

Proposed Residential Development, Lower Berse Farm, Wrexham

Response to WSP Information Provided by Wrexham County Borough Council

Our reference: LB/210187/TN03 – Rev01

Author: Liam Bessell

Date: 21 May 2025

Introduction

1. SCP have been appointed by Redrow Homes North West to provide specialist transport planning and engineering advice in support of a proposed residential development comprising up to 1,520 dwellings on land south of Ruthin Road, Wrexham.
2. A planning application for the scheme including a supporting Transport Assessment (TA) (report dated July 2024 ref. LB/210187/TA/4) was submitted to Wrexham County Borough Council (WCBC) under LPA Ref. P/2023/0593. More recently, the Local Highway Authority (LHA) at WCBC have reviewed the Highways elements of the scheme and have provided trip rate and trip distribution information which has been calculated by WSP, as provided in the email from WCBC dated 8 Jan 2025 and subsequent clarifications. A copy of the correspondence is provided in **Appendix A** for reference.
3. This Technical Note has therefore been produced to provide the Highway Authority with revised assessments based on this information and seeks to agree the proposed elements of the modelling work thus far.

WSP Trip Rate Information

4. SCP have undertaken a test of the impacts of the proposed development using the “With Improvements” trip rates which are considered appropriate given the scale of the proposed improvements associated to sustainable infrastructure. The “With Improvements” is reproduced in **Table 1** below.

Table 1 – WSP Trip Rates			
With Improvements Overall			
Peak Time	In	Out	Total
08:00-09:00	0.148	0.333	0.481
17:00-18:00	0.325	0.165	0.491
All Day	1.996	1.977	3.973

5. The above trip rates have been used in the revised assessments presented in the following sections.

WSP Traffic Distribution Information

6. SCP have undertaken a review of the WSP Traffic Distribution Information. The table below provides a comparison between our own distribution (as per the July 2024 TA report) and WSP's.

Table 2 – Comparison of SCP and WSP's Trip Distributions			
Road Corridor	SCP Distribution Obtained from SCP's Jul 2024 TA (Disaggregated further)	WSP Distribution. Obtained From WCBC	% Change
A483 North (via J4)	48.3%	20.4%	-27.9%
A483 South (via J4)	14.0%	22.4%	8.4%
Wrexham Town Centre	14.7%	25.0%	10.3%
Croesnewydd Rd	11.6%	11.8%	0.2%
A525 (East of Wrexham Centre)	4.9%	0.4%	-4.5%
A525 (West of A483)	3.2%	12.1%	8.9%
Other Corridors	3.3%	7.9%	4.6%
Total	100%	100%	

7. Table 2 demonstrates that WSP's distribution assigns a 5% increase of the total trips towards the A483 South, Wrexham Town Centre and A525 (West of A483), with resultant reductions of over 5% of total trips towards the A483 North. WSP's distribution also assigns more traffic towards the south of Wrexham (i.e. Oswestry, Shrewsbury), as opposed to the north (i.e. Chester, Liverpool, Manchester, Warrington, Runcorn, Rhyl, Llandudno, etc.). Notwithstanding this, SCP have undertaken a test of the impacts of the proposed development using WSP's distribution which is shown diagrammatically in [Appendix B](#).
8. The development related traffic for the proposed residential use (1,520 dwellings) has been assigned to WSP's distribution method for the wider highway network and is shown in [Appendix C](#).

Revised Traffic Forecasting

9. The traffic modelling (including traffic generation, distribution and assignment) has been revised, taking account of:
 - WSP's "With Improvements" WSP vehicle trip rates;
 - WSP's Traffic Distribution; and
 - Network changes due to the retention of Berse Lane and Homestead Lane.
10. The resulting traffic flows have been used to update the junction capacity analysis as discussed below.

Junction Capacity Analysis

General

11. The junction capacity models have been updated for key junctions that were previously assessed. This has been undertaken for the same scenarios as in the July 2024 TA:
 - Year 2028 and 2040 for A483 Junction 4; and
 - Year 2028 for the two site accesses along the A525 and two site accesses along Bersham Road.
12. The revised 2028 and 2040 assessment traffic flows are shown in **Appendices D and E**, respectively.
13. For ease of reference the highway layout drawings for key junctions on the A525 corridor and Bersham Road are presented in **Appendix F**.

Proposed Site Accesses

14. The latest set of results for the proposed site accesses are summarised in the tables below and outputs presented in **Appendix G**.

Table 3 – Assessment Results for Proposed Site Accesses			
Scenario: Year 2028 With Development & WSP Jan 2025 Mid-Range Trip Rates			
Ref. No.	Junction Name	Junction Analysis Results	
		AM	PM
SIGNALISED JUNCTION			
1	Proposed A525 Ruthin Road / Croesnewydd Road / Site Access Signal Junction	17.5%	33.9%
PRIORITY JUNCTIONS			
2	Proposed North-Western Site Access on A525 Ruthin Road	0.52	0.50
3	Proposed South-Western Priority Access along Bersham Road	0.07	0.03
4	Proposed South-Eastern Priority Access along Bersham Road	0.02	0.01

Notes.

1) For signalised junctions, a Practical Reserve Capacity (PRC) value greater than 0% indicates satisfactory junction performance.

2) For priority junctions, RFC values less than 0.85 are generally accepted as representing stable and acceptable operating conditions

15. The above results clearly show that all of the proposed site accesses will operate within their practical capacity in the 2028 With Development scenarios, with minimal queuing and delay.

Junction 4 of the A483

16. The latest set of results for Junction 4 of the A483 are summarised in the tables below and LINSIG outputs presented in **Appendix H**.

Table 4 – Assessment Results for J4 A483					
SCENARIO: YEAR 2030 WITH WSP JAN 2025 MID-RANGE TRIP RATES					
Ref. No.	Junction Name	Junction Analysis Results			
		2030 Reference		2030 With Development + Mitigation	
		AM	PM	AM	PM
11	Junction 4 of the A483	-18.7%	-34.6%	1.7%	-1.1%

Table 5 – Assessment Results for J4 A483					
SCENARIO: YEAR 2040 WITH WSP JAN 2025 MID-RANGE TRIP RATES					
Ref. No.	Junction Name	Junction Analysis Results			
		2040 Reference		2040 With Development + Mitigation	
		AM	PM	AM	PM
11	Junction 4 of the A483	-31.3%	-49.1%	-9.8%	-7.4%

1) For signalised junctions, a Practical Reserve Capacity (PRC) value greater than 0% indicates satisfactory junction performance.

17. On the basis of the assessments and with the proposed mitigation in place, the proposed development can be fully accommodated at Junction 4 of the A483 with no detriment to conditions that would otherwise exist and without adding significant additional road capacity in adherence with Welsh Government policy.

Summary and Conclusions

18. This Technical Note addresses the trip rate and trip distribution information which has been calculated by WSP and provided by WCBC, as provided in the email from WCBC dated 8 Jan 2025 and subsequent clarifications. WSP's trip rate and trip distribution information has been applied in order to demonstrate that access can still be delivered to the application site.
19. The impact of the development related traffic movements has been tested on the key junctions that were assessed in the previously submitted TA prepared by SCP and dated July 2024, these being the two site accesses along the A525, the two site accesses along Bersham Road and A483 Junction 4.
20. The results demonstrate that all of the tested junctions operate satisfactorily and / or better than would be the case without the proposed mitigation measures in place. Confirmation is sought from WCBC that the modelling work presented in this report is acceptable.
21. The Transport Assessment Report will be updated once feedback on the contents of this Technical Note is received.

S|C|P

APPENDIX A

From: Michelle Zenner

Sent: 27 March 2025 17:02

To: Stephen Heritage

Subject: RE: Information Request Relating to Western Gateway Study

CAUTION: This email originated from outside the Organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Stephen,

Apologies for the delay, I was awaiting information from the Weltag team.

Information Request Relating to Western Gateway Study

WelTAG Lite Study for the Wrexham Western Gateway

WCBC commissioned WSP to undertake this study in August 2024, some five months ago. We would appreciate a general update on progress and also specific updates on the following:

1. General progress on transport modelling

It is the LHA's understanding that the base VISSIM model is effectively complete, but that they are awaiting TfW flows to progress with future base and testing.

2. Which of the three scenarios defined below are to be tested in the transport modelling for the Lower Berse farm site?

There is no fixed agreement on this as yet, but the LHA would suggest that 'current' is what is used to test the site as proposed, and then 'with improvements' or 'with ambitious improvements' as the scenario following sustainable transport mitigation, depending on what is proposed for the future year.

- "Current" scenario
- "With Improvements" scenario
- "With Ambitious Improvements" scenario

3. Vehicular traffic distribution for the Lower Berse Farm site and how this compares to the one proposed in SCP's TA (Table 7.3)? Information has been provided by WSP which is attached.

4. Progress on development of transport improvement schemes / measures; particularly those that may impact on the Ruthin Road corridor and A483 Junction 4

Has the study confirmed that the development of Lower Berse Farm and/or Western Gateway will require off-site highway improvements? The LHA is still awaiting TfW outputs but the TR11 route protection currently remains in place and the LHA is aware that WCBC are continuing to discuss the feasibility of the delivery of this scheme with the Welsh Government.

5. Expected submission date for the WelTAG lite business case report. The LHA is aware that this is likely to be May time for final report.

“Issue_Trip Rates Calculations_Lower Berse Farm_Detailed” Excel file (as provided via email 8 Jan 2025)

1. “TRICS Assumptions” Tab

- This tab implies that the only difference between the TRICS search parameters for the “Current” and “With Improvements” scenarios is the number of public transport services.

Please confirm? *Correct, but obviously other elements will have changed between the sites (such as AT provision), but it wasn’t filtered by this.*

2. “Resi Trip Rates” Tab

Following on from the above the definition of the three scenarios would appear to be:

- “Current” scenario = Sites with less than 100 public transport services per day *Correct this is to reflect the existing site.*
- “With Improvements” scenario = Sites with more than 100 public transport services per day *Correct this is to reflect the site and if it was served by better sustainable transport access.*
- “With Ambitious Improvements” scenario = Not defined *This considers the potential reduction in trip rates if the site was served by a high-quality public transport and active travel network. A reduction in rates has been estimated based on the ‘Upton’ site here: <https://actdev.cyipt.bike/>*
- Please clarify whether these scenarios include specific assumptions about required junction improvements? What improvements are needed? *A sliding scale of sustainable transport improvements are required – it would be for the applicant to demonstrate how their sustainable improvements would reduce the traffic demand by the difference between the ‘current’ and other scenarios.*
- Which of the three trip rates would be acceptable to WCBC in terms of having a suitable impact on the highway network? *This has not been decided. Within the Weltag modelling work they are not considering the ‘current’ scenario, as this assumes no sustainable transport improvements are made. Therefore this should be the starting point or base assessment of the analysis. This isn’t the context of the Weltag work, but TfW have some advice on this which the LHA will clarify shortly.*

3. “With Ambitious Improvements” Scenario

- Please provide the definition of the “With Ambitious Improvements” scenario? *This considers the potential reduction in trip rates if the site was served by a high-quality public transport and active travel network.*
- What kinds of sustainable transport improvements would qualify as “ambitious”? *Ambitious relates to the potential scale of change, not the infrastructure requirements.*
- Sustainable transport improvements proposed in relation to the Lower Berse Farm site include a new half-hourly bus service within the development site and high-standard of off-site segregated cycle / footway provision leading towards the city centre. SCP consider that these meet the criteria for definition as “ambitious” in terms of measures to promote sustainable travel; in addition to the reasonable walking distances to the hospital, primary and secondary schools, existing employment opportunities, Western Gateway employment site and supermarkets all within walking and cycling distance that will all combine to produce far lower than typical trip rates.
The LHA is aware that the description of an exemplar scheme from the Welsh Government requires bus services every 20 minutes. The onus is on the developer to evidence that their proposals would reduce traffic demand by 32%, compared with if the

site came forward with the improvements not provided (see tab 'Resi Trip Rates' which shows the change in rates compared with current)? If the answer is no, then further measures would need to be proposed.

- Please confirm that you agree with this assertion? The LHA feels further work is needed to this end on the requirements of an exemplar scheme.
- With regard to sustainable transport improvements, do you consider we have missed anything that could be realistically be delivered? It is the LHA's view that a thorough approach needs to be taken to deliver the requirements of an exemplar scheme for mixed-use development. The LHA would recommend the applicant reviews page 68 of the Roads Review Panel's report, which sets out the features of an exemplar residential mixed-use development as a starter for ten.
<https://www.gov.wales/sites/default/files/publications/2023-02/the-future-road-investment-wales.pdf>
- Please provide feedback on the Active Travel proposals being developed in relation to the Western Gateway Site? The Weltag team are currently working through this and at present the LHA can't provide any definite clarification to this end. However, they have informed me that they are likely to recommend a route along Ruthin Road across to the SE of the city as well as a connection upto Coedpoeth and through to Rhostyllen which are likely to pass through your site.

4. **"Resi Modal Split" Tab**

- As discussed above, it is understood that the "Existing" and "With Improvements" mode shares are derived directly from TRICS. This is correct.
- No explanation is provided as to how the "Ambitious" mode shares are derived. Please provide such an explanation for us to be able to review and comment. Clarification has been gleaned from WSP who state that:
 - o The total persons trips remained the same, calculated vehicle modal split was based on the trip rates proposed.
 - o The rate of passengers compared to vehicle trips were calculated for the current scenario and same rate applied here.
 - o The PT mode split based on Net Zero Wales target of 13% for PT – proportionally split across rail and bus based on Census 2011 data for the area.
 - o For the ambitious scenario AT mode share was calculated through uplifting walking to Wrexham 011 Census 2011 data (on the basis that this is more applicable of a site closer to the city – as in they've excluded Wrexham 014 which covered Rhostyllen). They applied the remaining trips to cycling – considered acceptable as total AT mode split is still below Net Zero Wales target of 35%.
- Just to reiterate that this tab is mainly for information as to the potential modal split the site could be looking at in each scenario. The actual split of PT/AT could change depending on infrastructure provision, but the vehicle split would remain the same.

5. **"Private Homes (Existing)" and "Private Homes (Improve)" (Tabs**

- It is noted that almost all of the selected sites are located in the SE of England and East Anglia. WSP have clarified that this is correct, but that this is based on robust TRICS assumptions, as opposed to searching out certain areas, which aligns with the TRICS good practice guide.
- The income profiles and car ownership rates for these regions may differ materially from those in Wrexham. This may raise questions about the comparability of the sites. It is

the LHA's view that this is speculation without evidence. A review has been undertaken of Great Yarmouth data compared with Wrexham (at LA level), and there is actually a much higher proportion of people with 2 cars or more in Wrexham, which would indicate rates should potentially be higher.

Are you able to provide comments on the WSP rates at this time? The LHA have not drafted any formal views yet but are content with the methodology employed. There have been comments provided by TfW / WG on this which the LHA will clarify shortly. See attached the WIP spreadsheet for the modelling – there is a tab called 'Lower Berse Distribution>>' which has the trip distribution table from the SATURN model for the high and low growth scenarios (low growth is the ambitious scenario). Note that this is based on the assignment from the model, which is technically slightly different to the input distribution, but for the purpose of the modelling. However, I must note that it is subject to change as hasn't been fully reviewed, but we don't anticipate things changing too much.

Regards

Michelle Zenner BSc (Hons) MSc MCIHT

Uwch Beiriannydd Rheoli Datblygu

Gwasanaethau Amgylcheddol a Thechnegol

Senior Engineer Development Control

Environment and Technical Services



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From: Stephen Heritage

Sent: 25 March 2025 16:45

To: Michelle Zenner

Subject: RE: Information Request Relating to Western Gateway Study

Hi Michelle,

I slightly lost track of this, but I don't think we ever received this information from you. Could you chase it up please as its more than a month since we made the request?

Thanks,

Stephen

From: Michelle Zenner

Sent: 24 February 2025 16:22

To: Stephen Heritage

Subject: RE: Information Request Relating to Western Gateway Study

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Apologies Stephen,

I'll try to get you something this week. I've already collated some of the information, but its not all within my gift, which you will appreciate.

Regards

Michelle Zenner

Uwch Beiriannydd Rheoli Datblygu

Gwasanaethau Amgylcheddol a Thechnegol

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From: Stephen Heritage

Sent: 19 February 2025 10:42

To: Michelle Zenner

Cc: Matthew Phillips; Joe Hobbs; Matt Gilbert; Paul Murray; David Roberts; Liam Bessell

Subject: RE: Information Request Relating to Western Gateway Study

Hi Michelle,

Just following up on my email below regarding our comments on the provided trip rates. Could you please provide an update on when we are likely to get a response to our information request?

Thanks,

Stephen

From: Stephen Heritage

Sent: 04 February 2025 09:13

To: Michelle Zenner

Cc: Matthew Phillips; Joe Hobbs; Matt Gilbert; Paul Murray; David Roberts; Liam Bessell

Subject: Information Request Relating to Western Gateway Study

Hi Michelle,

After discussing internally, I have collated the various comments from the Redrow team on the trip rates provided in your email below. Please refer to the attached document.

We would appreciate it if WCBC / WSP could provide a response to each of the points raised.

Thanks,

Stephen

From: Michelle Zenner

Sent: 08 January 2025 15:21

To: Stephen Heritage

Cc: Matthew Phillips; Joe Hobbs; Matt Gilbert; Paul Murray >

Subject: WELTAG Lower Berse Farm Trip Rates

CAUTION: This email originated from outside the Organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Stephen,

Please see attached the spreadsheet with the Lower Berse Farm trip rates assessed for the WELTAG work. Gwyn has put this detailed spreadsheet together which includes the TRICS outputs and a summary of the assumptions made.

Regards

Michelle Zenner

Uwch Beiriannydd Rheoli Datblygu

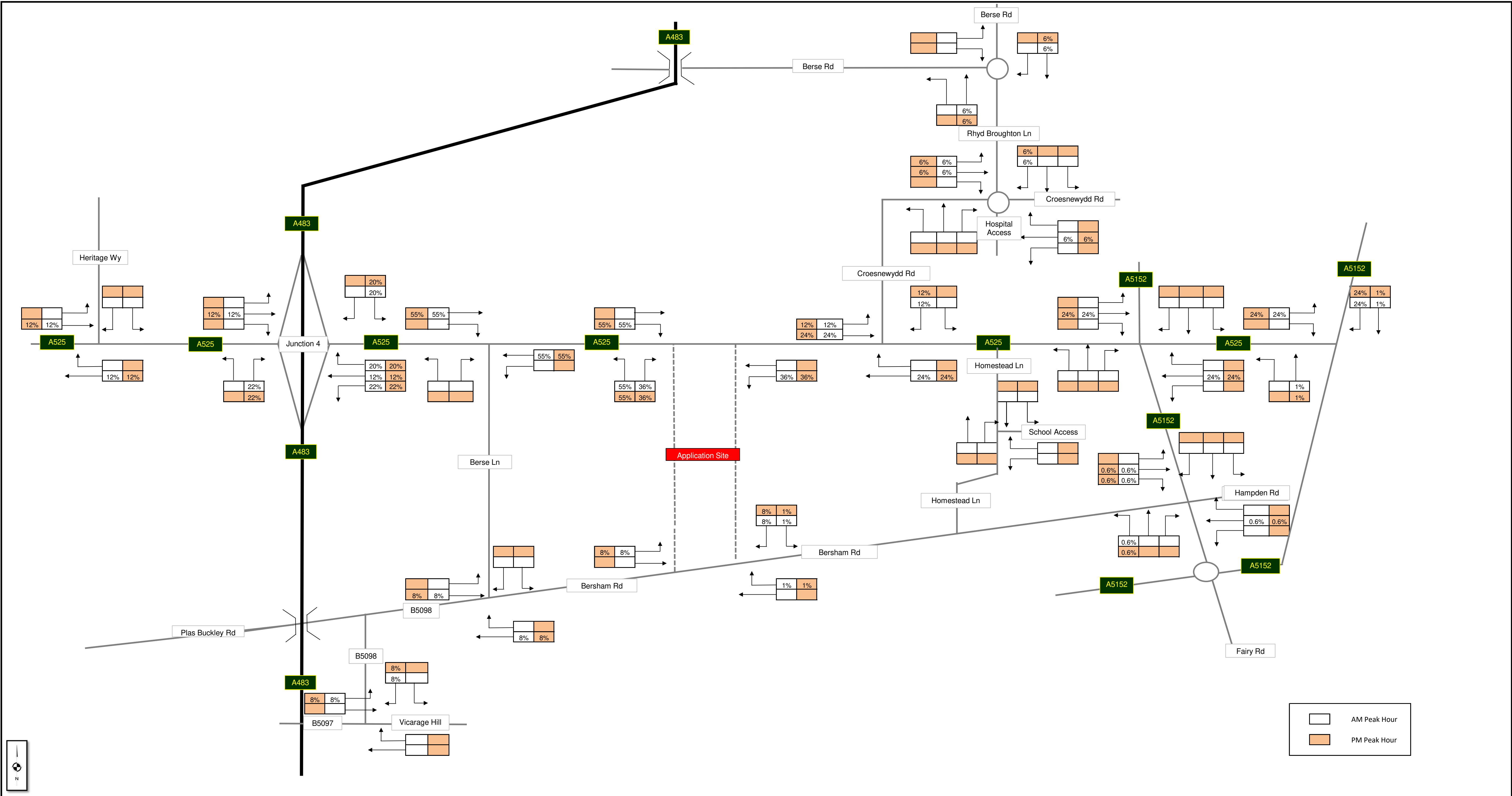
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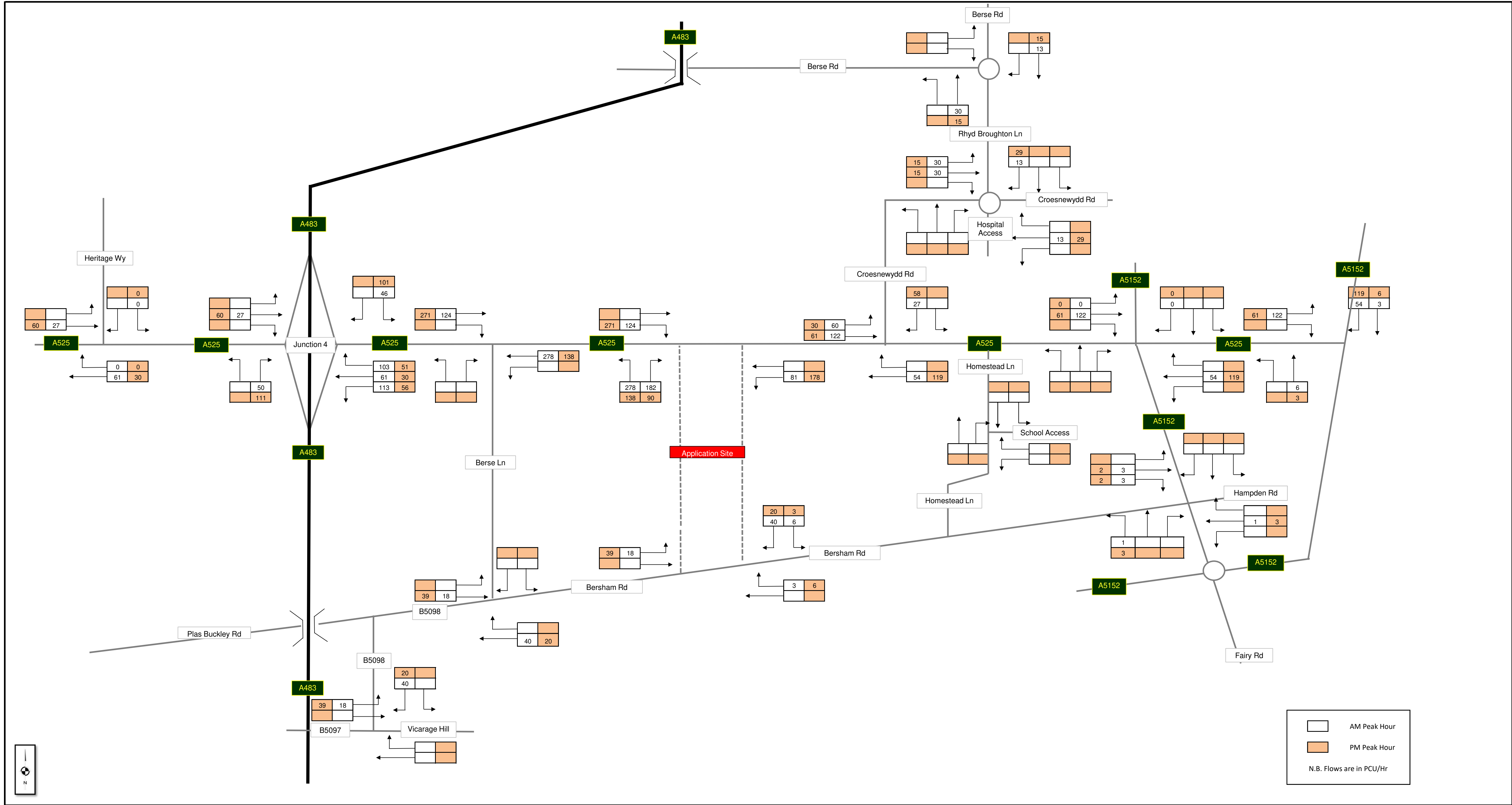
APPENDIX B



SCP Transportation Planning : Infrastructure Design	Trip Distribution		21 May 2025
	Proposed Residential Development, Ruthin Road, Wrexham		Job Number - SCP/210187
			Appendix B1

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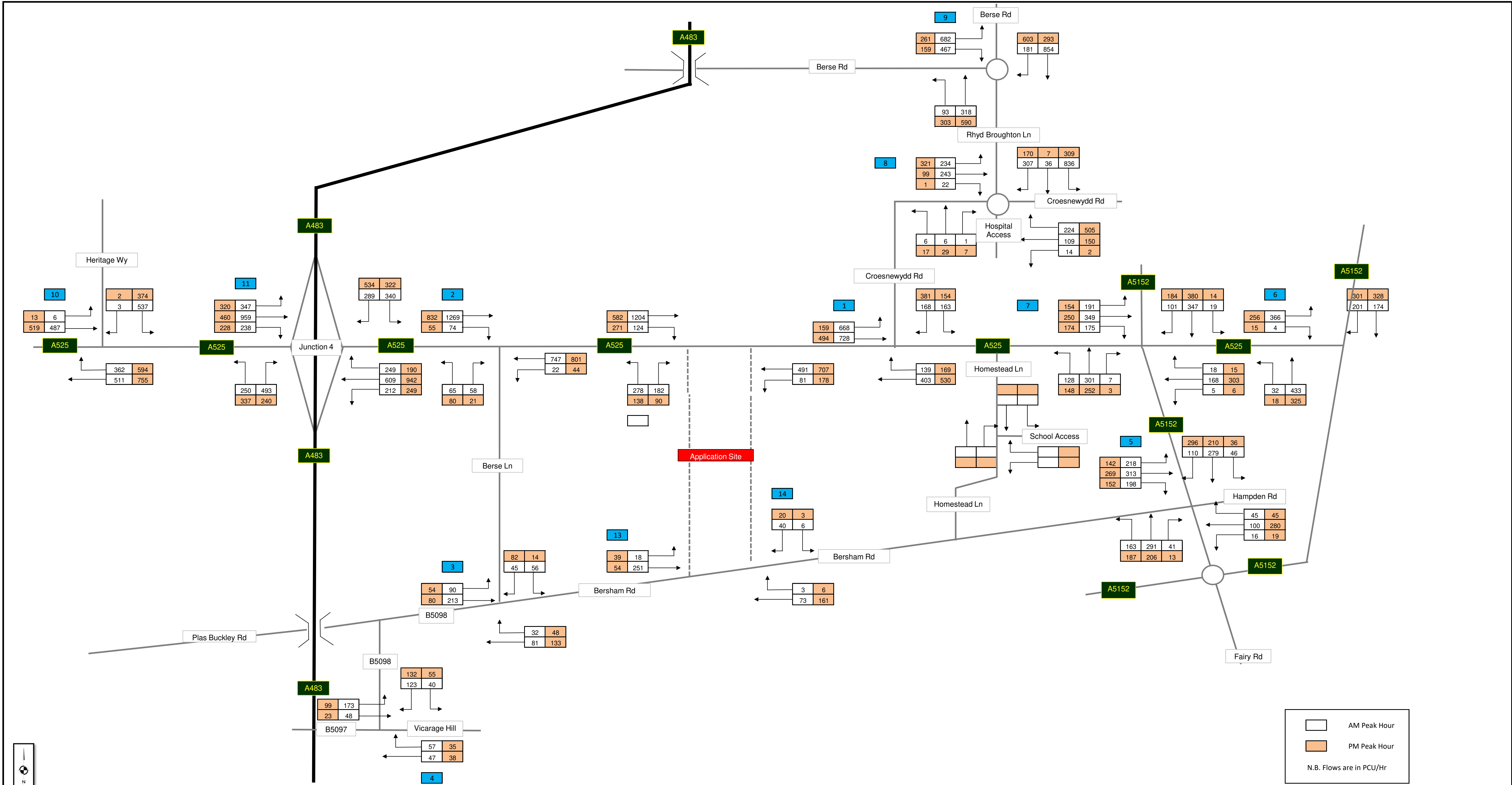
APPENDIX C



 Transportation Planning : Infrastructure Design	Traffic Assignment		21 May 2025
	Proposed Residential Development, Ruthin Road, Wrexham		Job Number - SCP/210187
			Appendix C1

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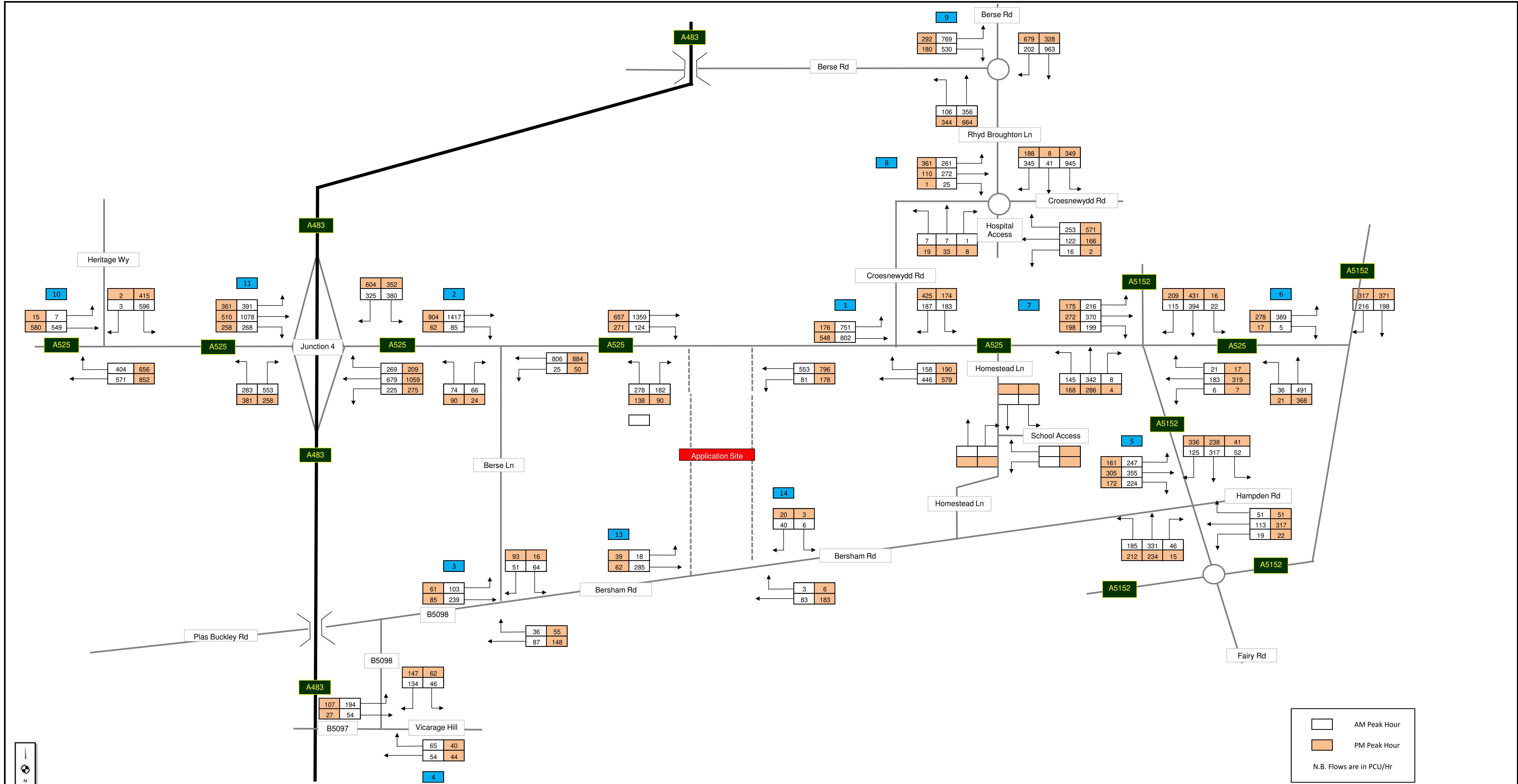
APPENDIX D



