



PROPOSED INDUSTRIAL
DEVELOPMENT,
FALLOWS WAY, PRESCOT

TRANSPORT ASSESSMENT

MARCH 2024

PROPOSED INDUSTRIAL DEVELOPMENT, FALLOWS WAY, PRESCOT

TRANSPORT ASSESSMENT

Allied Properties

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1 INTRODUCTION

1.1 OVERVIEW

- 1.1.1 Andrew Moseley Associates (AMA) has been commissioned by Allied Properties to prepare a Transport Assessment (TA) and Travel Plan (TP) in support of a full planning application for a proposed new industrial development consisting of up to 4,631m² flexible B2 / B8 use plus 185m² office space located on land to the north-east of Fallows Way, Prescott.
- 1.1.2 The site will consist of five Blocks which are divided into thirteen smaller units. The site layout plan is attached at **Appendix A**.
- 1.1.3 The Local Planning Authority (LPA) and the Local Highway Authority (LHA) is Knowsley Council (KC).
- 1.1.4 The site currently consists of previously undeveloped land and is located on land to the south of Fallows Way which terminates to the north of the site and provides access to a number of existing industrial uses.
- 1.1.5 The site is bound to north and east by undeveloped land as well as a Public Right of Way that runs in an approximate north-west to south-east alignment alongside Tushingham's Lake which forms part of the wider Stadt Moers Park. The site is also bound to the south by an industrial unit and to the west by Fallows Way. The location of the site is illustrated in **Figure 1**.
- 1.1.6 Vehicular, pedestrian and cycling access is proposed west of the application boundary onto Fallows Way via two new simple priority-controlled T-junctions. Pedestrian access will be provided via footways either side of each access which are maintained throughout the site, providing direct access to each unit. The access proposals are illustrated in the site layout plan at **Appendix A**.
- 1.1.7 This TA has been prepared with reference to the Department for Communities and Local Government National Planning Policy Framework (NPPF) and Planning Practice Guidance (PPG).
- 1.1.8 This TA will demonstrate that the site is well served by existing transport provision and is accessible to a range of key services and facilities. The report will also demonstrate that the traffic generated by the proposals will not result in a detrimental impact on the surrounding road network.
- 1.1.9 A TP has also been prepared which sets out measures to encourage sustainable travel patterns and reduce the reliance on private car use.

1.2 REPORT STRUCTURE

1.2.1 The structure of the report is set out as follows:

- ▶ **Section 2** outlines the policy background at a national and local level;
- ▶ **Section 3** provides a description of the highway network surrounding the site, details of the existing traffic flows, a review of the personal injury collision records and the results of the baseline junction capacity assessments;
- ▶ **Section 4** examines the accessibility of the site by sustainable modes of travel and also considers the accessibility of a range of key services and facilities;
- ▶ **Section 5** describes the development proposals with regard to the proposed quantum of development, means of access and parking provision;
- ▶ **Section 6** summarises the assessment parameters and trips rates that have been adopted within this TA;
- ▶ **Section 7** examines the impact of development traffic on the local highway network and presents the results of the future year junction assessments to determine the potential impact of the proposals; and
- ▶ **Section 8** provides a summary of the TA.

2 POLICY BACKGROUND

2.1 NATIONAL POLICY

- 2.1.1 The National Planning Policy Framework (NPPF) came into effect in 2012. The document was designed to supersede and simplify previous national planning documents and their policies. The National Planning Policy Framework was revised in response to the Levelling-up and Regeneration Bill: reforms to national planning policy consultation on 19th December 2023 and sets out the government's planning policies for England and how these are expected to be applied.
- 2.1.2 On 5th September 2023 the Secretary of State for the Department for Levelling Up, Housing and Communities issued a written ministerial statement to update policy on planning for onshore wind development in England.
- 2.1.3 This revised Framework replaces the previous National Planning Policy Framework published in March 2012, revised in July 2018, updated in February 2019, revised in July 2021, and updated in September 2023.
- 2.1.4 The preparation of this TA is consistent with national transport policy guidance set out in the NPPF which advocates the submission of such documents to support applications for new developments which generate traffic movements.
- 2.1.5 The NPPF states under the subheading 'Considering development proposals' that:

'In assessing sites that may be allocated for development in plans, or specific applications for development, it should be ensured that:

a) appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location;

b) safe and suitable access to the site can be achieved for all users;

c) the design of streets, parking areas, other transport elements and the content of associated standards reflects current national guidance, including the National Design Guide and the National Model Design Code 46; and

c) any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree (Paragraph 110).

Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe (Paragraph 111).

Within this context, applications for development should:

a) give priority first to pedestrian and cycle movements, both within the scheme and with neighbouring areas; and second – so far as possible – to facilitating access to high quality public transport, with layouts that maximise the catchment area for bus or other public transport services, and appropriate facilities that encourage public transport use;

b) address the needs of people with disabilities and reduced mobility in relation to all modes of transport;

c) create places that are safe, secure, and attractive – which minimise the scope for conflicts between pedestrians, cyclists and vehicles, avoid unnecessary street clutter, and respond to local character and design standards;

d) allow for the efficient delivery of goods, and access by service and emergency vehicles; and

e) be designed to enable charging of plug-in and other ultra-low emission vehicles in safe, accessible, and convenient locations (Paragraph 112).

All developments that will generate significant amounts of movement should be required to provide a travel plan, and the application should be supported by a transport statement or transport assessment so that the likely impacts of the proposal can be assessed Paragraph 113).'

2.1.6 **Section 3** of this report highlights the existing sustainable travel modes within the vicinity of the site and demonstrates that the development will be well suited to this location.

2.1.7 **Section 7** of this report assesses the traffic associated with the development on the surrounding road network and will identify mitigation measures where necessary to ensure that the impact of the development is not severe.

2.1.8 The Government's objectives set out in the revised NPPF are to ensure that new developments are provided in sustainable locations, where the need to travel is minimised and the use of sustainable modes can be maximised.

2.2 LOCAL POLICY

Knowsley Local Plan Core Strategy 2016

2.2.1 The Knowsley Local Plan Core Strategy was adopted in January 2016 and sets out the councils vision and strategies for the local area, focusing on growth and development and how these can be achieved sustainably.

2.2.2 Overall, the strategy aims to ensure:

- ▶ Attractive, sustainable neighbourhoods with a wide choice of housing and excellent community facilities;
- ▶ Vibrant and welcoming town centres;
- ▶ Residents and local communities who are able to make positive lifestyle choices;
- ▶ High quality employment areas which help to drive economic growth in the Liverpool City Region; and
- ▶ Narrowed the gap in deprivation levels both between different parts of the borough and between Knowsley and elsewhere.

2.2.3 With specific regard to sustainability, the core strategy sets out three key guidelines under Policy SD1 as set out below:

- ▶ 1) When considering development proposals, a positive approach will be taken, which reflects the presumption in favour of sustainable development contained in the National Planning Policy Framework. Work will be undertaken proactively with applicants jointly to find solutions which mean that proposals can be approved wherever possible, and to secure development that improves the economic, social, and environmental conditions in the area.
- ▶ 2) Planning applications that accord with the policies in this Local Plan (and any relevant policies in Neighbourhood Plans) will be approved without delay unless material considerations indicate otherwise.
- ▶ 3) Where there are no policies relevant to the application or relevant policies are out of date at the time of making the decision then permission will be granted unless material considerations indicate otherwise – considering whether:
 - ▶ a) Any adverse impacts of granting permission would significantly and demonstrably outweigh the benefits, when assessed against the policies in the National Planning Policy Framework taken as a whole; or
 - ▶ b) Specific policies in that Framework indicate that development should be restricted.

Third Local Transport Plan for Merseyside

2.2.4 The Local Transport Plan (LTP) provides the statutory framework for the policies and plans that will guide the future provision of transport in the Merseyside area. The plan has been developed for the wider Merseyside region in conjunction with the nearby local authorities and is therefore a more holistic document that brings together the regions overall approach to sustainable transport.

2.2.5 The LTP sets out six key goals to achieve the vision:

- ▶ 1. Help create the right conditions for sustainable economic growth by supporting the priorities of the Liverpool City Region, the Local Enterprise Partnership, and the Local Strategic Partnerships.
- ▶ 2. Provide and promote a clean, low emission transport system which is resilient to changes to climate and oil availability.
- ▶ 3. Ensure the transport system promotes and enables improved health and wellbeing and road safety.
- ▶ 4. Ensure equality of travel opportunity for all, through a transport system that allows people to connect easily with employment, education, healthcare, other essential services and leisure and recreational opportunities.
- ▶ 5. Ensure the transport network supports the economic success of the city region by the efficient movement of people and goods.
- ▶ 6. Maintain our assets to a high standard.

3 EXISTING CONDITIONS

3.1 SITE LOCATION

- 3.1.1 The site currently consists of previously undeveloped land and is located on land to the south of Fallows Way which terminates to the north of the site and provides access to a number of existing industrial uses.
- 3.1.2 The site is bound to north and east by undeveloped land as well as a Public Right of Way that runs in an approximate north-west to south-east alignment alongside Tushingham's Lake which forms part of the wider Stadt Moers Park. The site is also bound to the south by an industrial unit and to the west by Fallows Way. The location of the site is illustrated in **Figure 1**.

3.2 LOCAL HIGHWAY NETWORK

- 3.2.1 The site would be accessed via two new access points from the north-eastern extent of Fallows Way. Fallows Way is a single carriageway two-way road that serves existing industrial developments to the south of the proposed site. The carriageway is subject to a 30mph speed restriction, is bound by pedestrian footways on either side of the carriageway and is street-lit. To the north, Fallows Way forms a dead-end; therefore, there would be no through traffic.
- 3.2.2 To the south, Fallows Way continues for approximately 420m before meeting with Windy Arbor Road via a priority-controlled T-junction. Windy Arbor Road is a single carriageway two-way road that is subject to a 30mph speed restriction. The carriageway is bound on either side by pedestrian footways and is street-lit. The carriageway runs in an approximate north-south alignment and provides access to a number of smaller residential roads. The carriageway becomes Dragon Lane before continuing through the centre of Whiston where the carriageway then meets with A57 Warrington Road. From here, A57 Warrington Road provides vehicular travel north-west towards the centre of Prescott as well as south-east towards Rainhill before meeting with the M62 J7.
- 3.2.3 To the south of the Windy Arbor Road / Fallows Way T-junction, Windy Arbor Road continues for approximately 340m before meeting with the M62 / A5080 Cronton Road / M57 via a seven-arm traffic signal-controlled grade separated roundabout known as the Tarbock Roundabout.
- 3.2.4 Forming the eastern and western arms of the roundabout, the M62 is a dual carriageway road that provides vehicular travel west towards the centre of Liverpool and east towards Manchester.
- 3.2.5 Forming the south-eastern and north-western arms of the carriageway, the A5080 Cronton Road continues south-east towards the residential area of Widness and further east towards Warrington. To the north-east, the carriageway continues into the eastern suburbs of Liverpool, providing access to a large industrial estate as well as a number of smaller residential roads.
- 3.2.6 Forming the northern and southern arms of the carriageway, the M57 continues north around the eastern extents of Liverpool towards Knowsley where it connects with the A580 as well as the A59 and M58. To the south of Tarbock Roundabout, the M57 becomes the A5300 Expressway which then connects with the A562 to the west of the residential area of Widness whereby the A562 then provides travel east into Widness and west towards Liverpool.
- 3.2.7 The site has been shown to be well located for access to the local and regional highway networks. The site is well located in terms of its proximity to nearby suburbs and towns and is within an existing industrial area that is close to the Strategic Road Network.

3.3 TRAFFIC BASE FLOWS

- 3.3.1 To understand the vehicle flow at the junctions predicted to experience an increase of more than 30 two-way trips in the network peak periods, fully classified junction turning count surveys were carried out between the hours of 07:00 – 10:00 and 16:00 – 19:00 on Wednesday 18th January 2023. The junctions surveyed are:
- ▶ Fallows Way / Windy Arbor Road T-junction; and
 - ▶ Tarbock Roundabout.
- 3.3.2 To calculate the AM and PM network peak hours, the peaks with the highest overall flows were selected, ensuring a robust assessment.
- 3.3.3 For the AM peak, this was found to occur between 07:30 – 08:30. For the PM peak, this was found to be occur between 16:45 – 17:45.
- 3.3.4 The resultant 2023 Surveyed Flows are illustrated at **Figure 2**.

3.4 TRAFFIC GROWTH

- 3.4.1 The National Traffic Model (NTM) within the TEMPRO software package has been interrogated to provide local growth factors for Middle Super Output Area (MSOA) area 'Knowsley 017', the area best suited to the location of the development site.
- 3.4.2 The resultant growth factors are set out in **Table 3-1**.

Table 3-1 – Knowsley 017 Traffic Growth Factors

Period	AM Peak	PM Peak
2023 – 2024	1.002	1.003

- 3.4.3 These growth factors have been applied to the 2023 surveyed flows. The resultant 2024 Base Flows are illustrated at **Figure 3**.

3.5 EXISTING JUNCTION CAPACITY ANALYSIS

- 3.5.1 To determine existing highway capacities at the local junctions upon which the development generated flows are predicted to increase by more than 30 two-way trips, models of the existing junctions identified above have been prepared to assess the baseline traffic flow scenario.
- 3.5.2 JUNCTIONS 9 software has been used to assess the capacity of the priority junctions. This analyses the maximum Ratio of Flow to Capacity (RFC) values for the peak periods and the maximum queue length in passenger car units (PCUs).
- 3.5.3 For the signal-controlled junctions, LinSig has been used. This analyses the junctions overall practical reserve capacity (PRC) and the overall Delay in PCU per hour as well as each arms Degree of Saturation (DoS) and the Mean Max Queue (MMQ) in PCU.
- 3.5.4 The complete model outputs are provided in **Appendix B-C** and the findings are set out in this section.

Windy Arbor Road / Fallows Way T-junction – Junctions9 Results

- 3.5.5 **Table 7-1** sets out the operational capacity at the Windy Arbor Road / Fallows Way priority-controlled T-junction.

Table 3-2 – Windy Arbor Road / Fallows Way T-junction – 2024 Scenario Results

Arm	AM Peak		PM Peak	
	Max RFC	Queue	Max RFC	Queue
Fallows Way left to Windy Arbor Road	0.04	0	0.12	0
Fallows Way right to Windy Arbor Road	0.14	0	0.19	0
Windy Arbor Road right to Fallows Way	0.10	0	0.10	0

- 3.5.6 The modelling results of the 2024 Base situation shows that the Windy Arbor Road / Fallows Way priority-controlled T-junction currently operates well within its theoretical capacity. Queue lengths are shown to occur in accordance with those surveyed on site during the peak hours.

Tarbock Roundabout – LinSig Results

- 3.5.7 **Table 7-1** sets out the operational capacity at the Tarbock Roundabout.

Table 3-3 – Tarbock Roundabout – 2024 Scenario Results

Arm	AM Peak		PM Peak	
	DoS	MMQ (PCU)	DoS	MMQ (PCU)
Windy Arbor Road	105.0%	35.3	73.9%	3.1
M62 (E)	80.2	10.9	61.3%	7.1
A5080 Cronton Road (SE)	79.2	3.5	53.2%	2.1
M57 (S)	64.0	8.4	62.0%	7.5
M62 (W)	78.3	10.1	62.1%	7.3
A5080 Cronton Road (NW)	109.9	36.8	106.0	32.0
M57 (N)	63.6	8.2	82.7	13.1
PRC	-22.1%		-17.8%	
Delay (pcuHr)	132.71		96.43	

- 3.5.8 The modelling results of the 2024 Base situation shows that the Tarbock Roundabout currently operates over capacity within both the AM and PM network peak scenarios. Whilst this is the case, it is not considered that the recorded PRC and delay is at a level that has an adverse effect on the operation of the roundabout and is to be expected for a junction of this size and the volume of traffic that negotiates it during the peak periods.
- 3.5.9 Additionally, the recorded DoS for the majority of arms shows that individually, all arms apart from Windy Arbor Road and A5080 Cronton Road (NW) are operating below their theoretical capacity. Modelling results also show that overall, the level of queueing at the junction is minimal, with the majority of arms operating with queues of up to 10 PCU's. Whilst Windy Arbor Road and the A5080 Cronton Road (NW) arms of the junction experience high levels of queueing in the network peak periods, the level of queueing is not considered to be significant and is expected at a junction of this size.
- 3.5.10 Queue lengths are shown to occur in accordance with those surveyed on site during the peak hours.

3.6 PERSONAL INJURY COLLISION DATA

3.6.1 To consider the last five years of Personal Injury Collision (PIC) data within the vicinity of the site, an initial study of the CrashMap database has been conducted. The study area includes the most recent five-year period of available data for the following junctions.

- ▶ Fallows Way;
- ▶ Windy Arbor Road / Fallows Way;
- ▶ Windy Arbor Road; and
- ▶ Tarbock Roundabout.

3.6.2 The collision plot is set out in **Figure 4** which sets out that within the study area, a total of 11 collisions occurred, 10 of which were described as 'slight' in severity, and one described as 'serious'. The collisions are set out in further detail below.

Fallows Way

3.6.3 The collision data sets out that there have been no PICs recorded within the vicinity of the site and within the study area.

Windy Arbor Road / Fallows Way

3.6.4 One 'slight' collision was recorded at the Windy Arbor Road / Fallows Way priority-controlled T-junction in August 2021. The collision involved two vehicles and resulted in one casualty.

Windy Arbor Road

3.6.5 One 'slight' collision was recorded at the Windy Arbor Road / Juniper Avenue priority-controlled T-junction in May 2021. The collision involved two vehicles and resulted in three casualties. The collision was also detailed as having involved a young driver.

3.6.6 One 'serious' collision was recorded on the Windy Arbor Road carriageway approximately 60m to the north of the Juniper Avenue T-junction in December 2018. The collision involved three vehicles and resulted in seven casualties.

Tarbock Roundabout

3.6.7 Eight 'slight' collisions were recorded at the Tarbock Roundabout, with a maximum of two recorded at any arm joining the roundabouts circulatory carriageway. The collisions were recorded between March 2018 and December 2021 and show that no clusters of collisions have occurred.

3.6.8 Two collisions were recorded at the Windy Arbor Road approach to the junction; one on the M62 eastern approach; one at the A5080 Cronton Road (SE) approach; one on the M62 western approach; and three distributed around the circulatory carriageway of the roundabout.

Summary

3.6.9 The PIC data identifies no accident hotspots at the junctions considered as well as a singular serious collision. It is therefore considered there are no existing highways safety concerns. Therefore, it is considered that full collision data is not required to be requested from KC and no further analysis of collision data is required.

4 EXISTING SUSTAINABLE TRANSPORT PROVISION

4.1 INTRODUCTION

- 4.1.1 The Government's objectives set out in the NPPF are to ensure that new developments are provided in sustainable locations, where the need to travel is minimised and the use of sustainable modes can be maximised.
- 4.1.2 The site is located within an existing industrial location that is situated within a wider residential location to the east of Liverpool. The site is therefore located in an established location for industrial use as well as being well located in terms of its proximity to residential areas and access to sustainable modes of transport. The following section sets out that there are good quality facilities which will help to encourage the use of alternative modes of travel to the private car.
- 4.1.3 This section outlines the existing walking, cycling and public transport facilities within the vicinity of the development site and describes the accessibility of the site in terms of its proximity to key services and destinations.

4.2 PEDESTRIAN ACCESSIBILITY

- 4.2.1 Whilst superseded by the NPPF, the transport policies in the former PPG13 set out specific guidance related to walking:

"Walking is the most important mode of travel at the local level and offers the greatest potential to replace short car trips, particularly under 2 kilometres" (Para 74)

- 4.2.2 Walking is recognised as the most important mode of travel at a local level, and it offers the greatest potential to replace short car trips, particularly under two kilometres. **Figure 5** shows a 2km walking catchment area from the centre of the site.
- 4.2.3 As shown, the site is located within a suitable walking distance of a wide residential area including Halsnead Park, Whiston Cross and Huyton that form parts of the eastern residential suburbs of Liverpool.
- 4.2.4 The site will also benefit from the pedestrian connectivity that is proposed as part of the development, with both footways provided throughout the site.
- 4.2.5 There are also a number of Public Rights of Way (PRoW) within the vicinity of the site that provide traffic-free walking facilities, details of which are provided in **Figure 6**.
- 4.2.6 The map shows that PRoW's are located to the north of the site and connect to the local residential areas. In addition to the PRoW's, there are also a number of footpaths that run through the parks to the north of the site that further facilitate traffic-free walking routes to the site.
- 4.2.7 The development is therefore considered to be located within a sustainable location to a range of walkable destinations.

4.3 CYCLING ACCESSIBILITY

4.3.1 Whilst superseded by the NPPF, the transport policies in the former PPG13 set out specific guidance related to cycling:

“Cycling also has potential to substitute for short car trips, particularly those under 5 kilometres, and to form part of a longer journey by public transport” (Para 77).

4.3.2 Cycling has the potential to substitute for short car trips, particularly less than five kilometres. As such, all areas and facilities within a reasonable walking distance can also be considered to be within a reasonable cycling distance.

4.3.3 **Figure 7** shows a 5km cycling catchment area from the centre of the site. In addition to what is accessible by foot, the catchment area includes Prescot, Rainhill, Huyton, Fincham and Belle Vale.

4.3.4 The site is also well located in terms of its proximity to the local cycle network which is set out in **Figure 8**. Fallows Way forms part of the ‘suggested cycle’ network which consists of a number of roads that run through the nearby residential areas. Within the local cycle network, there are also dedicated ‘on-road signed cycle routes’ and ‘on-road cycle routes’. The site is therefore well placed for travel by bicycle with the local road network conducive to cycling.

4.4 PUBLIC TRANSPORT

Bus Services

4.4.1 In line with current local and national transport objectives, particularly of encouraging modal shift away from the private car and increasing accessibility through sustainable travel, public transport has a major role to play. The IHT’s ‘Guidelines for Planning for Public Transport in Developments’ (IHT 1999) recommend that the maximum walking distance to bus routes should not exceed 400 metres. Measures to facilitate the use of public transport are therefore an integral part of good land use and transport planning.

4.4.2 There are two bus stops located either side of the carriageway at the Windy Arbor Road / Fallows Way priority-controlled T-junction that are accessible 400m from the proposed site access. The stops are accessible via the existing pedestrian facilities that bound Fallows Way and Windy Arbor Road.

4.4.3 The bus stops are provided as simple flag and post stops that are equipped with timetable information as well as raised boarding kerbs. The stops detailed are set out on the attached plan at **Figure 9**.

4.4.4 Details of the mentioned bus services were obtained from recent timetables produced online. **Table 4-1** summarises local bus service details and route information.

Table 4-1 - Local Bus Services

Service	Route	Weekday	Saturday	Sunday
61	Liverpool Bus Station – Prescot Bus Station – Runcorn Bus Station	Every 60 mins 05:43 – 19:45	Every 60 mins 05:44 – 19:46	Every 60 mins 09:01 – 19:30

4.4.5 **Table 4-1** sets out that the local bus stops provide access to a regular service that provides travel towards a number of key local destinations, linking multiple local bus stations as well as local residential areas.

4.5 SUMMARY

- 4.5.1 A review of the existing facilities for access to the site by a range of non-car modes has been carried out. It is considered that the existing pedestrian facilities within the vicinity of the site are of a good quality given the semi-rural location of the site. There are also good quality public transport links within the vicinity of the site.
- 4.5.2 Given the sites location on the outskirts of a village, it is considered that the sustainable transport links are of good quality. The site is therefore considered to be in a sustainable location for access by non-car modes and in line with local and national planning policy.

5 DEVELOPMENT PROPOSALS

5.1 DEVELOPMENT PROPOSAL AND SITE LAYOUT

- 5.1.1 The application is for full planning application for a proposed new industrial development consisting of up to 4,631m² flexible B2 / B8 use plus 185m² office space located on land to the north-east of Fallows Way, Prescott.
- 5.1.2 The site will consist of five Blocks which are divided into thirteen smaller units. The site layout plan is attached at **Appendix A**.
- 5.1.3 A breakdown of the proposed industrial units is provided below:
- ▶ Block A
 - Unit 01 – 87.5m²;
 - Unit 02 – 87.5m²;
 - Unit 03 – 87.5m²;
 - ▶ Block B
 - Unit 04 – 81.5m²;
 - Unit 05 – 140m²;
 - Unit 06 – 140m²;
 - ▶ Block C
 - Unit 07 – 140m²;
 - Unit 08 – 140m²;
 - Unit 09 – 140m²;
 - Unit 10 – 140m²;
 - Unit 11 – 140m²;
 - ▶ Block D
 - Unit 12 – 232m²;
 - ▶ Block E
 - Unit 13 – 3,075m²;
 - Offices – 185m².

5.2 SITE ACCESS DESIGN AND SERVICING ARRANGEMENTS

- 5.2.1 Vehicular, walking and cycling access is proposed via a two new simple priority-controlled T-junctions to the west of the proposed site via Fallows Way.
- 5.2.2 The southern access is proposed to be provided with a 12m corner radii to the south and 8m corner radii to the north. The carriageway width is to be provided at 7.5m which is maintained throughout the site. The secondary site access to the north of the site is proposed to be provided with corner radii's of 6m. Given the proposed corner radii's, the southernmost site access is proposed to be provide the main point of access for HGV's. The two site accesses are set out in drawing no. AMA-21686-SK-001 and are attached at **Appendix D**.
- 5.2.3 Based on the 30mph speed limit of the road and in accordance with Manual for Streets (MfS) standards, 2.4m x 43m visibility splays are provided at each site access point. The visibility splays are set out within drawing no. AMA-21686-SK-002 as attached at **Appendix E** and demonstrate that the required visibility envelope is fully achievable within the highway boundary and the site boundary.

- 5.2.4 The site would be accessed by articulated vehicles, therefore a 26m turning circle and a turning head is proposed at either end of the site to facilitate the turning manoeuvres. Each turning area has been tracked using a max-legal articulated vehicle, with the resultant swept path analysis set out in drawings no. AMA-21686-ATR-001/2-P03 as attached at **Appendix F**. As set out within the drawings, the vehicle can access and egress the site in a forward gear.

5.3 PARKING

- 5.3.1 In accordance with the operational requirements for the site, it is proposed that a total of eighty-seven parking spaces will be provided.
- 5.3.2 As set out within the KC Supplementary Planning Document, B2 developments should have a maximum of one space per 45m²; whilst B8 should have a maximum of one space per 100m². The proposals for eighty-seven parking spaces therefore provide a balance between the two standards at one space per 56m².
- 5.3.3 Of the eighty-seven spaces, it is proposed that 6 disabled parking spaces will be provided across the site totalling approximately 7% of parking provision. This is therefore in line with the SPD requirements for 5% disabled parking provision.
- 5.3.4 Eight spaces are proposed to be equipped with electric vehicle charging facilities, totalling approximately 10% of the total parking provision.
- 5.3.5 Six motorcycle parking bays are proposed which is in line with the SPD's minimum parking standards which require one space per 1000m².
- 5.3.6 The standards also set out that a minimum of one secure cycle parking space per 450m². The proposals will provide nine 'Sheffield' style cycle hoops across the site, split into banks of three. This would therefore equate to eighteen cycle parking spaces. In addition to the cycle hoops, eight sheltered cycle parking spaces are proposed, taking the total provision to twenty-six spaces.

6 ASSESSMENT PARAMETERS

6.1 INTRODUCTION

- 6.1.1 This section sets out the methodology and parameters used in assessing the proposed development and its potential impacts on the highway network.

6.2 ASSESSMENT YEARS

- 6.2.1 A horizon period of five years has been assessed after the lodging of the planning application to create a future year scenario of 2029. For the junctions under the control of Highways England, a horizon period of 10 years has been assessed, creating a future year scenario of 2034.

6.3 TRAFFIC GROWTH

- 6.3.1 The National Traffic Model (NTM) within the TEMPRO software package has been interrogated to provide local growth factors for Middle Super Output Area (MSOA) area 'Knowsley 017', the area best suited to the location of the development site.
- 6.3.2 The resultant growth factors are set out in **Table 6-1**.

Table 6-1 – Knowsley 017 Traffic Growth Factors

Period	AM Peak	PM Peak
2024 – 2029	1.0343	1.0506
2024 – 2034	1.0687	1.0874

- 6.3.3 These growth factors have been applied to the 2024 base flows. The resultant 2029 Base Flows are illustrated at **Figure 10** and the 2034 Base Flows at the Tarbock Roundabout are set out in **Figure 11**.

6.4 DEVELOPMENT TRAFFIC GENERATION

- 6.4.1 The TRICS database has been interrogated to obtain the vehicle-based trip rates of the proposed office and industrial uses of the proposed development. For both uses, sites within a 'suburban' and 'edge of town' location were selected for the assessment as well as filtering out sites with floor areas that were not alike the floor areas on site. The full TRICS trip rates are provided in **Appendix G-H**.
- 6.4.2 For the B2 TRICS output, the time period of 07:00 to 08:00 has been selected for the AM peak period and 16:00 – 17:00 for the PM peak period. For the office TRICS output, the time period of 08:00 – 09:00 has been selected for the AM peak period and 17:00 – 18:00 for the PM peak period. Whilst these do not directly align with the peak hours observed on the local highway network or themselves, this ensures the worst-case peak periods have been selected which ensures a robust approach.
- 6.4.3 The vehicle trip rates derived are summarised in **Table 6-2** and have been factored against the relevant floor areas.

Table 6-2 – Predicted Vehicular Trip Rates and Trip Generation

	AM Peak		PM Peak	
	Arrivals	Departures	Arrivals	Departures
TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT				
Trip Rates	0.512	0.075	0.069	0.408
Trip Generation	22	3	3	18
TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE				
Trip Rates	2.994	0.276	0.394	2.600
Trip Generation	6	1	1	5

6.4.4 **Table 6-2** demonstrates that the development proposals are forecast to generate the following vehicular trips during the highway network peak hours:

- ▶ AM Peak – 28 arrivals and 4 departures – 32 Two-Way Trips; and
- ▶ PM Peak – 4 arrivals and 23 departures – 28 Two-Way Trips.

6.4.5 On this basis, the trip generation of the proposed scheme will result in approximately one additional trip to the local highway network every two minutes during the peak hours. The impact of these trips at the site access is set out in **Section 7.2**.

6.5 DEVELOPMENT TRAFFIC DISTRIBUTION AND ASSIGNMENT

6.5.1 Development traffic distribution has been undertaken based upon existing (2011) Nomis 'Journey to Work Data' for the 'Knowsley 014 MSOA, in which the site is situated. This method uses Office of National Statistics data and can be considered a robust approach.

6.5.2 The traffic distribution has been applied to the forecast trip generation to estimate the change in traffic flows on the highway network as a result of the development at the site.

6.5.3 The distribution exercise is summarised in **Table 6-3** which considers traffic distribution at the site access junction. A copy of the 2011 Journey to Work Census data and a plan detailing the location of each MSOA is available upon request.

Table 6-3 – Windy Arbor Road Development Traffic Distribution

Route	Distribution
Windy Arbor Road (NE)	8%
Windy Arbor Road (SW)	92%

6.5.4 Of the vehicles that head travel south-west on Windy Arbor Road, all will travel through the Tarbock Roundabout. The distribution of vehicles through the roundabout is set out below in **Table 6-4**.

Table 6-4 – Tarbock Roundabout Development Traffic Distribution

Route	Distribution
M62 (E)	14%
A5080 Cronton Road (SE)	6%
M57 (S)	9%
M62 (W)	24%
A5080 Cronton Road (NW)	9%
M57 (N)	30%

- 6.5.5 The AM and PM peak traffic distributions are shown on the network diagram attached at **Figure 12**. These proportions have been applied to the total development traffic generation set out in **Table 6-2** and the resultant development traffic generation is shown in **Figure 13**.

7 FUTURE DEVELOPMENT IMPACTS

7.1 INTRODUCTION

7.1.1 This TA considers the following junctions:

- ▶ Proposed Site Access / Fallows Way T-junction;
- ▶ Windy Arbor Road / Fallows Way T-junction; and
- ▶ Tarbock Roundabout.

7.1.2 The following scenarios have been tested:

- ▶ 2029 Base (attached at **Figure 10**);
- ▶ 2029 Base + Development (attached at **Figure 14**);
- ▶ 2034 Base (attached at **Figure 11**); and
- ▶ 2034 Base + Development (attached at **Figure 15**).

7.1.3 JUNCTIONS 9 software has been used to assess the capacity of the priority junctions. This analyses the maximum Ratio of Flow to Capacity (RFC) values for the peak periods and the maximum queue length in passenger car units (PCUs).

7.1.4 For the signal-controlled junctions, LinSig has been used. This analyses the junctions overall practical reserve capacity (PRC) as well as each arms Degree of Saturation (DoS) and the Mean Max Queue (MMQ) in PCU.

7.1.5 The complete model outputs are provided in **Appendix B -C** and the findings are set out in this section.

7.2 JUNCTION MODELLING RESULTS

Proposed Site Accesses / Fallows Way T-junction

7.2.1 As there are two proposed site access points, neither sight access is predicted to experience more than 30 two-way trips in the network peak periods. The site access is also situated at the top of Fallows Way where there would be a negligible amount of traffic due to the dead end immediately west of the site.

7.2.2 The site accesses have therefore not been modelled as there are no capacity concerns.

Windy Arbor Road/ Fallows Way T-junction – Junctions9 Results

7.2.3 **Table 7-1** sets out the operational capacity at the Windy Arbor Road / Fallows Way priority junction.

Table 7-1 – Windy Arbor Road / Fallows Way T-junction – 2029 Scenario Results

Arm	AM Peak		PM Peak	
	Max RFC	Queue	Max RFC	Queue
2029 Base				
Fallows Way left to Windy Arbor Road	0.04	0	0.13	0
Fallows Way right to Windy Arbor Road	0.14	0	0.21	0
Windy Arbor Road right to Fallows Way	0.10	0	0.11	0

Arm	AM Peak		PM Peak	
	Max RFC	Queue	Max RFC	Queue
2029 Base + Development				
Fallows Way left to Windy Arbor Road	0.04	0	0.13	0
Fallows Way right to Windy Arbor Road	0.15	0	0.26	0
Windy Arbor Road right to Fallows Way	0.11	0	0.11	0

- 7.2.4 The modelling results of the 2029 Base and 2029 Base + Development situation shows that the Windy Arbor Road / Fallows Way priority-controlled T-junction is predicted to operate with minimal queuing and delays with negligible impact as a result of the development generated traffic.

Tarbock Roundabout – LinSig Results

- 7.2.5 **Table 7-2** sets out the operational capacity at the Tarbock Roundabout for the 2029 scenarios.

Table 7-2 – Tarbock Roundabout – 2029 Scenario Results

Scenario	Arm	AM Peak		PM Peak	
		DoS (%)	MMQ	DoS (%)	MMQ
2029 Base	Windy Arbor Road	117.1%	59.3	88.6%	7.3
	M62 (E)	82.9%	11.7	64.4%	7.5
	A5080 Cronton Road (SE)	85.5%	6.1	62.5%	2.4
	M57 (S)	66.1%	8.7	65.2%	8.1
	M62 (W)	80.9%	10.8	65.2%	7.8
	A5080 Cronton Road (NW)	113.4%	44.5	111.3%	45.0
	M57 (N)	65.7%	8.7	87.2%	14.8
	PRC	-30.1%		-23.6%	
	Delay (pcuHr)	176.05		120.27	
2029 Base + Development	Windy Arbor Road	104.7%	35.9	81.7%	3.9
	M62 (E)	76.0%	10.4	74.6%	8.3
	A5080 Cronton Road (SE)	105.1%	25.1	68.2%	2.1
	M57 (S)	56.6%	7.7	54.7%	6.7
	M62 (W)	77.4%	10.1	80.1%	9.3
	A5080 Cronton Road (NW)	93.9%	14.3	94.2%	15.1
	M57 (N)	71.4%	9.3	79.5%	12.3
	PRC	-16.8%		-4.7%	
	Delay (pcuHr)	163.50		79.42	

- 7.2.6 The modelling results of the 2029 Base and 2029 Base + Development situation shows that the Tarbock Roundabout is predicted to operate over capacity within both the AM and PM network peak scenarios. Whilst this is the case, it is not considered that the recorded PRC and delay is at a level that has an adverse effect on the operation of the roundabout and is to be expected for a junction of this size and the volume of traffic that negotiates it during the peak periods. It should also be noted, that with the development traffic and the relevant junction optimisation, the junction can operate better than it is predicted to without development traffic.

- 7.2.7 Additionally, the recorded DoS for the majority of arms shows that individually, all arms apart from Windy Arbor Road and A5080 Cronton Road (NW) are operating below their theoretical capacity. Modelling results also show that overall, the level of queueing at the junction is minimal, with the majority of arms operating with queues of up to 10 PCU's. Whilst Windy Arbor Road and the A5080 Cronton Road (NW) arms of the junction experience high levels of queueing in the network peak periods, the level of queueing is not considered to be significant.
- 7.2.8 When considering the difference between the two scenarios, it is also evident that the impact that the development generated traffic will have on the junction is minimal and results in a negligible increase to each arms DoS and MMQ.
- 7.2.9 **Table 7-3** sets out the operational capacity at the Tarbock Roundabout for the future year 2034 scenarios.

Table 7-3 – Tarbock Roundabout – 2034 Scenario Results

Scenario	Arm	AM Peak		PM Peak	
		DoS (%)	MMQ	DoS (%)	MMQ
2034 Base	Windy Arbor Road	130.9%	85.0	100.5%	20.0
	M62 (E)	85.7%	12.7	66.6%	8.0
	A5080 Cronton Road (SE)	92.7%	8.4	69.1%	3.1
	M57 (S)	68.5%	9.3	67.5%	8.5
	M62 (W)	83.7%	11.5	67.5%	8.3
	A5080 Cronton Road (NW)	117.2%	53.4	115.2%	55.3
	M57 (N)	67.9%	9.1	90.2%	16.6
	PRC	-45.5%		-28.0%	
	Delay (pcuHr)	231.81		148.11	
2034 Base + Development	Windy Arbor Road	110.5%	48.5	100.3%	20.4
	M62 (E)	89.8%	14.0	77.1%	9.2
	A5080 Cronton Road (SE)	111.8%	25.4	69.9%	2.7
	M57 (S)	98.8%	20.2	67.9%	9.3
	M62 (W)	68.2%	8.9	74.4%	9.1
	A5080 Cronton Road (NW)	91.5%	13.2	102.4%	26.9
	M57 (N)	62.8%	8.5	90.2%	16.6
	PRC	-24.3%		-13.8%	
	Delay (pcuHr)	273.59		131.46	

- 7.2.10 The modelling results of the 2034 Base and 2034 Base + Development situation shows that the Tarbock Roundabout is predicted to operate at a similar level of capacity shown in the 2029 scenarios. As per the 2029 scenario, the junction is also predicted to experience a negligible increase in DoS and queueing across all arms as well as PRC as a result of the development generated traffic. Again, it should also be noted, that with the development traffic and the relevant junction optimisation, the junction can operate better than it is predicted to without development traffic.
- 7.2.11 It is therefore considered that whilst the junction is technically operating over capacity, as per the existing situation, the impact the development generated traffic has on the junction will have no impact on the operation of the junction.

7.3 SUMMARY

- 7.3.1 The impact of the development generated traffic on the surrounding area has been shown to be negligible and it is therefore concluded that the proposals could be accommodated without resulting in a detrimental or severe impact upon the network.

8 SUMMARY

- 8.1.1 Andrew Moseley Associates has been commissioned by Allied Properties to prepare a Transport Assessment and Travel Plan in support of a full planning application for a proposed new industrial development consisting of up to 4,631m² flexible B2 / B8 use plus 185m² office space located on land to the north-east of Fallows Way, Prescott.
- 8.1.2 The site will consist of five Blocks which are divided into thirteen smaller units.
- 8.1.3 The Local Planning Authority and the Local Highway Authority is Knowsley Council.
- 8.1.4 The site currently consists of previously undeveloped land and is located on land to the south of Fallows Way which terminates to the north of the site and provides access to a number of existing industrial uses.
- 8.1.5 The site is bound to north and east by undeveloped land as well as a Public Right of Way that runs in an approximate north-west to south-east alignment alongside Tushingham's Lake which forms part of the wider Stadt Moers Park. The site is also bound to the south by an industrial unit and to the west by Fallows Way.
- 8.1.6 Vehicular, pedestrian and cycling access is proposed west of the application boundary onto Fallows Way via two new simple priority-controlled T-junctions. Pedestrian access will be provided via footways either side of each access which are maintained throughout the site, providing direct access to each unit.
- 8.1.7 The report has shown that the development proposals will be accessible by a range of travel modes and have been developed to accord with current national and local transport policies, including those set out within the Knowsley Local Plan, the Third Local Transport Plan for Merseyside and the NPPF.
- 8.1.8 The development proposals are forecast to generate some 32 and 26 two-way vehicle trips during the AM and PM peak hours respectively.
- 8.1.9 A Travel Plan has also been prepared which sets out measures to encourage sustainable travel patterns and reduce the reliance on private car use.
- 8.1.10 The impact of the development-generated traffic on the surrounding area has been shown to be of a negligible impact on queuing and delay and it is therefore concluded that the development proposals could be accommodated without resulting in a detrimental impact upon the local highway network in relation to highway capacity or road safety. This is in line with the severe impact test within the NPPF.
- 8.1.11 Overall, it is considered that the site is in a suitable location for the proposed residential development and that there are no overriding highways or transport reasons that should prevent the granting of planning consent for the proposals.

FIGURES

Figure 1 – Site Location Plan

Figure 2 – 2023 Surveyed Traffic Flow Diagram

Figure 3 – 2024 Base Traffic Flow Diagram

Figure 4 – Personal Injury Collision Data Plot

Figure 5 – 2km Walking Isochrone

Figure 6 – Public Rights of Way Map

Figure 7 – 5km Cycling Isochrone

Figure 8 – Local Cycle Network Map

Figure 9 – Bus Stop Location Plan

Figure 10 – 2029 Base Traffic Flows

Figure 11 – 2034 Base Traffic Flows

Figure 12 – Predicted Development Traffic Distribution

Figure 13 – Predicted Development Traffic Generation

Figure 14 – 2029 Base + Predicted Development Traffic Flows

Figure 15 – 2034 Base + Predicted Development Traffic Flows

Key:
Site Location



Title:

Indicative Site location Plan
Fallows Way, Prescot

Figure No.:

Figure 1

Drawn By:

MT



Figure 2

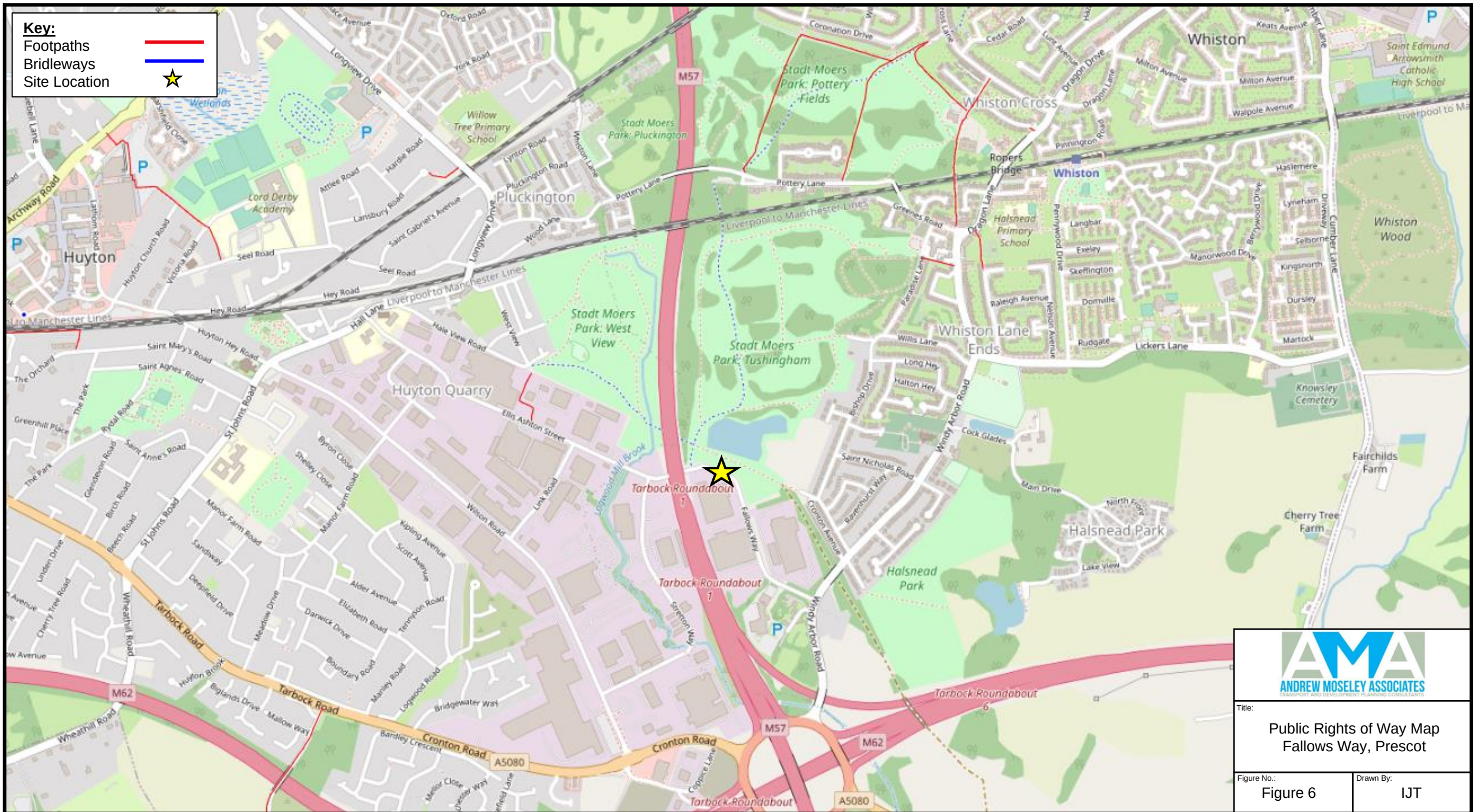
2023 Surveyed Traffic Flow Diagram

Checked:
SK

PM 16:45 - 17:45



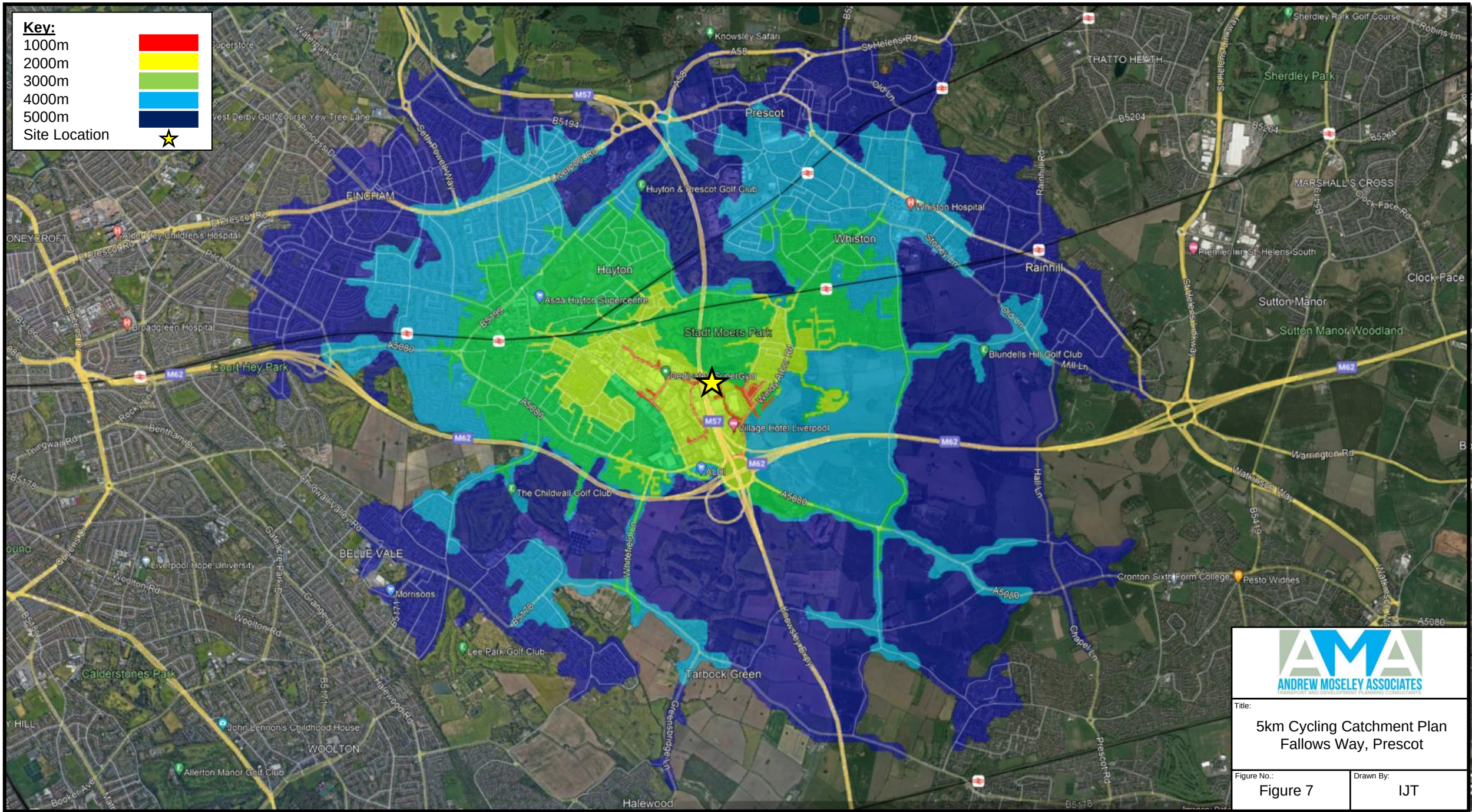
Key:
Footpaths ———
Bridleways ———
Site Location ★



