum of lanes	1996	✓		Normal	
Cx	1	(untitled)		✓	142.05						Normal	
D	1	(untitled)			100.00	✓	Sum of lanes	2078	✓		Normal	
Dx	1	(untitled)		✓	126.14						Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Surface condition	Site quality factor	Gradient (%)	Width (m)	Use connector turning radius	Proportion that turn (%)	Turning radius (m)	Nearside lane	Saturation flow (PCU/hr)
A	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	59	24.11		1982
Ax	1	1	(untitled)											
B	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	25	33.77		2082
Bx	1	1	(untitled)											
C	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	52	26.44		1996
Cx	1	1	(untitled)											
D	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	32	37.16		2078
Dx	1	1	(untitled)											

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
(ALL)	1	NetworkDefault	100	100	100		0.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	1	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	1	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)
A	1	189	189
Ax	1	124	124
B	1	285	285
Bx	1	294	294
C	1	157	157
Cx	1	193	193
D	1	291	291
Dx	1	311	311

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled
A	1	1	C	
B	1	1	D	
C	1	1	A	
D	1	1	B	

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
(ALL)	1	12.00	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
Ax	1	1	C/1	Ax/1	16.88	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	15.24	30.00	✓	Nearside	24.11
Cx	1	1	A/1	Cx/1	17.05	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	15.14	30.00	✓	Nearside	26.44
Ax	1	2	B/1	Ax/1	16.88	30.00	✓	Offside	33.77
Bx	1	2	D/1	Bx/1	15.24	30.00	✓	Straight	Straight Movement
Cx	1	2	B/1	Cx/1	17.05	30.00	✓	Nearside	35.22
Dx	1	2	A/1	Dx/1	15.14	30.00	✓	Offside	45.74
Ax	1	3	D/1	Ax/1	16.88	30.00	✓	Nearside	37.16
Bx	1	3	C/1	Bx/1	15.24	30.00	✓	Offside	42.22
Cx	1	3	D/1	Cx/1	17.05	30.00	✓	Offside	37.43
Dx	1	3	B/1	Dx/1	15.14	30.00	✓	Straight	Straight Movement

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	7.00	4.67	5.40
2	(untitled)		1		Farside	8.00	5.33	5.40
3	(untitled)		1		Farside	8.00	5.33	5.40
4	(untitled)		1		Farside	7.00	4.67	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
1	1	E	
2	1	C	
3	1	C	
4	1	C	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Signal Timings

Network Default: 100s cycle time; 100 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	(untitled)		1	NetworkDefault	100

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	7	300	0	0	Unknown	
	B	(untitled)	7	300	0	0	Unknown	
	C	(untitled)	7	300	0	0	Unknown	
	D	(untitled)	7	300	0	0	Unknown	
	E	(untitled)	7	300	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	A	1
	2	C	1
	3	B	1
	4	E	1
	5	D	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2, 3, 4, 5	13, 43, 73, 80, 2
	2	(untitled)	Single	1, 2, 3, 5, 4	16, 42, 68, 84, 0
	3	(untitled)	Single	1, 2, 4, 3, 5	18, 46, 64, 82, 0
	4	(untitled)	Single	1, 2, 4, 5, 3	17, 44, 61, 77, 93
	5	(untitled)	Single	1, 2, 5, 3, 4	18, 46, 64, 82, 0
	6	(untitled)	Single	1, 2, 5, 4, 3	17, 44, 61, 77, 93
	7	(untitled)	Single	1, 3, 2, 4, 5	17, 41, 68, 84, 0
	8	(untitled)	Single	1, 3, 2, 5, 4	17, 41, 68, 84, 0
	9	(untitled)	Single	1, 3, 4, 2, 5	19, 45, 64, 82, 0
	10	(untitled)	Single	1, 3, 4, 5, 2	17, 41, 58, 74, 90

Intergreen Matrix for Controller Stream 1

	To					
		A	B	C	D	E
From	A		7	10		
	B	7		10		
	C	10	10			
	D					
	E					

Banned Stage transitions for Controller Stream 1

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

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	10	7	0	0
	2	10	0	10	0	0
	3	7	10	0	0	0
	4	0	0	0	0	0
	5	0	0	0	0	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	A	2	13	11	1	7
	2	✓	2	C	23	43	20	1	7
	3	✓	3	B	53	73	20	1	7
	4	✓	4	E	73	80	7	1	7
	5	✓	5	D	80	2	22	1	7

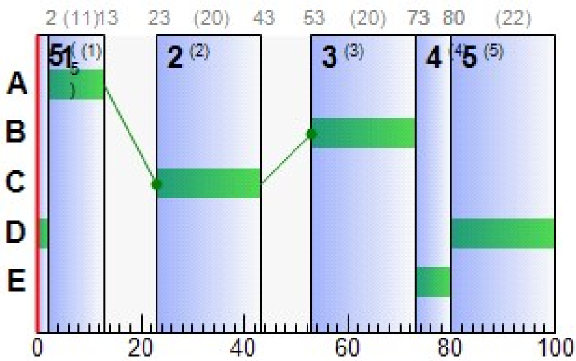
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	2	13	11
	B	1	✓	53	73	20
	C	1	✓	23	43	20
	D	1	✓	80	2	22
	E	1	✓	73	80	7

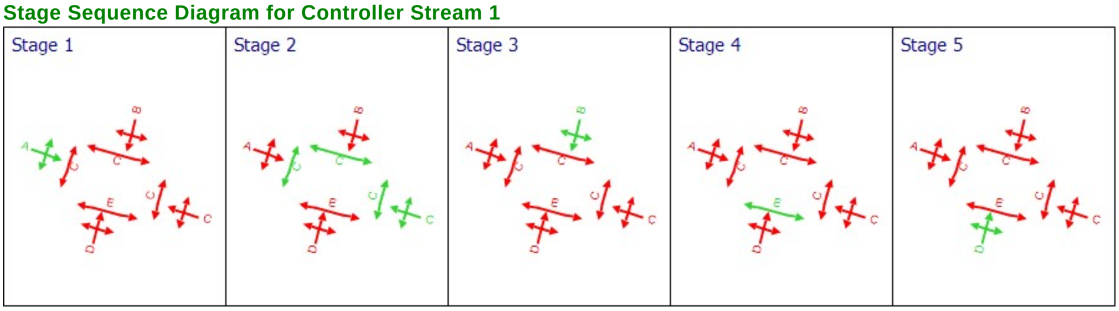
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	C	23	43	20
B	1	1	1	D	80	2	22
C	1	1	1	A	2	13	11
D	1	1	1	B	53	73	20

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
08:00-09:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	59	53	245	1982	20	41.73	6.54	37.61	40.32	2.90	43.22
	Ax	1	0	Unrestricted	162	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	77	16	371	2082	22	48.53	10.87	62.49	71.02	4.82	75.85
	Bx	1	0	Unrestricted	382	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	86	5	205	1996	11	81.16	7.74	44.53	65.62	3.36	68.98
	Cx	1	0	Unrestricted	251	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	87	4	378	2078	20	62.09	12.59	72.41	92.58	5.55	98.13
	Dx	1	0	Unrestricted	404	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Calculated sat flow (PCU/hr)	Calculated capacity (PCU/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	A	1	245	245	1		1982	416	59		53	0.00	20
	Ax	1	162	162	-1		Unrestricted	Unrestricted	0		Unrestricted	0.84	100
	B	1	371	371	-1		2082	479	77		16	0.00	22
	Bx	1	382	382	0		Unrestricted	Unrestricted	0		Unrestricted	0.92	100
	C	1	205	205	-1		1996	240	86		5	0.00	11
	Cx	1	251	251	0		Unrestricted	Unrestricted	0		Unrestricted	0.60	100
	D	1	378	378	0		2078	436	87		4	0.00	20
	Dx	1	404	404	0		Unrestricted	Unrestricted	0		Unrestricted	1.01	100

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	A	1	12.00	41.73	2.42	0.42	40.32	94.39	216.49	14.76	2.90
	Ax	1	16.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	12.00	48.53	3.72	1.28	71.02	103.71	339.97	44.80	4.82
	Bx	1	15.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	12.00	81.16	2.46	2.16	65.62	130.77	197.14	70.95	3.36
	Cx	1	17.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	12.00	62.09	4.01	2.51	92.58	117.13	357.46	85.29	5.55
	Dx	1	15.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (PCU)	Mean max queue (PCU)	Max queue storage (PCU)	Utilised storage (%)	Average storage excess queue (PCU)	Average limit excess queue (PCU)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
08:00-09:00	A	1	0.00	6.54	17.39	37.61	0.00	0.00	0.00	0.00	0.00	0.00	
	Ax	1	0.00	0.00	24.47	0.00	0.00	0.00	0.00	35.00	0.00	35.00	
	B	1	0.00	10.87	17.39	62.49	0.00	0.00	0.00	0.00	0.00	0.00	
	Bx	1	0.00	0.00	22.08	0.00	0.00	0.00	0.00	27.00	0.00	27.00	
	C	1	0.00	7.74	17.39	44.53	0.00	0.00	0.00	0.00	0.00	0.00	
	Cx	1	0.00	0.00	24.70	0.00	0.00	0.00	0.00	19.00	0.00	19.00	
	D	1	0.00	12.59	17.39	72.41	0.00	0.00	0.00	0.00	0.00	0.00	
	Dx	1	0.00	0.00	21.94	0.00	0.00	0.00	0.00	36.00	0.00	36.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	A	1	24.50	3.66	6.70	53.73
	Ax	1	22.79	0.76	30.00	16.88
	B	1	37.10	6.24	5.95	60.53
	Bx	1	48.50	1.62	30.00	15.24
	C	1	20.50	5.30	3.86	93.16
	Cx	1	35.65	1.19	30.00	17.05
	D	1	37.80	7.78	4.86	74.09
	Dx	1	50.96	1.70	30.00	15.14

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (PCU)	Max End of Green Queue EoTS (PCU)	Max End of Red Queue EoTS (PCU)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	0.00	0.00	✓	6.54	0.42	5.80	1.00	0.00	43.22
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	10.89	1.31	9.24	1.00	0.00	75.85
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	7.91	2.33	7.34	1.00	0.00	68.98
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	1	0.00	0.00	✓	12.73	2.65	10.94	1.00	0.00	98.13
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	65	500	11000	7	45.33	12.92	89.40	89.40
		2	65	500	11000	7	45.33	12.92	89.40	89.40
	2	1	22	500	11000	20	32.71	10.97	64.51	64.51
		2	22	500	11000	20	32.71	10.97	64.51	64.51
	3	1	22	500	11000	20	32.71	10.97	64.51	64.51
		2	22	500	11000	20	32.71	10.97	64.51	64.51
	4	1	22	500	11000	20	32.71	10.97	64.51	64.51
		2	22	500	11000	20	32.71	10.97	64.51	64.51

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	1	1	500	500	0		11000	770	65		39	0.00	7
		2	500	500	0		11000	770	65		39	0.00	7
	2	1	500	500	0		11000	2310	22		316	0.00	20
		2	500	500	0		11000	2310	22		316	0.00	20
	3	1	500	500	0		11000	2310	22		316	0.00	20
		2	500	500	0		11000	2310	22		316	0.00	20
	4	1	500	500	0		11000	2310	22		316	0.00	20
		2	500	500	0		11000	2310	22		316	0.00	20

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
08:00-09:00	1	1	5.67	45.33	6.30	0.00	89.40
		2	5.67	45.33	6.30	0.00	89.40
	2	1	6.33	32.71	4.54	0.00	64.51
		2	6.33	32.71	4.54	0.00	64.51
	3	1	6.33	32.71	4.54	0.00	64.51
		2	6.33	32.71	4.54	0.00	64.51
	4	1	5.67	32.71	4.54	0.00	64.51
		2	5.67	32.71	4.54	0.00	64.51

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
08:00-09:00	1	1	12.92	10.00	129.17	0.32	0.00	0.00
		2	12.92	10.00	129.17	0.32	0.00	0.00
	2	1	10.97	10.00	109.72	0.04	0.00	0.00
		2	10.97	10.00	109.72	0.04	0.00	0.00
	3	1	10.97	10.00	109.72	0.04	0.00	0.00
		2	10.97	10.00	109.72	0.04	0.00	0.00
	4	1	10.97	10.00	109.72	0.04	0.00	0.00
		2	10.97	10.00	109.72	0.04	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	1	1	4.00	7.08	0.56	51.00
		2	4.00	7.08	0.56	51.00
	2	1	4.50	5.42	0.83	39.04
		2	4.50	5.42	0.83	39.04
	3	1	4.50	5.42	0.83	39.04
		2	4.50	5.42	0.83	39.04
	4	1	4.00	5.33	0.75	38.38
		2	4.00	5.33	0.75	38.38