 Transportation Planning : Infrastructure Design	Assessment Traffic Flows 2028		21 May 2025
	Proposed Residential Development, Ruthin Road, Wrexham		Job Number - SCP/210187
			Appendix D1

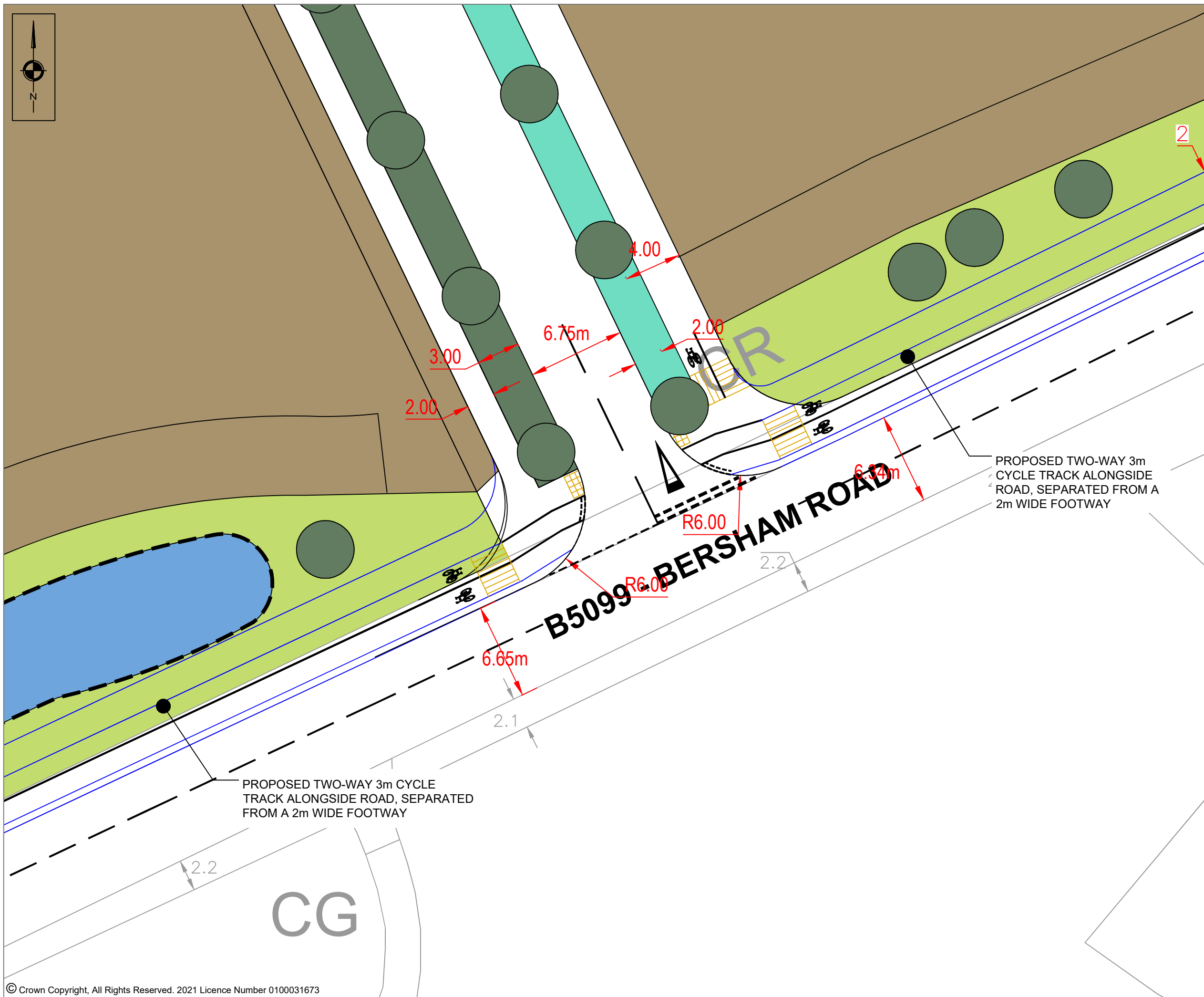
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APPENDIX E



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APPENDIX F



KEY

EXISTING DIMENSIONS

PROPOSED DIMENSIONS

SCP PROPOSED KERBS

SCP PROPOSED CROSSINGS

SCP PROPOSED TRAMLINE TACTILE SLABS

REVISIONS

REV	DESCRIPTION	DATE	BY
-	-	-	-

SCP

Transportation Planning : Infrastructure Design

Colwyn Chambers, 19 York Street, Manchester, M2 3BA, Tel 0161 832 4400, www.scptransport.co.uk, Email info@scptransport.co.uk

Client Name:

Project Title:

RUTHIN ROAD, WREXHAM

Drawing Title:

Proposed South-Western Priority Access on Bersham Road

Drawn By:

OP

Date:

19.03.2024

Checked:

LB

Scale:

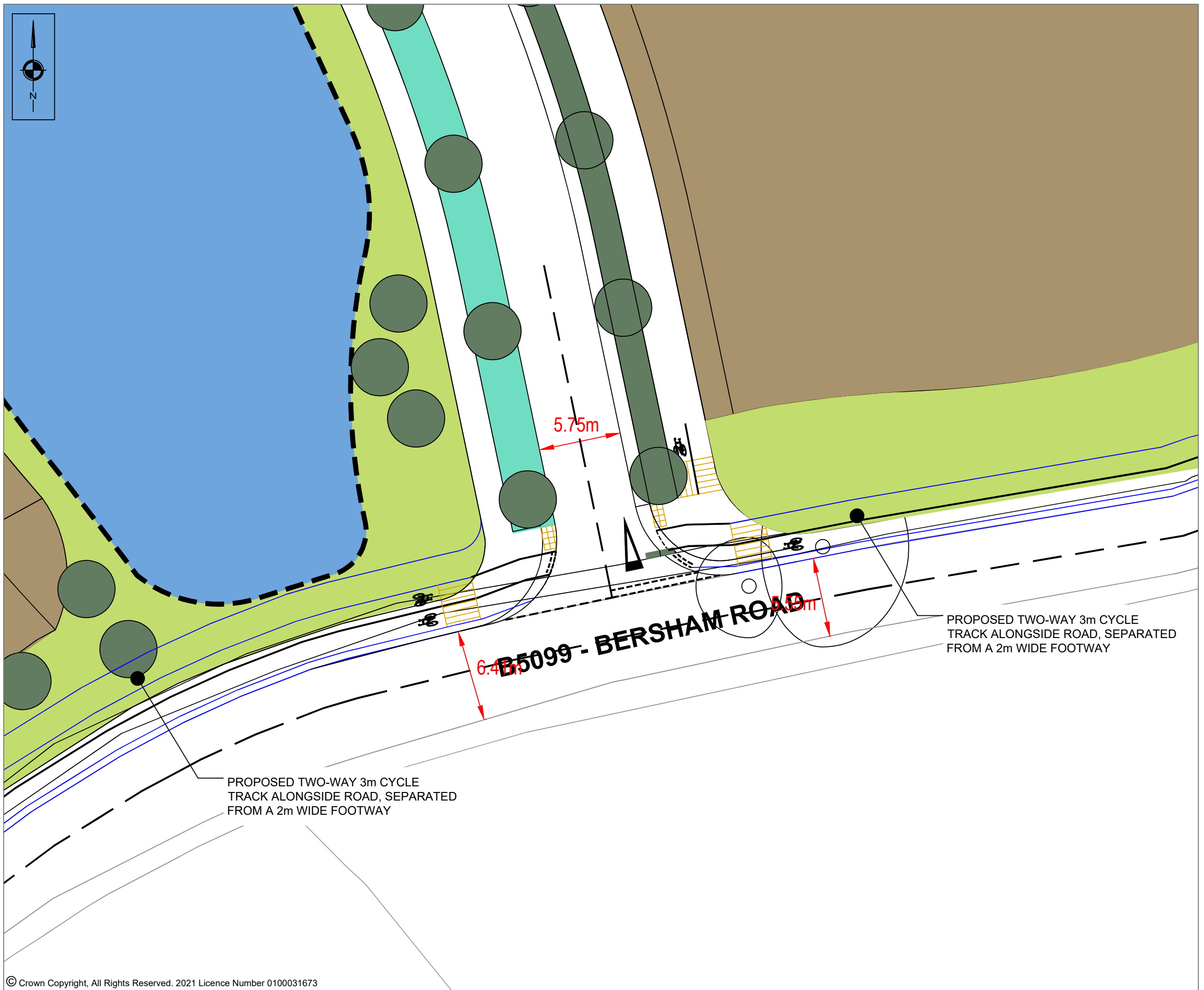
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Drawing No.

SCP/210187/AC03

Rev.

-



KEY

EXISTING DIMENSIONS

PROPOSED DIMENSIONS

SCP PROPOSED KERBS

SCP PROPOSED CROSSINGS

SCP PROPOSED TRAMLINE TACTILE SLABS

REVISIONS

REV	DESCRIPTION	DATE	BY
-	-	-	-

SCP

Transportation Planning : Infrastructure Design

Colwyn Chambers, 19 York Street, Manchester, M2 3BA, Tel 0161 832 4400, www.scptransport.co.uk, Email info@scptransport.co.uk

Client Name:

Project Title:

RUTHIN ROAD, WREXHAM

Drawing Title:

Proposed South-Eastern Priority Access on Bersham Road

Drawn By:

OP

Date:

19.03.2024

Checked:

LB

Scale:

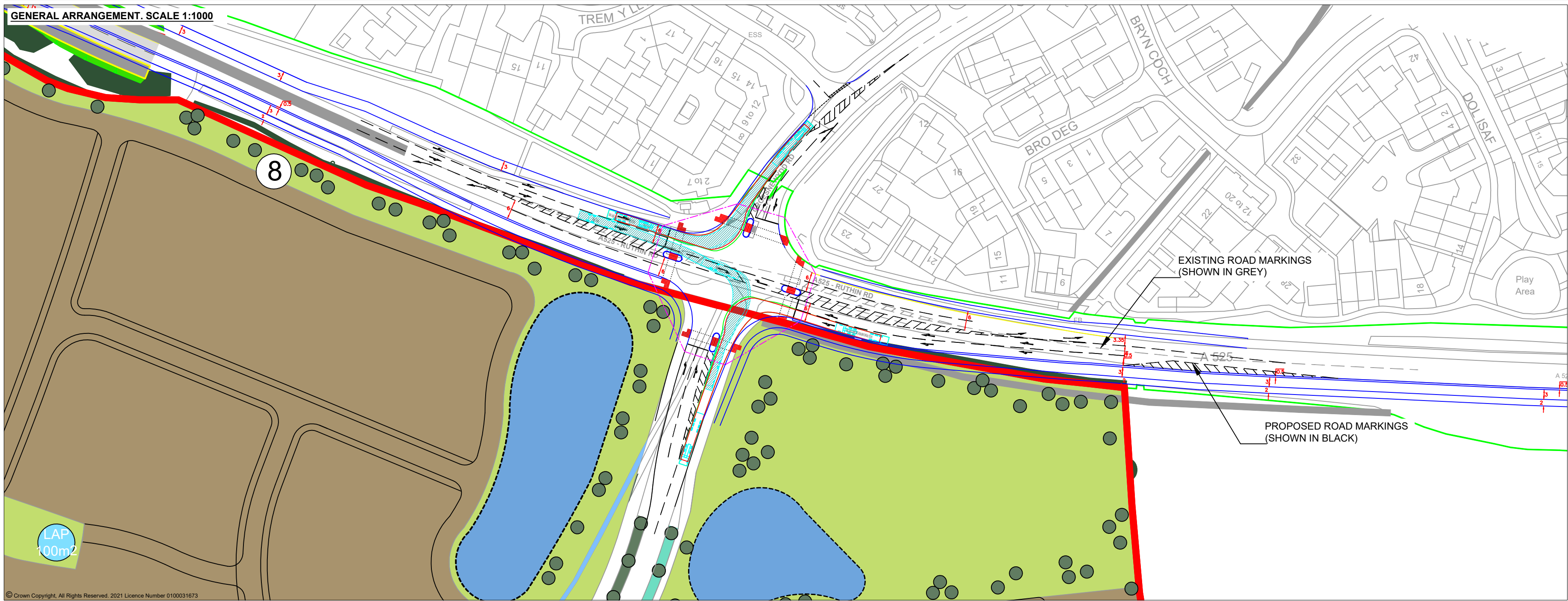
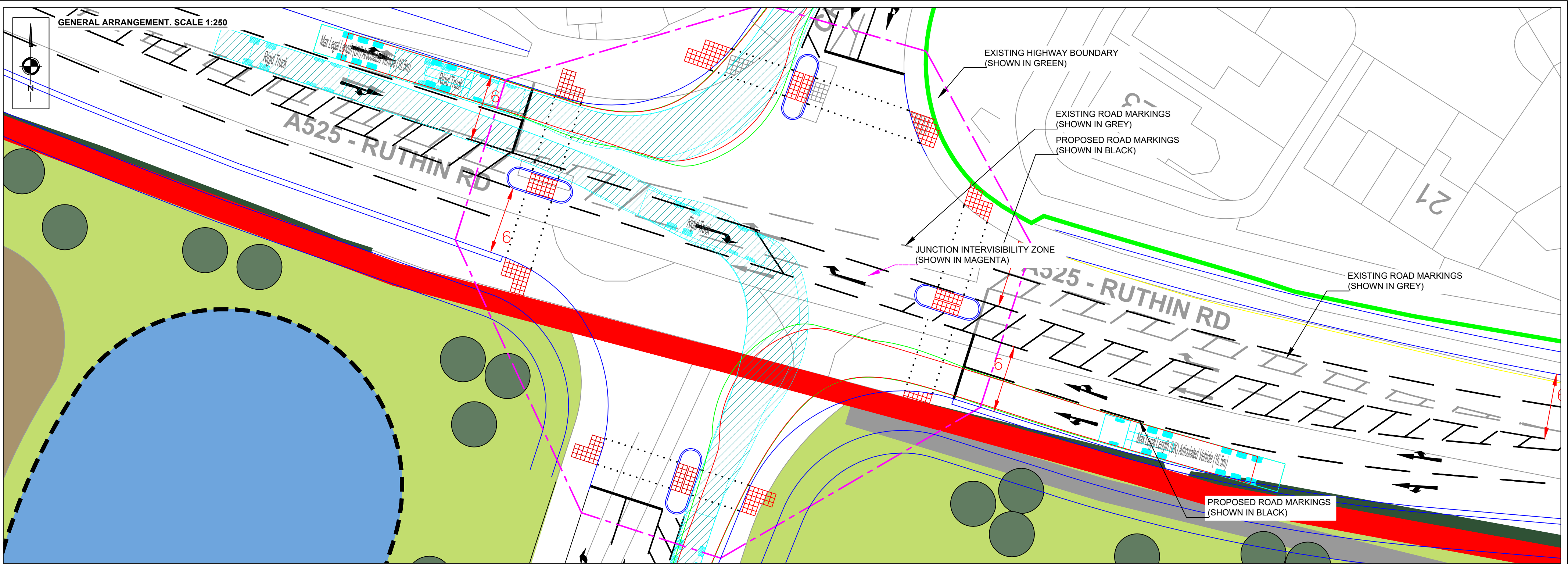
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Drawing No.

SCP/210187/AC04

Rev.

-



REVISIONS			
REV	DESCRIPTION	DATE	BY
-	-	-	-

SCP

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Client Name:

Project Title:

RUTHIN ROAD, WREXHAM

Drawing Title:

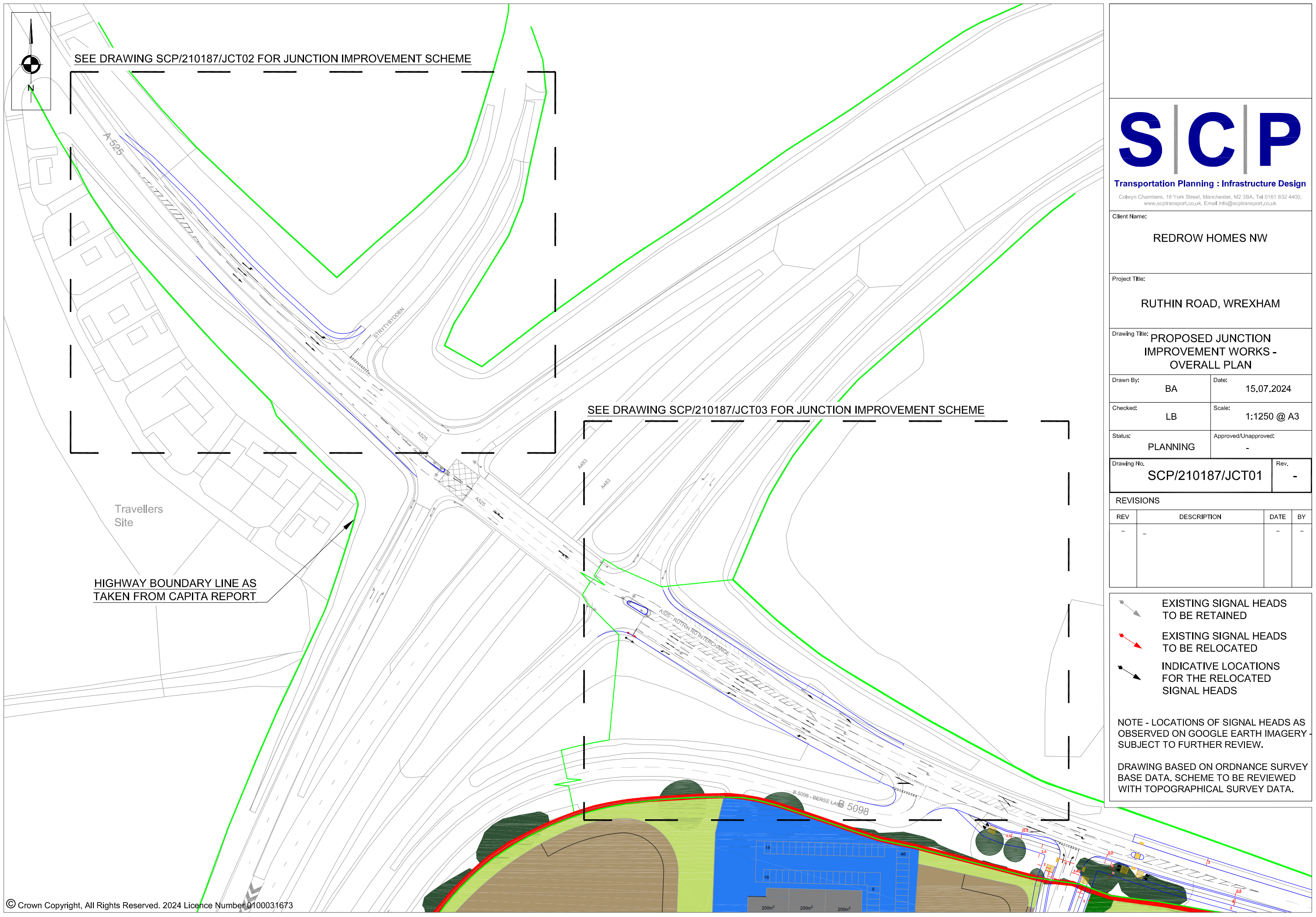
A525 / CROESNEWYDD RD SIGNAL JUNCTION IMPROVEMENT SCHEME

Date: 01.07.2024	Drawn By: BA
Scale: AS STATED @ A2	Checked: LB
Status: PLANNING	Approved/Unapproved: -

Drawing No. SCP/210187/AC01	Rev. -
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www.scptransport.co.uk, Email info@scptransport.co.uk

Client Name:

REDROW HOMES NW

Project Title:

RUTHIN ROAD, WREXHAM

Drawing Title:

PROPOSED JUNCTION
IMPROVEMENT WORKS -
OVERALL PLAN

Drawn By: BA Date: 15.07.2024

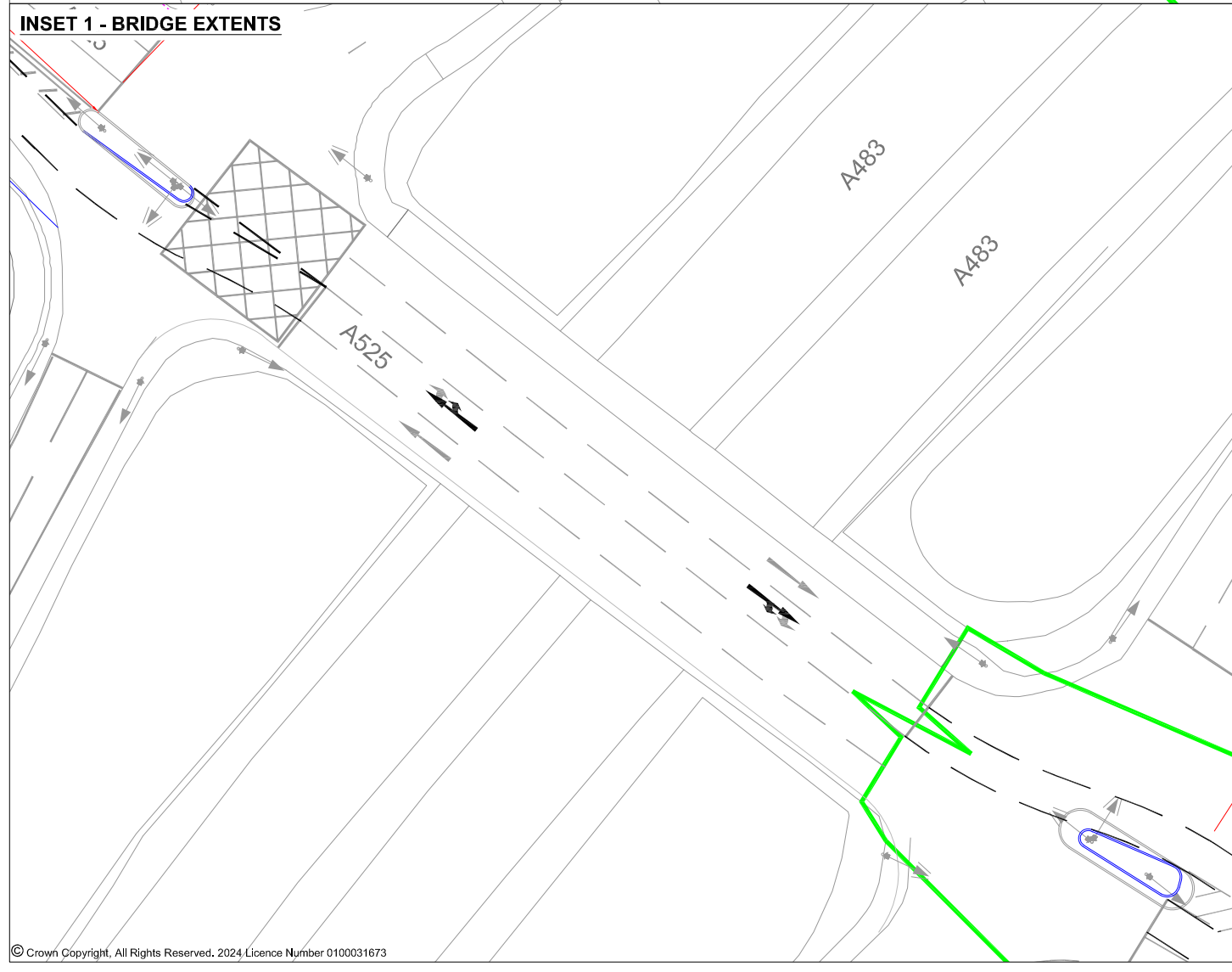
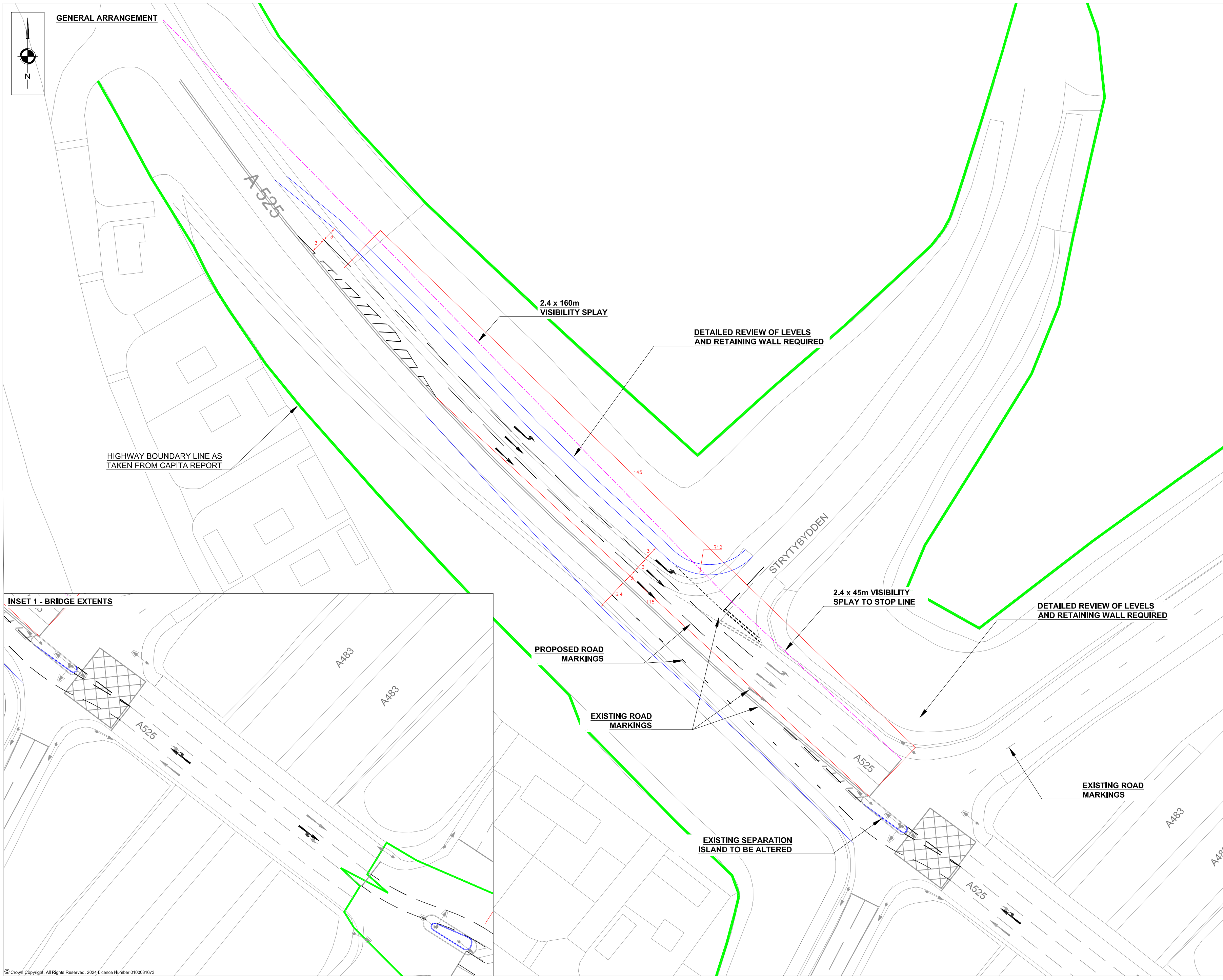
Checked: LB Scale: 1:1250 @ A3

Status: PLANNING Approved/Unapproved: -

Drawing No. SCP/210187/JCT01 Rev. -

REVISIONS			
REV	DESCRIPTION	DATE	BY
-	-	-	-

- EXISTING SIGNAL HEADS
TO BE RETAINED
- EXISTING SIGNAL HEADS
TO BE RELOCATED
- INDICATIVE LOCATIONS
FOR THE RELOCATED
SIGNAL HEADS
- NOTE - LOCATIONS OF SIGNAL HEADS AS
OBSERVED ON GOOGLE EARTH IMAGERY -
SUBJECT TO FURTHER REVIEW.
- DRAWING BASED ON ORDNANCE SURVEY
BASE DATA. SCHEME TO BE REVIEWED
WITH TOPOGRAPHICAL SURVEY DATA.



GENERAL ARRANGEMENT

NOTES

- EXISTING SIGNAL HEADS TO BE RETAINED
- EXISTING SIGNAL HEADS TO BE RELOCATED
- INDICATIVE LOCATIONS FOR THE RELOCATED SIGNAL HEADS

NOTE - LOCATIONS OF SIGNAL HEADS AS OBSERVED ON GOOGLE EARTH IMAGERY - SUBJECT TO FURTHER REVIEW.

DRAWING BASED ON ORDNANCE SURVEY BASE DATA. SCHEME TO BE REVIEWED WITH TOPOGRAPHICAL SURVEY DATA.