Title:
Public Rights of Way Map
Fallows Way, Prescot

Figure No.:
Figure 6

Drawn By:
IJT



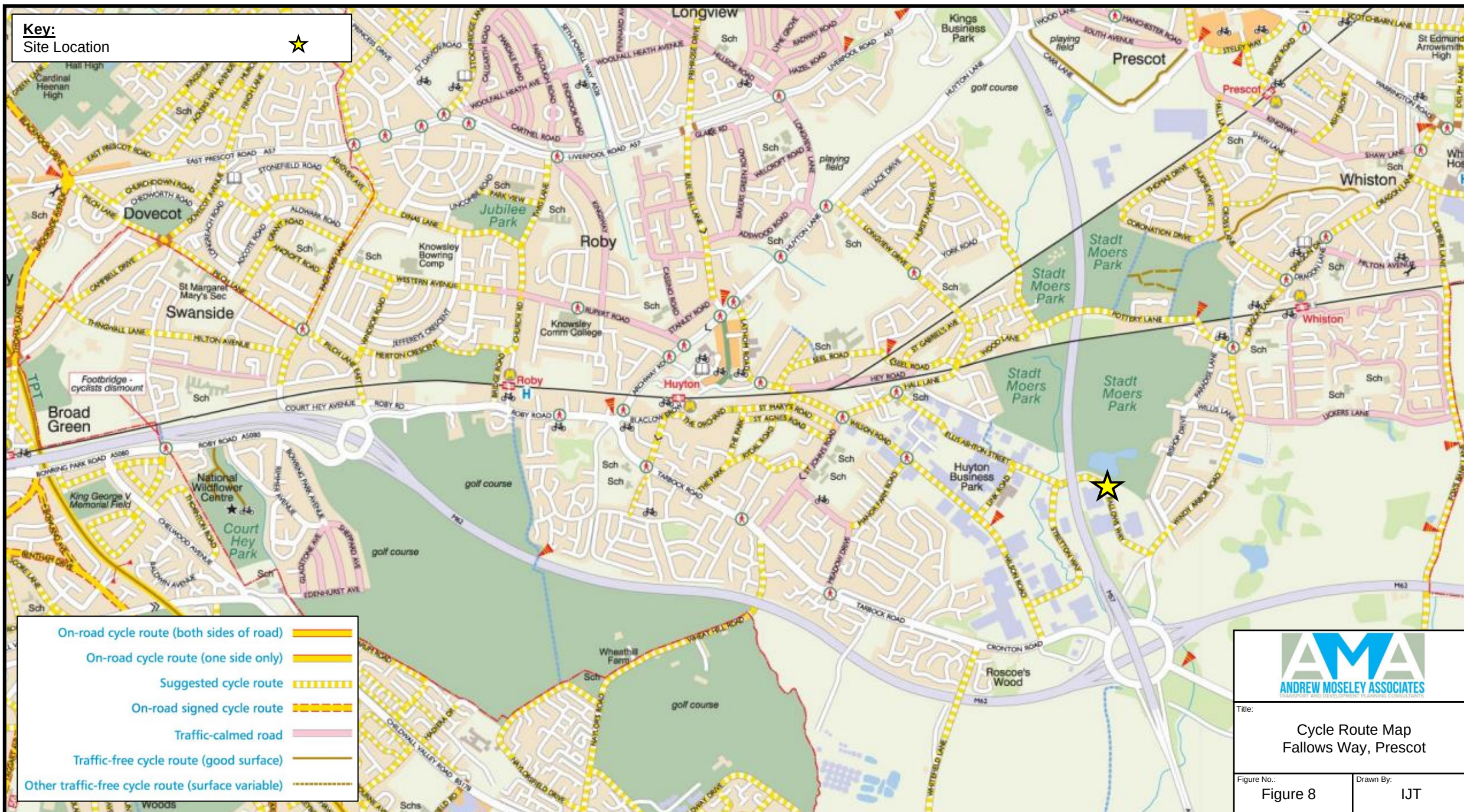
Key:
1000m
2000m
3000m
4000m
5000m
Site Location



Title:
**5km Cycling Catchment Plan
Fallows Way, Prescott**

Figure No.: Figure 7	Drawn By: IJT
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Key:
Site Location



Title:

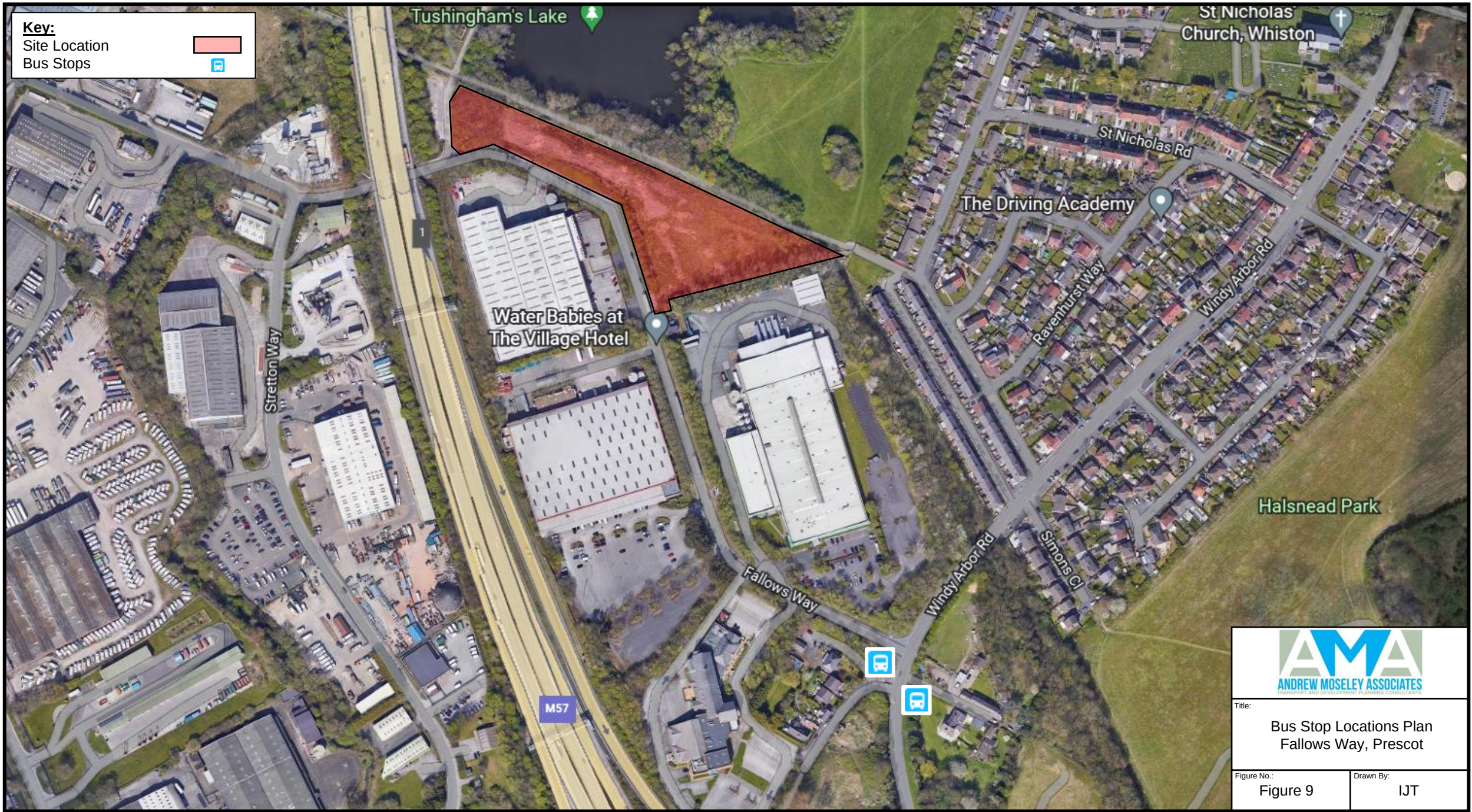
Cycle Route Map
Fallsows Way, Prescot

Figure No.:

Figure 8

Drawn By:

IJT



Title:
Bus Stop Locations Plan
Fallsows Way, Prescott

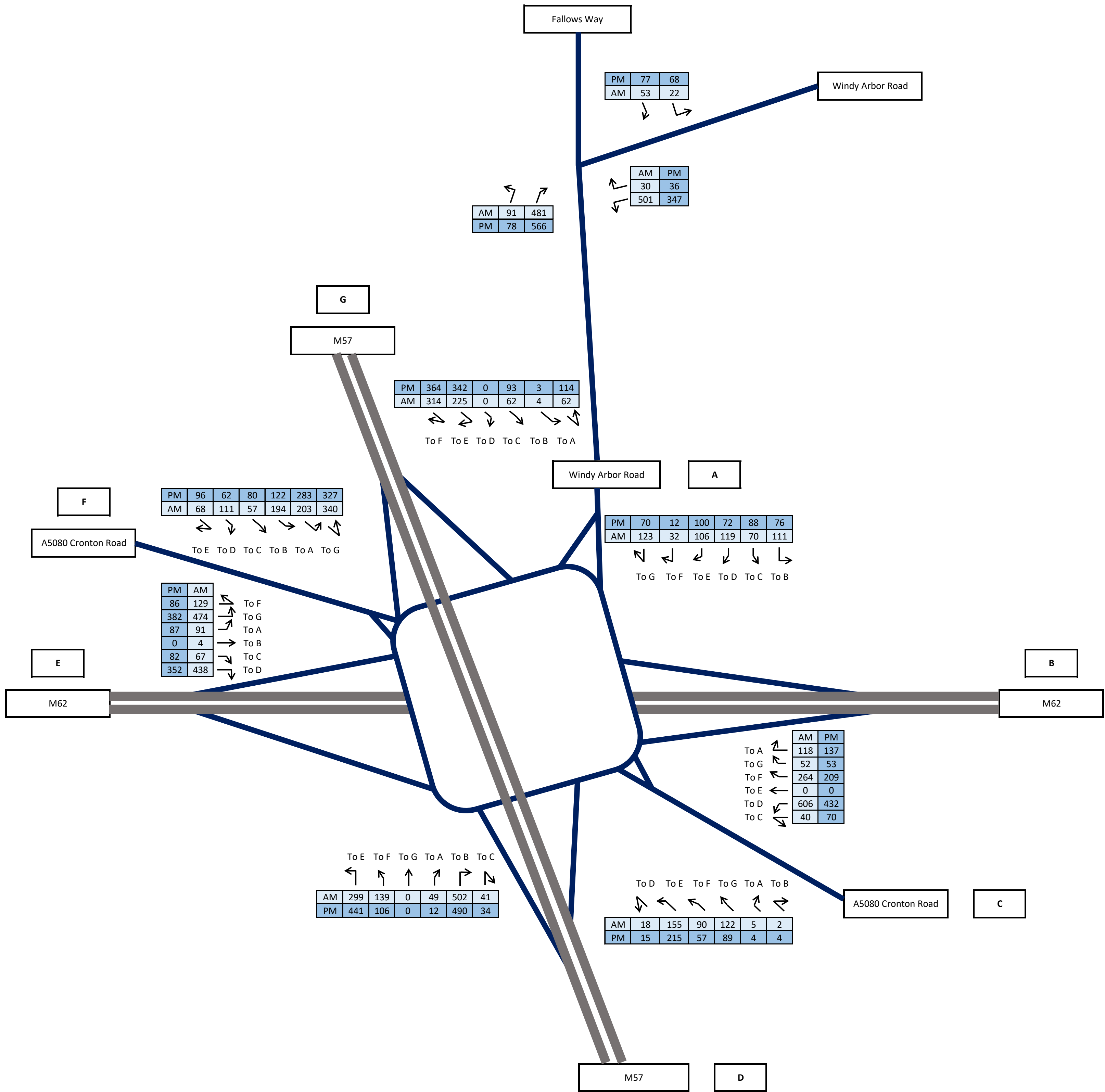


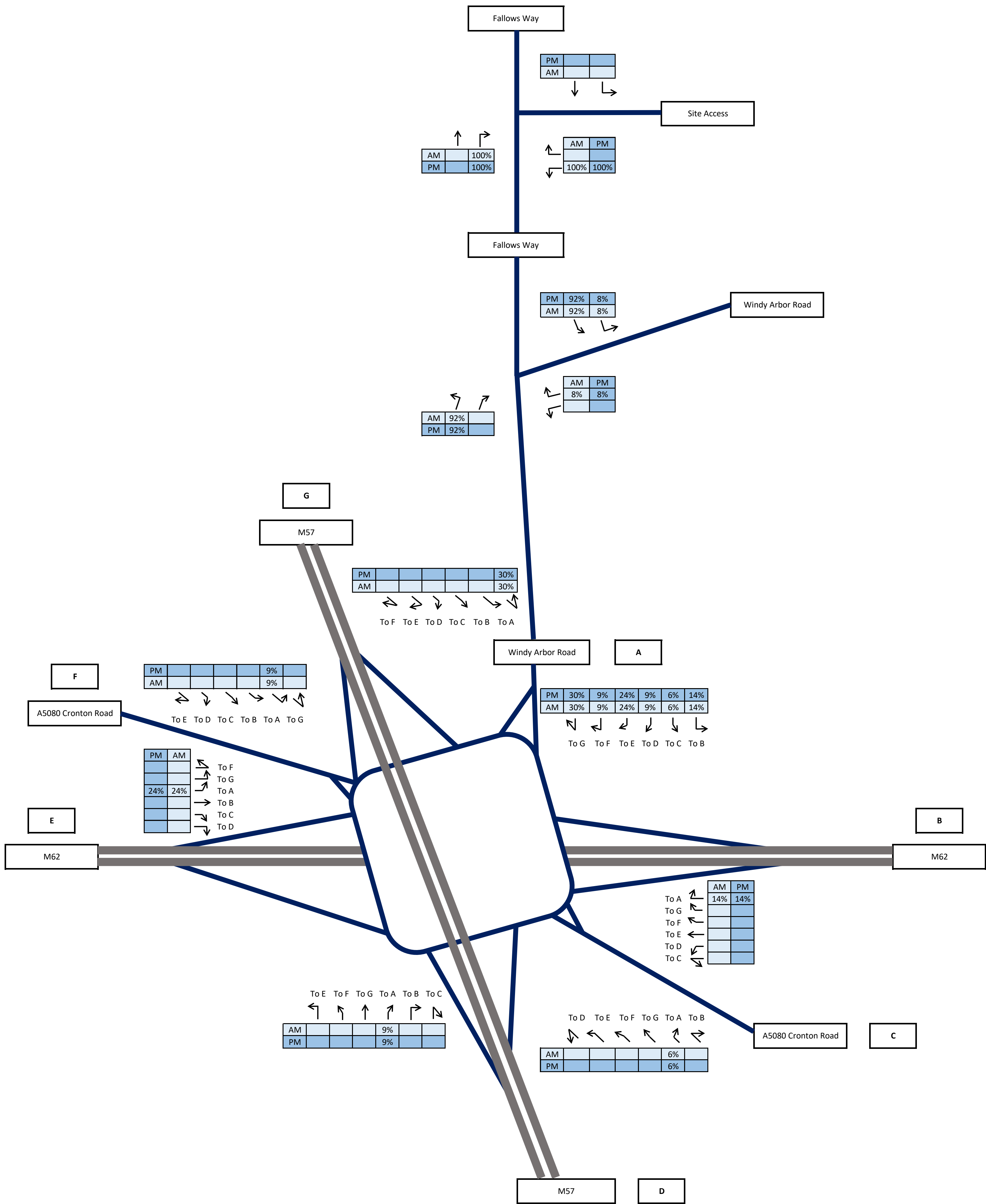
Figure 10

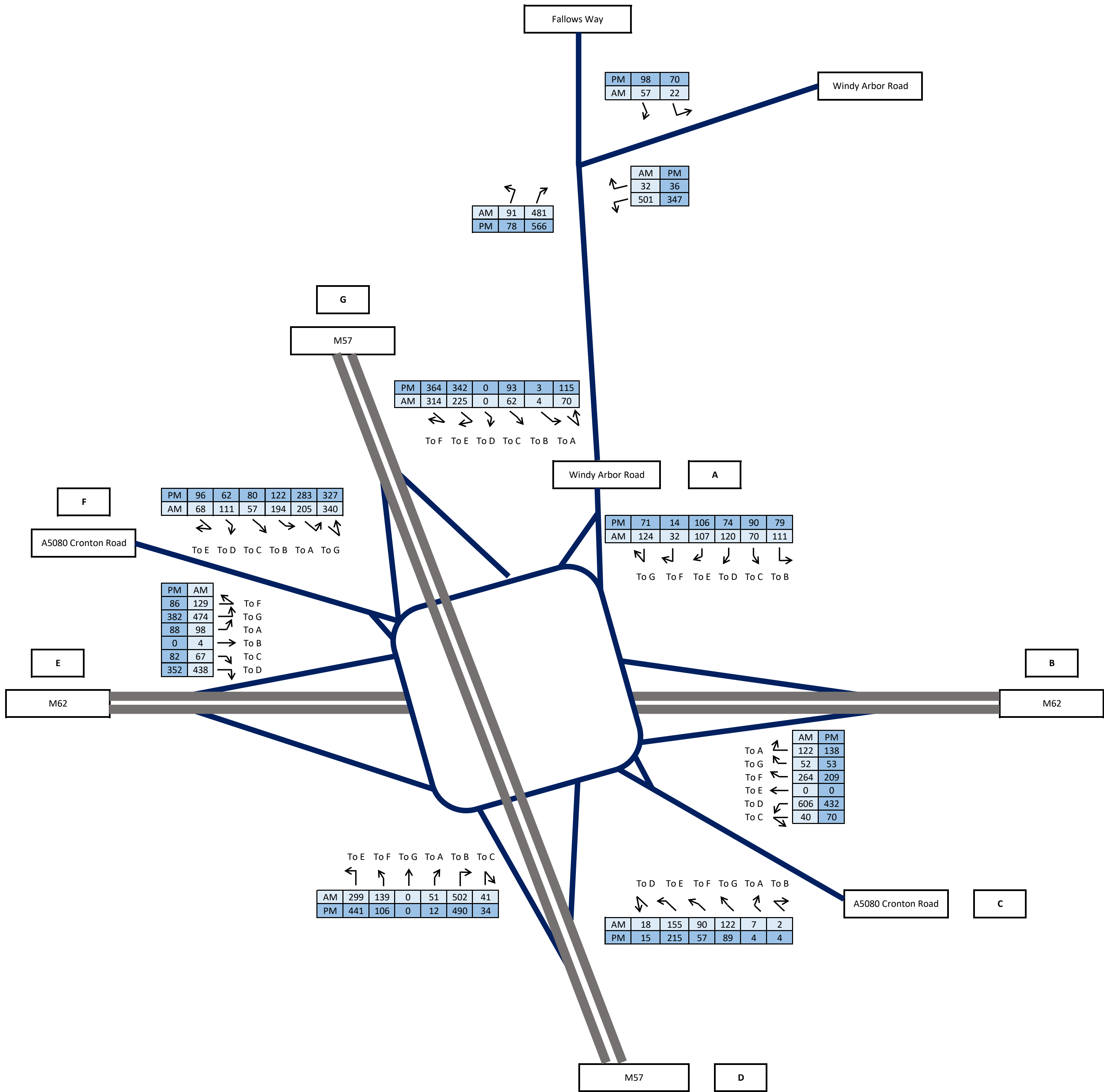
2029 Base Traffic Flow Diagram

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MHT

PM 16:45 - 17:45







APPENDICES

Appendix A – Site Layout Plan

Appendix B – Windy Arbor Road / Fallows Way Junctions9 Modelling

Appendix C – Tarbock Roundabout LinSig Modelling

Appendix D - Proposed Site Access Design

Appendix E – Proposed Site Access Visibility Splays

Appendix F – Max Legal Articulated Vehicle Swept Path Analysis

Appendix G – B2 TRICS Data

Appendix H – Office TRICS Data

Appendix A

SITE LAYOUT PLAN



Appendix B

WINDY ARBOR ROAD / FALLOWS WAY JUNCTIONS9 MODELLING

Junctions 9									
PICADY 9 - Priority Intersection Module									
Version: 9.5.1.7462 © Copyright TRL Limited, 2019									
For sales and distribution information, program advice and maintenance, contact TRL: +44 (0)1344 379777 software@trl.co.uk www.trlsoftware.co.uk									
The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution									

Filename: Windy Arbor Road - Fallows Way.j9

Path: C:\AMA\AMA\AMA - Documents\001 - Projects\21686 - Allied Properties Fallows Way Prescott\D Models and Drawings\JUNCTION MODELLING

Report generation date: 20/03/2024 14:38:45

- »Windy Arbor Road / Fallows Way - 2024, AM
- »Windy Arbor Road / Fallows Way - 2024, PM
- »Windy Arbor Road / Fallows Way - 2029, AM
- »Windy Arbor Road / Fallows Way - 2029, PM
- »Windy Arbor Road / Fallows Way - 2029 + Dev, AM
- »Windy Arbor Road / Fallows Way - 2029 + Dev, PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	Windy Arbor Road / Fallows Way - 2024									
Stream B-C	D1	0.0	6.43	0.04	A	D2	0.1	7.01	0.12	A
Stream B-A		0.2	10.25	0.14	B		0.2	10.75	0.19	B
Stream C-AB		0.2	5.11	0.10	A		0.2	5.85	0.10	A
	Windy Arbor Road / Fallows Way - 2029									
Stream B-C	D3	0.0	6.50	0.04	A	D4	0.1	7.25	0.13	A
Stream B-A		0.2	10.57	0.14	B		0.3	11.37	0.21	B
Stream C-AB		0.2	5.08	0.10	A		0.3	5.84	0.11	A
	Windy Arbor Road / Fallows Way - 2029 + Dev									
Stream B-C	D5	0.0	6.60	0.04	A	D6	0.2	7.61	0.13	A
Stream B-A		0.2	10.83	0.15	B		0.4	12.05	0.26	B
Stream C-AB		0.2	5.13	0.11	A		0.3	5.84	0.11	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	Windy Arbor Road / Fallows Way
Location	Prescot
Site number	
Date	09/02/2023
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	AzureAD\Modellinglaptop
Description	

Units

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

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		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)
D1	2024	AM	ONE HOUR	07:15	08:45	15
D2	2024	PM	ONE HOUR	16:30	18:00	15
D3	2029	AM	ONE HOUR	07:15	08:45	15
D4	2029	PM	ONE HOUR	16:30	18:00	15
D5	2029 + Dev	AM	ONE HOUR	07:15	08:45	15
D6	2029 + Dev	PM	ONE HOUR	16:30	18:00	15

Analysis Set Details

ID	Name	Network flow scaling factor (%)
A1	Windy Arbor Road / Fallows Way	100.000

Windy Arbor Road / Fallows Way - 2024, 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	Windy Arbor Road / Fallows Way	T-Junction	Two-way		0.88	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Windy Arbor Road (S)		Major
B	Fallows Way		Minor
C	Windy Arbor Road (N)		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 - Windy Arbor Road (N)	6.95			0.0	✓	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	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B - Fallows Way	One lane plus flare	10.00	6.16	3.94	3.70	3.70	✓	1.00	140	160

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	675	0.118	0.298	0.187	0.426
B-C	754	0.111	0.280	-	-
C-B	574	0.213	0.213	-	-

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)
D1	2024	AM	ONE HOUR	07:15	08:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Windy Arbor Road (S)		✓	535	100.000
B - Fallows Way		✓	71	100.000
C - Windy Arbor Road (N)		✓	497	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Windy Arbor Road (S)	B - Fallows Way	C - Windy Arbor Road (N)
	From			
	A - Windy Arbor Road (S)	0	85	450
	B - Fallows Way	50	0	21
	C - Windy Arbor Road (N)	469	28	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Windy Arbor Road (S)	B - Fallows Way	C - Windy Arbor Road (N)
	From			
	A - Windy Arbor Road (S)	0	0	0
	B - Fallows Way	0	0	0
	C - Windy Arbor Road (N)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.04	6.43	0.0	A
B-A	0.14	10.25	0.2	B
C-AB	0.10	5.11	0.2	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:15 - 07:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	16	640	0.025	16	0.0	5.769	A
B-A	38	491	0.077	37	0.1	7.921	A
C-AB	40	745	0.054	40	0.1	5.101	A
C-A	334			334			
A-B	64			64			
A-C	339			339			

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	19	616	0.031	19	0.0	6.025	A
B-A	45	456	0.099	45	0.1	8.760	A
C-AB	55	783	0.070	55	0.1	4.947	A
C-A	392			392			
A-B	76			76			
A-C	405			405			

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	23	583	0.040	23	0.0	6.426	A
B-A	55	406	0.135	55	0.2	10.236	B
C-AB	81	836	0.097	81	0.2	4.768	A
C-A	466			466			
A-B	94			94			
A-C	495			495			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	23	583	0.040	23	0.0	6.428	A
B-A	55	406	0.135	55	0.2	10.248	B
C-AB	81	836	0.097	81	0.2	4.769	A
C-A	466			466			
A-B	94			94			
A-C	495			495			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	19	616	0.031	19	0.0	6.030	A
B-A	45	456	0.099	45	0.1	8.774	A
C-AB	55	783	0.070	55	0.1	4.950	A
C-A	392			392			
A-B	76			76			
A-C	405			405			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	16	639	0.025	16	0.0	5.775	A
B-A	38	491	0.077	38	0.1	7.939	A
C-AB	40	746	0.054	40	0.1	5.107	A
C-A	334			334			
A-B	64			64			
A-C	339			339			

Windy Arbor Road / Fallows Way - 2024, 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	Windy Arbor Road / Fallows Way	T-Junction	Two-way		1.44	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)
D2	2024	PM	ONE HOUR	16:30	18:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Windy Arbor Road (S)		✓	592	100.000
B - Fallows Way		✓	133	100.000
C - Windy Arbor Road (N)		✓	352	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Windy Arbor Road (S)	B - Fallows Way	C - Windy Arbor Road (N)
From	A - Windy Arbor Road (S)	0	72	520
	B - Fallows Way	71	0	62
	C - Windy Arbor Road (N)	319	33	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Windy Arbor Road (S)	B - Fallows Way	C - Windy Arbor Road (N)
From	A - Windy Arbor Road (S)	0	0	0
	B - Fallows Way	0	0	0
	C - Windy Arbor Road (N)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.12	7.01	0.1	A
B-A	0.19	10.75	0.2	B
C-AB	0.10	5.85	0.2	A
C-A				
A-B				
A-C				

Main Results for each time segment

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	47	652	0.072	46	0.1	5.940	A
B-A	53	497	0.108	53	0.1	8.106	A
C-AB	39	655	0.060	39	0.1	5.839	A
C-A	226			226			
A-B	54			54			
A-C	391			391			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	56	623	0.089	56	0.1	6.343	A
B-A	64	462	0.138	64	0.2	9.042	A
C-AB	52	674	0.077	52	0.1	5.786	A
C-A	265			265			
A-B	65			65			
A-C	467			467			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	68	582	0.117	68	0.1	7.009	A
B-A	78	413	0.189	78	0.2	10.731	B
C-AB	73	702	0.104	73	0.2	5.731	A
C-A	314			314			
A-B	79			79			
A-C	573			573			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	68	581	0.117	68	0.1	7.014	A
B-A	78	413	0.189	78	0.2	10.750	B
C-AB	73	702	0.104	73	0.2	5.735	A
C-A	314			314			
A-B	79			79			
A-C	573			573			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	56	623	0.089	56	0.1	6.352	A
B-A	64	462	0.138	64	0.2	9.064	A
C-AB	52	674	0.077	52	0.1	5.794	A
C-A	264			264			
A-B	65			65			
A-C	467			467			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	47	652	0.072	47	0.1	5.953	A
B-A	53	497	0.108	54	0.1	8.130	A
C-AB	39	655	0.060	40	0.1	5.849	A
C-A	226			226			
A-B	54			54			
A-C	391			391			

Windy Arbor Road / Fallows Way - 2029, 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	Windy Arbor Road / Fallows Way	T-Junction	Two-way		0.90	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)
D3	2029	AM	ONE HOUR	07:15	08:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Windy Arbor Road (S)		✓	554	100.000
B - Fallows Way		✓	73	100.000
C - Windy Arbor Road (N)		✓	514	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Windy Arbor Road (S)	B - Fallows Way	C - Windy Arbor Road (N)
From	A - Windy Arbor Road (S)	0	88	466
	B - Fallows Way	51	0	22
	C - Windy Arbor Road (N)	485	29	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Windy Arbor Road (S)	B - Fallows Way	C - Windy Arbor Road (N)
From	A - Windy Arbor Road (S)	0	0	0
	B - Fallows Way	0	0	0
	C - Windy Arbor Road (N)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.04	6.50	0.0	A
B-A	0.14	10.57	0.2	B
C-AB	0.10	5.08	0.2	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:15 - 07:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	17	637	0.026	16	0.0	5.804	A
B-A	38	485	0.079	38	0.1	8.054	A
C-AB	42	752	0.056	42	0.1	5.072	A
C-A	345			345			
A-B	66			66			
A-C	351			351			

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	20	612	0.032	20	0.0	6.073	A
B-A	46	448	0.102	46	0.1	8.953	A
C-AB	58	791	0.074	58	0.1	4.918	A
C-A	404			404			
A-B	79			79			
A-C	419			419			

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	24	578	0.042	24	0.0	6.500	A
B-A	56	397	0.142	56	0.2	10.557	B
C-AB	87	846	0.103	87	0.2	4.742	A
C-A	479			479			
A-B	97			97			
A-C	513			513			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	24	578	0.042	24	0.0	6.502	A
B-A	56	397	0.142	56	0.2	10.573	B
C-AB	87	847	0.103	87	0.2	4.746	A
C-A	479			479			
A-B	97			97			
A-C	513			513			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	20	612	0.032	20	0.0	6.076	A
B-A	46	448	0.102	46	0.1	8.967	A
C-AB	59	791	0.074	59	0.1	4.924	A
C-A	404			404			
A-B	79			79			
A-C	419			419			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	17	636	0.026	17	0.0	5.809	A
B-A	38	485	0.079	39	0.1	8.071	A
C-AB	43	752	0.057	43	0.1	5.079	A
C-A	344			344			
A-B	66			66			
A-C	351			351			

Windy Arbor Road / Fallows Way - 2029, 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	Windy Arbor Road / Fallows Way	T-Junction	Two-way		1.51	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)
D4	2029	PM	ONE HOUR	16:30	18:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Windy Arbor Road (S)		✓	622	100.000
B - Fallows Way		✓	141	100.000
C - Windy Arbor Road (N)		✓	370	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Windy Arbor Road (S)	B - Fallows Way	C - Windy Arbor Road (N)
From	A - Windy Arbor Road (S)	0	75	547
	B - Fallows Way	75	0	66
	C - Windy Arbor Road (N)	335	35	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Windy Arbor Road (S)	B - Fallows Way	C - Windy Arbor Road (N)
From	A - Windy Arbor Road (S)	0	0	0
	B - Fallows Way	0	0	0
	C - Windy Arbor Road (N)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.13	7.25	0.1	A
B-A	0.21	11.37	0.3	B
C-AB	0.11	5.84	0.3	A
C-A				
A-B				
A-C				

Main Results for each time segment

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	50	645	0.077	49	0.1	6.043	A
B-A	56	487	0.116	56	0.1	8.340	A
C-AB	43	660	0.065	42	0.1	5.827	A
C-A	236			236			
A-B	56			56			
A-C	412			412			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	59	614	0.097	59	0.1	6.488	A
B-A	67	450	0.150	67	0.2	9.396	A
C-AB	57	680	0.083	57	0.2	5.776	A
C-A	276			276			
A-B	67			67			
A-C	492			492			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	73	569	0.128	73	0.1	7.242	A
B-A	83	399	0.207	82	0.3	11.350	B
C-AB	81	709	0.114	80	0.3	5.728	A
C-A	327			327			
A-B	83			83			
A-C	602			602			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	73	569	0.128	73	0.1	7.248	A
B-A	83	399	0.207	83	0.3	11.375	B
C-AB	81	710	0.114	81	0.3	5.737	A
C-A	327			327			
A-B	83			83			
A-C	602			602			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	59	614	0.097	59	0.1	6.496	A
B-A	67	450	0.150	68	0.2	9.421	A
C-AB	57	680	0.084	57	0.2	5.789	A
C-A	276			276			
A-B	67			67			
A-C	492			492			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	50	644	0.077	50	0.1	6.056	A
B-A	56	487	0.116	57	0.1	8.370	A
C-AB	43	660	0.065	43	0.1	5.840	A
C-A	236			236			
A-B	56			56			
A-C	412			412			

Windy Arbor Road / Fallows Way - 2029 + Dev, 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	Windy Arbor Road / Fallows Way	T-Junction	Two-way		0.95	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)
D5	2029 + Dev	AM	ONE HOUR	07:15	08:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Windy Arbor Road (S)		✓	580	100.000
B - Fallows Way		✓	77	100.000
C - Windy Arbor Road (N)		✓	516	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Windy Arbor Road (S)	B - Fallows Way	C - Windy Arbor Road (N)
From	A - Windy Arbor Road (S)	0	114	466
	B - Fallows Way	55	0	22
	C - Windy Arbor Road (N)	485	31	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Windy Arbor Road (S)	B - Fallows Way	C - Windy Arbor Road (N)
From	A - Windy Arbor Road (S)	0	0	0
	B - Fallows Way	0	0	0
	C - Windy Arbor Road (N)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.04	6.60	0.0	A
B-A	0.15	10.83	0.2	B
C-AB	0.11	5.13	0.2	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:15 - 07:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	17	631	0.026	16	0.0	5.862	A
B-A	41	483	0.086	41	0.1	8.146	A
C-AB	46	748	0.061	45	0.1	5.119	A
C-A	343			343			
A-B	86			86			
A-C	351			351			

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	20	606	0.033	20	0.0	6.144	A
B-A	49	445	0.111	49	0.1	9.095	A
C-AB	63	787	0.080	63	0.1	4.972	A
C-A	401			401			
A-B	102			102			
A-C	419			419			

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	24	570	0.043	24	0.0	6.596	A
B-A	61	393	0.154	60	0.2	10.814	B
C-AB	94	842	0.111	93	0.2	4.810	A
C-A	474			474			
A-B	126			126			
A-C	513			513			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	24	570	0.043	24	0.0	6.598	A
B-A	61	393	0.154	61	0.2	10.830	B
C-AB	94	842	0.112	94	0.2	4.815	A
C-A	474			474			
A-B	126			126			
A-C	513			513			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	20	605	0.033	20	0.0	6.148	A
B-A	49	445	0.111	50	0.1	9.113	A
C-AB	63	787	0.080	63	0.2	4.979	A
C-A	401			401			
A-B	102			102			
A-C	419			419			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	17	630	0.026	17	0.0	5.868	A
B-A	41	482	0.086	42	0.1	8.167	A
C-AB	46	749	0.061	46	0.1	5.126	A
C-A	343			343			
A-B	86			86			
A-C	351			351			

Windy Arbor Road / Fallows Way - 2029 + Dev, 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	Windy Arbor Road / Fallows Way	T-Junction	Two-way		1.77	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)
D6	2029 + Dev	PM	ONE HOUR	16:30	18:00	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Windy Arbor Road (S)		✓	626	100.000
B - Fallows Way		✓	163	100.000
C - Windy Arbor Road (N)		✓	370	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Windy Arbor Road (S)	B - Fallows Way	C - Windy Arbor Road (N)
From	A - Windy Arbor Road (S)	0	79	547
	B - Fallows Way	96	0	67
	C - Windy Arbor Road (N)	335	35	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Windy Arbor Road (S)	B - Fallows Way	C - Windy Arbor Road (N)
From	A - Windy Arbor Road (S)	0	0	0
	B - Fallows Way	0	0	0
	C - Windy Arbor Road (N)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.13	7.61	0.2	A
B-A	0.26	12.05	0.4	B
C-AB	0.11	5.84	0.3	A
C-A				
A-B				
A-C				

Main Results for each time segment

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	50	628	0.080	50	0.1	6.221	A
B-A	72	494	0.146	72	0.2	8.502	A
C-AB	43	659	0.065	42	0.1	5.832	A
C-A	236			236			
A-B	59			59			
A-C	412			412			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	60	596	0.101	60	0.1	6.721	A
B-A	86	457	0.189	86	0.2	9.706	A
C-AB	57	679	0.084	57	0.2	5.783	A
C-A	276			276			
A-B	71			71			
A-C	492			492			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	74	547	0.135	74	0.2	7.597	A
B-A	106	404	0.261	105	0.3	12.011	B
C-AB	81	709	0.114	80	0.3	5.735	A
C-A	327			327			
A-B	87			87			
A-C	602			602			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	74	547	0.135	74	0.2	7.606	A
B-A	106	404	0.261	106	0.4	12.052	B
C-AB	81	709	0.114	81	0.3	5.742	A
C-A	326			326			
A-B	87			87			
A-C	602			602			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	60	595	0.101	60	0.1	6.731	A
B-A	86	457	0.189	87	0.2	9.745	A
C-AB	57	680	0.084	57	0.2	5.795	A
C-A	276			276			
A-B	71			71			
A-C	492			492			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	50	628	0.080	51	0.1	6.239	A
B-A	72	494	0.146	73	0.2	8.541	A
C-AB	43	660	0.065	43	0.1	5.844	A
C-A	236			236			
A-B	59			59			
A-C	412			412			

Appendix C

TARBOCK ROUNDABOUT LINSIG MODELLING

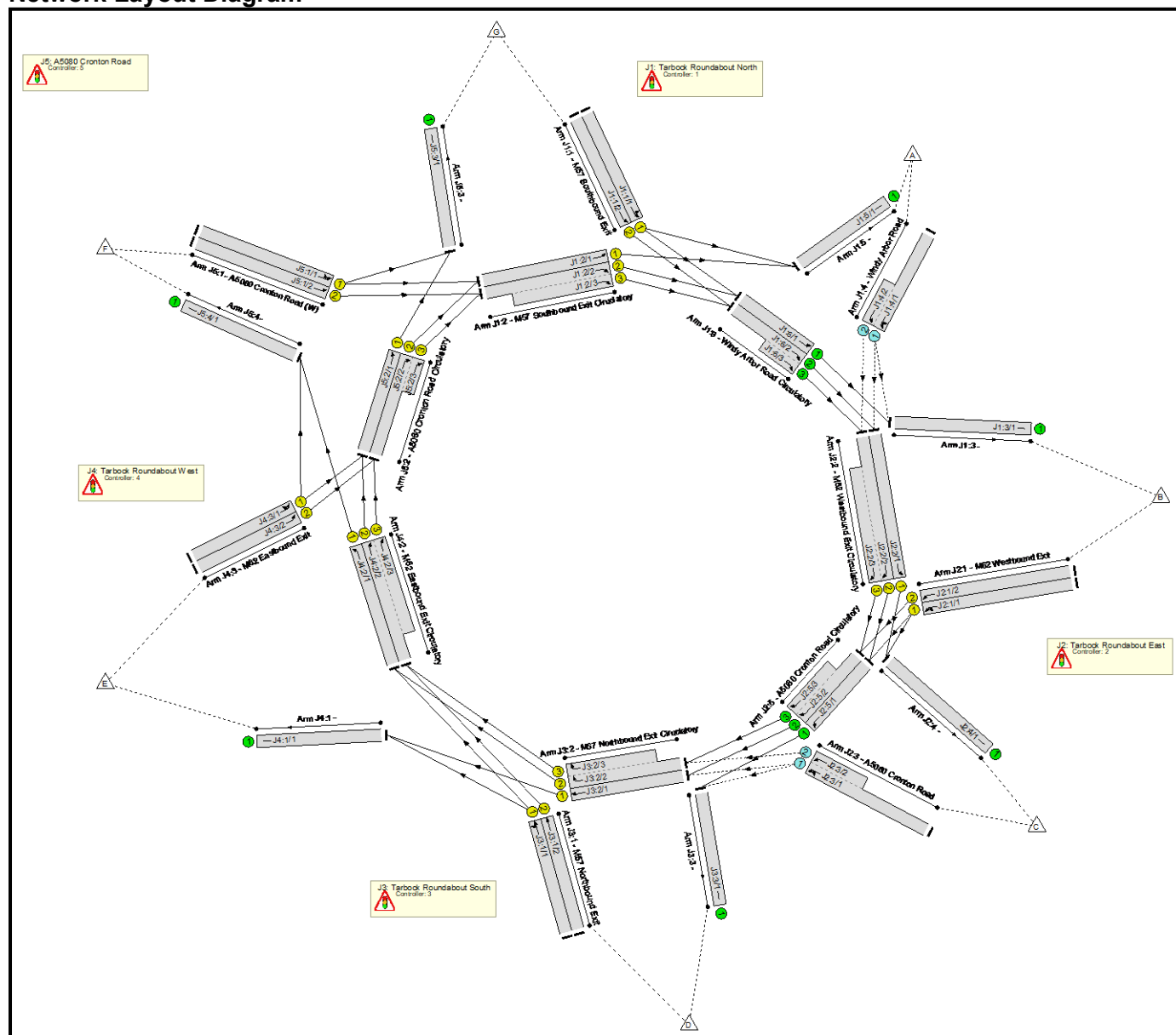
Full Input Data And Results

Full Input Data And Results

User and Project Details

Project:	
Title:	
Location:	
Additional detail:	
File name:	Tarbock Roundabout 2024.lsg3x
Author:	
Company:	
Address:	

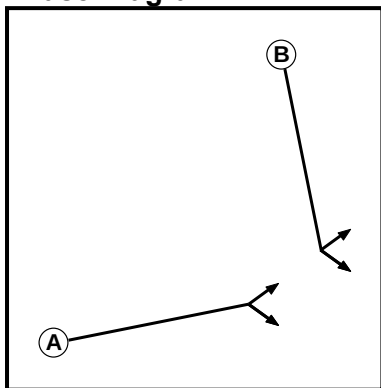
Network Layout Diagram



Full Input Data And Results

C1 - Tarbock Roundabout North

Phase Diagram



Phase Input Data

Phase Name	Phase Type	Stage Stream	Assoc. Phase	Street Min	Cont Min
A	Traffic	1		7	7
B	Traffic	1		7	7

Phase Intergreens Matrix

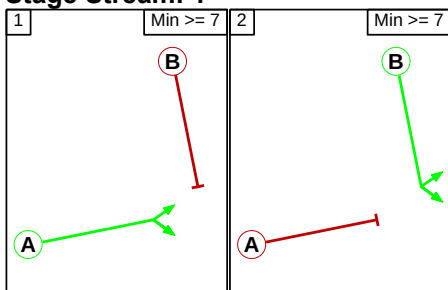
Terminating Phase	Starting Phase	
	A	B
	A	B

Phases in Stage

Stream	Stage No.	Phases in Stage
1	1	A
1	2	B

Stage Diagram

Stage Stream: 1



Phase Delays

Stage Stream: 1

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Prohibited Stage Change

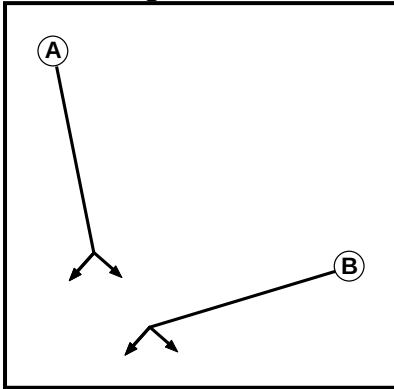
Stage Stream: 1

From Stage	To Stage	
	1	2
	1	2

Full Input Data And Results

C2 - Tarbock Roundabout East

Phase Diagram



Phase Input Data

Phase Name	Phase Type	Stage Stream	Assoc. Phase	Street Min	Cont Min
A	Traffic	1		7	7
B	Traffic	1		7	7

Phase Intergreens Matrix

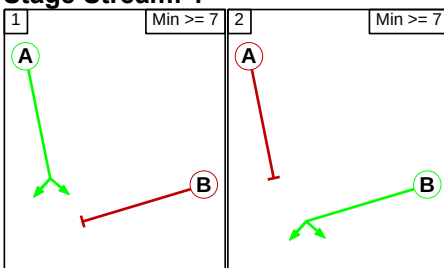
Terminating Phase	Starting Phase	
	A	B
	A	6
	B	6

Phases in Stage

Stream	Stage No.	Phases in Stage
1	1	A
1	2	B

Stage Diagram

Stage Stream: 1



Phase Delays

Stage Stream: 1

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

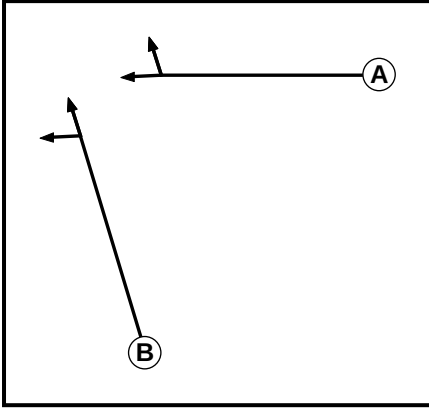
Prohibited Stage Change

Stage Stream: 1

From Stage	To Stage	
	1	2
	1	6
	2	6

Full Input Data And Results

C3 - Tarbock Roundabout South Phase Diagram



Phase Input Data

Phase Name	Phase Type	Stage Stream	Assoc. Phase	Street Min	Cont Min
A	Traffic	1		7	7
B	Traffic	1		7	7

Phase Intergreens Matrix

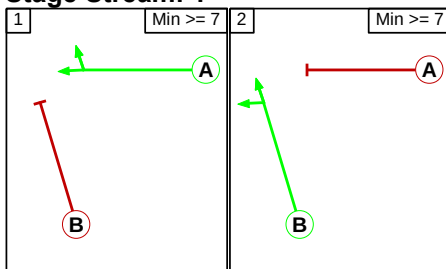
Terminating Phase	Starting Phase		
	A	B	
	6		
	B	6	

Phases in Stage

Stream	Stage No.	Phases in Stage
1	1	A
1	2	B

Stage Diagram

Stage Stream: 1



Phase Delays

Stage Stream: 1

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Prohibited Stage Change

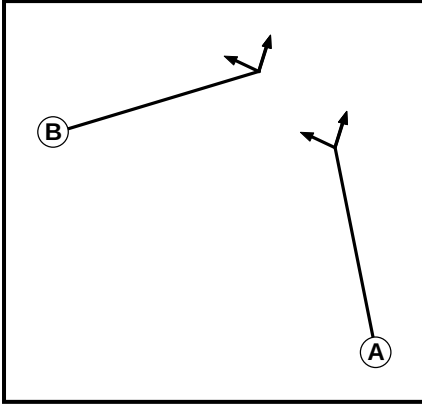
Stage Stream: 1

From Stage	To Stage		
	1	2	
	6		
	2	6	

Full Input Data And Results

C4 - Tarbock Roundabout West

Phase Diagram



Phase Input Data

Phase Name	Phase Type	Stage Stream	Assoc. Phase	Street Min	Cont Min
A	Traffic	1		7	7
B	Traffic	1		7	7

Phase Intergreens Matrix

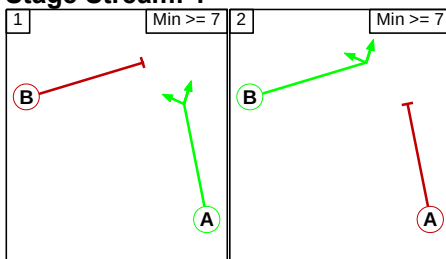
Terminating Phase	Starting Phase		
	A	B	
	6		

Phases in Stage

Stream	Stage No.	Phases in Stage
1	1	A
1	2	B

Stage Diagram

Stage Stream: 1



Phase Delays

Stage Stream: 1

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Prohibited Stage Change

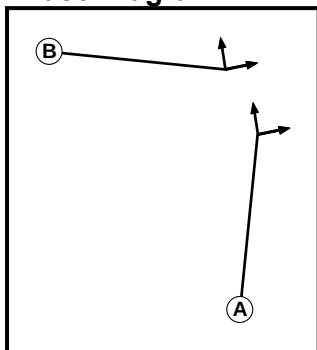
Stage Stream: 1

From Stage	To Stage	
	1	2
	6	

Full Input Data And Results

C5 - A5080 Cronton Road

Phase Diagram



Phase Input Data

Phase Name	Phase Type	Stage Stream	Assoc. Phase	Street Min	Cont Min
A	Traffic	1		7	7
B	Traffic	1		7	7

Phase Intergreens Matrix

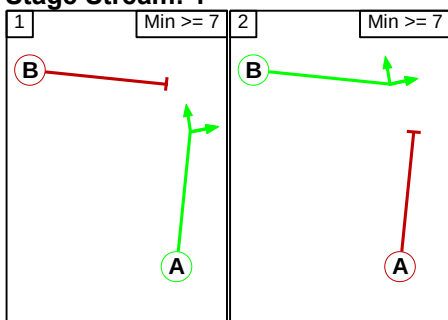
Terminating Phase	Starting Phase	
	A	B
	A	6
B	6	

Phases in Stage

Stream	Stage No.	Phases in Stage
1	1	A
1	2	B

Stage Diagram

Stage Stream: 1



Phase Delays

Stage Stream: 1

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Prohibited Stage Change

Stage Stream: 1

From Stage	To Stage	
	1	2
	1	6
2	6	

Give-Way Lane Input Data

Junction: J1: Tarbock Roundabout North											
Lane	Movement	Max Flow when Giving Way (PCU/Hr)	Min Flow when Giving Way (PCU/Hr)	Opposing Lane	Opp. Lane Coeff.	Opp. Mvmnts.	Right Turn Storage (PCU)	Non-Blocking Storage (PCU)	RTF	Right Turn Move up (s)	Max Turns in Intergreen (PCU)
J1:4/1 (Windy Arbor Road)	J2:2/1 (Ahead)	1439	0	J1:6/1	1.09	All	-	-	-	-	-
	J1:3/1 (Left)	1439	0	J1:6/2	1.09	All					
J1:4/2 (Windy Arbor Road)	J2:2/2 (Ahead)	1439	0	J1:6/1	1.09	All					
				J1:6/2	1.09	All	-	-	-	-	-
				J1:6/3	1.09	All					

Junction: J2: Tarbock Roundabout East											
Lane	Movement	Max Flow when Giving Way (PCU/Hr)	Min Flow when Giving Way (PCU/Hr)	Opposing Lane	Opp. Lane Coeff.	Opp. Mvmnts.	Right Turn Storage (PCU)	Non-Blocking Storage (PCU)	RTF	Right Turn Move up (s)	Max Turns in Intergreen (PCU)
J2:3/1 (A5080 Cronton Road)	J3:2/1 (Ahead)	1439	0	J2:5/1	1.09	All	-	-	-	-	-
	J3:3/1 (Left)	1439	0	J2:5/2	1.09	All					
				J2:5/1	1.09	All					
J2:3/2 (A5080 Cronton Road)	J3:2/2 (Ahead)	1439	0	J2:5/1	1.09	All	-	-	-	-	-
				J2:5/2	1.09	All					
				J2:5/3	1.09	All					

Junction: J3: Tarbock Roundabout South

There are no Opposed Lanes in this Junction

Junction: J4: Tarbock Roundabout West

There are no Opposed Lanes in this Junction

Junction: J5: A5080 Cronton Road

There are no Opposed Lanes in this Junction

Full Input Data And Results

Lane Input Data

Junction: J1: Tarbock Roundabout North												
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
J1:1/1 (M57 Southbound Exit)	U	B	2	3	60.0	Geom	-	3.70	0.00	Y	Arm J1:5 Left	Inf
J1:1/2 (M57 Southbound Exit)	U	B	2	3	60.0	Geom	-	3.70	0.00	N	Arm J1:6 Ahead	Inf
J1:2/1 (M57 Southbound Exit Ciruclatory)	U	A	2	3	60.0	Geom	-	3.25	0.00	Y	Arm J1:5 Ahead	Inf
J1:2/2 (M57 Southbound Exit Ciruclatory)	U	A	2	3	60.0	Geom	-	3.25	0.00	N	Arm J1:6 Right	Inf
J1:2/3 (M57 Southbound Exit Ciruclatory)	U	A	2	3	12.2	Geom	-	3.25	0.00	N	Arm J1:6 Right	Inf
J1:3/1	U		2	3	60.0	Inf	-	-	-	-	-	-
J1:4/1 (Windy Arbor Road)	O		2	3	60.0	Geom	-	3.50	0.00	Y	Arm J2:2 Ahead	Inf
J1:4/2 (Windy Arbor Road)	O		2	3	5.6	Geom	-	3.50	0.00	N	Arm J1:3 Left	Inf
J1:5/1	U		2	3	60.0	Inf	-	-	-	-	-	-
J1:6/1 (Windy Arbor Road Circulatory)	U		2	3	60.0	Geom	-	3.25	0.00	Y	Arm J1:3 Ahead	Inf
J1:6/2 (Windy Arbor Road Circulatory)	U		2	3	60.0	Geom	-	3.25	0.00	Y	Arm J2:2 Ahead	Inf
J1:6/3 (Windy Arbor Road Circulatory)	U		2	3	5.0	Geom	-	3.25	0.00	N	Arm J2:2 Ahead	Inf