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	0.00	0.00	12.92	1.00	0.00	89.40
		2	0.00	0.00	12.92	1.00	0.00	89.40
	2	1	0.00	0.00	10.97	1.00	0.00	64.51
		2	0.00	0.00	10.97	1.00	0.00	64.51
	3	1	0.00	0.00	10.97	1.00	0.00	64.51
		2	0.00	0.00	10.97	1.00	0.00	64.51
	4	1	0.00	0.00	10.97	1.00	0.00	64.51
		2	0.00	0.00	10.97	1.00	0.00	64.51

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
3	15/02/2024 16:36:08	15/02/2024 16:36:09	08:00	100	852.05	58.83	86.62	D/1	0	0	D/1	Dx/1	D/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	87	0	2398	473	28.50	269.54	16.64	286.18

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	65	4000	134	35.87	565.87	565.87

Network Results: Flows and signals

Time Segment	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))
08:00-09:00	6398	6398	-1		87		4	607

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	8.96	33.10	52.45	6.38	835.41	20.74	1111.06	215.79	16.64

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))
08:00-09:00	129.17	0.00	117.00	0.00	117.00

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
08:00-09:00	311.81	74.76	4.17

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	0.00	0.00	✓	1.00	0.00	0.00	852.05

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	108.3	110.0	108.4	0.0	0.0	0.0	0.0
	2	91.1	0.0	91.0	89.3	0.0	0.0	0.0	0.0
	3	70.8	68.9	0.0	69.0	0.0	0.0	0.0	0.0
	4	77.6	75.7	77.4	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	51.0	39.0	0.0
	6	0.0	0.0	0.0	0.0	51.0	0.0	0.0	39.0
	7	0.0	0.0	0.0	0.0	39.0	0.0	0.0	38.4
	8	0.0	0.0	0.0	0.0	0.0	39.0	38.4	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (PCU/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Calculated Total Flow (PCU/hr)	Avg journey time (s)
1	1	2	66		108.29		66	108.29
2	1	3	75		110.04		75	110.04
3	1	4	16		108.39		16	108.39
5	2	3	20		90.97		20	90.97
6	2	4	197		89.33		197	89.33
7	2	1	74		91.14		74	91.14
8	3	2	31		68.86		31	68.86
9	3	4	81		68.96		81	68.96
10	3	1	77		70.77		77	70.77
11	4	2	214		75.67		214	75.67
12	4	3	29		77.41		29	77.41
13	4	1	42		77.58		42	77.58
17	8	7		500		38.38	500	38.38
18	8	6		500		39.04	500	39.04
22	5	7		500		39.04	500	39.04
23	5	6		500		51.00	500	51.00
34	6	8		500		39.04	500	39.04
35	6	5		500		51.00	500	51.00
41	7	8		500		38.38	500	38.38
42	7	5		500		39.04	500	39.04

Final Prediction Table

Traffic Stream Results

				SIGNALS		FLOWS		PERFORMANCE				PER PCU			QUEUES
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (PCU)
A	1	(untitled)	1	1	C	245	1982	20	0.00	59	53	53.73	41.73	94.39	6.54
Ax	1	(untitled)				162	Unrestricted	100	35.00	0	Unrestricted	16.88	0.00	0.00	0.00
B	1	(untitled)	1	1	D	371	2082	22	0.00	77	16	60.53	48.53	103.71	10.87
Bx	1	(untitled)				382	Unrestricted	100	27.00	0	Unrestricted	15.24	0.00	0.00	0.00
C	1	(untitled)	1	1	A	205	1996	11	0.00	86	5	93.16	81.16	130.77	7.74
Cx	1	(untitled)				251	Unrestricted	100	19.00	0	Unrestricted	17.05	0.00	0.00	0.00
D	1	(untitled)	1	1	B	378	2078	20	0.00	87	4	74.09	62.09	117.13	12.59
Dx	1	(untitled)				404	Unrestricted	100	36.00	0	Unrestricted	15.14	0.00	0.00	0.00

Pedestrian Crossing Results

			SIGNALS			FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	Co tra pen (£ p
1	1	(untitled)	1	1	E	500 <	11000	7	65	39	51.00	45.33	12.92 +	100	0
	2	(untitled)	1	1	E	500 <	11000	7	65	39	51.00	45.33	12.92 +	100	0
2	1	(untitled)	1	1	C	500 <	11000	20	22	316	39.04	32.71	10.97 +	100	0
	2	(untitled)	1	1	C	500 <	11000	20	22	316	39.04	32.71	10.97 +	100	0
3	1	(untitled)	1	1	C	500 <	11000	20	22	316	39.04	32.71	10.97 +	100	0
	2	(untitled)	1	1	C	500 <	11000	20	22	316	39.04	32.71	10.97 +	100	0
4	1	(untitled)	1	1	C	500 <	11000	20	22	316	38.38	32.71	10.97 +	100	0
	2	(untitled)	1	1	C	500 <	11000	20	22	316	38.38	32.71	10.97 +	100	0

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	277.81	28.24	9.84	12.60	6.38	269.54	16.64	0.00	286.18
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	34.00	46.52	0.73	39.85	0.00	565.87	0.00	0.00	565.87
TOTAL	311.81	74.76	4.17	52.45	6.38	835.41	16.64	0.00	852.05

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A4 - DO NOTHING 2040
D4 - DO NOTHING 2040*

Summary

Data Errors and Warnings

Severity	Area	Item	Description
Info	Traffic Options	Traffic options	Flow scaling factor for Vehicles is not set to 100% (current value: 130)

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
4	15/02/2024 16:36:10	15/02/2024 16:36:10	08:00	100	857.85	59.21	89.60	D/1	0	0	D/1	Dx/1	D/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
DO NOTHING 2040		D4	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
DO NOTHING 2040				08:00	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)			100.00	✓	Sum of lanes	1982	✓		Normal	
Ax	1	(untitled)		✓	140.68						Normal	
B	1	(untitled)			100.00	✓	Sum of lanes	2082	✓		Normal	
Bx	1	(untitled)		✓	126.97						Normal	
C	1	(untitled)			100.00	✓	Sum of lanes	1996	✓		Normal	
Cx	1	(untitled)		✓	142.05						Normal	
D	1	(untitled)			100.00	✓	Sum of lanes	2078	✓		Normal	
Dx	1	(untitled)		✓	126.14						Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Surface condition	Site quality factor	Gradient (%)	Width (m)	Use connector turning radius	Proportion that turn (%)	Turning radius (m)	Nearside lane	Saturation flow (PCU/hr)
A	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	59	24.11		1982
Ax	1	1	(untitled)											
B	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	25	33.77		2082
Bx	1	1	(untitled)											
C	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	52	26.44		1996
Cx	1	1	(untitled)											
D	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	32	37.16		2078
Dx	1	1	(untitled)											

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
(ALL)	1	NetworkDefault	100	100	100		0.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	1	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	1	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)
A	1	198	198
Ax	1	130	130
B	1	294	294
Bx	1	306	306
C	1	164	164
Cx	1	200	200
D	1	301	301
Dx	1	321	321

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled
A	1	1	C	
B	1	1	D	
C	1	1	A	
D	1	1	B	

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
(ALL)	1	12.00	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
Ax	1	1	C/1	Ax/1	16.88	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	15.24	30.00	✓	Nearside	24.11
Cx	1	1	A/1	Cx/1	17.05	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	15.14	30.00	✓	Nearside	26.44
Ax	1	2	B/1	Ax/1	16.88	30.00	✓	Offside	33.77
Bx	1	2	D/1	Bx/1	15.24	30.00	✓	Straight	Straight Movement
Cx	1	2	B/1	Cx/1	17.05	30.00	✓	Nearside	35.22
Dx	1	2	A/1	Dx/1	15.14	30.00	✓	Offside	45.74
Ax	1	3	D/1	Ax/1	16.88	30.00	✓	Nearside	37.16
Bx	1	3	C/1	Bx/1	15.24	30.00	✓	Offside	42.22
Cx	1	3	D/1	Cx/1	17.05	30.00	✓	Offside	37.43
Dx	1	3	B/1	Dx/1	15.14	30.00	✓	Straight	Straight Movement

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	7.00	4.67	5.40
2	(untitled)		1		Farside	8.00	5.33	5.40
3	(untitled)		1		Farside	8.00	5.33	5.40
4	(untitled)		1		Farside	7.00	4.67	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
1	1	E	
2	1	C	
3	1	C	
4	1	C	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Signal Timings

Network Default: 100s cycle time; 100 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	(untitled)		1	NetworkDefault	100

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	7	300	0	0	Unknown	
	B	(untitled)	7	300	0	0	Unknown	
	C	(untitled)	7	300	0	0	Unknown	
	D	(untitled)	7	300	0	0	Unknown	
	E	(untitled)	7	300	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	A	1
	2	B	1
	3	C	1
	4	D	1
	5	E	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2, 3, 4, 5	10, 37, 67, 91, 98
	2	(untitled)	Single	1, 2, 3, 5, 4	17, 41, 68, 84, 0
	3	(untitled)	Single	1, 2, 4, 3, 5	19, 45, 64, 82, 0
	4	(untitled)	Single	1, 2, 4, 5, 3	17, 41, 58, 74, 90
	5	(untitled)	Single	1, 2, 5, 3, 4	19, 45, 64, 82, 0
	6	(untitled)	Single	1, 2, 5, 4, 3	17, 41, 58, 74, 90
	7	(untitled)	Single	1, 3, 2, 4, 5	16, 42, 68, 84, 0
	8	(untitled)	Single	1, 3, 2, 5, 4	16, 42, 68, 84, 0
	9	(untitled)	Single	1, 3, 4, 2, 5	18, 46, 64, 82, 0
	10	(untitled)	Single	1, 3, 4, 5, 2	17, 44, 61, 77, 93

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A		7	10		
	B	7		10		
	C	10	10			
	D					
	E					

Banned Stage transitions for Controller Stream 1

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

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	7	10	0	0
	2	7	0	10	0	0
	3	10	10	0	0	0
	4	0	0	0	0	0
	5	0	0	0	0	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	A	98	10	12	1	7
	2	✓	2	B	17	37	20	1	7
	3	✓	3	C	47	67	20	1	7
	4	✓	4	D	67	91	24	1	7
	5	✓	5	E	91	98	7	1	7

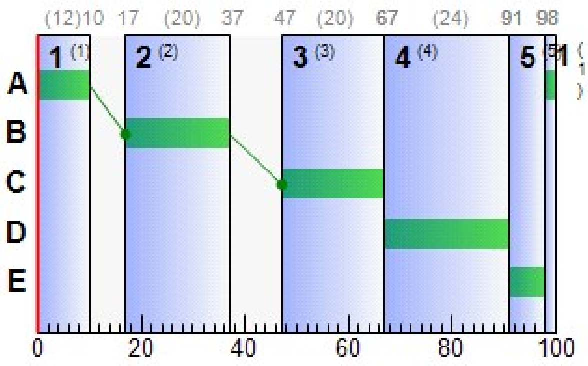
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	98	10	12
	B	1	✓	17	37	20
	C	1	✓	47	67	20
	D	1	✓	67	91	24
	E	1	✓	91	98	7

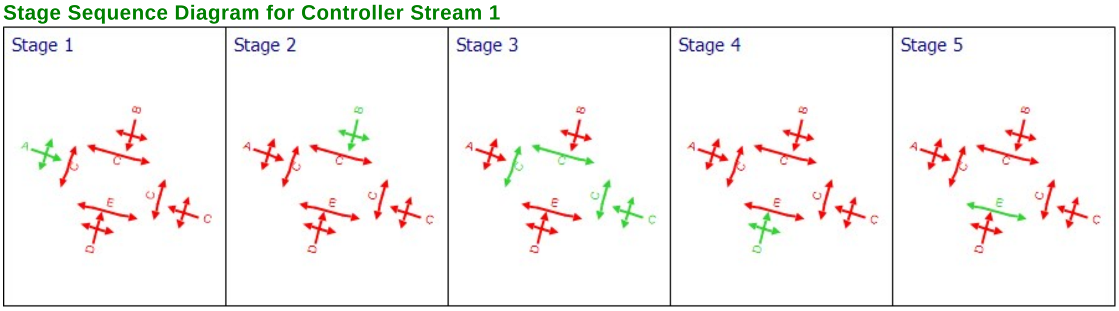
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	C	47	67	20
B	1	1	1	D	67	91	24
C	1	1	1	A	98	10	12
D	1	1	1	B	17	37	20