REVISIONS			
REV	DESCRIPTION	DATE	BY
-	-	-	-

SCP

Transportation Planning : Infrastructure Design

Colwyn Chambers, 19 York Street, Manchester, M2 3BA, Tel 0161 832 4400, www.scptransport.co.uk, Email info@scptransport.co.uk

Client Name:

REDROW HOMES NW

Project Title:

RUTHIN ROAD, WREXHAM

Drawing Title:

PROPOSED IMPROVEMENTS TO JUNCTION 4 OF A483

Date:	15.07.2024	Drawn By:	BA
Scale:	1:500 @ A2	Checked:	LB
Status:	PLANNING	Approved/Unapproved:	-

Drawing No.	SCP/210187/JCT02	Rev.	-
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APPENDIX G

Junctions 9							
PICADY 9 - Priority Intersection Module							
Version: 9.5.2.1013 © Copyright TRL Limited, 2019							
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Filename: 13. B5099 Bersham Road Site Access (W).j9

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Report generation date: 15/05/2025 11:04:31

»2028 Assessment Re-dist, AM

»2028 Assessment Re-dist, PM

»2040 Assessment Re-dist, AM

»2040 Assessment Re-dist, PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	2028 Assessment Re-dist									
Stream B-C	D1	0.0	6.68	0.00	A	D2	0.0	6.13	0.00	A
Stream B-A		0.1	9.40	0.07	A		0.0	8.44	0.03	A
Stream C-AB		0.0	6.30	0.00	A		0.0	5.68	0.00	A
	2040 Assessment Re-dist									
Stream B-C	D3	0.0	6.78	0.00	A	D4	0.0	6.14	0.00	A
Stream B-A		0.1	9.62	0.07	A		0.0	8.53	0.03	A
Stream C-AB		0.0	6.30	0.00	A		0.0	5.60	0.00	A

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

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

File summary

File Description

Title	Junction 13 B5099 Bersham Road Site Access
Location	
Site number	
Date	01/12/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	SCP\abbie.moore
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	2028 Assessment Re-dist	AM	ONE HOUR	07:45	09:15	15
D2	2028 Assessment Re-dist	PM	ONE HOUR	16:15	17:45	15
D3	2040 Assessment Re-dist	AM	ONE HOUR	07:45	09:15	15
D4	2040 Assessment Re-dist	PM	ONE HOUR	16:15	17:45	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2028 Assessment Re-dist, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	Arm B - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Junction 13 B5099 Bersham Road Site Access	T-Junction	Two-way		0.79	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	B5099 Bersham Road (W)		Major
B	Site Access (N)		Minor
C	B5099 Bersham Road (E)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	8.70			100.0	✓	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	One lane plus flare	8.60	3.50	3.40	3.40	3.40	✓	1.00	21	16

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	529	0.085	0.215	0.135	0.307
B-C	672	0.091	0.230	-	-
C-B	632	0.216	0.216	-	-

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	2028 Assessment Re-dist	AM	ONE HOUR	07:45	09:15	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		✓	269	100.000
B		✓	32	100.000
C		✓	84	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A	B	C
	A	0	13	256
	B	30	0	2
	C	83	1	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
	A	0	10	10
	B	10	0	10
	C	10	10	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.00	6.68	0.0	A
B-A	0.07	9.40	0.1	A
C-AB	0.00	6.30	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

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	2	619	0.002	1	0.0	6.407	A
B-A	23	478	0.047	22	0.1	8.691	A
C-AB	0.84	630	0.001	0.83	0.0	6.291	A
C-A	62			62			
A-B	10			10			
A-C	193			193			

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	2	609	0.003	2	0.0	6.520	A
B-A	27	468	0.058	27	0.1	8.977	A
C-AB	1	630	0.002	1	0.0	6.293	A
C-A	74			74			
A-B	12			12			
A-C	230			230			

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	2	595	0.004	2	0.0	6.683	A
B-A	33	454	0.073	33	0.1	9.397	A
C-AB	1	630	0.002	1	0.0	6.293	A
C-A	91			91			
A-B	14			14			
A-C	282			282			

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	2	595	0.004	2	0.0	6.683	A
B-A	33	454	0.073	33	0.1	9.399	A
C-AB	1	630	0.002	1	0.0	6.293	A
C-A	91			91			
A-B	14			14			
A-C	282			282			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	2	609	0.003	2	0.0	6.523	A
B-A	27	468	0.058	27	0.1	8.984	A
C-AB	1	630	0.002	1	0.0	6.295	A
C-A	74			74			
A-B	12			12			
A-C	230			230			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	2	619	0.002	2	0.0	6.408	A
B-A	23	478	0.047	23	0.1	8.699	A
C-AB	0.84	630	0.001	0.84	0.0	6.293	A
C-A	62			62			
A-B	10			10			
A-C	193			193			

2028 Assessment Re-dist, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	Arm B - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Junction 13 B5099 Bersham Road Site Access	T-Junction	Two-way		0.53	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	2028 Assessment Re-dist	PM	ONE HOUR	16:15	17:45	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		✓	93	100.000
B		✓	16	100.000
C		✓	168	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A	B	C
	A	0	29	64
	B	15	0	1
	C	166	2	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
	A	0	10	10
	B	10	0	10
	C	10	10	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.00	6.13	0.0	A
B-A	0.03	8.44	0.0	A
C-AB	0.00	5.68	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0.75	655	0.001	0.75	0.0	6.049	A
B-A	11	499	0.023	11	0.0	8.112	A
C-AB	2	699	0.003	2	0.0	5.680	A
C-A	125			125			
A-B	22			22			
A-C	48			48			

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	0.90	652	0.001	0.90	0.0	6.081	A
B-A	13	493	0.027	13	0.0	8.250	A
C-AB	2	712	0.003	2	0.0	5.577	A
C-A	149			149			
A-B	26			26			
A-C	58			58			

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	1	647	0.002	1	0.0	6.126	A
B-A	17	486	0.034	16	0.0	8.442	A
C-AB	3	731	0.004	3	0.0	5.441	A
C-A	182			182			
A-B	32			32			
A-C	70			70			

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	1	647	0.002	1	0.0	6.126	A
B-A	17	486	0.034	17	0.0	8.442	A
C-AB	3	731	0.004	3	0.0	5.443	A
C-A	182			182			
A-B	32			32			
A-C	70			70			

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	0.90	652	0.001	0.90	0.0	6.081	A
B-A	13	493	0.027	14	0.0	8.252	A
C-AB	2	712	0.003	2	0.0	5.580	A
C-A	149			149			
A-B	26			26			
A-C	58			58			

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	0.75	655	0.001	0.75	0.0	6.052	A
B-A	11	499	0.023	11	0.0	8.116	A
C-AB	2	699	0.003	2	0.0	5.680	A
C-A	125			125			
A-B	22			22			
A-C	48			48			

2040 Assessment Re-dist, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	Arm B - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Junction 13 B5099 Bersham Road Site Access	T-Junction	Two-way		0.72	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	2040 Assessment Re-dist	AM	ONE HOUR	07:45	09:15	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		✓	303	100.000
B		✓	32	100.000
C		✓	94	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A	B	C
	A	0	13	290
	B	30	0	2
	C	93	1	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
	A	0	10	10
	B	10	0	10
	C	10	10	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.00	6.78	0.0	A
B-A	0.07	9.62	0.1	A
C-AB	0.00	6.30	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

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	2	614	0.002	1	0.0	6.469	A
B-A	23	471	0.048	22	0.1	8.817	A
C-AB	0.85	630	0.001	0.84	0.0	6.294	A
C-A	70			70			
A-B	10			10			
A-C	218			218			

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	2	602	0.003	2	0.0	6.597	A
B-A	27	460	0.059	27	0.1	9.138	A
C-AB	1	630	0.002	1	0.0	6.295	A
C-A	83			83			
A-B	12			12			
A-C	261			261			

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	2	586	0.004	2	0.0	6.783	A
B-A	33	445	0.074	33	0.1	9.616	A
C-AB	1	630	0.002	1	0.0	6.294	A
C-A	102			102			
A-B	14			14			
A-C	319			319			

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	2	586	0.004	2	0.0	6.783	A
B-A	33	445	0.074	33	0.1	9.617	A
C-AB	1	630	0.002	1	0.0	6.294	A
C-A	102			102			
A-B	14			14			
A-C	319			319			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	2	602	0.003	2	0.0	6.598	A
B-A	27	460	0.059	27	0.1	9.145	A
C-AB	1	630	0.002	1	0.0	6.295	A
C-A	83			83			
A-B	12			12			
A-C	261			261			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	2	613	0.002	2	0.0	6.473	A
B-A	23	471	0.048	23	0.1	8.826	A
C-AB	0.85	630	0.001	0.85	0.0	6.296	A
C-A	70			70			
A-B	10			10			
A-C	218			218			

2040 Assessment Re-dist, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	Arm B - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Junction 13 B5099 Bersham Road Site Access	T-Junction	Two-way		0.49	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	2040 Assessment Re-dist	PM	ONE HOUR	16:15	17:45	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		✓	100	100.000
B		✓	16	100.000
C		✓	190	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	A	B	C	
From	A	0	29	71
	B	15	0	1
	C	188	2	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
	A	B	C	
From	A	0	10	10
	B	10	0	10
	C	10	10	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.00	6.14	0.0	A
B-A	0.03	8.53	0.0	A
C-AB	0.00	5.60	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0.75	654	0.001	0.75	0.0	6.060	A
B-A	11	496	0.023	11	0.0	8.169	A
C-AB	2	709	0.003	2	0.0	5.601	A
C-A	141			141			
A-B	22			22			
A-C	53			53			

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	0.90	650	0.001	0.90	0.0	6.095	A
B-A	13	489	0.028	13	0.0	8.319	A
C-AB	2	724	0.003	2	0.0	5.487	A
C-A	168			168			
A-B	26			26			
A-C	64			64			

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	1	646	0.002	1	0.0	6.144	A
B-A	17	481	0.034	16	0.0	8.532	A
C-AB	3	745	0.004	3	0.0	5.335	A
C-A	206			206			
A-B	32			32			
A-C	78			78			

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	1	646	0.002	1	0.0	6.144	A
B-A	17	481	0.034	17	0.0	8.532	A
C-AB	3	745	0.004	3	0.0	5.335	A
C-A	206			206			
A-B	32			32			
A-C	78			78			

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	0.90	650	0.001	0.90	0.0	6.098	A
B-A	13	489	0.028	14	0.0	8.322	A
C-AB	2	724	0.003	2	0.0	5.489	A
C-A	168			168			
A-B	26			26			
A-C	64			64			

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	0.75	654	0.001	0.75	0.0	6.061	A
B-A	11	496	0.023	11	0.0	8.173	A
C-AB	2	709	0.003	2	0.0	5.603	A
C-A	141			141			
A-B	22			22			
A-C	53			53			

Junctions 9							
PICADY 9 - Priority Intersection Module							
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Filename: 14. B5099 Bersham Road (E).j9

Path: Z:\Job Library\2021\210187 - Ruthin Road, Wrexham\Traffic Data\Apr 25\Assessments\PICADY

Report generation date: 15/05/2025 11:05:46

- »2028 Assessment Re-dist, AM
- »2028 Assessment Re-dist, PM
- »2040 Assessment Re-dist, AM
- »2040 Assessment Re-dist, PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	2028 Assessment Re-dist									
Stream B-C	D1	0.0	6.76	0.01	A	D2	0.0	0.00	0.00	A
Stream B-A		0.0	9.02	0.02	A		0.0	0.00	0.00	A
Stream C-AB		0.0	6.69	0.00	A		0.0	5.90	0.01	A
	2040 Assessment Re-dist									
Stream B-C	D3	0.0	6.88	0.01	A	D4	0.0	6.15	0.00	A
Stream B-A		0.0	9.24	0.03	A		0.0	8.34	0.01	A
Stream C-AB		0.0	6.70	0.00	A		0.0	5.83	0.01	A

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

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

File summary

File Description

Title	Junction 14, B5099 Bersham Road W
Location	Junction 14, B5099 Bersham Road W
Site number	
Date	01/12/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	SCP\abbie.moore
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	2028 Assessment Re-dist	AM	ONE HOUR	07:45	09:15	15
D2	2028 Assessment Re-dist	PM	ONE HOUR	16:15	17:45	15
D3	2040 Assessment Re-dist	AM	ONE HOUR	07:45	09:15	15
D4	2040 Assessment Re-dist	PM	ONE HOUR	16:15	17:45	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2028 Assessment Re-dist, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	Arm B - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Junction 14, B5099 Bersham Road W	T-Junction	Two-way		0.40	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	B5099 Bersham Road (W)		Major
B	Site Access North		Minor
C	B5099 Bersham Road (W)		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	6.00			50.0	✓	0.00

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

Minor Arm Geometry

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	One lane plus flare	8.50	3.70	3.50	3.40	3.40	✓	1.00	19	17

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	532	0.097	0.245	0.154	0.350
B-C	666	0.102	0.258	-	-
C-B	603	0.234	0.234	-	-

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	2028 Assessment Re-dist	AM	ONE HOUR	07:45	09:15	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		✓	255	100.000
B		✓	15	100.000
C		✓	76	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A	B	C
	A	0	4	251
	B	10	0	5
	C	74	2	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
	A	0	10	10
	B	10	0	10
	C	10	10	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.01	6.76	0.0	A
B-A	0.02	9.02	0.0	A
C-AB	0.00	6.69	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

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	4	615	0.006	4	0.0	6.479	A
B-A	8	476	0.016	7	0.0	8.452	A
C-AB	2	597	0.003	2	0.0	6.656	A
C-A	56			56			
A-B	3			3			
A-C	189			189			

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	4	605	0.007	4	0.0	6.595	A
B-A	9	465	0.019	9	0.0	8.681	A
C-AB	2	596	0.003	2	0.0	6.670	A
C-A	66			66			
A-B	4			4			
A-C	226			226			

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	6	591	0.009	5	0.0	6.763	A
B-A	11	450	0.024	11	0.0	9.016	A
C-AB	3	594	0.004	3	0.0	6.689	A
C-A	81			81			
A-B	4			4			
A-C	276			276			

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	6	591	0.009	6	0.0	6.763	A
B-A	11	450	0.024	11	0.0	9.016	A
C-AB	3	594	0.004	3	0.0	6.689	A
C-A	81			81			
A-B	4			4			
A-C	276			276			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	4	605	0.007	5	0.0	6.596	A
B-A	9	465	0.019	9	0.0	8.682	A
C-AB	2	596	0.003	2	0.0	6.670	A
C-A	66			66			
A-B	4			4			
A-C	226			226			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	4	615	0.006	4	0.0	6.482	A
B-A	8	476	0.016	8	0.0	8.454	A
C-AB	2	597	0.003	2	0.0	6.659	A
C-A	56			56			
A-B	3			3			
A-C	189			189			

2028 Assessment Re-dist, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	Arm B - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Junction 14, B5099 Bersham Road W	T-Junction	Two-way		0.14	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	2028 Assessment Re-dist	PM	ONE HOUR	16:15	17:45	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		✓	57	100.000
B		✓	3	100.000
C		✓	167	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A	B	C
	A	0	3	54
	B	1	0	2
	C	163	4	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
	A	0	10	10
	B	10	0	10
	C	10	10	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.00	0.00	0.0	A
B-A	0.00	0.00	0.0	A
C-AB	0.01	5.90	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	703	0.000	0	0.0	0.000	A
B-A	0	494	0.000	0	0.0	0.000	A
C-AB	4	675	0.005	4	0.0	5.896	A
C-A	122			122			
A-B	2			2			
A-C	41			41			

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	0	700	0.000	0	0.0	0.000	A
B-A	0	489	0.000	0	0.0	0.000	A
C-AB	5	689	0.007	5	0.0	5.782	A
C-A	146			146			
A-B	3			3			
A-C	49			49			

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	0	697	0.000	0	0.0	0.000	A
B-A	0	481	0.000	0	0.0	0.000	A
C-AB	6	709	0.008	6	0.0	5.631	A
C-A	178			178			
A-B	3			3			
A-C	59			59			

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	0	697	0.000	0	0.0	0.000	A
B-A	0	481	0.000	0	0.0	0.000	A
C-AB	6	709	0.008	6	0.0	5.631	A
C-A	178			178			
A-B	3			3			
A-C	59			59			

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	0	700	0.000	0	0.0	0.000	A
B-A	0	489	0.000	0	0.0	0.000	A
C-AB	5	689	0.007	5	0.0	5.784	A
C-A	146			146			
A-B	3			3			
A-C	49			49			

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	0	703	0.000	0	0.0	0.000	A
B-A	0	494	0.000	0	0.0	0.000	A
C-AB	4	675	0.005	4	0.0	5.896	A
C-A	122			122			
A-B	2			2			
A-C	41			41			

2040 Assessment Re-dist, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	Arm B - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Junction 14, B5099 Bersham Road W	T-Junction	Two-way		0.36	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	2040 Assessment Re-dist	AM	ONE HOUR	07:45	09:15	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		✓	289	100.000
B		✓	15	100.000
C		✓	86	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	A	B	C	
From	A	0	4	285
	B	10	0	5
	C	84	2	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
	A	B	C	
From	A	0	10	10
	B	10	0	10
	C	10	10	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.01	6.88	0.0	A
B-A	0.03	9.24	0.0	A
C-AB	0.00	6.70	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

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	4	608	0.006	4	0.0	6.550	A
B-A	8	468	0.016	7	0.0	8.588	A
C-AB	2	596	0.003	2	0.0	6.663	A
C-A	63			63			
A-B	3			3			
A-C	215			215			

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	4	597	0.008	4	0.0	6.683	A
B-A	9	456	0.020	9	0.0	8.853	A
C-AB	2	595	0.003	2	0.0	6.677	A
C-A	75			75			
A-B	4			4			
A-C	256			256			

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	6	581	0.009	5	0.0	6.877	A
B-A	11	439	0.025	11	0.0	9.245	A
C-AB	3	594	0.004	3	0.0	6.696	A
C-A	92			92			
A-B	4			4			
A-C	314			314			

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	6	581	0.009	6	0.0	6.877	A
B-A	11	439	0.025	11	0.0	9.245	A
C-AB	3	594	0.004	3	0.0	6.698	A
C-A	92			92			
A-B	4			4			
A-C	314			314			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	4	597	0.008	5	0.0	6.686	A
B-A	9	456	0.020	9	0.0	8.854	A
C-AB	2	595	0.003	2	0.0	6.677	A
C-A	75			75			
A-B	4			4			
A-C	256			256			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	4	608	0.006	4	0.0	6.550	A
B-A	8	468	0.016	8	0.0	8.592	A
C-AB	2	596	0.003	2	0.0	6.665	A
C-A	63			63			
A-B	3			3			
A-C	215			215			

2040 Assessment Re-dist, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	Arm B - Minor arm geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Junction 14, B5099 Bersham Road W	T-Junction	Two-way		0.34	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2040 Assessment Re-dist	PM	ONE HOUR	16:15	17:45	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		✓	72	100.000
B		✓	7	100.000
C		✓	190	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A	B	C
	A	0	10	62
	B	5	0	2
	C	185	5	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
	A	0	10	10
	B	10	0	10
	C	10	10	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.00	6.15	0.0	A
B-A	0.01	8.34	0.0	A
C-AB	0.01	5.83	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	2	652	0.002	1	0.0	6.083	A
B-A	4	497	0.008	4	0.0	8.034	A
C-AB	5	684	0.007	5	0.0	5.830	A
C-A	138			138			
A-B	8			8			
A-C	47			47			

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	2	650	0.003	2	0.0	6.112	A
B-A	4	490	0.009	4	0.0	8.158	A
C-AB	6	700	0.008	6	0.0	5.706	A
C-A	165			165			
A-B	9			9			
A-C	56			56			

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	2	646	0.003	2	0.0	6.152	A
B-A	6	480	0.011	5	0.0	8.336	A
C-AB	8	722	0.011	8	0.0	5.543	A
C-A	202			202			
A-B	11			11			
A-C	68			68			

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	2	646	0.003	2	0.0	6.152	A
B-A	6	480	0.011	6	0.0	8.336	A
C-AB	8	722	0.011	8	0.0	5.543	A
C-A	202			202			
A-B	11			11			
A-C	68			68			

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	2	650	0.003	2	0.0	6.112	A
B-A	4	490	0.009	5	0.0	8.160	A
C-AB	6	700	0.008	6	0.0	5.708	A
C-A	165			165			
A-B	9			9			
A-C	56			56			

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	2	652	0.002	2	0.0	6.086	A
B-A	4	497	0.008	4	0.0	8.034	A
C-AB	5	684	0.007	5	0.0	5.832	A
C-A	138			138			
A-B	8			8			
A-C	47			47			

Junctions 9							
PICADY 9 - Priority Intersection Module							
Version: 9.5.2.1013 © Copyright TRL Limited, 2019							
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Filename: 12. Right Turn Lane Ruthin Rd Site Access.j9

Path: Z:\Job Library\2021\210187 - Ruthin Road, Wrexham\Traffic Data\Apr 25\Assessments\PICADY

Report generation date: 24/04/2025 20:12:00

- »2028 Assess, AM
- »2028 Assess, PM
- »2040 Assess, AM
- »2040 Assess, PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	2028 Assess									
Stream B-C	D7	1.2	19.05	0.52	C	D8	0.4	13.66	0.28	B
Stream B-A		0.7	51.93	0.40	F		0.3	40.78	0.21	E
Stream C-B		0.3	9.55	0.20	A		1.1	17.63	0.50	C
	2040 Assess									
Stream B-C	D9	1.5	23.78	0.58	C	D10	0.5	15.45	0.31	C
Stream B-A		1.4	107.26	0.58	F		0.4	64.39	0.29	F
Stream C-B		0.3	9.99	0.21	A		1.2	20.05	0.53	C

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	Right Turn Lane Site Access
Location	
Site number	
Date	01/12/2022
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	SCP\abbie.moore
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)
D7	2028 Assess	AM	ONE HOUR	07:45	09:15	15
D8	2028 Assess	PM	ONE HOUR	16:15	17:45	15
D9	2040 Assess	AM	ONE HOUR	07:45	09:15	15
D10	2040 Assess	PM	ONE HOUR	16:15	17:45	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2028 Assess, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Right Turn Lane Site Access	T-Junction	Two-way		3.33	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	A525 Ruthin Road East		Major
B	Site Access South		Minor
C	A525 Ruthin Road West		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Width for right turn (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	6.00		✓	3.00	100.0		-

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

Minor Arm Geometry

Arm	Minor arm type	Lane Width (Left) (m)	Lane Width (Right) (m)	Visibility to left (m)	Visibility to right (m)
B	Two lanes	3.00	3.00	27	30

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	501	0.091	0.231	0.145	0.330
B-C	643	0.099	0.249	-	-
C-B	687	0.266	0.266	-	-

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)
D7	2028 Assess	AM	ONE HOUR	07:45	09:15	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		✓	580	100.000
B		✓	253	100.000
C		✓	1328	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A	B	C
	A	0	20	560
	B	45	0	208
	C	1235	93	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
	A	0	10	10
	B	10	0	10
	C	10	10	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.52	19.05	1.2	C
B-A	0.40	51.93	0.7	F
C-A				
C-B	0.20	9.55	0.3	A
A-B				
A-C				

Main Results for each time segment

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	157	518	0.302	155	0.5	10.854	B
B-A	34	244	0.139	33	0.2	18.686	C
C-A	930			930			
C-B	70	571	0.123	69	0.2	7.890	A
A-B	15			15			
A-C	422			422			

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	187	488	0.383	186	0.7	13.068	B
B-A	40	194	0.208	40	0.3	25.574	D
C-A	1110			1110			
C-B	84	548	0.153	83	0.2	8.522	A
A-B	18			18			
A-C	503			503			

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	229	438	0.523	227	1.2	18.602	C
B-A	50	125	0.395	48	0.7	49.857	E
C-A	1360			1360			
C-B	102	517	0.198	102	0.3	9.539	A
A-B	22			22			
A-C	617			617			

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	229	436	0.525	229	1.2	19.055	C
B-A	50	125	0.395	49	0.7	51.932	F
C-A	1360			1360			
C-B	102	517	0.198	102	0.3	9.552	A
A-B	22			22			
A-C	617			617			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	187	487	0.384	189	0.7	13.369	B
B-A	40	194	0.208	42	0.3	26.251	D
C-A	1110			1110			
C-B	84	548	0.153	84	0.2	8.534	A
A-B	18			18			
A-C	503			503			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	157	517	0.303	157	0.5	11.037	B
B-A	34	244	0.139	34	0.2	18.913	C
C-A	930			930			
C-B	70	571	0.123	70	0.2	7.916	A
A-B	15			15			
A-C	422			422			

2028 Assess, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Right Turn Lane Site Access	T-Junction	Two-way		3.32	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)
D8	2028 Assess	PM	ONE HOUR	16:15	17:45	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		✓	812	100.000
B		✓	127	100.000
C		✓	854	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A	B	C
	A	0	44	768
	B	23	0	104
	C	650	204	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
	A	0	10	10
	B	10	0	10
	C	10	10	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.28	13.66	0.4	B
B-A	0.21	40.78	0.3	E
C-A				
C-B	0.50	17.63	1.1	C
A-B				
A-C				

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	78	487	0.161	77	0.2	9.657	A
B-A	17	243	0.071	17	0.1	17.492	C
C-A	489			489			
C-B	154	524	0.293	152	0.4	10.584	B
A-B	33			33			
A-C	578			578			

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	93	454	0.206	93	0.3	10.960	B
B-A	21	192	0.107	20	0.1	23.013	C
C-A	584			584			
C-B	183	493	0.372	183	0.6	12.742	B
A-B	40			40			
A-C	690			690			

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	115	405	0.283	114	0.4	13.579	B
B-A	25	123	0.206	25	0.3	40.132	E
C-A	716			716			
C-B	225	449	0.500	223	1.1	17.385	C
A-B	48			48			
A-C	846			846			

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	115	404	0.283	114	0.4	13.657	B
B-A	25	122	0.207	25	0.3	40.779	E
C-A	716			716			
C-B	225	449	0.500	225	1.1	17.628	C
A-B	48			48			
A-C	846			846			

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	93	454	0.206	94	0.3	11.030	B
B-A	21	192	0.108	21	0.1	23.326	C
C-A	584			584			
C-B	183	493	0.372	185	0.7	12.945	B
A-B	40			40			
A-C	690			690			

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	78	486	0.161	79	0.2	9.717	A
B-A	17	242	0.072	18	0.1	17.642	C
C-A	489			489			
C-B	154	524	0.293	154	0.5	10.731	B
A-B	33			33			
A-C	578			578			

2040 Assess, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Right Turn Lane Site Access	T-Junction	Two-way		4.50	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)
D9	2040 Assess	AM	ONE HOUR	07:45	09:15	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		✓	642	100.000
B		✓	253	100.000
C		✓	1483	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A	B	C
	A	0	20	622
	B	45	0	208
	C	1390	93	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
	A	0	10	10
	B	10	0	10
	C	10	10	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.58	23.78	1.5	C
B-A	0.58	107.26	1.4	F
C-A				
C-B	0.21	9.99	0.3	A
A-B				
A-C				

Main Results for each time segment

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	157	504	0.311	155	0.5	11.269	B
B-A	34	217	0.156	33	0.2	21.475	C
C-A	1046			1046			
C-B	70	558	0.125	69	0.2	8.091	A
A-B	15			15			
A-C	468			468			

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	187	470	0.398	186	0.7	13.918	B
B-A	40	161	0.251	40	0.4	32.437	D
C-A	1250			1250			
C-B	84	533	0.157	83	0.2	8.798	A
A-B	18			18			
A-C	559			559			

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	229	400	0.573	226	1.4	22.487	C
B-A	50	85	0.583	46	1.2	94.887	F
C-A	1530			1530			
C-B	102	499	0.205	102	0.3	9.974	A
A-B	22			22			
A-C	685			685			

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	229	395	0.580	229	1.5	23.780	C
B-A	50	85	0.584	49	1.4	107.262	F
C-A	1530			1530			
C-B	102	499	0.205	102	0.3	9.990	A
A-B	22			22			
A-C	685			685			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	187	466	0.401	190	0.8	14.475	B
B-A	40	161	0.251	44	0.4	34.873	D
C-A	1250			1250			
C-B	84	533	0.157	84	0.2	8.817	A
A-B	18			18			
A-C	559			559			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	157	503	0.311	158	0.5	11.491	B
B-A	34	216	0.157	35	0.2	21.852	C
C-A	1046			1046			
C-B	70	558	0.125	70	0.2	8.116	A
A-B	15			15			
A-C	468			468			

2040 Assess, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Right Turn Lane Site Access	T-Junction	Two-way		3.66	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)
D10	2040 Assess	PM	ONE HOUR	16:15	17:45	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		✓	905	100.000
B		✓	127	100.000
C		✓	929	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A	B	C
	A	0	44	861
	B	23	0	104
	C	725	204	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
	A	0	10	10
	B	10	0	10
	C	10	10	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.31	15.45	0.5	C
B-A	0.29	64.39	0.4	F
C-A				
C-B	0.53	20.05	1.2	C
A-B				
A-C				

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	78	469	0.167	77	0.2	10.100	B
B-A	17	219	0.079	17	0.1	19.594	C
C-A	546			546			
C-B	154	506	0.304	152	0.5	11.133	B
A-B	33			33			
A-C	648			648			

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	93	432	0.217	93	0.3	11.682	B
B-A	21	163	0.127	20	0.2	27.679	D
C-A	652			652			
C-B	183	470	0.390	183	0.7	13.714	B
A-B	40			40			
A-C	774			774			

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	115	372	0.308	114	0.5	15.290	C
B-A	25	87	0.290	24	0.4	62.004	F
C-A	798			798			
C-B	225	422	0.533	223	1.2	19.677	C
A-B	48			48			
A-C	948			948			

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	115	371	0.309	114	0.5	15.455	C
B-A	25	87	0.293	25	0.4	64.393	F
C-A	798			798			
C-B	225	422	0.533	225	1.2	20.051	C
A-B	48			48			
A-C	948			948			

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	93	431	0.217	94	0.3	11.792	B
B-A	21	162	0.127	22	0.2	28.374	D
C-A	652			652			
C-B	183	470	0.390	185	0.7	13.994	B
A-B	40			40			
A-C	774			774			

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	78	468	0.167	79	0.2	10.172	B
B-A	17	218	0.080	18	0.1	19.811	C
C-A	546			546			
C-B	154	506	0.304	155	0.5	11.311	B
A-B	33			33			
A-C	648			648			