Full Input Data And Results

Junction: J2: Tarbock Roundabout East												
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
J2:1/1 (M62 Westbound Exit)	U	B	2	3	60.0	Geom	-	4.40	0.00	Y	Arm J2:4 Left	Inf
											Arm J2:5 Ahead	Inf
J2:1/2 (M62 Westbound Exit)	U	B	2	3	60.0	Geom	-	4.40	0.00	N	Arm J2:5 Ahead	Inf
J2:2/1 (M62 Westbound Exit Circulatory)	U	A	2	3	60.0	Geom	-	3.25	0.00	Y	Arm J2:4 Ahead	Inf
J2:2/2 (M62 Westbound Exit Circulatory)	U	A	2	3	60.0	Geom	-	3.25	0.00	N	Arm J2:5 Right	Inf
J2:2/3 (M62 Westbound Exit Circulatory)	U	A	2	3	16.5	Geom	-	3.25	0.00	N	Arm J2:5 Right	Inf
J2:3/1 (A5080 Cronton Road)	O		2	3	60.0	Geom	-	3.50	0.00	Y	Arm J3:2 Ahead Arm J3:3 Left	Inf Inf
J2:3/2 (A5080 Cronton Road)	O		2	3	7.0	Geom	-	3.50	0.00	N	Arm J3:2 Ahead	Inf
J2:4/1	U		2	3	60.0	Inf	-	-	-	-	-	-
J2:5/1 (A5080 Cronton Road Circulatory)	U		2	3	60.0	Geom	-	3.25	0.00	Y	Arm J3:3 Left	Inf
J2:5/2 (A5080 Cronton Road Circulatory)	U		2	3	60.0	Geom	-	3.25	0.00	N	Arm J3:2 Ahead	Inf
J2:5/3 (A5080 Cronton Road Circulatory)	U		2	3	7.3	Geom	-	3.25	0.00	N	Arm J3:2 Ahead	Inf

Full Input Data And Results

Junction: J3: Tarbock Roundabout South												
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
J3:1/1 (M57 Northbound Exit)	U	B	2	3	60.0	Geom	-	5.00	0.00	Y	Arm J4:1 Left Arm J4:2 Ahead	Inf Inf
J3:1/2 (M57 Northbound Exit)	U	B	2	3	60.0	Geom	-	5.00	0.00	N	Arm J4:2 Ahead	Inf
J3:2/1 (M57 Northbound Exit Ciruclatory)	U	A	2	3	60.0	Geom	-	3.25	0.00	Y	Arm J4:1 Ahead	Inf
J3:2/2 (M57 Northbound Exit Ciruclatory)	U	A	2	3	60.0	Geom	-	3.25	0.00	N	Arm J4:2 Right	Inf
J3:2/3 (M57 Northbound Exit Ciruclatory)	U	A	2	3	16.5	Geom	-	3.25	0.00	N	Arm J4:2 Right	Inf
J3:3/1	U		2	3	60.0	Inf	-	-	-	-	-	-

Full Input Data And Results

Junction: J4: Tarbock Roundabout West												
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
J4:1/1	U		2	3	60.0	Inf	-	-	-	-	-	-
J4:2/1 (M62 Eastbound Exit Circulatory)	U	A	2	3	60.0	Geom	-	3.25	0.00	Y	Arm J5:4 Left	Inf
J4:2/2 (M62 Eastbound Exit Circulatory)	U	A	2	3	60.0	Geom	-	3.25	0.00	N	Arm J5:2 Ahead	Inf
J4:2/3 (M62 Eastbound Exit Circulatory)	U	A	2	3	16.5	Geom	-	3.25	0.00	N	Arm J5:2 Ahead	Inf
J4:3/1 (M62 Eastbound Exit)	U	B	2	3	60.0	Geom	-	3.50	0.00	Y	Arm J5:2 Left	Inf
J4:3/2 (M62 Eastbound Exit)	U	B	2	3	60.0	Geom	-	3.50	0.00	N	Arm J5:4 Left	Inf
											Arm J5:2 Left	Inf

Full Input Data And Results

Junction: J5: A5080 Cronton Road												
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
J5:1/1 (A5080 Cronton Road (W))	U	B	2	3	60.0	Geom	-	3.70	0.00	Y	Arm J1:2 Ahead	Inf
											Arm J5:3 Left	Inf
J5:1/2 (A5080 Cronton Road (W))	U	B	2	3	60.0	Geom	-	3.70	0.00	N	Arm J1:2 Ahead	Inf
J5:2/1 (A5080 Cronton Road Circulatory)	U	A	2	3	60.0	Geom	-	3.40	0.00	Y	Arm J5:3 Ahead	Inf
J5:2/2 (A5080 Cronton Road Circulatory)	U	A	2	3	60.0	Geom	-	3.40	0.00	N	Arm J1:2 Right	Inf
J5:2/3 (A5080 Cronton Road Circulatory)	U	A	2	3	4.3	Geom	-	3.40	0.00	N	Arm J1:2 Right	Inf
J5:3/1	U		2	3	60.0	Inf	-	-	-	-	-	-
J5:4/1	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2024 AM'	08:00	09:00	01:00	
2: '2024 PM'	16:00	17:00	01:00	
3: '2029 AM'	08:00	09:00	01:00	
4: '2029 PM'	16:00	17:00	01:00	
5: '2034 AM'	08:00	09:00	01:00	
6: '2034 PM'	16:00	17:00	01:00	
7: '2029 + Development AM'	08:00	09:00	01:00	
8: '2029 + Development PM'	16:00	17:00	01:00	
9: '2034 + Development AM'	08:00	09:00	01:00	
10: '2034 + Development PM'	16:00	17:00	01:00	

Full Input Data And Results

Scenario 1: '2024 AM' (FG1: '2024 AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Destination									
Origin		A	B	C	D	E	F	G	Tot.
	A	0	104	65	112	99	30	115	525
	B	110	0	37	567	0	247	49	1010
	C	5	2	0	17	145	84	114	367
	D	46	469	38	0	280	130	0	963
	E	85	4	63	409	0	120	444	1125
	F	190	181	54	104	64	0	319	912
	G	58	4	58	0	211	294	0	625
	Tot.	494	764	315	1209	799	905	1041	5527

Traffic Lane Flows

Lane	Scenario 1: 2024 AM
Junction: J1: Tarbock Roundabout North	
J1:1/1	62
J1:1/2	563
J1:2/1	436
J1:2/2 (with short)	1388(In) 656(Out)
J1:2/3 (short)	732
J1:3/1	764
J1:4/1 (with short)	525(In) 169(Out)
J1:4/2 (short)	356
J1:5/1	494
J1:6/1	660
J1:6/2 (with short)	1295(In) 213(Out)
J1:6/3 (short)	1082
Junction: J2: Tarbock Roundabout East	
J2:1/1	604
J2:1/2	406
J2:2/1	278
J2:2/2 (with short)	1438(In) 625(Out)
J2:2/3 (short)	813
J2:3/1 (with short)	367(In) 162(Out)
J2:3/2 (short)	205
J2:4/1	315
J2:5/1	1192

Full Input Data And Results

Lane	Scenario 1: 2024 AM
J2:5/2 (with short)	1219(In) 374(Out)
J2:5/3 (short)	845
Junction: J3: Tarbock Roundabout South	
J3:1/1	410
J3:1/2	553
J3:2/1	519
J3:2/2 (with short)	1050(In) 655(Out)
J3:2/3 (short)	395
J3:3/1	1209
Junction: J4: Tarbock Roundabout West	
J4:1/1	799
J4:2/1	785
J4:2/2 (with short)	948(In) 278(Out)
J4:2/3 (short)	670
J4:3/1	564
J4:3/2	561
Junction: J5: A5080 Cronton Road	
J5:1/1	509
J5:1/2	403
J5:2/1	722
J5:2/2 (with short)	1231(In) 246(Out)
J5:2/3 (short)	985
J5:3/1	1041
J5:4/1	905

Full Input Data And Results

Lane Saturation Flows

Junction: J1: Tarbock Roundabout North								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (M57 Southbound Exit)	3.70	0.00	Y	Arm J1:5 Left	Inf	93.5 %	1985	1985
				Arm J1:6 Ahead	Inf	6.5 %		
J1:1/2 (M57 Southbound Exit)	3.70	0.00	N	Arm J1:6 Ahead	Inf	100.0 %	2125	2125
J1:2/1 (M57 Southbound Exit Circulatory)	3.25	0.00	Y	Arm J1:5 Ahead	Inf	100.0 %	1940	1940
J1:2/2 (M57 Southbound Exit Circulatory)	3.25	0.00	N	Arm J1:6 Right	Inf	100.0 %	2080	2080
J1:2/3 (M57 Southbound Exit Circulatory)	3.25	0.00	N	Arm J1:6 Right	Inf	100.0 %	2080	2080
J1:3/1	Infinite Saturation Flow						Inf	Inf
J1:4/1 (Windy Arbor Road)	3.50	0.00	Y	Arm J2:2 Ahead	Inf	38.5 %	1965	1965
				Arm J1:3 Left	Inf	61.5 %		
J1:4/2 (Windy Arbor Road)	3.50	0.00	N	Arm J2:2 Ahead	Inf	100.0 %	2105	2105
J1:5/1	Infinite Saturation Flow						Inf	Inf
J1:6/1 (Windy Arbor Road Circulatory)	3.25	0.00	Y	Arm J1:3 Ahead	Inf	100.0 %	1940	1940
J1:6/2 (Windy Arbor Road Circulatory)	3.25	0.00	Y	Arm J2:2 Ahead	Inf	100.0 %	1940	1940
J1:6/3 (Windy Arbor Road Circulatory)	3.25	0.00	N	Arm J2:2 Ahead	Inf	100.0 %	2080	2080

Junction: J2: Tarbock Roundabout East								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1 (M62 Westbound Exit)	4.40	0.00	Y	Arm J2:4 Left Arm J2:5 Ahead	Inf Inf	6.1 % 93.9 %	2055	2055
J2:1/2 (M62 Westbound Exit)	4.40	0.00	N	Arm J2:5 Ahead	Inf	100.0 %	2195	2195
J2:2/1 (M62 Westbound Exit Circulatory)	3.25	0.00	Y	Arm J2:4 Ahead	Inf	100.0 %	1940	1940
J2:2/2 (M62 Westbound Exit Circulatory)	3.25	0.00	N	Arm J2:5 Right	Inf	100.0 %	2080	2080
J2:2/3 (M62 Westbound Exit Circulatory)	3.25	0.00	N	Arm J2:5 Right	Inf	100.0 %	2080	2080
J2:3/1 (A5080 Cronton Road)	3.50	0.00	Y	Arm J3:2 Ahead Arm J3:3 Left	Inf Inf	89.5 % 10.5 %	1965	1965
J2:3/2 (A5080 Cronton Road)	3.50	0.00	N	Arm J3:2 Ahead	Inf	100.0 %	2105	2105
J2:4/1	Infinite Saturation Flow						Inf	Inf
J2:5/1 (A5080 Cronton Road Circulatory)	3.25	0.00	Y	Arm J3:3 Left	Inf	100.0 %	1940	1940
J2:5/2 (A5080 Cronton Road Circulatory)	3.25	0.00	N	Arm J3:2 Ahead	Inf	100.0 %	2080	2080
J2:5/3 (A5080 Cronton Road Circulatory)	3.25	0.00	N	Arm J3:2 Ahead	Inf	100.0 %	2080	2080

[illegible]

Junction: J4: Tarbock Roundabout West								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J4:1/1	Infinite Saturation Flow						Inf	Inf
J4:2/1 (M62 Eastbound Exit Circulatory)	3.25	0.00	Y	Arm J5:4 Left	Inf	100.0 %	1940	1940
J4:2/2 (M62 Eastbound Exit Circulatory)	3.25	0.00	N	Arm J5:2 Ahead	Inf	100.0 %	2080	2080
J4:2/3 (M62 Eastbound Exit Circulatory)	3.25	0.00	N	Arm J5:2 Ahead	Inf	100.0 %	2080	2080
J4:3/1 (M62 Eastbound Exit)	3.50	0.00	Y	Arm J5:2 Left Arm J5:4 Left	Inf Inf	78.7 % 21.3 %	1965	1965
J4:3/2 (M62 Eastbound Exit)	3.50	0.00	N	Arm J5:2 Left	Inf	100.0 %	2105	2105

Junction: J5: A5080 Cronton Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J5:1/1 (A5080 Cronton Road (W))	3.70	0.00	Y	Arm J1:2 Ahead Arm J5:3 Left	Inf Inf	37.3 % 62.7 %	1985	1985
J5:1/2 (A5080 Cronton Road (W))	3.70	0.00	N	Arm J1:2 Ahead	Inf	100.0 %	2125	2125
J5:2/1 (A5080 Cronton Road Circulatory)	3.40	0.00	Y	Arm J5:3 Ahead	Inf	100.0 %	1955	1955
J5:2/2 (A5080 Cronton Road Circulatory)	3.40	0.00	N	Arm J1:2 Right	Inf	100.0 %	2095	2095
J5:2/3 (A5080 Cronton Road Circulatory)	3.40	0.00	N	Arm J1:2 Right	Inf	100.0 %	2095	2095
J5:3/1	Infinite Saturation Flow						Inf	Inf
J5:4/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 2: '2024 PM' (FG2: '2024 PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Destination									
Origin		A	B	C	D	E	F	G	Tot.
	A	0	70	81	66	92	11	64	384
	B	126	0	64	398	0	192	48	828
	C	4	4	0	14	198	53	82	355
	D	11	451	31	0	405	98	0	996
	E	80	0	75	324	0	79	351	909
	F	260	112	74	57	88	0	301	892
	G	105	3	85	0	314	335	0	842
	Tot.	586	640	410	859	1097	768	846	5206

Traffic Lane Flows

Lane	Scenario 2: 2024 PM
Junction: J1: Tarbock Roundabout North	
J1:1/1	108
J1:1/2	734
J1:2/1	481
J1:2/2 (with short)	1216(In) 567(Out)
J1:2/3 (short)	649
J1:3/1	640
J1:4/1 (with short)	384(In) 151(Out)
J1:4/2 (short)	233
J1:5/1	586
J1:6/1	570
J1:6/2 (with short)	1383(In) 265(Out)
J1:6/3 (short)	1118
Junction: J2: Tarbock Roundabout East	
J2:1/1	462
J2:1/2	366
J2:2/1	346
J2:2/2 (with short)	1351(In) 447(Out)
J2:2/3 (short)	904
J2:3/1 (with short)	355(In) 212(Out)
J2:3/2 (short)	143
J2:4/1	410
J2:5/1	845

Full Input Data And Results

Lane	Scenario 2: 2024 PM
J2:5/2 (with short)	1270(In) 494(Out)
J2:5/3 (short)	776
Junction: J3: Tarbock Roundabout South	
J3:1/1	503
J3:1/2	493
J3:2/1	692
J3:2/2 (with short)	919(In) 591(Out)
J3:2/3 (short)	328
J3:3/1	859
Junction: J4: Tarbock Roundabout West	
J4:1/1	1097
J4:2/1	689
J4:2/2 (with short)	821(In) 194(Out)
J4:2/3 (short)	627
J4:3/1	430
J4:3/2	479
Junction: J5: A5080 Cronton Road	
J5:1/1	561
J5:1/2	331
J5:2/1	545
J5:2/2 (with short)	1106(In) 221(Out)
J5:2/3 (short)	885
J5:3/1	846
J5:4/1	768

Full Input Data And Results

Lane Saturation Flows

Junction: J1: Tarbock Roundabout North								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (M57 Southbound Exit)	3.70	0.00	Y	Arm J1:5 Left	Inf	97.2 %	1985	1985
				Arm J1:6 Ahead	Inf	2.8 %		
J1:1/2 (M57 Southbound Exit)	3.70	0.00	N	Arm J1:6 Ahead	Inf	100.0 %	2125	2125
J1:2/1 (M57 Southbound Exit Circulatory)	3.25	0.00	Y	Arm J1:5 Ahead	Inf	100.0 %	1940	1940
J1:2/2 (M57 Southbound Exit Circulatory)	3.25	0.00	N	Arm J1:6 Right	Inf	100.0 %	2080	2080
J1:2/3 (M57 Southbound Exit Circulatory)	3.25	0.00	N	Arm J1:6 Right	Inf	100.0 %	2080	2080
J1:3/1	Infinite Saturation Flow						Inf	Inf
J1:4/1 (Windy Arbor Road)	3.50	0.00	Y	Arm J2:2 Ahead	Inf	53.6 %	1965	1965
				Arm J1:3 Left	Inf	46.4 %		
J1:4/2 (Windy Arbor Road)	3.50	0.00	N	Arm J2:2 Ahead	Inf	100.0 %	2105	2105
J1:5/1	Infinite Saturation Flow						Inf	Inf
J1:6/1 (Windy Arbor Road Circulatory)	3.25	0.00	Y	Arm J1:3 Ahead	Inf	100.0 %	1940	1940
J1:6/2 (Windy Arbor Road Circulatory)	3.25	0.00	Y	Arm J2:2 Ahead	Inf	100.0 %	1940	1940
J1:6/3 (Windy Arbor Road Circulatory)	3.25	0.00	N	Arm J2:2 Ahead	Inf	100.0 %	2080	2080

Full Input Data And Results

Junction: J2: Tarbock Roundabout East								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1 (M62 Westbound Exit)	4.40	0.00	Y	Arm J2:4 Left	Inf	13.9 %	2055	2055
J2:1/2 (M62 Westbound Exit)	4.40	0.00	N	Arm J2:5 Ahead	Inf	86.1 %	2195	2195
J2:2/1 (M62 Westbound Exit Circulatory)	3.25	0.00	Y	Arm J2:5 Ahead	Inf	100.0 %	1940	1940
J2:2/2 (M62 Westbound Exit Circulatory)	3.25	0.00	N	Arm J2:4 Ahead	Inf	100.0 %	2080	2080
J2:2/3 (M62 Westbound Exit Circulatory)	3.25	0.00	N	Arm J2:5 Right	Inf	100.0 %	2080	2080
J2:3/1 (A5080 Cronton Road)	3.50	0.00	Y	Arm J3:2 Ahead	Inf	93.4 %	1965	1965
J2:3/2 (A5080 Cronton Road)	3.50	0.00	N	Arm J3:3 Left	Inf	6.6 %	2105	2105
J2:4/1	Infinite Saturation Flow						Inf	Inf
J2:5/1 (A5080 Cronton Road Circulatory)	3.25	0.00	Y	Arm J3:2 Ahead	Inf	100.0 %	1940	1940
J2:5/2 (A5080 Cronton Road Circulatory)	3.25	0.00	N	Arm J3:3 Left	Inf	100.0 %	2080	2080
J2:5/3 (A5080 Cronton Road Circulatory)	3.25	0.00	N	Arm J3:2 Ahead	Inf	100.0 %	2080	2080

Full Input Data And Results

Junction: J3: Tarbock Roundabout South								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J3:1/1 (M57 Northbound Exit)	5.00	0.00	Y	Arm J4:1 Left	Inf	80.5 %	2115	2115
J3:1/2 (M57 Northbound Exit)	5.00	0.00	N	Arm J4:2 Ahead	Inf	19.5 %	2115	2115
J3:2/1 (M57 Northbound Exit Cirulatory)	3.25	0.00	Y	Arm J4:2 Ahead	Inf	100.0 %	2255	2255
J3:2/2 (M57 Northbound Exit Cirulatory)	3.25	0.00	N	Arm J4:1 Ahead	Inf	100.0 %	1940	1940
J3:2/3 (M57 Northbound Exit Cirulatory)	3.25	0.00	N	Arm J4:2 Right	Inf	100.0 %	2080	2080
J3:3/1	Infinite Saturation Flow						Inf	Inf

Junction: J4: Tarbock Roundabout West								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J4:1/1	Infinite Saturation Flow						Inf	Inf
J4:2/1 (M62 Eastbound Exit Circulatory)	3.25	0.00	Y	Arm J5:4 Left	Inf	100.0 %	1940	1940
J4:2/2 (M62 Eastbound Exit Circulatory)	3.25	0.00	N	Arm J5:2 Ahead	Inf	100.0 %	2080	2080
J4:2/3 (M62 Eastbound Exit Circulatory)	3.25	0.00	N	Arm J5:2 Ahead	Inf	100.0 %	2080	2080
J4:3/1 (M62 Eastbound Exit)	3.50	0.00	Y	Arm J5:2 Left	Inf	81.6 %	1965	1965
				Arm J5:4 Left	Inf	18.4 %		
J4:3/2 (M62 Eastbound Exit)	3.50	0.00	N	Arm J5:2 Left	Inf	100.0 %	2105	2105

Full Input Data And Results

Junction: J5: A5080 Cronton Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J5:1/1 (A5080 Cronton Road (W))	3.70	0.00	Y	Arm J1:2 Ahead	Inf	46.3 %	1985	1985
				Arm J5:3 Left	Inf	53.7 %		
J5:1/2 (A5080 Cronton Road (W))	3.70	0.00	N	Arm J1:2 Ahead	Inf	100.0 %	2125	2125
J5:2/1 (A5080 Cronton Road Circulatory)	3.40	0.00	Y	Arm J5:3 Ahead	Inf	100.0 %	1955	1955
J5:2/2 (A5080 Cronton Road Circulatory)	3.40	0.00	N	Arm J1:2 Right	Inf	100.0 %	2095	2095
J5:2/3 (A5080 Cronton Road Circulatory)	3.40	0.00	N	Arm J1:2 Right	Inf	100.0 %	2095	2095
J5:3/1	Infinite Saturation Flow						Inf	Inf
J5:4/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 3: '2029 AM' (FG3: '2029 AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Destination									
Origin		A	B	C	D	E	F	G	Tot.
	A	0	107	67	116	102	31	119	542
	B	114	0	38	587	0	255	51	1045
	C	5	2	0	18	150	87	118	380
	D	47	485	39	0	290	134	0	995
	E	88	4	65	423	0	124	459	1163
	F	196	188	56	107	66	0	329	942
	G	60	4	60	0	218	304	0	646
	Tot.	510	790	325	1251	826	935	1076	5713

Traffic Lane Flows

Lane	Scenario 3: 2029 AM
Junction: J1: Tarbock Roundabout North	
J1:1/1	64
J1:1/2	582
J1:2/1	450
J1:2/2 (with short)	1435(In) 679(Out)
J1:2/3 (short)	756
J1:3/1	790
J1:4/1 (with short)	542(In) 174(Out)
J1:4/2 (short)	368
J1:5/1	510
J1:6/1	683
J1:6/2 (with short)	1338(In) 220(Out)
J1:6/3 (short)	1118
Junction: J2: Tarbock Roundabout East	
J2:1/1	625
J2:1/2	420
J2:2/1	287
J2:2/2 (with short)	1486(In) 646(Out)
J2:2/3 (short)	840
J2:3/1 (with short)	380(In) 168(Out)
J2:3/2 (short)	212
J2:4/1	325
J2:5/1	1233

Full Input Data And Results

Lane	Scenario 3: 2029 AM
J2:5/2 (with short)	1260(In) 386(Out)
J2:5/3 (short)	874
Junction: J3: Tarbock Roundabout South	
J3:1/1	424
J3:1/2	571
J3:2/1	536
J3:2/2 (with short)	1086(In) 677(Out)
J3:2/3 (short)	409
J3:3/1	1251
Junction: J4: Tarbock Roundabout West	
J4:1/1	826
J4:2/1	811
J4:2/2 (with short)	980(In) 288(Out)
J4:2/3 (short)	692
J4:3/1	583
J4:3/2	580
Junction: J5: A5080 Cronton Road	
J5:1/1	525
J5:1/2	417
J5:2/1	747
J5:2/2 (with short)	1272(In) 254(Out)
J5:2/3 (short)	1018
J5:3/1	1076
J5:4/1	935

Full Input Data And Results

Lane Saturation Flows

Junction: J1: Tarbock Roundabout North								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (M57 Southbound Exit)	3.70	0.00	Y	Arm J1:5 Left	Inf	93.8 %	1985	1985
				Arm J1:6 Ahead	Inf	6.3 %		
J1:1/2 (M57 Southbound Exit)	3.70	0.00	N	Arm J1:6 Ahead	Inf	100.0 %	2125	2125
J1:2/1 (M57 Southbound Exit Circulatory)	3.25	0.00	Y	Arm J1:5 Ahead	Inf	100.0 %	1940	1940
J1:2/2 (M57 Southbound Exit Circulatory)	3.25	0.00	N	Arm J1:6 Right	Inf	100.0 %	2080	2080
J1:2/3 (M57 Southbound Exit Circulatory)	3.25	0.00	N	Arm J1:6 Right	Inf	100.0 %	2080	2080
J1:3/1	Infinite Saturation Flow						Inf	Inf
J1:4/1 (Windy Arbor Road)	3.50	0.00	Y	Arm J2:2 Ahead	Inf	38.5 %	1965	1965
				Arm J1:3 Left	Inf	61.5 %		
J1:4/2 (Windy Arbor Road)	3.50	0.00	N	Arm J2:2 Ahead	Inf	100.0 %	2105	2105
J1:5/1	Infinite Saturation Flow						Inf	Inf
J1:6/1 (Windy Arbor Road Circulatory)	3.25	0.00	Y	Arm J1:3 Ahead	Inf	100.0 %	1940	1940
J1:6/2 (Windy Arbor Road Circulatory)	3.25	0.00	Y	Arm J2:2 Ahead	Inf	100.0 %	1940	1940
J1:6/3 (Windy Arbor Road Circulatory)	3.25	0.00	N	Arm J2:2 Ahead	Inf	100.0 %	2080	2080

Junction: J2: Tarbock Roundabout East								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1 (M62 Westbound Exit)	4.40	0.00	Y	Arm J2:4 Left Arm J2:5 Ahead	Inf Inf	6.1 % 93.9 %	2055	2055
J2:1/2 (M62 Westbound Exit)	4.40	0.00	N	Arm J2:5 Ahead	Inf	100.0 %	2195	2195
J2:2/1 (M62 Westbound Exit Circulatory)	3.25	0.00	Y	Arm J2:4 Ahead	Inf	100.0 %	1940	1940
J2:2/2 (M62 Westbound Exit Circulatory)	3.25	0.00	N	Arm J2:5 Right	Inf	100.0 %	2080	2080
J2:2/3 (M62 Westbound Exit Circulatory)	3.25	0.00	N	Arm J2:5 Right	Inf	100.0 %	2080	2080
J2:3/1 (A5080 Cronton Road)	3.50	0.00	Y	Arm J3:2 Ahead Arm J3:3 Left	Inf Inf	89.3 % 10.7 %	1965	1965
J2:3/2 (A5080 Cronton Road)	3.50	0.00	N	Arm J3:2 Ahead	Inf	100.0 %	2105	2105
J2:4/1	Infinite Saturation Flow						Inf	Inf
J2:5/1 (A5080 Cronton Road Circulatory)	3.25	0.00	Y	Arm J3:3 Left	Inf	100.0 %	1940	1940
J2:5/2 (A5080 Cronton Road Circulatory)	3.25	0.00	N	Arm J3:2 Ahead	Inf	100.0 %	2080	2080
J2:5/3 (A5080 Cronton Road Circulatory)	3.25	0.00	N	Arm J3:2 Ahead	Inf	100.0 %	2080	2080

Junction: J3: Tarbock Roundabout South								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J3:1/1 (M57 Northbound Exit)	5.00	0.00	Y	Arm J4:1 Left	Inf	68.4 %	2115	2115
J3:1/2 (M57 Northbound Exit)	5.00	0.00	N	Arm J4:2 Ahead	Inf	31.6 %	2115	2115
J3:2/1 (M57 Northbound Exit Cirulatory)	3.25	0.00	Y	Arm J4:1 Ahead	Inf	100.0 %	1940	1940
J3:2/2 (M57 Northbound Exit Cirulatory)	3.25	0.00	N	Arm J4:2 Right	Inf	100.0 %	2080	2080
J3:2/3 (M57 Northbound Exit Cirulatory)	3.25	0.00	N	Arm J4:2 Right	Inf	100.0 %	2080	2080
J3:3/1	Infinite Saturation Flow						Inf	Inf

Junction: J4: Tarbock Roundabout West								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J4:1/1	Infinite Saturation Flow						Inf	Inf
J4:2/1 (M62 Eastbound Exit Circulatory)	3.25	0.00	Y	Arm J5:4 Left	Inf	100.0 %	1940	1940
J4:2/2 (M62 Eastbound Exit Circulatory)	3.25	0.00	N	Arm J5:2 Ahead	Inf	100.0 %	2080	2080
J4:2/3 (M62 Eastbound Exit Circulatory)	3.25	0.00	N	Arm J5:2 Ahead	Inf	100.0 %	2080	2080
J4:3/1 (M62 Eastbound Exit)	3.50	0.00	Y	Arm J5:2 Left Arm J5:4 Left	Inf Inf	78.7 % 21.3 %	1965	1965
J4:3/2 (M62 Eastbound Exit)	3.50	0.00	N	Arm J5:2 Left	Inf	100.0 %	2105	2105

Junction: J5: A5080 Cronton Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J5:1/1 (A5080 Cronton Road (W))	3.70	0.00	Y	Arm J1:2 Ahead Arm J5:3 Left	Inf Inf	37.3 % 62.7 %	1985	1985
J5:1/2 (A5080 Cronton Road (W))	3.70	0.00	N	Arm J1:2 Ahead	Inf	100.0 %	2125	2125
J5:2/1 (A5080 Cronton Road Circulatory)	3.40	0.00	Y	Arm J5:3 Ahead	Inf	100.0 %	1955	1955
J5:2/2 (A5080 Cronton Road Circulatory)	3.40	0.00	N	Arm J1:2 Right	Inf	100.0 %	2095	2095
J5:2/3 (A5080 Cronton Road Circulatory)	3.40	0.00	N	Arm J1:2 Right	Inf	100.0 %	2095	2095
J5:3/1	Infinite Saturation Flow						Inf	Inf
J5:4/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 4: '2029 PM' (FG4: '2029 PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Destination									
Origin		A	B	C	D	E	F	G	Tot.
	A	0	74	85	70	97	12	67	405
	B	133	0	67	418	0	202	51	871
	C	4	4	0	15	208	55	86	372
	D	12	473	33	0	426	103	0	1047
	E	84	0	79	340	0	83	369	955
	F	273	118	78	60	92	0	316	937
	G	110	3	90	0	330	352	0	885
	Tot.	616	672	432	903	1153	807	889	5472

Traffic Lane Flows

Lane	Scenario 4: 2029 PM
Junction: J1: Tarbock Roundabout North	
J1:1/1	113
J1:1/2	772
J1:2/1	506
J1:2/2 (with short)	1277(In) 595(Out)
J1:2/3 (short)	682
J1:3/1	672
J1:4/1 (with short)	405(In) 159(Out)
J1:4/2 (short)	246
J1:5/1	616
J1:6/1	598
J1:6/2 (with short)	1454(In) 280(Out)
J1:6/3 (short)	1174
Junction: J2: Tarbock Roundabout East	
J2:1/1	485
J2:1/2	386
J2:2/1	365
J2:2/2 (with short)	1420(In) 470(Out)
J2:2/3 (short)	950
J2:3/1 (with short)	372(In) 223(Out)
J2:3/2 (short)	149
J2:4/1	432
J2:5/1	888

Full Input Data And Results

Lane	Scenario 4: 2029 PM
J2:5/2 (with short)	1336(In) 519(Out)
J2:5/3 (short)	817
Junction: J3: Tarbock Roundabout South	
J3:1/1	529
J3:1/2	518
J3:2/1	727
J3:2/2 (with short)	966(In) 621(Out)
J3:2/3 (short)	345
J3:3/1	903
Junction: J4: Tarbock Roundabout West	
J4:1/1	1153
J4:2/1	724
J4:2/2 (with short)	863(In) 204(Out)
J4:2/3 (short)	659
J4:3/1	452
J4:3/2	503
Junction: J5: A5080 Cronton Road	
J5:1/1	589
J5:1/2	348
J5:2/1	573
J5:2/2 (with short)	1162(In) 233(Out)
J5:2/3 (short)	929
J5:3/1	889
J5:4/1	807

Full Input Data And Results

Lane Saturation Flows

Junction: J1: Tarbock Roundabout North								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (M57 Southbound Exit)	3.70	0.00	Y	Arm J1:5 Left	Inf	97.3 %	1985	1985
				Arm J1:6 Ahead	Inf	2.7 %		
J1:1/2 (M57 Southbound Exit)	3.70	0.00	N	Arm J1:6 Ahead	Inf	100.0 %	2125	2125
J1:2/1 (M57 Southbound Exit Circulatory)	3.25	0.00	Y	Arm J1:5 Ahead	Inf	100.0 %	1940	1940
J1:2/2 (M57 Southbound Exit Circulatory)	3.25	0.00	N	Arm J1:6 Right	Inf	100.0 %	2080	2080
J1:2/3 (M57 Southbound Exit Circulatory)	3.25	0.00	N	Arm J1:6 Right	Inf	100.0 %	2080	2080
J1:3/1	Infinite Saturation Flow						Inf	Inf
J1:4/1 (Windy Arbor Road)	3.50	0.00	Y	Arm J2:2 Ahead	Inf	53.5 %	1965	1965
				Arm J1:3 Left	Inf	46.5 %		
J1:4/2 (Windy Arbor Road)	3.50	0.00	N	Arm J2:2 Ahead	Inf	100.0 %	2105	2105
J1:5/1	Infinite Saturation Flow						Inf	Inf
J1:6/1 (Windy Arbor Road Circulatory)	3.25	0.00	Y	Arm J1:3 Ahead	Inf	100.0 %	1940	1940
J1:6/2 (Windy Arbor Road Circulatory)	3.25	0.00	Y	Arm J2:2 Ahead	Inf	100.0 %	1940	1940
J1:6/3 (Windy Arbor Road Circulatory)	3.25	0.00	N	Arm J2:2 Ahead	Inf	100.0 %	2080	2080

Full Input Data And Results

Junction: J2: Tarbock Roundabout East								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1 (M62 Westbound Exit)	4.40	0.00	Y	Arm J2:4 Left Arm J2:5 Ahead	Inf Inf	13.8 % 86.2 %	2055	2055
J2:1/2 (M62 Westbound Exit)	4.40	0.00	N	Arm J2:5 Ahead	Inf	100.0 %	2195	2195
J2:2/1 (M62 Westbound Exit Circulatory)	3.25	0.00	Y	Arm J2:4 Ahead	Inf	100.0 %	1940	1940
J2:2/2 (M62 Westbound Exit Circulatory)	3.25	0.00	N	Arm J2:5 Right	Inf	100.0 %	2080	2080
J2:2/3 (M62 Westbound Exit Circulatory)	3.25	0.00	N	Arm J2:5 Right	Inf	100.0 %	2080	2080
J2:3/1 (A5080 Cronton Road)	3.50	0.00	Y	Arm J3:2 Ahead Arm J3:3 Left	Inf Inf	93.3 % 6.7 %	1965	1965
J2:3/2 (A5080 Cronton Road)	3.50	0.00	N	Arm J3:2 Ahead	Inf	100.0 %	2105	2105
J2:4/1	Infinite Saturation Flow						Inf	Inf
J2:5/1 (A5080 Cronton Road Circulatory)	3.25	0.00	Y	Arm J3:3 Left	Inf	100.0 %	1940	1940
J2:5/2 (A5080 Cronton Road Circulatory)	3.25	0.00	N	Arm J3:2 Ahead	Inf	100.0 %	2080	2080
J2:5/3 (A5080 Cronton Road Circulatory)	3.25	0.00	N	Arm J3:2 Ahead	Inf	100.0 %	2080	2080

Junction: J3: Tarbock Roundabout South								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J3:1/1 (M57 Northbound Exit)	5.00	0.00	Y	Arm J4:1 Left Arm J4:2 Ahead	Inf Inf	80.5 % 19.5 %	2115	2115
J3:1/2 (M57 Northbound Exit)	5.00	0.00	N	Arm J4:2 Ahead	Inf	100.0 %	2255	2255
J3:2/1 (M57 Northbound Exit Circlatory)	3.25	0.00	Y	Arm J4:1 Ahead	Inf	100.0 %	1940	1940
J3:2/2 (M57 Northbound Exit Circlatory)	3.25	0.00	N	Arm J4:2 Right	Inf	100.0 %	2080	2080
J3:2/3 (M57 Northbound Exit Circlatory)	3.25	0.00	N	Arm J4:2 Right	Inf	100.0 %	2080	2080
J3:3/1	Infinite Saturation Flow						Inf	Inf

Junction: J4: Tarbock Roundabout West								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J4:1/1	Infinite Saturation Flow						Inf	Inf
J4:2/1 (M62 Eastbound Exit Circulatory)	3.25	0.00	Y	Arm J5:4 Left	Inf	100.0 %	1940	1940
J4:2/2 (M62 Eastbound Exit Circulatory)	3.25	0.00	N	Arm J5:2 Ahead	Inf	100.0 %	2080	2080
J4:2/3 (M62 Eastbound Exit Circulatory)	3.25	0.00	N	Arm J5:2 Ahead	Inf	100.0 %	2080	2080
J4:3/1 (M62 Eastbound Exit)	3.50	0.00	Y	Arm J5:2 Left Arm J5:4 Left	Inf Inf	81.6 % 18.4 %	1965	1965
J4:3/2 (M62 Eastbound Exit)	3.50	0.00	N	Arm J5:2 Left	Inf	100.0 %	2105	2105

Junction: J5: A5080 Cronton Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J5:1/1 (A5080 Cronton Road (W))	3.70	0.00	Y	Arm J1:2 Ahead	Inf	46.3 %	1985	1985
				Arm J5:3 Left	Inf	53.7 %		
J5:1/2 (A5080 Cronton Road (W))	3.70	0.00	N	Arm J1:2 Ahead	Inf	100.0 %	2125	2125
J5:2/1 (A5080 Cronton Road Circulatory)	3.40	0.00	Y	Arm J5:3 Ahead	Inf	100.0 %	1955	1955
J5:2/2 (A5080 Cronton Road Circulatory)	3.40	0.00	N	Arm J1:2 Right	Inf	100.0 %	2095	2095
J5:2/3 (A5080 Cronton Road Circulatory)	3.40	0.00	N	Arm J1:2 Right	Inf	100.0 %	2095	2095
J5:3/1	Infinite Saturation Flow						Inf	Inf
J5:4/1	Infinite Saturation Flow						Inf	Inf

Junction: J5: A5080 Cronton Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J5:1/1 (A5080 Cronton Road (W))	3.70	0.00	Y	Arm J1:2 Ahead	Inf	46.3 %	1985	1985
J5:1/2 (A5080 Cronton Road (W))	3.70	0.00	N	Arm J5:3 Left	Inf	53.7 %		
J5:2/1 (A5080 Cronton Road Circulatory)	3.40	0.00	Y	Arm J1:2 Ahead	Inf	100.0 %	2125	2125
J5:2/2 (A5080 Cronton Road Circulatory)	3.40	0.00	N	Arm J5:3 Ahead	Inf	100.0 %	1955	1955
J5:2/3 (A5080 Cronton Road Circulatory)	3.40	0.00	N	Arm J1:2 Right	Inf	100.0 %	2095	2095
J5:3/1	Infinite Saturation Flow						Inf	Inf
J5:4/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 5: '2034 AM' (FG5: '2034 AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination								
		A	B	C	D	E	F	G	Tot.
Origin	A	0	111	70	119	106	32	123	561
	B	118	0	40	606	0	264	52	1080
	C	5	2	0	18	155	90	122	392
	D	49	502	41	0	299	139	0	1030
	E	91	4	67	438	0	129	474	1203
	F	203	194	57	111	68	0	340	973
	G	62	4	62	0	225	314	0	667
	Tot.	528	817	337	1292	853	968	1111	5906

Traffic Lane Flows

Lane	Scenario 5: 2034 AM
Junction: J1: Tarbock Roundabout North	
J1:1/1	66
J1:1/2	601
J1:2/1	466
J1:2/2 (with short)	1484(In) 702(Out)
J1:2/3 (short)	782
J1:3/1	817
J1:4/1 (with short)	561(In) 181(Out)
J1:4/2 (short)	380
J1:5/1	528
J1:6/1	706
J1:6/2 (with short)	1383(In) 227(Out)
J1:6/3 (short)	1156
Junction: J2: Tarbock Roundabout East	
J2:1/1	646
J2:1/2	434
J2:2/1	297
J2:2/2 (with short)	1536(In) 668(Out)
J2:2/3 (short)	868
J2:3/1 (with short)	392(In) 173(Out)
J2:3/2 (short)	219
J2:4/1	337
J2:5/1	1274

Full Input Data And Results

Lane	Scenario 5: 2034 AM
J2:5/2 (with short)	1302(In) 399(Out)
J2:5/3 (short)	903
Junction: J3: Tarbock Roundabout South	
J3:1/1	438
J3:1/2	592
J3:2/1	554
J3:2/2 (with short)	1122(In) 700(Out)
J3:2/3 (short)	422
J3:3/1	1292
Junction: J4: Tarbock Roundabout West	
J4:1/1	853
J4:2/1	839
J4:2/2 (with short)	1014(In) 297(Out)
J4:2/3 (short)	717
J4:3/1	603
J4:3/2	600
Junction: J5: A5080 Cronton Road	
J5:1/1	543
J5:1/2	430
J5:2/1	771
J5:2/2 (with short)	1317(In) 263(Out)
J5:2/3 (short)	1054
J5:3/1	1111
J5:4/1	968

Full Input Data And Results

Lane Saturation Flows

Junction: J1: Tarbock Roundabout North								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (M57 Southbound Exit)	3.70	0.00	Y	Arm J1:5 Left	Inf	93.9 %	1985	1985
				Arm J1:6 Ahead	Inf	6.1 %		
J1:1/2 (M57 Southbound Exit)	3.70	0.00	N	Arm J1:6 Ahead	Inf	100.0 %	2125	2125
J1:2/1 (M57 Southbound Exit Circulatory)	3.25	0.00	Y	Arm J1:5 Ahead	Inf	100.0 %	1940	1940
J1:2/2 (M57 Southbound Exit Circulatory)	3.25	0.00	N	Arm J1:6 Right	Inf	100.0 %	2080	2080
J1:2/3 (M57 Southbound Exit Circulatory)	3.25	0.00	N	Arm J1:6 Right	Inf	100.0 %	2080	2080
J1:3/1	Infinite Saturation Flow						Inf	Inf
J1:4/1 (Windy Arbor Road)	3.50	0.00	Y	Arm J2:2 Ahead	Inf	38.7 %	1965	1965
				Arm J1:3 Left	Inf	61.3 %		
J1:4/2 (Windy Arbor Road)	3.50	0.00	N	Arm J2:2 Ahead	Inf	100.0 %	2105	2105
J1:5/1	Infinite Saturation Flow						Inf	Inf
J1:6/1 (Windy Arbor Road Circulatory)	3.25	0.00	Y	Arm J1:3 Ahead	Inf	100.0 %	1940	1940
J1:6/2 (Windy Arbor Road Circulatory)	3.25	0.00	Y	Arm J2:2 Ahead	Inf	100.0 %	1940	1940
J1:6/3 (Windy Arbor Road Circulatory)	3.25	0.00	N	Arm J2:2 Ahead	Inf	100.0 %	2080	2080

Full Input Data And Results

Junction: J2: Tarbock Roundabout East								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1 (M62 Westbound Exit)	4.40	0.00	Y	Arm J2:4 Left Arm J2:5 Ahead	Inf Inf	6.2 % 93.8 %	2055	2055
J2:1/2 (M62 Westbound Exit)	4.40	0.00	N	Arm J2:5 Ahead	Inf	100.0 %	2195	2195
J2:2/1 (M62 Westbound Exit Circulatory)	3.25	0.00	Y	Arm J2:4 Ahead	Inf	100.0 %	1940	1940
J2:2/2 (M62 Westbound Exit Circulatory)	3.25	0.00	N	Arm J2:5 Right	Inf	100.0 %	2080	2080
J2:2/3 (M62 Westbound Exit Circulatory)	3.25	0.00	N	Arm J2:5 Right	Inf	100.0 %	2080	2080
J2:3/1 (A5080 Cronton Road)	3.50	0.00	Y	Arm J3:2 Ahead Arm J3:3 Left	Inf Inf	89.6 % 10.4 %	1965	1965
J2:3/2 (A5080 Cronton Road)	3.50	0.00	N	Arm J3:2 Ahead	Inf	100.0 %	2105	2105
J2:4/1	Infinite Saturation Flow						Inf	Inf
J2:5/1 (A5080 Cronton Road Circulatory)	3.25	0.00	Y	Arm J3:3 Left	Inf	100.0 %	1940	1940
J2:5/2 (A5080 Cronton Road Circulatory)	3.25	0.00	N	Arm J3:2 Ahead	Inf	100.0 %	2080	2080
J2:5/3 (A5080 Cronton Road Circulatory)	3.25	0.00	N	Arm J3:2 Ahead	Inf	100.0 %	2080	2080

Junction: J3: Tarbock Roundabout South								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J3:1/1 (M57 Northbound Exit)	5.00	0.00	Y	Arm J4:1 Left	Inf	68.3 %	2115	2115
				Arm J4:2 Ahead	Inf	31.7 %		
J3:1/2 (M57 Northbound Exit)	5.00	0.00	N	Arm J4:2 Ahead	Inf	100.0 %	2255	2255
J3:2/1 (M57 Northbound Exit Circulatory)	3.25	0.00	Y	Arm J4:1 Ahead	Inf	100.0 %	1940	1940
J3:2/2 (M57 Northbound Exit Circulatory)	3.25	0.00	N	Arm J4:2 Right	Inf	100.0 %	2080	2080
J3:2/3 (M57 Northbound Exit Circulatory)	3.25	0.00	N	Arm J4:2 Right	Inf	100.0 %	2080	2080
J3:3/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Junction: J4: Tarbock Roundabout West								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J4:1/1	Infinite Saturation Flow						Inf	Inf
J4:2/1 (M62 Eastbound Exit Circulatory)	3.25	0.00	Y	Arm J5:4 Left	Inf	100.0 %	1940	1940
J4:2/2 (M62 Eastbound Exit Circulatory)	3.25	0.00	N	Arm J5:2 Ahead	Inf	100.0 %	2080	2080
J4:2/3 (M62 Eastbound Exit Circulatory)	3.25	0.00	N	Arm J5:2 Ahead	Inf	100.0 %	2080	2080
J4:3/1 (M62 Eastbound Exit)	3.50	0.00	Y	Arm J5:2 Left	Inf	78.6 %	1965	1965
				Arm J5:4 Left	Inf	21.4 %		
J4:3/2 (M62 Eastbound Exit)	3.50	0.00	N	Arm J5:2 Left	Inf	100.0 %	2105	2105

Junction: J5: A5080 Cronton Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J5:1/1 (A5080 Cronton Road (W))	3.70	0.00	Y	Arm J1:2 Ahead	Inf	37.4 %	1985	1985
				Arm J5:3 Left	Inf	62.6 %		
J5:1/2 (A5080 Cronton Road (W))	3.70	0.00	N	Arm J1:2 Ahead	Inf	100.0 %	2125	2125
J5:2/1 (A5080 Cronton Road Circulatory)	3.40	0.00	Y	Arm J5:3 Ahead	Inf	100.0 %	1955	1955
J5:2/2 (A5080 Cronton Road Circulatory)	3.40	0.00	N	Arm J1:2 Right	Inf	100.0 %	2095	2095
J5:2/3 (A5080 Cronton Road Circulatory)	3.40	0.00	N	Arm J1:2 Right	Inf	100.0 %	2095	2095
J5:3/1	Infinite Saturation Flow						Inf	Inf
J5:4/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 6: '2034 PM' (FG6: '2034 PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Destination									
Origin		A	B	C	D	E	F	G	Tot.
	A	0	76	88	72	100	12	70	418
	B	137	0	70	432	0	209	53	901
	C	4	4	0	15	215	57	89	384
	D	12	490	34	0	441	106	0	1083
	E	87	0	82	352	0	86	382	989
	F	283	122	80	62	96	0	327	970
	G	114	3	93	0	342	364	0	916
	Tot.	637	695	447	933	1194	834	921	5661

Traffic Lane Flows

Lane	Scenario 6: 2034 PM
Junction: J1: Tarbock Roundabout North	
J1:1/1	117
J1:1/2	799
J1:2/1	523
J1:2/2 (with short)	1322(In) 616(Out)
J1:2/3 (short)	706
J1:3/1	695
J1:4/1 (with short)	418(In) 164(Out)
J1:4/2 (short)	254
J1:5/1	637
J1:6/1	619
J1:6/2 (with short)	1505(In) 289(Out)
J1:6/3 (short)	1216
Junction: J2: Tarbock Roundabout East	
J2:1/1	502
J2:1/2	399
J2:2/1	377
J2:2/2 (with short)	1470(In) 486(Out)
J2:2/3 (short)	984
J2:3/1 (with short)	384(In) 230(Out)
J2:3/2 (short)	154
J2:4/1	447
J2:5/1	918

Full Input Data And Results

Lane	Scenario 6: 2034 PM
J2:5/2 (with short)	1383(In) 538(Out)
J2:5/3 (short)	845
Junction: J3: Tarbock Roundabout South	
J3:1/1	547
J3:1/2	536
J3:2/1	753
J3:2/2 (with short)	999(In) 642(Out)
J3:2/3 (short)	357
J3:3/1	933
Junction: J4: Tarbock Roundabout West	
J4:1/1	1194
J4:2/1	748
J4:2/2 (with short)	893(In) 212(Out)
J4:2/3 (short)	681
J4:3/1	468
J4:3/2	521
Junction: J5: A5080 Cronton Road	
J5:1/1	610
J5:1/2	360
J5:2/1	594
J5:2/2 (with short)	1202(In) 240(Out)
J5:2/3 (short)	962
J5:3/1	921
J5:4/1	834

Full Input Data And Results

Lane Saturation Flows

Junction: J1: Tarbock Roundabout North								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (M57 Southbound Exit)	3.70	0.00	Y	Arm J1:5 Left	Inf	97.4 %	1985	1985
				Arm J1:6 Ahead	Inf	2.6 %		
J1:1/2 (M57 Southbound Exit)	3.70	0.00	N	Arm J1:6 Ahead	Inf	100.0 %	2125	2125
J1:2/1 (M57 Southbound Exit Circulatory)	3.25	0.00	Y	Arm J1:5 Ahead	Inf	100.0 %	1940	1940
J1:2/2 (M57 Southbound Exit Circulatory)	3.25	0.00	N	Arm J1:6 Right	Inf	100.0 %	2080	2080
J1:2/3 (M57 Southbound Exit Circulatory)	3.25	0.00	N	Arm J1:6 Right	Inf	100.0 %	2080	2080
J1:3/1	Infinite Saturation Flow						Inf	Inf
J1:4/1 (Windy Arbor Road)	3.50	0.00	Y	Arm J2:2 Ahead	Inf	53.7 %	1965	1965
				Arm J1:3 Left	Inf	46.3 %		
J1:4/2 (Windy Arbor Road)	3.50	0.00	N	Arm J2:2 Ahead	Inf	100.0 %	2105	2105
J1:5/1	Infinite Saturation Flow						Inf	Inf
J1:6/1 (Windy Arbor Road Circulatory)	3.25	0.00	Y	Arm J1:3 Ahead	Inf	100.0 %	1940	1940
J1:6/2 (Windy Arbor Road Circulatory)	3.25	0.00	Y	Arm J2:2 Ahead	Inf	100.0 %	1940	1940
J1:6/3 (Windy Arbor Road Circulatory)	3.25	0.00	N	Arm J2:2 Ahead	Inf	100.0 %	2080	2080