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
08:00-09:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	62	45	258	1982	20	42.83	6.95	39.95	43.59	3.09	46.68
	Ax	1	0	Unrestricted	169	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	73	23	382	2082	24	43.75	10.64	61.20	65.93	4.73	70.66
	Bx	1	0	Unrestricted	398	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	82	10	213	1996	12	71.06	7.44	42.76	59.71	3.27	62.97
	Cx	1	0	Unrestricted	260	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	90	0	391	2078	20	68.49	13.80	79.34	105.62	6.04	111.67
	Dx	1	0	Unrestricted	417	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Calculated sat flow (PCU/hr)	Calculated capacity (PCU/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	A	1	258	258	-1	✓	1982	416	62		45	0.00	20
	Ax	1	169	169	0		Unrestricted	Unrestricted	0		Unrestricted	0.78	100
	B	1	382	382	0		2082	521	73		23	0.00	24
	Bx	1	398	398	0	✓	Unrestricted	Unrestricted	0		Unrestricted	0.92	100
	C	1	213	213	0		1996	259	82		10	0.00	12
	Cx	1	260	260	0		Unrestricted	Unrestricted	0		Unrestricted	0.62	100
	D	1	391	391	0		2078	436	90		0	0.00	20
	Dx	1	417	417	0		Unrestricted	Unrestricted	0		Unrestricted	0.90	100

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	A	1	12.00	42.83	2.57	0.50	43.59	95.60	229.00	17.63	3.09
	Ax	1	16.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	12.00	43.75	3.66	0.99	65.93	98.77	342.58	34.74	4.73
	Bx	1	15.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	12.00	71.06	2.51	1.70	59.71	122.38	203.73	56.93	3.27
	Cx	1	17.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	12.00	68.49	4.18	3.26	105.62	123.27	372.90	109.07	6.04
	Dx	1	15.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (PCU)	Mean max queue (PCU)	Max queue storage (PCU)	Utilised storage (%)	Average storage excess queue (PCU)	Average limit excess queue (PCU)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
08:00-09:00	A	1	0.00	6.95	17.39	39.95	0.00	0.00	0.00	0.00	0.00	0.00	
	Ax	1	0.00	0.00	24.47	0.00	0.00	0.00	0.00	33.00	0.00	33.00	
	B	1	0.00	10.64	17.39	61.20	0.00	0.00	0.00	0.00	0.00	0.00	
	Bx	1	0.00	0.00	22.08	0.00	0.00	0.00	0.00	29.00	0.00	29.00	
	C	1	0.00	7.44	17.39	42.76	0.00	0.00	0.00	0.00	0.00	0.00	
	Cx	1	0.00	0.00	24.70	0.00	0.00	0.00	0.00	22.00	0.00	22.00	
	D	1	0.00	13.80	17.39	79.34	0.00	0.00	0.00	0.00	0.00	0.00	
	Dx	1	0.00	0.00	21.94	0.00	0.00	0.00	0.00	27.00	0.00	27.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	A	1	25.80	3.93	6.57	54.83
	Ax	1	23.77	0.79	30.00	16.88
	B	1	38.20	5.92	6.46	55.75
	Bx	1	50.53	1.68	30.00	15.24
	C	1	21.30	4.91	4.33	83.06
	Cx	1	36.93	1.23	30.00	17.05
	D	1	39.10	8.74	4.47	80.49
	Dx	1	52.60	1.75	30.00	15.14

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (PCU)	Max End of Green Queue EoTS (PCU)	Max End of Red Queue EoTS (PCU)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	0.00	0.00	✓	6.95	0.50	6.16	1.00	0.00	46.68
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	10.66	1.00	8.96	1.00	0.00	70.66
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	7.52	1.78	6.93	1.00	0.00	62.97
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	1	0.00	0.00	✓	14.05	3.52	12.10	1.00	0.00	111.67
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	65	500	11000	7	45.33	12.92	89.40	89.40
		2	65	500	11000	7	45.33	12.92	89.40	89.40
	2	1	22	500	11000	20	32.71	10.97	64.51	64.51
		2	22	500	11000	20	32.71	10.97	64.51	64.51
	3	1	22	500	11000	20	32.71	10.97	64.51	64.51
		2	22	500	11000	20	32.71	10.97	64.51	64.51
	4	1	22	500	11000	20	32.71	10.97	64.51	64.51
		2	22	500	11000	20	32.71	10.97	64.51	64.51

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	1	1	500	500	0		11000	770	65		39	0.00	7
		2	500	500	0		11000	770	65		39	0.00	7
	2	1	500	500	0		11000	2310	22		316	0.00	20
		2	500	500	0		11000	2310	22		316	0.00	20
	3	1	500	500	0		11000	2310	22		316	0.00	20
		2	500	500	0		11000	2310	22		316	0.00	20
	4	1	500	500	0		11000	2310	22		316	0.00	20
		2	500	500	0		11000	2310	22		316	0.00	20

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
08:00-09:00	1	1	5.67	45.33	6.30	0.00	89.40
		2	5.67	45.33	6.30	0.00	89.40
	2	1	6.33	32.71	4.54	0.00	64.51
		2	6.33	32.71	4.54	0.00	64.51
	3	1	6.33	32.71	4.54	0.00	64.51
		2	6.33	32.71	4.54	0.00	64.51
	4	1	5.67	32.71	4.54	0.00	64.51
		2	5.67	32.71	4.54	0.00	64.51

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
08:00-09:00	1	1	12.92	10.00	129.17	0.32	0.00	0.00
		2	12.92	10.00	129.17	0.32	0.00	0.00
	2	1	10.97	10.00	109.72	0.04	0.00	0.00
		2	10.97	10.00	109.72	0.04	0.00	0.00
	3	1	10.97	10.00	109.72	0.04	0.00	0.00
		2	10.97	10.00	109.72	0.04	0.00	0.00
	4	1	10.97	10.00	109.72	0.04	0.00	0.00
		2	10.97	10.00	109.72	0.04	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	1	1	4.00	7.08	0.56	51.00
		2	4.00	7.08	0.56	51.00
	2	1	4.50	5.42	0.83	39.04
		2	4.50	5.42	0.83	39.04
	3	1	4.50	5.42	0.83	39.04
		2	4.50	5.42	0.83	39.04
	4	1	4.00	5.33	0.75	38.38
		2	4.00	5.33	0.75	38.38

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	0.00	0.00	12.92	1.00	0.00	89.40
		2	0.00	0.00	12.92	1.00	0.00	89.40
	2	1	0.00	0.00	10.97	1.00	0.00	64.51
		2	0.00	0.00	10.97	1.00	0.00	64.51
	3	1	0.00	0.00	10.97	1.00	0.00	64.51
		2	0.00	0.00	10.97	1.00	0.00	64.51
	4	1	0.00	0.00	10.97	1.00	0.00	64.51
		2	0.00	0.00	10.97	1.00	0.00	64.51

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
4	15/02/2024 16:36:10	15/02/2024 16:36:10	08:00	100	857.85	59.21	89.60	D/1	0	0	D/1	Dx/1	D/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	90	0	2488	476	28.01	274.85	17.13	291.98

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	65	4000	134	35.87	565.87	565.87

Network Results: Flows and signals

Time Segment	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))
08:00-09:00	6488	6488	0	✓	90		0	610

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	9.03	32.85	52.76	6.45	840.72	21.06	1148.21	218.37	17.13

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))
08:00-09:00	129.17	0.00	111.00	0.00	111.00

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
08:00-09:00	322.24	75.48	4.27

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	0.00	0.00	✓	1.00	0.00	0.00	857.85

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	98.2	99.9	98.3	0.0	0.0	0.0	0.0
	2	97.5	0.0	97.4	95.7	0.0	0.0	0.0	0.0
	3	71.9	70.0	0.0	70.1	0.0	0.0	0.0	0.0
	4	72.8	70.9	72.6	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	51.0	39.0	0.0
	6	0.0	0.0	0.0	0.0	51.0	0.0	0.0	39.0
	7	0.0	0.0	0.0	0.0	39.0	0.0	0.0	38.4
	8	0.0	0.0	0.0	0.0	0.0	39.0	38.4	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (PCU/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Calculated Total Flow (PCU/hr)	Avg journey time (s)
1	1	2	68		98.20		68	98.20
2	1	3	79		99.95		79	99.95
3	1	4	17		98.30		17	98.30
5	2	3	21		97.37		21	97.37
6	2	4	204		95.72		204	95.72
7	2	1	76		97.53		76	97.53
8	3	2	32		69.97		32	69.97
9	3	4	85		70.07		85	70.07
10	3	1	81		71.88		81	71.88
11	4	2	221		70.89		221	70.89
12	4	3	30		72.64		30	72.64
13	4	1	43		72.80		43	72.80
17	8	7		500		38.38	500	38.38
18	8	6		500		39.04	500	39.04
22	5	7		500		39.04	500	39.04
23	5	6		500		51.00	500	51.00
34	6	8		500		39.04	500	39.04
35	6	5		500		51.00	500	51.00
41	7	8		500		38.38	500	38.38
42	7	5		500		39.04	500	39.04

Final Prediction Table

Traffic Stream Results

				SIGNALS		FLOWS		PERFORMANCE				PER PCU			QUEUES
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (PCU)
A	1	(untitled)	1	1	C	258	1982	20	0.00	62	45	54.83	42.83	95.60	6.95
Ax	1	(untitled)				169	Unrestricted	100	33.00	0	Unrestricted	16.88	0.00	0.00	0.00
B	1	(untitled)	1	1	D	382	2082	24	0.00	73	23	55.75	43.75	98.77	10.64
Bx	1	(untitled)				398	Unrestricted	100	29.00	0	Unrestricted	15.24	0.00	0.00	0.00
C	1	(untitled)	1	1	A	213	1996	12	0.00	82	10	83.06	71.06	122.38	7.44
Cx	1	(untitled)				260	Unrestricted	100	22.00	0	Unrestricted	17.05	0.00	0.00	0.00
D	1	(untitled)	1	1	B	391	2078	20	0.00	90	0	80.49	68.49	123.27	13.80
Dx	1	(untitled)				417	Unrestricted	100	27.00	0	Unrestricted	15.14	0.00	0.00	0.00

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	**Side**	**Name**	**Traffic node**	**Controller stream**	**Phase**	**Calculated Flow Entering (Ped/hr)**	**Calculated sat flow (Ped/hr)**	**Actual green (s (per cycle))**	**Degree of saturation (%)**	**Practical reserve capacity (%)**	**JourneyTime (s)**	**Mean Delay per Ped (s)**	**Mean max queue (Ped)**	**Delay weighting (%)**	**Co tra pen (£ p**
1	**1**	(untitled)	1	1	E	500 <	11000	7	65	39	51.00	45.33	12.92 +	100	0
	2	(untitled)	1	1	E	500 <	11000	7	65	39	51.00	45.33	12.92 +	100	0
2	**1**	(untitled)	1	1	C	500 <	11000	20	22	316	39.04	32.71	10.97 +	100	0
	2	(untitled)	1	1	C	500 <	11000	20	22	316	39.04	32.71	10.97 +	100	0
3	**1**	(untitled)	1	1	C	500 <	11000	20	22	316	39.04	32.71	10.97 +	100	0
	2	(untitled)	1	1	C	500 <	11000	20	22	316	39.04	32.71	10.97 +	100	0
4	**1**	(untitled)	1	1	C	500 <	11000	20	22	316	38.38	32.71	10.97 +	100	0
	2	(untitled)	1	1	C	500 <	11000	20	22	316	38.38	32.71	10.97 +	100	0

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	288.24	28.96	9.95	12.91	6.45	274.85	17.13	0.00	291.98
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	34.00	46.52	0.73	39.85	0.00	565.87	0.00	0.00	565.87
TOTAL	322.24	75.48	4.27	52.76	6.45	840.72	17.13	0.00	857.85

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A5 - DO SOMETHING 2025
D5 - DO SOMETHING 2025*

Summary

Data Errors and Warnings

Severity	Area	Item	Description
Info	Traffic Options	Traffic options	Flow scaling factor for Vehicles is not set to 100% (current value: 130)