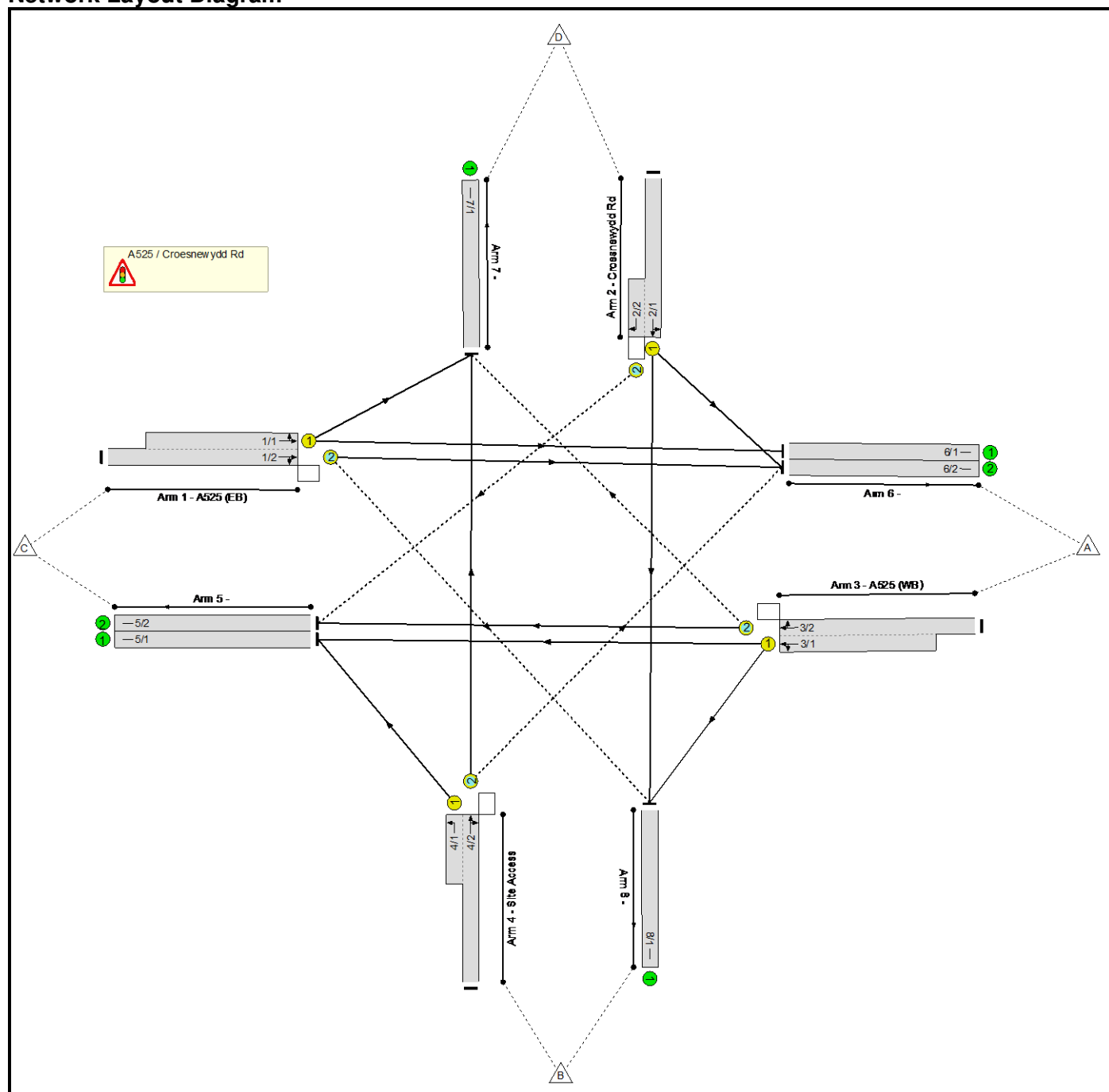
Full Input Data And Results

Full Input Data And Results

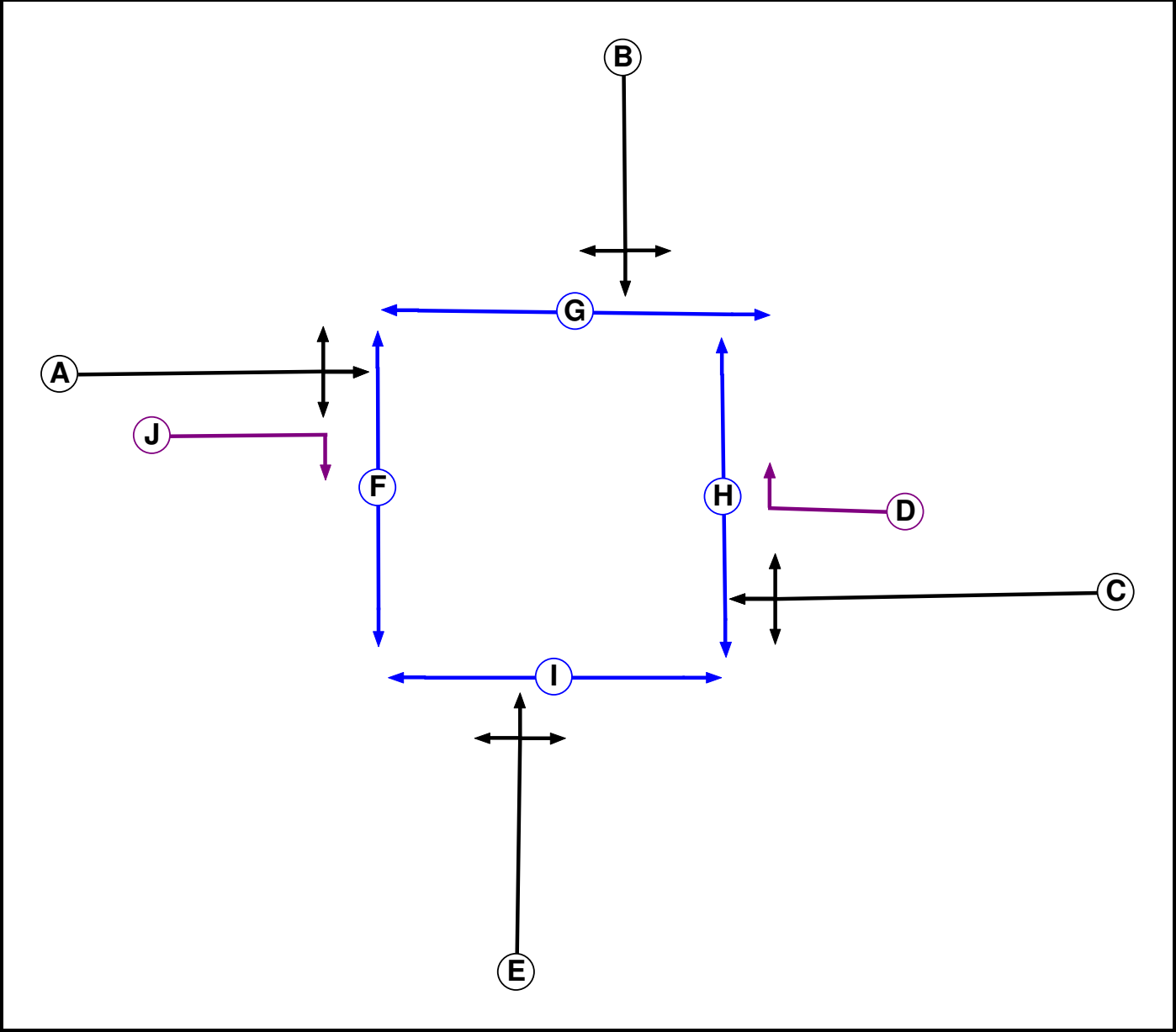
User and Project Details

Project:	
Title:	
Location:	
Additional detail:	
File name:	Proposed_A525_Croesnewydd Rd_Additional Mitigation_22.04.25.lsg3x
Author:	
Company:	
Address:	

Network Layout Diagram



Phase Diagram



Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min (s)	Cont Min (s)
A	Traffic		7	7
B	Traffic		7	7
C	Traffic		7	7
D	Ind. Arrow	C	4	4
E	Traffic		7	7
F	Pedestrian		7	7
G	Pedestrian		7	7
H	Pedestrian		7	7
I	Pedestrian		7	7
J	Ind. Arrow	A	4	4

Full Input Data And Results

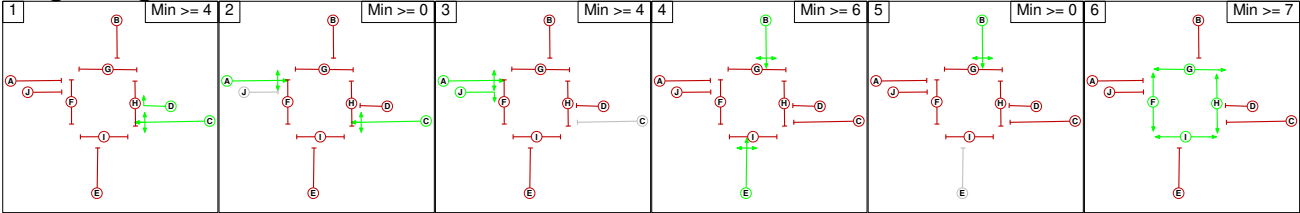
Phase Intergreens Matrix

Terminating Phase	Starting Phase										
		A	B	C	D	E	F	G	H	I	J
	A		7	-	5	6	5	6	9	10	-
	B	5		5	5	-	9	5	8	10	5
	C	-	5		-	5	8	-	-	5	-
	D	5	5	-		5	-	9	5	-	5
	E	7	-	5	5		9	8	10	5	7
	F	6	6	6	6	6		-	-	-	6
	G	6	6	-	6	6	-		-	-	6
	H	6	6	6	6	6	-	-		-	6
	I	6	6	6	-	6	-	-	-		6
	J	-	7	-	5	6	5	6	9	10	

Phases in Stage

Stage No.	Phases in Stage
1	C D
2	A C
3	A J
4	B E
5	B
6	F G H I

Stage Diagram



Phase Delays

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

Prohibited Stage Change

From Stage	To Stage						
		1	2	3	4	5	6
	1		5	5	5	5	9
	2	5		0	7	7	10
	3	5	2		7	7	10
	4	5	7	7		0	10
	5	5	5	5	2		10
	6	6	6	6	6	6	

Full Input Data And Results

Give-Way Lane Input Data

Junction: A525 / Croesnewydd Rd											
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)
1/2 (A525 (EB))	8/1 (Right)	1439	0	3/1	1.09	All	2.00	2.00	0.50	2	2.00
				3/2	1.09	To 5/2 (Ahead)					
2/2 (Croesnewydd Rd)	5/2 (Right)	1439	0	4/1	1.09	All	2.00	-	0.50	2	2.00
				4/2	1.09	To 7/1 (Ahead)					
3/2 (A525 (WB))	7/1 (Right)	1439	0	1/1	1.09	All	2.00	2.00	0.50	2	2.00
				1/2	1.09	To 6/2 (Ahead)					
4/2 (Site Access)	6/2 (Right)	1439	0	2/1	1.09	All	2.00	2.00	0.50	2	2.00

Full Input Data And Results

Lane Input Data

Junction: A525 / Croesnewydd Rd												
Lane	Lane Type	Phases	Start Disp. (s)	End Disp. (s)	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient (%)	Nearside Lane	Turns	Turning Radius (m)
1/1 (A525 (EB))	U	A	2	3	18.3	Geom	-	3.00	0.00	Y	Arm 6 Ahead	Inf
											Arm 7 Left	19.00
1/2 (A525 (EB))	O	A J	2	3	60.0	Geom	-	3.00	0.00	Y	Arm 6 Ahead	Inf
											Arm 8 Right	14.00
2/1 (Croesnewydd Rd)	U	B	2	3	60.0	Geom	-	3.00	0.00	Y	Arm 6 Left	19.00
											Arm 8 Ahead	Inf
2/2 (Croesnewydd Rd)	O	B	2	3	5.4	Geom	-	3.00	0.00	Y	Arm 5 Right	14.00
3/1 (A525 (WB))	U	C	2	3	18.3	Geom	-	3.00	0.00	Y	Arm 5 Ahead	Inf
											Arm 8 Left	19.00
3/2 (A525 (WB))	O	C D	2	3	60.0	Geom	-	3.00	0.00	Y	Arm 5 Ahead	Inf
											Arm 7 Right	14.00
4/1 (Site Access)	U	E	2	3	6.4	Geom	-	3.00	0.00	Y	Arm 5 Left	19.00
4/2 (Site Access)	O	E	2	3	60.0	Geom	-	3.00	0.00	Y	Arm 6 Right	14.00
											Arm 7 Ahead	Inf
5/1	U		2	3	10.0	Inf	-	-	-	-	-	-
5/2	U		2	3	60.0	Inf	-	-	-	-	-	-
6/1	U		2	3	10.0	Inf	-	-	-	-	-	-
6/2	U		2	3	60.0	Inf	-	-	-	-	-	-
7/1	U		2	3	60.0	Inf	-	-	-	-	-	-
8/1	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2028 Assess AM'	08:00	09:00	01:00	
2: '2028 Assess PM'	16:30	17:30	01:00	
3: '2040 Assess AM'	08:00	09:00	01:00	
4: '2040 Assess PM'	16:30	17:30	01:00	

Scenario 1: '2028 Assess AM' (FG1: '2028 Assess AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
Origin		A	B	C	D	Tot.
	A	0	41	362	139	542
	B	92	0	69	45	206
	C	636	31	0	624	1291
	D	163	20	148	0	331
	Tot.	891	92	579	808	2370

Traffic Lane Flows

Lane	Scenario 1: 2028 Assess AM
Junction: A525 / Croesnewydd Rd	
1/1 (short)	643
1/2 (with short)	1291(In) 648(Out)
2/1 (with short)	331(In) 183(Out)
2/2 (short)	148
3/1 (short)	277
3/2 (with short)	542(In) 265(Out)
4/1 (short)	69
4/2 (with short)	206(In) 137(Out)
5/1	305
5/2	274
6/1	19
6/2	872
7/1	808
8/1	92

Lane Saturation Flows

Junction: A525 / Croesnewydd Rd								
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A525 (EB))	3.00	0.00	Y	Arm 6 Ahead	Inf	3.0 %	1779	1779
				Arm 7 Left	19.00	97.0 %		
1/2 (A525 (EB))	3.00	0.00	Y	Arm 6 Ahead	Inf	95.2 %	1905	1905
				Arm 8 Right	14.00	4.8 %		
2/1 (Croesnewydd Rd)	3.00	0.00	Y	Arm 6 Left	19.00	89.1 %	1789	1789
				Arm 8 Ahead	Inf	10.9 %		
2/2 (Croesnewydd Rd)	3.00	0.00	Y	Arm 5 Right	14.00	100.0 %	1730	1730
3/1 (A525 (WB))	3.00	0.00	Y	Arm 5 Ahead	Inf	85.2 %	1893	1893
				Arm 8 Left	19.00	14.8 %		
3/2 (A525 (WB))	3.00	0.00	Y	Arm 5 Ahead	Inf	47.5 %	1813	1813
				Arm 7 Right	14.00	52.5 %		
4/1 (Site Access)	3.00	0.00	Y	Arm 5 Left	19.00	100.0 %	1775	1775
4/2 (Site Access)	3.00	0.00	Y	Arm 6 Right	14.00	67.2 %	1786	1786
				Arm 7 Ahead	Inf	32.8 %		
5/1			Infinite Saturation Flow				Inf	Inf
5/2			Infinite Saturation Flow				Inf	Inf
6/1			Infinite Saturation Flow				Inf	Inf
6/2			Infinite Saturation Flow				Inf	Inf
7/1			Infinite Saturation Flow				Inf	Inf
8/1			Infinite Saturation Flow				Inf	Inf

Scenario 2: '2028 Assess PM' (FG2: '2028 Assess PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination					
		A	B	C	D	Tot.
	A	0	89	441	169	699
	B	45	0	35	22	102
	C	448	68	0	136	652
	D	154	44	337	0	535
	Tot.	647	201	813	327	1988

Traffic Lane Flows

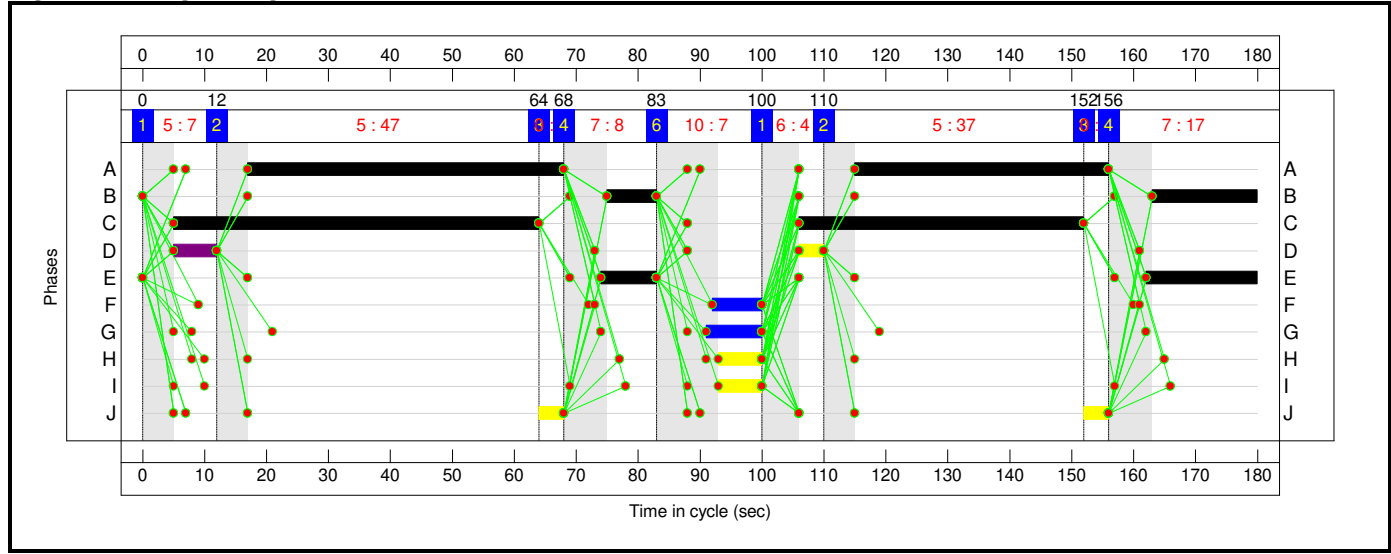
Lane	Scenario 2: 2028 Assess PM
Junction: A525 / Croesnewydd Rd	
1/1 (short)	324
1/2 (with short)	652(In) 328(Out)
2/1 (with short)	535(In) 198(Out)
2/2 (short)	337
3/1 (short)	355
3/2 (with short)	699(In) 344(Out)
4/1 (short)	35
4/2 (with short)	102(In) 67(Out)
5/1	301
5/2	512
6/1	188
6/2	459
7/1	327
8/1	201

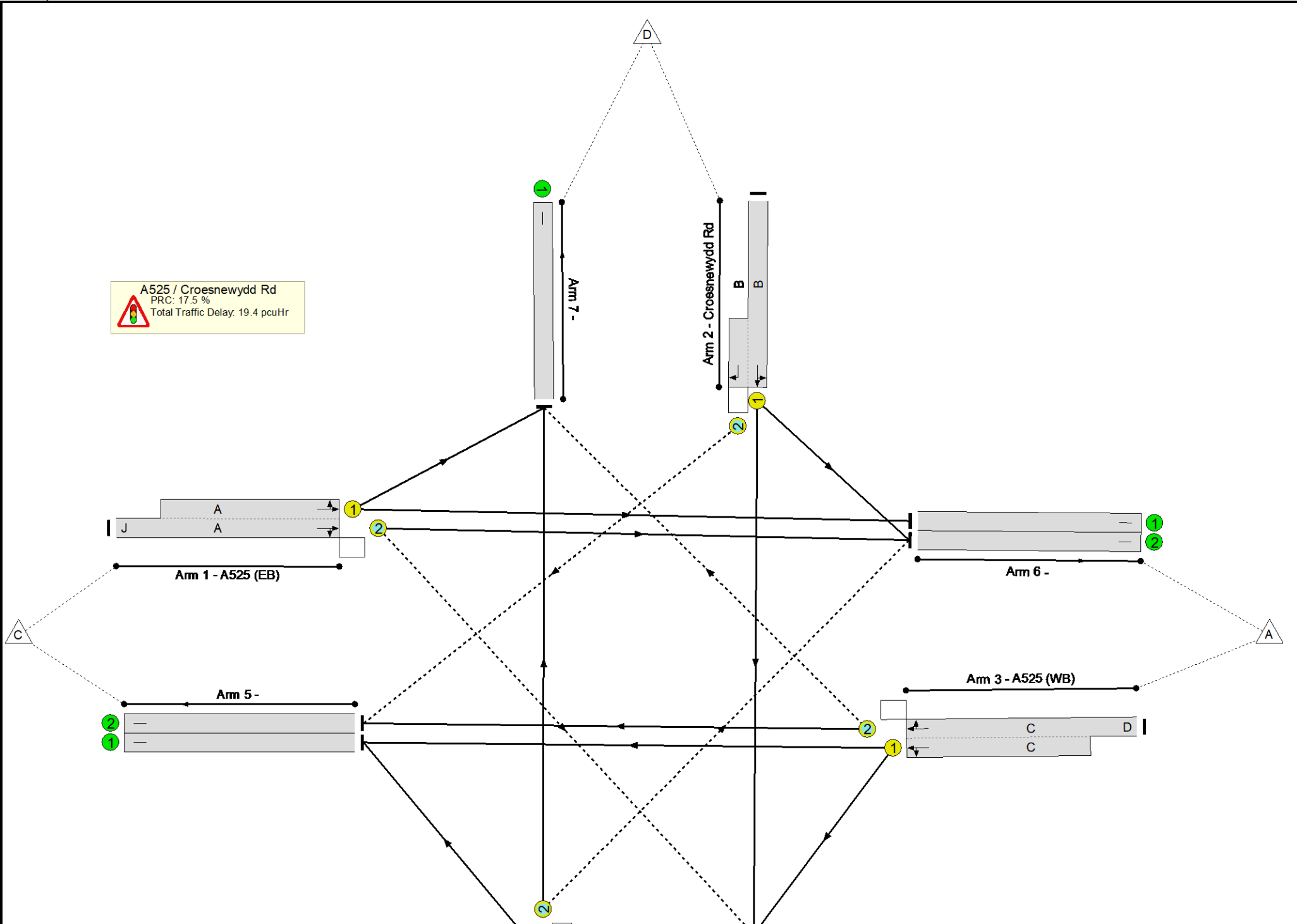
Scenario 1: '2028 Assess AM' (FG1: '2028 Assess AM', Plan 1: 'Network Control Plan 1')

Stage Timings

Stage	1	2	3	4	6	1	2	3	4
Duration	7	47	4	8	7	4	37	4	17
Change Point	0	12	64	68	83	100	110	152	156

Signal Timings 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	-	-		-	-	-	-	-	-	76.6%
A525 / Croesnewydd Rd	-	-	N/A	-	-		-	-	-	-	-	-	76.6%
1/2+1/1	A525 (EB) Ahead Left Right	O+U	N/A	N/A	A	J	2	92	8	1291	1905:1779	849+842	76.4 : 76.4%
2/1+2/2	Croesnewydd Rd Right Left Ahead	U+O	N/A	N/A	B		2	25	-	331	1789:1730	239+194	76.5 : 76.5%
3/2+3/1	A525 (WB) Ahead Right Left	O+U	N/A	N/A	C	D	2	105	11	542	1813:1893	346+362	76.6 : 76.6%
4/2+4/1	Site Access Left Right Ahead	O+U	N/A	N/A	E		2	27	-	206	1786:1775	185+93	74.0 : 74.0%
5/1		U	N/A	N/A	-		-	-	-	305	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	274	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	19	Inf	Inf	0.0%
6/2		U	N/A	N/A	-		-	-	-	872	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	808	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	92	Inf	Inf	0.0%

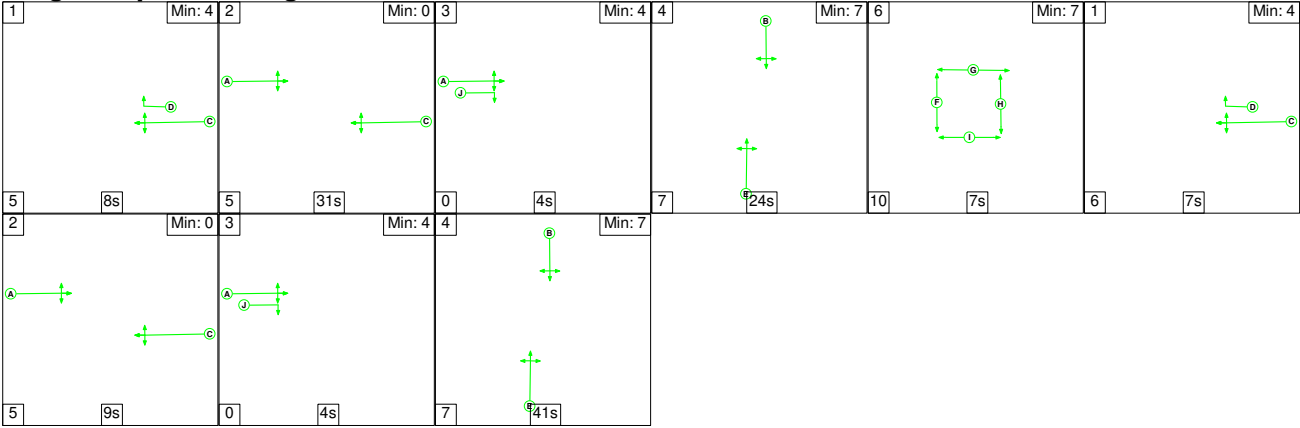
Full Input Data And Results

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	-	-	224	70	116	12.4	6.2	0.8	19.4	-	-	-	-
A525 / Croesnewydd Rd	-	-	224	70	116	12.4	6.2	0.8	19.4	-	-	-	-
1/2+1/1	1291	1291	30	1	1	5.7	1.6	0.0	7.3	20.4	12.9	1.6	14.5
2/1+2/2	331	331	123	0	25	3.4	1.6	0.1	5.1	55.3	4.5	1.6	6.0
3/2+3/1	542	542	16	69	53	1.3	1.6	0.5	3.4	22.7	3.7	1.6	5.3
4/2+4/1	206	206	55	0	37	2.0	1.4	0.2	3.6	63.6	3.6	1.4	5.0
5/1	305	305	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	274	274	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	19	19	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	872	872	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	808	808	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	92	92	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): 17.5 Total Delay for Signalled Lanes (pcuHr): 19.44 Cycle Time (s): 180 PRC Over All Lanes (%): 17.5 Total Delay Over All Lanes(pcuHr): 19.44													

Full Input Data And Results

Scenario 2: '2028 Assess PM' (FG2: '2028 Assess PM', Plan 1: 'Network Control Plan 1')

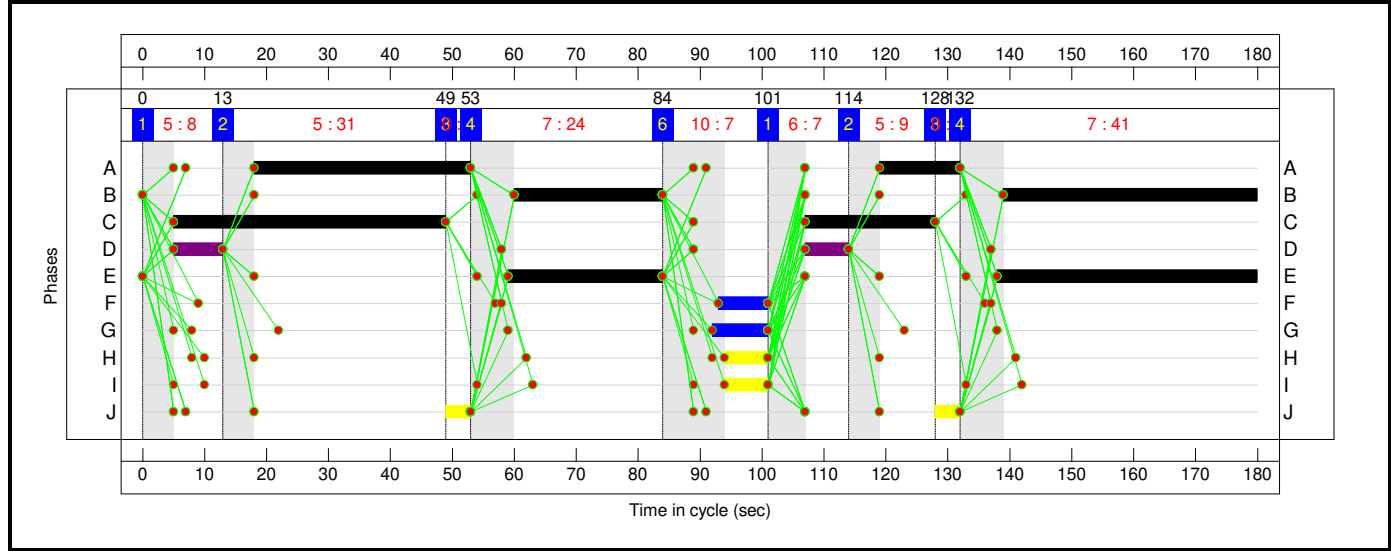
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4	6	1	2	3	4
Duration	8	31	4	24	7	7	9	4	41
Change Point	0	13	49	53	84	101	114	128	132

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

The diagram illustrates a four-way signalized intersection with the following details:

- Intersection Arms:**
 - Arm 1 - A525 (EB):** Eastbound lanes with two through lanes (A) and a left-turn lane (J). Signal phase 1 is red, and phase 2 is green.
 - Arm 2 - Croesnewydd Rd:** Northbound lanes with two through lanes (B) and a left-turn lane (I). Signal phase 1 is red, and phase 2 is green.
 - Arm 3 - A525 (WB):** Westbound lanes with two through lanes (C) and a right-turn lane (D). Signal phase 1 is red, and phase 2 is green.
 - Arm 5 -:** Southbound lanes with two through lanes. Signal phase 1 is red, and phase 2 is green.
- Signal Phases:** Indicated by yellow circles with numbers 1 and 2 at each approach. Phase 1 is red, and Phase 2 is green.
- Delay Data:**
 - A525 / Croesnewydd Rd:** PRC: 33.9 %, Total Traffic Delay: 16.5 pcuHr.
- Approach Diagrams:** Dashed lines show the approach for each arm, with signal phase indicators (1 and 2) at the intersection.

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	-	-		-	-	-	-	-	-	67.2%
A525 / Croesnewydd Rd	-	-	N/A	-	-		-	-	-	-	-	-	67.2%
1/2+1/1	A525 (EB) Ahead Left Right	O+U	N/A	N/A	A	J	2	48	8	652	1873:1854	516+510	63.6 : 63.6%
2/1+2/2	Croesnewydd Rd Right Left Ahead	U+O	N/A	N/A	B		2	65	-	535	1804:1730	295+501	67.2 : 67.2%
3/2+3/1	A525 (WB) Ahead Right Left	O+U	N/A	N/A	C	D	2	65	15	699	1819:1878	513+529	67.1 : 67.1%
4/2+4/1	Site Access Left Right Ahead	O+U	N/A	N/A	E		2	67	-	102	1786:1775	535+280	12.5 : 12.5%
5/1		U	N/A	N/A	-		-	-	-	301	Inf	Inf	0.0%
5/2		U	N/A	N/A	-		-	-	-	512	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	188	Inf	Inf	0.0%
6/2		U	N/A	N/A	-		-	-	-	459	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	327	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	201	Inf	Inf	0.0%

Full Input Data And Results

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	-	-	480	109	29	13.1	3.0	0.4	16.5	-	-	-	-
A525 / Croesnewydd Rd	-	-	480	109	29	13.1	3.0	0.4	16.5	-	-	-	-
1/2+1/1	652	652	58	5	5	5.2	0.9	0.0	6.0	33.3	7.1	0.9	8.0
2/1+2/2	535	535	337	0	0	3.2	1.0	0.2	4.4	29.6	7.8	1.0	8.8
3/2+3/1	699	699	40	104	25	4.2	1.0	0.2	5.4	28.0	6.9	1.0	7.9
4/2+4/1	102	102	45	0	0	0.5	0.1	0.1	0.6	22.4	1.1	0.1	1.2
5/1	301	301	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	512	512	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	188	188	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	459	459	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	327	327	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	201	201	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): 33.9 Total Delay for Signalled Lanes (pcuHr): 16.50 Cycle Time (s): 180 PRC Over All Lanes (%): 33.9 Total Delay Over All Lanes(pcuHr): 16.50													