Full Input Data And Results

Junction: J2: Tarbock Roundabout East								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1 (M62 Westbound Exit)	4.40	0.00	Y	Arm J2:4 Left Arm J2:5 Ahead	Inf Inf	13.9 % 86.1 %	2055	2055
J2:1/2 (M62 Westbound Exit)	4.40	0.00	N	Arm J2:5 Ahead	Inf	100.0 %	2195	2195
J2:2/1 (M62 Westbound Exit Circulatory)	3.25	0.00	Y	Arm J2:4 Ahead	Inf	100.0 %	1940	1940
J2:2/2 (M62 Westbound Exit Circulatory)	3.25	0.00	N	Arm J2:5 Right	Inf	100.0 %	2080	2080
J2:2/3 (M62 Westbound Exit Circulatory)	3.25	0.00	N	Arm J2:5 Right	Inf	100.0 %	2080	2080
J2:3/1 (A5080 Cronton Road)	3.50	0.00	Y	Arm J3:2 Ahead Arm J3:3 Left	Inf Inf	93.5 % 6.5 %	1965	1965
J2:3/2 (A5080 Cronton Road)	3.50	0.00	N	Arm J3:2 Ahead	Inf	100.0 %	2105	2105
J2:4/1	Infinite Saturation Flow						Inf	Inf
J2:5/1 (A5080 Cronton Road Circulatory)	3.25	0.00	Y	Arm J3:3 Left	Inf	100.0 %	1940	1940
J2:5/2 (A5080 Cronton Road Circulatory)	3.25	0.00	N	Arm J3:2 Ahead	Inf	100.0 %	2080	2080
J2:5/3 (A5080 Cronton Road Circulatory)	3.25	0.00	N	Arm J3:2 Ahead	Inf	100.0 %	2080	2080

Junction: J3: Tarbock Roundabout South								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J3:1/1 (M57 Northbound Exit)	5.00	0.00	Y	Arm J4:1 Left Arm J4:2 Ahead	Inf Inf	80.6 % 19.4 %	2115	2115
J3:1/2 (M57 Northbound Exit)	5.00	0.00	N	Arm J4:2 Ahead	Inf	100.0 %	2255	2255
J3:2/1 (M57 Northbound Exit Circulatory)	3.25	0.00	Y	Arm J4:1 Ahead	Inf	100.0 %	1940	1940
J3:2/2 (M57 Northbound Exit Circulatory)	3.25	0.00	N	Arm J4:2 Right	Inf	100.0 %	2080	2080
J3:2/3 (M57 Northbound Exit Circulatory)	3.25	0.00	N	Arm J4:2 Right	Inf	100.0 %	2080	2080
J3:3/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Junction: J4: Tarbock Roundabout West								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J4:1/1	Infinite Saturation Flow						Inf	Inf
J4:2/1 (M62 Eastbound Exit Circulatory)	3.25	0.00	Y	Arm J5:4 Left	Inf	100.0 %	1940	1940
J4:2/2 (M62 Eastbound Exit Circulatory)	3.25	0.00	N	Arm J5:2 Ahead	Inf	100.0 %	2080	2080
J4:2/3 (M62 Eastbound Exit Circulatory)	3.25	0.00	N	Arm J5:2 Ahead	Inf	100.0 %	2080	2080
J4:3/1 (M62 Eastbound Exit)	3.50	0.00	Y	Arm J5:2 Left	Inf	81.6 %	1965	1965
				Arm J5:4 Left	Inf	18.4 %		
J4:3/2 (M62 Eastbound Exit)	3.50	0.00	N	Arm J5:2 Left	Inf	100.0 %	2105	2105

Junction: J5: A5080 Cronton Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J5:1/1 (A5080 Cronton Road (W))	3.70	0.00	Y	Arm J1:2 Ahead	Inf	46.4 %	1985	1985
				Arm J5:3 Left	Inf	53.6 %		
J5:1/2 (A5080 Cronton Road (W))	3.70	0.00	N	Arm J1:2 Ahead	Inf	100.0 %	2125	2125
J5:2/1 (A5080 Cronton Road Circulatory)	3.40	0.00	Y	Arm J5:3 Ahead	Inf	100.0 %	1955	1955
J5:2/2 (A5080 Cronton Road Circulatory)	3.40	0.00	N	Arm J1:2 Right	Inf	100.0 %	2095	2095
J5:2/3 (A5080 Cronton Road Circulatory)	3.40	0.00	N	Arm J1:2 Right	Inf	100.0 %	2095	2095
J5:3/1	Infinite Saturation Flow						Inf	Inf
J5:4/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 7: '2029 + Development AM' (FG7: '2029 + Development AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Destination									
Origin		A	B	C	D	E	F	G	Tot.
	A	0	108	68	116	103	31	120	546
	B	118	0	38	587	0	255	51	1049
	C	7	2	0	18	150	87	118	382
	D	50	485	39	0	290	134	0	998
	E	95	4	65	423	0	124	459	1170
	F	199	188	56	107	66	0	329	945
	G	68	4	60	0	218	304	0	654
	Tot.	537	791	326	1251	827	935	1077	5744

Traffic Lane Flows

Lane	Scenario 7: 2029 + Development AM
Junction: J1: Tarbock Roundabout North	
J1:1/1	72
J1:1/2	582
J1:2/1	469
J1:2/2 (with short)	1435(In) 679(Out)
J1:2/3 (short)	756
J1:3/1	791
J1:4/1 (with short)	546(In) 176(Out)
J1:4/2 (short)	370
J1:5/1	537
J1:6/1	683
J1:6/2 (with short)	1338(In) 220(Out)
J1:6/3 (short)	1118
Junction: J2: Tarbock Roundabout East	
J2:1/1	625
J2:1/2	424
J2:2/1	288
J2:2/2 (with short)	1488(In) 646(Out)
J2:2/3 (short)	842
J2:3/1 (with short)	382(In) 168(Out)
J2:3/2 (short)	214
J2:4/1	326
J2:5/1	1233

Full Input Data And Results

Lane	Scenario 7: 2029 + Development AM
J2:5/2 (with short)	1266(In) 387(Out)
J2:5/3 (short)	879
Junction: J3: Tarbock Roundabout South	
J3:1/1	424
J3:1/2	574
J3:2/1	537
J3:2/2 (with short)	1093(In) 677(Out)
J3:2/3 (short)	416
J3:3/1	1251
Junction: J4: Tarbock Roundabout West	
J4:1/1	827
J4:2/1	811
J4:2/2 (with short)	990(In) 289(Out)
J4:2/3 (short)	701
J4:3/1	583
J4:3/2	587
Junction: J5: A5080 Cronton Road	
J5:1/1	528
J5:1/2	417
J5:2/1	748
J5:2/2 (with short)	1288(In) 270(Out)
J5:2/3 (short)	1018
J5:3/1	1077
J5:4/1	935

Full Input Data And Results

Lane Saturation Flows

Junction: J1: Tarbock Roundabout North								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (M57 Southbound Exit)	3.70	0.00	Y	Arm J1:5 Left	Inf	94.4 %	1985	1985
				Arm J1:6 Ahead	Inf	5.6 %		
J1:1/2 (M57 Southbound Exit)	3.70	0.00	N	Arm J1:6 Ahead	Inf	100.0 %	2125	2125
J1:2/1 (M57 Southbound Exit Circulatory)	3.25	0.00	Y	Arm J1:5 Ahead	Inf	100.0 %	1940	1940
J1:2/2 (M57 Southbound Exit Circulatory)	3.25	0.00	N	Arm J1:6 Right	Inf	100.0 %	2080	2080
J1:2/3 (M57 Southbound Exit Circulatory)	3.25	0.00	N	Arm J1:6 Right	Inf	100.0 %	2080	2080
J1:3/1	Infinite Saturation Flow						Inf	Inf
J1:4/1 (Windy Arbor Road)	3.50	0.00	Y	Arm J2:2 Ahead	Inf	38.6 %	1965	1965
				Arm J1:3 Left	Inf	61.4 %		
J1:4/2 (Windy Arbor Road)	3.50	0.00	N	Arm J2:2 Ahead	Inf	100.0 %	2105	2105
J1:5/1	Infinite Saturation Flow						Inf	Inf
J1:6/1 (Windy Arbor Road Circulatory)	3.25	0.00	Y	Arm J1:3 Ahead	Inf	100.0 %	1940	1940
J1:6/2 (Windy Arbor Road Circulatory)	3.25	0.00	Y	Arm J2:2 Ahead	Inf	100.0 %	1940	1940
J1:6/3 (Windy Arbor Road Circulatory)	3.25	0.00	N	Arm J2:2 Ahead	Inf	100.0 %	2080	2080

Full Input Data And Results

Junction: J2: Tarbock Roundabout East								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1 (M62 Westbound Exit)	4.40	0.00	Y	Arm J2:4 Left Arm J2:5 Ahead	Inf Inf	6.1 % 93.9 %	2055	2055
J2:1/2 (M62 Westbound Exit)	4.40	0.00	N	Arm J2:5 Ahead	Inf	100.0 %	2195	2195
J2:2/1 (M62 Westbound Exit Circulatory)	3.25	0.00	Y	Arm J2:4 Ahead	Inf	100.0 %	1940	1940
J2:2/2 (M62 Westbound Exit Circulatory)	3.25	0.00	N	Arm J2:5 Right	Inf	100.0 %	2080	2080
J2:2/3 (M62 Westbound Exit Circulatory)	3.25	0.00	N	Arm J2:5 Right	Inf	100.0 %	2080	2080
J2:3/1 (A5080 Cronton Road)	3.50	0.00	Y	Arm J3:2 Ahead Arm J3:3 Left	Inf Inf	89.3 % 10.7 %	1965	1965
J2:3/2 (A5080 Cronton Road)	3.50	0.00	N	Arm J3:2 Ahead	Inf	100.0 %	2105	2105
J2:4/1	Infinite Saturation Flow						Inf	Inf
J2:5/1 (A5080 Cronton Road Circulatory)	3.25	0.00	Y	Arm J3:3 Left	Inf	100.0 %	1940	1940
J2:5/2 (A5080 Cronton Road Circulatory)	3.25	0.00	N	Arm J3:2 Ahead	Inf	100.0 %	2080	2080
J2:5/3 (A5080 Cronton Road Circulatory)	3.25	0.00	N	Arm J3:2 Ahead	Inf	100.0 %	2080	2080

Junction: J3: Tarbock Roundabout South								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J3:1/1 (M57 Northbound Exit)	5.00	0.00	Y	Arm J4:1 Left Arm J4:2 Ahead	Inf Inf	68.4 % 31.6 %	2115	2115
J3:1/2 (M57 Northbound Exit)	5.00	0.00	N	Arm J4:2 Ahead	Inf	100.0 %	2255	2255
J3:2/1 (M57 Northbound Exit Circulatory)	3.25	0.00	Y	Arm J4:1 Ahead	Inf	100.0 %	1940	1940
J3:2/2 (M57 Northbound Exit Circulatory)	3.25	0.00	N	Arm J4:2 Right	Inf	100.0 %	2080	2080
J3:2/3 (M57 Northbound Exit Circulatory)	3.25	0.00	N	Arm J4:2 Right	Inf	100.0 %	2080	2080
J3:3/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Junction: J4: Tarbock Roundabout West								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J4:1/1	Infinite Saturation Flow						Inf	Inf
J4:2/1 (M62 Eastbound Exit Circulatory)	3.25	0.00	Y	Arm J5:4 Left	Inf	100.0 %	1940	1940
J4:2/2 (M62 Eastbound Exit Circulatory)	3.25	0.00	N	Arm J5:2 Ahead	Inf	100.0 %	2080	2080
J4:2/3 (M62 Eastbound Exit Circulatory)	3.25	0.00	N	Arm J5:2 Ahead	Inf	100.0 %	2080	2080
J4:3/1 (M62 Eastbound Exit)	3.50	0.00	Y	Arm J5:2 Left	Inf	78.7 %	1965	1965
				Arm J5:4 Left	Inf	21.3 %		
J4:3/2 (M62 Eastbound Exit)	3.50	0.00	N	Arm J5:2 Left	Inf	100.0 %	2105	2105

Junction: J5: A5080 Cronton Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J5:1/1 (A5080 Cronton Road (W))	3.70	0.00	Y	Arm J1:2 Ahead	Inf	37.7 %	1985	1985
				Arm J5:3 Left	Inf	62.3 %		
J5:1/2 (A5080 Cronton Road (W))	3.70	0.00	N	Arm J1:2 Ahead	Inf	100.0 %	2125	2125
J5:2/1 (A5080 Cronton Road Circulatory)	3.40	0.00	Y	Arm J5:3 Ahead	Inf	100.0 %	1955	1955
J5:2/2 (A5080 Cronton Road Circulatory)	3.40	0.00	N	Arm J1:2 Right	Inf	100.0 %	2095	2095
J5:2/3 (A5080 Cronton Road Circulatory)	3.40	0.00	N	Arm J1:2 Right	Inf	100.0 %	2095	2095
J5:3/1	Infinite Saturation Flow						Inf	Inf
J5:4/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 8: '2029 + Development PM' (FG8: '2029 + Development PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Destination									
Origin		A	B	C	D	E	F	G	Tot.
	A	0	70	81	66	92	11	64	384
	B	126	0	64	396	0	191	48	825
	C	4	4	0	14	198	53	81	354
	D	11	449	31	0	404	97	0	992
	E	80	0	75	323	0	79	350	907
	F	260	112	74	57	88	0	301	892
	G	105	3	85	0	313	334	0	840
	Tot.	586	638	410	856	1095	765	844	5194

Traffic Lane Flows

Lane	Scenario 8: 2029 + Development PM
Junction: J1: Tarbock Roundabout North	
J1:1/1	108
J1:1/2	732
J1:2/1	481
J1:2/2 (with short)	1213(In) 565(Out)
J1:2/3 (short)	648
J1:3/1	638
J1:4/1 (with short)	384(In) 151(Out)
J1:4/2 (short)	233
J1:5/1	586
J1:6/1	568
J1:6/2 (with short)	1380(In) 265(Out)
J1:6/3 (short)	1115
Junction: J2: Tarbock Roundabout East	
J2:1/1	460
J2:1/2	365
J2:2/1	346
J2:2/2 (with short)	1348(In) 446(Out)
J2:2/3 (short)	902
J2:3/1 (with short)	354(In) 212(Out)
J2:3/2 (short)	142
J2:4/1	410
J2:5/1	842

Full Input Data And Results

Lane	Scenario 8: 2029 + Development PM
J2:5/2 (with short)	1267(In) 493(Out)
J2:5/3 (short)	774
Junction: J3: Tarbock Roundabout South	
J3:1/1	501
J3:1/2	491
J3:2/1	691
J3:2/2 (with short)	916(In) 589(Out)
J3:2/3 (short)	327
J3:3/1	856
Junction: J4: Tarbock Roundabout West	
J4:1/1	1095
J4:2/1	686
J4:2/2 (with short)	818(In) 193(Out)
J4:2/3 (short)	625
J4:3/1	429
J4:3/2	478
Junction: J5: A5080 Cronton Road	
J5:1/1	561
J5:1/2	331
J5:2/1	543
J5:2/2 (with short)	1103(In) 221(Out)
J5:2/3 (short)	882
J5:3/1	844
J5:4/1	765

Full Input Data And Results

Lane Saturation Flows

Junction: J1: Tarbock Roundabout North								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (M57 Southbound Exit)	3.70	0.00	Y	Arm J1:5 Left	Inf	97.2 %	1985	1985
				Arm J1:6 Ahead	Inf	2.8 %		
J1:1/2 (M57 Southbound Exit)	3.70	0.00	N	Arm J1:6 Ahead	Inf	100.0 %	2125	2125
J1:2/1 (M57 Southbound Exit Circulatory)	3.25	0.00	Y	Arm J1:5 Ahead	Inf	100.0 %	1940	1940
J1:2/2 (M57 Southbound Exit Circulatory)	3.25	0.00	N	Arm J1:6 Right	Inf	100.0 %	2080	2080
J1:2/3 (M57 Southbound Exit Circulatory)	3.25	0.00	N	Arm J1:6 Right	Inf	100.0 %	2080	2080
J1:3/1	Infinite Saturation Flow						Inf	Inf
J1:4/1 (Windy Arbor Road)	3.50	0.00	Y	Arm J2:2 Ahead	Inf	53.6 %	1965	1965
				Arm J1:3 Left	Inf	46.4 %		
J1:4/2 (Windy Arbor Road)	3.50	0.00	N	Arm J2:2 Ahead	Inf	100.0 %	2105	2105
J1:5/1	Infinite Saturation Flow						Inf	Inf
J1:6/1 (Windy Arbor Road Circulatory)	3.25	0.00	Y	Arm J1:3 Ahead	Inf	100.0 %	1940	1940
J1:6/2 (Windy Arbor Road Circulatory)	3.25	0.00	Y	Arm J2:2 Ahead	Inf	100.0 %	1940	1940
J1:6/3 (Windy Arbor Road Circulatory)	3.25	0.00	N	Arm J2:2 Ahead	Inf	100.0 %	2080	2080

Full Input Data And Results

Junction: J2: Tarbock Roundabout East								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1 (M62 Westbound Exit)	4.40	0.00	Y	Arm J2:4 Left Arm J2:5 Ahead	Inf Inf	13.9 % 86.1 %	2055	2055
J2:1/2 (M62 Westbound Exit)	4.40	0.00	N	Arm J2:5 Ahead	Inf	100.0 %	2195	2195
J2:2/1 (M62 Westbound Exit Circulatory)	3.25	0.00	Y	Arm J2:4 Ahead	Inf	100.0 %	1940	1940
J2:2/2 (M62 Westbound Exit Circulatory)	3.25	0.00	N	Arm J2:5 Right	Inf	100.0 %	2080	2080
J2:2/3 (M62 Westbound Exit Circulatory)	3.25	0.00	N	Arm J2:5 Right	Inf	100.0 %	2080	2080
J2:3/1 (A5080 Cronton Road)	3.50	0.00	Y	Arm J3:2 Ahead Arm J3:3 Left	Inf Inf	93.4 % 6.6 %	1965	1965
J2:3/2 (A5080 Cronton Road)	3.50	0.00	N	Arm J3:2 Ahead	Inf	100.0 %	2105	2105
J2:4/1	Infinite Saturation Flow						Inf	Inf
J2:5/1 (A5080 Cronton Road Circulatory)	3.25	0.00	Y	Arm J3:3 Left	Inf	100.0 %	1940	1940
J2:5/2 (A5080 Cronton Road Circulatory)	3.25	0.00	N	Arm J3:2 Ahead	Inf	100.0 %	2080	2080
J2:5/3 (A5080 Cronton Road Circulatory)	3.25	0.00	N	Arm J3:2 Ahead	Inf	100.0 %	2080	2080

Junction: J3: Tarbock Roundabout South								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J3:1/1 (M57 Northbound Exit)	5.00	0.00	Y	Arm J4:1 Left Arm J4:2 Ahead	Inf Inf	80.6 % 19.4 %	2115	2115
J3:1/2 (M57 Northbound Exit)	5.00	0.00	N	Arm J4:2 Ahead	Inf	100.0 %	2255	2255
J3:2/1 (M57 Northbound Exit Circulatory)	3.25	0.00	Y	Arm J4:1 Ahead	Inf	100.0 %	1940	1940
J3:2/2 (M57 Northbound Exit Circulatory)	3.25	0.00	N	Arm J4:2 Right	Inf	100.0 %	2080	2080
J3:2/3 (M57 Northbound Exit Circulatory)	3.25	0.00	N	Arm J4:2 Right	Inf	100.0 %	2080	2080
J3:3/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Junction: J4: Tarbock Roundabout West								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J4:1/1	Infinite Saturation Flow						Inf	Inf
J4:2/1 (M62 Eastbound Exit Circulatory)	3.25	0.00	Y	Arm J5:4 Left	Inf	100.0 %	1940	1940
J4:2/2 (M62 Eastbound Exit Circulatory)	3.25	0.00	N	Arm J5:2 Ahead	Inf	100.0 %	2080	2080
J4:2/3 (M62 Eastbound Exit Circulatory)	3.25	0.00	N	Arm J5:2 Ahead	Inf	100.0 %	2080	2080
J4:3/1 (M62 Eastbound Exit)	3.50	0.00	Y	Arm J5:2 Left	Inf	81.6 %	1965	1965
				Arm J5:4 Left	Inf	18.4 %		
J4:3/2 (M62 Eastbound Exit)	3.50	0.00	N	Arm J5:2 Left	Inf	100.0 %	2105	2105

Junction: J5: A5080 Cronton Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J5:1/1 (A5080 Cronton Road (W))	3.70	0.00	Y	Arm J1:2 Ahead	Inf	46.3 %	1985	1985
				Arm J5:3 Left	Inf	53.7 %		
J5:1/2 (A5080 Cronton Road (W))	3.70	0.00	N	Arm J1:2 Ahead	Inf	100.0 %	2125	2125
J5:2/1 (A5080 Cronton Road Circulatory)	3.40	0.00	Y	Arm J5:3 Ahead	Inf	100.0 %	1955	1955
J5:2/2 (A5080 Cronton Road Circulatory)	3.40	0.00	N	Arm J1:2 Right	Inf	100.0 %	2095	2095
J5:2/3 (A5080 Cronton Road Circulatory)	3.40	0.00	N	Arm J1:2 Right	Inf	100.0 %	2095	2095
J5:3/1	Infinite Saturation Flow						Inf	Inf
J5:4/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

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

Traffic Flows, Desired

Desired Flow :

Destination									
Origin		A	B	C	D	E	F	G	Tot.
	A	0	111	70	120	107	32	124	564
	B	122	0	40	606	0	264	52	1084
	C	7	2	0	18	155	90	122	394
	D	51	502	41	0	299	139	0	1032
	E	98	4	67	438	0	129	474	1210
	F	205	194	57	111	68	0	340	975
	G	70	4	62	0	225	314	0	675
	Tot.	553	817	337	1293	854	968	1112	5934

Traffic Lane Flows

Lane	Scenario 9: 2034 + Development AM
Junction: J1: Tarbock Roundabout North	
J1:1/1	74
J1:1/2	601
J1:2/1	483
J1:2/2 (with short)	1484(In) 702(Out)
J1:2/3 (short)	782
J1:3/1	817
J1:4/1 (with short)	564(In) 181(Out)
J1:4/2 (short)	383
J1:5/1	553
J1:6/1	706
J1:6/2 (with short)	1383(In) 227(Out)
J1:6/3 (short)	1156
Junction: J2: Tarbock Roundabout East	
J2:1/1	646
J2:1/2	438
J2:2/1	297
J2:2/2 (with short)	1539(In) 669(Out)
J2:2/3 (short)	870
J2:3/1 (with short)	394(In) 173(Out)
J2:3/2 (short)	221
J2:4/1	337

Full Input Data And Results

Lane	Scenario 9: 2034 + Development AM
J2:5/1	1275
J2:5/2 (with short)	1308(In) 400(Out)
J2:5/3 (short)	908
Junction: J3: Tarbock Roundabout South	
J3:1/1	438
J3:1/2	594
J3:2/1	555
J3:2/2 (with short)	1129(In) 700(Out)
J3:2/3 (short)	429
J3:3/1	1293
Junction: J4: Tarbock Roundabout West	
J4:1/1	854
J4:2/1	839
J4:2/2 (with short)	1023(In) 298(Out)
J4:2/3 (short)	725
J4:3/1	603
J4:3/2	607
Junction: J5: A5080 Cronton Road	
J5:1/1	545
J5:1/2	430
J5:2/1	772
J5:2/2 (with short)	1332(In) 278(Out)
J5:2/3 (short)	1054
J5:3/1	1112
J5:4/1	968

Lane Saturation Flows

Junction: J1: Tarbock Roundabout North								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (M57 Southbound Exit)	3.70	0.00	Y	Arm J1:5 Left	Inf	94.6 %	1985	1985
				Arm J1:6 Ahead	Inf	5.4 %		
J1:1/2 (M57 Southbound Exit)	3.70	0.00	N	Arm J1:6 Ahead	Inf	100.0 %	2125	2125
J1:2/1 (M57 Southbound Exit Circulatory)	3.25	0.00	Y	Arm J1:5 Ahead	Inf	100.0 %	1940	1940
J1:2/2 (M57 Southbound Exit Circulatory)	3.25	0.00	N	Arm J1:6 Right	Inf	100.0 %	2080	2080
J1:2/3 (M57 Southbound Exit Circulatory)	3.25	0.00	N	Arm J1:6 Right	Inf	100.0 %	2080	2080
J1:3/1	Infinite Saturation Flow						Inf	Inf
J1:4/1 (Windy Arbor Road)	3.50	0.00	Y	Arm J2:2 Ahead	Inf	38.7 %	1965	1965
				Arm J1:3 Left	Inf	61.3 %		
J1:4/2 (Windy Arbor Road)	3.50	0.00	N	Arm J2:2 Ahead	Inf	100.0 %	2105	2105
J1:5/1	Infinite Saturation Flow						Inf	Inf
J1:6/1 (Windy Arbor Road Circulatory)	3.25	0.00	Y	Arm J1:3 Ahead	Inf	100.0 %	1940	1940
J1:6/2 (Windy Arbor Road Circulatory)	3.25	0.00	Y	Arm J2:2 Ahead	Inf	100.0 %	1940	1940
J1:6/3 (Windy Arbor Road Circulatory)	3.25	0.00	N	Arm J2:2 Ahead	Inf	100.0 %	2080	2080

Full Input Data And Results

Junction: J2: Tarbock Roundabout East								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1 (M62 Westbound Exit)	4.40	0.00	Y	Arm J2:4 Left Arm J2:5 Ahead	Inf Inf	6.2 % 93.8 %	2055	2055
J2:1/2 (M62 Westbound Exit)	4.40	0.00	N	Arm J2:5 Ahead	Inf	100.0 %	2195	2195
J2:2/1 (M62 Westbound Exit Circulatory)	3.25	0.00	Y	Arm J2:4 Ahead	Inf	100.0 %	1940	1940
J2:2/2 (M62 Westbound Exit Circulatory)	3.25	0.00	N	Arm J2:5 Right	Inf	100.0 %	2080	2080
J2:2/3 (M62 Westbound Exit Circulatory)	3.25	0.00	N	Arm J2:5 Right	Inf	100.0 %	2080	2080
J2:3/1 (A5080 Cronton Road)	3.50	0.00	Y	Arm J3:2 Ahead Arm J3:3 Left	Inf Inf	89.6 % 10.4 %	1965	1965
J2:3/2 (A5080 Cronton Road)	3.50	0.00	N	Arm J3:2 Ahead	Inf	100.0 %	2105	2105
J2:4/1	Infinite Saturation Flow						Inf	Inf
J2:5/1 (A5080 Cronton Road Circulatory)	3.25	0.00	Y	Arm J3:3 Left	Inf	100.0 %	1940	1940
J2:5/2 (A5080 Cronton Road Circulatory)	3.25	0.00	N	Arm J3:2 Ahead	Inf	100.0 %	2080	2080
J2:5/3 (A5080 Cronton Road Circulatory)	3.25	0.00	N	Arm J3:2 Ahead	Inf	100.0 %	2080	2080

Junction: J3: Tarbock Roundabout South								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J3:1/1 (M57 Northbound Exit)	5.00	0.00	Y	Arm J4:1 Left	Inf	68.3 %	2115	2115
				Arm J4:2 Ahead	Inf	31.7 %		
J3:1/2 (M57 Northbound Exit)	5.00	0.00	N	Arm J4:2 Ahead	Inf	100.0 %	2255	2255
J3:2/1 (M57 Northbound Exit Circulatory)	3.25	0.00	Y	Arm J4:1 Ahead	Inf	100.0 %	1940	1940
J3:2/2 (M57 Northbound Exit Circulatory)	3.25	0.00	N	Arm J4:2 Right	Inf	100.0 %	2080	2080
J3:2/3 (M57 Northbound Exit Circulatory)	3.25	0.00	N	Arm J4:2 Right	Inf	100.0 %	2080	2080
J3:3/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Junction: J4: Tarbock Roundabout West								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J4:1/1	Infinite Saturation Flow						Inf	Inf
J4:2/1 (M62 Eastbound Exit Circulatory)	3.25	0.00	Y	Arm J5:4 Left	Inf	100.0 %	1940	1940
J4:2/2 (M62 Eastbound Exit Circulatory)	3.25	0.00	N	Arm J5:2 Ahead	Inf	100.0 %	2080	2080
J4:2/3 (M62 Eastbound Exit Circulatory)	3.25	0.00	N	Arm J5:2 Ahead	Inf	100.0 %	2080	2080
J4:3/1 (M62 Eastbound Exit)	3.50	0.00	Y	Arm J5:2 Left	Inf	78.6 %	1965	1965
				Arm J5:4 Left	Inf	21.4 %		
J4:3/2 (M62 Eastbound Exit)	3.50	0.00	N	Arm J5:2 Left	Inf	100.0 %	2105	2105

Junction: J5: A5080 Cronton Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J5:1/1 (A5080 Cronton Road (W))	3.70	0.00	Y	Arm J1:2 Ahead	Inf	37.6 %	1985	1985
				Arm J5:3 Left	Inf	62.4 %		
J5:1/2 (A5080 Cronton Road (W))	3.70	0.00	N	Arm J1:2 Ahead	Inf	100.0 %	2125	2125
J5:2/1 (A5080 Cronton Road Circulatory)	3.40	0.00	Y	Arm J5:3 Ahead	Inf	100.0 %	1955	1955
J5:2/2 (A5080 Cronton Road Circulatory)	3.40	0.00	N	Arm J1:2 Right	Inf	100.0 %	2095	2095
J5:2/3 (A5080 Cronton Road Circulatory)	3.40	0.00	N	Arm J1:2 Right	Inf	100.0 %	2095	2095
J5:3/1	Infinite Saturation Flow						Inf	Inf
J5:4/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

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

Traffic Flows, Desired

Desired Flow :

Destination									
Origin		A	B	C	D	E	F	G	Tot.
	A	0	79	90	74	106	14	71	434
	B	138	0	70	432	0	209	53	902
	C	4	4	0	15	215	57	89	384
	D	12	490	34	0	441	106	0	1083
	E	88	0	82	352	0	86	382	990
	F	283	122	80	62	96	0	327	970
	G	115	3	93	0	342	364	0	917
	Tot.	640	698	449	935	1200	836	922	5680

Traffic Lane Flows

Lane	Scenario 10: 2034 + Development PM
Junction: J1: Tarbock Roundabout North	
J1:1/1	118
J1:1/2	799
J1:2/1	525
J1:2/2 (with short)	1322(In) 616(Out)
J1:2/3 (short)	706
J1:3/1	698
J1:4/1 (with short)	434(In) 169(Out)
J1:4/2 (short)	265
J1:5/1	640
J1:6/1	619
J1:6/2 (with short)	1505(In) 289(Out)
J1:6/3 (short)	1216
Junction: J2: Tarbock Roundabout East	
J2:1/1	502
J2:1/2	400
J2:2/1	379
J2:2/2 (with short)	1481(In) 488(Out)
J2:2/3 (short)	993
J2:3/1 (with short)	384(In) 230(Out)
J2:3/2 (short)	154
J2:4/1	449

Full Input Data And Results

Lane	Scenario 10: 2034 + Development PM
J2:5/1	920
J2:5/2 (with short)	1393(In) 544(Out)
J2:5/3 (short)	849
Junction: J3: Tarbock Roundabout South	
J3:1/1	547
J3:1/2	536
J3:2/1	759
J3:2/2 (with short)	1003(In) 644(Out)
J3:2/3 (short)	359
J3:3/1	935
Junction: J4: Tarbock Roundabout West	
J4:1/1	1200
J4:2/1	750
J4:2/2 (with short)	895(In) 213(Out)
J4:2/3 (short)	682
J4:3/1	468
J4:3/2	522
Junction: J5: A5080 Cronton Road	
J5:1/1	610
J5:1/2	360
J5:2/1	595
J5:2/2 (with short)	1204(In) 242(Out)
J5:2/3 (short)	962
J5:3/1	922
J5:4/1	836

Full Input Data And Results

Lane Saturation Flows

Junction: J1: Tarbock Roundabout North								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (M57 Southbound Exit)	3.70	0.00	Y	Arm J1:5 Left	Inf	97.5 %	1985	1985
				Arm J1:6 Ahead	Inf	2.5 %		
J1:1/2 (M57 Southbound Exit)	3.70	0.00	N	Arm J1:6 Ahead	Inf	100.0 %	2125	2125
J1:2/1 (M57 Southbound Exit Circulatory)	3.25	0.00	Y	Arm J1:5 Ahead	Inf	100.0 %	1940	1940
J1:2/2 (M57 Southbound Exit Circulatory)	3.25	0.00	N	Arm J1:6 Right	Inf	100.0 %	2080	2080
J1:2/3 (M57 Southbound Exit Circulatory)	3.25	0.00	N	Arm J1:6 Right	Inf	100.0 %	2080	2080
J1:3/1	Infinite Saturation Flow						Inf	Inf
J1:4/1 (Windy Arbor Road)	3.50	0.00	Y	Arm J2:2 Ahead	Inf	53.3 %	1965	1965
				Arm J1:3 Left	Inf	46.7 %		
J1:4/2 (Windy Arbor Road)	3.50	0.00	N	Arm J2:2 Ahead	Inf	100.0 %	2105	2105
J1:5/1	Infinite Saturation Flow						Inf	Inf
J1:6/1 (Windy Arbor Road Circulatory)	3.25	0.00	Y	Arm J1:3 Ahead	Inf	100.0 %	1940	1940
J1:6/2 (Windy Arbor Road Circulatory)	3.25	0.00	Y	Arm J2:2 Ahead	Inf	100.0 %	1940	1940
J1:6/3 (Windy Arbor Road Circulatory)	3.25	0.00	N	Arm J2:2 Ahead	Inf	100.0 %	2080	2080

Full Input Data And Results

Junction: J2: Tarbock Roundabout East								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1 (M62 Westbound Exit)	4.40	0.00	Y	Arm J2:4 Left Arm J2:5 Ahead	Inf Inf	13.9 % 86.1 %	2055	2055
J2:1/2 (M62 Westbound Exit)	4.40	0.00	N	Arm J2:5 Ahead	Inf	100.0 %	2195	2195
J2:2/1 (M62 Westbound Exit Circulatory)	3.25	0.00	Y	Arm J2:4 Ahead	Inf	100.0 %	1940	1940
J2:2/2 (M62 Westbound Exit Circulatory)	3.25	0.00	N	Arm J2:5 Right	Inf	100.0 %	2080	2080
J2:2/3 (M62 Westbound Exit Circulatory)	3.25	0.00	N	Arm J2:5 Right	Inf	100.0 %	2080	2080
J2:3/1 (A5080 Cronton Road)	3.50	0.00	Y	Arm J3:2 Ahead Arm J3:3 Left	Inf Inf	93.5 % 6.5 %	1965	1965
J2:3/2 (A5080 Cronton Road)	3.50	0.00	N	Arm J3:2 Ahead	Inf	100.0 %	2105	2105
J2:4/1	Infinite Saturation Flow						Inf	Inf
J2:5/1 (A5080 Cronton Road Circulatory)	3.25	0.00	Y	Arm J3:3 Left	Inf	100.0 %	1940	1940
J2:5/2 (A5080 Cronton Road Circulatory)	3.25	0.00	N	Arm J3:2 Ahead	Inf	100.0 %	2080	2080
J2:5/3 (A5080 Cronton Road Circulatory)	3.25	0.00	N	Arm J3:2 Ahead	Inf	100.0 %	2080	2080

Junction: J3: Tarbock Roundabout South								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J3:1/1 (M57 Northbound Exit)	5.00	0.00	Y	Arm J4:1 Left Arm J4:2 Ahead	Inf Inf	80.6 % 19.4 %	2115	2115
J3:1/2 (M57 Northbound Exit)	5.00	0.00	N	Arm J4:2 Ahead	Inf	100.0 %	2255	2255
J3:2/1 (M57 Northbound Exit Circulatory)	3.25	0.00	Y	Arm J4:1 Ahead	Inf	100.0 %	1940	1940
J3:2/2 (M57 Northbound Exit Circulatory)	3.25	0.00	N	Arm J4:2 Right	Inf	100.0 %	2080	2080
J3:2/3 (M57 Northbound Exit Circulatory)	3.25	0.00	N	Arm J4:2 Right	Inf	100.0 %	2080	2080
J3:3/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Junction: J4: Tarbock Roundabout West								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J4:1/1	Infinite Saturation Flow						Inf	Inf
J4:2/1 (M62 Eastbound Exit Circulatory)	3.25	0.00	Y	Arm J5:4 Left	Inf	100.0 %	1940	1940
J4:2/2 (M62 Eastbound Exit Circulatory)	3.25	0.00	N	Arm J5:2 Ahead	Inf	100.0 %	2080	2080
J4:2/3 (M62 Eastbound Exit Circulatory)	3.25	0.00	N	Arm J5:2 Ahead	Inf	100.0 %	2080	2080
J4:3/1 (M62 Eastbound Exit)	3.50	0.00	Y	Arm J5:2 Left	Inf	81.6 %	1965	1965
				Arm J5:4 Left	Inf	18.4 %		
J4:3/2 (M62 Eastbound Exit)	3.50	0.00	N	Arm J5:2 Left	Inf	100.0 %	2105	2105

Junction: J5: A5080 Cronton Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J5:1/1 (A5080 Cronton Road (W))	3.70	0.00	Y	Arm J1:2 Ahead	Inf	46.4 %	1985	1985
				Arm J5:3 Left	Inf	53.6 %		
J5:1/2 (A5080 Cronton Road (W))	3.70	0.00	N	Arm J1:2 Ahead	Inf	100.0 %	2125	2125
J5:2/1 (A5080 Cronton Road Circulatory)	3.40	0.00	Y	Arm J5:3 Ahead	Inf	100.0 %	1955	1955
J5:2/2 (A5080 Cronton Road Circulatory)	3.40	0.00	N	Arm J1:2 Right	Inf	100.0 %	2095	2095
J5:2/3 (A5080 Cronton Road Circulatory)	3.40	0.00	N	Arm J1:2 Right	Inf	100.0 %	2095	2095
J5:3/1	Infinite Saturation Flow						Inf	Inf
J5:4/1	Infinite Saturation Flow						Inf	Inf

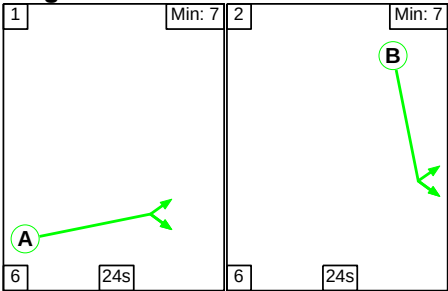
Full Input Data And Results

Scenario 1: '2024 AM' (FG1: '2024 AM', Plan 1: 'Network Control Plan 1')

C1 - Tarbock Roundabout North

Stage Sequence Diagram

Stage Stream: 1

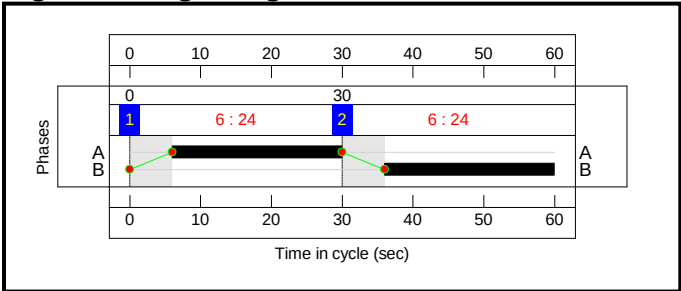


Stage Timings

Stage Stream: 1

Stage	1	2
Duration	24	24
Change Point	0	30

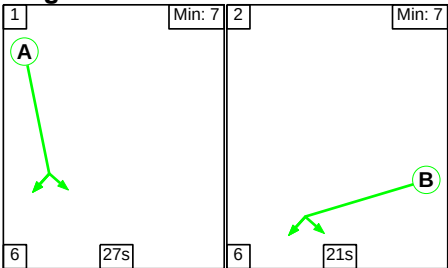
Signal Timings Diagram



C2 - Tarbock Roundabout East

Stage Sequence Diagram

Stage Stream: 1

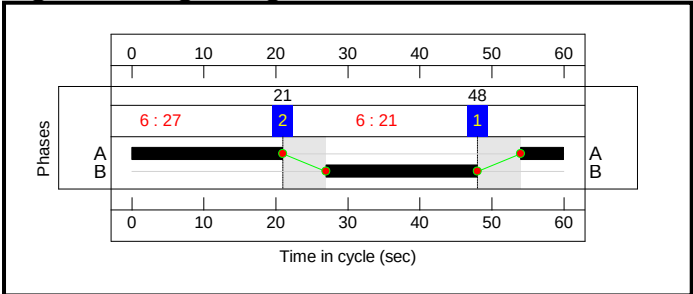


Stage Timings

Stage Stream: 1

Stage	1	2
Duration	27	21
Change Point	48	21

Signal Timings Diagram

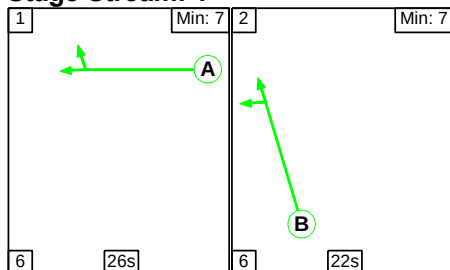


Full Input Data And Results

C3 - Tarbock Roundabout South

Stage Sequence Diagram

Stage Stream: 1

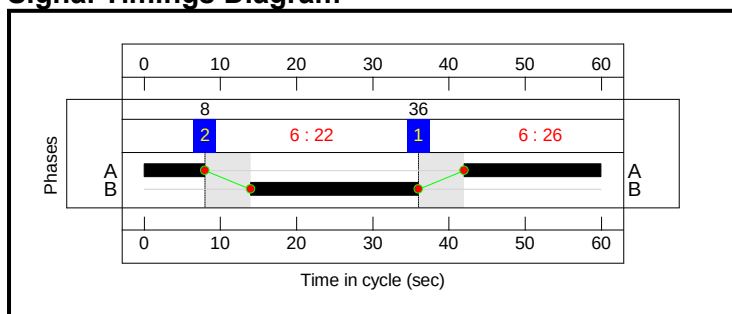


Stage Timings

Stage Stream: 1

Stage	1	2
Duration	26	22
Change Point	36	8

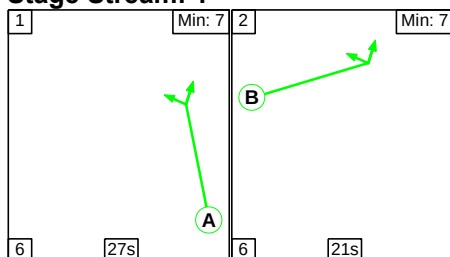
Signal Timings Diagram



C4 - Tarbock Roundabout West

Stage Sequence Diagram

Stage Stream: 1

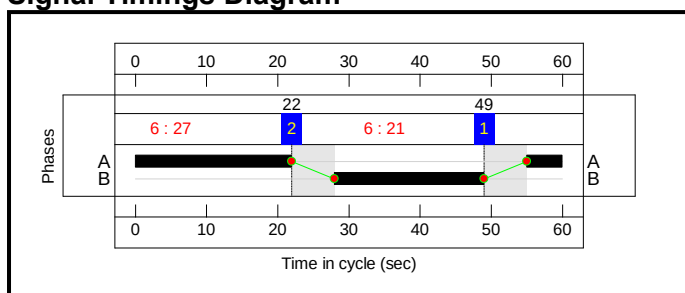


Stage Timings

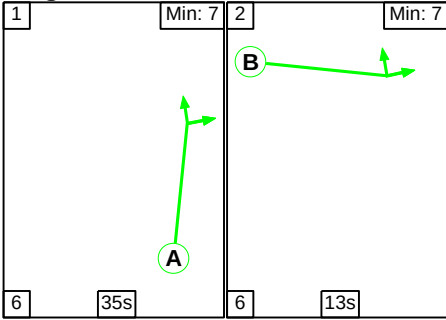
Stage Stream: 1

Stage	1	2
Duration	27	21
Change Point	49	22

Signal Timings Diagram



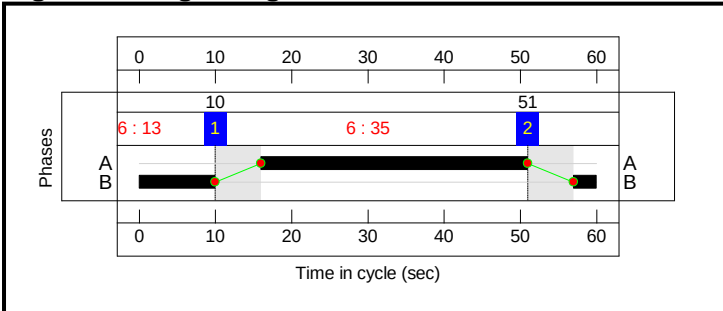
Stage Stream: 1



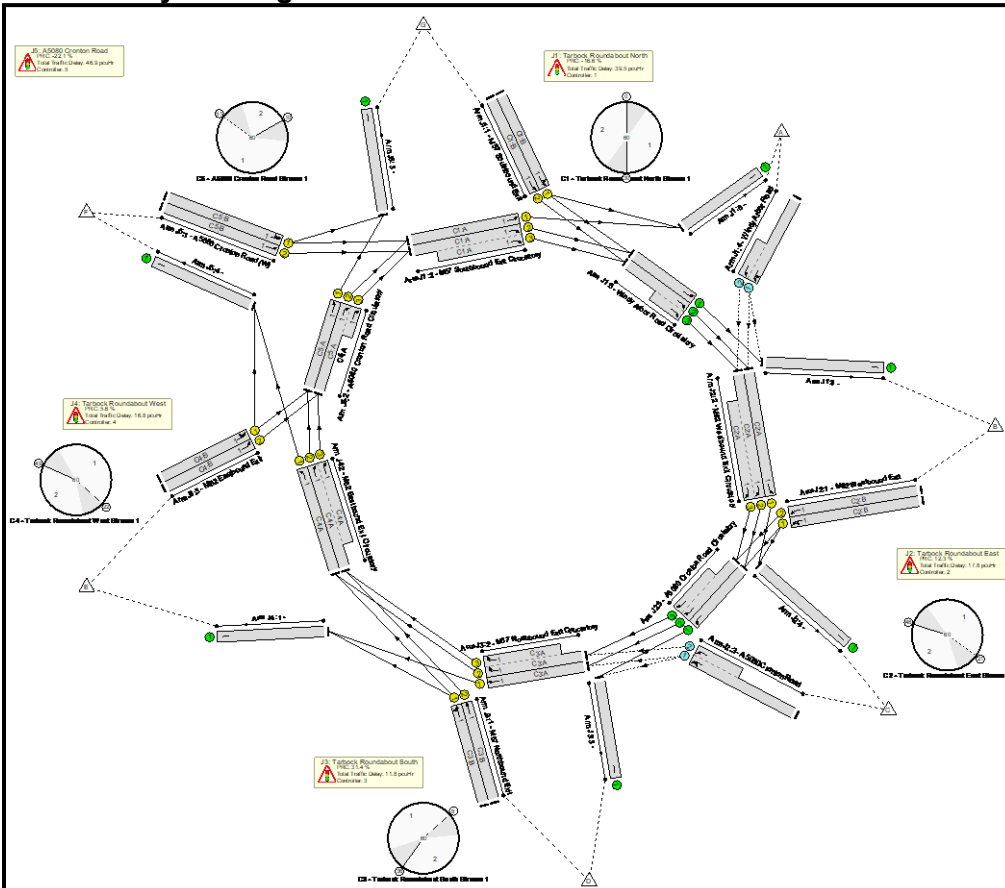
Stage Stream: 1

Stage	1	2
Duration	35	13
Change Point	10	51

Signal Timings Diagram



Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	109.9%
J1: Tarbock Roundabout North	-	-	N/A	-	-		-	-	-	-	-	-	105.0%
1/1	M57 Southbound Exit Left Ahead	U	1:1	N/A	C1:B		1	24	-	62	1985	827	7.5%
1/2	M57 Southbound Exit Ahead	U	1:1	N/A	C1:B		1	24	-	563	2125	885	63.6%
2/1	M57 Southbound Exit Circulatory Ahead	U	1:1	N/A	C1:A		1	24	-	436	1940	808	51.8%
2/2+2/3	M57 Southbound Exit Circulatory Right	U	1:1	N/A	C1:A		1	24	-	1388	2080:2080	720+803	91.2 : 91.2%
3/1		U	N/A	N/A	-		-	-	-	764	Inf	Inf	0.0%
4/1+4/2	Windy Arbor Road Ahead Left	O	N/A	N/A	-		-	-	-	525	1965:2105	161+339	105.0 : 105.0%
5/1		U	N/A	N/A	-		-	-	-	494	Inf	Inf	0.0%
6/1	Windy Arbor Road Circulatory Ahead	U	N/A	N/A	-		-	-	-	660	1940	1940	34.0%
6/2+6/3	Windy Arbor Road Circulatory Ahead	U	N/A	N/A	-		-	-	-	1295	1940:2080	338+1717	63.0 : 63.0%
J2: Tarbock Roundabout East	-	-	N/A	-	-		-	-	-	-	-	-	80.2%
1/1	M62 Westbound Exit Left Ahead	U	2:1	N/A	C2:B		1	21	-	604	2055	753	80.2%
1/2	M62 Westbound Exit Ahead	U	2:1	N/A	C2:B		1	21	-	406	2195	805	50.4%
2/1	M62 Westbound Exit Circulatory Ahead	U	2:1	N/A	C2:A		1	27	-	278	1940	905	30.7%