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
5	15/02/2024 16:36:11	15/02/2024 16:36:11	08:00	100	756.38	52.33	82.25	D/1	0	0	D/1	Dx/1	D/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
DO SOMETHING 2025		D5	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
DO SOMETHING 2025				08:00	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)			100.00	✓	Sum of lanes	1986	✓		Normal	
Ax	1	(untitled)		✓	140.68						Normal	
B	1	(untitled)			100.00	✓	Sum of lanes	2061	✓		Normal	
Bx	1	(untitled)		✓	126.97						Normal	
C	1	(untitled)			100.00	✓	Sum of lanes	1991	✓		Normal	
Cx	1	(untitled)		✓	142.05						Normal	
D	1	(untitled)			100.00	✓	Sum of lanes	2075	✓		Normal	
Dx	1	(untitled)		✓	126.14						Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Surface condition	Site quality factor	Gradient (%)	Width (m)	Use connector turning radius	Proportion that turn (%)	Turning radius (m)	Nearside lane	Saturation flow (PCU/hr)
A	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	56	24.11		1986
Ax	1	1	(untitled)											
B	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	48	33.77		2061
Bx	1	1	(untitled)											
C	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	57	26.44		1991
Cx	1	1	(untitled)											
D	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	36	37.16		2075
Dx	1	1	(untitled)											

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
(ALL)	1	NetworkDefault	100	100	100		0.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	1	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	1	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)
A	1	171	171
Ax	1	113	113
B	1	255	255
Bx	1	251	251
C	1	166	166
Cx	1	229	229
D	1	196	196
Dx	1	195	195

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled
A	1	1	C	
B	1	1	D	
C	1	1	A	
D	1	1	B	

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
(ALL)	1	12.00	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
Ax	1	1	C/1	Ax/1	16.88	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	15.24	30.00	✓	Nearside	24.11
Cx	1	1	A/1	Cx/1	17.05	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	15.14	30.00	✓	Nearside	26.44
Ax	1	2	B/1	Ax/1	16.88	30.00	✓	Offside	33.77
Bx	1	2	D/1	Bx/1	15.24	30.00	✓	Straight	Straight Movement
Cx	1	2	B/1	Cx/1	17.05	30.00	✓	Nearside	35.22
Dx	1	2	A/1	Dx/1	15.14	30.00	✓	Offside	45.74
Ax	1	3	D/1	Ax/1	16.88	30.00	✓	Nearside	37.16
Bx	1	3	C/1	Bx/1	15.24	30.00	✓	Offside	42.22
Cx	1	3	D/1	Cx/1	17.05	30.00	✓	Offside	37.43
Dx	1	3	B/1	Dx/1	15.14	30.00	✓	Straight	Straight Movement

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	7.00	4.67	5.40
2	(untitled)		1		Farside	8.00	5.33	5.40
3	(untitled)		1		Farside	8.00	5.33	5.40
4	(untitled)		1		Farside	7.00	4.67	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
1	1	E	
2	1	C	
3	1	C	
4	1	C	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Signal Timings

Network Default: 100s cycle time; 100 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	(untitled)		1	NetworkDefault	100

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	7	300	0	0	Unknown	
	B	(untitled)	7	300	0	0	Unknown	
	C	(untitled)	7	300	0	0	Unknown	
	D	(untitled)	7	300	0	0	Unknown	
	E	(untitled)	7	300	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	A	1
	2	B	1
	3	C	1
	4	D	1
	5	E	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2, 3, 4, 5	15, 36, 67, 89, 1
	2	(untitled)	Single	1, 2, 3, 5, 4	17, 41, 68, 84, 0
	3	(untitled)	Single	1, 2, 4, 3, 5	19, 45, 64, 82, 0
	4	(untitled)	Single	1, 2, 4, 5, 3	17, 41, 58, 74, 90
	5	(untitled)	Single	1, 2, 5, 3, 4	19, 45, 64, 82, 0
	6	(untitled)	Single	1, 2, 5, 4, 3	17, 41, 58, 74, 90
	7	(untitled)	Single	1, 3, 2, 4, 5	16, 42, 68, 84, 0
	8	(untitled)	Single	1, 3, 2, 5, 4	16, 42, 68, 84, 0
	9	(untitled)	Single	1, 3, 4, 2, 5	18, 46, 64, 82, 0
	10	(untitled)	Single	1, 3, 4, 5, 2	17, 44, 61, 77, 93

Intergreen Matrix for Controller Stream 1

	To					
		A	B	C	D	E
From	A		7	10		
	B	7		10		
	C	10	10			
	D					
	E					

Banned Stage transitions for Controller Stream 1

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

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	7	10	0	0
	2	7	0	10	0	0
	3	10	10	0	0	0
	4	0	0	0	0	0
	5	0	0	0	0	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	A	1	15	14	1	7
	2	✓	2	B	22	36	14	1	7
	3	✓	3	C	46	67	21	1	7
	4	✓	4	D	67	89	22	1	7
	5	✓	5	E	89	1	12	1	7

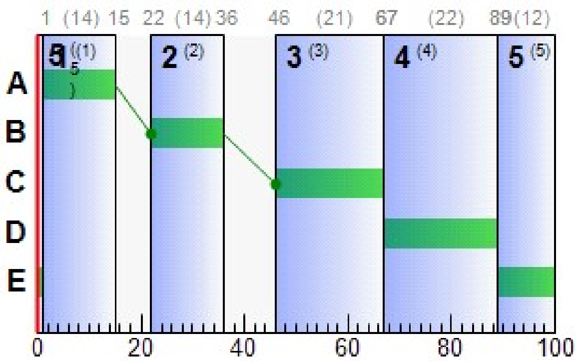
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	1	15	14
	B	1	✓	22	36	14
	C	1	✓	46	67	21
	D	1	✓	67	89	22
	E	1	✓	89	1	12

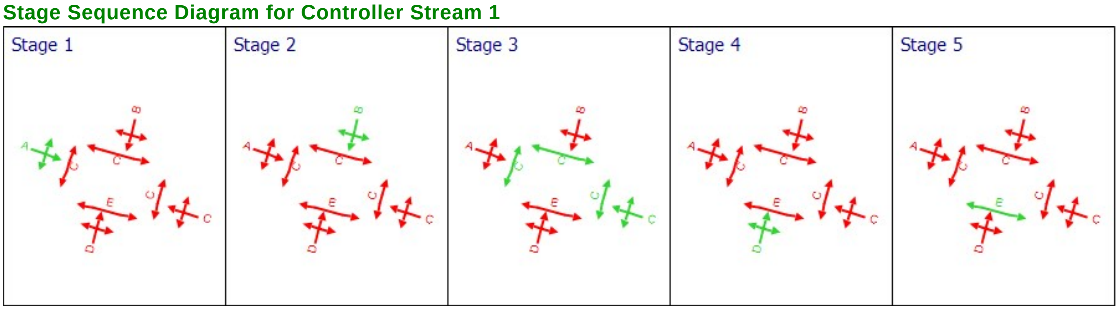
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	C	46	67	21
B	1	1	1	D	67	89	22
C	1	1	1	A	1	15	14
D	1	1	1	B	22	36	14

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
08:00-09:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	51	77	222	1986	21	38.48	5.63	32.35	33.70	2.50	36.20
	Ax	1	0	Unrestricted	148	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	70	29	332	2061	22	44.03	9.19	52.86	57.67	4.09	61.75
	Bx	1	0	Unrestricted	327	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	73	24	217	1991	14	55.95	6.65	38.26	47.89	2.95	50.84
	Cx	1	0	Unrestricted	298	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	82	9	256	2075	14	65.73	8.57	49.28	66.38	3.78	70.16
	Dx	1	0	Unrestricted	254	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Calculated sat flow (PCU/hr)	Calculated capacity (PCU/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	A	1	222	222	0		1986	437	51		77	0.00	21
	Ax	1	148	148	-1		Unrestricted	Unrestricted	0		Unrestricted	0.84	100
	B	1	332	332	-1		2061	474	70		29	0.00	22
	Bx	1	327	327	-1		Unrestricted	Unrestricted	0		Unrestricted	0.83	100
	C	1	217	217	-1		1991	299	73		24	0.00	14
	Cx	1	298	298	0		Unrestricted	Unrestricted	0		Unrestricted	0.71	100
	D	1	256	256	-1		2075	311	82		9	0.00	14
	Dx	1	254	254	-1		Unrestricted	Unrestricted	0		Unrestricted	0.90	100

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	A	1	12.00	38.48	2.11	0.26	33.70	89.97	190.45	9.28	2.50
	Ax	1	16.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	12.00	44.03	3.26	0.80	57.67	98.21	297.81	28.24	4.09
	Bx	1	15.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	12.00	55.95	2.44	0.93	47.89	108.46	203.21	32.15	2.95
	Cx	1	17.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	12.00	65.73	2.93	1.74	66.38	117.88	242.68	59.08	3.78
	Dx	1	15.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (PCU)	Mean max queue (PCU)	Max queue storage (PCU)	Utilised storage (%)	Average storage excess queue (PCU)	Average limit excess queue (PCU)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
08:00-09:00	A	1	0.00	5.63	17.39	32.35	0.00	0.00	0.00	0.00	0.00	0.00	
	Ax	1	0.00	0.00	24.47	0.00	0.00	0.00	0.00	40.00	0.00	40.00	
	B	1	0.00	9.19	17.39	52.86	0.00	0.00	0.00	0.00	0.00	0.00	
	Bx	1	0.00	0.00	22.08	0.00	0.00	0.00	0.00	29.00	0.00	29.00	
	C	1	0.00	6.65	17.39	38.26	0.00	0.00	0.00	0.00	0.00	0.00	
	Cx	1	0.00	0.00	24.70	0.00	0.00	0.00	0.00	26.00	0.00	26.00	
	D	1	0.00	8.57	17.39	49.28	0.00	0.00	0.00	0.00	0.00	0.00	
	Dx	1	0.00	0.00	21.94	0.00	0.00	0.00	0.00	34.00	0.00	34.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	A	1	22.20	3.11	7.13	50.48
	Ax	1	20.82	0.69	30.00	16.88
	B	1	33.20	5.17	6.42	56.03
	Bx	1	41.52	1.38	30.00	15.24
	C	1	21.70	4.10	5.30	67.95
	Cx	1	42.33	1.41	30.00	17.05
	D	1	25.60	5.53	4.63	77.73
	Dx	1	32.04	1.07	30.00	15.14

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (PCU)	Max End of Green Queue EoTS (PCU)	Max End of Red Queue EoTS (PCU)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	0.00	0.00	✓	5.63	0.26	5.07	1.00	0.00	36.20
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	9.20	0.81	7.91	1.00	0.00	61.75
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	6.67	0.95	6.07	1.00	0.00	50.84
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	1	0.00	0.00	✓	8.65	1.82	7.86	1.00	0.00	70.16
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	38	500	11000	12	40.58	12.22	80.03	80.03
		2	38	500	11000	12	40.58	12.22	80.03	80.03
	2	1	21	500	11000	21	31.89	10.83	62.89	62.89
		2	21	500	11000	21	31.89	10.83	62.89	62.89
	3	1	21	500	11000	21	31.89	10.83	62.89	62.89
		2	21	500	11000	21	31.89	10.83	62.89	62.89
	4	1	21	500	11000	21	31.89	10.83	62.89	62.89
		2	21	500	11000	21	31.89	10.83	62.89	62.89

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	1	1	500	500	0		11000	1320	38		138	0.00	12
		2	500	500	0		11000	1320	38		138	0.00	12
	2	1	500	500	0		11000	2420	21		336	0.00	21
		2	500	500	0		11000	2420	21		336	0.00	21
	3	1	500	500	0		11000	2420	21		336	0.00	21
		2	500	500	0		11000	2420	21		336	0.00	21
	4	1	500	500	0		11000	2420	21		336	0.00	21
		2	500	500	0		11000	2420	21		336	0.00	21

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
08:00-09:00	1	1	5.67	40.58	5.64	0.00	80.03
		2	5.67	40.58	5.64	0.00	80.03
	2	1	6.33	31.89	4.43	0.00	62.89
		2	6.33	31.89	4.43	0.00	62.89
	3	1	6.33	31.89	4.43	0.00	62.89
		2	6.33	31.89	4.43	0.00	62.89
	4	1	5.67	31.89	4.43	0.00	62.89
		2	5.67	31.89	4.43	0.00	62.89