S|C|P

APPENDIX H

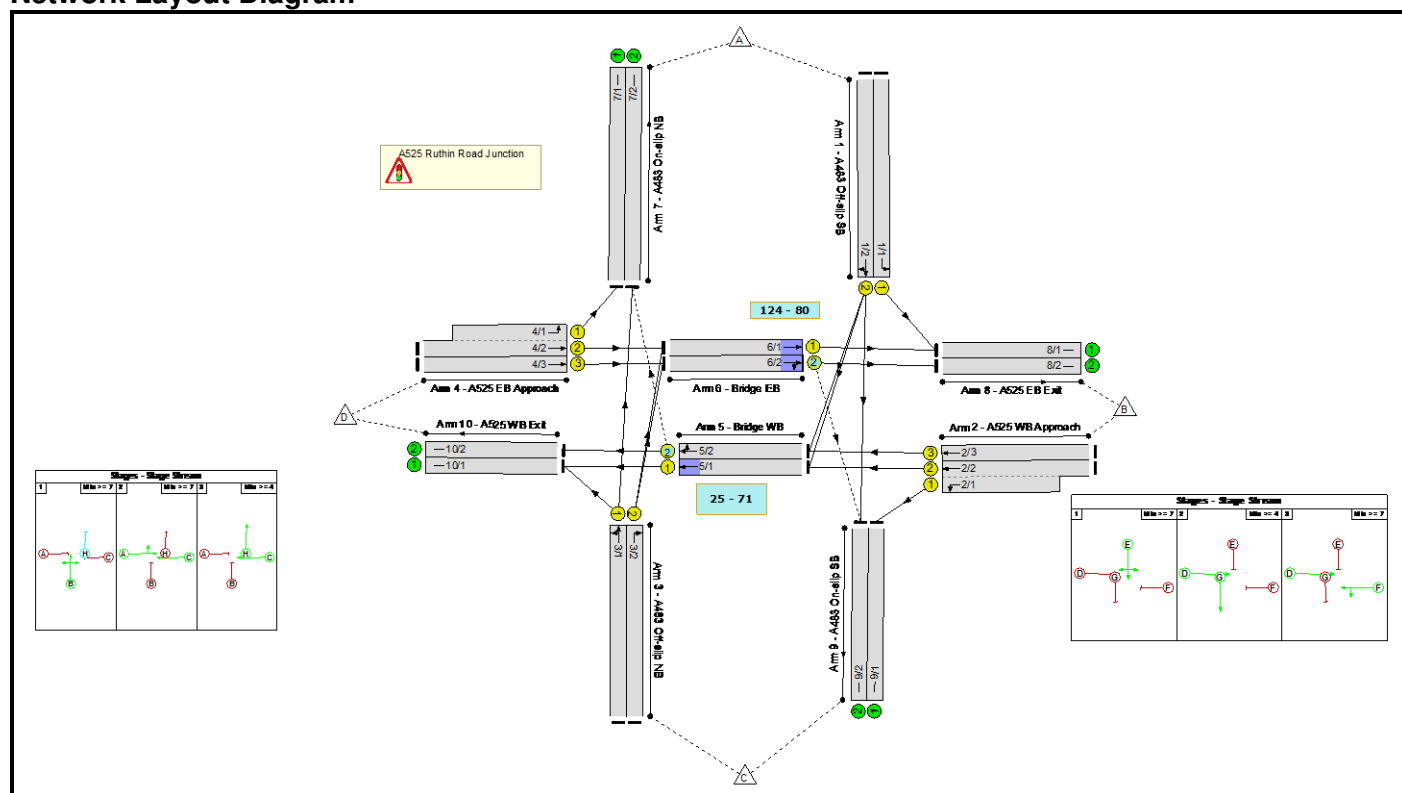
Full Input Data And Results

Full Input Data And Results

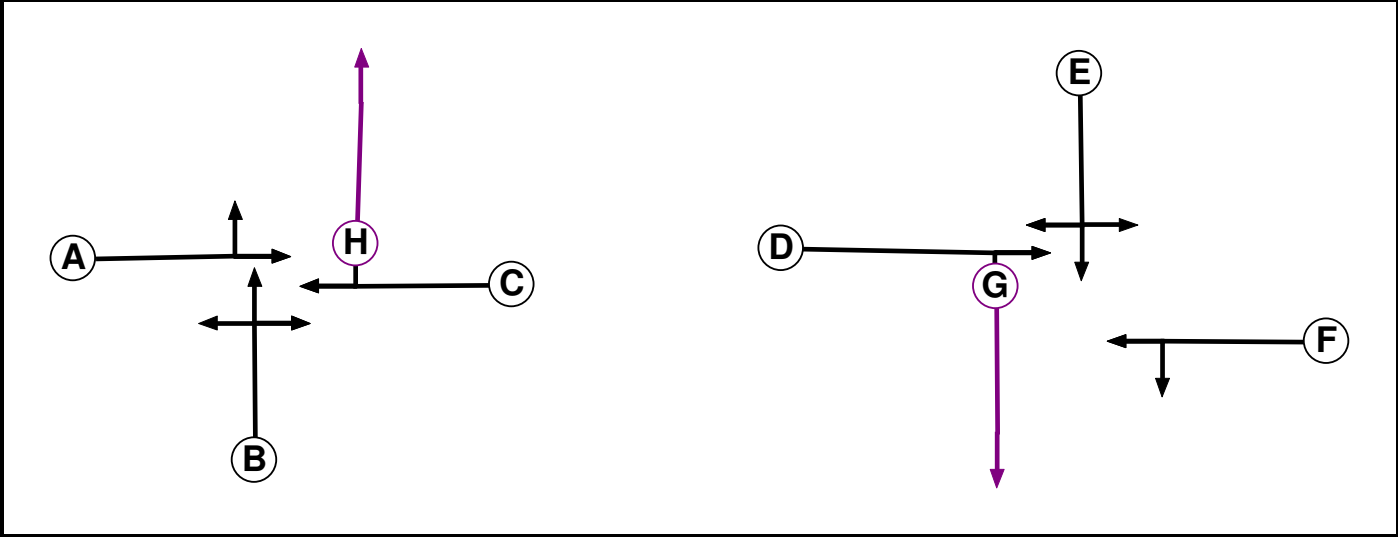
User and Project Details

Project:	Ruthin Road Wrexham
Title:	A483 / A525 Linsig Model
Location:	Junction of A483 & A525
Additional detail:	Based on Capita model supplied by Wrexham Council Additional Left Turn Lane On A575 N
File name:	Proposed_A525_A483_22.04.25.lsg3x
Author:	Jon Addy
Company:	SCP Transport
Address:	Colwyn Chambers, 19 York Street, Manchester, M2 3BA

Network Layout Diagram



Phase Diagram



Phase Input Data

Phase Name	Phase Type	Stage Stream	Assoc. Phase	Street Min (s)	Cont Min (s)
A	Traffic	2		7	7
B	Traffic	2		7	7
C	Traffic	2		7	7
D	Traffic	1		7	7
E	Traffic	1		7	7
F	Traffic	1		7	7
G	Ind. Arrow	1	D	4	4
H	Ind. Arrow	2	C	4	4

Phase Intergreens Matrix

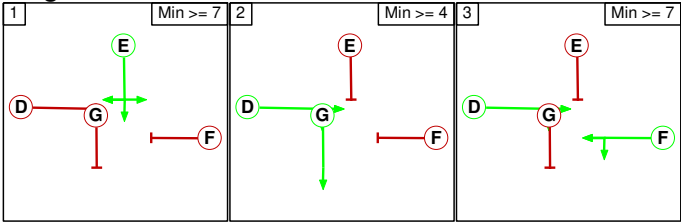
Terminating Phase	Starting Phase								
		A	B	C	D	E	F	G	H
	A		7	-	-	-	-	-	3
	B	7		7	-	-	-	-	-
	C	-	7		-	-	-	-	-
	D	-	-	-		7	-	-	-
	E	-	-	-	7		7	7	-
	F	-	-	-	-	7		5	-
	G	-	-	-	-	7	3		-
	H	5	-	-	-	-	-	-	

Phases in Stage

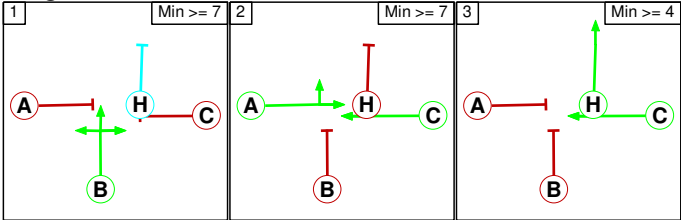
Stream	Stage No.	Phases in Stage
1	1	E
1	2	D G
1	3	D F
2	1	B
2	2	A C
2	3	C H

Stage Diagram

Stage Stream: 1



Stage Stream: 2



Phase Delays

Stage Stream: 1

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

Stage Stream: 2

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

Prohibited Stage Change

Stage Stream: 1

	To Stage			
From Stage		1	2	3
	1		7	7
	2	7		3
	3	7	5	

Stage Stream: 2

	To Stage			
From Stage		1	2	3
	1		7	X
	2	7		3
	3	7	5	

Full Input Data And Results

Give-Way Lane Input Data

Junction: A525 Ruthin Road Junction											
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)
5/2 (Bridge WB)	7/2 (Right)	1439	0	4/2	1.09	All	-	-	-	-	-
				4/3	1.09	All					
6/2 (Bridge EB)	9/2 (Right)	1439	0	2/2	1.09	All	0.10	-	0.50	0	2.00
				2/3	1.09	All					

Full Input Data And Results

Lane Input Data

Junction: A525 Ruthin Road Junction												
Lane	Lane Type	Phases	Start Disp. (s)	End Disp. (s)	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient (%)	Nearside Lane	Turns	Turning Radius (m)
1/1 (A483 Off-slip SB)	U	E	2	3	60.0	Geom	-	3.25	0.00	Y	Arm 8 Left	20.00
1/2 (A483 Off-slip SB)	U	E	2	3	43.5	Geom	-	3.00	2.00	Y	Arm 5 Right	Inf
											Arm 9 Ahead	Inf
2/1 (A525 WB Approach)	U	F	2	3	19.1	Geom	-	3.00	0.00	Y	Arm 9 Left	20.00
2/2 (A525 WB Approach)	U	F	2	3	27.8	Geom	-	3.00	0.00	N	Arm 5 Ahead	Inf
2/3 (A525 WB Approach)	U	F	2	3	60.0	User	1900	-	-	-	-	-
3/1 (A483 Off-slip NB)	U	B	2	3	60.0	Geom	-	3.00	2.00	Y	Arm 7 Ahead	Inf
											Arm 10 Left	Inf
3/2 (A483 Off-slip NB)	U	B	2	3	60.0	Geom	-	3.00	2.00	N	Arm 6 Right	10.00
4/1 (A525 EB Approach)	U	A	2	3	25.0	Geom	-	3.25	0.00	Y	Arm 7 Left	20.00
4/2 (A525 EB Approach)	U	A	2	3	60.0	User	1900	-	-	-	-	-
4/3 (A525 EB Approach)	U	A	2	3	10.0	User	1900	-	-	-	-	-
5/1 (Bridge WB)	U	C	2	3	10.1	User	1900	-	-	-	-	-
5/2 (Bridge WB)	O	C H	2	3	10.1	Geom	-	3.25	0.00	Y	Arm 7 Right	15.00
											Arm 10 Ahead	Inf
6/1 (Bridge EB)	U	D	2	3	10.1	User	1900	-	-	-	-	-
6/2 (Bridge EB)	O	D G	2	3	10.1	Geom	-	3.25	0.00	Y	Arm 8 Ahead	Inf
											Arm 9 Right	15.00
7/1 (A483 On-slip NB)	U		2	3	60.0	Inf	-	-	-	-	-	-
7/2 (A483 On-slip NB)	U		2	3	60.0	Inf	-	-	-	-	-	-

Full Input Data And Results

8/1 (A525 EB Exit)	U		2	3	5.0	Inf	-	-	-	-	-	-
8/2 (A525 EB Exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
9/1 (A483 On-slip SB)	U		2	3	60.0	Inf	-	-	-	-	-	-
9/2 (A483 On-slip SB)	U		2	3	60.0	Inf	-	-	-	-	-	-
10/1 (A525 WB Exit)	U		2	3	12.2	Inf	-	-	-	-	-	-
10/2 (A525 WB Exit)	U		2	3	60.0	Geom	-	3.25	0.00	Y		

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: 'AM 2030 Base'	08:00	09:00	01:00	
2: 'PM 2030 Base'	16:30	17:30	01:00	
3: 'AM 2030 Assessment - 1520 Units'	08:00	09:00	01:00	
4: 'PM 2030 Assessment - 1520 Units'	16:30	17:30	01:00	
5: 'AM 2040 Base'	08:00	09:00	01:00	
6: 'PM 2040 Base'	16:30	17:30	01:00	
7: 'AM 2040 Assessment - 1520 Units'	08:00	09:00	01:00	
8: 'PM 2040 Assessment - 1520 Units'	16:30	17:30	01:00	

Scenario 1: '2030 AM Base' (FG1: 'AM 2030 Base', Plan 1: 'AM Control Plan')

Traffic Flows, Desired

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	300	0	294	594
	B	149	0	100	558	807
	C	0	452	0	253	705
	D	354	950	237	0	1541
	Tot.	503	1702	337	1105	3647

Traffic Lane Flows

Lane	Scenario 1: 2030 AM Base
Junction: A525 Ruthin Road Junction	
1/1	300
1/2	294
2/1 (short)	100
2/2 (with short)	658(In) 558(Out)
2/3	149
3/1	253
3/2	452
4/1 (short)	354
4/2 (with short)	1126(In) 772(Out)
4/3	415
5/1	852
5/2	149
6/1	1221
6/2	418
7/1	354
7/2	149
8/1	1521
8/2	181
9/1	100
9/2	237
10/1	1105
10/2	0

Lane Saturation Flows

Junction: A525 Ruthin Road Junction								
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A483 Off-slip SB)	3.25	0.00	Y	Arm 8 Left	20.00	100.0 %	1805	1805
1/2 (A483 Off-slip SB)	3.00	2.00	Y	Arm 5 Right	Inf	100.0 %	1831	1831
				Arm 9 Ahead	Inf	0.0 %		
2/1 (A525 WB Approach)	3.00	0.00	Y	Arm 9 Left	20.00	100.0 %	1781	1781
2/2 (A525 WB Approach)	3.00	0.00	N	Arm 5 Ahead	Inf	100.0 %	2055	2055
2/3 (A525 WB Approach Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
3/1 (A483 Off-slip NB)	3.00	2.00	Y	Arm 7 Ahead	Inf	0.0 %	1831	1831
				Arm 10 Left	Inf	100.0 %		
3/2 (A483 Off-slip NB)	3.00	2.00	N	Arm 6 Right	10.00	100.0 %	1714	1714
4/1 (A525 EB Approach)	3.25	0.00	Y	Arm 7 Left	20.00	100.0 %	1805	1805
4/2 (A525 EB Approach Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
4/3 (A525 EB Approach Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
5/1 (Bridge WB Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
5/2 (Bridge WB)	3.25	0.00	Y	Arm 7 Right	15.00	100.0 %	1764	1764
				Arm 10 Ahead	Inf	0.0 %		
6/1 (Bridge EB Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
6/2 (Bridge EB)	3.25	0.00	Y	Arm 8 Ahead	Inf	43.3 %	1836	1836
				Arm 9 Right	15.00	56.7 %		
7/1 (A483 On-slip NB Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (A483 On-slip NB Lane 2)	Infinite Saturation Flow						Inf	Inf
8/1 (A525 EB Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/2 (A525 EB Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
9/1 (A483 On-slip SB Lane 1)	Infinite Saturation Flow						Inf	Inf
9/2 (A483 On-slip SB Lane 2)	Infinite Saturation Flow						Inf	Inf
10/1 (A525 WB Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
10/2 (A525 WB Exit)	3.25	0.00	Y				1940	1940

Full Input Data And Results

Scenario 2: '2030 PM Base' (FG2: 'PM 2030 Base', Plan 2: 'PM Control Plan')

Traffic Flows, Desired

Desired Flow :

	Destination					
Origin		A	B	C	D	Tot.
	A	0	225	0	544	769
	B	142	0	197	929	1268
	C	0	132	0	338	470
	D	326	407	230	0	963
	Tot.	468	764	427	1811	3470

Traffic Lane Flows

Lane	Scenario 2: 2030 PM Base
Junction: A525 Ruthin Road Junction	
1/1	225
1/2	544
2/1 (short)	197
2/2 (with short)	819(In) 622(Out)
2/3	449
3/1	338
3/2	132
4/1 (short)	326
4/2 (with short)	733(In) 407(Out)
4/3	230
5/1	1166
5/2	449
6/1	539
6/2	230
7/1	326
7/2	142
8/1	764
8/2	0
9/1	197
9/2	230
10/1	1504
10/2	307

Lane Saturation Flows

Junction: A525 Ruthin Road Junction								
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A483 Off-slip SB)	3.25	0.00	Y	Arm 8 Left	20.00	100.0 %	1805	1805
1/2 (A483 Off-slip SB)	3.00	2.00	Y	Arm 5 Right	Inf	100.0 %	1831	1831
				Arm 9 Ahead	Inf	0.0 %		
2/1 (A525 WB Approach)	3.00	0.00	Y	Arm 9 Left	20.00	100.0 %	1781	1781
2/2 (A525 WB Approach)	3.00	0.00	N	Arm 5 Ahead	Inf	100.0 %	2055	2055
2/3 (A525 WB Approach Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
3/1 (A483 Off-slip NB)	3.00	2.00	Y	Arm 7 Ahead	Inf	0.0 %	1831	1831
				Arm 10 Left	Inf	100.0 %		
3/2 (A483 Off-slip NB)	3.00	2.00	N	Arm 6 Right	10.00	100.0 %	1714	1714
4/1 (A525 EB Approach)	3.25	0.00	Y	Arm 7 Left	20.00	100.0 %	1805	1805
4/2 (A525 EB Approach Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
4/3 (A525 EB Approach Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
5/1 (Bridge WB Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
5/2 (Bridge WB)	3.25	0.00	Y	Arm 7 Right	15.00	31.6 %	1881	1881
				Arm 10 Ahead	Inf	68.4 %		
6/1 (Bridge EB Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
6/2 (Bridge EB)	3.25	0.00	Y	Arm 8 Ahead	Inf	0.0 %	1764	1764
				Arm 9 Right	15.00	100.0 %		
7/1 (A483 On-slip NB Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (A483 On-slip NB Lane 2)	Infinite Saturation Flow						Inf	Inf
8/1 (A525 EB Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/2 (A525 EB Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
9/1 (A483 On-slip SB Lane 1)	Infinite Saturation Flow						Inf	Inf
9/2 (A483 On-slip SB Lane 2)	Infinite Saturation Flow						Inf	Inf
10/1 (A525 WB Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
10/2 (A525 WB Exit)	3.25	0.00	Y				1940	1940

Full Input Data And Results

Scenario 3: '2030 AM Assessment - 1520 Units' (FG3: 'AM 2030 Assessment - 1520 Units', Plan 1: 'AM Control Plan')

Traffic Flows, Desired

Desired Flow :

Origin	Destination					
		A	B	C	D	Tot.
	A	0	346	0	294	640
	B	252	0	214	619	1085
	C	0	503	0	255	758
	D	354	977	242	0	1573
	Tot.	606	1826	456	1168	4056

Traffic Lane Flows

Lane	Scenario 3: 2030 AM Assessment - 1520 Units
Junction: A525 Ruthin Road Junction	
1/1	346
1/2	294
2/1 (short)	214
2/2 (with short)	833(In) 619(Out)
2/3	252
3/1	255
3/2	503
4/1 (short)	354
4/2 (with short)	1015(In) 661(Out)
4/3	558
5/1	913
5/2	252
6/1	1163
6/2	559
7/1	354
7/2	252
8/1	1509
8/2	317
9/1	214
9/2	242
10/1	1168
10/2	0

Lane Saturation Flows

Junction: A525 Ruthin Road Junction								
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A483 Off-slip SB)	3.25	0.00	Y	Arm 8 Left	20.00	100.0 %	1805	1805
1/2 (A483 Off-slip SB)	3.00	2.00	Y	Arm 5 Right	Inf	100.0 %	1831	1831
				Arm 9 Ahead	Inf	0.0 %		
2/1 (A525 WB Approach)	3.00	0.00	Y	Arm 9 Left	20.00	100.0 %	1781	1781
2/2 (A525 WB Approach)	3.00	0.00	N	Arm 5 Ahead	Inf	100.0 %	2055	2055
2/3 (A525 WB Approach Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
3/1 (A483 Off-slip NB)	3.00	2.00	Y	Arm 7 Ahead	Inf	0.0 %	1831	1831
				Arm 10 Left	Inf	100.0 %		
3/2 (A483 Off-slip NB)	3.00	2.00	N	Arm 6 Right	10.00	100.0 %	1714	1714
4/1 (A525 EB Approach)	3.25	0.00	Y	Arm 7 Left	20.00	100.0 %	1805	1805
4/2 (A525 EB Approach Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
4/3 (A525 EB Approach Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
5/1 (Bridge WB Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
5/2 (Bridge WB)	3.25	0.00	Y	Arm 7 Right	15.00	100.0 %	1764	1764
				Arm 10 Ahead	Inf	0.0 %		
6/1 (Bridge EB Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
6/2 (Bridge EB)	3.25	0.00	Y	Arm 8 Ahead	Inf	56.7 %	1859	1859
				Arm 9 Right	15.00	43.3 %		
7/1 (A483 On-slip NB Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (A483 On-slip NB Lane 2)	Infinite Saturation Flow						Inf	Inf
8/1 (A525 EB Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/2 (A525 EB Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
9/1 (A483 On-slip SB Lane 1)	Infinite Saturation Flow						Inf	Inf
9/2 (A483 On-slip SB Lane 2)	Infinite Saturation Flow						Inf	Inf
10/1 (A525 WB Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
10/2 (A525 WB Exit)	3.25	0.00	Y				1940	1940

Full Input Data And Results

Scenario 4: '2030 PM Assessment - 1520 Units' (FG4: 'PM 2030 Assessment - 1520 Units', Plan 2: 'PM Control Plan')

Traffic Flows, Desired

Desired Flow :

Origin	Destination					
		A	B	C	D	Tot.
	A	0	326	0	544	870
	B	193	0	253	959	1405
	C	0	243	0	343	586
	D	326	467	233	0	1026
	Tot.	519	1036	486	1846	3887

Traffic Lane Flows

Lane	Scenario 4: 2030 PM Assessment - 1520 Units
Junction: A525 Ruthin Road Junction	
1/1	326
1/2	544
2/1 (short)	253
2/2 (with short)	932(In) 679(Out)
2/3	473
3/1	343
3/2	243
4/1 (short)	326
4/2 (with short)	793(In) 467(Out)
4/3	233
5/1	1223
5/2	473
6/1	710
6/2	233
7/1	326
7/2	193
8/1	1036
8/2	0
9/1	253
9/2	233
10/1	1566
10/2	280

Lane Saturation Flows

Junction: A525 Ruthin Road Junction								
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A483 Off-slip SB)	3.25	0.00	Y	Arm 8 Left	20.00	100.0 %	1805	1805
1/2 (A483 Off-slip SB)	3.00	2.00	Y	Arm 5 Right	Inf	100.0 %	1831	1831
				Arm 9 Ahead	Inf	0.0 %		
2/1 (A525 WB Approach)	3.00	0.00	Y	Arm 9 Left	20.00	100.0 %	1781	1781
2/2 (A525 WB Approach)	3.00	0.00	N	Arm 5 Ahead	Inf	100.0 %	2055	2055
2/3 (A525 WB Approach Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
3/1 (A483 Off-slip NB)	3.00	2.00	Y	Arm 7 Ahead	Inf	0.0 %	1831	1831
				Arm 10 Left	Inf	100.0 %		
3/2 (A483 Off-slip NB)	3.00	2.00	N	Arm 6 Right	10.00	100.0 %	1714	1714
4/1 (A525 EB Approach)	3.25	0.00	Y	Arm 7 Left	20.00	100.0 %	1805	1805
4/2 (A525 EB Approach Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
4/3 (A525 EB Approach Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
5/1 (Bridge WB Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
5/2 (Bridge WB)	3.25	0.00	Y	Arm 7 Right	15.00	40.8 %	1864	1864
				Arm 10 Ahead	Inf	59.2 %		
6/1 (Bridge EB Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
6/2 (Bridge EB)	3.25	0.00	Y	Arm 8 Ahead	Inf	0.0 %	1764	1764
				Arm 9 Right	15.00	100.0 %		
7/1 (A483 On-slip NB Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (A483 On-slip NB Lane 2)	Infinite Saturation Flow						Inf	Inf
8/1 (A525 EB Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/2 (A525 EB Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
9/1 (A483 On-slip SB Lane 1)	Infinite Saturation Flow						Inf	Inf
9/2 (A483 On-slip SB Lane 2)	Infinite Saturation Flow						Inf	Inf
10/1 (A525 WB Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
10/2 (A525 WB Exit)	3.25	0.00	Y				1940	1940

Full Input Data And Results

Scenario 5: '2040 AM Base' (FG5: 'AM 2040 Base', Plan 1: 'AM Control Plan')

Traffic Flows, Desired

Desired Flow :

	Destination					
Origin		A	B	C	D	Tot.
	A	0	334	0	325	659
	B	165	0	112	617	894
	C	0	503	0	281	784
	D	391	1050	263	0	1704
	Tot.	556	1887	375	1223	4041

Traffic Lane Flows

Lane	Scenario 5: 2040 AM Base
Junction: A525 Ruthin Road Junction	
1/1	334
1/2	325
2/1 (short)	112
2/2 (with short)	729(In) 617(Out)
2/3	165
3/1	281
3/2	503
4/1 (short)	391
4/2 (with short)	1192(In) 801(Out)
4/3	512
5/1	942
5/2	165
6/1	1258
6/2	558
7/1	391
7/2	165
8/1	1592
8/2	295
9/1	112
9/2	263
10/1	1223
10/2	0

Lane Saturation Flows

Junction: A525 Ruthin Road Junction								
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A483 Off-slip SB)	3.25	0.00	Y	Arm 8 Left	20.00	100.0 %	1805	1805
1/2 (A483 Off-slip SB)	3.00	2.00	Y	Arm 5 Right	Inf	100.0 %	1831	1831
				Arm 9 Ahead	Inf	0.0 %		
2/1 (A525 WB Approach)	3.00	0.00	Y	Arm 9 Left	20.00	100.0 %	1781	1781
2/2 (A525 WB Approach)	3.00	0.00	N	Arm 5 Ahead	Inf	100.0 %	2055	2055
2/3 (A525 WB Approach Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
3/1 (A483 Off-slip NB)	3.00	2.00	Y	Arm 7 Ahead	Inf	0.0 %	1831	1831
				Arm 10 Left	Inf	100.0 %		
3/2 (A483 Off-slip NB)	3.00	2.00	N	Arm 6 Right	10.00	100.0 %	1714	1714
4/1 (A525 EB Approach)	3.25	0.00	Y	Arm 7 Left	20.00	100.0 %	1805	1805
4/2 (A525 EB Approach Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
4/3 (A525 EB Approach Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
5/1 (Bridge WB Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
5/2 (Bridge WB)	3.25	0.00	Y	Arm 7 Right	15.00	100.0 %	1764	1764
				Arm 10 Ahead	Inf	0.0 %		
6/1 (Bridge EB Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
6/2 (Bridge EB)	3.25	0.00	Y	Arm 8 Ahead	Inf	52.9 %	1853	1853
				Arm 9 Right	15.00	47.1 %		
7/1 (A483 On-slip NB Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (A483 On-slip NB Lane 2)	Infinite Saturation Flow						Inf	Inf
8/1 (A525 EB Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/2 (A525 EB Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
9/1 (A483 On-slip SB Lane 1)	Infinite Saturation Flow						Inf	Inf
9/2 (A483 On-slip SB Lane 2)	Infinite Saturation Flow						Inf	Inf
10/1 (A525 WB Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
10/2 (A525 WB Exit)	3.25	0.00	Y				1940	1940

Full Input Data And Results

Scenario 6: '2040 PM Base' (FG6: 'PM 2040 Base', Plan 2: 'PM Control Plan')

Traffic Flows, Desired

Desired Flow :

	Destination					
Origin		A	B	C	D	Tot.
	A	0	251	0	604	855
	B	158	0	219	1028	1405
	C	0	147	0	376	523
	D	361	450	256	0	1067
	Tot.	519	848	475	2008	3850

Traffic Lane Flows

Lane	Scenario 6: 2040 PM Base
Junction: A525 Ruthin Road Junction	
1/1	251
1/2	604
2/1 (short)	219
2/2 (with short)	863(In) 644(Out)
2/3	542
3/1	376
3/2	147
4/1 (short)	361
4/2 (with short)	811(In) 450(Out)
4/3	256
5/1	1248
5/2	542
6/1	597
6/2	256
7/1	361
7/2	158
8/1	848
8/2	0
9/1	219
9/2	256
10/1	1624
10/2	384

Lane Saturation Flows

Junction: A525 Ruthin Road Junction								
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A483 Off-slip SB)	3.25	0.00	Y	Arm 8 Left	20.00	100.0 %	1805	1805
1/2 (A483 Off-slip SB)	3.00	2.00	Y	Arm 5 Right	Inf	100.0 %	1831	1831
				Arm 9 Ahead	Inf	0.0 %		
2/1 (A525 WB Approach)	3.00	0.00	Y	Arm 9 Left	20.00	100.0 %	1781	1781
2/2 (A525 WB Approach)	3.00	0.00	N	Arm 5 Ahead	Inf	100.0 %	2055	2055
2/3 (A525 WB Approach Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
3/1 (A483 Off-slip NB)	3.00	2.00	Y	Arm 7 Ahead	Inf	0.0 %	1831	1831
				Arm 10 Left	Inf	100.0 %		
3/2 (A483 Off-slip NB)	3.00	2.00	N	Arm 6 Right	10.00	100.0 %	1714	1714
4/1 (A525 EB Approach)	3.25	0.00	Y	Arm 7 Left	20.00	100.0 %	1805	1805
4/2 (A525 EB Approach Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
4/3 (A525 EB Approach Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
5/1 (Bridge WB Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
5/2 (Bridge WB)	3.25	0.00	Y	Arm 7 Right	15.00	29.2 %	1885	1885
				Arm 10 Ahead	Inf	70.8 %		
6/1 (Bridge EB Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
6/2 (Bridge EB)	3.25	0.00	Y	Arm 8 Ahead	Inf	0.0 %	1764	1764
				Arm 9 Right	15.00	100.0 %		
7/1 (A483 On-slip NB Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (A483 On-slip NB Lane 2)	Infinite Saturation Flow						Inf	Inf
8/1 (A525 EB Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/2 (A525 EB Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
9/1 (A483 On-slip SB Lane 1)	Infinite Saturation Flow						Inf	Inf
9/2 (A483 On-slip SB Lane 2)	Infinite Saturation Flow						Inf	Inf
10/1 (A525 WB Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
10/2 (A525 WB Exit)	3.25	0.00	Y				1940	1940

Full Input Data And Results

Scenario 7: '2040 AM Assessment - 1520 Units' (FG7: 'AM 2040 Assessment - 1520 Units', Plan 1: 'AM Control Plan')

Traffic Flows, Desired

Desired Flow :

Origin	Destination					
		A	B	C	D	Tot.
	A	0	380	0	325	705
	B	269	0	225	679	1173
	C	0	553	0	283	836
	D	391	1078	268	0	1737
	Tot.	660	2011	493	1287	4451

Traffic Lane Flows

Lane	Scenario 7: 2040 AM Assessment - 1520 Units
Junction: A525 Ruthin Road Junction	
1/1	380
1/2	325
2/1 (short)	225
2/2 (with short)	844(In) 619(Out)
2/3	329
3/1	283
3/2	553
4/1 (short)	391
4/2 (with short)	1094(In) 703(Out)
4/3	643
5/1	944
5/2	329
6/1	1256
6/2	643
7/1	391
7/2	269
8/1	1636
8/2	375
9/1	225
9/2	268
10/1	1227
10/2	60

Lane Saturation Flows

Junction: A525 Ruthin Road Junction								
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A483 Off-slip SB)	3.25	0.00	Y	Arm 8 Left	20.00	100.0 %	1805	1805
1/2 (A483 Off-slip SB)	3.00	2.00	Y	Arm 5 Right	Inf	100.0 %	1831	1831
				Arm 9 Ahead	Inf	0.0 %		
2/1 (A525 WB Approach)	3.00	0.00	Y	Arm 9 Left	20.00	100.0 %	1781	1781
2/2 (A525 WB Approach)	3.00	0.00	N	Arm 5 Ahead	Inf	100.0 %	2055	2055
2/3 (A525 WB Approach Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
3/1 (A483 Off-slip NB)	3.00	2.00	Y	Arm 7 Ahead	Inf	0.0 %	1831	1831
				Arm 10 Left	Inf	100.0 %		
3/2 (A483 Off-slip NB)	3.00	2.00	N	Arm 6 Right	10.00	100.0 %	1714	1714
4/1 (A525 EB Approach)	3.25	0.00	Y	Arm 7 Left	20.00	100.0 %	1805	1805
4/2 (A525 EB Approach Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
4/3 (A525 EB Approach Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
5/1 (Bridge WB Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
5/2 (Bridge WB)	3.25	0.00	Y	Arm 7 Right	15.00	81.8 %	1793	1793
				Arm 10 Ahead	Inf	18.2 %		
6/1 (Bridge EB Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
6/2 (Bridge EB)	3.25	0.00	Y	Arm 8 Ahead	Inf	58.3 %	1862	1862
				Arm 9 Right	15.00	41.7 %		
7/1 (A483 On-slip NB Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (A483 On-slip NB Lane 2)	Infinite Saturation Flow						Inf	Inf
8/1 (A525 EB Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/2 (A525 EB Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
9/1 (A483 On-slip SB Lane 1)	Infinite Saturation Flow						Inf	Inf
9/2 (A483 On-slip SB Lane 2)	Infinite Saturation Flow						Inf	Inf
10/1 (A525 WB Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
10/2 (A525 WB Exit)	3.25	0.00	Y				1940	1940

Full Input Data And Results

Scenario 8: '2040 PM Assessment - 1520 Units' (FG8: 'PM 2040 Assessment - 1520 Units', Plan 2: 'PM Control Plan')

Traffic Flows, Desired

Desired Flow :

Origin	Destination					
		A	B	C	D	Tot.
	A	0	352	0	604	956
	B	209	0	275	1059	1543
	C	0	258	0	381	639
	D	361	510	258	0	1129
	Tot.	570	1120	533	2044	4267