Full Input Data And Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
2/2+2/3	M62 Westbound Exit Circulatory Right	U	2:1	N/A	C2:A		1	27	-	1438	2080:2080	746+971	76.9 : 72.3%
3/1+3/2	A5080 Cronton Road Ahead Left	O	N/A	N/A	-		-	-	-	367	1965:2105	205+259	79.2 : 79.2%
4/1		U	N/A	N/A	-		-	-	-	315	Inf	Inf	0.0%
5/1	A5080 Cronton Road Circulatory Left	U	N/A	N/A	-		-	-	-	1192	1940	1940	58.8%
5/2+5/3	A5080 Cronton Road Circulatory Ahead	U	N/A	N/A	-		-	-	-	1219	2080:2080	638+1442	51.5 : 54.0%
J3: Tarbock Roundabout South	-	-	N/A	-	-		-	-	-	-	-	-	68.5%
1/1	M57 Northbound Exit Left Ahead	U	3:1	N/A	C3:B		1	22	-	410	2115	811	50.6%
1/2	M57 Northbound Exit Ahead	U	3:1	N/A	C3:B		1	22	-	553	2255	864	64.0%
2/1	M57 Northbound Exit Ciruclatory Ahead	U	3:1	N/A	C3:A		1	26	-	519	1940	873	54.3%
2/2+2/3	M57 Northbound Exit Ciruclatory Right	U	3:1	N/A	C3:A		1	26	-	1050	2080:2080	936+564	68.5 : 60.7%
3/1		U	N/A	N/A	-		-	-	-	1209	Inf	Inf	0.0%
J4: Tarbock Roundabout West	-	-	N/A	-	-		-	-	-	-	-	-	85.2%
1/1		U	N/A	N/A	-		-	-	-	799	Inf	Inf	0.0%
2/1	M62 Eastbound Exit Circulatory Left	U	4:1	N/A	C4:A		1	27	-	785	1940	905	85.2%
2/2+2/3	M62 Eastbound Exit Circulatory Ahead	U	4:1	N/A	C4:A		1	27	-	948	2080:2080	403+971	56.0 : 69.0%
3/1	M62 Eastbound Exit Left Left2	U	4:1	N/A	C4:B		1	21	-	564	1965	721	78.3%

Full Input Data And Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
3/2	M62 Eastbound Exit Left	U	4:1	N/A	C4:B		1	21	-	561	2105	772	72.7%
J5: A5080 Cronton Road	-	-	N/A	-	-		-	-	-	-	-	-	109.9%
1/1	A5080 Cronton Road (W) Ahead Left	U	5:1	N/A	C5:B		1	13	-	509	1985	463	109.9%
1/2	A5080 Cronton Road (W) Ahead	U	5:1	N/A	C5:B		1	13	-	403	2125	496	81.3%
2/1	A5080 Cronton Road Circulatory Ahead	U	5:1	N/A	C5:A		1	35	-	722	1955	1173	57.1%
2/2+2/3	A5080 Cronton Road Circulatory Right	U	5:1	N/A	C5:A		1	35	-	1231	2095:2095	265+1061	92.8 : 92.8%
3/1		U	N/A	N/A	-		-	-	-	1041	Inf	Inf	0.0%
4/1		U	N/A	N/A	-		-	-	-	905	Inf	Inf	0.0%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	1750	0	0	53.1	79.6	0.0	132.7	-	-	-	-
J1: Tarbock Roundabout North	-	-	1016	0	0	12.9	26.6	0.0	39.5	-	-	-	-
1/1	62	62	-	-	-	0.2	0.0	-	0.2	12.9	0.6	0.0	0.7
1/2	563	563	-	-	-	2.2	0.9	-	3.0	19.4	7.4	0.9	8.2
2/1	419	419	-	-	-	1.2	0.5	-	1.8	15.1	4.0	0.5	4.5
2/2+2/3	1388	1388	-	-	-	7.1	4.8	-	11.9	30.9	13.4	4.8	18.2
3/1	764	764	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1+4/2	525	508	1016	0	0	2.2	19.2	-	21.4	146.9	16.0	19.2	35.3
5/1	477	477	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	660	660	-	-	-	0.0	0.3	-	0.3	1.6	7.1	0.3	7.4
6/2+6/3	1295	1295	-	-	-	0.0	0.8	-	0.9	2.4	11.9	0.8	12.7

Full Input Data And Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
J2: Tarbock Roundabout East	-	-	734	0	0	10.5	7.2	0.0	17.8	-	-	-	-
1/1	604	604	-	-	-	2.9	2.0	-	4.8	28.8	8.9	2.0	10.9
1/2	406	406	-	-	-	1.7	0.5	-	2.2	19.3	5.2	0.5	5.7
2/1	278	278	-	-	-	0.8	0.2	-	1.1	13.7	3.3	0.2	3.5
2/2+2/3	1275	1275	-	-	-	4.3	1.4	-	5.7	16.1	9.5	1.4	10.9
3/1+3/2	367	367	734	0	0	0.9	1.8	-	2.7	26.7	1.7	1.8	3.5
4/1	315	315	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	1141	1141	-	-	-	0.0	0.7	-	0.7	2.3	5.6	0.7	6.3
5/2+5/3	1107	1107	-	-	-	0.0	0.6	-	0.6	1.9	10.2	0.6	10.8
J3: Tarbock Roundabout South	-	-	0	0	0	8.9	2.9	0.0	11.8	-	-	-	-
1/1	410	410	-	-	-	1.6	0.5	-	2.1	18.6	5.1	0.5	5.6
1/2	553	553	-	-	-	2.3	0.9	-	3.2	20.9	7.5	0.9	8.4
2/1	474	474	-	-	-	2.2	0.6	-	2.8	21.2	7.7	0.6	8.3
2/2+2/3	984	984	-	-	-	2.7	0.9	-	3.7	13.4	7.7	0.9	8.7
3/1	1158	1158	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J4: Tarbock Roundabout West	-	-	0	0	0	10.0	6.8	0.0	16.8	-	-	-	-
1/1	754	754	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/1	771	771	-	-	-	1.6	2.8	-	4.3	20.3	5.0	2.8	7.7
2/2+2/3	895	895	-	-	-	3.2	0.9	-	4.2	16.8	16.6	0.9	17.5
3/1	564	564	-	-	-	2.6	1.8	-	4.4	28.1	8.3	1.8	10.1
3/2	561	561	-	-	-	2.6	1.3	-	3.9	24.8	7.9	1.3	9.3
J5: A5080 Cronton Road	-	-	0	0	0	10.8	36.0	0.0	46.9	-	-	-	-
1/1	509	463	-	-	-	4.7	27.5	-	32.2	228.1	9.2	27.5	36.8
1/2	403	403	-	-	-	2.4	2.1	-	4.5	40.3	6.3	2.1	8.3

Full Input Data And Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
2/1	669	669	-	-	-	0.9	0.7	-	1.6	8.5	4.7	0.7	5.4
2/2+2/3	1231	1231	-	-	-	2.7	5.8	-	8.5	24.9	12.2	5.8	17.9
3/1	960	960	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	891	891	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 - Tarbock Roundabout North Stream: 1 PRC for Signalled Lanes (%): -1.3 Total Delay for Signalled Lanes (pcuHr): 16.93 Cycle Time (s): 60													
C2 - Tarbock Roundabout East Stream: 1 PRC for Signalled Lanes (%): 12.3 Total Delay for Signalled Lanes (pcuHr): 13.75 Cycle Time (s): 60													
C3 - Tarbock Roundabout South Stream: 1 PRC for Signalled Lanes (%): 31.4 Total Delay for Signalled Lanes (pcuHr): 11.78 Cycle Time (s): 60													
C4 - Tarbock Roundabout West Stream: 1 PRC for Signalled Lanes (%): 5.6 Total Delay for Signalled Lanes (pcuHr): 16.79 Cycle Time (s): 60													
C5 - A5080 Cronton Road Stream: 1 PRC for Signalled Lanes (%): -22.1 Total Delay for Signalled Lanes (pcuHr): 46.86 Cycle Time (s): 60													
PRC Over All Lanes (%): -22.1 Total Delay Over All Lanes(pcuHr): 132.71													

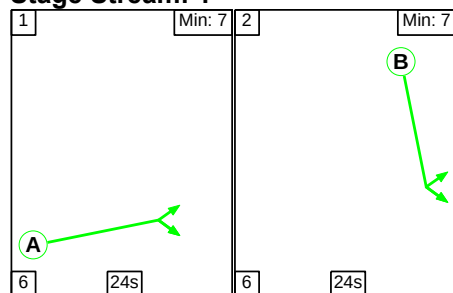
Full Input Data And Results

Scenario 2: '2024 PM' (FG2: '2024 PM', Plan 1: 'Network Control Plan 1')

C1 - Tarbock Roundabout North

Stage Sequence Diagram

Stage Stream: 1

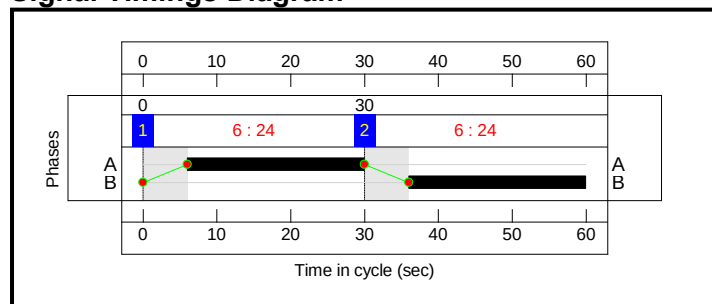


Stage Timings

Stage Stream: 1

Stage	1	2
Duration	24	24
Change Point	0	30

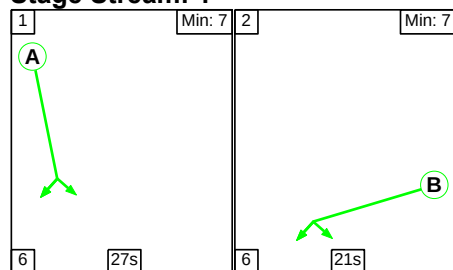
Signal Timings Diagram



C2 - Tarbock Roundabout East

Stage Sequence Diagram

Stage Stream: 1

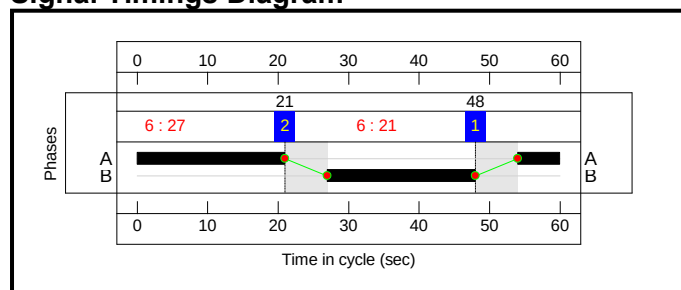


Stage Timings

Stage Stream: 1

Stage	1	2
Duration	27	21
Change Point	48	21

Signal Timings Diagram

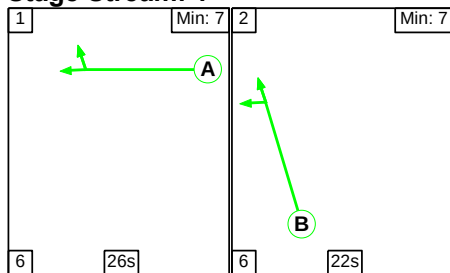


Full Input Data And Results

C3 - Tarbock Roundabout South

Stage Sequence Diagram

Stage Stream: 1

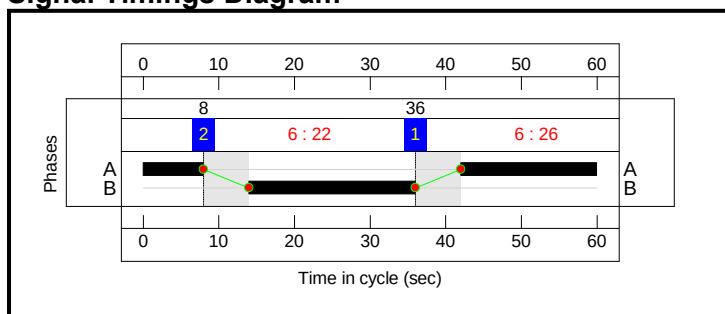


Stage Timings

Stage Stream: 1

Stage	1	2
Duration	26	22
Change Point	36	8

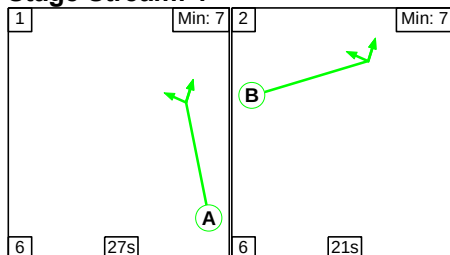
Signal Timings Diagram



C4 - Tarbock Roundabout West

Stage Sequence Diagram

Stage Stream: 1

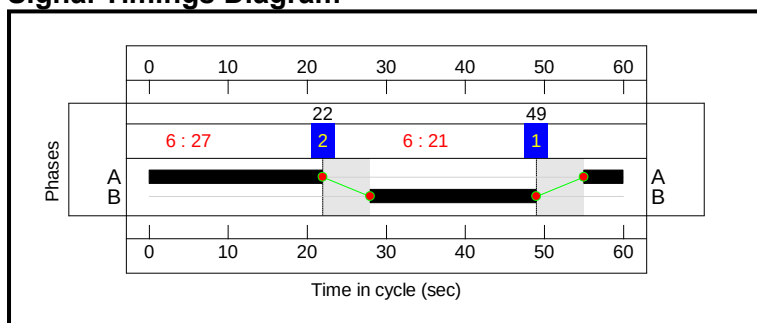


Stage Timings

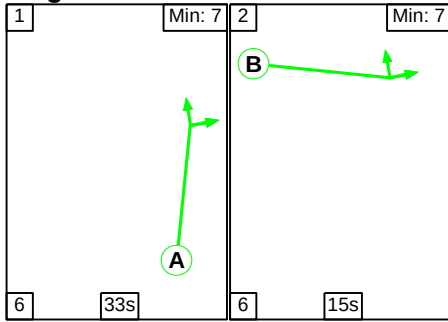
Stage Stream: 1

Stage	1	2
Duration	27	21
Change Point	49	22

Signal Timings Diagram



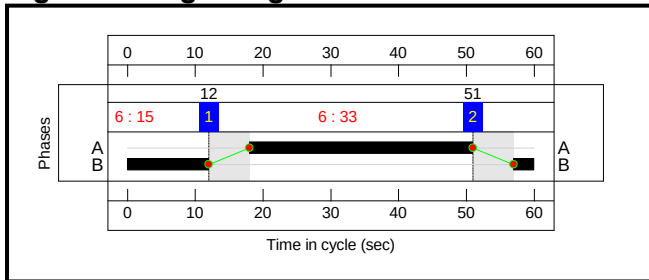
Stage Stream: 1



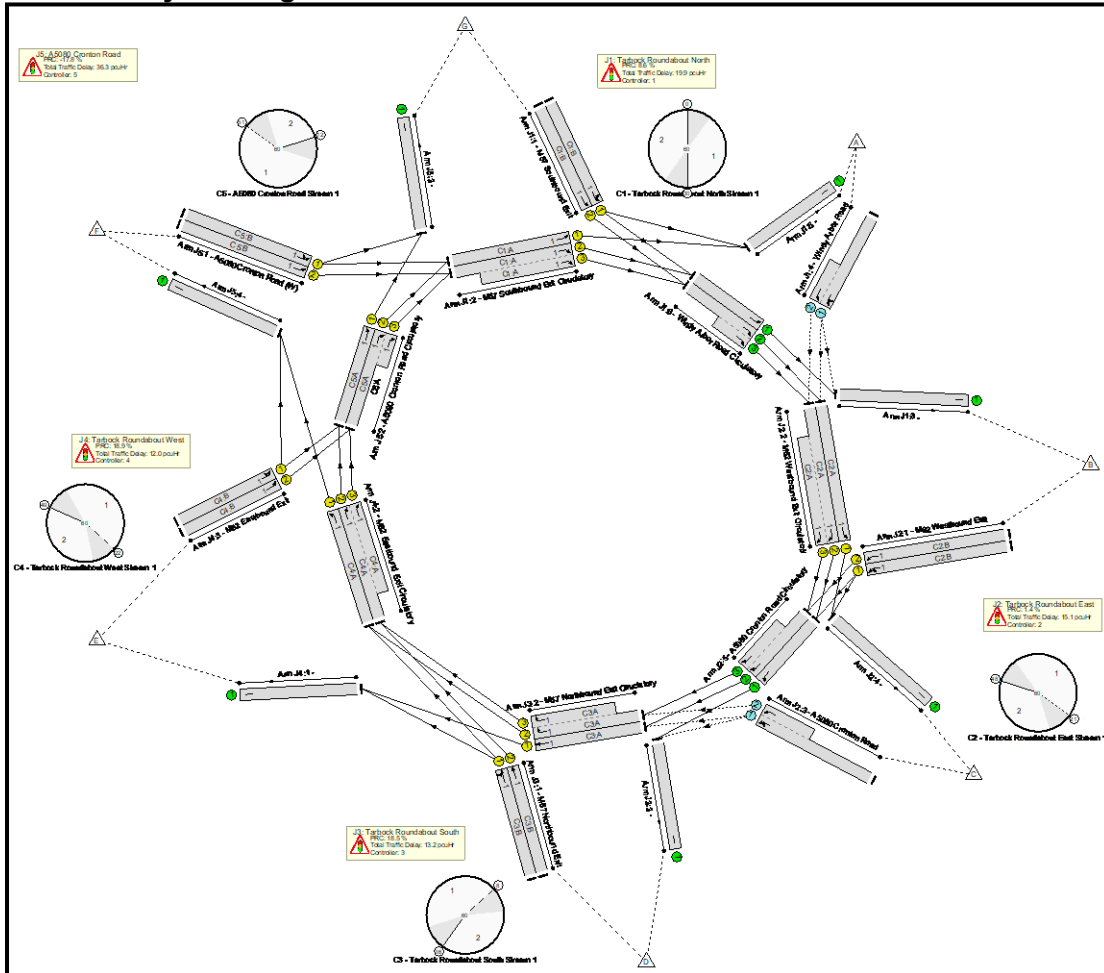
Stage Stream: 1

Stage	1	2
Duration	33	15
Change Point	12	51

Signal Timings Diagram



Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	106.0%
J1: Tarbock Roundabout North	-	-	N/A	-	-		-	-	-	-	-	-	82.9%
1/1	M57 Southbound Exit Left Ahead	U	1:1	N/A	C1:B		1	24	-	108	1985	827	13.1%
1/2	M57 Southbound Exit Ahead	U	1:1	N/A	C1:B		1	24	-	734	2125	885	82.9%
2/1	M57 Southbound Exit Circulatory Ahead	U	1:1	N/A	C1:A		1	24	-	481	1940	808	57.7%
2/2+2/3	M57 Southbound Exit Circulatory Right	U	1:1	N/A	C1:A		1	24	-	1216	2080:2080	702+804	80.7 : 80.7%
3/1		U	N/A	N/A	-		-	-	-	640	Inf	Inf	0.0%
4/1+4/2	Windy Arbor Road Ahead Left	O	N/A	N/A	-		-	-	-	384	1965:2105	204+315	73.9 : 73.9%
5/1		U	N/A	N/A	-		-	-	-	586	Inf	Inf	0.0%
6/1	Windy Arbor Road Circulatory Ahead	U	N/A	N/A	-		-	-	-	570	1940	1940	29.4%
6/2+6/3	Windy Arbor Road Circulatory Ahead	U	N/A	N/A	-		-	-	-	1383	1940:2080	393+1659	67.4 : 67.4%
J2: Tarbock Roundabout East	-	-	N/A	-	-		-	-	-	-	-	-	88.8%
1/1	M62 Westbound Exit Left Ahead	U	2:1	N/A	C2:B		1	21	-	462	2055	753	61.3%
1/2	M62 Westbound Exit Ahead	U	2:1	N/A	C2:B		1	21	-	366	2195	805	45.5%
2/1	M62 Westbound Exit Circulatory Ahead	U	2:1	N/A	C2:A		1	27	-	346	1940	905	38.2%

Full Input Data And Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
2/2+2/3	M62 Westbound Exit Circulatory Right	U	2:1	N/A	C2:A		1	27	-	1351	2080:2080	480+971	88.8 : 87.7%
3/1+3/2	A5080 Cronton Road Ahead Left	O	N/A	N/A	-		-	-	-	355	1965:2105	460+269	46.1 : 53.2%
4/1		U	N/A	N/A	-		-	-	-	410	Inf	Inf	0.0%
5/1	A5080 Cronton Road Circulatory Left	U	N/A	N/A	-		-	-	-	845	1940	1940	42.5%
5/2+5/3	A5080 Cronton Road Circulatory Ahead	U	N/A	N/A	-		-	-	-	1270	2080:2080	809+1271	57.5 : 59.2%
J3: Tarbock Roundabout South	-	-	N/A	-	-		-	-	-	-	-	-	75.9%
1/1	M57 Northbound Exit Left Ahead	U	3:1	N/A	C3:B		1	22	-	503	2115	811	62.0%
1/2	M57 Northbound Exit Ahead	U	3:1	N/A	C3:B		1	22	-	493	2255	864	57.0%
2/1	M57 Northbound Exit Ciruclatory Ahead	U	3:1	N/A	C3:A		1	26	-	692	1940	873	75.9%
2/2+2/3	M57 Northbound Exit Ciruclatory Right	U	3:1	N/A	C3:A		1	26	-	919	2080:2080	936+519	62.8 : 59.2%
3/1		U	N/A	N/A	-		-	-	-	859	Inf	Inf	0.0%
J4: Tarbock Roundabout West	-	-	N/A	-	-		-	-	-	-	-	-	75.7%
1/1		U	N/A	N/A	-		-	-	-	1097	Inf	Inf	0.0%
2/1	M62 Eastbound Exit Circulatory Left	U	4:1	N/A	C4:A		1	27	-	689	1940	905	75.7%
2/2+2/3	M62 Eastbound Exit Circulatory Ahead	U	4:1	N/A	C4:A		1	27	-	821	2080:2080	300+971	57.9 : 64.6%
3/1	M62 Eastbound Exit Left Left2	U	4:1	N/A	C4:B		1	21	-	430	1965	721	59.7%

Full Input Data And Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
3/2	M62 Eastbound Exit Left	U	4:1	N/A	C4:B		1	21	-	479	2105	772	62.1%
J5: A5080 Cronton Road	-	-	N/A	-	-		-	-	-	-	-	-	106.0%
1/1	A5080 Cronton Road (W) Ahead Left	U	5:1	N/A	C5:B		1	15	-	561	1985	529	106.0%
1/2	A5080 Cronton Road (W) Ahead	U	5:1	N/A	C5:B		1	15	-	331	2125	567	58.4%
2/1	A5080 Cronton Road Circulatory Ahead	U	5:1	N/A	C5:A		1	33	-	545	1955	1108	47.4%
2/2+2/3	A5080 Cronton Road Circulatory Right	U	5:1	N/A	C5:A		1	33	-	1106	2095:2095	251+1005	88.0 : 88.0%
3/1		U	N/A	N/A	-		-	-	-	846	Inf	Inf	0.0%
4/1		U	N/A	N/A	-		-	-	-	768	Inf	Inf	0.0%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	1478	0	0	47.4	49.0	0.0	96.4	-	-	-	-
J1: Tarbock Roundabout North	-	-	768	0	0	12.1	7.8	0.0	19.9	-	-	-	-
1/1	108	108	-	-	-	0.3	0.1	-	0.4	13.3	1.1	0.1	1.2
1/2	734	734	-	-	-	3.2	2.4	-	5.5	27.1	10.8	2.4	13.2
2/1	466	466	-	-	-	1.3	0.7	-	1.9	14.9	4.1	0.7	4.8
2/2+2/3	1216	1216	-	-	-	6.5	2.1	-	8.6	25.5	12.2	2.1	14.3
3/1	640	640	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1+4/2	384	384	768	0	0	0.8	1.4	-	2.1	20.1	1.7	1.4	3.1
5/1	571	571	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	570	570	-	-	-	0.0	0.2	-	0.2	1.4	5.5	0.2	5.7
6/2+6/3	1383	1383	-	-	-	0.0	1.0	-	1.1	2.8	12.6	1.0	13.6

Full Input Data And Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
J2: Tarbock Roundabout East	-	-	710	0	0	8.5	6.6	0.0	15.1	-	-	-	-
1/1	462	462	-	-	-	2.0	0.8	-	2.8	21.7	6.3	0.8	7.1
1/2	366	366	-	-	-	1.5	0.4	-	1.9	18.5	4.6	0.4	5.0
2/1	346	346	-	-	-	1.1	0.3	-	1.4	14.5	4.1	0.3	4.4
2/2+2/3	1277	1277	-	-	-	3.2	3.5	-	6.8	19.1	7.6	3.5	11.1
3/1+3/2	355	355	710	0	0	0.7	0.5	-	1.2	11.9	1.6	0.5	2.1
4/1	410	410	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	824	824	-	-	-	0.0	0.4	-	0.4	1.6	3.2	0.4	3.6
5/2+5/3	1217	1217	-	-	-	0.0	0.7	-	0.7	2.1	9.1	0.7	9.8
J3: Tarbock Roundabout South	-	-	0	0	0	9.4	3.8	0.0	13.2	-	-	-	-
1/1	503	503	-	-	-	2.1	0.8	-	2.9	20.8	6.7	0.8	7.5
1/2	493	493	-	-	-	2.0	0.7	-	2.7	19.4	6.4	0.7	7.1
2/1	663	663	-	-	-	3.1	1.6	-	4.6	25.1	10.5	1.6	12.0
2/2+2/3	895	895	-	-	-	2.2	0.8	-	3.0	12.2	7.2	0.8	8.0
3/1	838	838	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J4: Tarbock Roundabout West	-	-	0	0	0	8.0	3.9	0.0	12.0	-	-	-	-
1/1	1068	1068	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/1	686	686	-	-	-	1.2	1.5	-	2.7	14.3	3.4	1.5	5.0
2/2+2/3	801	801	-	-	-	2.9	0.8	-	3.8	16.9	16.5	0.8	17.4
3/1	430	430	-	-	-	1.8	0.7	-	2.6	21.6	5.7	0.7	6.5
3/2	479	479	-	-	-	2.1	0.8	-	2.9	21.7	6.5	0.8	7.3
J5: A5080 Cronton Road	-	-	0	0	0	9.4	26.8	0.0	36.3	-	-	-	-
1/1	561	529	-	-	-	4.4	22.2	-	26.6	170.6	9.9	22.2	32.0
1/2	331	331	-	-	-	1.8	0.7	-	2.5	26.7	4.8	0.7	5.5

Full Input Data And Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
2/1	525	525	-	-	-	0.6	0.4	-	1.1	7.3	3.0	0.4	3.5
2/2+2/3	1106	1106	-	-	-	2.6	3.5	-	6.2	20.0	11.1	3.5	14.6
3/1	809	809	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	765	765	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 - Tarbock Roundabout North			Stream: 1 PRC for Signalled Lanes (%):		8.6	Total Delay for Signalled Lanes (pcuHr):		16.46	Cycle Time (s):		60		
C2 - Tarbock Roundabout East			Stream: 1 PRC for Signalled Lanes (%):		1.4	Total Delay for Signalled Lanes (pcuHr):		12.84	Cycle Time (s):		60		
C3 - Tarbock Roundabout South			Stream: 1 PRC for Signalled Lanes (%):		18.5	Total Delay for Signalled Lanes (pcuHr):		13.22	Cycle Time (s):		60		
C4 - Tarbock Roundabout West			Stream: 1 PRC for Signalled Lanes (%):		18.9	Total Delay for Signalled Lanes (pcuHr):		11.96	Cycle Time (s):		60		
C5 - A5080 Cronton Road			Stream: 1 PRC for Signalled Lanes (%):		-17.8	Total Delay for Signalled Lanes (pcuHr):		36.26	Cycle Time (s):		60		
			PRC Over All Lanes (%):		-17.8	Total Delay Over All Lanes(pcuHr):		96.43					

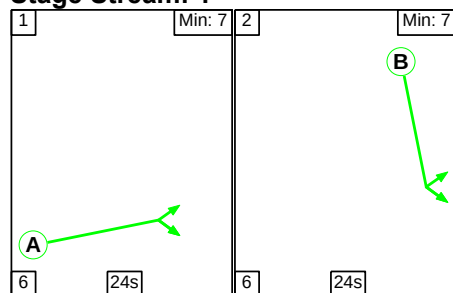
Full Input Data And Results

Scenario 3: '2029 AM' (FG3: '2029 AM', Plan 1: 'Network Control Plan 1')

C1 - Tarbock Roundabout North

Stage Sequence Diagram

Stage Stream: 1

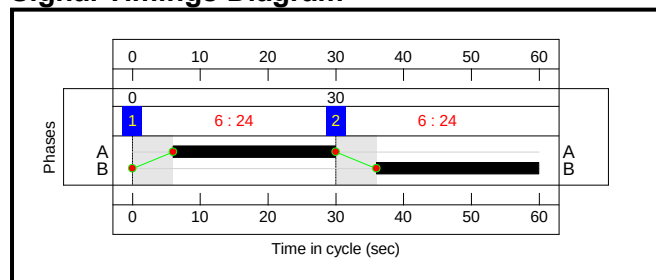


Stage Timings

Stage Stream: 1

Stage	1	2
Duration	24	24
Change Point	0	30

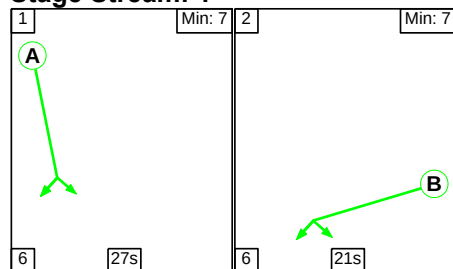
Signal Timings Diagram



C2 - Tarbock Roundabout East

Stage Sequence Diagram

Stage Stream: 1

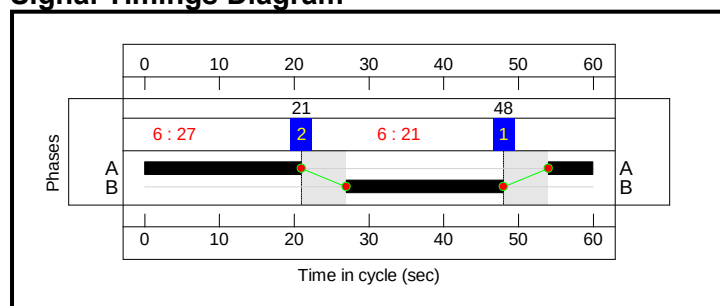


Stage Timings

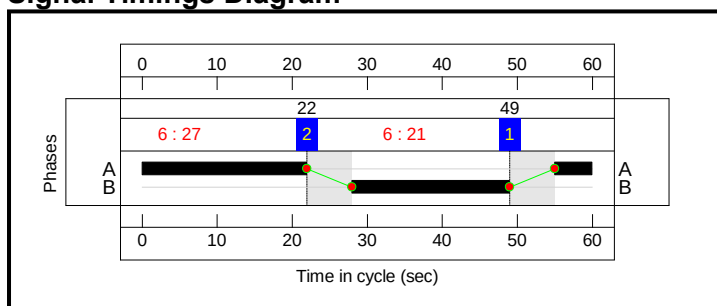
Stage Stream: 1

Stage	1	2
Duration	27	21
Change Point	48	21

Signal Timings Diagram



Stage Stream: 1

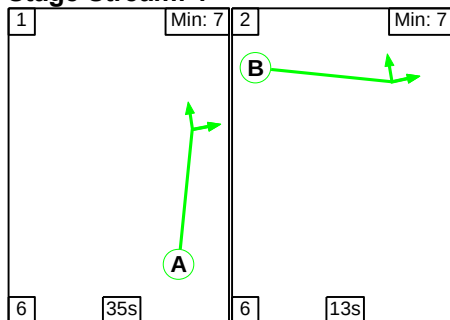


Full Input Data And Results

C5 - A5080 Cronton Road

Stage Sequence Diagram

Stage Stream: 1

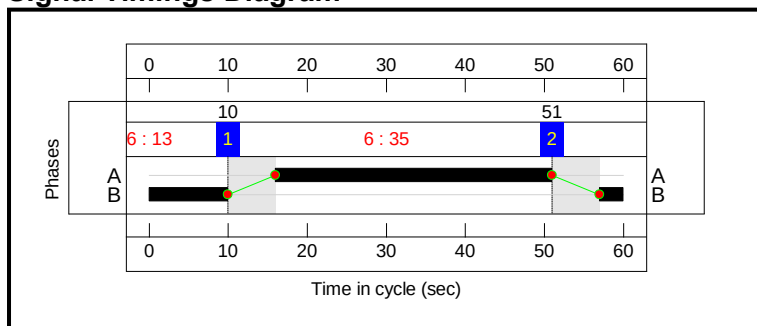


Stage Timings

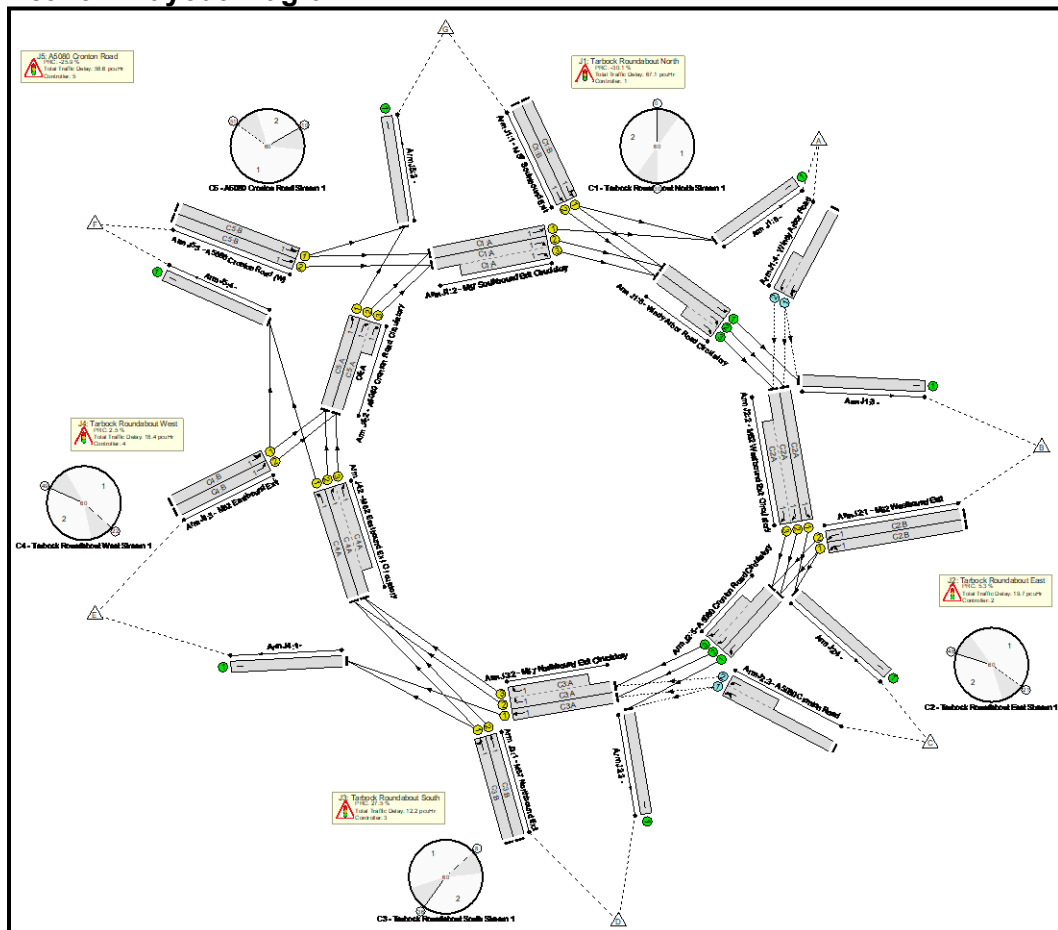
Stage Stream: 1

Stage	1	2
Duration	35	13
Change Point	10	51

Signal Timings Diagram



Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	117.1%
J1: Tarbock Roundabout North	-	-	N/A	-	-		-	-	-	-	-	-	117.1%
1/1	M57 Southbound Exit Left Ahead	U	1:1	N/A	C1:B		1	24	-	64	1985	827	7.7%
1/2	M57 Southbound Exit Ahead	U	1:1	N/A	C1:B		1	24	-	582	2125	885	65.7%
2/1	M57 Southbound Exit Circulatory Ahead	U	1:1	N/A	C1:A		1	24	-	450	1940	808	52.8%
2/2+2/3	M57 Southbound Exit Circulatory Right	U	1:1	N/A	C1:A		1	24	-	1435	2080:2080	721+803	94.2 : 94.2%
3/1		U	N/A	N/A	-		-	-	-	790	Inf	Inf	0.0%
4/1+4/2	Windy Arbor Road Ahead Left	O	N/A	N/A	-		-	-	-	542	1965:2105	149+314	117.1 : 117.1%
5/1		U	N/A	N/A	-		-	-	-	510	Inf	Inf	0.0%
6/1	Windy Arbor Road Circulatory Ahead	U	N/A	N/A	-		-	-	-	683	1940	1940	35.2%
6/2+6/3	Windy Arbor Road Circulatory Ahead	U	N/A	N/A	-		-	-	-	1338	1940:2080	338+1718	65.1 : 65.1%
J2: Tarbock Roundabout East	-	-	N/A	-	-		-	-	-	-	-	-	85.5%
1/1	M62 Westbound Exit Left Ahead	U	2:1	N/A	C2:B		1	21	-	625	2055	753	82.9%
1/2	M62 Westbound Exit Ahead	U	2:1	N/A	C2:B		1	21	-	420	2195	805	52.2%
2/1	M62 Westbound Exit Circulatory Ahead	U	2:1	N/A	C2:A		1	27	-	287	1940	905	31.7%

Full Input Data And Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
2/2+2/3	M62 Westbound Exit Circulatory Right	U	2:1	N/A	C2:A		1	27	-	1486	2080:2080	746+971	78.5 : 73.0%
3/1+3/2	A5080 Cronton Road Ahead Left	O	N/A	N/A	-		-	-	-	380	1965:2105	197+248	85.5 : 85.5%
4/1		U	N/A	N/A	-		-	-	-	325	Inf	Inf	0.0%
5/1	A5080 Cronton Road Circulatory Left	U	N/A	N/A	-		-	-	-	1233	1940	1940	60.4%
5/2+5/3	A5080 Cronton Road Circulatory Ahead	U	N/A	N/A	-		-	-	-	1260	2080:2080	637+1443	52.2 : 55.2%
J3: Tarbock Roundabout South	-	-	N/A	-	-		-	-	-	-	-	-	70.6%
1/1	M57 Northbound Exit Left Ahead	U	3:1	N/A	C3:B		1	22	-	424	2115	811	52.3%
1/2	M57 Northbound Exit Ahead	U	3:1	N/A	C3:B		1	22	-	571	2255	864	66.1%
2/1	M57 Northbound Exit Ciruclatory Ahead	U	3:1	N/A	C3:A		1	26	-	536	1940	873	55.3%
2/2+2/3	M57 Northbound Exit Ciruclatory Right	U	3:1	N/A	C3:A		1	26	-	1086	2080:2080	936+565	70.6 : 61.4%
3/1		U	N/A	N/A	-		-	-	-	1251	Inf	Inf	0.0%
J4: Tarbock Roundabout West	-	-	N/A	-	-		-	-	-	-	-	-	87.8%
1/1		U	N/A	N/A	-		-	-	-	826	Inf	Inf	0.0%
2/1	M62 Eastbound Exit Circulatory Left	U	4:1	N/A	C4:A		1	27	-	811	1940	905	87.8%
2/2+2/3	M62 Eastbound Exit Circulatory Ahead	U	4:1	N/A	C4:A		1	27	-	980	2080:2080	404+971	56.0 : 71.3%
3/1	M62 Eastbound Exit Left Left2	U	4:1	N/A	C4:B		1	21	-	583	1965	721	80.9%

Full Input Data And Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
3/2	M62 Eastbound Exit Left	U	4:1	N/A	C4:B		1	21	-	580	2105	772	75.1%
J5: A5080 Cronton Road	-	-	N/A	-	-		-	-	-	-	-	-	113.4%
1/1	A5080 Cronton Road (W) Ahead Left	U	5:1	N/A	C5:B		1	13	-	525	1985	463	113.4%
1/2	A5080 Cronton Road (W) Ahead	U	5:1	N/A	C5:B		1	13	-	417	2125	496	84.1%
2/1	A5080 Cronton Road Circulatory Ahead	U	5:1	N/A	C5:A		1	35	-	747	1955	1173	58.4%
2/2+2/3	A5080 Cronton Road Circulatory Right	U	5:1	N/A	C5:A		1	35	-	1272	2095:2095	265+1061	95.9 : 95.9%
3/1		U	N/A	N/A	-		-	-	-	1076	Inf	Inf	0.0%
4/1		U	N/A	N/A	-		-	-	-	935	Inf	Inf	0.0%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	1737	0	0	57.0	119.0	0.0	176.1	-	-	-	-
J1: Tarbock Roundabout North	-	-	977	0	0	14.7	52.5	0.0	67.1	-	-	-	-
1/1	64	64	-	-	-	0.2	0.0	-	0.2	12.9	0.6	0.0	0.7
1/2	582	582	-	-	-	2.3	1.0	-	3.2	20.0	7.8	1.0	8.7
2/1	427	427	-	-	-	1.2	0.6	-	1.8	15.2	4.1	0.6	4.7
2/2+2/3	1435	1435	-	-	-	7.4	7.0	-	14.4	36.1	14.0	7.0	20.9
3/1	790	790	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1+4/2	542	488	977	0	0	3.5	42.7	-	46.3	307.3	16.6	42.7	59.3
5/1	487	487	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	683	683	-	-	-	0.0	0.3	-	0.3	1.6	7.6	0.3	7.9
6/2+6/3	1338	1338	-	-	-	0.0	0.9	-	0.9	2.5	11.9	0.9	12.9

Full Input Data And Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
J2: Tarbock Roundabout East	-	-	760	0	0	11.0	8.7	0.0	19.7	-	-	-	-
1/1	625	625	-	-	-	3.0	2.3	-	5.3	30.8	9.4	2.3	11.7
1/2	420	420	-	-	-	1.7	0.5	-	2.3	19.5	5.4	0.5	5.9
2/1	287	287	-	-	-	0.9	0.2	-	1.1	13.6	3.4	0.2	3.6
2/2+2/3	1295	1295	-	-	-	4.3	1.5	-	5.8	16.2	9.7	1.5	11.2
3/1+3/2	380	380	760	0	0	1.0	2.7	-	3.7	35.5	3.4	2.7	6.1
4/1	325	325	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	1173	1173	-	-	-	0.0	0.8	-	0.8	2.4	6.0	0.8	6.8
5/2+5/3	1129	1129	-	-	-	0.0	0.6	-	0.6	1.9	10.3	0.6	10.9
J3: Tarbock Roundabout South	-	-	0	0	0	9.1	3.1	0.0	12.2	-	-	-	-
1/1	424	424	-	-	-	1.7	0.5	-	2.2	18.9	5.4	0.5	6.0
1/2	571	571	-	-	-	2.4	1.0	-	3.4	21.4	7.8	1.0	8.7
2/1	483	483	-	-	-	2.2	0.6	-	2.9	21.3	7.9	0.6	8.5
2/2+2/3	1008	1008	-	-	-	2.7	1.0	-	3.7	13.3	8.3	1.0	9.3
3/1	1191	1191	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J4: Tarbock Roundabout West	-	-	0	0	0	10.5	7.9	0.0	18.4	-	-	-	-
1/1	773	773	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/1	795	795	-	-	-	1.7	3.4	-	5.1	23.0	5.5	3.4	8.9
2/2+2/3	918	918	-	-	-	3.4	1.0	-	4.4	17.2	16.6	1.0	17.6
3/1	583	583	-	-	-	2.8	2.1	-	4.8	29.8	8.7	2.1	10.8
3/2	580	580	-	-	-	2.7	1.5	-	4.2	25.9	8.4	1.5	9.9
J5: A5080 Cronton Road	-	-	0	0	0	11.8	46.7	0.0	58.6	-	-	-	-
1/1	525	463	-	-	-	5.3	34.7	-	40.0	274.4	9.8	34.7	44.5
1/2	417	417	-	-	-	2.5	2.5	-	5.0	43.4	6.6	2.5	9.1

Full Input Data And Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
2/1	685	685	-	-	-	1.0	0.7	-	1.7	9.0	5.0	0.7	5.7
2/2+2/3	1272	1272	-	-	-	3.0	8.9	-	11.8	33.4	12.9	8.9	21.8
3/1	975	975	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	919	919	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 - Tarbock Roundabout North Stream: 1 PRC for Signalled Lanes (%): -4.6 Total Delay for Signalled Lanes (pcuHr): 19.64 Cycle Time (s): 60													
C2 - Tarbock Roundabout East Stream: 1 PRC for Signalled Lanes (%): 8.5 Total Delay for Signalled Lanes (pcuHr): 14.55 Cycle Time (s): 60													
C3 - Tarbock Roundabout South Stream: 1 PRC for Signalled Lanes (%): 27.5 Total Delay for Signalled Lanes (pcuHr): 12.20 Cycle Time (s): 60													
C4 - Tarbock Roundabout West Stream: 1 PRC for Signalled Lanes (%): 2.5 Total Delay for Signalled Lanes (pcuHr): 18.45 Cycle Time (s): 60													
C5 - A5080 Cronton Road Stream: 1 PRC for Signalled Lanes (%): -25.9 Total Delay for Signalled Lanes (pcuHr): 58.58 Cycle Time (s): 60													
PRC Over All Lanes (%): -30.1 Total Delay Over All Lanes(pcuHr): 176.05													

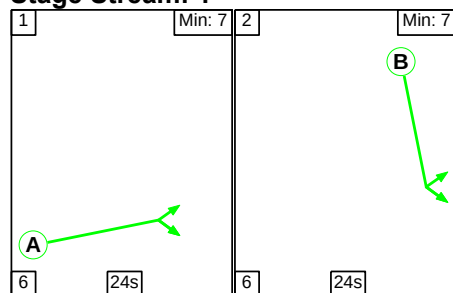
Full Input Data And Results

Scenario 4: '2029 PM' (FG4: '2029 PM', Plan 1: 'Network Control Plan 1')

C1 - Tarbock Roundabout North

Stage Sequence Diagram

Stage Stream: 1

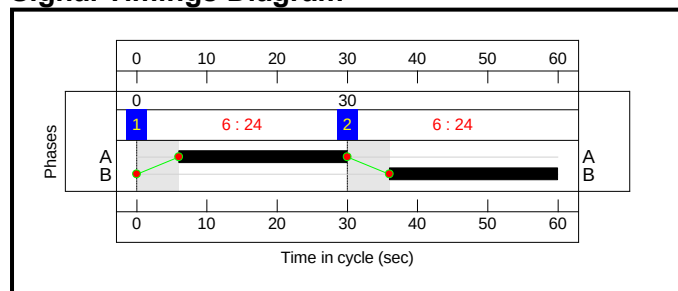


Stage Timings

Stage Stream: 1

Stage	1	2
Duration	24	24
Change Point	0	30

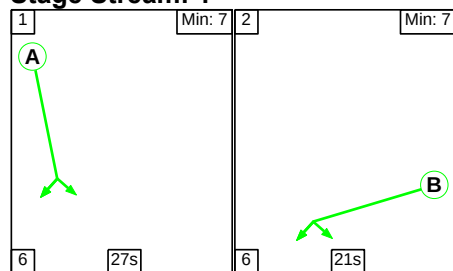
Signal Timings Diagram



C2 - Tarbock Roundabout East

Stage Sequence Diagram

Stage Stream: 1

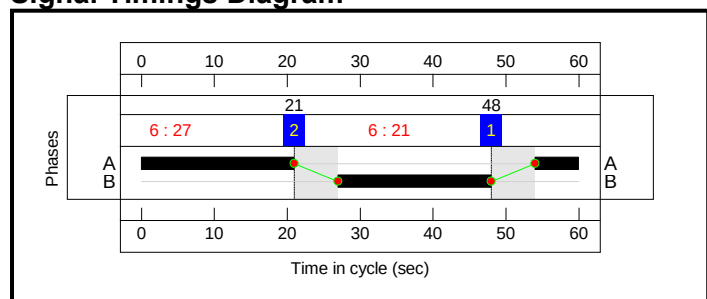


Stage Timings

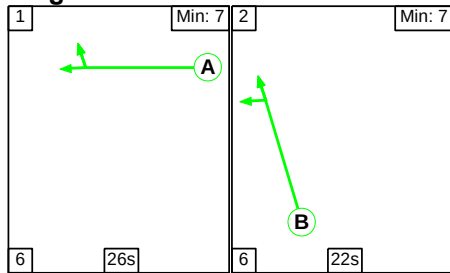
Stage Stream: 1

Stage	1	2
Duration	27	21
Change Point	48	21

Signal Timings Diagram



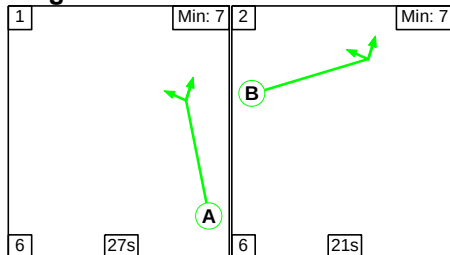
Stage Stream: 1



Stage Stream: 1

Stage	1	2
Duration	26	22
Change Point	36	8

Stage Stream: 1

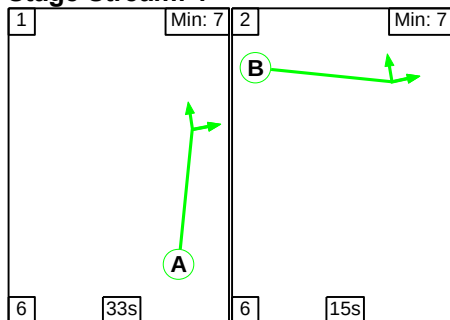


Stage Stream: 1

Stage	1	2
Duration	27	21
Change Point	49	22

Figure 1 illustrates the synchronization of two clocks, A and B, over a 60-second cycle. The top timeline (A) shows a black bar from 0 to 22 and a grey bar from 22 to 49. The bottom timeline (B) shows a black bar from 0 to 27 and a grey bar from 27 to 49. Green lines connect the start of the black bars at (0,0) and (27,22). Red lines connect the end of the black bars at (22,22) and (49,49). Blue boxes with numbers 2 and 1 are placed at the end of the black bars on timelines A and B respectively.