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
08:00-09:00	1	1	12.22	10.00	122.22	0.19	0.00	0.00
		2	12.22	10.00	122.22	0.19	0.00	0.00
	2	1	10.83	10.00	108.33	0.03	0.00	0.00
		2	10.83	10.00	108.33	0.03	0.00	0.00
	3	1	10.83	10.00	108.33	0.03	0.00	0.00
		2	10.83	10.00	108.33	0.03	0.00	0.00
	4	1	10.83	10.00	108.33	0.03	0.00	0.00
		2	10.83	10.00	108.33	0.03	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	1	1	4.00	6.42	0.62	46.25
		2	4.00	6.42	0.62	46.25
	2	1	4.50	5.31	0.85	38.22
		2	4.50	5.31	0.85	38.22
	3	1	4.50	5.31	0.85	38.22
		2	4.50	5.31	0.85	38.22
	4	1	4.00	5.22	0.77	37.56
		2	4.00	5.22	0.77	37.56

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	0.00	0.00	12.22	1.00	0.00	80.03
		2	0.00	0.00	12.22	1.00	0.00	80.03
	2	1	0.00	0.00	10.83	1.00	0.00	62.89
		2	0.00	0.00	10.83	1.00	0.00	62.89
	3	1	0.00	0.00	10.83	1.00	0.00	62.89
		2	0.00	0.00	10.83	1.00	0.00	62.89
	4	1	0.00	0.00	10.83	1.00	0.00	62.89
		2	0.00	0.00	10.83	1.00	0.00	62.89

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
5	15/02/2024 16:36:11	15/02/2024 16:36:11	08:00	100	756.38	52.33	82.25	D/1	0	0	D/1	Dx/1	D/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	82	0	2054	471	25.38	205.63	13.33	218.95

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	38	4000	150	34.06	537.43	537.43

Network Results: Flows and signals

Time Segment	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))
08:00-09:00	6054	6054	-5		82		9	621

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	8.71	31.12	48.59	3.73	743.06	17.56	934.15	128.76	13.33

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))
08:00-09:00	122.22	0.00	129.00	0.00	129.00

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
08:00-09:00	273.41	66.97	4.08

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	0.00	0.00	✓	1.00	0.00	0.00	756.38

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	83.1	84.8	83.2	0.0	0.0	0.0	0.0
	2	94.8	0.0	94.6	93.0	0.0	0.0	0.0	0.0
	3	67.5	65.6	0.0	65.7	0.0	0.0	0.0	0.0
	4	73.1	71.2	72.9	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	46.2	38.2	0.0
	6	0.0	0.0	0.0	0.0	46.2	0.0	0.0	38.2
	7	0.0	0.0	0.0	0.0	38.2	0.0	0.0	37.6
	8	0.0	0.0	0.0	0.0	0.0	38.2	37.6	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (PCU/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Calculated Total Flow (PCU/hr)	Avg journey time (s)
1	1	2	42		83.09		42	83.09
2	1	3	72		84.83		72	84.83
3	1	4	52		83.19		52	83.19
5	2	3	15		94.61		15	94.61
6	2	4	125		92.97		125	92.97
7	2	1	56		94.78		56	94.78
8	3	2	21		65.62		21	65.62
9	3	4	74		65.72		74	65.72
10	3	1	76		67.53		76	67.53
11	4	2	132		71.17		132	71.17
12	4	3	26		72.92		26	72.92
13	4	1	97		73.08		97	73.08
17	8	7		500		37.56	500	37.56
18	8	6		500		38.22	500	38.22
22	5	7		500		38.22	500	38.22
23	5	6		500		46.25	500	46.25
34	6	8		500		38.22	500	38.22
35	6	5		500		46.25	500	46.25
41	7	8		500		37.56	500	37.56
42	7	5		500		38.22	500	38.22

Final Prediction Table

Traffic Stream Results

			SIGNALS			FLOWS		PERFORMANCE				PER PCU			QUEUES
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (PCU)
A	1	(untitled)	1	1	C	222	1986	21	0.00	51	77	50.48	38.48	89.97	5.63
Ax	1	(untitled)				148	Unrestricted	100	40.00	0	Unrestricted	16.88	0.00	0.00	0.00
B	1	(untitled)	1	1	D	332	2061	22	0.00	70	29	56.03	44.03	98.21	9.19
Bx	1	(untitled)				327	Unrestricted	100	29.00	0	Unrestricted	15.24	0.00	0.00	0.00
C	1	(untitled)	1	1	A	217	1991	14	0.00	73	24	67.95	55.95	108.46	6.65
Cx	1	(untitled)				298	Unrestricted	100	26.00	0	Unrestricted	17.05	0.00	0.00	0.00
D	1	(untitled)	1	1	B	256	2075	14	0.00	82	9	77.73	65.73	117.88	8.57
Dx	1	(untitled)				254	Unrestricted	100	34.00	0	Unrestricted	15.14	0.00	0.00	0.00

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	**Side**	**Name**	**Traffic node**	**Controller stream**	**Phase**	**Calculated Flow Entering (Ped/hr)**	**Calculated sat flow (Ped/hr)**	**Actual green (s (per cycle))**	**Degree of saturation (%)**	**Practical reserve capacity (%)**	**JourneyTime (s)**	**Mean Delay per Ped (s)**	**Mean max queue (Ped)**	**Delay weighting (%)**	**Co tra pen (£ p**
1	**1**	(untitled)	1	1	E	500 <	11000	12	38	138	46.25	40.58	12.22 +	100	0
	2	(untitled)	1	1	E	500 <	11000	12	38	138	46.25	40.58	12.22 +	100	0
2	**1**	(untitled)	1	1	C	500 <	11000	21	21	336	38.22	31.89	10.83 +	100	0
	2	(untitled)	1	1	C	500 <	11000	21	21	336	38.22	31.89	10.83 +	100	0
3	**1**	(untitled)	1	1	C	500 <	11000	21	21	336	38.22	31.89	10.83 +	100	0
	2	(untitled)	1	1	C	500 <	11000	21	21	336	38.22	31.89	10.83 +	100	0
4	**1**	(untitled)	1	1	C	500 <	11000	21	21	336	37.56	31.89	10.83 +	100	0
	2	(untitled)	1	1	C	500 <	11000	21	21	336	37.56	31.89	10.83 +	100	0

Network Results

	Distance travelled (PCU-km/hr)	**Time spent (PCU-hr/hr)**	**Mean journey speed (kph)**	**Uniform delay (PCU-hr/hr)**	**Random plus oversat delay (PCU-hr/hr)**	**Weighted cost of delay (£ per hr)**	**Weighted cost of stops (£ per hr)**	**Excess queue penalty (£ per hr)**	**Performance Index (£ per hr)**
Normal traffic	239.41	22.46	10.66	10.75	3.73	205.63	13.33	0.00	218.95
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	34.00	44.51	0.76	37.85	0.00	537.43	0.00	0.00	537.43
TOTAL	273.41	66.97	4.08	48.59	3.73	743.06	13.33	0.00	756.38

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A6 - DO SOMETHING 2030
D6 - DO SOMETHING 2030*

Summary

Data Errors and Warnings

Severity	Area	Item	Description
Info	Traffic Options	Traffic options	Flow scaling factor for Vehicles is not set to 100% (current value: 130)

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
6	15/02/2024 16:36:12	15/02/2024 16:36:13	08:00	100	872.91	60.24	87.19	D/1	0	0	D/1	Dx/1	D/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
DO SOMETHING 2030		D6	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
DO SOMETHING 2030				08:00	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)			100.00	✓	Sum of lanes	1985	✓		Normal	
Ax	1	(untitled)		✓	140.68						Normal	
B	1	(untitled)			100.00	✓	Sum of lanes	2067	✓		Normal	
Bx	1	(untitled)		✓	126.97						Normal	
C	1	(untitled)			100.00	✓	Sum of lanes	1987	✓		Normal	
Cx	1	(untitled)		✓	142.05						Normal	
D	1	(untitled)			100.00	✓	Sum of lanes	2076	✓		Normal	
Dx	1	(untitled)		✓	126.14						Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Surface condition	Site quality factor	Gradient (%)	Width (m)	Use connector turning radius	Proportion that turn (%)	Turning radius (m)	Nearside lane	Saturation flow (PCU/hr)
A	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	57	24.11		1985
Ax	1	1	(untitled)											
B	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	41	33.77		2067
Bx	1	1	(untitled)											
C	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	60	26.44		1987
Cx	1	1	(untitled)											
D	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	35	37.16		2076
Dx	1	1	(untitled)											

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
(ALL)	1	NetworkDefault	100	100	100		0.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	1	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	1	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)
A	1	192	192
Ax	1	126	126
B	1	310	310
Bx	1	316	316
C	1	196	196
Cx	1	258	258
D	1	278	278
Dx	1	276	276

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled
A	1	1	C	
B	1	1	D	
C	1	1	A	
D	1	1	B	

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
(ALL)	1	12.00	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
Ax	1	1	C/1	Ax/1	16.88	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	15.24	30.00	✓	Nearside	24.11
Cx	1	1	A/1	Cx/1	17.05	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	15.14	30.00	✓	Nearside	26.44
Ax	1	2	B/1	Ax/1	16.88	30.00	✓	Offside	33.77
Bx	1	2	D/1	Bx/1	15.24	30.00	✓	Straight	Straight Movement
Cx	1	2	B/1	Cx/1	17.05	30.00	✓	Nearside	35.22
Dx	1	2	A/1	Dx/1	15.14	30.00	✓	Offside	45.74
Ax	1	3	D/1	Ax/1	16.88	30.00	✓	Nearside	37.16
Bx	1	3	C/1	Bx/1	15.24	30.00	✓	Offside	42.22
Cx	1	3	D/1	Cx/1	17.05	30.00	✓	Offside	37.43
Dx	1	3	B/1	Dx/1	15.14	30.00	✓	Straight	Straight Movement

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	7.00	4.67	5.40
2	(untitled)		1		Farside	8.00	5.33	5.40
3	(untitled)		1		Farside	8.00	5.33	5.40
4	(untitled)		1		Farside	7.00	4.67	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
1	1	E	
2	1	C	
3	1	C	
4	1	C	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Signal Timings

Network Default: 100s cycle time; 100 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	(untitled)		1	NetworkDefault	100

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	7	300	0	0	Unknown	
	B	(untitled)	7	300	0	0	Unknown	
	C	(untitled)	7	300	0	0	Unknown	
	D	(untitled)	7	300	0	0	Unknown	
	E	(untitled)	7	300	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	A	1
	2	B	1
	3	C	1
	4	D	1
	5	E	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2, 3, 4, 5	10, 36, 65, 88, 95
	2	(untitled)	Single	1, 2, 3, 5, 4	17, 41, 68, 84, 0
	3	(untitled)	Single	1, 2, 4, 3, 5	19, 45, 64, 82, 0
	4	(untitled)	Single	1, 2, 4, 5, 3	17, 41, 58, 74, 90
	5	(untitled)	Single	1, 2, 5, 3, 4	19, 45, 64, 82, 0
	6	(untitled)	Single	1, 2, 5, 4, 3	17, 41, 58, 74, 90
	7	(untitled)	Single	1, 3, 2, 4, 5	16, 42, 68, 84, 0
	8	(untitled)	Single	1, 3, 2, 5, 4	16, 42, 68, 84, 0
	9	(untitled)	Single	1, 3, 4, 2, 5	18, 46, 64, 82, 0
	10	(untitled)	Single	1, 3, 4, 5, 2	17, 44, 61, 77, 93

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A		7	10		
	B	7		10		
	C	10	10			
	D					
	E					

Banned Stage transitions for Controller Stream 1

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

Interstage Matrix for Controller Stream 1

		To				
		1	2	3	4	5
From	1	0	7	10	0	0
	2	7	0	10	0	0
	3	10	10	0	0	0
	4	0	0	0	0	0
	5	0	0	0	0	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	A	95	10	15	1	7
	2	✓	2	B	17	36	19	1	7
	3	✓	3	C	46	65	19	1	7
	4	✓	4	D	65	88	23	1	7
	5	✓	5	E	88	95	7	1	7

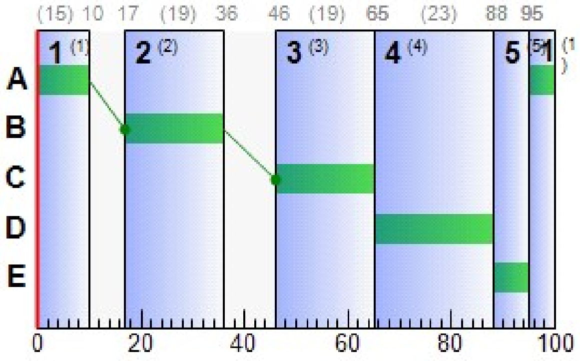
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	A	1	✓	95	10	15
	B	1	✓	17	36	19
	C	1	✓	46	65	19
	D	1	✓	65	88	23
	E	1	✓	88	95	7