Traffic Lane Flows

Lane	Scenario 8: 2040 PM Assessment - 1520 Units
Junction: A525 Ruthin Road Junction	
1/1	352
1/2	604
2/1 (short)	275
2/2 (with short)	944(In) 669(Out)
2/3	599
3/1	381
3/2	258
4/1 (short)	361
4/2 (with short)	871(In) 510(Out)
4/3	258
5/1	1273
5/2	599
6/1	768
6/2	258
7/1	361
7/2	209
8/1	1120
8/2	0
9/1	275
9/2	258
10/1	1654
10/2	390

Lane Saturation Flows

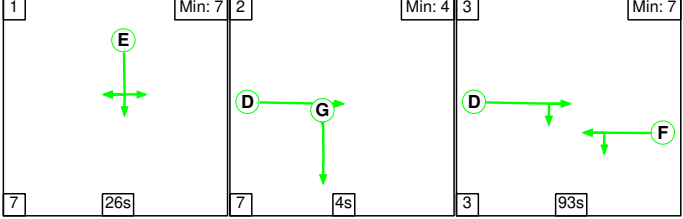
Junction: A525 Ruthin Road Junction								
Lane	Lane Width (m)	Gradient (%)	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A483 Off-slip SB)	3.25	0.00	Y	Arm 8 Left	20.00	100.0 %	1805	1805
1/2 (A483 Off-slip SB)	3.00	2.00	Y	Arm 5 Right	Inf	100.0 %	1831	1831
				Arm 9 Ahead	Inf	0.0 %		
2/1 (A525 WB Approach)	3.00	0.00	Y	Arm 9 Left	20.00	100.0 %	1781	1781
2/2 (A525 WB Approach)	3.00	0.00	N	Arm 5 Ahead	Inf	100.0 %	2055	2055
2/3 (A525 WB Approach Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
3/1 (A483 Off-slip NB)	3.00	2.00	Y	Arm 7 Ahead	Inf	0.0 %	1831	1831
				Arm 10 Left	Inf	100.0 %		
3/2 (A483 Off-slip NB)	3.00	2.00	N	Arm 6 Right	10.00	100.0 %	1714	1714
4/1 (A525 EB Approach)	3.25	0.00	Y	Arm 7 Left	20.00	100.0 %	1805	1805
4/2 (A525 EB Approach Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
4/3 (A525 EB Approach Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
5/1 (Bridge WB Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
5/2 (Bridge WB)	3.25	0.00	Y	Arm 7 Right	15.00	34.9 %	1875	1875
				Arm 10 Ahead	Inf	65.1 %		
6/1 (Bridge EB Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
6/2 (Bridge EB)	3.25	0.00	Y	Arm 8 Ahead	Inf	0.0 %	1764	1764
				Arm 9 Right	15.00	100.0 %		
7/1 (A483 On-slip NB Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (A483 On-slip NB Lane 2)	Infinite Saturation Flow						Inf	Inf
8/1 (A525 EB Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
8/2 (A525 EB Exit Lane 2)	Infinite Saturation Flow						Inf	Inf
9/1 (A483 On-slip SB Lane 1)	Infinite Saturation Flow						Inf	Inf
9/2 (A483 On-slip SB Lane 2)	Infinite Saturation Flow						Inf	Inf
10/1 (A525 WB Exit Lane 1)	Infinite Saturation Flow						Inf	Inf
10/2 (A525 WB Exit)	3.25	0.00	Y				1940	1940

Full Input Data And Results

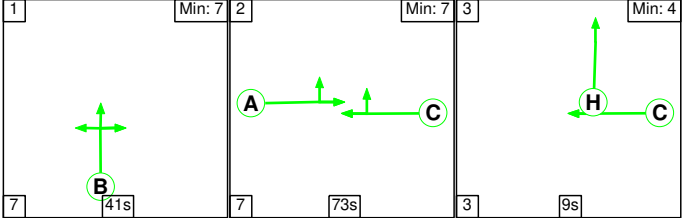
Scenario 1: '2030 AM Base' (FG1: 'AM 2030 Base', Plan 1: 'AM Control Plan')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

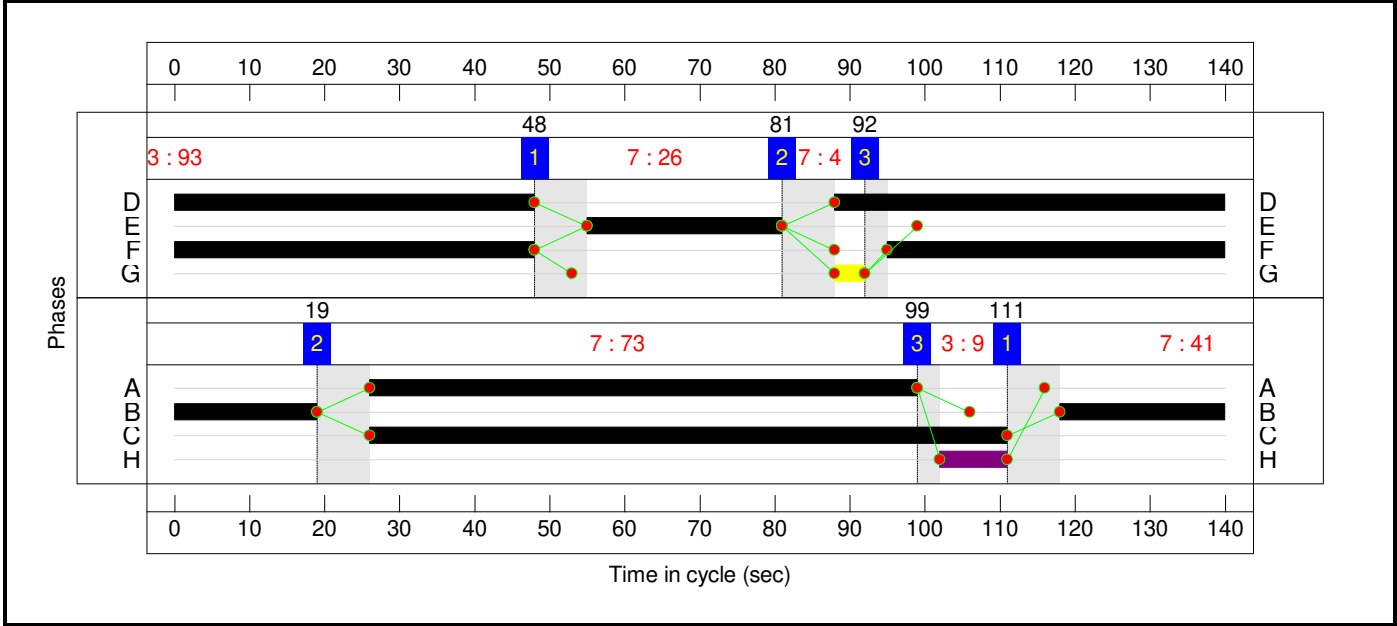
Stage Stream: 1

Stage	1	2	3
Duration	26	4	93
Change Point	48	81	92

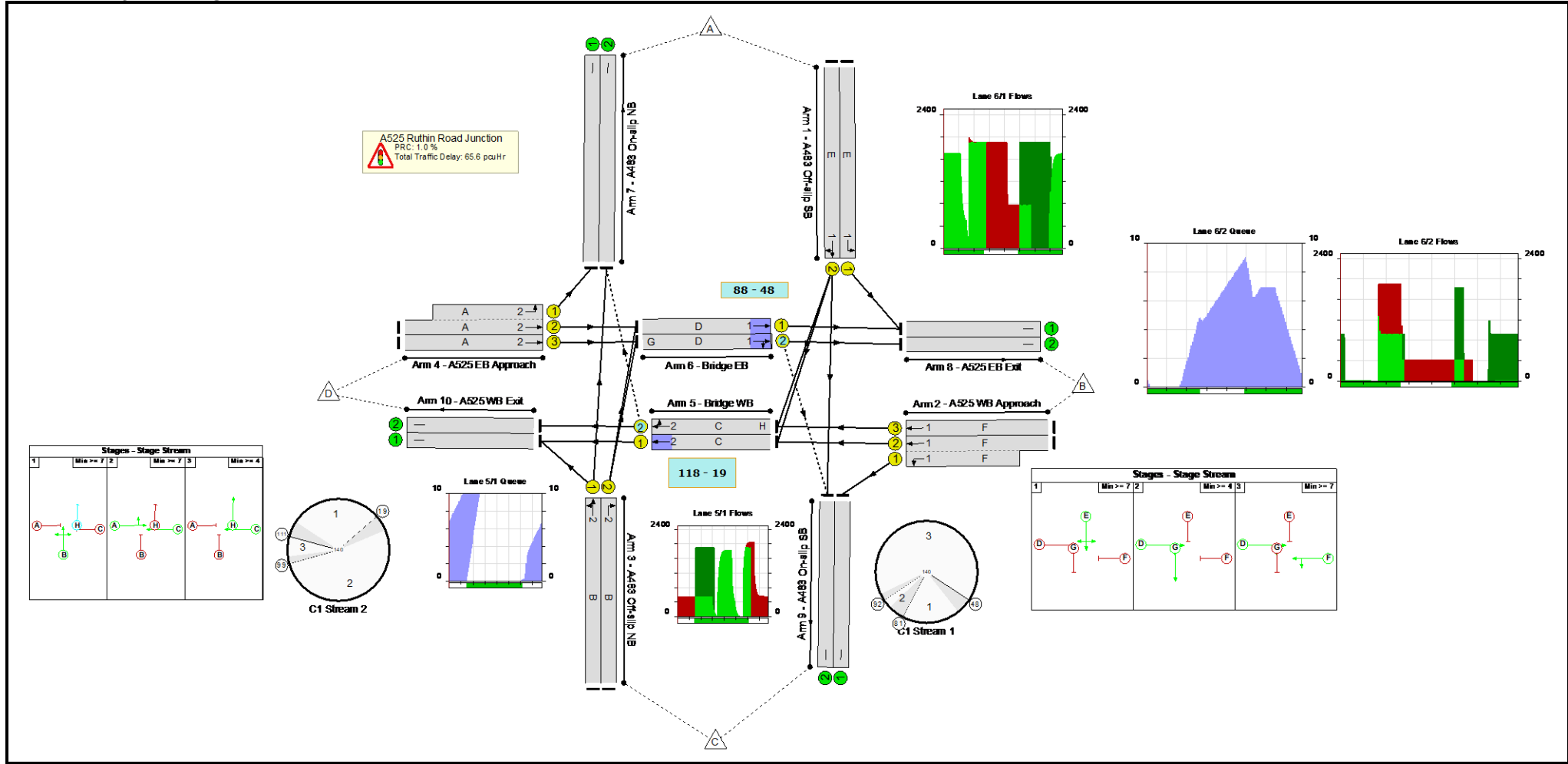
Stage Stream: 2

Stage	1	2	3
Duration	41	73	9
Change Point	111	19	99

Signal Timings Diagram



Full Input Data And Results
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: A483 / A525 Linsig Model	-	-	N/A	-	-		-	-	-	-	-	-	89.1%
A525 Ruthin Road Junction	-	-	N/A	-	-		-	-	-	-	-	-	89.1%
1/1	A483 Off-slip SB Left	U	1	N/A	E		1	26	-	300	1805	348	86.2%
1/2	A483 Off-slip SB Right Ahead	U	1	N/A	E		1	26	-	294	1831	353	83.3%
2/2+2/1	A525 WB Approach Ahead Left	U	1	N/A	F		1	93	-	658	2055:1781	1232+221	45.3 : 45.3%
2/3	A525 WB Approach Ahead	U	1	N/A	F		1	93	-	149	1900	1276	11.7%
3/1	A483 Off-slip NB Ahead Left	U	2	N/A	B		1	41	-	253	1831	549	46.1%
3/2	A483 Off-slip NB Right	U	2	N/A	B		1	41	-	452	1714	514	87.9%
4/2+4/1	A525 EB Approach Ahead Left	U	2	N/A	A		1	73	-	1126	1900:1805	890+408	86.7 : 86.7%
4/3	A525 EB Approach Ahead	U	2	N/A	A		1	73	-	415	1900	1004	41.3%
5/1	Bridge WB Ahead	U	2	N/A	C		1	85	-	852	1900	1167	73.0%
5/2	Bridge WB Right Ahead	O	2	N/A	C	H	1	85	9	149	1764	180	82.7%
6/1	Bridge EB Ahead	U	1	N/A	D		1	100	-	1221	1900	1371	89.1%
6/2	Bridge EB Ahead Right	O	1	N/A	D	G	1	100	4	418	1836	587	71.2%
7/1	A483 On-slip NB	U	N/A	N/A	-		-	-	-	354	Inf	Inf	0.0%

Full Input Data And Results

7/2	A483 On-slip NB	U	N/A	N/A	-		-	-	-	149	Inf	Inf	0.0%
8/1	A525 EB Exit	U	N/A	N/A	-		-	-	-	1521	Inf	Inf	0.0%
8/2	A525 EB Exit	U	N/A	N/A	-		-	-	-	181	Inf	Inf	0.0%
9/1	A483 On-slip SB	U	N/A	N/A	-		-	-	-	100	Inf	Inf	0.0%
9/2	A483 On-slip SB	U	N/A	N/A	-		-	-	-	237	Inf	Inf	0.0%
10/1	A525 WB Exit	U	N/A	N/A	-		-	-	-	1105	Inf	Inf	0.0%
10/2	A525 WB Exit	U	N/A	N/A	-		-	-	-	0	1940	1940	0.0%

Full Input Data And Results

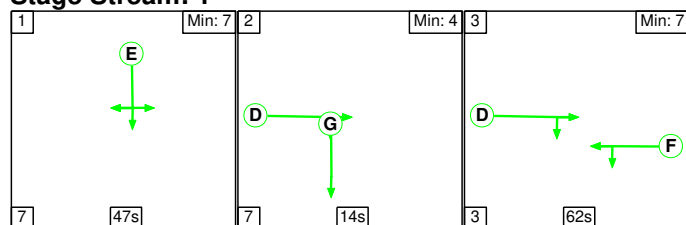
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A483 / A525 Linsig Model	-	-	212	172	2	44.2	21.3	0.0	65.6	-	-	-	-
A525 Ruthin Road Junction	-	-	212	172	2	44.2	21.3	0.0	65.6	-	-	-	-
1/1	300	300	-	-	-	4.6	2.8	-	7.4	88.2	11.2	2.8	14.0
1/2	294	294	-	-	-	4.4	2.3	-	6.7	82.6	10.9	2.3	13.2
2/2+2/1	658	658	-	-	-	1.8	0.4	-	2.2	12.3	9.8	0.4	10.2
2/3	149	149	-	-	-	0.3	0.1	-	0.4	9.8	2.0	0.1	2.1
3/1	253	253	-	-	-	2.8	0.4	-	3.2	45.9	7.9	0.4	8.4
3/2	452	452	-	-	-	5.8	3.3	-	9.1	72.8	16.7	3.3	20.0
4/2+4/1	1126	1126	-	-	-	7.5	3.2	-	10.7	34.1	23.8	3.2	27.0
4/3	415	415	-	-	-	2.3	0.4	-	2.6	23.0	9.7	0.4	10.0
5/1	852	852	-	-	-	3.7	1.3	-	5.1	21.4	15.2	1.3	16.6
5/2	149	149	29	120	0	1.6	2.1	-	3.7	89.6	5.7	2.1	7.8
6/1	1221	1221	-	-	-	4.9	3.9	-	8.8	26.0	19.0	3.9	22.9
6/2	418	418	183	52	2	4.3	1.2	0.0	5.6	47.9	9.1	1.2	10.3
7/1	354	354	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	149	149	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	1521	1521	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	181	181	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	100	100	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	237	237	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	1105	1105	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/2	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 Stream: 1 PRC for Signalled Lanes (%): 1.0 C1 Stream: 2 PRC for Signalled Lanes (%): 2.4 PRC Over All Lanes (%): 1.0 Total Delay for Signalled Lanes (pcuHr): 31.13 Total Delay for Signalled Lanes (pcuHr): 34.46 Total Delay Over All Lanes(pcuHr): 65.59 Cycle Time (s): 140 Cycle Time (s): 140													

Full Input Data And Results

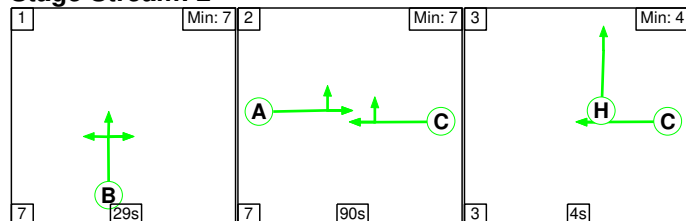
Scenario 2: '2030 PM Base' (FG2: 'PM 2030 Base', Plan 2: 'PM Control Plan')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

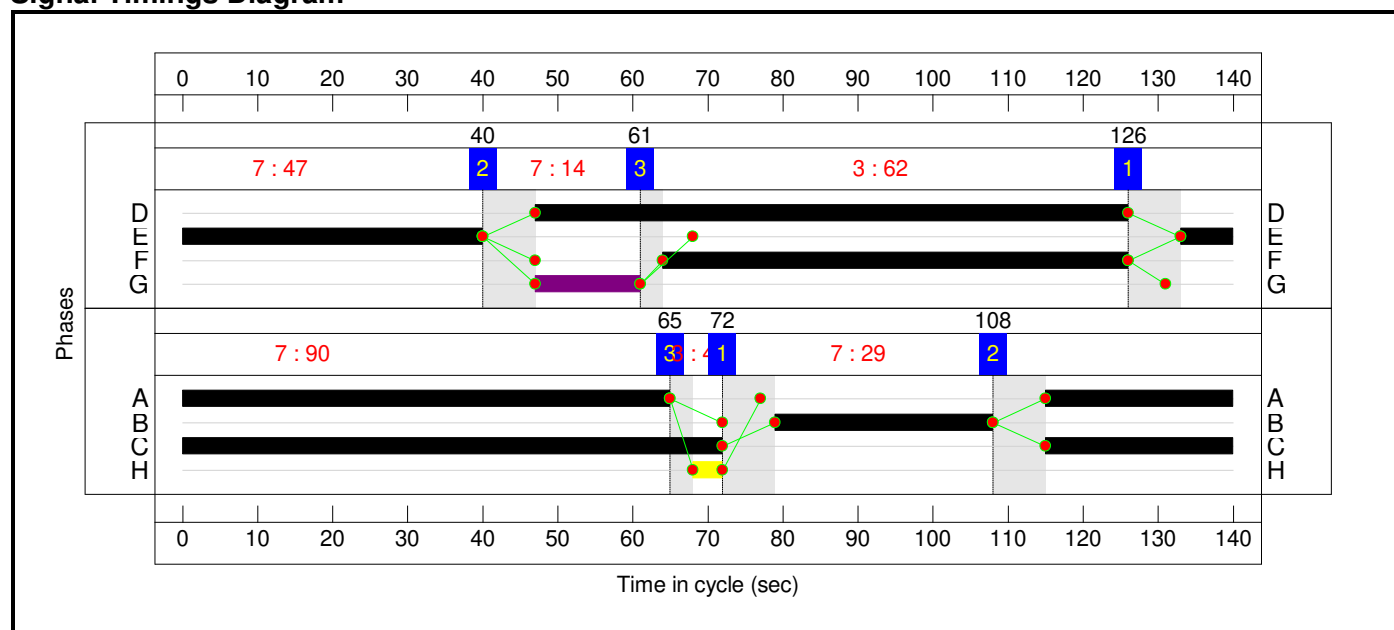
Stage Stream: 1

Stage	1	2	3
Duration	47	14	62
Change Point	126	40	61

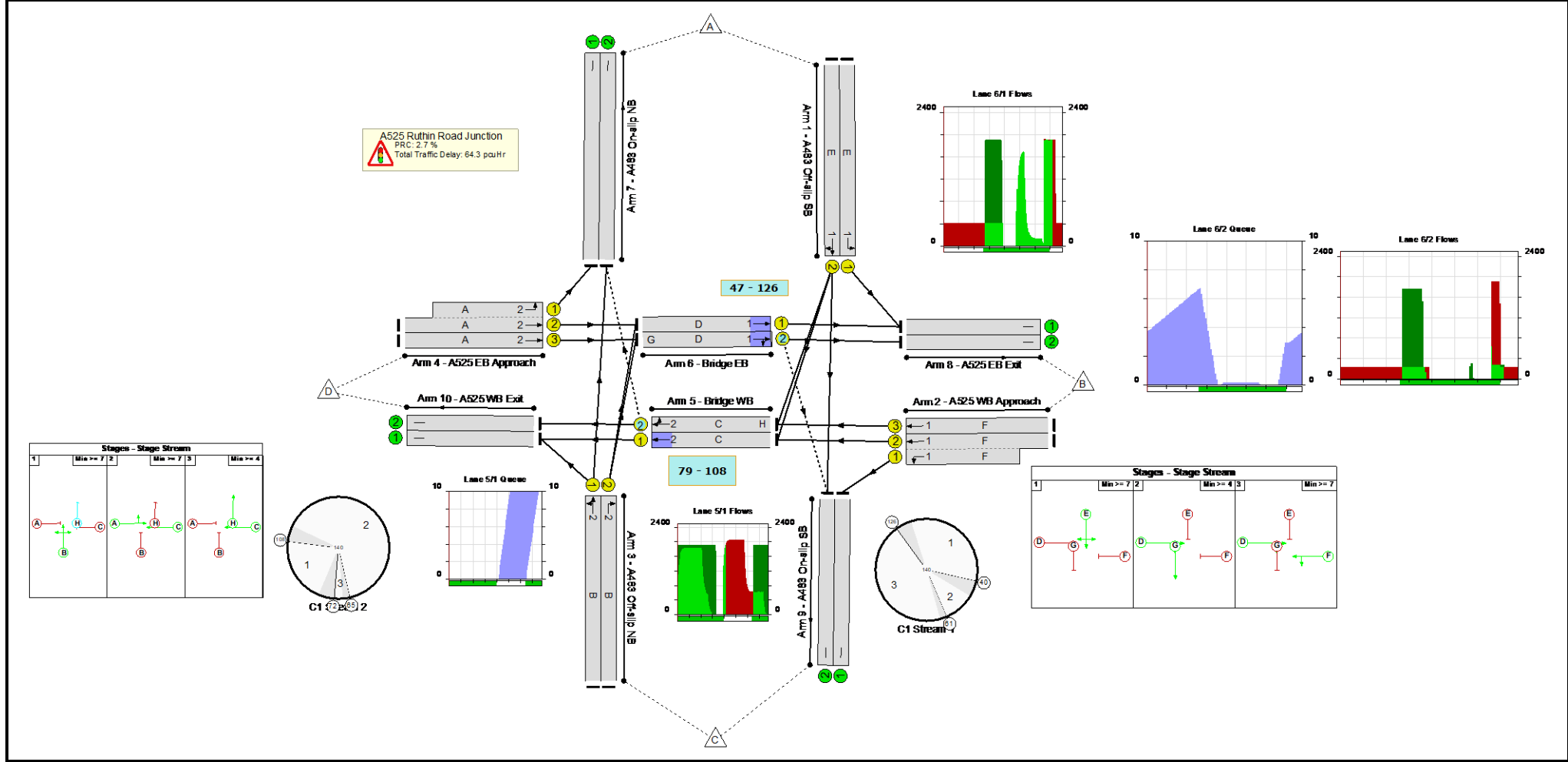
Stage Stream: 2

Stage	1	2	3
Duration	29	90	4
Change Point	72	108	65

Signal Timings Diagram



Full Input Data And Results
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: A483 / A525 Linsig Model	-	-	N/A	-	-		-	-	-	-	-	-	87.7%
A525 Ruthin Road Junction	-	-	N/A	-	-		-	-	-	-	-	-	87.7%
1/1	A483 Off-slip SB Left	U	1	N/A	E		1	47	-	225	1805	619	36.4%
1/2	A483 Off-slip SB Right Ahead	U	1	N/A	E		1	47	-	544	1831	628	86.7%
2/2+2/1	A525 WB Approach Ahead Left	U	1	N/A	F		1	62	-	819	2055:1781	813+257	76.5 : 76.5%
2/3	A525 WB Approach Ahead	U	1	N/A	F		1	62	-	449	1900	855	52.5%
3/1	A483 Off-slip NB Ahead Left	U	2	N/A	B		1	29	-	338	1831	392	86.1%
3/2	A483 Off-slip NB Right	U	2	N/A	B		1	29	-	132	1714	367	35.9%
4/2+4/1	A525 EB Approach Ahead Left	U	2	N/A	A		1	90	-	733	1900:1805	967+774	42.1 : 42.1%
4/3	A525 EB Approach Ahead	U	2	N/A	A		1	90	-	230	1900	1235	18.6%
5/1	Bridge WB Ahead	U	2	N/A	C		1	97	-	1166	1900	1330	87.7%
5/2	Bridge WB Right Ahead	O	2	N/A	C	H	1	97	4	449	1881	795	56.5%
6/1	Bridge EB Ahead	U	1	N/A	D		1	79	-	539	1900	1086	49.6%
6/2	Bridge EB Ahead Right	O	1	N/A	D	G	1	79	14	230	1764	269	85.5%
7/1	A483 On-slip NB	U	N/A	N/A	-		-	-	-	326	Inf	Inf	0.0%

Full Input Data And Results

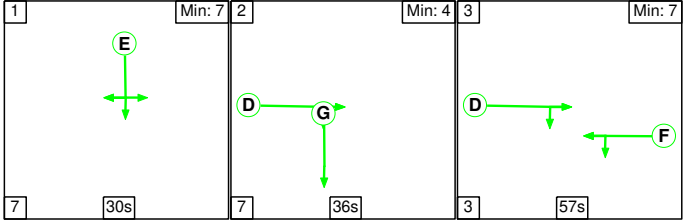
7/2	A483 On-slip NB	U	N/A	N/A	-		-	-	-	142	Inf	Inf	0.0%
8/1	A525 EB Exit	U	N/A	N/A	-		-	-	-	764	Inf	Inf	0.0%
8/2	A525 EB Exit	U	N/A	N/A	-		-	-	-	0	Inf	Inf	0.0%
9/1	A483 On-slip SB	U	N/A	N/A	-		-	-	-	197	Inf	Inf	0.0%
9/2	A483 On-slip SB	U	N/A	N/A	-		-	-	-	230	Inf	Inf	0.0%
10/1	A525 WB Exit	U	N/A	N/A	-		-	-	-	1504	Inf	Inf	0.0%
10/2	A525 WB Exit	U	N/A	N/A	-		-	-	-	307	1940	1940	15.8%

Full Input Data And Results

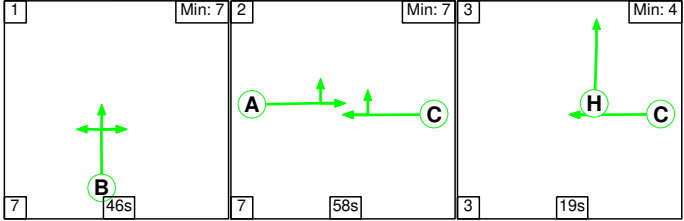
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A483 / A525 Linsig Model	-	-	141	231	0	47.9	16.3	0.0	64.3	-	-	-	-
A525 Ruthin Road Junction	-	-	141	231	0	47.9	16.3	0.0	64.3	-	-	-	-
1/1	225	225	-	-	-	2.2	0.3	-	2.4	39.1	6.6	0.3	6.8
1/2	544	544	-	-	-	6.5	3.0	-	9.5	63.0	19.6	3.0	22.7
2/2+2/1	819	819	-	-	-	6.6	1.6	-	8.2	35.9	19.0	1.6	20.6
2/3	449	449	-	-	-	3.5	0.6	-	4.0	32.2	12.5	0.6	13.0
3/1	338	338	-	-	-	5.0	2.8	-	7.8	83.0	12.6	2.8	15.4
3/2	132	132	-	-	-	1.7	0.3	-	2.0	54.5	4.4	0.3	4.6
4/2+4/1	733	733	-	-	-	2.2	0.4	-	2.5	12.5	7.0	0.4	7.4
4/3	230	230	-	-	-	0.6	0.1	-	0.7	11.6	3.5	0.1	3.6
5/1	1166	1166	-	-	-	8.9	3.4	-	12.3	38.1	43.2	3.4	46.6
5/2	449	449	112	30	0	5.6	0.6	-	6.3	50.2	14.2	0.6	14.8
6/1	539	539	-	-	-	2.6	0.5	-	3.1	20.8	9.5	0.5	10.0
6/2	230	230	29	201	0	2.6	2.6	0.0	5.3	82.3	6.7	2.6	9.3
7/1	326	326	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	142	142	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	764	764	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	197	197	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	230	230	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	1504	1504	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/2	307	307	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
C1 Stream: 1 PRC for Signalled Lanes (%): 3.9 C1 Stream: 2 PRC for Signalled Lanes (%): 2.7 PRC Over All Lanes (%): 2.7 Total Delay for Signalled Lanes (pcuHr): 32.51 Total Delay for Signalled Lanes (pcuHr): 31.66 Total Delay Over All Lanes(pcuHr): 64.26 Cycle Time (s): 140 Cycle Time (s): 140													

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

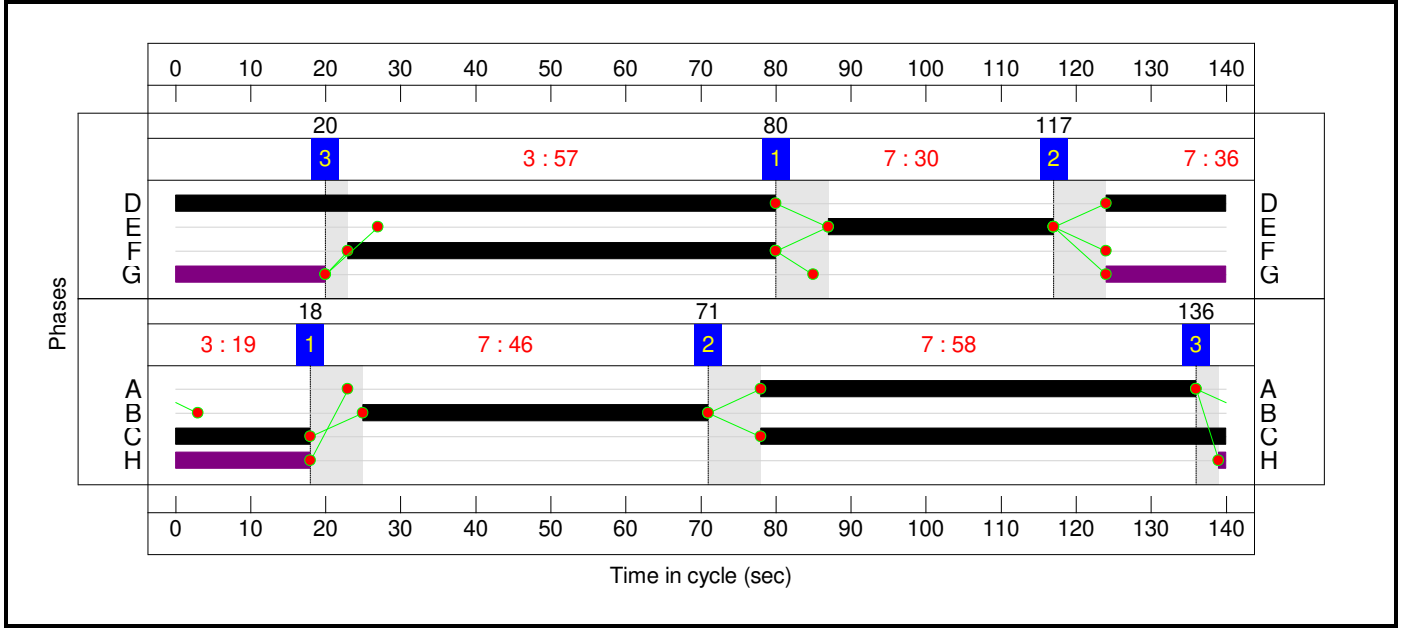
Stage Stream: 1

Stage	1	2	3
Duration	30	36	57
Change Point	80	117	20

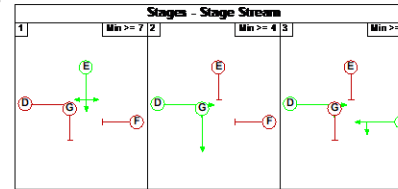
Stage Stream: 2

Stage	1	2	3
Duration	46	58	19
Change Point	18	71	136

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: A483 / A525 Linsig Model	-	-	N/A	-	-		-	-	-	-	-	-	88.5%
A525 Ruthin Road Junction	-	-	N/A	-	-		-	-	-	-	-	-	88.5%
1/1	A483 Off-slip SB Left	U	1	N/A	E		1	30	-	346	1805	400	86.6%
1/2	A483 Off-slip SB Right Ahead	U	1	N/A	E		1	30	-	294	1831	405	72.5%
2/2+2/1	A525 WB Approach Ahead Left	U	1	N/A	F		1	57	-	833	2055:1781	753+260	82.2 : 82.2%
2/3	A525 WB Approach Ahead	U	1	N/A	F		1	57	-	252	1900	787	32.0%
3/1	A483 Off-slip NB Ahead Left	U	2	N/A	B		1	46	-	255	1831	615	41.5%
3/2	A483 Off-slip NB Right	U	2	N/A	B		1	46	-	503	1714	575	87.4%
4/2+4/1	A525 EB Approach Ahead Left	U	2	N/A	A		1	58	-	1015	1900:1805	747+400	88.5 : 88.5%
4/3	A525 EB Approach Ahead	U	2	N/A	A		1	58	-	558	1900	801	69.7%
5/1	Bridge WB Ahead	U	2	N/A	C		1	80	-	913	1900	1099	83.1%
5/2	Bridge WB Right Ahead	O	2	N/A	C	H	1	80	19	252	1764	289	87.2%
6/1	Bridge EB Ahead	U	1	N/A	D		1	96	-	1163	1900	1316	88.3%
6/2	Bridge EB Ahead Right	O	1	N/A	D	G	1	96	36	559	1859	641	87.2%
7/1	A483 On-slip NB	U	N/A	N/A	-		-	-	-	354	Inf	Inf	0.0%