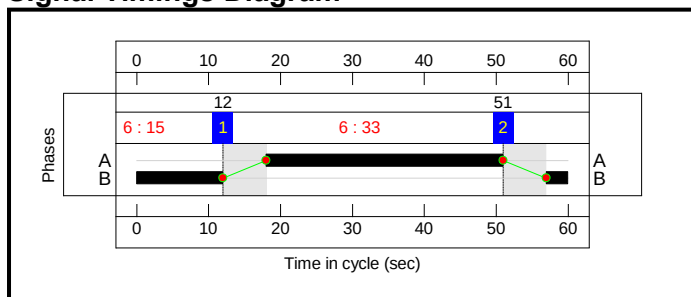
Full Input Data And Results **C5 - A5080 Cronton Road** **Stage Sequence Diagram** **Stage Stream: 1**



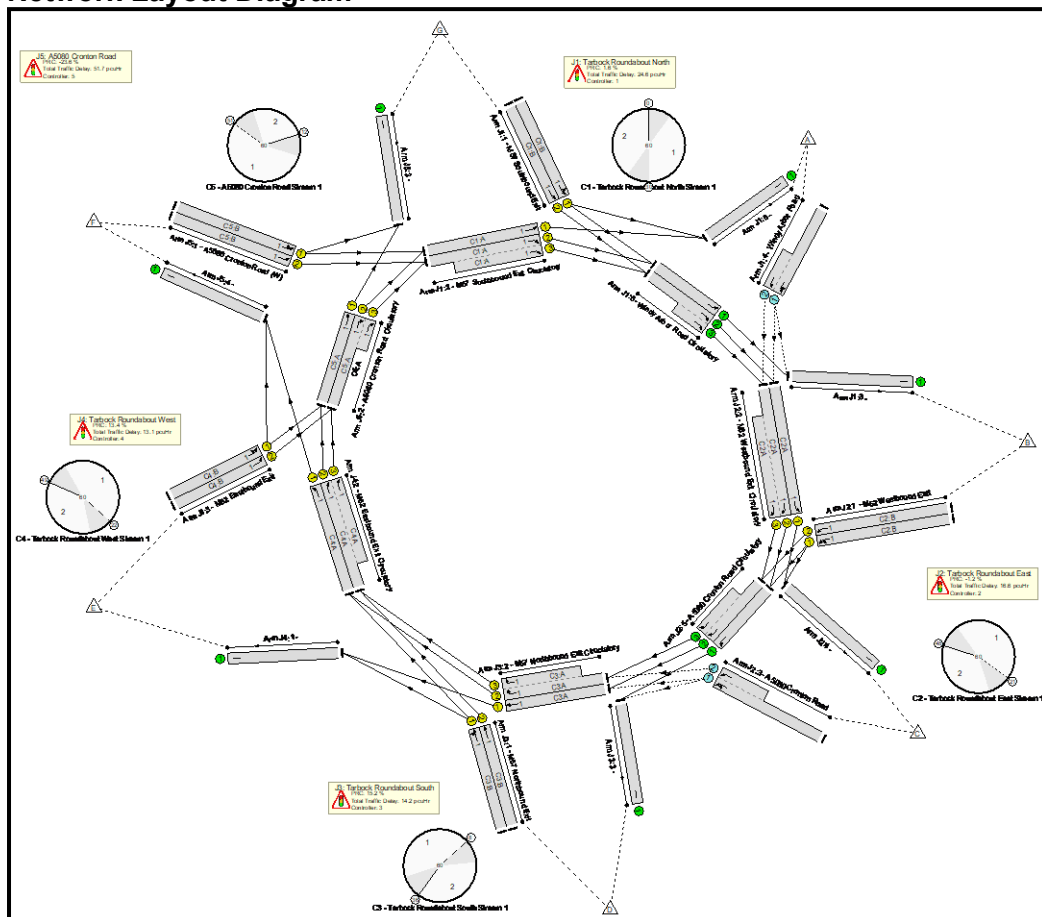
Stage Timings **Stage Stream: 1**

Stage	1	2
Duration	33	15
Change Point	12	51

Signal Timings Diagram



Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	111.3%
J1: Tarbock Roundabout North	-	-	N/A	-	-		-	-	-	-	-	-	88.6%
1/1	M57 Southbound Exit Left Ahead	U	1:1	N/A	C1:B		1	24	-	113	1985	827	13.7%
1/2	M57 Southbound Exit Ahead	U	1:1	N/A	C1:B		1	24	-	772	2125	885	87.2%
2/1	M57 Southbound Exit Circulatory Ahead	U	1:1	N/A	C1:A		1	24	-	506	1940	808	59.2%
2/2+2/3	M57 Southbound Exit Circulatory Right	U	1:1	N/A	C1:A		1	24	-	1277	2080:2080	701+804	84.8 : 84.8%
3/1		U	N/A	N/A	-		-	-	-	672	Inf	Inf	0.0%
4/1+4/2	Windy Arbor Road Ahead Left	O	N/A	N/A	-		-	-	-	405	1965:2105	180+278	88.6 : 88.6%
5/1		U	N/A	N/A	-		-	-	-	616	Inf	Inf	0.0%
6/1	Windy Arbor Road Circulatory Ahead	U	N/A	N/A	-		-	-	-	598	1940	1940	30.8%
6/2+6/3	Windy Arbor Road Circulatory Ahead	U	N/A	N/A	-		-	-	-	1454	1940:2080	395+1656	70.9 : 70.9%
J2: Tarbock Roundabout East	-	-	N/A	-	-		-	-	-	-	-	-	91.1%
1/1	M62 Westbound Exit Left Ahead	U	2:1	N/A	C2:B		1	21	-	485	2055	753	64.4%
1/2	M62 Westbound Exit Ahead	U	2:1	N/A	C2:B		1	21	-	386	2195	805	48.0%
2/1	M62 Westbound Exit Circulatory Ahead	U	2:1	N/A	C2:A		1	27	-	365	1940	905	40.3%

Full Input Data And Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
2/2+2/3	M62 Westbound Exit Circulatory Right	U	2:1	N/A	C2:A		1	27	-	1420	2080:2080	480+971	91.1 : 89.4%
3/1+3/2	A5080 Cronton Road Ahead Left	O	N/A	N/A	-		-	-	-	372	1965:2105	427+240	52.2 : 62.2%
4/1		U	N/A	N/A	-		-	-	-	432	Inf	Inf	0.0%
5/1	A5080 Cronton Road Circulatory Left	U	N/A	N/A	-		-	-	-	888	1940	1940	44.1%
5/2+5/3	A5080 Cronton Road Circulatory Ahead	U	N/A	N/A	-		-	-	-	1336	2080:2080	808+1272	58.6 : 61.3%
J3: Tarbock Roundabout South	-	-	N/A	-	-		-	-	-	-	-	-	78.1%
1/1	M57 Northbound Exit Left Ahead	U	3:1	N/A	C3:B		1	22	-	529	2115	811	65.2%
1/2	M57 Northbound Exit Ahead	U	3:1	N/A	C3:B		1	22	-	518	2255	864	59.9%
2/1	M57 Northbound Exit Ciruclatory Ahead	U	3:1	N/A	C3:A		1	26	-	727	1940	873	78.1%
2/2+2/3	M57 Northbound Exit Ciruclatory Right	U	3:1	N/A	C3:A		1	26	-	966	2080:2080	936+520	65.7 : 60.3%
3/1		U	N/A	N/A	-		-	-	-	903	Inf	Inf	0.0%
J4: Tarbock Roundabout West	-	-	N/A	-	-		-	-	-	-	-	-	79.4%
1/1		U	N/A	N/A	-		-	-	-	1153	Inf	Inf	0.0%
2/1	M62 Eastbound Exit Circulatory Left	U	4:1	N/A	C4:A		1	27	-	724	1940	905	79.4%
2/2+2/3	M62 Eastbound Exit Circulatory Ahead	U	4:1	N/A	C4:A		1	27	-	863	2080:2080	300+971	57.5 : 67.9%
3/1	M62 Eastbound Exit Left Left2	U	4:1	N/A	C4:B		1	21	-	452	1965	721	62.7%

Full Input Data And Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
3/2	M62 Eastbound Exit Left	U	4:1	N/A	C4:B		1	21	-	503	2105	772	65.2%
J5: A5080 Cronton Road	-	-	N/A	-	-		-	-	-	-	-	-	111.3%
1/1	A5080 Cronton Road (W) Ahead Left	U	5:1	N/A	C5:B		1	15	-	589	1985	529	111.3%
1/2	A5080 Cronton Road (W) Ahead	U	5:1	N/A	C5:B		1	15	-	348	2125	567	61.4%
2/1	A5080 Cronton Road Circulatory Ahead	U	5:1	N/A	C5:A		1	33	-	573	1955	1108	48.9%
2/2+2/3	A5080 Cronton Road Circulatory Right	U	5:1	N/A	C5:A		1	33	-	1162	2095:2095	252+1005	92.5 : 92.5%
3/1		U	N/A	N/A	-		-	-	-	889	Inf	Inf	0.0%
4/1		U	N/A	N/A	-		-	-	-	807	Inf	Inf	0.0%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	1554	0	0	51.1	69.1	0.0	120.3	-	-	-	-
J1: Tarbock Roundabout North	-	-	810	0	0	13.0	11.6	0.0	24.6	-	-	-	-
1/1	113	113	-	-	-	0.3	0.1	-	0.4	13.4	1.2	0.1	1.2
1/2	772	772	-	-	-	3.4	3.2	-	6.7	31.1	11.6	3.2	14.8
2/1	478	478	-	-	-	1.3	0.7	-	2.0	15.2	4.5	0.7	5.2
2/2+2/3	1277	1277	-	-	-	6.9	2.7	-	9.6	27.2	12.2	2.7	14.9
3/1	672	672	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1+4/2	405	405	810	0	0	1.0	3.4	-	4.4	39.1	3.9	3.4	7.3
5/1	588	588	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	598	598	-	-	-	0.0	0.2	-	0.2	1.5	6.0	0.2	6.2
6/2+6/3	1454	1454	-	-	-	0.0	1.2	-	1.2	3.1	13.7	1.2	14.9

Full Input Data And Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
J2: Tarbock Roundabout East	-	-	744	0	0	8.8	7.7	0.0	16.6	-	-	-	-
1/1	485	485	-	-	-	2.1	0.9	-	3.0	22.4	6.6	0.9	7.5
1/2	386	386	-	-	-	1.6	0.5	-	2.0	18.9	4.9	0.5	5.4
2/1	365	365	-	-	-	1.1	0.3	-	1.5	14.6	4.4	0.3	4.7
2/2+2/3	1306	1306	-	-	-	3.2	4.2	-	7.4	20.5	7.3	4.2	11.5
3/1+3/2	372	372	744	0	0	0.8	0.6	-	1.4	13.9	1.7	0.6	2.4
4/1	432	432	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	855	855	-	-	-	0.0	0.4	-	0.4	1.7	3.3	0.4	3.7
5/2+5/3	1254	1254	-	-	-	0.0	0.8	-	0.8	2.2	9.7	0.8	10.5
J3: Tarbock Roundabout South	-	-	0	0	0	9.9	4.3	0.0	14.2	-	-	-	-
1/1	529	529	-	-	-	2.2	0.9	-	3.2	21.6	7.2	0.9	8.1
1/2	518	518	-	-	-	2.1	0.7	-	2.9	20.0	6.9	0.7	7.7
2/1	682	682	-	-	-	3.2	1.8	-	5.0	26.1	10.9	1.8	12.6
2/2+2/3	929	929	-	-	-	2.3	0.9	-	3.2	12.4	8.1	0.9	9.0
3/1	870	870	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J4: Tarbock Roundabout West	-	-	0	0	0	8.6	4.6	0.0	13.1	-	-	-	-
1/1	1108	1108	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/1	718	718	-	-	-	1.3	1.9	-	3.2	15.9	3.8	1.9	5.7
2/2+2/3	832	832	-	-	-	3.1	0.9	-	4.0	17.5	16.6	0.9	17.5
3/1	452	452	-	-	-	2.0	0.8	-	2.8	22.3	6.2	0.8	7.0
3/2	503	503	-	-	-	2.2	0.9	-	3.1	22.5	6.8	0.9	7.8
J5: A5080 Cronton Road	-	-	0	0	0	10.8	40.9	0.0	51.7	-	-	-	-
1/1	589	529	-	-	-	5.5	34.1	-	39.6	242.2	10.8	34.1	45.0
1/2	348	348	-	-	-	1.9	0.8	-	2.7	27.5	5.0	0.8	5.8

Full Input Data And Results

[illegible]

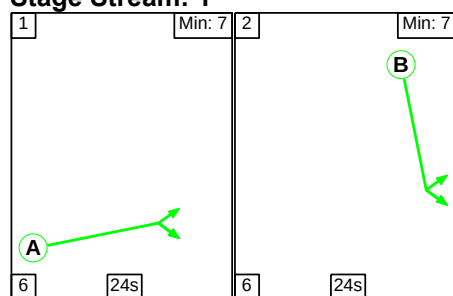
Full Input Data And Results

Scenario 5: '2034 AM' (FG5: '2034 AM', Plan 1: 'Network Control Plan 1')

C1 - Tarbock Roundabout North

Stage Sequence Diagram

Stage Stream: 1

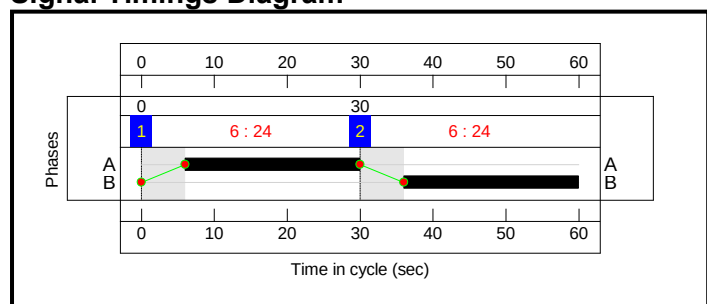


Stage Timings

Stage Stream: 1

Stage	1	2
Duration	24	24
Change Point	0	30

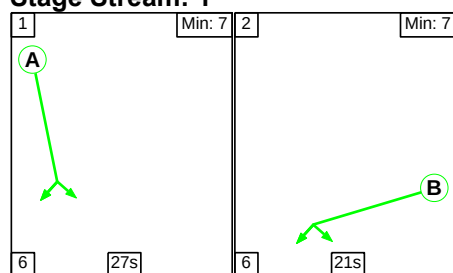
Signal Timings Diagram



C2 - Tarbock Roundabout East

Stage Sequence Diagram

Stage Stream: 1

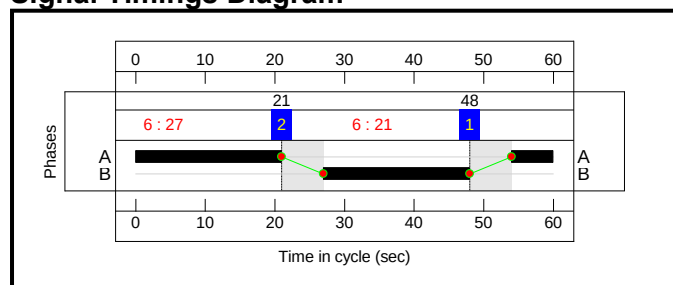


Stage Timings

Stage Stream: 1

Stage	1	2
Duration	27	21
Change Point	48	21

Signal Timings Diagram

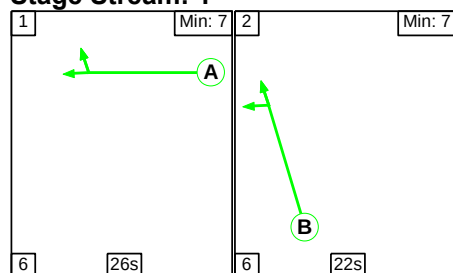


Full Input Data And Results

C3 - Tarbock Roundabout South

Stage Sequence Diagram

Stage Stream: 1

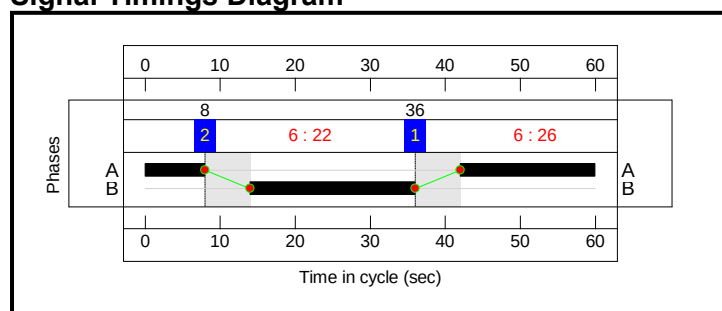


Stage Timings

Stage Stream: 1

Stage	1	2
Duration	26	22
Change Point	36	8

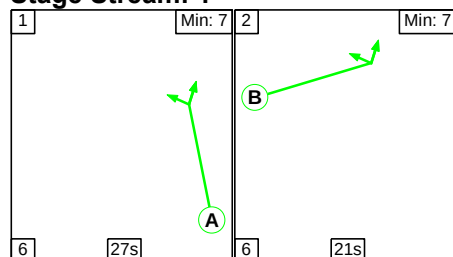
Signal Timings Diagram



C4 - Tarbock Roundabout West

Stage Sequence Diagram

Stage Stream: 1

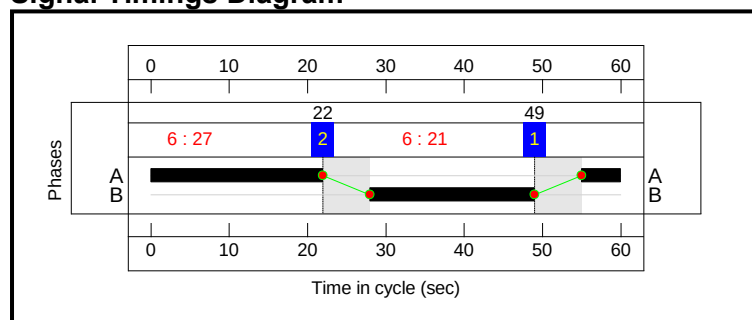


Stage Timings

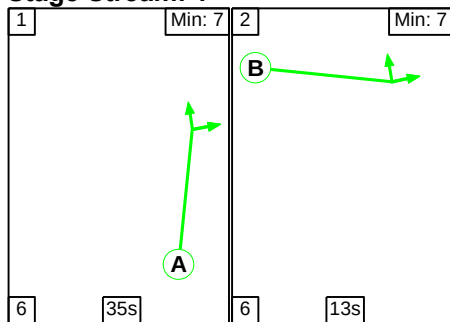
Stage Stream: 1

Stage	1	2
Duration	27	21
Change Point	49	22

Signal Timings Diagram



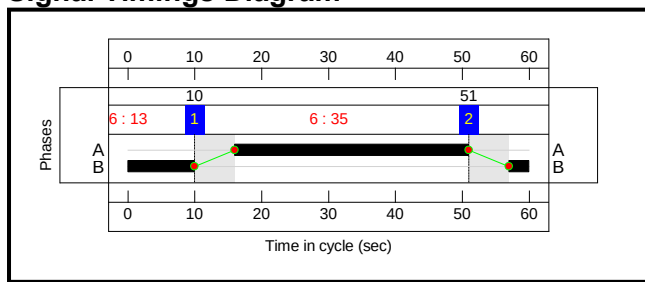
Full Input Data And Results **C5 - A5080 Cronton Road** **Stage Sequence Diagram** **Stage Stream: 1**



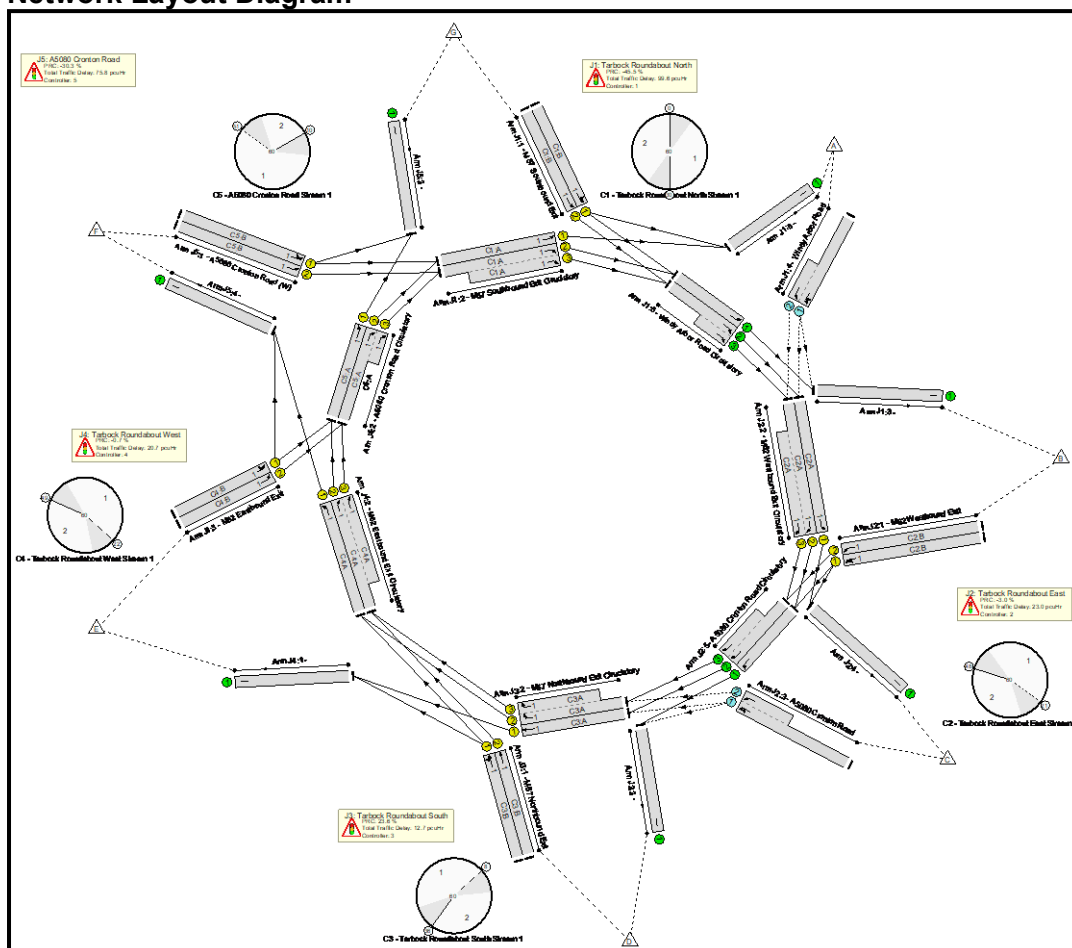
Stage Timings **Stage Stream: 1**

Stage	1	2
Duration	35	13
Change Point	10	51

Signal Timings Diagram



Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	130.9%
J1: Tarbock Roundabout North	-	-	N/A	-	-		-	-	-	-	-	-	130.9%
1/1	M57 Southbound Exit Left Ahead	U	1:1	N/A	C1:B		1	24	-	66	1985	827	8.0%
1/2	M57 Southbound Exit Ahead	U	1:1	N/A	C1:B		1	24	-	601	2125	885	67.9%
2/1	M57 Southbound Exit Circulatory Ahead	U	1:1	N/A	C1:A		1	24	-	466	1940	808	54.0%
2/2+2/3	M57 Southbound Exit Circulatory Right	U	1:1	N/A	C1:A		1	24	-	1484	2080:2080	721+803	97.4 : 97.4%
3/1		U	N/A	N/A	-		-	-	-	817	Inf	Inf	0.0%
4/1+4/2	Windy Arbor Road Ahead Left	O	N/A	N/A	-		-	-	-	561	1965:2105	138+290	130.9 : 130.9%
5/1		U	N/A	N/A	-		-	-	-	528	Inf	Inf	0.0%
6/1	Windy Arbor Road Circulatory Ahead	U	N/A	N/A	-		-	-	-	706	1940	1940	36.4%
6/2+6/3	Windy Arbor Road Circulatory Ahead	U	N/A	N/A	-		-	-	-	1383	1940:2080	337+1718	67.3 : 67.3%
J2: Tarbock Roundabout East	-	-	N/A	-	-		-	-	-	-	-	-	92.7%
1/1	M62 Westbound Exit Left Ahead	U	2:1	N/A	C2:B		1	21	-	646	2055	753	85.7%
1/2	M62 Westbound Exit Ahead	U	2:1	N/A	C2:B		1	21	-	434	2195	805	53.9%
2/1	M62 Westbound Exit Circulatory Ahead	U	2:1	N/A	C2:A		1	27	-	297	1940	905	32.3%

Full Input Data And Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
2/2+2/3	M62 Westbound Exit Circulatory Right	U	2:1	N/A	C2:A		1	27	-	1536	2080:2080	747+971	80.2 : 73.8%
3/1+3/2	A5080 Cronton Road Ahead Left	O	N/A	N/A	-		-	-	-	392	1965:2105	187+236	92.7 : 92.7%
4/1		U	N/A	N/A	-		-	-	-	337	Inf	Inf	0.0%
5/1	A5080 Cronton Road Circulatory Left	U	N/A	N/A	-		-	-	-	1274	1940	1940	62.1%
5/2+5/3	A5080 Cronton Road Circulatory Ahead	U	N/A	N/A	-		-	-	-	1302	2080:2080	637+1443	52.9 : 56.3%
J3: Tarbock Roundabout South	-	-	N/A	-	-		-	-	-	-	-	-	72.8%
1/1	M57 Northbound Exit Left Ahead	U	3:1	N/A	C3:B		1	22	-	438	2115	811	54.0%
1/2	M57 Northbound Exit Ahead	U	3:1	N/A	C3:B		1	22	-	592	2255	864	68.5%
2/1	M57 Northbound Exit Circulatory Ahead	U	3:1	N/A	C3:A		1	26	-	554	1940	873	56.4%
2/2+2/3	M57 Northbound Exit Circulatory Right	U	3:1	N/A	C3:A		1	26	-	1122	2080:2080	936+564	72.8 : 62.1%
3/1		U	N/A	N/A	-		-	-	-	1292	Inf	Inf	0.0%
J4: Tarbock Roundabout West	-	-	N/A	-	-		-	-	-	-	-	-	90.6%
1/1		U	N/A	N/A	-		-	-	-	853	Inf	Inf	0.0%
2/1	M62 Eastbound Exit Circulatory Left	U	4:1	N/A	C4:A		1	27	-	839	1940	905	90.6%
2/2+2/3	M62 Eastbound Exit Circulatory Ahead	U	4:1	N/A	C4:A		1	27	-	1014	2080:2080	402+971	56.1 : 73.9%
3/1	M62 Eastbound Exit Left Left2	U	4:1	N/A	C4:B		1	21	-	603	1965	721	83.7%

Full Input Data And Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
3/2	M62 Eastbound Exit Left	U	4:1	N/A	C4:B		1	21	-	600	2105	772	77.7%
J5: A5080 Cronton Road	-	-	N/A	-	-		-	-	-	-	-	-	117.2%
1/1	A5080 Cronton Road (W) Ahead Left	U	5:1	N/A	C5:B		1	13	-	543	1985	463	117.2%
1/2	A5080 Cronton Road (W) Ahead	U	5:1	N/A	C5:B		1	13	-	430	2125	496	86.7%
2/1	A5080 Cronton Road Circulatory Ahead	U	5:1	N/A	C5:A		1	35	-	771	1955	1173	59.6%
2/2+2/3	A5080 Cronton Road Circulatory Right	U	5:1	N/A	C5:A		1	35	-	1317	2095:2095	265+1061	99.3 : 99.3%
3/1		U	N/A	N/A	-		-	-	-	1111	Inf	Inf	0.0%
4/1		U	N/A	N/A	-		-	-	-	968	Inf	Inf	0.0%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	1704	0	0	61.3	170.5	0.0	231.8	-	-	-	-
J1: Tarbock Roundabout North	-	-	920	0	0	16.6	83.1	0.0	99.6	-	-	-	-
1/1	66	66	-	-	-	0.2	0.0	-	0.2	13.0	0.7	0.0	0.7
1/2	601	601	-	-	-	2.4	1.0	-	3.4	20.5	8.0	1.0	9.1
2/1	436	436	-	-	-	1.3	0.6	-	1.9	15.3	4.4	0.6	5.0
2/2+2/3	1484	1484	-	-	-	7.8	11.7	-	19.5	47.3	14.0	11.7	25.7
3/1	810	810	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1+4/2	561	460	920	0	0	4.9	68.3	-	73.2	469.9	16.7	68.3	85.0
5/1	498	498	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	706	706	-	-	-	0.0	0.3	-	0.3	1.7	8.1	0.3	8.4
6/2+6/3	1383	1383	-	-	-	0.0	1.0	-	1.0	2.7	12.5	1.0	13.5

Full Input Data And Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
J2: Tarbock Roundabout East	-	-	784	0	0	11.4	11.6	0.0	23.0	-	-	-	-
1/1	646	646	-	-	-	3.2	2.9	-	6.0	33.5	9.9	2.9	12.7
1/2	434	434	-	-	-	1.8	0.6	-	2.4	19.8	5.7	0.6	6.2
2/1	293	293	-	-	-	0.9	0.2	-	1.1	13.6	3.4	0.2	3.7
2/2+2/3	1315	1315	-	-	-	4.4	1.6	-	6.0	16.4	10.0	1.6	11.6
3/1+3/2	392	392	784	0	0	1.2	4.8	-	6.0	55.5	3.5	4.8	8.4
4/1	333	333	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	1205	1205	-	-	-	0.0	0.8	-	0.8	2.5	6.1	0.8	6.9
5/2+5/3	1150	1150	-	-	-	0.0	0.6	-	0.6	1.9	10.3	0.6	10.9
J3: Tarbock Roundabout South	-	-	0	0	0	9.3	3.4	0.0	12.7	-	-	-	-
1/1	438	438	-	-	-	1.8	0.6	-	2.3	19.2	5.6	0.6	6.2
1/2	592	592	-	-	-	2.5	1.1	-	3.6	22.0	8.2	1.1	9.3
2/1	492	492	-	-	-	2.3	0.6	-	2.9	21.3	8.0	0.6	8.6
2/2+2/3	1032	1032	-	-	-	2.7	1.1	-	3.8	13.2	8.8	1.1	9.9
3/1	1223	1223	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J4: Tarbock Roundabout West	-	-	0	0	0	11.1	9.6	0.0	20.7	-	-	-	-
1/1	791	791	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/1	820	820	-	-	-	1.8	4.4	-	6.2	27.1	6.1	4.4	10.4
2/2+2/3	942	942	-	-	-	3.5	1.1	-	4.6	17.7	16.6	1.1	17.7
3/1	603	603	-	-	-	2.9	2.5	-	5.4	32.1	9.0	2.5	11.5
3/2	600	600	-	-	-	2.8	1.7	-	4.5	27.1	8.8	1.7	10.5
J5: A5080 Cronton Road	-	-	0	0	0	13.0	62.8	0.0	75.8	-	-	-	-
1/1	543	463	-	-	-	6.0	43.1	-	49.1	325.4	10.4	43.1	53.4
1/2	430	430	-	-	-	2.6	3.0	-	5.6	47.2	6.8	3.0	9.8

Full Input Data And Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
2/1	699	699	-	-	-	1.1	0.7	-	1.9	9.6	5.2	0.7	5.9
2/2+2/3	1317	1317	-	-	-	3.2	16.0	-	19.3	52.6	15.2	16.0	31.3
3/1	990	990	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	949	949	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 - Tarbock Roundabout North		Stream: 1 PRC for Signalled Lanes (%):			-8.2	Total Delay for Signalled Lanes (pcuHr):			25.02	Cycle Time (s):	60		
C2 - Tarbock Roundabout East		Stream: 1 PRC for Signalled Lanes (%):			5.0	Total Delay for Signalled Lanes (pcuHr):			15.49	Cycle Time (s):	60		
C3 - Tarbock Roundabout South		Stream: 1 PRC for Signalled Lanes (%):			23.6	Total Delay for Signalled Lanes (pcuHr):			12.66	Cycle Time (s):	60		
C4 - Tarbock Roundabout West		Stream: 1 PRC for Signalled Lanes (%):			-0.7	Total Delay for Signalled Lanes (pcuHr):			20.70	Cycle Time (s):	60		
C5 - A5080 Cronton Road		Stream: 1 PRC for Signalled Lanes (%):			-30.3	Total Delay for Signalled Lanes (pcuHr):			75.83	Cycle Time (s):	60		
PRC Over All Lanes (%):					-45.5	Total Delay Over All Lanes(pcuHr):			231.81				

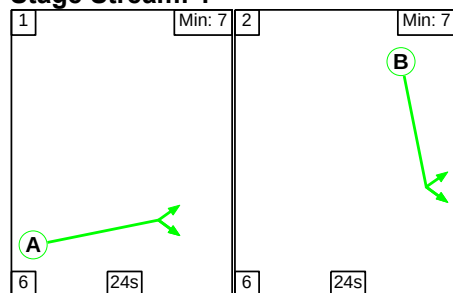
Full Input Data And Results

Scenario 6: '2034 PM' (FG6: '2034 PM', Plan 1: 'Network Control Plan 1')

C1 - Tarbock Roundabout North

Stage Sequence Diagram

Stage Stream: 1

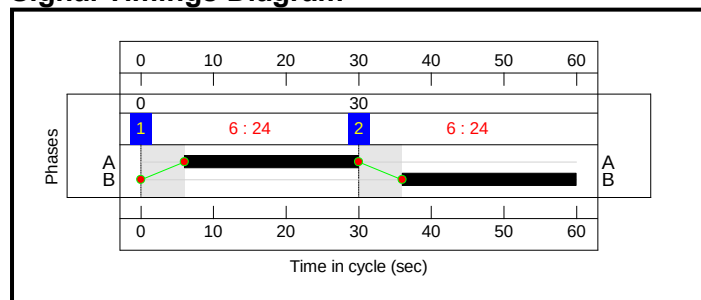


Stage Timings

Stage Stream: 1

Stage	1	2
Duration	24	24
Change Point	0	30

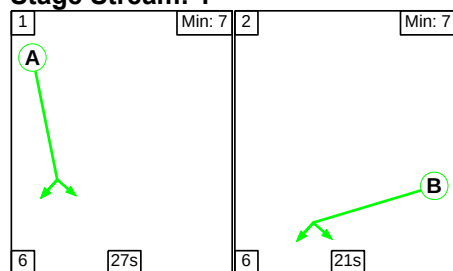
Signal Timings Diagram



C2 - Tarbock Roundabout East

Stage Sequence Diagram

Stage Stream: 1

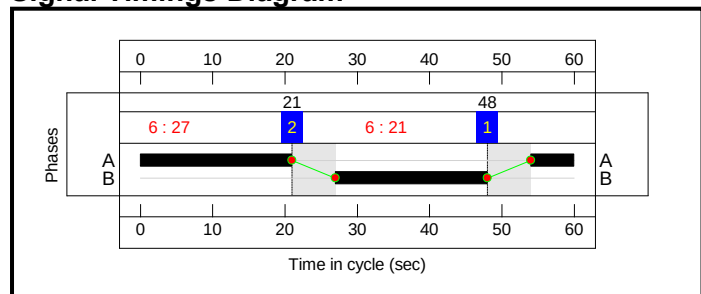


Stage Timings

Stage Stream: 1

Stage	1	2
Duration	27	21
Change Point	48	21

Signal Timings Diagram

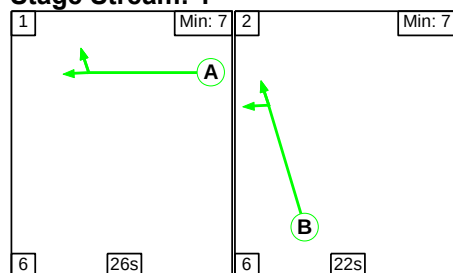


Full Input Data And Results

C3 - Tarbock Roundabout South

Stage Sequence Diagram

Stage Stream: 1

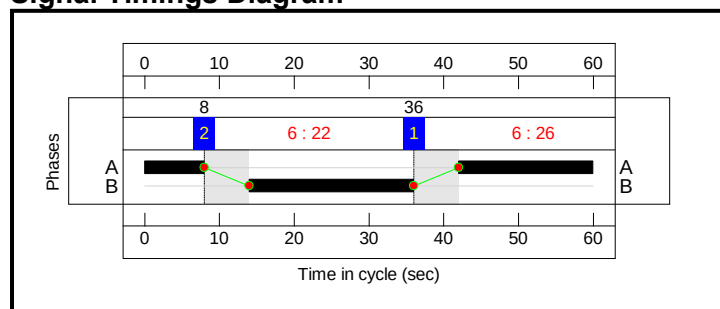


Stage Timings

Stage Stream: 1

Stage	1	2
Duration	26	22
Change Point	36	8

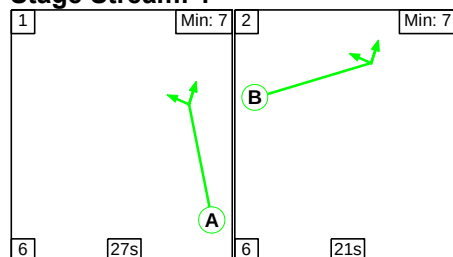
Signal Timings Diagram



C4 - Tarbock Roundabout West

Stage Sequence Diagram

Stage Stream: 1

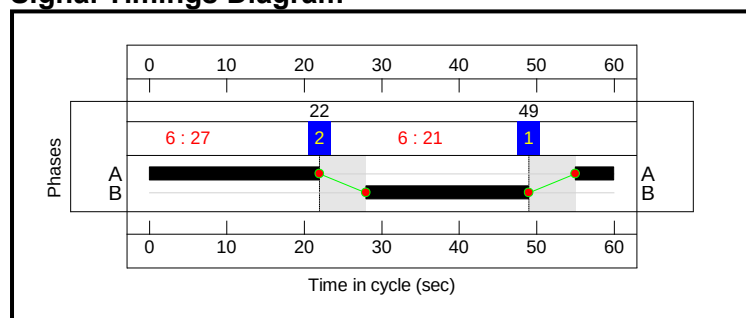


Stage Timings

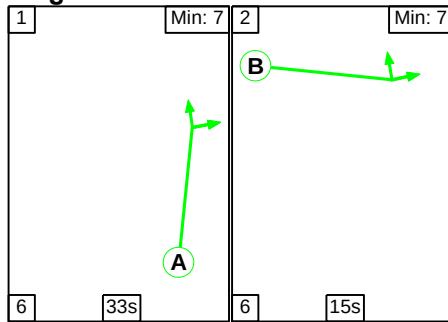
Stage Stream: 1

Stage	1	2
Duration	27	21
Change Point	49	22

Signal Timings Diagram



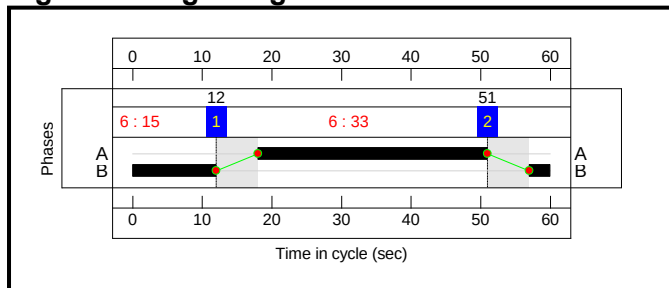
Stage Stream: 1



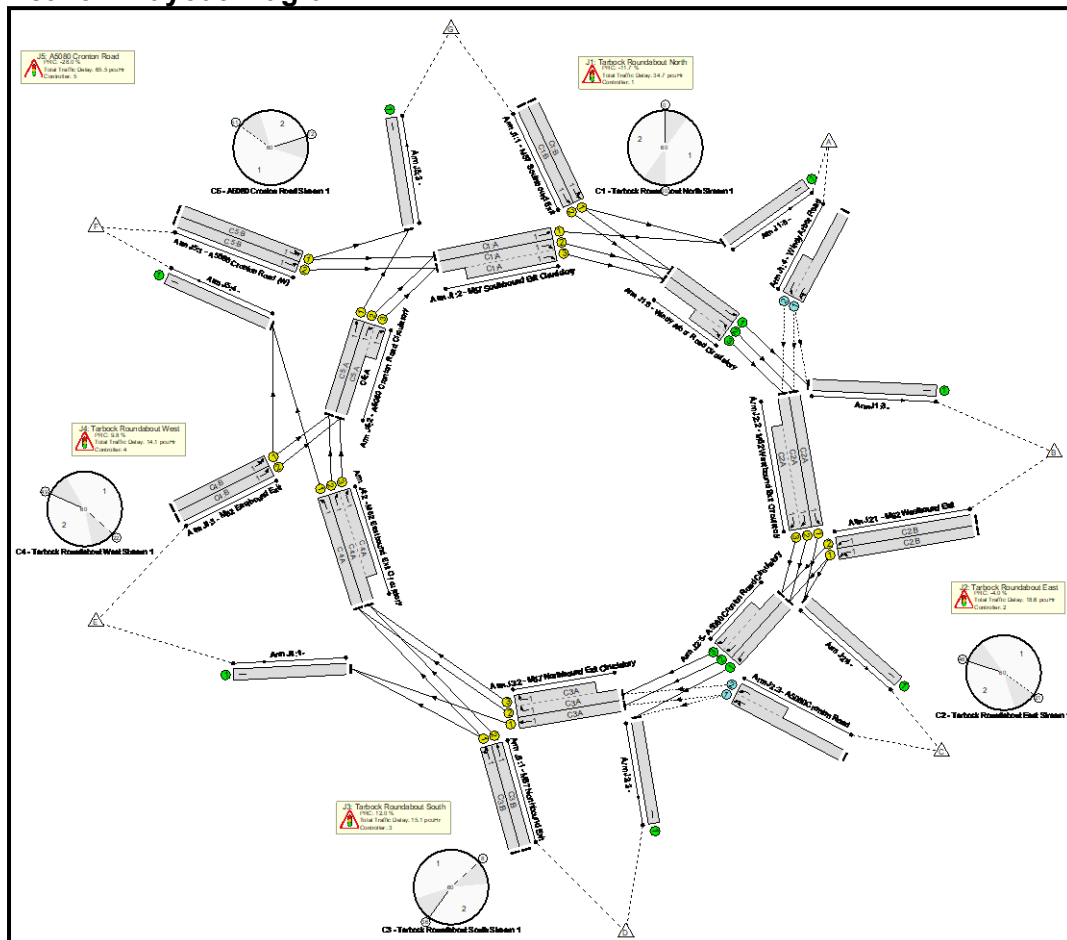
Stage Stream: 1

Stage	1	2
Duration	33	15
Change Point	12	51

Signal Timings Diagram



Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	115.2%
J1: Tarbock Roundabout North	-	-	N/A	-	-		-	-	-	-	-	-	100.5%
1/1	M57 Southbound Exit Left Ahead	U	1:1	N/A	C1:B		1	24	-	117	1985	827	14.1%
1/2	M57 Southbound Exit Ahead	U	1:1	N/A	C1:B		1	24	-	799	2125	885	90.2%
2/1	M57 Southbound Exit Circulatory Ahead	U	1:1	N/A	C1:A		1	24	-	523	1940	808	60.1%
2/2+2/3	M57 Southbound Exit Circulatory Right	U	1:1	N/A	C1:A		1	24	-	1322	2080:2080	701+804	87.8 : 87.8%
3/1		U	N/A	N/A	-		-	-	-	695	Inf	Inf	0.0%
4/1+4/2	Windy Arbor Road Ahead Left	O	N/A	N/A	-		-	-	-	418	1965:2105	163+253	100.5 : 100.5%
5/1		U	N/A	N/A	-		-	-	-	637	Inf	Inf	0.0%
6/1	Windy Arbor Road Circulatory Ahead	U	N/A	N/A	-		-	-	-	619	1940	1940	31.9%
6/2+6/3	Windy Arbor Road Circulatory Ahead	U	N/A	N/A	-		-	-	-	1505	1940:2080	394+1658	73.4 : 73.4%
J2: Tarbock Roundabout East	-	-	N/A	-	-		-	-	-	-	-	-	93.6%
1/1	M62 Westbound Exit Left Ahead	U	2:1	N/A	C2:B		1	21	-	502	2055	753	66.6%
1/2	M62 Westbound Exit Ahead	U	2:1	N/A	C2:B		1	21	-	399	2195	805	49.6%
2/1	M62 Westbound Exit Circulatory Ahead	U	2:1	N/A	C2:A		1	27	-	377	1940	905	41.6%

Full Input Data And Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
2/2+2/3	M62 Westbound Exit Circulatory Right	U	2:1	N/A	C2:A		1	27	-	1470	2080:2080	479+971	93.6 : 91.7%
3/1+3/2	A5080 Cronton Road Ahead Left	O	N/A	N/A	-		-	-	-	384	1965:2105	404+223	56.9 : 69.1%
4/1		U	N/A	N/A	-		-	-	-	447	Inf	Inf	0.0%
5/1	A5080 Cronton Road Circulatory Left	U	N/A	N/A	-		-	-	-	918	1940	1940	45.4%
5/2+5/3	A5080 Cronton Road Circulatory Ahead	U	N/A	N/A	-		-	-	-	1383	2080:2080	809+1271	60.1 : 63.2%
J3: Tarbock Roundabout South	-	-	N/A	-	-		-	-	-	-	-	-	80.4%
1/1	M57 Northbound Exit Left Ahead	U	3:1	N/A	C3:B		1	22	-	547	2115	811	67.5%
1/2	M57 Northbound Exit Ahead	U	3:1	N/A	C3:B		1	22	-	536	2255	864	62.0%
2/1	M57 Northbound Exit Ciruclatory Ahead	U	3:1	N/A	C3:A		1	26	-	753	1940	873	80.4%
2/2+2/3	M57 Northbound Exit Ciruclatory Right	U	3:1	N/A	C3:A		1	26	-	999	2080:2080	936+520	67.9 : 61.7%
3/1		U	N/A	N/A	-		-	-	-	933	Inf	Inf	0.0%
J4: Tarbock Roundabout West	-	-	N/A	-	-		-	-	-	-	-	-	81.9%
1/1		U	N/A	N/A	-		-	-	-	1194	Inf	Inf	0.0%
2/1	M62 Eastbound Exit Circulatory Left	U	4:1	N/A	C4:A		1	27	-	748	1940	905	81.9%
2/2+2/3	M62 Eastbound Exit Circulatory Ahead	U	4:1	N/A	C4:A		1	27	-	893	2080:2080	302+971	58.2 : 70.2%
3/1	M62 Eastbound Exit Left Left2	U	4:1	N/A	C4:B		1	21	-	468	1965	721	65.0%

Full Input Data And Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
3/2	M62 Eastbound Exit Left	U	4:1	N/A	C4:B		1	21	-	521	2105	772	67.5%
J5: A5080 Cronton Road	-	-	N/A	-	-		-	-	-	-	-	-	115.2%
1/1	A5080 Cronton Road (W) Ahead Left	U	5:1	N/A	C5:B		1	15	-	610	1985	529	115.2%
1/2	A5080 Cronton Road (W) Ahead	U	5:1	N/A	C5:B		1	15	-	360	2125	567	63.5%
2/1	A5080 Cronton Road Circulatory Ahead	U	5:1	N/A	C5:A		1	33	-	594	1955	1108	50.4%
2/2+2/3	A5080 Cronton Road Circulatory Right	U	5:1	N/A	C5:A		1	33	-	1202	2095:2095	251+1005	95.7 : 95.7%
3/1		U	N/A	N/A	-		-	-	-	921	Inf	Inf	0.0%
4/1		U	N/A	N/A	-		-	-	-	834	Inf	Inf	0.0%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	1601	0	0	54.2	93.9	0.0	148.1	-	-	-	-
J1: Tarbock Roundabout North	-	-	833	0	0	13.8	20.9	0.0	34.7	-	-	-	-
1/1	117	117	-	-	-	0.4	0.1	-	0.4	13.4	1.2	0.1	1.3
1/2	799	799	-	-	-	3.6	4.2	-	7.8	35.3	12.4	4.2	16.6
2/1	486	486	-	-	-	1.3	0.7	-	2.1	15.4	4.6	0.7	5.3
2/2+2/3	1322	1322	-	-	-	7.2	3.5	-	10.7	29.0	12.2	3.5	15.7
3/1	695	695	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1+4/2	418	417	833	0	0	1.2	10.8	-	12.0	103.6	9.2	10.8	20.0
5/1	600	600	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	619	619	-	-	-	0.0	0.2	-	0.3	1.5	6.5	0.2	6.7
6/2+6/3	1505	1505	-	-	-	0.0	1.4	-	1.4	3.4	14.3	1.4	15.6

Full Input Data And Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
J2: Tarbock Roundabout East	-	-	768	0	0	9.3	9.3	0.0	18.6	-	-	-	-
1/1	502	502	-	-	-	2.2	1.0	-	3.2	23.0	7.0	1.0	8.0
1/2	399	399	-	-	-	1.6	0.5	-	2.1	19.1	5.1	0.5	5.6
2/1	377	377	-	-	-	1.2	0.4	-	1.5	14.6	4.5	0.4	4.9
2/2+2/3	1339	1339	-	-	-	3.3	5.5	-	8.8	23.7	7.5	5.5	13.0
3/1+3/2	384	384	768	0	0	0.9	0.8	-	1.7	15.7	2.4	0.8	3.1
4/1	447	447	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	881	881	-	-	-	0.0	0.4	-	0.4	1.7	3.4	0.4	3.8
5/2+5/3	1289	1289	-	-	-	0.0	0.8	-	0.8	2.3	9.7	0.8	10.5
J3: Tarbock Roundabout South	-	-	0	0	0	10.3	4.8	0.0	15.1	-	-	-	-
1/1	547	547	-	-	-	2.3	1.0	-	3.4	22.2	7.4	1.0	8.5
1/2	536	536	-	-	-	2.2	0.8	-	3.0	20.4	7.1	0.8	8.0
2/1	701	701	-	-	-	3.4	2.0	-	5.4	27.5	11.2	2.0	13.2
2/2+2/3	957	957	-	-	-	2.4	1.0	-	3.4	12.7	8.3	1.0	9.3
3/1	896	896	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J4: Tarbock Roundabout West	-	-	0	0	0	9.0	5.2	0.0	14.1	-	-	-	-
1/1	1142	1142	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/1	742	742	-	-	-	1.4	2.2	-	3.6	17.3	4.0	2.2	6.2
2/2+2/3	857	857	-	-	-	3.2	1.0	-	4.3	17.9	16.6	1.0	17.6
3/1	468	468	-	-	-	2.1	0.9	-	3.0	22.9	6.4	0.9	7.3
3/2	521	521	-	-	-	2.3	1.0	-	3.3	23.1	7.2	1.0	8.3
J5: A5080 Cronton Road	-	-	0	0	0	11.9	53.6	0.0	65.5	-	-	-	-
1/1	610	529	-	-	-	6.3	43.8	-	50.1	295.6	11.5	43.8	55.3
1/2	360	360	-	-	-	1.9	0.9	-	2.8	28.1	5.2	0.9	6.1

Full Input Data And Results

[illegible]

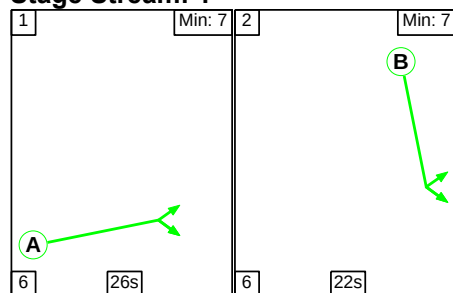
Full Input Data And Results

Scenario 7: '2029 + Development AM' (FG7: '2029 + Development AM', Plan 1: 'Network Control Plan 1')