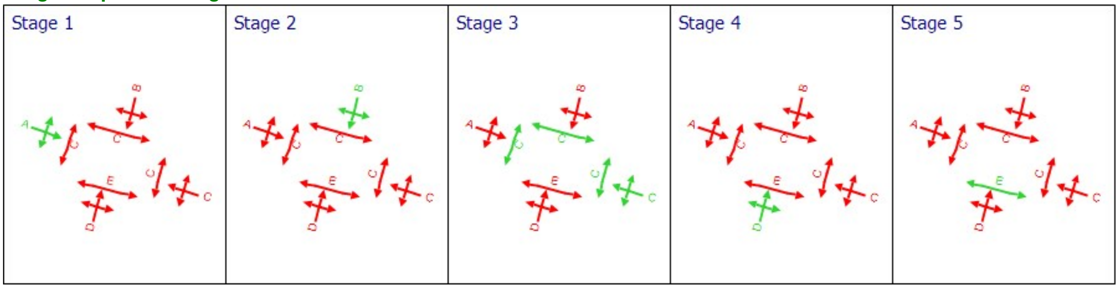
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	1	1	1	C	46	65	19
B	1	1	1	D	65	88	23
C	1	1	1	A	95	10	15
D	1	1	1	B	17	36	19

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
08:00-09:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	63	43	250	1985	19	44.21	6.85	39.37	43.60	3.04	46.64
	Ax	1	0	Unrestricted	164	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	81	11	404	2067	23	51.00	12.24	70.40	81.27	5.42	86.69
	Bx	1	0	Unrestricted	411	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	80	12	255	1987	15	61.86	8.31	47.81	62.22	3.67	65.89
	Cx	1	0	Unrestricted	336	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	87	3	362	2076	19	64.84	12.28	70.59	92.58	5.41	97.99
	Dx	1	0	Unrestricted	360	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Calculated sat flow (PCU/hr)	Calculated capacity (PCU/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	A	1	250	250	0		1985	397	63		43	0.00	19
	Ax	1	164	164	0		Unrestricted	Unrestricted	0		Unrestricted	0.76	100
	B	1	404	404	-1		2067	496	81		11	0.00	23
	Bx	1	411	411	0		Unrestricted	Unrestricted	0		Unrestricted	0.77	100
	C	1	255	255	0	✓	1987	318	80		12	0.00	15
	Cx	1	336	336	-1		Unrestricted	Unrestricted	0		Unrestricted	0.62	100
	D	1	362	362	-1		2076	415	87		3	0.00	19
	Dx	1	360	360	-1	✓	Unrestricted	Unrestricted	0		Unrestricted	0.86	100

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	A	1	12.00	44.21	2.54	0.53	43.60	97.12	224.19	18.62	3.04
	Ax	1	16.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	12.00	51.00	4.03	1.69	81.27	107.02	373.60	58.75	5.42
	Bx	1	15.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	12.00	61.86	2.87	1.51	62.22	114.85	241.18	51.70	3.67
	Cx	1	17.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	12.00	64.84	3.90	2.62	92.58	119.16	342.85	88.51	5.41
	Dx	1	15.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (PCU)	Mean max queue (PCU)	Max queue storage (PCU)	Utilised storage (%)	Average storage excess queue (PCU)	Average limit excess queue (PCU)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
08:00-09:00	A	1	0.00	6.85	17.39	39.37	0.00	0.00	0.00	0.00	0.00	0.00	
	Ax	1	0.00	0.00	24.47	0.00	0.00	0.00	0.00	31.00	0.00	31.00	
	B	1	0.00	12.24	17.39	70.40	0.00	0.00	0.00	0.00	0.00	0.00	
	Bx	1	0.00	0.00	22.08	0.00	0.00	0.00	0.00	23.00	0.00	23.00	
	C	1	0.00	8.31	17.39	47.81	0.00	0.00	0.00	0.00	0.00	0.00	
	Cx	1	0.00	0.00	24.70	0.00	0.00	0.00	0.00	20.00	0.00	20.00	
	D	1	0.00	12.28	17.39	70.59	0.00	0.00	0.00	0.00	0.00	0.00	
	Dx	1	0.00	0.00	21.94	0.00	0.00	0.00	0.00	28.00	0.00	28.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	A	1	25.00	3.90	6.40	56.21
	Ax	1	23.07	0.77	30.00	16.88
	B	1	40.40	7.07	5.71	63.00
	Bx	1	52.18	1.74	30.00	15.24
	C	1	25.50	5.23	4.87	73.86
	Cx	1	47.73	1.59	30.00	17.05
	D	1	36.20	7.73	4.69	76.84
	Dx	1	45.41	1.51	30.00	15.14

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (PCU)	Max End of Green Queue EoTS (PCU)	Max End of Red Queue EoTS (PCU)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	0.00	0.00	✓	6.85	0.53	6.09	1.00	0.00	46.64
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	12.29	1.74	10.27	1.00	0.00	86.69
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	8.37	1.57	7.52	1.00	0.00	65.89
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	1	0.00	0.00	✓	12.43	2.78	10.82	1.00	0.00	97.99
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	65	500	11000	7	45.33	12.92	89.40	89.40
		2	65	500	11000	7	45.33	12.92	89.40	89.40
	2	1	23	500	11000	19	33.54	11.11	66.15	66.15
		2	23	500	11000	19	33.54	11.11	66.15	66.15
	3	1	23	500	11000	19	33.54	11.11	66.15	66.15
		2	23	500	11000	19	33.54	11.11	66.15	66.15
	4	1	23	500	11000	19	33.54	11.11	66.15	66.15
		2	23	500	11000	19	33.54	11.11	66.15	66.15

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	1	1	500	500	0		11000	770	65		39	0.00	7
		2	500	500	0		11000	770	65		39	0.00	7
	2	1	500	500	0		11000	2200	23		296	0.00	19
		2	500	500	0		11000	2200	23		296	0.00	19
	3	1	500	500	0		11000	2200	23		296	0.00	19
		2	500	500	0		11000	2200	23		296	0.00	19
	4	1	500	500	0		11000	2200	23		296	0.00	19
		2	500	500	0		11000	2200	23		296	0.00	19

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
08:00-09:00	1	1	5.67	45.33	6.30	0.00	89.40
		2	5.67	45.33	6.30	0.00	89.40
	2	1	6.33	33.54	4.66	0.00	66.15
		2	6.33	33.54	4.66	0.00	66.15
	3	1	6.33	33.54	4.66	0.00	66.15
		2	6.33	33.54	4.66	0.00	66.15
	4	1	5.67	33.54	4.66	0.00	66.15
		2	5.67	33.54	4.66	0.00	66.15

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
08:00-09:00	1	1	12.92	10.00	129.17	0.32	0.00	0.00
		2	12.92	10.00	129.17	0.32	0.00	0.00
	2	1	11.11	10.00	111.11	0.05	0.00	0.00
		2	11.11	10.00	111.11	0.05	0.00	0.00
	3	1	11.11	10.00	111.11	0.05	0.00	0.00
		2	11.11	10.00	111.11	0.05	0.00	0.00
	4	1	11.11	10.00	111.11	0.05	0.00	0.00
		2	11.11	10.00	111.11	0.05	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	1	1	4.00	7.08	0.56	51.00
		2	4.00	7.08	0.56	51.00
	2	1	4.50	5.54	0.81	39.87
		2	4.50	5.54	0.81	39.87
	3	1	4.50	5.54	0.81	39.87
		2	4.50	5.54	0.81	39.87
	4	1	4.00	5.45	0.73	39.21
		2	4.00	5.45	0.73	39.21

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	0.00	0.00	12.92	1.00	0.00	89.40
		2	0.00	0.00	12.92	1.00	0.00	89.40
	2	1	0.00	0.00	11.11	1.00	0.00	66.15
		2	0.00	0.00	11.11	1.00	0.00	66.15
	3	1	0.00	0.00	11.11	1.00	0.00	66.15
		2	0.00	0.00	11.11	1.00	0.00	66.15
	4	1	0.00	0.00	11.11	1.00	0.00	66.15
		2	0.00	0.00	11.11	1.00	0.00	66.15

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
6	15/02/2024 16:36:12	15/02/2024 16:36:13	08:00	100	872.91	60.24	87.19	D/1	0	0	D/1	Dx/1	D/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	87	0	2542	476	27.89	279.67	17.55	297.22

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	65	4000	128	36.49	575.69	575.69

Network Results: Flows and signals

Time Segment	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))
08:00-09:00	6542	6542	-4	✓	87		3	604

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	9.09	33.15	53.88	6.36	855.36	21.39	1181.81	217.58	17.55

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))
08:00-09:00	129.17	0.00	102.00	0.00	102.00

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
08:00-09:00	329.49	76.75	4.29

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	0.00	0.00	✓	1.00	0.00	0.00	872.91

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	89.0	90.7	89.1	0.0	0.0	0.0	0.0
	2	93.9	0.0	93.7	92.1	0.0	0.0	0.0	0.0
	3	73.3	71.3	0.0	71.4	0.0	0.0	0.0	0.0
	4	80.0	78.1	79.9	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	51.0	39.9	0.0
	6	0.0	0.0	0.0	0.0	51.0	0.0	0.0	39.9
	7	0.0	0.0	0.0	0.0	39.9	0.0	0.0	39.2
	8	0.0	0.0	0.0	0.0	0.0	39.9	39.2	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (PCU/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Calculated Total Flow (PCU/hr)	Avg journey time (s)
1	1	2	65		88.99		65	88.99
2	1	3	78		90.74		78	90.74
3	1	4	53		89.09		53	89.09
5	2	3	19		93.72		19	93.72
6	2	4	182		92.08		182	92.08
7	2	1	77		93.89		77	93.89
8	3	2	29		71.35		29	71.35
9	3	4	81		71.45		81	71.45
10	3	1	82		73.26		82	73.26
11	4	2	182		78.14		182	78.14
12	4	3	29		79.88		29	79.88
13	4	1	99		80.05		99	80.05
17	8	7		500		39.21	500	39.21
18	8	6		500		39.87	500	39.87
22	5	7		500		39.87	500	39.87
23	5	6		500		51.00	500	51.00
34	6	8		500		39.87	500	39.87
35	6	5		500		51.00	500	51.00
41	7	8		500		39.21	500	39.21
42	7	5		500		39.87	500	39.87

Final Prediction Table

Traffic Stream Results

			SIGNALS			FLOWS		PERFORMANCE				PER PCU			QUEUES
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (PCU)
A	1	(untitled)	1	1	C	250	1985	19	0.00	63	43	56.21	44.21	97.12	6.85
Ax	1	(untitled)				164	Unrestricted	100	31.00	0	Unrestricted	16.88	0.00	0.00	0.00
B	1	(untitled)	1	1	D	404	2067	23	0.00	81	11	63.00	51.00	107.02	12.24
Bx	1	(untitled)				411	Unrestricted	100	23.00	0	Unrestricted	15.24	0.00	0.00	0.00
C	1	(untitled)	1	1	A	255	1987	15	0.00	80	12	73.86	61.86	114.85	8.31
Cx	1	(untitled)				336	Unrestricted	100	20.00	0	Unrestricted	17.05	0.00	0.00	0.00
D	1	(untitled)	1	1	B	362	2076	19	0.00	87	3	76.84	64.84	119.16	12.28
Dx	1	(untitled)				360	Unrestricted	100	28.00	0	Unrestricted	15.14	0.00	0.00	0.00

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	**Side**	**Name**	**Traffic node**	**Controller stream**	**Phase**	**Calculated Flow Entering (Ped/hr)**	**Calculated sat flow (Ped/hr)**	**Actual green (s (per cycle))**	**Degree of saturation (%)**	**Practical reserve capacity (%)**	**JourneyTime (s)**	**Mean Delay per Ped (s)**	**Mean max queue (Ped)**	**Delay weighting (%)**	**Co tra pen (£ p**
1	**1**	(untitled)	1	1	E	500 <	11000	7	65	39	51.00	45.33	12.92 +	100	0
	2	(untitled)	1	1	E	500 <	11000	7	65	39	51.00	45.33	12.92 +	100	0
2	**1**	(untitled)	1	1	C	500 <	11000	19	23	296	39.87	33.54	11.11 +	100	0
	2	(untitled)	1	1	C	500 <	11000	19	23	296	39.87	33.54	11.11 +	100	0
3	**1**	(untitled)	1	1	C	500 <	11000	19	23	296	39.87	33.54	11.11 +	100	0
	2	(untitled)	1	1	C	500 <	11000	19	23	296	39.87	33.54	11.11 +	100	0
4	**1**	(untitled)	1	1	C	500 <	11000	19	23	296	39.21	33.54	11.11 +	100	0
	2	(untitled)	1	1	C	500 <	11000	19	23	296	39.21	33.54	11.11 +	100	0