Full Input Data And Results

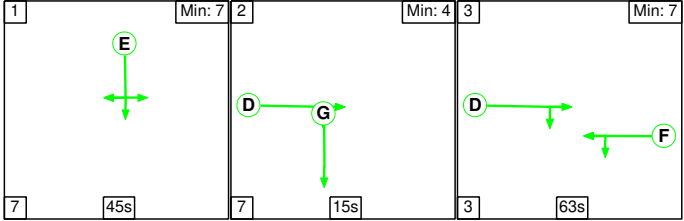
7/2	A483 On-slip NB	U	N/A	N/A	-		-	-	-	252	Inf	Inf	0.0%
8/1	A525 EB Exit	U	N/A	N/A	-		-	-	-	1509	Inf	Inf	0.0%
8/2	A525 EB Exit	U	N/A	N/A	-		-	-	-	317	Inf	Inf	0.0%
9/1	A483 On-slip SB	U	N/A	N/A	-		-	-	-	214	Inf	Inf	0.0%
9/2	A483 On-slip SB	U	N/A	N/A	-		-	-	-	242	Inf	Inf	0.0%
10/1	A525 WB Exit	U	N/A	N/A	-		-	-	-	1168	Inf	Inf	0.0%
10/2	A525 WB Exit	U	N/A	N/A	-		-	-	-	0	1940	1940	0.0%

Full Input Data And Results

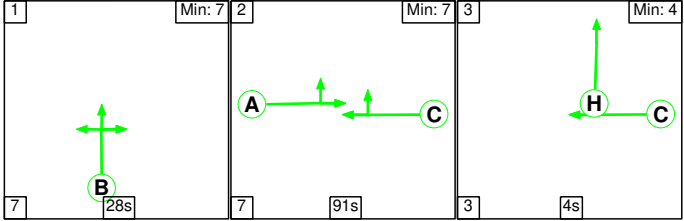
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A483 / A525 Linsig Model	-	-	28	465	1	74.2	27.1	0.0	101.3	-	-	-	-
A525 Ruthin Road Junction	-	-	28	465	1	74.2	27.1	0.0	101.3	-	-	-	-
1/1	346	346	-	-	-	5.0	2.9	-	8.0	82.8	12.9	2.9	15.8
1/2	294	294	-	-	-	4.1	1.3	-	5.4	66.3	10.5	1.3	11.8
2/2+2/1	833	833	-	-	-	7.5	2.3	-	9.8	42.3	20.7	2.3	23.0
2/3	252	252	-	-	-	1.9	0.2	-	2.2	31.1	6.6	0.2	6.8
3/1	255	255	-	-	-	2.5	0.4	-	2.9	40.9	7.6	0.4	8.0
3/2	503	503	-	-	-	6.1	3.2	-	9.3	66.6	18.3	3.2	21.5
4/2+4/1	1015	1015	-	-	-	9.5	3.6	-	13.1	46.5	22.8	3.6	26.4
4/3	558	558	-	-	-	5.1	1.1	-	6.3	40.5	17.7	1.1	18.8
5/1	913	913	-	-	-	11.0	2.4	-	13.4	52.7	35.5	2.4	37.9
5/2	252	252	12	240	0	6.9	2.9	-	9.8	140.5	9.8	2.9	12.7
6/1	1163	1163	-	-	-	7.7	3.6	-	11.3	35.0	25.2	3.6	28.9
6/2	559	559	16	225	1	6.7	3.2	0.0	9.9	63.8	21.4	3.2	24.5
7/1	354	354	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	252	252	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	1509	1509	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	317	317	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	214	214	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	242	242	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	1168	1168	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/2	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 Stream: 1 PRC for Signalled Lanes (%): 1.9 Total Delay for Signalled Lanes (pcuHr): 46.55 Cycle Time (s): 140 C1 Stream: 2 PRC for Signalled Lanes (%): 1.7 Total Delay for Signalled Lanes (pcuHr): 54.79 Cycle Time (s): 140 PRC Over All Lanes (%): 1.7 Total Delay Over All Lanes(pcuHr): 101.34													

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

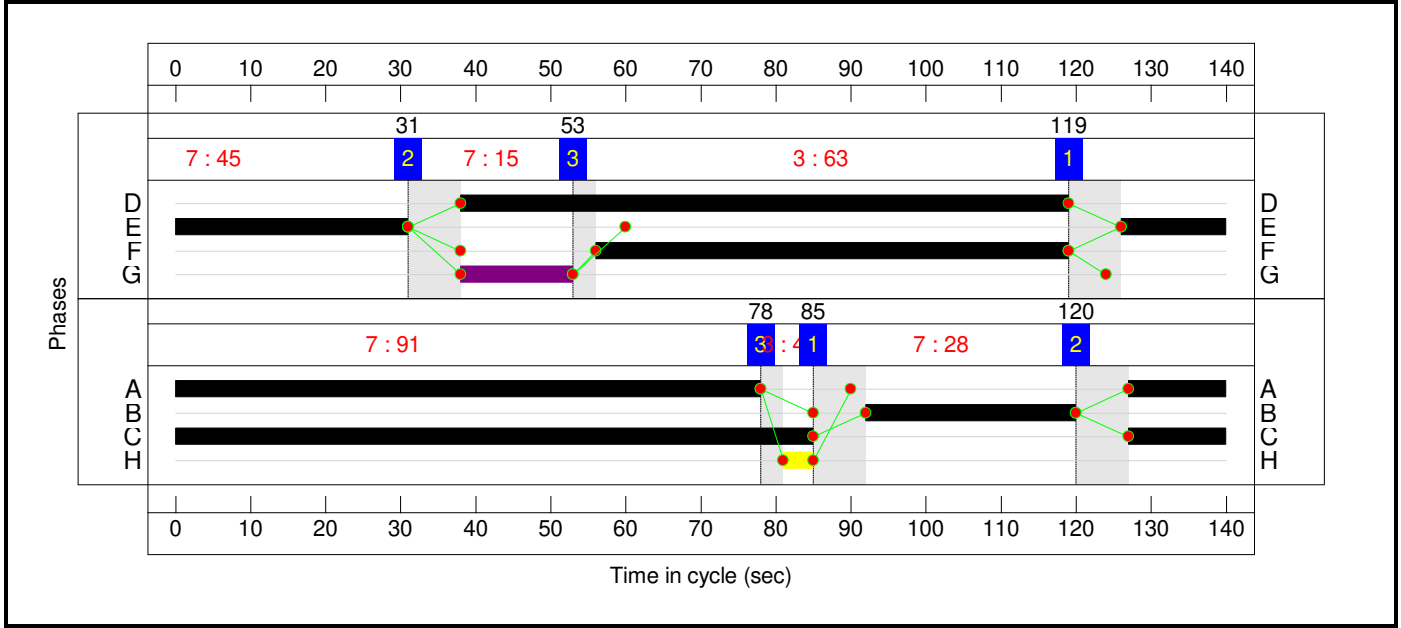
Stage Stream: 1

Stage	1	2	3
Duration	45	15	63
Change Point	119	31	53

Stage Stream: 2

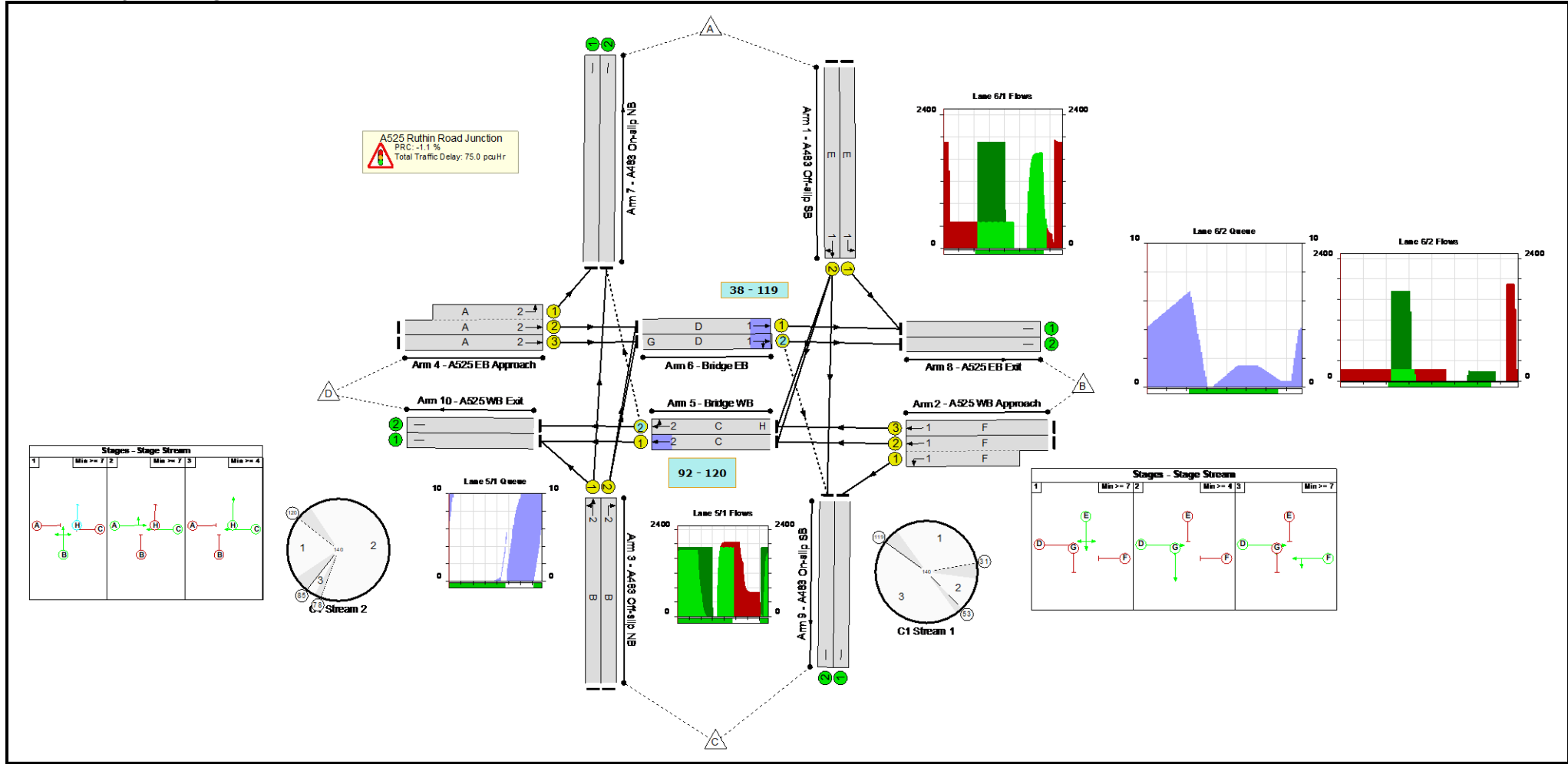
Stage	1	2	3
Duration	28	91	4
Change Point	85	120	78

Signal Timings Diagram



Full Input Data And Results

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: A483 / A525 Linsig Model	-	-	N/A	-	-		-	-	-	-	-	-	91.0%
A525 Ruthin Road Junction	-	-	N/A	-	-		-	-	-	-	-	-	91.0%
1/1	A483 Off-slip SB Left	U	1	N/A	E		1	45	-	326	1805	593	55.0%
1/2	A483 Off-slip SB Right Ahead	U	1	N/A	E		1	45	-	544	1831	602	90.4%
2/2+2/1	A525 WB Approach Ahead Left	U	1	N/A	F		1	63	-	932	2055:1781	809+301	84.0 : 84.0%
2/3	A525 WB Approach Ahead	U	1	N/A	F		1	63	-	473	1900	869	54.5%
3/1	A483 Off-slip NB Ahead Left	U	2	N/A	B		1	28	-	343	1831	379	90.4%
3/2	A483 Off-slip NB Right	U	2	N/A	B		1	28	-	243	1714	355	68.4%
4/2+4/1	A525 EB Approach Ahead Left	U	2	N/A	A		1	91	-	793	1900:1805	995+695	46.9 : 46.9%
4/3	A525 EB Approach Ahead	U	2	N/A	A		1	91	-	233	1900	1249	18.7%
5/1	Bridge WB Ahead	U	2	N/A	C		1	98	-	1223	1900	1344	91.0%
5/2	Bridge WB Right Ahead	O	2	N/A	C	H	1	98	4	473	1864	682	69.3%
6/1	Bridge EB Ahead	U	1	N/A	D		1	81	-	710	1900	1113	63.8%
6/2	Bridge EB Ahead Right	O	1	N/A	D	G	1	81	15	233	1764	258	90.4%
7/1	A483 On-slip NB	U	N/A	N/A	-		-	-	-	326	Inf	Inf	0.0%

Full Input Data And Results

7/2	A483 On-slip NB	U	N/A	N/A	-		-	-	-	193	Inf	Inf	0.0%
8/1	A525 EB Exit	U	N/A	N/A	-		-	-	-	1036	Inf	Inf	0.0%
8/2	A525 EB Exit	U	N/A	N/A	-		-	-	-	0	Inf	Inf	0.0%
9/1	A483 On-slip SB	U	N/A	N/A	-		-	-	-	253	Inf	Inf	0.0%
9/2	A483 On-slip SB	U	N/A	N/A	-		-	-	-	233	Inf	Inf	0.0%
10/1	A525 WB Exit	U	N/A	N/A	-		-	-	-	1566	Inf	Inf	0.0%
10/2	A525 WB Exit	U	N/A	N/A	-		-	-	-	280	1940	1940	14.4%

Full Input Data And Results

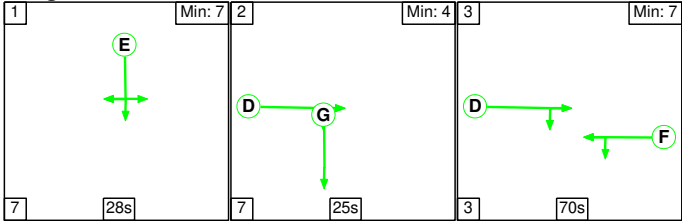
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A483 / A525 Linsig Model	-	-	186	240	0	51.1	23.8	0.0	75.0	-	-	-	-
A525 Ruthin Road Junction	-	-	186	240	0	51.1	23.8	0.0	75.0	-	-	-	-
1/1	326	326	-	-	-	3.5	0.6	-	4.1	45.2	10.3	0.6	10.9
1/2	544	544	-	-	-	6.8	4.1	-	10.9	72.2	20.1	4.1	24.2
2/2+2/1	932	932	-	-	-	7.5	2.5	-	10.1	39.0	23.0	2.5	25.5
2/3	473	473	-	-	-	3.6	0.6	-	4.2	32.0	13.3	0.6	13.9
3/1	343	343	-	-	-	5.2	3.9	-	9.1	95.0	13.0	3.9	16.8
3/2	243	243	-	-	-	3.5	1.1	-	4.5	67.0	8.7	1.1	9.8
4/2+4/1	793	793	-	-	-	2.3	0.4	-	2.8	12.6	8.2	0.4	8.6
4/3	233	233	-	-	-	0.6	0.1	-	0.7	11.2	3.5	0.1	3.6
5/1	1223	1223	-	-	-	6.6	4.7	-	11.3	33.3	34.4	4.7	39.1
5/2	473	473	155	38	0	4.2	1.1	-	5.4	40.8	13.5	1.1	14.7
6/1	710	710	-	-	-	4.7	0.9	-	5.6	28.5	16.4	0.9	17.3
6/2	233	233	31	202	0	2.6	3.6	0.0	6.3	96.7	6.7	3.6	10.3
7/1	326	326	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	193	193	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	1036	1036	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	253	253	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	233	233	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	1566	1566	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/2	280	280	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
C1 Stream: 1 PRC for Signalled Lanes (%): -0.5 C1 Stream: 2 PRC for Signalled Lanes (%): -1.1 PRC Over All Lanes (%): -1.1 Total Delay for Signalled Lanes (pcuHr): 41.18 Total Delay for Signalled Lanes (pcuHr): 33.74 Total Delay Over All Lanes(pcuHr): 75.00 Cycle Time (s): 140 Cycle Time (s): 140													

Full Input Data And Results

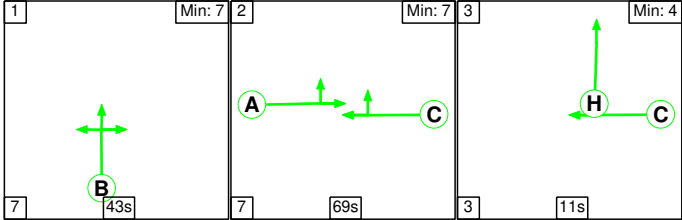
Scenario 5: '2040 AM Base' (FG5: 'AM 2040 Base', Plan 1: 'AM Control Plan')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

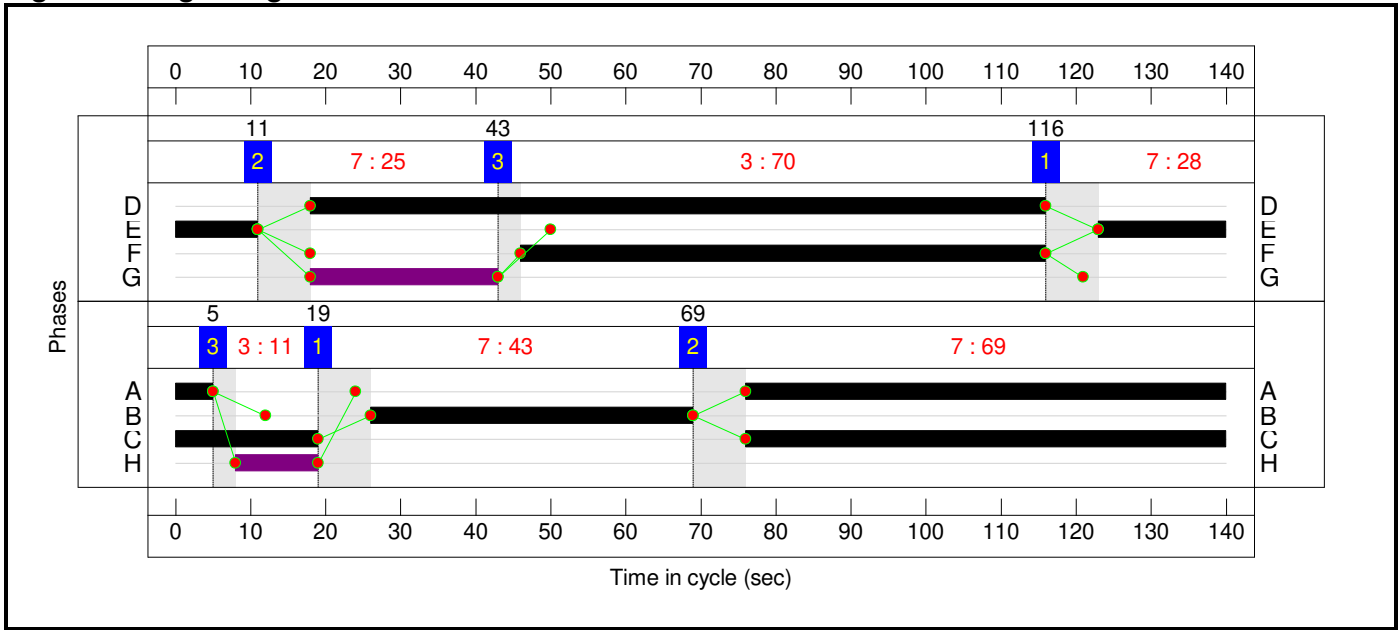
Stage Stream: 1

Stage	1	2	3
Duration	28	25	70
Change Point	116	11	43

Stage Stream: 2

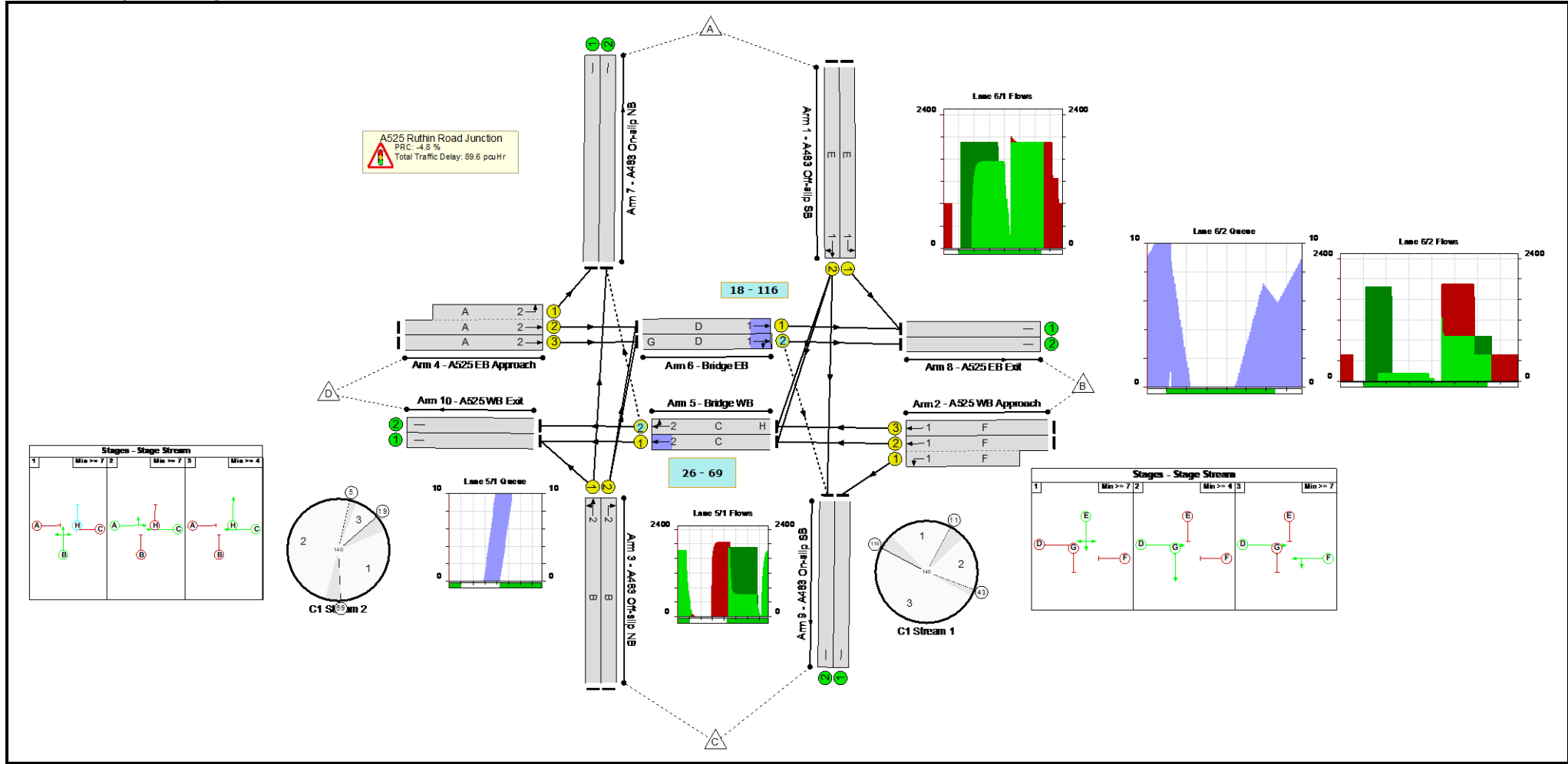
Stage	1	2	3
Duration	43	69	11
Change Point	19	69	5

Signal Timings Diagram



Full Input Data And Results

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: A483 / A525 Linsig Model	-	-	N/A	-	-		-	-	-	-	-	-	94.3%
A525 Ruthin Road Junction	-	-	N/A	-	-		-	-	-	-	-	-	94.3%
1/1	A483 Off-slip SB Left	U	1	N/A	E		1	28	-	334	1805	374	89.3%
1/2	A483 Off-slip SB Right Ahead	U	1	N/A	E		1	28	-	325	1831	379	85.7%
2/2+2/1	A525 WB Approach Ahead Left	U	1	N/A	F		1	70	-	729	2055:1781	951+173	64.9 : 64.9%
2/3	A525 WB Approach Ahead	U	1	N/A	F		1	70	-	165	1900	964	17.1%
3/1	A483 Off-slip NB Ahead Left	U	2	N/A	B		1	43	-	281	1831	575	48.8%
3/2	A483 Off-slip NB Right	U	2	N/A	B		1	43	-	503	1714	539	93.4%
4/2+4/1	A525 EB Approach Ahead Left	U	2	N/A	A		1	69	-	1192	1900:1805	849+414	94.3 : 94.3%
4/3	A525 EB Approach Ahead	U	2	N/A	A		1	69	-	512	1900	950	53.9%
5/1	Bridge WB Ahead	U	2	N/A	C		1	83	-	942	1900	1140	82.6%
5/2	Bridge WB Right Ahead	O	2	N/A	C	H	1	83	11	165	1764	177	93.1%
6/1	Bridge EB Ahead	U	1	N/A	D		1	98	-	1258	1900	1344	93.6%
6/2	Bridge EB Ahead Right	O	1	N/A	D	G	1	98	25	558	1853	629	88.6%
7/1	A483 On-slip NB	U	N/A	N/A	-		-	-	-	391	Inf	Inf	0.0%

Full Input Data And Results

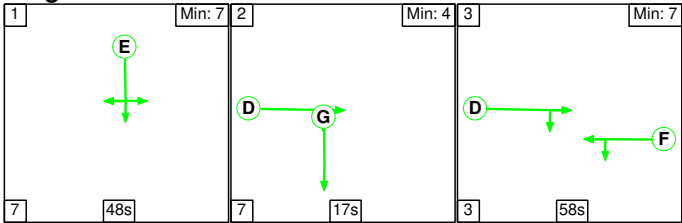
7/2	A483 On-slip NB	U	N/A	N/A	-		-	-	-	165	Inf	Inf	0.0%
8/1	A525 EB Exit	U	N/A	N/A	-		-	-	-	1592	Inf	Inf	0.0%
8/2	A525 EB Exit	U	N/A	N/A	-		-	-	-	295	Inf	Inf	0.0%
9/1	A483 On-slip SB	U	N/A	N/A	-		-	-	-	112	Inf	Inf	0.0%
9/2	A483 On-slip SB	U	N/A	N/A	-		-	-	-	263	Inf	Inf	0.0%
10/1	A525 WB Exit	U	N/A	N/A	-		-	-	-	1223	Inf	Inf	0.0%
10/2	A525 WB Exit	U	N/A	N/A	-		-	-	-	0	1940	1940	0.0%

Full Input Data And Results

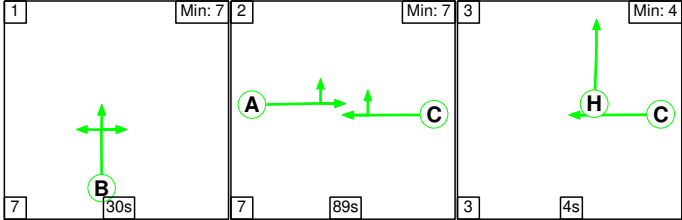
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A483 / A525 Linsig Model	-	-	126	300	2	52.5	37.1	0.0	89.6	-	-	-	-
A525 Ruthin Road Junction	-	-	126	300	2	52.5	37.1	0.0	89.6	-	-	-	-
1/1	334	334	-	-	-	5.0	3.6	-	8.6	92.3	12.6	3.6	16.2
1/2	325	325	-	-	-	4.8	2.7	-	7.6	83.6	12.1	2.7	14.8
2/2+2/1	729	729	-	-	-	4.7	0.9	-	5.6	27.9	16.8	0.9	17.7
2/3	165	165	-	-	-	0.9	0.1	-	1.0	20.9	3.4	0.1	3.5
3/1	281	281	-	-	-	3.0	0.5	-	3.5	45.0	8.8	0.5	9.3
3/2	503	503	-	-	-	6.5	5.4	-	11.9	85.3	18.9	5.4	24.3
4/2+4/1	1192	1192	-	-	-	9.2	7.0	-	16.2	48.8	29.3	7.0	36.3
4/3	512	512	-	-	-	3.4	0.6	-	4.0	28.1	13.5	0.6	14.1
5/1	942	942	-	-	-	3.8	2.3	-	6.1	23.5	23.8	2.3	26.1
5/2	165	165	1	164	0	3.4	4.1	-	7.4	162.1	6.4	4.1	10.5
6/1	1258	1258	-	-	-	3.2	6.4	-	9.6	27.5	10.8	6.4	17.2
6/2	558	558	126	136	2	4.5	3.6	0.0	8.1	52.3	10.3	3.6	13.8
7/1	391	391	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	165	165	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	1592	1592	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	295	295	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	112	112	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	263	263	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	1223	1223	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/2	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 Stream: 1 PRC for Signalled Lanes (%): -4.0 C1 Stream: 2 PRC for Signalled Lanes (%): -4.8 PRC Over All Lanes (%): -4.8 Total Delay for Signalled Lanes (pcuHr): 40.45 Total Delay for Signalled Lanes (pcuHr): 49.16 Total Delay Over All Lanes(pcuHr): 89.62 Cycle Time (s): 140 Cycle Time (s): 140													