C1 - Tarbock Roundabout North

Stage Sequence Diagram

Stage Stream: 1

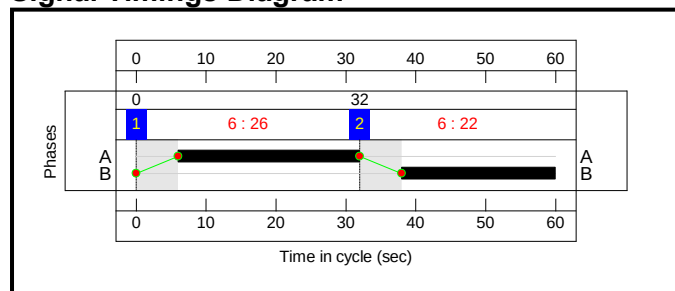


Stage Timings

Stage Stream: 1

Stage	1	2
Duration	26	22
Change Point	0	32

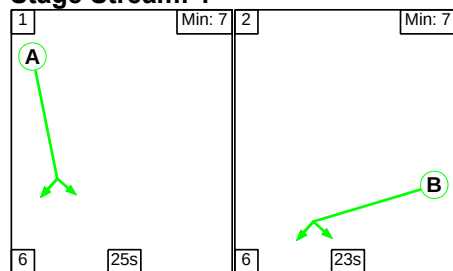
Signal Timings Diagram



C2 - Tarbock Roundabout East

Stage Sequence Diagram

Stage Stream: 1

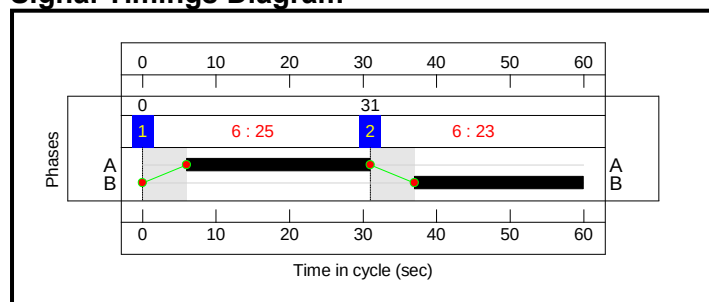


Stage Timings

Stage Stream: 1

Stage	1	2
Duration	25	23
Change Point	0	31

Signal Timings Diagram

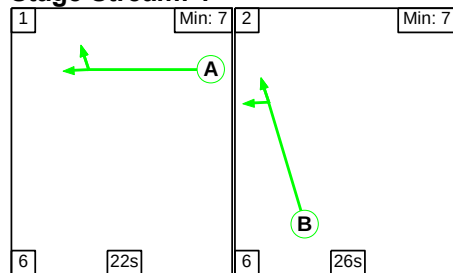


Full Input Data And Results

C3 - Tarbock Roundabout South

Stage Sequence Diagram

Stage Stream: 1

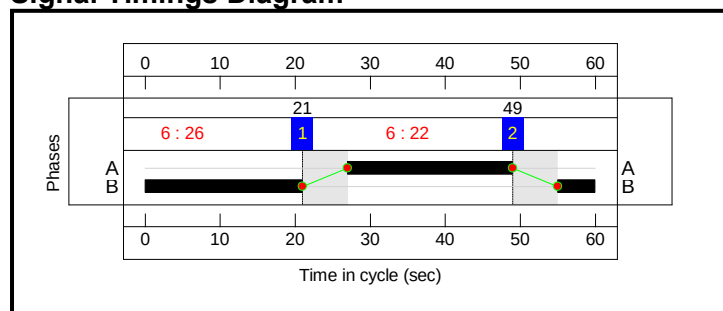


Stage Timings

Stage Stream: 1

Stage	1	2
Duration	22	26
Change Point	21	49

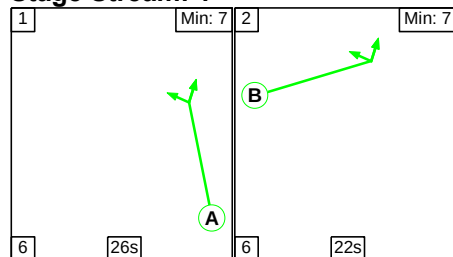
Signal Timings Diagram



C4 - Tarbock Roundabout West

Stage Sequence Diagram

Stage Stream: 1

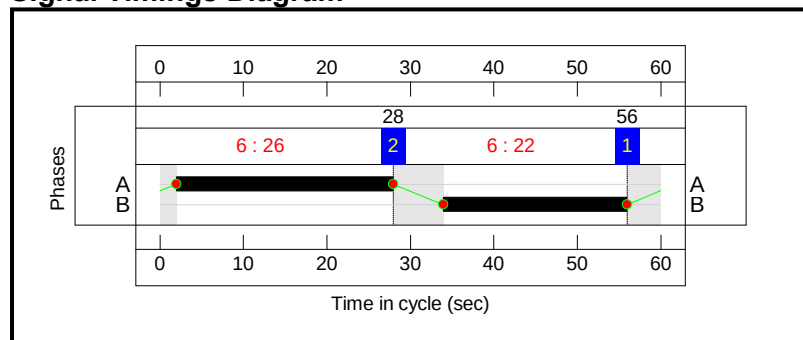


Stage Timings

Stage Stream: 1

Stage	1	2
Duration	26	22
Change Point	56	28

Signal Timings Diagram

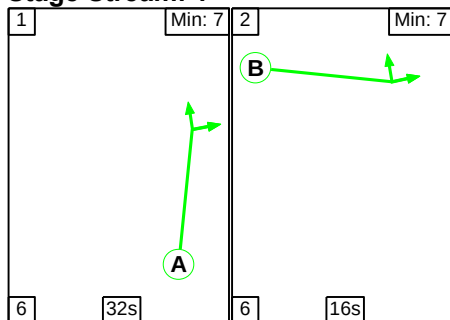


Full Input Data And Results

C5 - A5080 Cronton Road

Stage Sequence Diagram

Stage Stream: 1

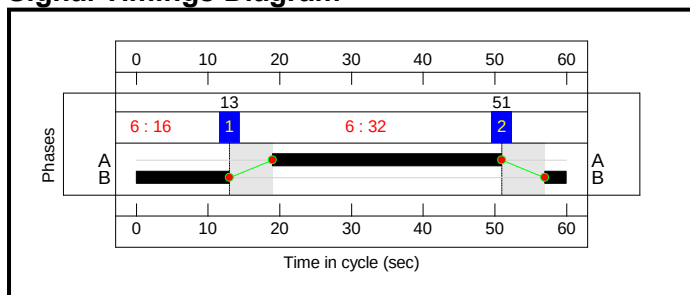


Stage Timings

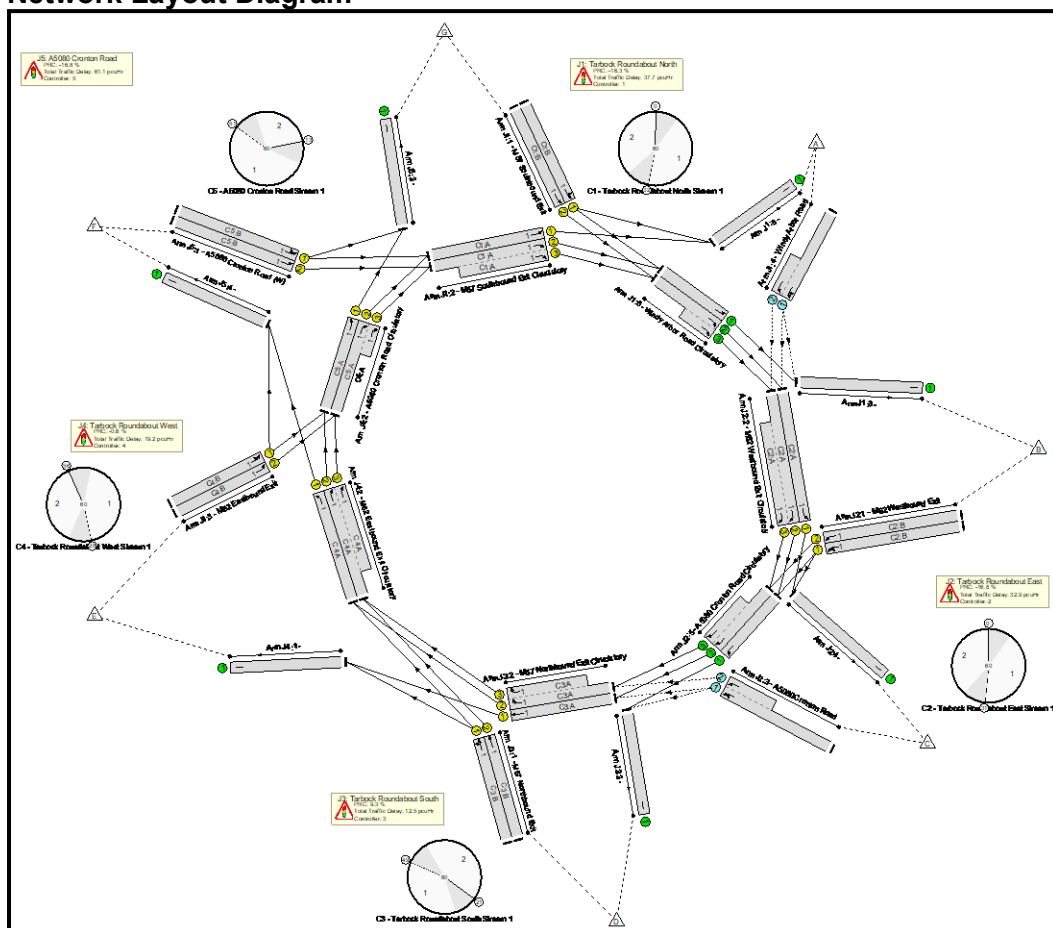
Stage Stream: 1

Stage	1	2
Duration	32	16
Change Point	13	51

Signal Timings Diagram



Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	105.1%
J1: Tarbock Roundabout North	-	-	N/A	-	-		-	-	-	-	-	-	104.7%
1/1	M57 Southbound Exit Left Ahead	U	1:1	N/A	C1:B		1	22	-	72	1985	761	9.5%
1/2	M57 Southbound Exit Ahead	U	1:1	N/A	C1:B		1	22	-	582	2125	815	71.4%
2/1	M57 Southbound Exit Circulatory Ahead	U	1:1	N/A	C1:A		1	26	-	469	1940	873	52.2%
2/2+2/3	M57 Southbound Exit Circulatory Right	U	1:1	N/A	C1:A		1	26	-	1435	2080:2080	754+839	89.8 : 82.1%
3/1		U	N/A	N/A	-		-	-	-	791	Inf	Inf	0.0%
4/1+4/2	Windy Arbor Road Ahead Left	O	N/A	N/A	-		-	-	-	546	1965:2105	168+353	104.7 : 104.7%
5/1		U	N/A	N/A	-		-	-	-	537	Inf	Inf	0.0%
6/1	Windy Arbor Road Circulatory Ahead	U	N/A	N/A	-		-	-	-	683	1940	1940	35.1%
6/2+6/3	Windy Arbor Road Circulatory Ahead	U	N/A	N/A	-		-	-	-	1338	1940:2080	338+1718	62.5 : 61.7%
J2: Tarbock Roundabout East	-	-	N/A	-	-		-	-	-	-	-	-	105.1%
1/1	M62 Westbound Exit Left Ahead	U	2:1	N/A	C2:B		1	23	-	625	2055	822	76.0%
1/2	M62 Westbound Exit Ahead	U	2:1	N/A	C2:B		1	23	-	424	2195	878	48.3%
2/1	M62 Westbound Exit Circulatory Ahead	U	2:1	N/A	C2:A		1	25	-	288	1940	841	33.2%

Full Input Data And Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
2/2+2/3	M62 Westbound Exit Circulatory Right	U	2:1	N/A	C2:A		1	25	-	1488	2080:2080	692+901	76.2 : 78.4%
3/1+3/2	A5080 Cronton Road Ahead Left	O	N/A	N/A	-		-	-	-	382	1965:2105	160+204	105.1 : 105.1%
4/1		U	N/A	N/A	-		-	-	-	326	Inf	Inf	0.0%
5/1	A5080 Cronton Road Circulatory Left	U	N/A	N/A	-		-	-	-	1233	1940	1940	57.4%
5/2+5/3	A5080 Cronton Road Circulatory Ahead	U	N/A	N/A	-		-	-	-	1266	2080:2080	636+1444	52.2 : 55.3%
J3: Tarbock Roundabout South	-	-	N/A	-	-		-	-	-	-	-	-	82.3%
1/1	M57 Northbound Exit Left Ahead	U	3:1	N/A	C3:B		1	26	-	424	2115	952	44.5%
1/2	M57 Northbound Exit Ahead	U	3:1	N/A	C3:B		1	26	-	574	2255	1015	56.6%
2/1	M57 Northbound Exit Ciruclatory Ahead	U	3:1	N/A	C3:A		1	22	-	537	1940	744	64.8%
2/2+2/3	M57 Northbound Exit Ciruclatory Right	U	3:1	N/A	C3:A		1	22	-	1093	2080:2080	797+490	82.3 : 70.6%
3/1		U	N/A	N/A	-		-	-	-	1251	Inf	Inf	0.0%
J4: Tarbock Roundabout West	-	-	N/A	-	-		-	-	-	-	-	-	90.5%
1/1		U	N/A	N/A	-		-	-	-	827	Inf	Inf	0.0%
2/1	M62 Eastbound Exit Circulatory Left	U	4:1	N/A	C4:A		1	26	-	811	1940	873	90.5%
2/2+2/3	M62 Eastbound Exit Circulatory Ahead	U	4:1	N/A	C4:A		1	26	-	990	2080:2080	386+936	56.9 : 74.8%
3/1	M62 Eastbound Exit Left Left2	U	4:1	N/A	C4:B		1	22	-	583	1965	753	77.4%

Full Input Data And Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
3/2	M62 Eastbound Exit Left	U	4:1	N/A	C4:B		1	22	-	587	2105	807	72.7%
J5: A5080 Cronton Road	-	-	N/A	-	-		-	-	-	-	-	-	105.1%
1/1	A5080 Cronton Road (W) Ahead Left	U	5:1	N/A	C5:B		1	16	-	528	1985	562	93.9%
1/2	A5080 Cronton Road (W) Ahead	U	5:1	N/A	C5:B		1	16	-	417	2125	602	69.3%
2/1	A5080 Cronton Road Circulatory Ahead	U	5:1	N/A	C5:A		1	32	-	748	1955	1075	63.1%
2/2+2/3	A5080 Cronton Road Circulatory Right	U	5:1	N/A	C5:A		1	32	-	1288	2095:2095	257+969	105.0 : 105.1%
3/1		U	N/A	N/A	-		-	-	-	1077	Inf	Inf	0.0%
4/1		U	N/A	N/A	-		-	-	-	935	Inf	Inf	0.0%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	1802	0	0	58.5	105.0	0.0	163.5	-	-	-	-
J1: Tarbock Roundabout North	-	-	1059	0	0	12.6	25.2	0.0	37.7	-	-	-	-
1/1	72	72	-	-	-	0.2	0.1	-	0.3	14.5	0.8	0.1	0.8
1/2	582	582	-	-	-	2.5	1.2	-	3.8	23.4	8.1	1.2	9.3
2/1	455	455	-	-	-	1.3	0.5	-	1.9	15.0	4.5	0.5	5.0
2/2+2/3	1367	1367	-	-	-	6.4	2.9	-	9.4	24.7	13.4	2.9	16.3
3/1	789	789	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1+4/2	546	529	1059	0	0	1.9	19.3	-	21.2	140.0	16.7	19.3	35.9
5/1	523	523	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	681	681	-	-	-	0.0	0.3	-	0.3	1.6	7.6	0.3	7.8
6/2+6/3	1272	1272	-	-	-	0.0	0.8	-	0.8	2.3	11.3	0.8	12.1

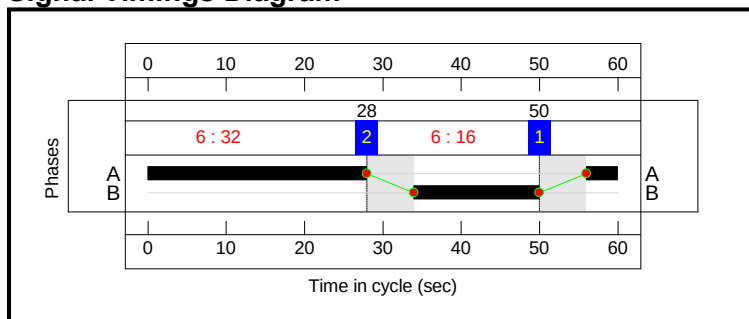
Full Input Data And Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
J2: Tarbock Roundabout East	-	-	743	0	0	12.3	20.7	0.0	32.9	-	-	-	-
1/1	625	625	-	-	-	2.7	1.6	-	4.3	24.5	8.9	1.6	10.4
1/2	424	424	-	-	-	1.6	0.5	-	2.0	17.4	5.2	0.5	5.6
2/1	279	279	-	-	-	1.2	0.2	-	1.4	18.6	3.7	0.2	3.9
2/2+2/3	1234	1234	-	-	-	5.4	1.7	-	7.1	20.7	11.1	1.7	12.8
3/1+3/2	382	372	743	0	0	1.4	15.4	-	16.8	158.7	9.6	15.4	25.1
4/1	317	317	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	1114	1114	-	-	-	0.0	0.7	-	0.7	2.2	3.3	0.7	4.0
5/2+5/3	1131	1131	-	-	-	0.0	0.6	-	0.6	1.9	10.2	0.6	10.8
J3: Tarbock Roundabout South	-	-	0	0	0	8.8	3.7	0.0	12.5	-	-	-	-
1/1	424	424	-	-	-	1.3	0.4	-	1.7	14.8	4.8	0.4	5.2
1/2	574	574	-	-	-	1.9	0.6	-	2.6	16.3	7.0	0.6	7.7
2/1	482	482	-	-	-	1.4	0.9	-	2.3	17.5	4.5	0.9	5.4
2/2+2/3	1002	1002	-	-	-	4.1	1.7	-	5.9	21.0	7.7	1.7	9.4
3/1	1132	1132	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J4: Tarbock Roundabout West	-	-	0	0	0	10.7	8.5	0.0	19.2	-	-	-	-
1/1	772	772	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/1	790	790	-	-	-	2.8	4.3	-	7.1	32.4	12.8	4.3	17.1
2/2+2/3	920	920	-	-	-	2.7	1.1	-	3.8	15.0	18.3	1.1	19.4
3/1	583	583	-	-	-	2.6	1.7	-	4.3	26.6	8.4	1.7	10.1
3/2	587	587	-	-	-	2.6	1.3	-	3.9	23.9	8.3	1.3	9.6
J5: A5080 Cronton Road	-	-	0	0	0	14.2	47.0	0.0	61.1	-	-	-	-
1/1	528	528	-	-	-	3.1	5.7	-	8.8	60.2	8.5	5.7	14.3
1/2	417	417	-	-	-	2.2	1.1	-	3.3	28.8	6.1	1.1	7.3

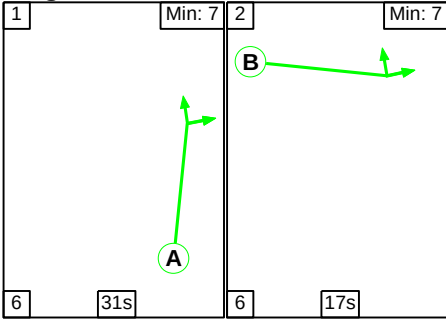
Full Input Data And Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
2/1	678	678	-	-	-	2.7	0.9	-	3.6	19.1	8.1	0.9	9.0
2/2+2/3	1288	1206	-	-	-	6.1	39.3	-	45.4	126.8	23.7	39.3	63.0
3/1	1007	1007	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	914	914	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 - Tarbock Roundabout North Stream: 1 PRC for Signalled Lanes (%): 0.2 Total Delay for Signalled Lanes (pcuHr): 15.35 Cycle Time (s): 60													
C2 - Tarbock Roundabout East Stream: 1 PRC for Signalled Lanes (%): 14.8 Total Delay for Signalled Lanes (pcuHr): 14.83 Cycle Time (s): 60													
C3 - Tarbock Roundabout South Stream: 1 PRC for Signalled Lanes (%): 9.3 Total Delay for Signalled Lanes (pcuHr): 12.53 Cycle Time (s): 60													
C4 - Tarbock Roundabout West Stream: 1 PRC for Signalled Lanes (%): -0.6 Total Delay for Signalled Lanes (pcuHr): 19.17 Cycle Time (s): 60													
C5 - A5080 Cronton Road Stream: 1 PRC for Signalled Lanes (%): -16.8 Total Delay for Signalled Lanes (pcuHr): 61.13 Cycle Time (s): 60													
PRC Over All Lanes (%): -16.8 Total Delay Over All Lanes(pcuHr): 163.50													

Stage Stream: 1



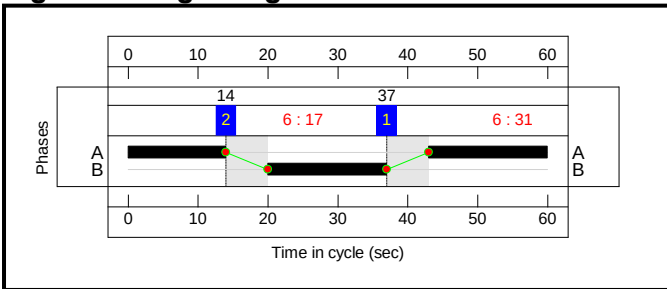
Stage Stream: 1



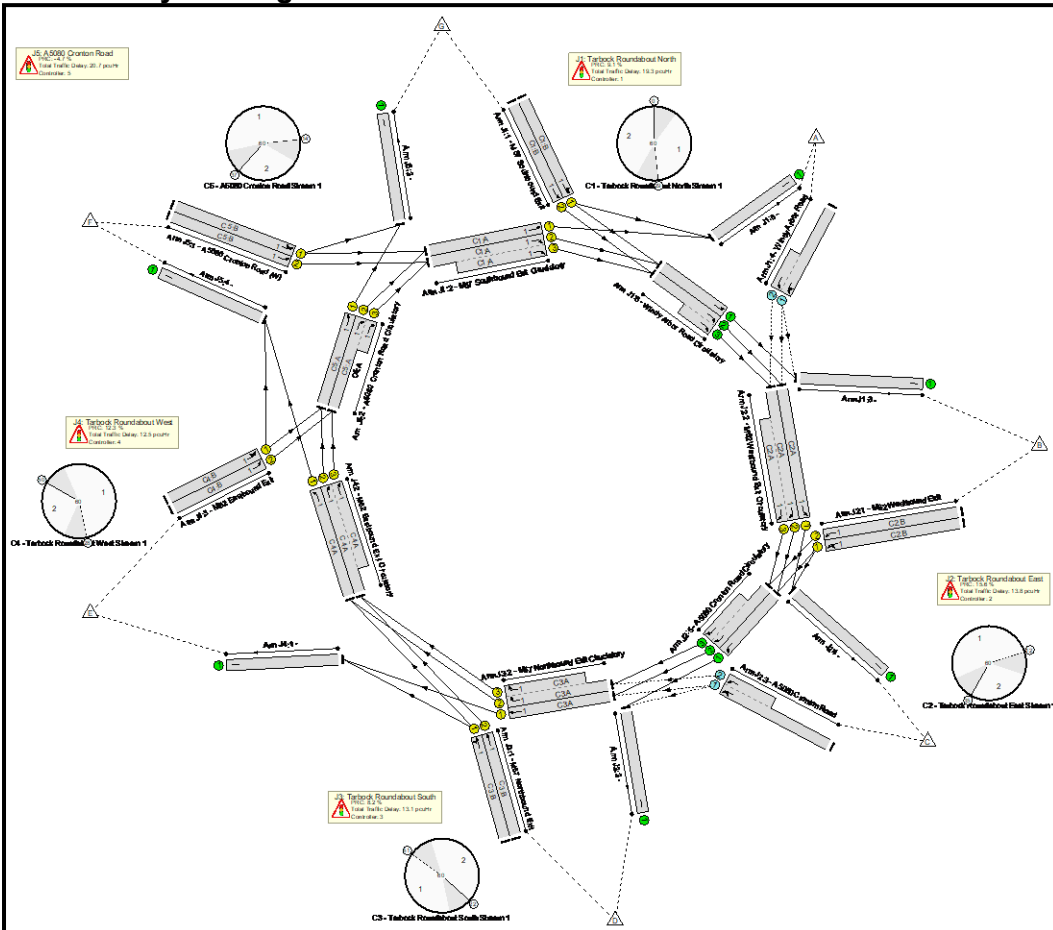
Stage Stream: 1

Stage	1	2
Duration	31	17
Change Point	37	14

Signal Timings Diagram



Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	94.2%
J1: Tarbock Roundabout North	-	-	N/A	-	-		-	-	-	-	-	-	82.5%
1/1	M57 Southbound Exit Left Ahead	U	1:1	N/A	C1:B		1	25	-	108	1985	860	12.6%
1/2	M57 Southbound Exit Ahead	U	1:1	N/A	C1:B		1	25	-	732	2125	921	79.5%
2/1	M57 Southbound Exit Circulatory Ahead	U	1:1	N/A	C1:A		1	23	-	481	1940	776	62.0%
2/2+2/3	M57 Southbound Exit Circulatory Right	U	1:1	N/A	C1:A		1	23	-	1213	2080:2080	685+785	82.5 : 82.5%
3/1		U	N/A	N/A	-		-	-	-	638	Inf	Inf	0.0%
4/1+4/2	Windy Arbor Road Ahead Left	O	N/A	N/A	-		-	-	-	384	1965:2105	185+285	81.7 : 81.7%
5/1		U	N/A	N/A	-		-	-	-	586	Inf	Inf	0.0%
6/1	Windy Arbor Road Circulatory Ahead	U	N/A	N/A	-		-	-	-	568	1940	1940	29.3%
6/2+6/3	Windy Arbor Road Circulatory Ahead	U	N/A	N/A	-		-	-	-	1380	1940:2080	394+1658	67.3 : 67.3%
J2: Tarbock Roundabout East	-	-	N/A	-	-		-	-	-	-	-	-	77.9%
1/1	M62 Westbound Exit Left Ahead	U	2:1	N/A	C2:B		1	17	-	460	2055	617	74.6%
1/2	M62 Westbound Exit Ahead	U	2:1	N/A	C2:B		1	17	-	365	2195	659	55.4%
2/1	M62 Westbound Exit Circulatory Ahead	U	2:1	N/A	C2:A		1	31	-	346	1940	1035	33.4%
2/2+2/3	M62 Westbound Exit Circulatory Right	U	2:1	N/A	C2:A		1	31	-	1348	2080:2080	531+1073	77.9 : 76.3%

Full Input Data And Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
3/1+3/2	A5080 Cronton Road Ahead Left	O	N/A	N/A	-		-	-	-	354	1965:2105	423+208	50.1 : 68.2%
4/1		U	N/A	N/A	-		-	-	-	410	Inf	Inf	0.0%
5/1	A5080 Cronton Road Circulatory Left	U	N/A	N/A	-		-	-	-	842	1940	1940	41.7%
5/2+5/3	A5080 Cronton Road Circulatory Ahead	U	N/A	N/A	-		-	-	-	1267	2080:2080	809+1271	55.3 : 58.0%
J3: Tarbock Roundabout South	-	-	N/A	-	-		-	-	-	-	-	-	83.2%
1/1	M57 Northbound Exit Left Ahead	U	3:1	N/A	C3:B		1	25	-	501	2115	916	54.7%
1/2	M57 Northbound Exit Ahead	U	3:1	N/A	C3:B		1	25	-	491	2255	977	50.2%
2/1	M57 Northbound Exit Ciruclatory Ahead	U	3:1	N/A	C3:A		1	23	-	691	1940	776	83.2%
2/2+2/3	M57 Northbound Exit Ciruclatory Right	U	3:1	N/A	C3:A		1	23	-	916	2080:2080	832+462	70.1 : 63.9%
3/1		U	N/A	N/A	-		-	-	-	856	Inf	Inf	0.0%
J4: Tarbock Roundabout West	-	-	N/A	-	-		-	-	-	-	-	-	80.1%
1/1		U	N/A	N/A	-		-	-	-	1095	Inf	Inf	0.0%
2/1	M62 Eastbound Exit Circulatory Left	U	4:1	N/A	C4:A		1	32	-	686	1940	1067	63.8%
2/2+2/3	M62 Eastbound Exit Circulatory Ahead	U	4:1	N/A	C4:A		1	32	-	818	2080:2080	343+1111	47.0 : 56.3%
3/1	M62 Eastbound Exit Left Left2	U	4:1	N/A	C4:B		1	16	-	429	1965	557	77.1%
3/2	M62 Eastbound Exit Left	U	4:1	N/A	C4:B		1	16	-	478	2105	596	80.1%

Full Input Data And Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
J5: A5080 Cronton Road	-	-	N/A	-	-		-	-	-	-	-	-	94.2%
1/1	A5080 Cronton Road (W) Ahead Left	U	5:1	N/A	C5:B		1	17	-	561	1985	596	94.2%
1/2	A5080 Cronton Road (W) Ahead	U	5:1	N/A	C5:B		1	17	-	331	2125	637	51.9%
2/1	A5080 Cronton Road Circulatory Ahead	U	5:1	N/A	C5:A		1	31	-	543	1955	1043	49.0%
2/2+2/3	A5080 Cronton Road Circulatory Right	U	5:1	N/A	C5:A		1	31	-	1103	2095:2095	238+949	93.0 : 93.0%
3/1		U	N/A	N/A	-		-	-	-	844	Inf	Inf	0.0%
4/1		U	N/A	N/A	-		-	-	-	765	Inf	Inf	0.0%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	1476	0	0	42.9	36.5	0.0	79.4	-	-	-	-
J1: Tarbock Roundabout North	-	-	768	0	0	10.8	8.5	0.0	19.3	-	-	-	-
1/1	108	108	-	-	-	0.3	0.1	-	0.4	12.6	1.1	0.1	1.1
1/2	732	732	-	-	-	3.0	1.9	-	4.9	24.0	10.4	1.9	12.3
2/1	481	481	-	-	-	2.5	0.8	-	3.3	24.7	7.2	0.8	8.0
2/2+2/3	1213	1213	-	-	-	4.2	2.3	-	6.5	19.3	10.7	2.3	13.0
3/1	638	638	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1+4/2	384	384	768	0	0	0.8	2.1	-	3.0	27.7	1.7	2.1	3.9
5/1	586	586	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	568	568	-	-	-	0.0	0.2	-	0.2	1.3	2.8	0.2	3.0
6/2+6/3	1380	1380	-	-	-	0.0	1.0	-	1.1	2.7	12.0	1.0	13.1

Full Input Data And Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
J2: Tarbock Roundabout East	-	-	708	0	0	8.2	5.6	0.0	13.8	-	-	-	-
1/1	460	460	-	-	-	2.4	1.4	-	3.9	30.2	6.9	1.4	8.3
1/2	365	365	-	-	-	1.8	0.6	-	2.4	23.7	5.1	0.6	5.7
2/1	346	346	-	-	-	0.7	0.3	-	0.9	9.5	3.5	0.3	3.7
2/2+2/3	1233	1233	-	-	-	2.7	1.6	-	4.3	12.7	6.4	1.6	8.1
3/1+3/2	354	354	708	0	0	0.6	0.6	-	1.2	12.6	1.4	0.6	2.1
4/1	410	410	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	809	809	-	-	-	0.0	0.4	-	0.4	1.6	2.2	0.4	2.6
5/2+5/3	1184	1184	-	-	-	0.0	0.7	-	0.7	2.0	9.7	0.7	10.4
J3: Tarbock Roundabout South	-	-	0	0	0	8.6	4.5	0.0	13.1	-	-	-	-
1/1	501	501	-	-	-	1.8	0.6	-	2.4	16.9	6.1	0.6	6.7
1/2	491	491	-	-	-	1.7	0.5	-	2.2	16.0	5.9	0.5	6.4
2/1	645	645	-	-	-	2.7	2.4	-	5.1	28.3	10.6	2.4	13.0
2/2+2/3	879	879	-	-	-	2.5	1.1	-	3.5	14.4	6.7	1.1	7.8
3/1	823	823	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J4: Tarbock Roundabout West	-	-	0	0	0	7.4	5.1	0.0	12.5	-	-	-	-
1/1	1049	1049	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/1	681	681	-	-	-	1.1	0.9	-	2.0	10.5	9.4	0.9	10.3
2/2+2/3	786	786	-	-	-	1.3	0.6	-	1.9	8.7	17.1	0.6	17.7
3/1	429	429	-	-	-	2.3	1.6	-	4.0	33.5	6.6	1.6	8.2
3/2	478	478	-	-	-	2.6	2.0	-	4.6	34.7	7.3	2.0	9.3
J5: A5080 Cronton Road	-	-	0	0	0	7.9	12.8	0.0	20.7	-	-	-	-
1/1	561	561	-	-	-	3.2	6.0	-	9.2	59.2	9.0	6.0	15.1
1/2	331	331	-	-	-	1.6	0.5	-	2.1	23.3	4.5	0.5	5.0

Full Input Data And Results

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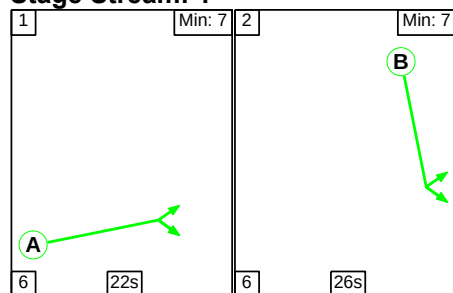
Full Input Data And Results

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

C1 - Tarbock Roundabout North

Stage Sequence Diagram

Stage Stream: 1

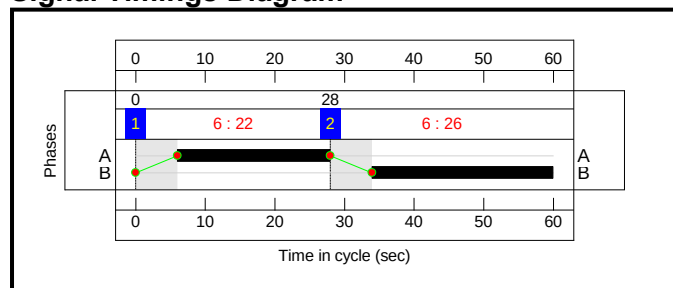


Stage Timings

Stage Stream: 1

Stage	1	2
Duration	22	26
Change Point	0	28

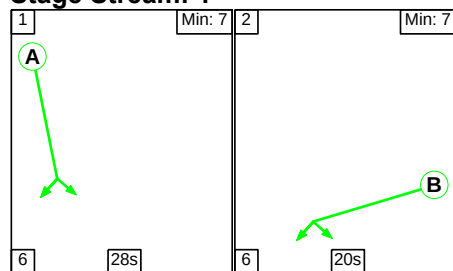
Signal Timings Diagram



C2 - Tarbock Roundabout East

Stage Sequence Diagram

Stage Stream: 1

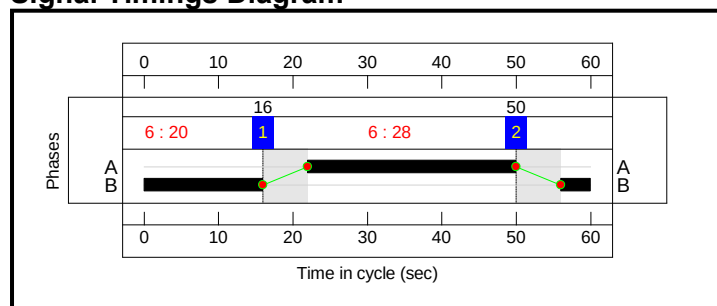


Stage Timings

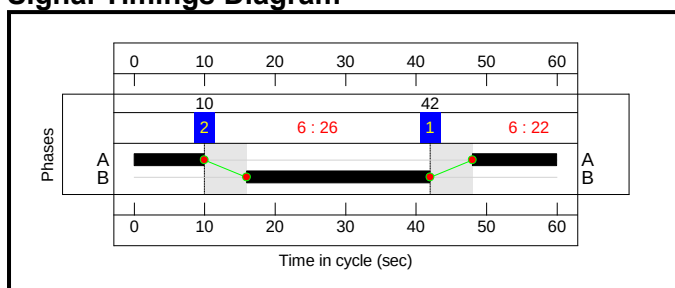
Stage Stream: 1

Stage	1	2
Duration	28	20
Change Point	16	50

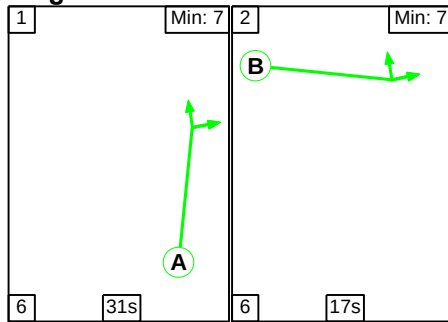
Signal Timings Diagram



Stage Stream: 1



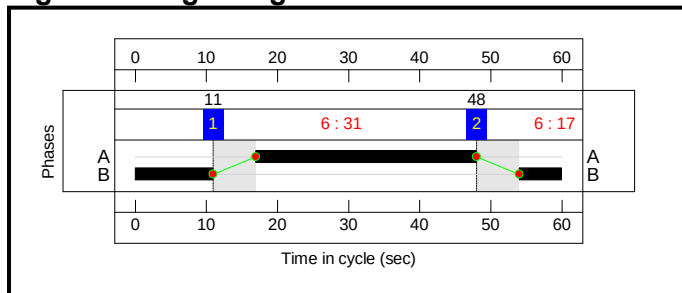
Stage Stream: 1



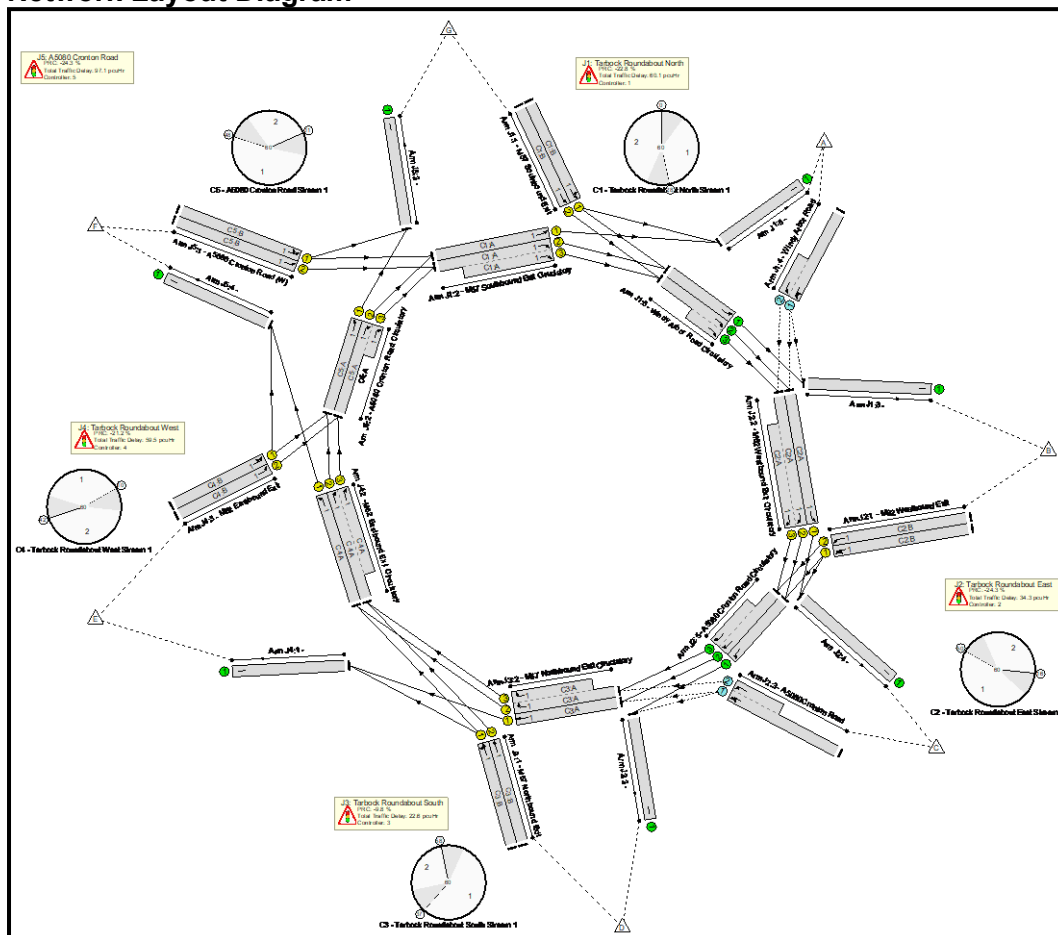
Stage Stream: 1

Stage	1	2
Duration	31	17
Change Point	11	48

Signal Timings Diagram



Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	111.9%
J1: Tarbock Roundabout North	-	-	N/A	-	-		-	-	-	-	-	-	110.5%
1/1	M57 Southbound Exit Left Ahead	U	1:1	N/A	C1:B		1	26	-	74	1985	893	8.3%
1/2	M57 Southbound Exit Ahead	U	1:1	N/A	C1:B		1	26	-	601	2125	956	62.8%
2/1	M57 Southbound Exit Circulatory Ahead	U	1:1	N/A	C1:A		1	22	-	483	1940	744	61.3%
2/2+2/3	M57 Southbound Exit Circulatory Right	U	1:1	N/A	C1:A		1	22	-	1484	2080:2080	688+766	101.8 : 84.0%
3/1		U	N/A	N/A	-		-	-	-	817	Inf	Inf	0.0%
4/1+4/2	Windy Arbor Road Ahead Left	O	N/A	N/A	-		-	-	-	564	1965:2105	164+347	110.5 : 110.5%
5/1		U	N/A	N/A	-		-	-	-	553	Inf	Inf	0.0%
6/1	Windy Arbor Road Circulatory Ahead	U	N/A	N/A	-		-	-	-	706	1940	1940	36.3%
6/2+6/3	Windy Arbor Road Circulatory Ahead	U	N/A	N/A	-		-	-	-	1383	1940:2080	337+1718	61.8 : 60.3%
J2: Tarbock Roundabout East	-	-	N/A	-	-		-	-	-	-	-	-	111.8%
1/1	M62 Westbound Exit Left Ahead	U	2:1	N/A	C2:B		1	20	-	646	2055	719	89.8%
1/2	M62 Westbound Exit Ahead	U	2:1	N/A	C2:B		1	20	-	438	2195	768	57.0%
2/1	M62 Westbound Exit Circulatory Ahead	U	2:1	N/A	C2:A		1	28	-	297	1940	938	29.7%

Full Input Data And Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
2/2+2/3	M62 Westbound Exit Circulatory Right	U	2:1	N/A	C2:A		1	28	-	1539	2080:2080	771+1003	62.2 : 71.6%
3/1+3/2	A5080 Cronton Road Ahead Left	O	N/A	N/A	-		-	-	-	394	1965:2105	253+198	68.5 : 111.8%
4/1		U	N/A	N/A	-		-	-	-	337	Inf	Inf	0.0%
5/1	A5080 Cronton Road Circulatory Left	U	N/A	N/A	-		-	-	-	1275	1940	1940	56.0%
5/2+5/3	A5080 Cronton Road Circulatory Ahead	U	N/A	N/A	-		-	-	-	1308	2080:2080	636+1444	53.1 : 56.6%
J3: Tarbock Roundabout South	-	-	N/A	-	-		-	-	-	-	-	-	98.8%
1/1	M57 Northbound Exit Left Ahead	U	3:1	N/A	C3:B		1	15	-	438	2115	564	77.7%
1/2	M57 Northbound Exit Ahead	U	3:1	N/A	C3:B		1	15	-	594	2255	601	98.8%
2/1	M57 Northbound Exit Ciruclatory Ahead	U	3:1	N/A	C3:A		1	33	-	555	1940	1099	44.8%
2/2+2/3	M57 Northbound Exit Ciruclatory Right	U	3:1	N/A	C3:A		1	33	-	1129	2080:2080	1111+681	60.5 : 50.4%
3/1		U	N/A	N/A	-		-	-	-	1293	Inf	Inf	0.0%
J4: Tarbock Roundabout West	-	-	N/A	-	-		-	-	-	-	-	-	109.0%
1/1		U	N/A	N/A	-		-	-	-	854	Inf	Inf	0.0%
2/1	M62 Eastbound Exit Circulatory Left	U	4:1	N/A	C4:A		1	22	-	839	1940	744	109.0%
2/2+2/3	M62 Eastbound Exit Circulatory Ahead	U	4:1	N/A	C4:A		1	22	-	1023	2080:2080	328+797	65.1 : 90.8%
3/1	M62 Eastbound Exit Left Left2	U	4:1	N/A	C4:B		1	26	-	603	1965	884	68.2%

Full Input Data And Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
3/2	M62 Eastbound Exit Left	U	4:1	N/A	C4:B		1	26	-	607	2105	947	64.1%
J5: A5080 Cronton Road	-	-	N/A	-	-		-	-	-	-	-	-	111.9%
1/1	A5080 Cronton Road (W) Ahead Left	U	5:1	N/A	C5:B		1	17	-	545	1985	596	91.5%
1/2	A5080 Cronton Road (W) Ahead	U	5:1	N/A	C5:B		1	17	-	430	2125	637	67.5%
2/1	A5080 Cronton Road Circulatory Ahead	U	5:1	N/A	C5:A		1	31	-	772	1955	1043	65.9%
2/2+2/3	A5080 Cronton Road Circulatory Right	U	5:1	N/A	C5:A		1	31	-	1332	2095:2095	248+942	111.6 : 111.9%
3/1		U	N/A	N/A	-		-	-	-	1112	Inf	Inf	0.0%
4/1		U	N/A	N/A	-		-	-	-	968	Inf	Inf	0.0%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	1796	0	0	67.9	205.7	0.0	273.6	-	-	-	-
J1: Tarbock Roundabout North	-	-	1055	0	0	14.3	45.8	0.0	60.1	-	-	-	-
1/1	74	74	-	-	-	0.2	0.0	-	0.2	11.7	0.7	0.0	0.7
1/2	601	601	-	-	-	2.1	0.8	-	3.0	17.7	7.7	0.8	8.5
2/1	456	456	-	-	-	1.6	0.8	-	2.4	19.2	5.6	0.8	6.4
2/2+2/3	1344	1344	-	-	-	7.4	11.8	-	19.2	51.3	13.4	11.8	25.1
3/1	815	815	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1+4/2	564	528	1055	0	0	2.9	31.3	-	34.2	218.5	17.2	31.3	48.5
5/1	526	526	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	704	704	-	-	-	0.0	0.3	-	0.3	1.7	8.1	0.3	8.4
6/2+6/3	1245	1245	-	-	-	0.0	0.8	-	0.8	2.3	11.9	0.8	12.7

Full Input Data And Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
J2: Tarbock Roundabout East	-	-	741	0	0	12.3	22.0	0.0	34.3	-	-	-	-
1/1	646	646	-	-	-	3.3	4.0	-	7.3	40.7	10.0	4.0	14.0
1/2	438	438	-	-	-	1.9	0.7	-	2.6	21.3	5.8	0.7	6.5
2/1	279	279	-	-	-	0.7	0.2	-	0.9	11.6	2.2	0.2	2.4
2/2+2/3	1197	1197	-	-	-	4.3	1.0	-	5.4	16.1	10.9	1.0	11.9
3/1+3/2	394	371	741	0	0	2.1	14.8	-	16.9	154.5	10.6	14.8	25.4
4/1	319	319	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	1086	1086	-	-	-	0.0	0.6	-	0.6	2.1	0.0	0.6	0.6
5/2+5/3	1156	1156	-	-	-	0.0	0.6	-	0.6	2.0	10.8	0.6	11.5
J3: Tarbock Roundabout South	-	-	0	0	0	9.3	13.2	0.0	22.6	-	-	-	-
1/1	438	438	-	-	-	2.5	1.7	-	4.2	34.3	6.7	1.7	8.4
1/2	594	594	-	-	-	3.6	10.5	-	14.1	85.5	9.7	10.5	20.2
2/1	493	493	-	-	-	1.3	0.4	-	1.7	12.7	6.8	0.4	7.2
2/2+2/3	1015	1015	-	-	-	1.9	0.7	-	2.6	9.1	6.4	0.7	7.1
3/1	1104	1104	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J4: Tarbock Roundabout West	-	-	0	0	0	16.3	43.2	0.0	59.5	-	-	-	-
1/1	792	792	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/1	811	744	-	-	-	6.6	38.9	-	45.4	201.7	14.6	38.9	53.5
2/2+2/3	937	937	-	-	-	5.4	2.4	-	7.8	29.9	21.8	2.4	24.2
3/1	603	603	-	-	-	2.2	1.1	-	3.3	19.4	7.9	1.1	8.9
3/2	607	607	-	-	-	2.2	0.9	-	3.0	18.0	7.8	0.9	8.6
J5: A5080 Cronton Road	-	-	0	0	0	15.6	81.5	0.0	97.1	-	-	-	-
1/1	545	545	-	-	-	3.1	4.6	-	7.6	50.4	8.6	4.6	13.2
1/2	430	430	-	-	-	2.2	1.0	-	3.2	27.0	6.2	1.0	7.2

Full Input Data And Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
2/1	687	687	-	-	-	1.4	1.0	-	2.4	12.5	4.2	1.0	5.2
2/2+2/3	1331	1165	-	-	-	8.9	74.9	-	83.8	226.6	25.0	74.9	99.9
3/1	1027	1027	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	873	873	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 - Tarbock Roundabout NorthStream: 1 PRC for Signalled Lanes (%): -13.1Total Delay for Signalled Lanes (pcuHr): 24.80Cycle Time (s): 60 C2 - Tarbock Roundabout EastStream: 1 PRC for Signalled Lanes (%): 0.2Total Delay for Signalled Lanes (pcuHr): 16.13Cycle Time (s): 60 C3 - Tarbock Roundabout SouthStream: 1 PRC for Signalled Lanes (%): -9.8Total Delay for Signalled Lanes (pcuHr): 22.58Cycle Time (s): 60 C4 - Tarbock Roundabout WestStream: 1 PRC for Signalled Lanes (%): -21.2Total Delay for Signalled Lanes (pcuHr): 59.52Cycle Time (s): 60 C5 - A5080 Cronton RoadStream: 1 PRC for Signalled Lanes (%): -24.3Total Delay for Signalled Lanes (pcuHr): 97.05Cycle Time (s): 60 PRC Over All Lanes (%): -24.3Total Delay Over All Lanes(pcuHr): 273.59													