Network Results

	Distance travelled (PCU-km/hr)	**Time spent (PCU-hr/hr)**	**Mean journey speed (kph)**	**Uniform delay (PCU-hr/hr)**	**Random plus oversat delay (PCU-hr/hr)**	**Weighted cost of delay (£ per hr)**	**Weighted cost of stops (£ per hr)**	**Excess queue penalty (£ per hr)**	**Performance Index (£ per hr)**
Normal traffic	295.49	29.54	10.00	13.34	6.36	279.67	17.55	0.00	297.22
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	34.00	47.21	0.72	40.54	0.00	575.69	0.00	0.00	575.69
TOTAL	329.49	76.75	4.29	53.88	6.36	855.36	17.55	0.00	872.91

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

A7 - DO SOMETHING 2040
D7 - DO SOMETHING 2040*

Summary

Data Errors and Warnings

Severity	Area	Item	Description
Info	Traffic Options	Traffic options	Flow scaling factor for Vehicles is not set to 100% (current value: 130)

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
7	15/02/2024 16:36:13	15/02/2024 16:36:14	08:00	100	902.82	62.24	90.27	D/1	1	6	D/1	Dx/1	D/

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
DO SOMETHING 2040		D7	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
DO SOMETHING 2040				08:00	

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
A	(untitled)		1
Ax	(untitled)		
B	(untitled)		1
Bx	(untitled)		
C	(untitled)		1
Cx	(untitled)		
D	(untitled)		1
Dx	(untitled)		

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
A	1	(untitled)			100.00	✓	Sum of lanes	1985	✓		Normal	
Ax	1	(untitled)		✓	140.68						Normal	
B	1	(untitled)			100.00	✓	Sum of lanes	2067	✓		Normal	
Bx	1	(untitled)		✓	126.97						Normal	
C	1	(untitled)			100.00	✓	Sum of lanes	1988	✓		Normal	
Cx	1	(untitled)		✓	142.05						Normal	
D	1	(untitled)			100.00	✓	Sum of lanes	2077	✓		Normal	
Dx	1	(untitled)		✓	126.14						Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Surface condition	Site quality factor	Gradient (%)	Width (m)	Use connector turning radius	Proportion that turn (%)	Turning radius (m)	Nearside lane	Saturation flow (PCU/hr)
A	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	57	24.11		1985
Ax	1	1	(untitled)											
B	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	41	33.77		2067
Bx	1	1	(untitled)											
C	1	1	(untitled)		✓	N/A	N/A	0	3.00	✓	59	26.44		1988
Cx	1	1	(untitled)											
D	1	1	(untitled)		✓	N/A	N/A	0	3.50	✓	34	37.16		2077
Dx	1	1	(untitled)											

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
(ALL)	1	NetworkDefault	100	100	100		0.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	1	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	100

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	1	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	1	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)
A	1	201	201
Ax	1	132	132
B	1	319	319
Bx	1	327	327
C	1	202	202
Cx	1	265	265
D	1	288	288
Dx	1	286	286

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled
A	1	1	C	
B	1	1	D	
C	1	1	A	
D	1	1	B	

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)
(ALL)	1	12.00	30.00

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (kph)	Auto turning radius	Traffic turn style	Turning radius (m)
Ax	1	1	C/1	Ax/1	16.88	30.00	✓	Straight	Straight Movement
Bx	1	1	A/1	Bx/1	15.24	30.00	✓	Nearside	24.11
Cx	1	1	A/1	Cx/1	17.05	30.00	✓	Straight	Straight Movement
Dx	1	1	C/1	Dx/1	15.14	30.00	✓	Nearside	26.44
Ax	1	2	B/1	Ax/1	16.88	30.00	✓	Offside	33.77
Bx	1	2	D/1	Bx/1	15.24	30.00	✓	Straight	Straight Movement
Cx	1	2	B/1	Cx/1	17.05	30.00	✓	Nearside	35.22
Dx	1	2	A/1	Dx/1	15.14	30.00	✓	Offside	45.74
Ax	1	3	D/1	Ax/1	16.88	30.00	✓	Nearside	37.16
Bx	1	3	C/1	Bx/1	15.24	30.00	✓	Offside	42.22
Cx	1	3	D/1	Cx/1	17.05	30.00	✓	Offside	37.43
Dx	1	3	B/1	Dx/1	15.14	30.00	✓	Straight	Straight Movement

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (kph)
1	(untitled)		1		Farside	7.00	4.67	5.40
2	(untitled)		1		Farside	8.00	5.33	5.40
3	(untitled)		1		Farside	8.00	5.33	5.40
4	(untitled)		1		Farside	7.00	4.67	5.40

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
1	1	E	
2	1	C	
3	1	C	
4	1	C	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

Signal Timings

Network Default: 100s cycle time; 100 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	(untitled)		1	NetworkDefault	100

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Relative

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
1	A	(untitled)	7	300	0	0	Unknown	
	B	(untitled)	7	300	0	0	Unknown	
	C	(untitled)	7	300	0	0	Unknown	
	D	(untitled)	7	300	0	0	Unknown	
	E	(untitled)	7	300	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	A	1
	2	B	1
	3	C	1
	4	D	1
	5	E	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2, 3, 4, 5	11, 37, 67, 89, 96
	2	(untitled)	Single	1, 2, 3, 5, 4	17, 41, 68, 84, 0
	3	(untitled)	Single	1, 2, 4, 3, 5	19, 45, 64, 82, 0
	4	(untitled)	Single	1, 2, 4, 5, 3	17, 41, 58, 74, 90
	5	(untitled)	Single	1, 2, 5, 3, 4	19, 45, 64, 82, 0
	6	(untitled)	Single	1, 2, 5, 4, 3	17, 41, 58, 74, 90
	7	(untitled)	Single	1, 3, 2, 4, 5	16, 42, 68, 84, 0
	8	(untitled)	Single	1, 3, 2, 5, 4	16, 42, 68, 84, 0
	9	(untitled)	Single	1, 3, 4, 2, 5	18, 46, 64, 82, 0
	10	(untitled)	Single	1, 3, 4, 5, 2	17, 44, 61, 77, 93

Intergreen Matrix for Controller Stream 1

		To				
		A	B	C	D	E
From	A		7	10		
	B	7		10		
	C	10	10			
	D					
	E					

Banned Stage transitions for Controller Stream 1

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

Interstage Matrix for Controller Stream 1

		To				
		1	**2**	**3**	**4**	**5**
From	**1**	0	7	10	0	0
	2	7	0	10	0	0
	3	10	10	0	0	0
	4	0	0	0	0	0
	5	0	0	0	0	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	**1**	✓	1	A	96	11	15	1	7
	2	✓	2	B	18	37	19	1	7
	3	✓	3	C	47	67	20	1	7
	4	✓	4	D	67	89	22	1	7
	5	✓	5	E	89	96	7	1	7

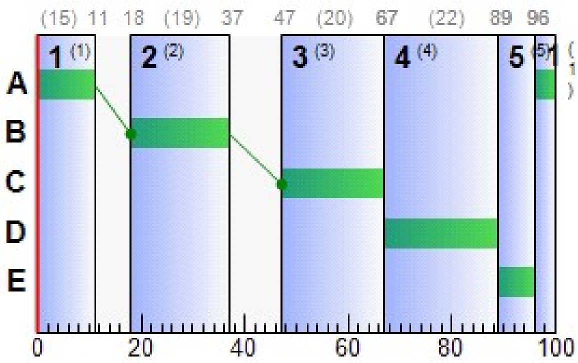
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	**A**	**1**	✓	96	11	15
	B	**1**	✓	18	37	19
	C	**1**	✓	47	67	20
	D	**1**	✓	67	89	22
	E	**1**	✓	89	96	7

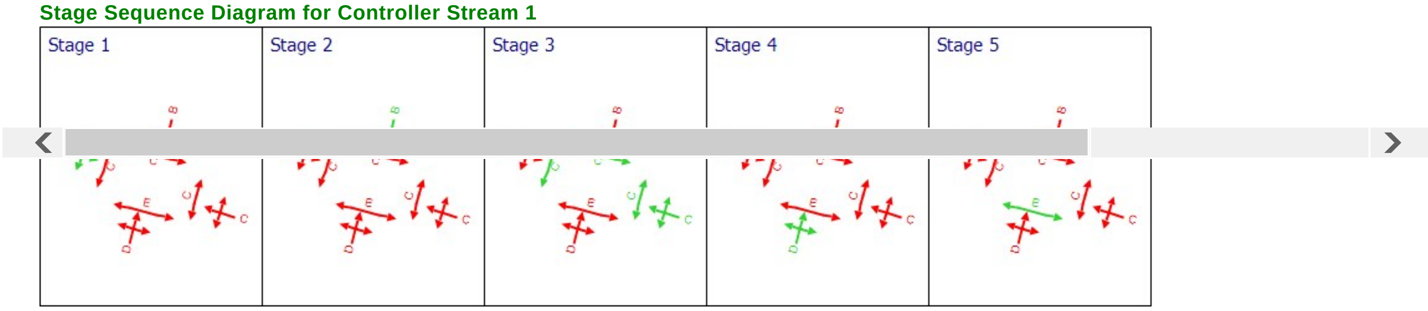
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
A	**1**	1	1	C	47	67	20
B	**1**	1	1	D	67	89	22
C	**1**	1	1	A	96	11	15
D	**1**	1	1	B	18	37	19

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
08:00-09:00	1	0.00	0.00	0.00	0.00

Traffic Stream Results

Traffic Stream Results: Vehicle summary

Time Segment	Arm	Traffic Stream	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Mean max queue (PCU)	Utilised storage (%)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	63	43	262	1985	20	43.15	7.07	40.68	44.59	3.15	47.74
	Ax	1	0	Unrestricted	172	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	87	3	415	2067	22	60.37	13.75	79.06	98.82	6.05	104.88
	Bx	1	0	Unrestricted	426	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	83	9	263	1988	15	65.33	8.82	50.69	67.78	3.89	71.67
	Cx	1	0	Unrestricted	345	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	90	0	375	2077	19	72.16	13.55	77.93	106.74	5.93	112.67
	Dx	1	0	Unrestricted	372	Unrestricted	100	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Flows and signals

Time Segment	Arm	Traffic Stream	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Calculated sat flow (PCU/hr)	Calculated capacity (PCU/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	A	1	262	262	-1	✓	1985	417	63		43	0.00	20
	Ax	1	172	172	0		Unrestricted	Unrestricted	0		Unrestricted	0.76	100
	B	1	415	415	0		2067	475	87		3	0.00	22
	Bx	1	426	426	-1	✓	Unrestricted	Unrestricted	0		Unrestricted	0.76	100
	C	1	263	263	0		1988	318	83		9	0.00	15
	Cx	1	345	345	-1		Unrestricted	Unrestricted	0		Unrestricted	0.60	100
	D	1	375	375	-1		2077	415	90	✓	0	0.00	19
	Dx	1	372	372	0		Unrestricted	Unrestricted	0		Unrestricted	0.86	100

Traffic Stream Results: Stops and delays

Time Segment	Arm	Traffic Stream	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	A	1	12.00	43.15	2.62	0.52	44.59	95.91	232.76	18.53	3.15
	Ax	1	16.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	B	1	12.00	60.37	4.28	2.68	98.82	116.34	391.61	91.18	6.05
	Bx	1	15.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	C	1	12.00	65.33	2.97	1.80	67.78	117.96	249.21	61.04	3.89
	Cx	1	17.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	D	1	12.00	72.16	4.07	3.45	106.74	126.11	358.50	114.41	5.93
	Dx	1	15.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Traffic Stream Results: Queues and blocking

Time Segment	Arm	Traffic Stream	Initial queue (PCU)	Mean max queue (PCU)	Max queue storage (PCU)	Utilised storage (%)	Average storage excess queue (PCU)	Average limit excess queue (PCU)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))	Estimated blocking
08:00-09:00	A	1	0.00	7.07	17.39	40.68	0.00	0.00	0.00	0.00	0.00	0.00	
	Ax	1	0.00	0.00	24.47	0.00	0.00	0.00	0.00	31.00	0.00	31.00	
	B	1	0.00	13.75	17.39	79.06	0.00	0.00	0.00	0.00	0.00	0.00	
	Bx	1	0.00	0.00	22.08	0.00	0.00	0.00	0.00	22.00	0.00	22.00	
	C	1	0.00	8.82	17.39	50.69	0.00	0.00	0.00	0.00	0.00	0.00	
	Cx	1	0.00	0.00	24.70	0.00	0.00	0.00	0.00	19.00	0.00	19.00	
	D	1	0.00	13.55	17.39	77.93	0.00	0.00	0.00	0.00	0.00	0.00	
	Dx	1	0.00	0.00	21.94	0.00	0.00	0.00	0.00	28.00	0.00	28.00	