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

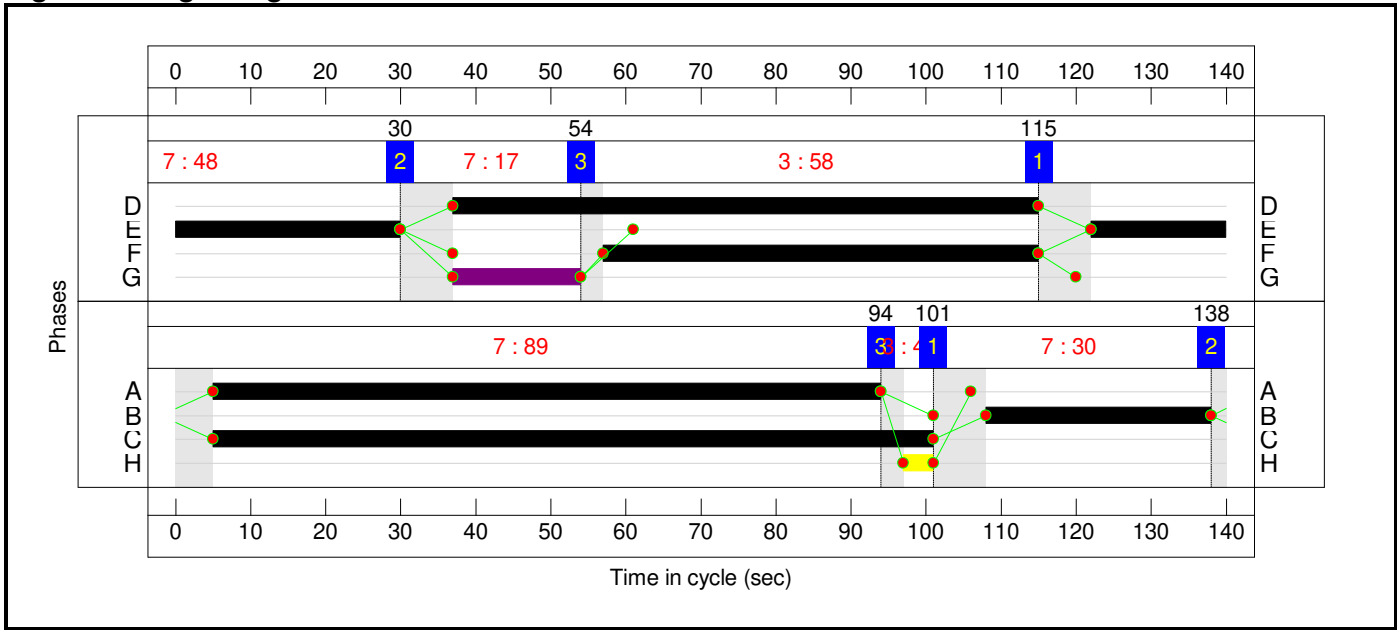
Stage Stream: 1

Stage	1	2	3
Duration	48	17	58
Change Point	115	30	54

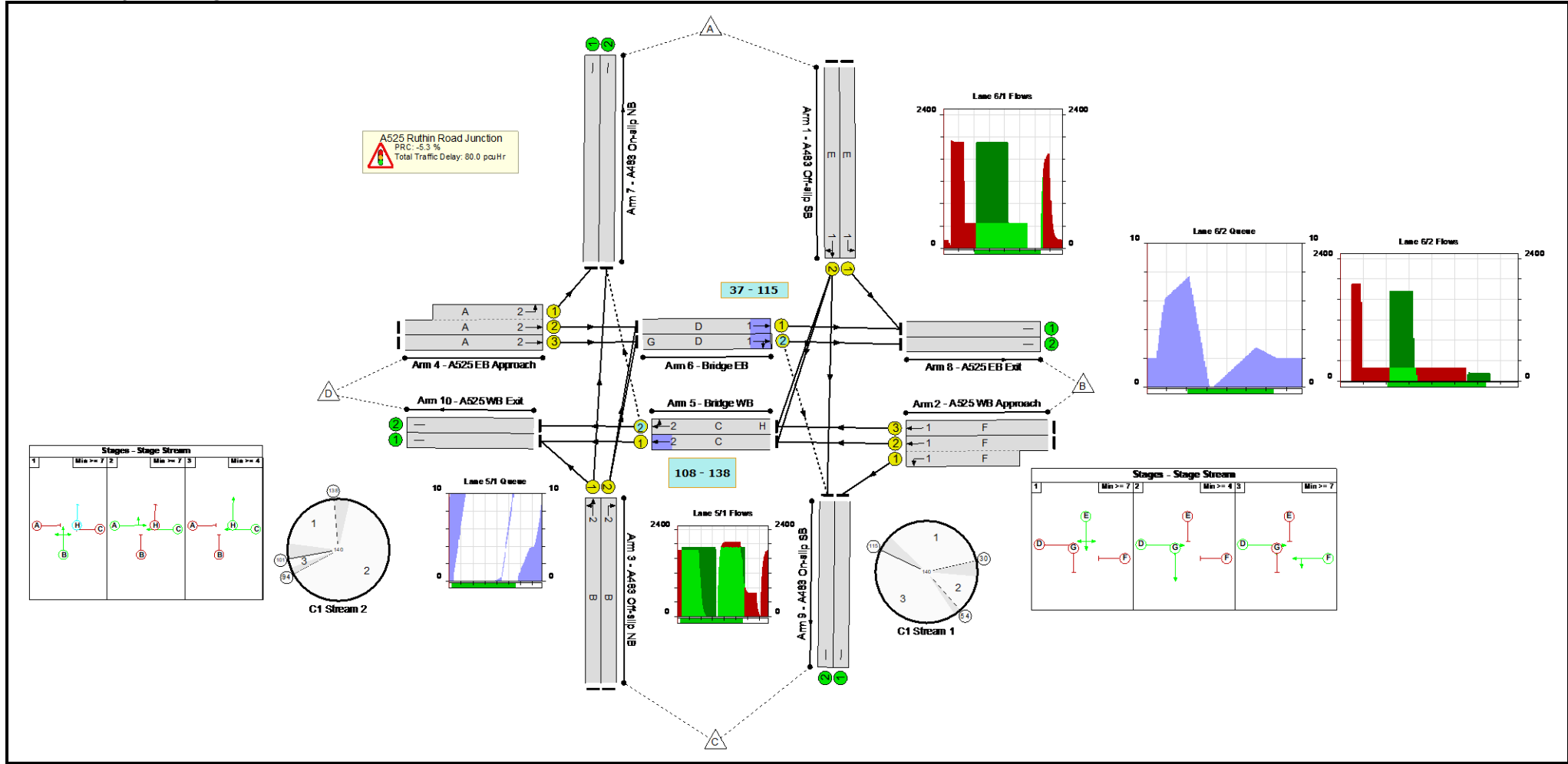
Stage Stream: 2

Stage	1	2	3
Duration	30	89	4
Change Point	101	138	94

Signal Timings Diagram



Full Input Data And Results
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: A483 / A525 Linsig Model	-	-	N/A	-	-		-	-	-	-	-	-	94.8%
A525 Ruthin Road Junction	-	-	N/A	-	-		-	-	-	-	-	-	94.8%
1/1	A483 Off-slip SB Left	U	1	N/A	E		1	48	-	251	1805	632	39.7%
1/2	A483 Off-slip SB Right Ahead	U	1	N/A	E		1	48	-	604	1831	641	94.2%
2/2+2/1	A525 WB Approach Ahead Left	U	1	N/A	F		1	58	-	863	2055:1781	764+260	84.2 : 84.2%
2/3	A525 WB Approach Ahead	U	1	N/A	F		1	58	-	542	1900	801	67.7%
3/1	A483 Off-slip NB Ahead Left	U	2	N/A	B		1	30	-	376	1831	405	92.7%
3/2	A483 Off-slip NB Right	U	2	N/A	B		1	30	-	147	1714	380	38.7%
4/2+4/1	A525 EB Approach Ahead Left	U	2	N/A	A		1	89	-	811	1900:1805	959+770	46.9 : 46.9%
4/3	A525 EB Approach Ahead	U	2	N/A	A		1	89	-	256	1900	1221	21.0%
5/1	Bridge WB Ahead	U	2	N/A	C		1	96	-	1248	1900	1316	94.8%
5/2	Bridge WB Right Ahead	O	2	N/A	C	H	1	96	4	542	1885	746	72.7%
6/1	Bridge EB Ahead	U	1	N/A	D		1	78	-	597	1900	1072	55.7%
6/2	Bridge EB Ahead Right	O	1	N/A	D	G	1	78	17	256	1764	273	93.6%
7/1	A483 On-slip NB	U	N/A	N/A	-		-	-	-	361	Inf	Inf	0.0%

Full Input Data And Results

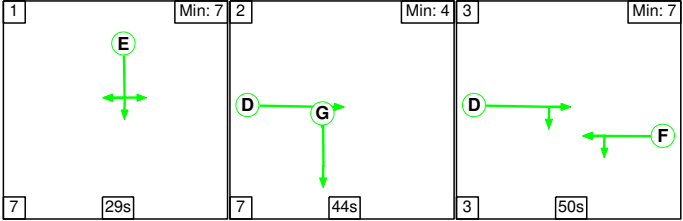
7/2	A483 On-slip NB	U	N/A	N/A	-		-	-	-	158	Inf	Inf	0.0%
8/1	A525 EB Exit	U	N/A	N/A	-		-	-	-	848	Inf	Inf	0.0%
8/2	A525 EB Exit	U	N/A	N/A	-		-	-	-	0	Inf	Inf	0.0%
9/1	A483 On-slip SB	U	N/A	N/A	-		-	-	-	219	Inf	Inf	0.0%
9/2	A483 On-slip SB	U	N/A	N/A	-		-	-	-	256	Inf	Inf	0.0%
10/1	A525 WB Exit	U	N/A	N/A	-		-	-	-	1624	Inf	Inf	0.0%
10/2	A525 WB Exit	U	N/A	N/A	-		-	-	-	384	1940	1940	19.8%

Full Input Data And Results

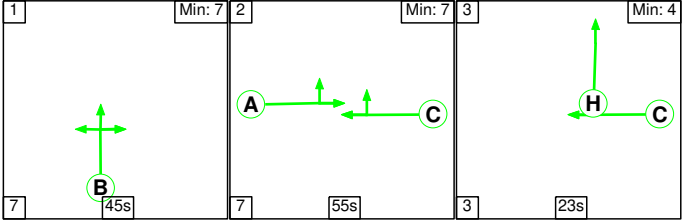
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A483 / A525 Linsig Model	-	-	151	262	0	49.9	30.1	0.0	80.0	-	-	-	-
A525 Ruthin Road Junction	-	-	151	262	0	49.9	30.1	0.0	80.0	-	-	-	-
1/1	251	251	-	-	-	2.4	0.3	-	2.7	39.1	7.3	0.3	7.6
1/2	604	604	-	-	-	7.4	6.1	-	13.6	80.8	22.7	6.1	28.8
2/2+2/1	863	863	-	-	-	7.8	2.6	-	10.3	43.2	22.2	2.6	24.8
2/3	542	542	-	-	-	4.9	1.0	-	6.0	39.7	17.0	1.0	18.1
3/1	376	376	-	-	-	5.6	4.8	-	10.4	99.5	14.3	4.8	19.1
3/2	147	147	-	-	-	1.9	0.3	-	2.2	54.1	4.9	0.3	5.2
4/2+4/1	811	811	-	-	-	2.6	0.4	-	3.0	13.4	8.1	0.4	8.6
4/3	256	256	-	-	-	0.7	0.1	-	0.9	12.2	4.1	0.1	4.2
5/1	1248	1248	-	-	-	5.1	7.5	-	12.6	36.2	27.4	7.5	34.9
5/2	542	542	131	27	0	3.3	1.3	-	4.6	30.6	18.3	1.3	19.6
6/1	597	597	-	-	-	5.2	0.6	-	5.9	35.4	18.5	0.6	19.2
6/2	256	256	21	235	0	3.0	4.8	0.0	7.8	109.4	7.7	4.8	12.5
7/1	361	361	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	158	158	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	848	848	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	219	219	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	256	256	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	1624	1624	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/2	384	384	-	-	-	0.0	0.1	-	0.1	1.2	0.0	0.1	0.1
C1 Stream: 1 PRC for Signalled Lanes (%): -4.7 C1 Stream: 2 PRC for Signalled Lanes (%): -5.3 PRC Over All Lanes (%): -5.3 Total Delay for Signalled Lanes (pcuHr): 46.25 Total Delay for Signalled Lanes (pcuHr): 33.64 Total Delay Over All Lanes(pcuHr): 80.02 Cycle Time (s): 140 Cycle Time (s): 140													

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

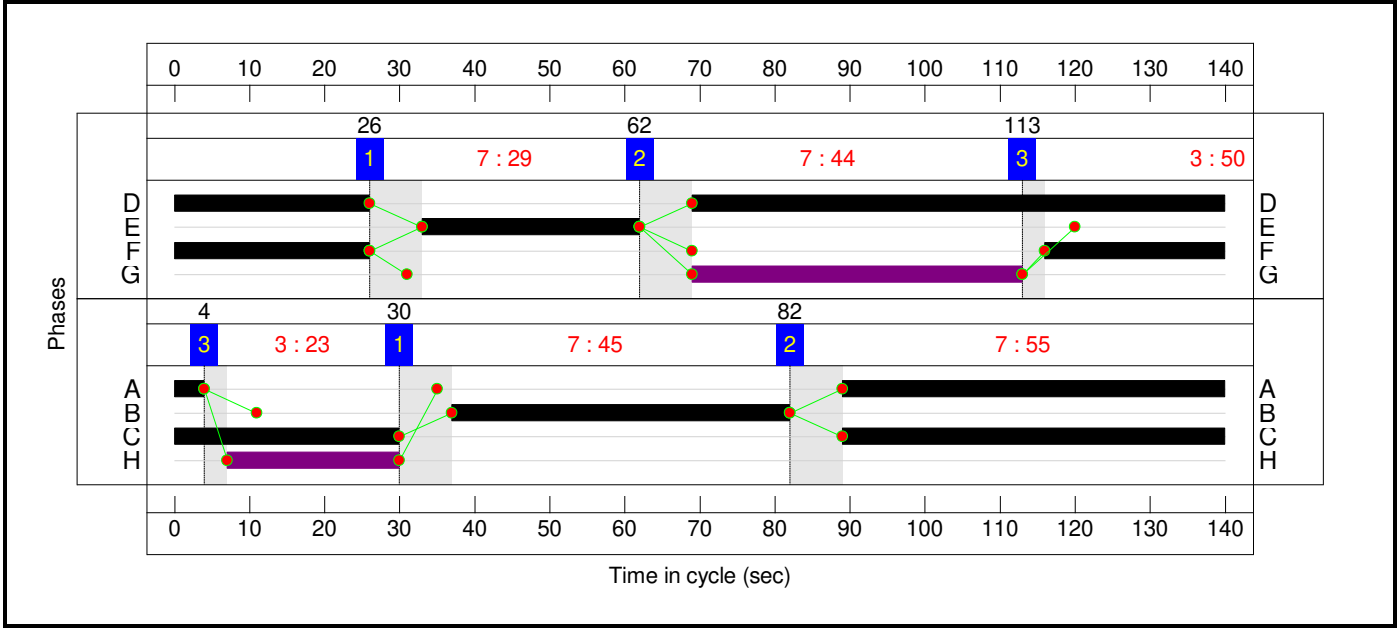
Stage Stream: 1

Stage	1	2	3
Duration	29	44	50
Change Point	26	62	113

Stage Stream: 2

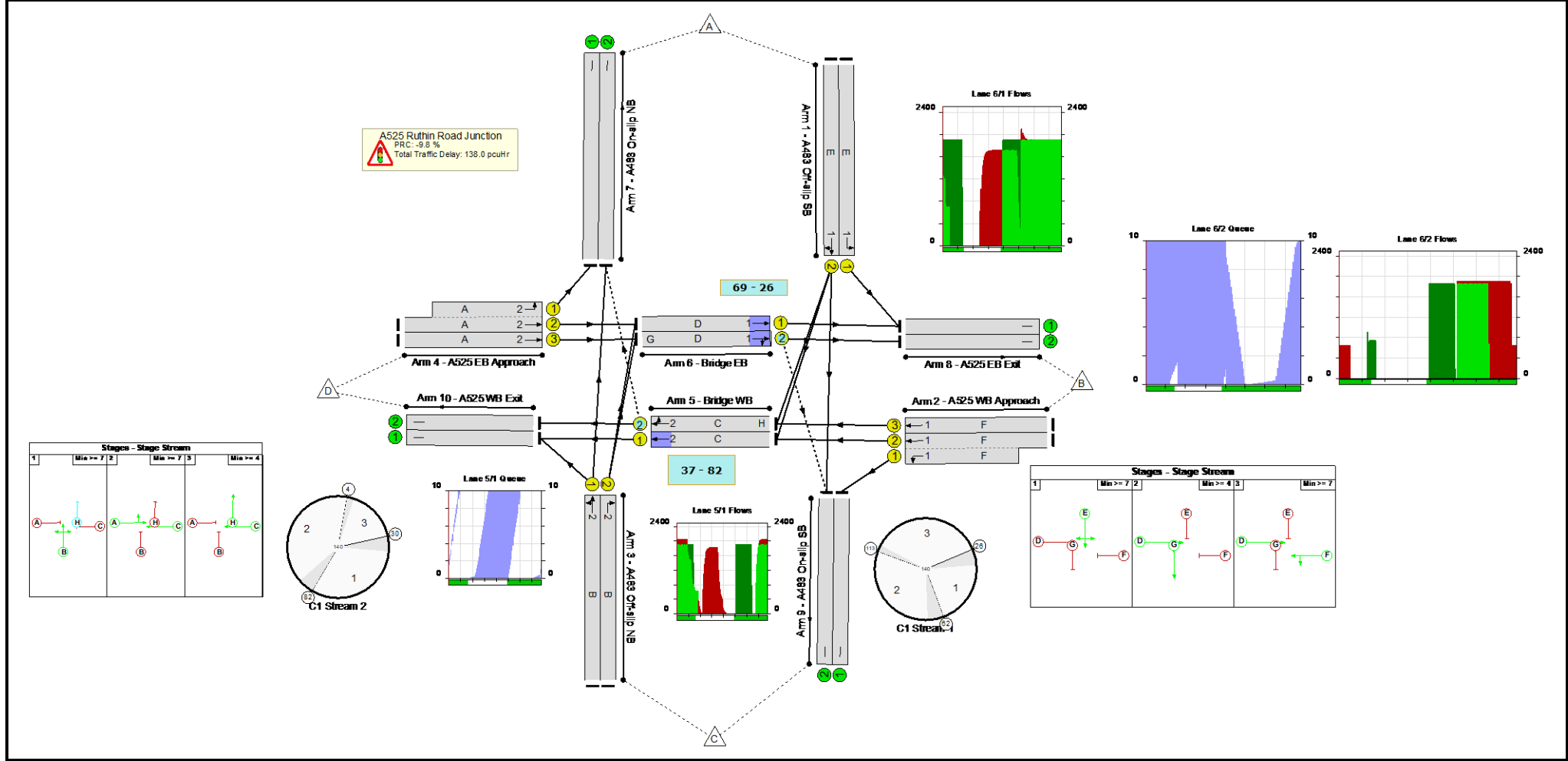
Stage	1	2	3
Duration	45	55	23
Change Point	30	82	4

Signal Timings Diagram



Full Input Data And Results

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: A483 / A525 Linsig Model	-	-	N/A	-	-		-	-	-	-	-	-	98.8%
A525 Ruthin Road Junction	-	-	N/A	-	-		-	-	-	-	-	-	98.8%
1/1	A483 Off-slip SB Left	U	1	N/A	E		1	29	-	380	1805	387	98.2%
1/2	A483 Off-slip SB Right Ahead	U	1	N/A	E		1	29	-	325	1831	392	82.8%
2/2+2/1	A525 WB Approach Ahead Left	U	1	N/A	F		1	50	-	844	2055:1781	677+246	91.5 : 91.5%
2/3	A525 WB Approach Ahead	U	1	N/A	F		1	50	-	329	1900	692	47.5%
3/1	A483 Off-slip NB Ahead Left	U	2	N/A	B		1	45	-	283	1831	602	47.0%
3/2	A483 Off-slip NB Right	U	2	N/A	B		1	45	-	553	1714	563	98.2%
4/2+4/1	A525 EB Approach Ahead Left	U	2	N/A	A		1	55	-	1094	1900:1805	720+400	97.7 : 97.7%
4/3	A525 EB Approach Ahead	U	2	N/A	A		1	55	-	643	1900	760	84.6%
5/1	Bridge WB Ahead	U	2	N/A	C		1	81	-	944	1900	1113	84.8%
5/2	Bridge WB Right Ahead	O	2	N/A	C	H	1	81	23	329	1793	333	98.8%
6/1	Bridge EB Ahead	U	1	N/A	D		1	97	-	1256	1900	1330	94.4%
6/2	Bridge EB Ahead Right	O	1	N/A	D	G	1	97	44	643	1862	668	96.2%
7/1	A483 On-slip NB	U	N/A	N/A	-		-	-	-	391	Inf	Inf	0.0%

Full Input Data And Results

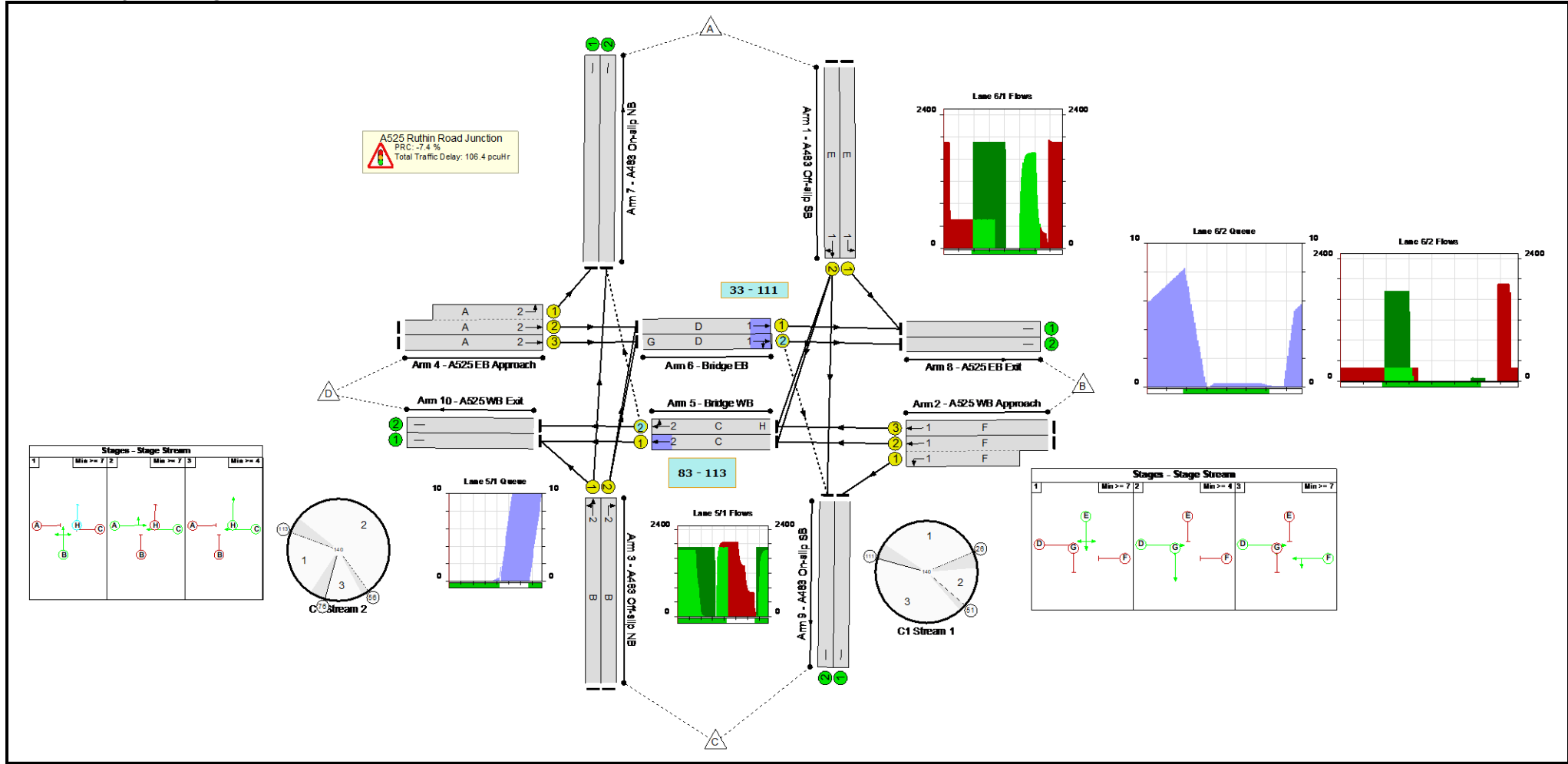
7/2	A483 On-slip NB	U	N/A	N/A	-		-	-	-	269	Inf	Inf	0.0%
8/1	A525 EB Exit	U	N/A	N/A	-		-	-	-	1636	Inf	Inf	0.0%
8/2	A525 EB Exit	U	N/A	N/A	-		-	-	-	375	Inf	Inf	0.0%
9/1	A483 On-slip SB	U	N/A	N/A	-		-	-	-	225	Inf	Inf	0.0%
9/2	A483 On-slip SB	U	N/A	N/A	-		-	-	-	268	Inf	Inf	0.0%
10/1	A525 WB Exit	U	N/A	N/A	-		-	-	-	1227	Inf	Inf	0.0%
10/2	A525 WB Exit	U	N/A	N/A	-		-	-	-	60	1940	1940	3.1%

Full Input Data And Results

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: A483 / A525 Linsig Model	-	-	17	519	1	72.7	65.3	0.0	138.0	-	-	-	-
A525 Ruthin Road Junction	-	-	17	519	1	72.7	65.3	0.0	138.0	-	-	-	-
1/1	380	380	-	-	-	5.8	8.2	-	14.0	132.4	14.7	8.2	22.9
1/2	325	325	-	-	-	4.7	2.3	-	7.0	77.6	12.0	2.3	14.3
2/2+2/1	844	844	-	-	-	9.0	4.8	-	13.8	59.0	23.8	4.8	28.6
2/3	329	329	-	-	-	3.1	0.5	-	3.6	39.2	9.8	0.5	10.2
3/1	283	283	-	-	-	2.9	0.4	-	3.4	43.0	8.7	0.4	9.2
3/2	553	553	-	-	-	7.2	9.5	-	16.6	108.3	21.2	9.5	30.7
4/2+4/1	1094	1094	-	-	-	11.3	11.2	-	22.5	74.2	27.4	11.2	38.7
4/3	643	643	-	-	-	6.8	2.6	-	9.4	52.8	22.5	2.6	25.1
5/1	944	944	-	-	-	4.7	2.7	-	7.4	28.3	13.9	2.7	16.6
5/2	329	329	0	269	0	2.7	8.1	-	10.8	118.7	12.8	8.1	20.9
6/1	1256	1256	-	-	-	7.2	7.1	-	14.3	41.0	48.8	7.1	56.0
6/2	643	643	17	250	1	7.2	7.8	0.0	15.0	84.2	11.9	7.8	19.7
7/1	391	391	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	269	269	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	1636	1636	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	375	375	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	225	225	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	268	268	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	1227	1227	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/2	60	60	-	-	-	0.0	0.0	-	0.0	1.0	0.0	0.0	0.0
C1 Stream: 1 PRC for Signalled Lanes (%): -9.2 C1 Stream: 2 PRC for Signalled Lanes (%): -9.8 PRC Over All Lanes (%): -9.8 Total Delay for Signalled Lanes (pcuHr): 67.74 Total Delay for Signalled Lanes (pcuHr): 70.26 Total Delay Over All Lanes(pcuHr): 138.01 Cycle Time (s): 140 Cycle Time (s): 140													

Full Input Data And Results

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: A483 / A525 Linsig Model	-	-	N/A	-	-		-	-	-	-	-	-	96.7%
A525 Ruthin Road Junction	-	-	N/A	-	-		-	-	-	-	-	-	96.7%
1/1	A483 Off-slip SB Left	U	1	N/A	E		1	48	-	352	1805	632	55.7%
1/2	A483 Off-slip SB Right Ahead	U	1	N/A	E		1	48	-	604	1831	641	94.2%
2/2+2/1	A525 WB Approach Ahead Left	U	1	N/A	F		1	57	-	944	2055:1781	739+304	90.5 : 90.5%
2/3	A525 WB Approach Ahead	U	1	N/A	F		1	57	-	599	1900	787	76.1%
3/1	A483 Off-slip NB Ahead Left	U	2	N/A	B		1	30	-	381	1831	405	94.0%
3/2	A483 Off-slip NB Right	U	2	N/A	B		1	30	-	258	1714	380	68.0%
4/2+4/1	A525 EB Approach Ahead Left	U	2	N/A	A		1	76	-	871	1900:1805	876+620	58.2 : 58.2%
4/3	A525 EB Approach Ahead	U	2	N/A	A		1	76	-	258	1900	1045	24.7%
5/1	Bridge WB Ahead	U	2	N/A	C		1	96	-	1273	1900	1316	96.7%
5/2	Bridge WB Right Ahead	O	2	N/A	C	H	1	96	17	599	1875	682	87.8%
6/1	Bridge EB Ahead	U	1	N/A	D		1	78	-	768	1900	1072	71.6%
6/2	Bridge EB Ahead Right	O	1	N/A	D	G	1	78	18	258	1764	272	95.0%
7/1	A483 On-slip NB	U	N/A	N/A	-		-	-	-	361	Inf	Inf	0.0%

Full Input Data And Results

7/2	A483 On-slip NB	U	N/A	N/A	-		-	-	-	209	Inf	Inf	0.0%
8/1	A525 EB Exit	U	N/A	N/A	-		-	-	-	1120	Inf	Inf	0.0%
8/2	A525 EB Exit	U	N/A	N/A	-		-	-	-	0	Inf	Inf	0.0%
9/1	A483 On-slip SB	U	N/A	N/A	-		-	-	-	275	Inf	Inf	0.0%
9/2	A483 On-slip SB	U	N/A	N/A	-		-	-	-	258	Inf	Inf	0.0%
10/1	A525 WB Exit	U	N/A	N/A	-		-	-	-	1654	Inf	Inf	0.0%
10/2	A525 WB Exit	U	N/A	N/A	-		-	-	-	390	1940	1940	20.1%

Full Input Data And Results

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: A483 / A525 Linsig Model	-	-	121	344	2	66.3	40.1	0.0	106.4	-	-	-	-
A525 Ruthin Road Junction	-	-	121	344	2	66.3	40.1	0.0	106.4	-	-	-	-
1/1	352	352	-	-	-	3.6	0.6	-	4.2	43.1	11.0	0.6	11.7
1/2	604	604	-	-	-	7.4	6.1	-	13.6	80.8	22.7	6.1	28.8
2/2+2/1	944	944	-	-	-	8.9	4.4	-	13.3	50.6	25.4	4.4	29.8
2/3	599	599	-	-	-	5.8	1.6	-	7.4	44.5	19.8	1.6	21.4
3/1	381	381	-	-	-	5.7	5.4	-	11.1	104.7	14.5	5.4	19.9
3/2	258	258	-	-	-	3.6	1.0	-	4.6	64.5	9.2	1.0	10.2
4/2+4/1	871	871	-	-	-	4.5	0.7	-	5.2	21.6	12.2	0.7	12.9
4/3	258	258	-	-	-	1.2	0.2	-	1.3	18.7	5.2	0.2	5.3
5/1	1273	1273	-	-	-	9.5	10.0	-	19.5	55.1	40.0	10.0	50.0
5/2	599	599	116	93	0	6.7	3.3	-	10.0	60.2	13.0	3.3	16.3
6/1	768	768	-	-	-	6.6	1.3	-	7.9	37.0	20.5	1.3	21.8
6/2	258	258	5	251	2	2.9	5.3	0.0	8.2	114.7	8.3	5.3	13.6
7/1	361	361	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	209	209	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	1120	1120	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/2	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	275	275	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	258	258	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/1	1654	1654	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
10/2	390	390	-	-	-	0.0	0.1	-	0.1	1.2	0.0	0.1	0.1
C1 Stream: 1 PRC for Signalled Lanes (%): -5.5 C1 Stream: 2 PRC for Signalled Lanes (%): -7.4 PRC Over All Lanes (%): -7.4 Total Delay for Signalled Lanes (pcuHr): 54.55 Total Delay for Signalled Lanes (pcuHr): 51.76 Total Delay Over All Lanes(pcuHr): 106.44 Cycle Time (s): 140 Cycle Time (s): 140													