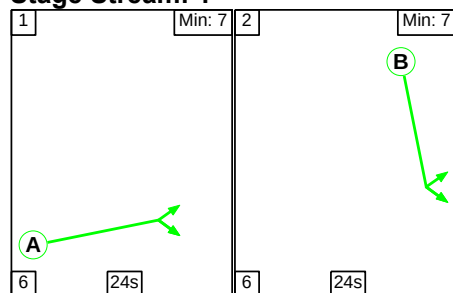
Full Input Data And Results

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

C1 - Tarbock Roundabout North

Stage Sequence Diagram

Stage Stream: 1

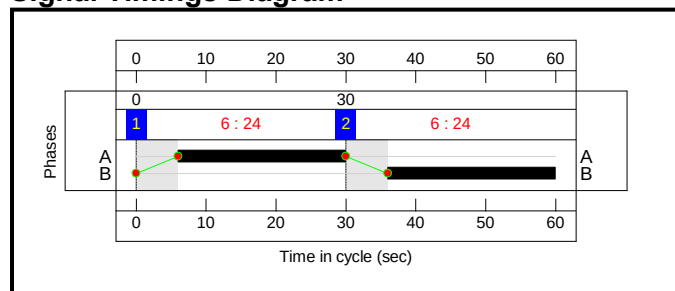


Stage Timings

Stage Stream: 1

Stage	1	2
Duration	24	24
Change Point	0	30

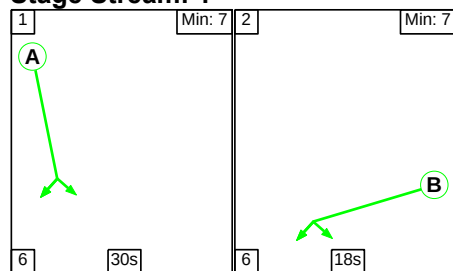
Signal Timings Diagram



C2 - Tarbock Roundabout East

Stage Sequence Diagram

Stage Stream: 1

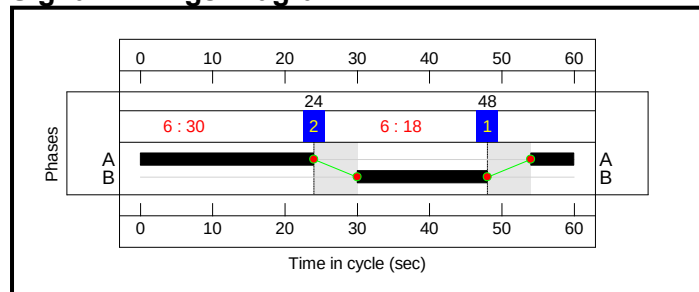


Stage Timings

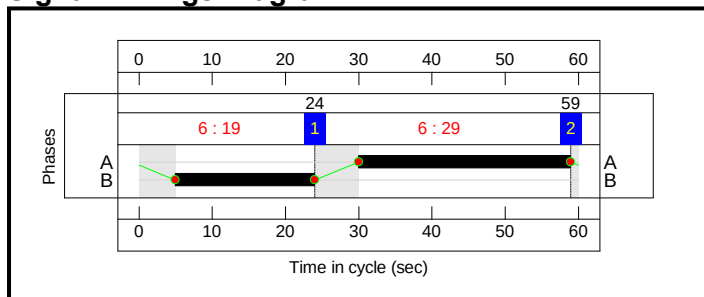
Stage Stream: 1

Stage	1	2
Duration	30	18
Change Point	48	24

Signal Timings Diagram



Stage Stream: 1

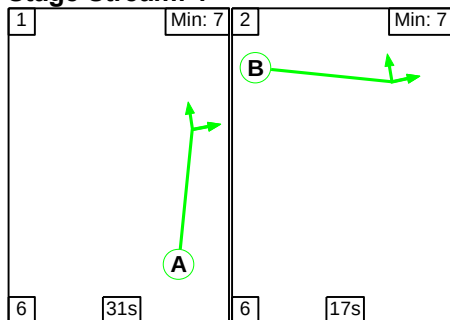


Full Input Data And Results

C5 - A5080 Cronton Road

Stage Sequence Diagram

Stage Stream: 1

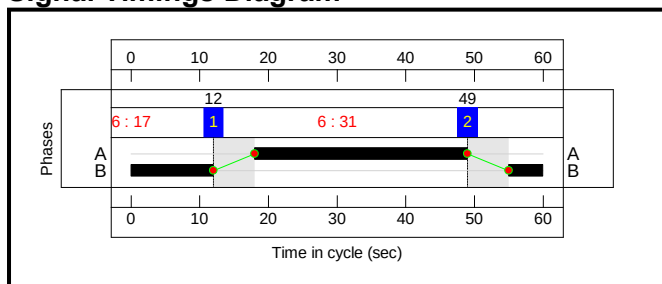


Stage Timings

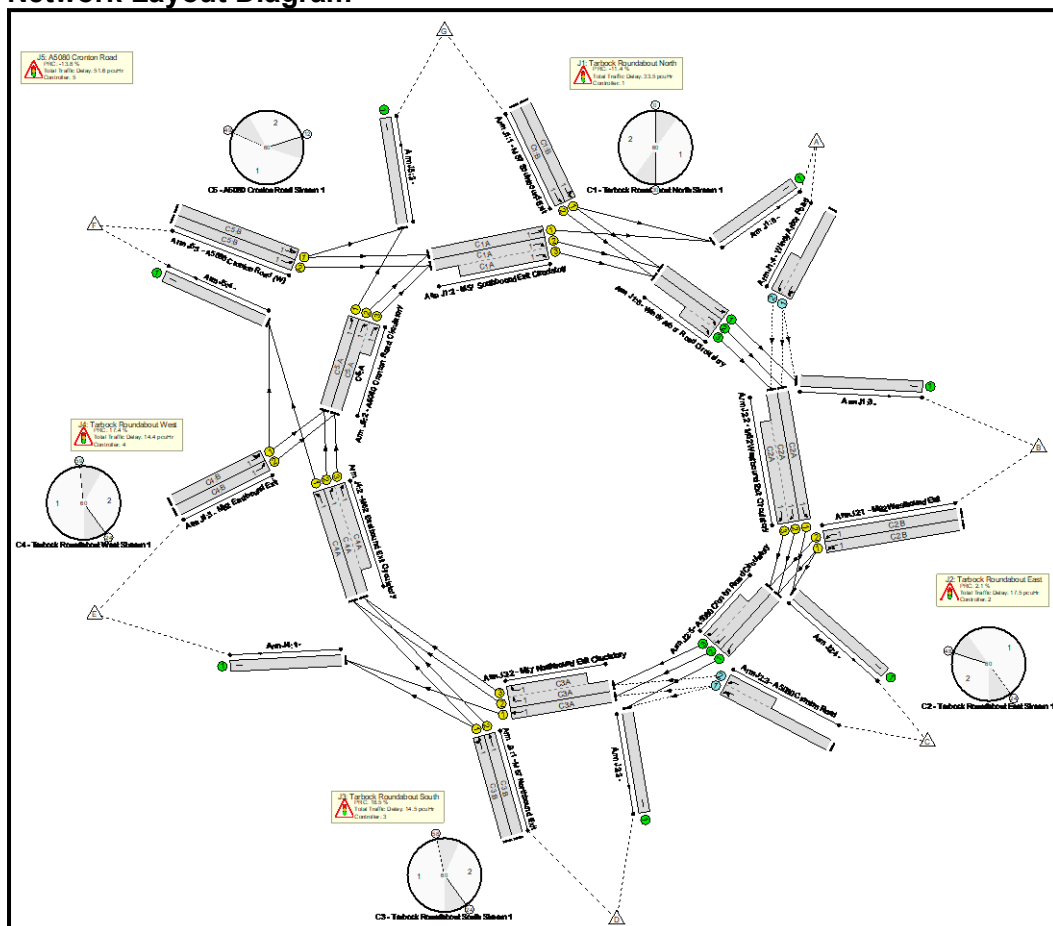
Stage Stream: 1

Stage	1	2
Duration	31	17
Change Point	12	49

Signal Timings Diagram



Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	102.4%
J1: Tarbock Roundabout North	-	-	N/A	-	-		-	-	-	-	-	-	100.3%
1/1	M57 Southbound Exit Left Ahead	U	1:1	N/A	C1:B		1	24	-	118	1985	827	14.3%
1/2	M57 Southbound Exit Ahead	U	1:1	N/A	C1:B		1	24	-	799	2125	885	90.2%
2/1	M57 Southbound Exit Circulatory Ahead	U	1:1	N/A	C1:A		1	24	-	525	1940	808	63.8%
2/2+2/3	M57 Southbound Exit Circulatory Right	U	1:1	N/A	C1:A		1	24	-	1322	2080:2080	701+804	78.8 : 87.3%
3/1		U	N/A	N/A	-		-	-	-	698	Inf	Inf	0.0%
4/1+4/2	Windy Arbor Road Ahead Left	O	N/A	N/A	-		-	-	-	434	1965:2105	169+264	100.3 : 100.3%
5/1		U	N/A	N/A	-		-	-	-	640	Inf	Inf	0.0%
6/1	Windy Arbor Road Circulatory Ahead	U	N/A	N/A	-		-	-	-	619	1940	1940	28.7%
6/2+6/3	Windy Arbor Road Circulatory Ahead	U	N/A	N/A	-		-	-	-	1505	1940:2080	394+1658	72.3 : 73.4%
J2: Tarbock Roundabout East	-	-	N/A	-	-		-	-	-	-	-	-	88.2%
1/1	M62 Westbound Exit Left Ahead	U	2:1	N/A	C2:B		1	18	-	502	2055	651	77.1%
1/2	M62 Westbound Exit Ahead	U	2:1	N/A	C2:B		1	18	-	400	2195	695	57.5%
2/1	M62 Westbound Exit Circulatory Ahead	U	2:1	N/A	C2:A		1	30	-	379	1940	1002	37.4%

Full Input Data And Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
2/2+2/3	M62 Westbound Exit Circulatory Right	U	2:1	N/A	C2:A		1	30	-	1481	2080:2080	516+1050	88.2 : 86.5%
3/1+3/2	A5080 Cronton Road Ahead Left	O	N/A	N/A	-		-	-	-	384	1965:2105	393+220	58.5 : 69.9%
4/1		U	N/A	N/A	-		-	-	-	449	Inf	Inf	0.0%
5/1	A5080 Cronton Road Circulatory Left	U	N/A	N/A	-		-	-	-	920	1940	1940	45.7%
5/2+5/3	A5080 Cronton Road Circulatory Ahead	U	N/A	N/A	-		-	-	-	1393	2080:2080	812+1268	61.2 : 64.0%
J3: Tarbock Roundabout South	-	-	N/A	-	-		-	-	-	-	-	-	75.9%
1/1	M57 Northbound Exit Left Ahead	U	3:1	N/A	C3:B		1	20	-	547	2115	740	73.9%
1/2	M57 Northbound Exit Ahead	U	3:1	N/A	C3:B		1	20	-	536	2255	789	67.9%
2/1	M57 Northbound Exit Ciruclatory Ahead	U	3:1	N/A	C3:A		1	28	-	759	1940	938	75.9%
2/2+2/3	M57 Northbound Exit Ciruclatory Right	U	3:1	N/A	C3:A		1	28	-	1003	2080:2080	1004+559	63.6 : 58.5%
3/1		U	N/A	N/A	-		-	-	-	935	Inf	Inf	0.0%
J4: Tarbock Roundabout West	-	-	N/A	-	-		-	-	-	-	-	-	76.7%
1/1		U	N/A	N/A	-		-	-	-	1200	Inf	Inf	0.0%
2/1	M62 Eastbound Exit Circulatory Left	U	4:1	N/A	C4:A		1	29	-	750	1940	970	76.7%
2/2+2/3	M62 Eastbound Exit Circulatory Ahead	U	4:1	N/A	C4:A		1	29	-	895	2080:2080	322+1031	56.3 : 66.1%
3/1	M62 Eastbound Exit Left Left2	U	4:1	N/A	C4:B		1	19	-	468	1965	655	71.5%

Full Input Data And Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
3/2	M62 Eastbound Exit Left	U	4:1	N/A	C4:B		1	19	-	522	2105	702	74.4%
J5: A5080 Cronton Road	-	-	N/A	-	-		-	-	-	-	-	-	102.4%
1/1	A5080 Cronton Road (W) Ahead Left	U	5:1	N/A	C5:B		1	17	-	610	1985	596	102.4%
1/2	A5080 Cronton Road (W) Ahead	U	5:1	N/A	C5:B		1	17	-	360	2125	637	56.5%
2/1	A5080 Cronton Road Circulatory Ahead	U	5:1	N/A	C5:A		1	31	-	595	1955	1043	54.0%
2/2+2/3	A5080 Cronton Road Circulatory Right	U	5:1	N/A	C5:A		1	31	-	1204	2095:2095	239+948	101.4 : 101.4%
3/1		U	N/A	N/A	-		-	-	-	922	Inf	Inf	0.0%
4/1		U	N/A	N/A	-		-	-	-	836	Inf	Inf	0.0%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	1635	0	0	53.7	77.7	0.0	131.5	-	-	-	-
J1: Tarbock Roundabout North	-	-	867	0	0	13.6	19.9	0.0	33.5	-	-	-	-
1/1	118	118	-	-	-	0.4	0.1	-	0.4	13.4	1.2	0.1	1.3
1/2	799	799	-	-	-	3.6	4.2	-	7.8	35.3	12.4	4.2	16.6
2/1	516	516	-	-	-	1.6	0.9	-	2.5	17.4	5.6	0.9	6.5
2/2+2/3	1254	1254	-	-	-	6.6	2.5	-	9.1	26.0	11.4	2.5	13.9
3/1	635	635	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1+4/2	434	433	867	0	0	1.3	10.7	-	12.0	99.6	9.6	10.7	20.4
5/1	631	631	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	556	556	-	-	-	0.0	0.2	-	0.2	1.4	5.0	0.2	5.2
6/2+6/3	1501	1501	-	-	-	0.0	1.4	-	1.4	3.3	14.3	1.4	15.6

Full Input Data And Results

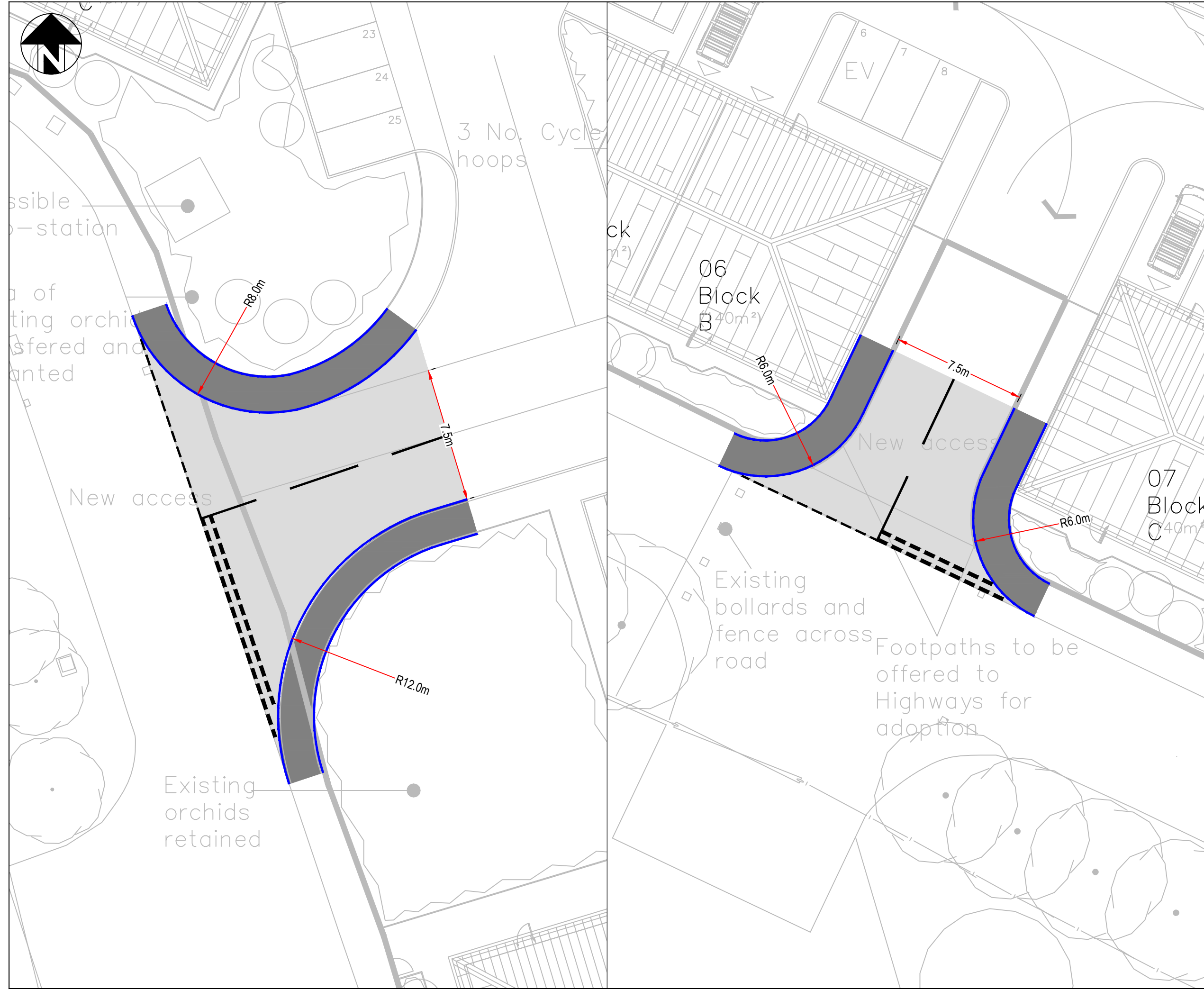
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
J2: Tarbock Roundabout East	-	-	768	0	0	9.5	8.0	0.0	17.5	-	-	-	-
1/1	502	502	-	-	-	2.6	1.7	-	4.2	30.4	7.5	1.7	9.2
1/2	400	400	-	-	-	1.9	0.7	-	2.6	23.2	5.6	0.7	6.2
2/1	375	375	-	-	-	1.0	0.3	-	1.3	12.6	4.3	0.3	4.6
2/2+2/3	1363	1363	-	-	-	3.0	3.3	-	6.3	16.6	7.6	3.3	10.8
3/1+3/2	384	384	768	0	0	0.9	0.8	-	1.8	16.7	1.9	0.8	2.7
4/1	445	445	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	887	887	-	-	-	0.0	0.4	-	0.4	1.7	3.8	0.4	4.2
5/2+5/3	1308	1308	-	-	-	0.0	0.8	-	0.9	2.3	10.3	0.8	11.2
J3: Tarbock Roundabout South	-	-	0	0	0	9.7	4.8	0.0	14.5	-	-	-	-
1/1	547	547	-	-	-	2.6	1.4	-	4.0	26.3	7.9	1.4	9.3
1/2	536	536	-	-	-	2.5	1.0	-	3.5	23.7	7.6	1.0	8.6
2/1	712	712	-	-	-	1.5	1.6	-	3.0	15.4	10.3	1.6	11.9
2/2+2/3	965	965	-	-	-	3.1	0.8	-	3.9	14.7	7.6	0.8	8.4
3/1	902	902	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J4: Tarbock Roundabout West	-	-	0	0	0	9.2	5.2	0.0	14.4	-	-	-	-
1/1	1153	1153	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/1	744	744	-	-	-	3.1	1.6	-	4.8	23.0	8.2	1.6	9.9
2/2+2/3	864	864	-	-	-	1.2	0.9	-	2.1	8.9	16.6	0.9	17.5
3/1	468	468	-	-	-	2.3	1.2	-	3.5	27.0	6.8	1.2	8.0
3/2	522	522	-	-	-	2.6	1.4	-	4.0	27.6	7.7	1.4	9.1
J5: A5080 Cronton Road	-	-	0	0	0	11.8	39.9	0.0	51.6	-	-	-	-
1/1	610	596	-	-	-	4.0	16.5	-	20.5	121.1	10.4	16.5	26.9
1/2	360	360	-	-	-	1.8	0.6	-	2.4	24.2	5.0	0.6	5.6

Full Input Data And Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
2/1	564	564	-	-	-	0.9	0.6	-	1.4	9.3	7.6	0.6	8.2
2/2+2/3	1204	1134	-	-	-	5.1	22.1	-	27.3	81.5	22.0	22.1	44.2
3/1	883	883	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	830	830	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 - Tarbock Roundabout North Stream: 1 PRC for Signalled Lanes (%): -0.3 Total Delay for Signalled Lanes (pcuHr): 19.84 Cycle Time (s): 60													
C2 - Tarbock Roundabout East Stream: 1 PRC for Signalled Lanes (%): 2.1 Total Delay for Signalled Lanes (pcuHr): 14.42 Cycle Time (s): 60													
C3 - Tarbock Roundabout South Stream: 1 PRC for Signalled Lanes (%): 18.5 Total Delay for Signalled Lanes (pcuHr): 14.49 Cycle Time (s): 60													
C4 - Tarbock Roundabout West Stream: 1 PRC for Signalled Lanes (%): 17.4 Total Delay for Signalled Lanes (pcuHr): 14.39 Cycle Time (s): 60													
C5 - A5080 Cronton Road Stream: 1 PRC for Signalled Lanes (%): -13.8 Total Delay for Signalled Lanes (pcuHr): 51.64 Cycle Time (s): 60													
PRC Over All Lanes (%): -13.8 Total Delay Over All Lanes(pcuHr): 131.46													

Appendix D

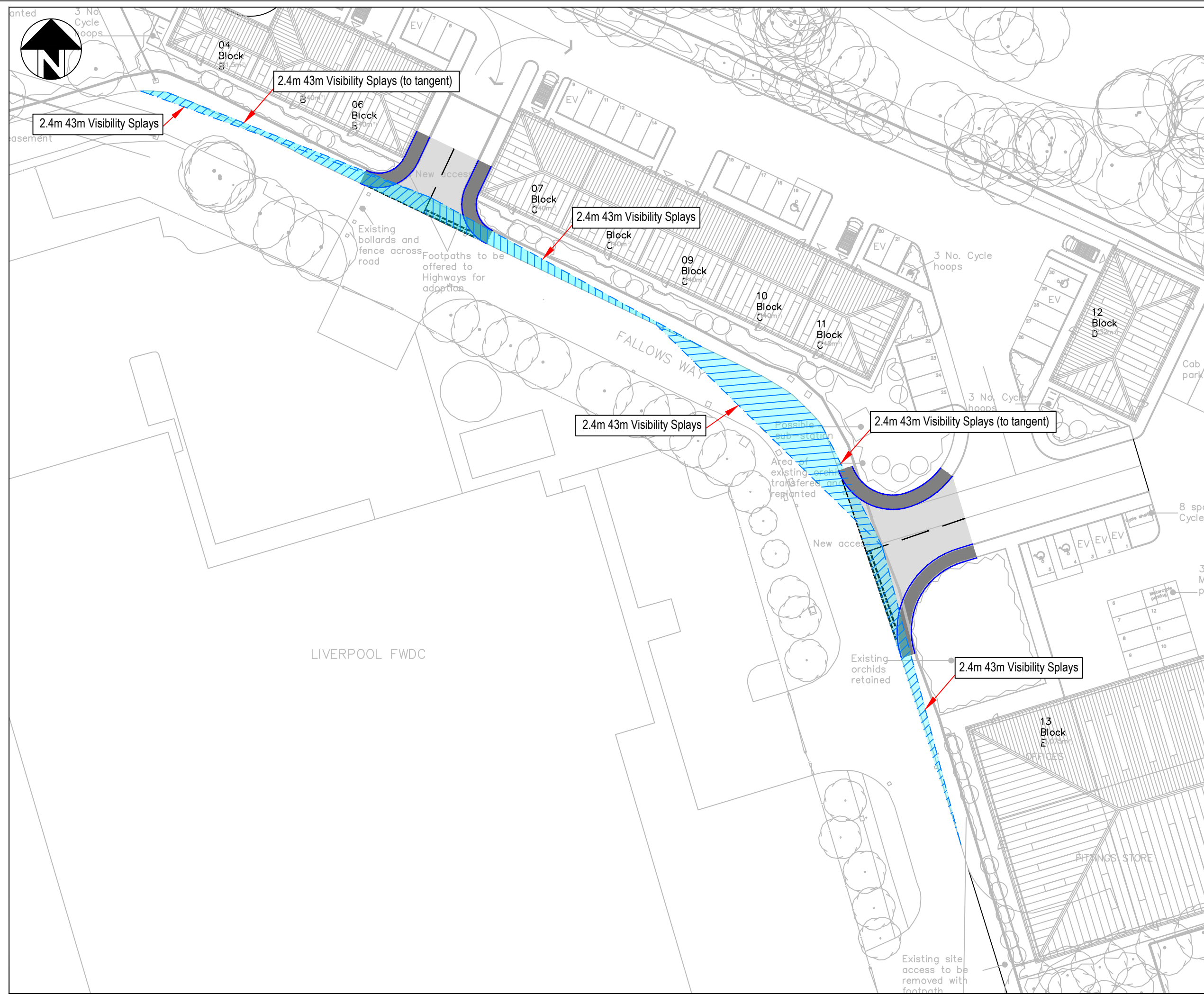
PROPOSED SITE ACCESS DESIGN



NOTES			
P2	Updated Site Layout Plan	20.03.24	MHT
P1	Preliminary - Initial Issue	13.02.23	MHT
AMA ANDREW MOSELEY ASSOCIATES TRANSPORT AND DEVELOPMENT PLANNING CONSULTANTS			
Project: FALLOWS WAY, PRESCOT			
Client: ALLIED PROPERTIES			
Drawing: PROPOSED SITE ACCESS DESIGN			
Drawn By: MHT		Date: 20/03/2024	
Checked: SK		Scale: 1:200	A3
Drawing No. AMA/21686/SK/001			Rev. P02

Appendix E

PROPOSED SITE ACCESS VISIBILITY SPLAYS



NOTES

P2	Updated Site Layout Plan	20.03.24	MHT
P1	Preliminary - Initial Issue	13.02.23	MHT

AMA

ANDREW MOSELEY ASSOCIATES

TRANSPORT AND DEVELOPMENT PLANNING CONSULTANTS

Project:

FALLOWS WAY, PRESCOT

Client:

ALLIED PROPERTIES

Drawing:

PROPOSED SITE ACCESS
VISIBILITY SPLAYS

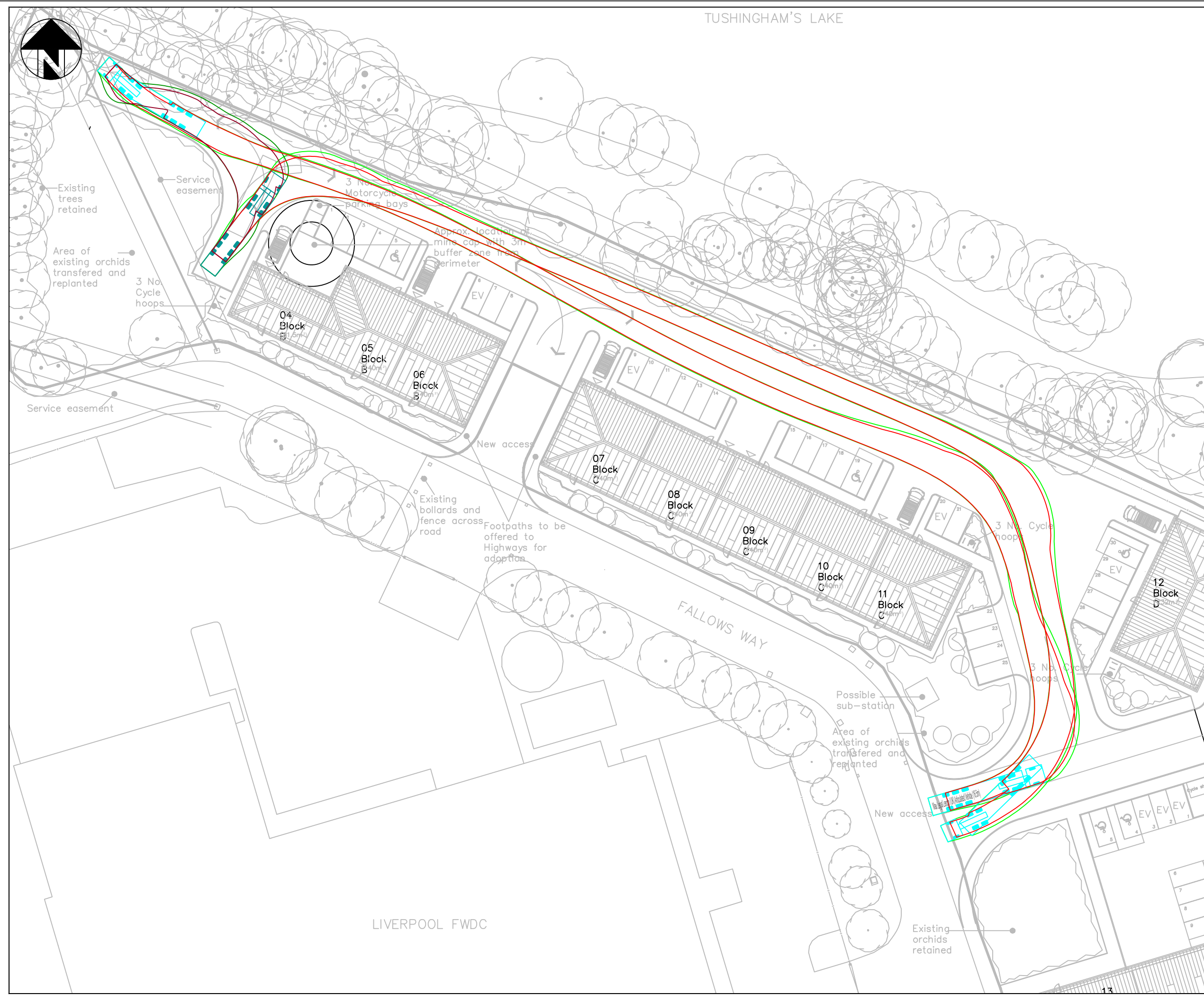
Drawn By: MHT	Date: 20/03/2024
Checked: SK	Scale: 1:500

Drawing No. AMA/21686/SK/002	Rev. P02
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Appendix F

MAX LEGAL ARTICULATED VEHICLE SWEEP PATH ANALYSIS





NOTES

Max Legal Length (UK) Articulated Vehicle (16.5m)

Overall Length

Overall Width

Overall Body Height

Min Body Ground Clearance

Max Track Width

Lock to lock time

Kerb to Kerb Turning Radius

16.500m

2.550m

3.681m

0.411m

2.500m

6.00s

6.530m

P3	Revised Turning Head	19.03.24	MHT
P2	Updated Site Layout	28.02.24	MHT
P1	Preliminary - Initial Issue	13.02.23	MHT



ANDREW MOSELEY ASSOCIATES

TRANSPORT AND DEVELOPMENT PLANNING CONSULTANTS

Project:

FALLOWS WAY, PRESCOT

Client:

ALLIED PROPERTIES

Drawing:

PROPOSED SITE ACCESS VISIBILITY SPLAYS

Drawn By:

MHT

Date:

19/03/2024

Checked:

SK

Scale:

1:500

A3

Drawing No.

AMA/21686/ATR/002

Rev.

P03

Appendix G

B2 TRICS DATA

Calculation Reference: AUDIT-710001-230111-0134

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
 Category : C - INDUSTRIAL UNIT
 TOTAL VEHICLES

Selected regions and areas:

02	SOUTH EAST	
	BO BEDFORD	1 days
	HC HAMPSHIRE	1 days
03	SOUTH WEST	
	BR BRISTOL CITY	1 days
	DV DEVON	1 days
	GS GLOUCESTERSHIRE	1 days
05	EAST MIDLANDS	
	DY DERBY	1 days
06	WEST MIDLANDS	
	WK WARWICKSHIRE	1 days
	WM WEST MIDLANDS	1 days
08	NORTH WEST	
	AC CHESHIRE WEST & CHESTER	1 days
	BP BLACKPOOL	1 days
	EC CHESHIRE EAST	2 days
09	NORTH	
	TV TEES VALLEY	1 days
10	WALES	
	CF CARDIFF	1 days
	VG VALE OF GLAMORGAN	1 days
11	SCOTLAND	
	SR STIRLING	1 days
12	CONNAUGHT	
	RO ROSCOMMON	1 days
14	LEINSTER	
	KK KILKENNY	2 days
17	ULSTER (NORTHERN IRELAND)	
	AN ANTRIM	1 days

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

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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: 1010 to 14125 (units: sqm)
 Range Selected by User: 1000 to 15000 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/14 to 10/11/21

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

Selected survey days:

Monday	2 days
Tuesday	2 days
Wednesday	3 days
Thursday	8 days
Friday	5 days

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

Selected survey types:

Manual count	20 days
Directional ATC Count	0 days

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

Selected Locations:

Suburban Area (PPS6 Out of Centre)	6
Edge of Town	14

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:

Industrial Zone	17
Development Zone	1
No Sub Category	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	25 days - Selected

Secondary Filtering selection:

Use Class:

Not Known	20 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®.

Filter by Site Operations Breakdown:

All Surveys Included

Population within 500m Range:

All Surveys Included

Secondary Filtering selection (Cont.):

Population within 1 mile:

5,001 to 10,000	6 days
10,001 to 15,000	7 days
15,001 to 20,000	1 days
20,001 to 25,000	2 days
25,001 to 50,000	4 days

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

Population within 5 miles:

25,001 to 50,000	3 days
50,001 to 75,000	1 days
75,001 to 100,000	4 days
100,001 to 125,000	2 days
125,001 to 250,000	6 days
250,001 to 500,000	4 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	6 days
1.1 to 1.5	14 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	20 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	20 days
-----------------	---------

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

Covid-19 Restrictions	Yes	At least one survey within the selected data set was undertaken at a time of Covid-19 restrictions
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LIST OF SITES relevant to selection parameters

1	AC-02-C-02	INDUSTRIAL MATERIALS			CESHIRE WEST & CHESTER
	JUPITER DRIVE				
	CHESTER				
	CHESTER W. EMP. PARK				
	Edge of Town				
	Industrial Zone				
	Total Gross floor area:	8100	sqm		
	Survey date: WEDNESDAY	19/11/14			Survey Type: MANUAL
2	AN-02-C-01	COMPOSITES			ANTRIM
	FERGUSON ROAD				
	LISBURN				
	Suburban Area (PPS6 Out of Centre)				
	No Sub Category				
	Total Gross floor area:	6500	sqm		
	Survey date: FRIDAY	19/06/15			Survey Type: MANUAL
3	BO-02-C-01	PUMPS, MOTORS & FANS			BEDFORD
	POSTLEY ROAD				
	BEDFORD				
	KEMPSTON				
	Edge of Town				
	Industrial Zone				
	Total Gross floor area:	1045	sqm		
	Survey date: THURSDAY	15/10/20			Survey Type: MANUAL
4	BP-02-C-01	POWDER COATINGS			BLACKPOOL
	CHORLEY ROAD				
	BLACKPOOL				
	LITTLE CARLETON				
	Edge of Town				
	Industrial Zone				
	Total Gross floor area:	1010	sqm		
	Survey date: THURSDAY	20/06/19			Survey Type: MANUAL
5	BR-02-C-02	STAINLESS FITTINGS			BRISTOL CITY
	SOUTH LIBERTY LANE				
	BRISTOL				
	Edge of Town				
	Industrial Zone				
	Total Gross floor area:	1475	sqm		
	Survey date: TUESDAY	22/09/15			Survey Type: MANUAL
6	CF-02-C-02	BAKERY			CARDIFF
	MAES-Y-COED ROAD				
	CARDIFF				
	Suburban Area (PPS6 Out of Centre)				
	Industrial Zone				
	Total Gross floor area:	14125	sqm		
	Survey date: THURSDAY	06/10/16			Survey Type: MANUAL
7	DV-02-C-02	ENERGY RECOVERY FACILITY			DEVON
	GRACE ROAD SOUTH				
	EXETER				
	MARSH BARTON TRAD. EST.				
	Suburban Area (PPS6 Out of Centre)				
	Industrial Zone				
	Total Gross floor area:	3513	sqm		
	Survey date: THURSDAY	06/07/17			Survey Type: MANUAL
8	DY-02-C-01	ENGINEERED PRODUCTS			DERBY
	PONTEFRACT STREET				
	DERBY				
	Suburban Area (PPS6 Out of Centre)				
	Industrial Zone				
	Total Gross floor area:	2600	sqm		
	Survey date: THURSDAY	25/06/15			Survey Type: MANUAL

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LIST OF SITES relevant to selection parameters (Cont.)

9	EC-02-C-01	OFFICE FURNITURE	CHESHIRE EAST
	BRUNEL ROAD		
	MACCLESFIELD		
	LYME GREEN BUS. PARK		
	Edge of Town		
	Development Zone		
	Total Gross floor area:	6658 sqm	
	Survey date: MONDAY	19/09/16	Survey Type: MANUAL
10	EC-02-C-02	FABRICS MANUFACTURE	CHESHIRE EAST
	CHARTER WAY		
	MACCLESFIELD		
	HURDSFIELD		
	Edge of Town		
	Industrial Zone		
	Total Gross floor area:	3200 sqm	
	Survey date: FRIDAY	07/05/21	Survey Type: MANUAL
11	GS-02-C-02	MARINE ENGINE PRODUCTION	GLOUCESTERSHIRE
	DAVY WAY		
	GLOUCESTER		
	HARDWICKE		
	Edge of Town		
	Industrial Zone		
	Total Gross floor area:	1630 sqm	
	Survey date: FRIDAY	23/04/21	Survey Type: MANUAL
12	HC-02-C-01	ENGINEERING COMPANY	HAMPSHIRE
	JAYS CLOSE		
	BASINGSTOKE		
	Edge of Town		
	Industrial Zone		
	Total Gross floor area:	3000 sqm	
	Survey date: THURSDAY	16/06/16	Survey Type: MANUAL
13	KK-02-C-01	VEHICLE UPHOLSTERY CENTRE	KILKENNY
	HEBRON IND. ESTATE		
	KILKENNY		
	Edge of Town		
	Industrial Zone		
	Total Gross floor area:	1772 sqm	
	Survey date: THURSDAY	26/10/17	Survey Type: MANUAL
14	KK-02-C-02	COOLING SYSTEMS COMPANY	KILKENNY
	HEBRON ROAD		
	KILKENNY		
	Edge of Town		
	Industrial Zone		
	Total Gross floor area:	3572 sqm	
	Survey date: FRIDAY	04/10/19	Survey Type: MANUAL
15	RO-02-C-01	PHARMACEUTICAL SUPPLIES	ROSCOMMON
	N66		
	ATHLONE		
	Edge of Town		
	No Sub Category		
	Total Gross floor area:	11250 sqm	
	Survey date: WEDNESDAY	24/09/14	Survey Type: MANUAL
16	SR-02-C-01	SPECIALIST MODEL MAKING	STIRLING
	BORROWMEADOW ROAD		
	STIRLING		
	Edge of Town		
	Industrial Zone		
	Total Gross floor area:	2350 sqm	
	Survey date: MONDAY	16/06/14	Survey Type: MANUAL

AMA - Leeds

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LIST OF SITES relevant to selection parameters (Cont.)

17	TV-02-C-02	FLUID ENGINEERING	TEES VALLEY
	PARKVIEW ROAD WEST		
	HARTLEPOOL		
	Suburban Area (PPS6 Out of Centre)		
	Industrial Zone		
	Total Gross floor area:	1050 sqm	
	Survey date: FRIDAY	04/09/20	Survey Type: MANUAL
18	VG-02-C-01	ALCOHOL ANALYSIS PRODUCTS	VALE OF GLAMORGAN
	VERLON CLOSE		
	BARRY		
	Edge of Town		
	Industrial Zone		
	Total Gross floor area:	1500 sqm	
	Survey date: THURSDAY	06/05/21	Survey Type: MANUAL
19	WK-02-C-01	MACHINE ENGINEERING	WARWICKSHIRE
	CASTLE MOUND WAY		
	RUGBY		
	Edge of Town		
	Industrial Zone		
	Total Gross floor area:	9216 sqm	
	Survey date: WEDNESDAY	10/11/21	Survey Type: MANUAL
20	WM-02-C-04	FOUNDRY	WEST MIDLANDS
	STOURVALE ROAD		
	STOURBRIDGE		
	LYE		
	Suburban Area (PPS6 Out of Centre)		
	Industrial Zone		
	Total Gross floor area:	4324 sqm	
	Survey date: TUESDAY	21/11/17	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.

AMA - Leeds

Licence No: 710001

TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT

TOTAL VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	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	4	3740	0.074	4	3740	0.000	4	3740	0.074
06:00 - 07:00	6	3157	0.095	6	3157	0.016	6	3157	0.111
07:00 - 08:00	20	4395	0.512	20	4395	0.075	20	4395	0.587
08:00 - 09:00	20	4395	0.305	20	4395	0.086	20	4395	0.391
09:00 - 10:00	20	4395	0.190	20	4395	0.123	20	4395	0.313
10:00 - 11:00	20	4395	0.154	20	4395	0.115	20	4395	0.269
11:00 - 12:00	20	4395	0.105	20	4395	0.121	20	4395	0.226
12:00 - 13:00	20	4395	0.166	20	4395	0.207	20	4395	0.373
13:00 - 14:00	20	4395	0.151	20	4395	0.182	20	4395	0.333
14:00 - 15:00	20	4395	0.124	20	4395	0.137	20	4395	0.261
15:00 - 16:00	20	4395	0.154	20	4395	0.176	20	4395	0.330
16:00 - 17:00	20	4395	0.069	20	4395	0.408	20	4395	0.477
17:00 - 18:00	20	4395	0.071	20	4395	0.279	20	4395	0.350
18:00 - 19:00	20	4395	0.041	20	4395	0.129	20	4395	0.170
19:00 - 20:00	4	3740	0.013	4	3740	0.027	4	3740	0.040
20:00 - 21:00	4	3740	0.000	4	3740	0.013	4	3740	0.013
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.224			2.094			4.318

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

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

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Parameter summary

Trip rate parameter range selected:	1010 - 14125 (units: sqm)
Survey date range:	01/01/14 - 10/11/21
Number of weekdays (Monday-Friday):	20
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 shown. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

AMA - Leeds

Licence No: 710001

TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT

OGVS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	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	4	3740	0.000	4	3740	0.000	4	3740	0.000
06:00 - 07:00	6	3157	0.000	6	3157	0.000	6	3157	0.000
07:00 - 08:00	20	4395	0.019	20	4395	0.016	20	4395	0.035
08:00 - 09:00	20	4395	0.030	20	4395	0.025	20	4395	0.055
09:00 - 10:00	20	4395	0.053	20	4395	0.032	20	4395	0.085
10:00 - 11:00	20	4395	0.048	20	4395	0.026	20	4395	0.074
11:00 - 12:00	20	4395	0.031	20	4395	0.033	20	4395	0.064
12:00 - 13:00	20	4395	0.041	20	4395	0.036	20	4395	0.077
13:00 - 14:00	20	4395	0.036	20	4395	0.027	20	4395	0.063
14:00 - 15:00	20	4395	0.022	20	4395	0.025	20	4395	0.047
15:00 - 16:00	20	4395	0.011	20	4395	0.017	20	4395	0.028
16:00 - 17:00	20	4395	0.009	20	4395	0.014	20	4395	0.023
17:00 - 18:00	20	4395	0.002	20	4395	0.002	20	4395	0.004
18:00 - 19:00	20	4395	0.000	20	4395	0.000	20	4395	0.000
19:00 - 20:00	4	3740	0.000	4	3740	0.000	4	3740	0.000
20:00 - 21:00	4	3740	0.000	4	3740	0.007	4	3740	0.007
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.302			0.260			0.562

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.

TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT
CARS
 Calculation factor: 100 sqm
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	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	4	3740	0.067	4	3740	0.000	4	3740	0.067
06:00 - 07:00	6	3157	0.058	6	3157	0.000	6	3157	0.058
07:00 - 08:00	20	4395	0.462	20	4395	0.048	20	4395	0.510
08:00 - 09:00	20	4395	0.251	20	4395	0.048	20	4395	0.299
09:00 - 10:00	20	4395	0.096	20	4395	0.053	20	4395	0.149
10:00 - 11:00	20	4395	0.051	20	4395	0.044	20	4395	0.095
11:00 - 12:00	20	4395	0.044	20	4395	0.055	20	4395	0.099
12:00 - 13:00	20	4395	0.080	20	4395	0.137	20	4395	0.217
13:00 - 14:00	20	4395	0.093	20	4395	0.119	20	4395	0.212
14:00 - 15:00	20	4395	0.074	20	4395	0.080	20	4395	0.154
15:00 - 16:00	20	4395	0.109	20	4395	0.105	20	4395	0.214
16:00 - 17:00	20	4395	0.044	20	4395	0.366	20	4395	0.410
17:00 - 18:00	20	4395	0.063	20	4395	0.261	20	4395	0.324
18:00 - 19:00	20	4395	0.039	20	4395	0.126	20	4395	0.165
19:00 - 20:00	4	3740	0.013	4	3740	0.027	4	3740	0.040
20:00 - 21:00	4	3740	0.000	4	3740	0.007	4	3740	0.007
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.544			1.476			3.020

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.

Appendix H

OFFICE TRICS DATA

Calculation Reference: AUDIT-710001-230110-0120

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
 Category : A - OFFICE
 TOTAL VEHICLES

Selected regions and areas:

02	SOUTH EAST	
	BH BRIGHTON & HOVE	1 days
	ES EAST SUSSEX	1 days
04	EAST ANGLIA	
	NF NORFOLK	1 days
05	EAST MIDLANDS	
	DY DERBY	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	NY NORTH YORKSHIRE	1 days
08	NORTH WEST	
	GM GREATER MANCHESTER	1 days
10	WALES	
	BG BRIDGEND	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: 178 to 594 (units: sqm)
 Range Selected by User: 118 to 600 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/14 to 15/11/21

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

Selected survey days:

Monday	1 days
Tuesday	1 days
Wednesday	2 days
Thursday	3 days

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

Selected survey types:

Manual count	7 days
Directional ATC Count	0 days

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

Selected Locations:

Edge of Town Centre	3
Suburban Area (PPS6 Out of Centre)	3
Edge of Town	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:

Industrial Zone	1
Commercial Zone	1
Residential Zone	3
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	6 days - Selected
Servicing vehicles Excluded	2 days - Selected

Secondary Filtering selection:

Use Class:

Not Known	6 days
E(c)	1 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®.

Filter by Site Operations Breakdown:

All Surveys Included

Population within 500m Range:

All Surveys Included

Population within 1 mile:

15,001 to 20,000	2 days
20,001 to 25,000	1 days
25,001 to 50,000	4 days

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

Population within 5 miles:

75,001 to 100,000	2 days
100,001 to 125,000	1 days
125,001 to 250,000	1 days
250,001 to 500,000	3 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	5 days
1.1 to 1.5	2 days

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

Travel Plan:

Yes	1 days
No	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	7 days
-----------------	--------

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

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

LIST OF SITES relevant to selection parameters

1	BG-02-A-01 KENT ROAD BRIDGEND	HAULAGE COMPANY	BRIDGEND
	Suburban Area (PPS6 Out of Centre) Industrial Zone Total Gross floor area: 300 sqm Survey date: THURSDAY 06/05/21		Survey Type: MANUAL
2	BH-02-A-05 ROMAN ROAD HOVE	OFFICES	BRIGHTON & HOVE
	Edge of Town Centre Residential Zone Total Gross floor area: 280 sqm Survey date: WEDNESDAY 04/07/18		Survey Type: MANUAL
3	DY-02-A-02 PRIME PARKWAY DERBY	REAL ESTATE DEVELOPERS	DERBY
	Edge of Town Centre No Sub Category Total Gross floor area: 594 sqm Survey date: THURSDAY 21/10/21		Survey Type: MANUAL
4	ES-02-A-11 THE SIDINGS HASTINGS ORE VALLEY	HOUSING COMPANY	EAST SUSSEX
	Suburban Area (PPS6 Out of Centre) Residential Zone Total Gross floor area: 186 sqm Survey date: TUESDAY 17/11/15		Survey Type: MANUAL
5	GM-02-A-10 CHORLEY NEW ROAD BOLTON HEATON	ACCOUNTANTS	GREATER MANCHESTER
	Suburban Area (PPS6 Out of Centre) Residential Zone Total Gross floor area: 500 sqm Survey date: MONDAY 19/04/21		Survey Type: MANUAL
6	NF-02-A-04 WHITING ROAD NORWICH	BUILDING CONSULTANT	NORFOLK
	Edge of Town Commercial Zone Total Gross floor area: 500 sqm Survey date: WEDNESDAY 13/11/19		Survey Type: MANUAL
7	NY-02-A-01 NORTH PARK ROAD HARROGATE	SOLICITORS	NORTH YORKSHIRE
	Edge of Town Centre Built-Up Zone Total Gross floor area: 178 sqm Survey date: THURSDAY 04/10/18		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 02 - EMPLOYMENT/A - OFFICE
TOTAL VEHICLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	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	6	393	1.059	6	393	0.127	6	393	1.186
08:00 - 09:00	7	363	2.994	7	363	0.276	7	363	3.270
09:00 - 10:00	7	363	1.891	7	363	1.143	7	363	3.034
10:00 - 11:00	7	363	0.906	7	363	0.709	7	363	1.615
11:00 - 12:00	7	363	0.749	7	363	0.827	7	363	1.576
12:00 - 13:00	7	363	0.906	7	363	1.182	7	363	2.088
13:00 - 14:00	7	363	0.788	7	363	0.827	7	363	1.615
14:00 - 15:00	7	363	0.630	7	363	0.985	7	363	1.615
15:00 - 16:00	7	363	0.394	7	363	0.630	7	363	1.024
16:00 - 17:00	7	363	0.630	7	363	1.891	7	363	2.521
17:00 - 18:00	7	363	0.394	7	363	2.600	7	363	2.994
18:00 - 19:00	6	393	0.424	6	393	0.847	6	393	1.271
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			11.765			12.044			23.809

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

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

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Parameter summary

Trip rate parameter range selected:	178 - 594 (units: sqm)
Survey date date range:	01/01/14 - 15/11/21
Number of weekdays (Monday-Friday):	7
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	1
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.

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE

OGVS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	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	6	393	0.000	6	393	0.000	6	393	0.000
08:00 - 09:00	7	363	0.000	7	363	0.000	7	363	0.000
09:00 - 10:00	7	363	0.000	7	363	0.000	7	363	0.000
10:00 - 11:00	7	363	0.000	7	363	0.000	7	363	0.000
11:00 - 12:00	7	363	0.039	7	363	0.039	7	363	0.078
12:00 - 13:00	7	363	0.079	7	363	0.079	7	363	0.158
13:00 - 14:00	7	363	0.000	7	363	0.000	7	363	0.000
14:00 - 15:00	7	363	0.039	7	363	0.039	7	363	0.078
15:00 - 16:00	7	363	0.000	7	363	0.000	7	363	0.000
16:00 - 17:00	7	363	0.000	7	363	0.000	7	363	0.000
17:00 - 18:00	7	363	0.000	7	363	0.000	7	363	0.000
18:00 - 19:00	6	393	0.000	6	393	0.000	6	393	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.157			0.157			0.314

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.

AMA - Leeds

Licence No: 710001

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE

CARS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	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	6	393	1.059	6	393	0.127	6	393	1.186
08:00 - 09:00	7	363	2.916	7	363	0.276	7	363	3.192
09:00 - 10:00	7	363	1.694	7	363	0.946	7	363	2.640
10:00 - 11:00	7	363	0.749	7	363	0.512	7	363	1.261
11:00 - 12:00	7	363	0.394	7	363	0.552	7	363	0.946
12:00 - 13:00	7	363	0.670	7	363	0.906	7	363	1.576
13:00 - 14:00	7	363	0.630	7	363	0.670	7	363	1.300
14:00 - 15:00	7	363	0.473	7	363	0.827	7	363	1.300
15:00 - 16:00	7	363	0.315	7	363	0.512	7	363	0.827
16:00 - 17:00	7	363	0.512	7	363	1.773	7	363	2.285
17:00 - 18:00	7	363	0.355	7	363	2.522	7	363	2.877
18:00 - 19:00	6	393	0.381	6	393	0.805	6	393	1.186
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			10.148			10.428			20.576

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.

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE

LGVS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	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	6	393	0.000	6	393	0.000	6	393	0.000
08:00 - 09:00	7	363	0.039	7	363	0.000	7	363	0.039
09:00 - 10:00	7	363	0.197	7	363	0.197	7	363	0.394
10:00 - 11:00	7	363	0.118	7	363	0.197	7	363	0.315
11:00 - 12:00	7	363	0.276	7	363	0.197	7	363	0.473
12:00 - 13:00	7	363	0.118	7	363	0.158	7	363	0.276
13:00 - 14:00	7	363	0.079	7	363	0.079	7	363	0.158
14:00 - 15:00	7	363	0.118	7	363	0.118	7	363	0.236
15:00 - 16:00	7	363	0.079	7	363	0.079	7	363	0.158
16:00 - 17:00	7	363	0.079	7	363	0.079	7	363	0.158
17:00 - 18:00	7	363	0.039	7	363	0.039	7	363	0.078
18:00 - 19:00	6	393	0.000	6	393	0.000	6	393	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.142			1.143			2.285

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

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



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