Traffic Stream Results: Journey times

Time Segment	Arm	Traffic Stream	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	A	1	26.20	4.01	6.53	55.15
	Ax	1	24.20	0.81	30.00	16.88
	B	1	41.50	8.34	4.97	72.37
	Bx	1	54.09	1.80	30.00	15.24
	C	1	26.30	5.65	4.66	77.33
	Cx	1	49.01	1.63	30.00	17.05
	D	1	37.50	8.77	4.28	84.16
	Dx	1	46.92	1.56	30.00	15.14

Traffic Stream Results: Advanced

Time Segment	Arm	Traffic Stream	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	Mean Max Queue EoTS (PCU)	Max End of Green Queue EoTS (PCU)	Max End of Red Queue EoTS (PCU)	PCU Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	A	1	0.00	0.00	✓	7.08	0.53	6.28	1.00	0.00	47.74
	Ax	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	B	1	0.00	0.00	✓	13.89	2.83	11.70	1.00	0.00	104.88
	Bx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	C	1	0.00	0.00	✓	8.89	1.88	8.02	1.00	0.00	71.67
	Cx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00
	D	1	0.00	0.00	✓	13.86	3.76	12.09	1.00	0.00	112.67
	Dx	1	0.00	0.00	✓	0.00			1.00	0.00	0.00

Pedestrian Crossing Results

Pedestrian Crossings: Pedestrian summary

Time Segment	Crossing	Side	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Mean max queue (Ped)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	65	500	11000	7	45.33	12.92	89.40	89.40
		2	65	500	11000	7	45.33	12.92	89.40	89.40
	2	1	22	500	11000	20	32.71	10.97	64.51	64.51
		2	22	500	11000	20	32.71	10.97	64.51	64.51
	3	1	22	500	11000	20	32.71	10.97	64.51	64.51
		2	22	500	11000	20	32.71	10.97	64.51	64.51
	4	1	22	500	11000	20	32.71	10.97	64.51	64.51
		2	22	500	11000	20	32.71	10.97	64.51	64.51

Pedestrian Crossings: Flows and signals

Time Segment	Crossing	Side	Calculated flow entering (Ped/hr)	Calculated flow out (Ped/hr)	Flow discrepancy (Ped/hr)	Adjusted flow warning	Calculated sat flow (Ped/hr)	Calculated capacity (Ped/hr)	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Mean modulus of error	Actual green (s (per cycle))
08:00-09:00	1	1	500	500	0		11000	770	65		39	0.00	7
		2	500	500	0		11000	770	65		39	0.00	7
	2	1	500	500	0		11000	2310	22		316	0.00	20
		2	500	500	0		11000	2310	22		316	0.00	20
	3	1	500	500	0		11000	2310	22		316	0.00	20
		2	500	500	0		11000	2310	22		316	0.00	20
	4	1	500	500	0		11000	2310	22		316	0.00	20
		2	500	500	0		11000	2310	22		316	0.00	20

Pedestrian Crossings: Stops and delays

Time Segment	Crossing	Side	Mean Cruise Time per Ped (s)	Mean Delay per Ped (s)	Uniform delay (Ped-hr/hr)	Random plus oversat delay (Ped-hr/hr)	Weighted cost of delay (£ per hr)
08:00-09:00	1	1	5.67	45.33	6.30	0.00	89.40
		2	5.67	45.33	6.30	0.00	89.40
	2	1	6.33	32.71	4.54	0.00	64.51
		2	6.33	32.71	4.54	0.00	64.51
	3	1	6.33	32.71	4.54	0.00	64.51
		2	6.33	32.71	4.54	0.00	64.51
	4	1	5.67	32.71	4.54	0.00	64.51
		2	5.67	32.71	4.54	0.00	64.51

Pedestrian Crossings: Queues and blocking

Time Segment	Crossing	Side	Mean max queue (Ped)	Max queue storage (Ped)	Utilised storage (%)	Average storage excess queue (Ped)	Average limit excess queue (Ped)	Excess queue penalty (£ per hr)
08:00-09:00	1	1	12.92	10.00	129.17	0.32	0.00	0.00
		2	12.92	10.00	129.17	0.32	0.00	0.00
	2	1	10.97	10.00	109.72	0.04	0.00	0.00
		2	10.97	10.00	109.72	0.04	0.00	0.00
	3	1	10.97	10.00	109.72	0.04	0.00	0.00
		2	10.97	10.00	109.72	0.04	0.00	0.00
	4	1	10.97	10.00	109.72	0.04	0.00	0.00
		2	10.97	10.00	109.72	0.04	0.00	0.00

Pedestrian Crossings: Journey times

Time Segment	Crossing	Side	Distance travelled (Ped-km/hr)	Time spent (Ped-hr/hr)	Mean journey speed (kph)	JourneyTime (s)
08:00-09:00	1	1	4.00	7.08	0.56	51.00
		2	4.00	7.08	0.56	51.00
	2	1	4.50	5.42	0.83	39.04
		2	4.50	5.42	0.83	39.04
	3	1	4.50	5.42	0.83	39.04
		2	4.50	5.42	0.83	39.04
	4	1	4.00	5.33	0.75	38.38
		2	4.00	5.33	0.75	38.38

Pedestrian Crossings: Advanced

Time Segment	Crossing	Side	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Mean Max Queue EoTS (Ped)	Ped Factor	Cost of traffic penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	1	1	0.00	0.00	12.92	1.00	0.00	89.40
		2	0.00	0.00	12.92	1.00	0.00	89.40
	2	1	0.00	0.00	10.97	1.00	0.00	64.51
		2	0.00	0.00	10.97	1.00	0.00	64.51
	3	1	0.00	0.00	10.97	1.00	0.00	64.51
		2	0.00	0.00	10.97	1.00	0.00	64.51
	4	1	0.00	0.00	10.97	1.00	0.00	64.51
		2	0.00	0.00	10.97	1.00	0.00	64.51

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Ite wit wor over PR
7	15/02/2024 16:36:13	15/02/2024 16:36:14	08:00	100	902.82	62.24	90.27	D/1	1	6	D/1	Dx/1	D/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	90	0	2630	476	30.65	317.93	19.02	336.95

Network Results: Pedestrian summary

Time Segment	Degree of saturation (%)	Calculated Flow Entering (Ped/hr)	Actual green (s (per cycle))	Mean Delay Per Ped (s)	Weighted cost of delay (£ per hr)	Performance Index (£ per hr)
08:00-09:00	65	4000	134	35.87	565.87	565.87

Network Results: Flows and signals

Time Segment	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))
08:00-09:00	6630	6630	-4	✓	90	✓	0	610

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Uniform stops (Stops per hr)	Random stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	9.15	33.80	53.78	8.46	883.80	22.88	1232.08	285.16	19.02

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time starvation (s (per cycle))	Wasted time blocking back (s (per cycle))	Wasted time total (s (per cycle))
08:00-09:00	129.17	0.00	100.00	0.00	100.00

Network Results: Journey times

Time Segment	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)
08:00-09:00	339.72	79.10	4.29

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	0.00	0.00	✓	1.00	0.00	0.00	902.82

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To							
		1	2	3	4	5	6	7	8
From	1	0.0	92.5	94.2	92.6	0.0	0.0	0.0	0.0
	2	101.2	0.0	101.0	99.4	0.0	0.0	0.0	0.0
	3	72.2	70.3	0.0	70.4	0.0	0.0	0.0	0.0
	4	89.4	87.5	89.3	0.0	0.0	0.0	0.0	0.0
	5	0.0	0.0	0.0	0.0	0.0	51.0	39.0	0.0
	6	0.0	0.0	0.0	0.0	51.0	0.0	0.0	39.0
	7	0.0	0.0	0.0	0.0	39.0	0.0	0.0	38.4
	8	0.0	0.0	0.0	0.0	0.0	39.0	38.4	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (PCU/hr)	Pedestrian calculated flow (Ped/hr)	Normal journey time (s)	Pedestrian journey time (s)	Calculated Total Flow (PCU/hr)	Avg journey time (s)
1	1	2	67		92.47		67	92.47
2	1	3	82		94.22		82	94.22
3	1	4	53		92.57		53	92.57
5	2	3	20		101.04		20	101.04
6	2	4	189		99.40		189	99.40
7	2	1	79		101.21		79	101.21
8	3	2	30		70.29		30	70.29
9	3	4	85		70.39		85	70.39
10	3	1	86		72.20		86	72.20
11	4	2	189		87.51		189	87.51
12	4	3	30		89.25		30	89.25
13	4	1	100		89.42		100	89.42
17	8	7		500		38.38	500	38.38
18	8	6		500		39.04	500	39.04
22	5	7		500		39.04	500	39.04
23	5	6		500		51.00	500	51.00
34	6	8		500		39.04	500	39.04
35	6	5		500		51.00	500	51.00
41	7	8		500		38.38	500	38.38
42	7	5		500		39.04	500	39.04

Final Prediction Table

Traffic Stream Results

				SIGNALS		FLOWS		PERFORMANCE				PER PCU			QUEUES
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)	Mean max queue (PCU)
A	1	(untitled)	1	1	C	262	1985	20	0.00	63	43	55.15	43.15	95.91	7.07
Ax	1	(untitled)				172	Unrestricted	100	31.00	0	Unrestricted	16.88	0.00	0.00	0.00
B	1	(untitled)	1	1	D	415	2067	22	0.00	87	3	72.37	60.37	116.34	13.75
Bx	1	(untitled)				426	Unrestricted	100	22.00	0	Unrestricted	15.24	0.00	0.00	0.00
C	1	(untitled)	1	1	A	263	1988	15	0.00	83	9	77.33	65.33	117.96	8.82
Cx	1	(untitled)				345	Unrestricted	100	19.00	0	Unrestricted	17.05	0.00	0.00	0.00
D	1	(untitled)	1	1	B	375	2077	19	0.00	90	0	84.16	72.16	126.11	13.55
Dx	1	(untitled)				372	Unrestricted	100	28.00	0	Unrestricted	15.14	0.00	0.00	0.00

Pedestrian Crossing Results

				SIGNALS		FLOWS		PERFORMANCE			PER PED		QUEUES	WEIGHTS	PEN
Pedestrian	Side	Name	Traffic node	Controller stream	Phase	Calculated Flow Entering (Ped/hr)	Calculated sat flow (Ped/hr)	Actual green (s (per cycle))	Degree of saturation (%)	Practical reserve capacity (%)	JourneyTime (s)	Mean Delay per Ped (s)	Mean max queue (Ped)	Delay weighting (%)	Co tra pen (£ p
1	1	(untitled)	1	1	E	500 <	11000	7	65	39	51.00	45.33	12.92 +	100	0
	2	(untitled)	1	1	E	500 <	11000	7	65	39	51.00	45.33	12.92 +	100	0
2	1	(untitled)	1	1	C	500 <	11000	20	22	316	39.04	32.71	10.97 +	100	0
	2	(untitled)	1	1	C	500 <	11000	20	22	316	39.04	32.71	10.97 +	100	0
3	1	(untitled)	1	1	C	500 <	11000	20	22	316	39.04	32.71	10.97 +	100	0
	2	(untitled)	1	1	C	500 <	11000	20	22	316	39.04	32.71	10.97 +	100	0
4	1	(untitled)	1	1	C	500 <	11000	20	22	316	38.38	32.71	10.97 +	100	0
	2	(untitled)	1	1	C	500 <	11000	20	22	316	38.38	32.71	10.97 +	100	0

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (kph)	Uniform delay (PCU-hr/hr)	Random plus oversat delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	305.72	32.58	9.38	13.93	8.46	317.93	19.02	0.00	336.95
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	34.00	46.52	0.73	39.85	0.00	565.87	0.00	0.00	565.87
TOTAL	339.72	79.10	4.29	53.78	8.46	883.80	19.02	0.00	902.82

- *< = adjusted flow warning (upstream links/traffic streams are over-saturated)*
- ** = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%*
- *^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%*
- *+ = average link/traffic stream excess queue is greater than 0*
- ***P.I. = PERFORMANCE INDEX***

UK and Ireland Office Locations