



Transport Assessment Addendum

Kingmoor, Wrexham Industrial Estate,
Wrexham, Clwyd

Client: FI Real Estate Management



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1 INTRODUCTION

1.1 Purpose of Report

- 1.1.1 This Transport Assessment Addendum (TAA) considers the cumulative traffic impact associated with the following proposed development in Wrexham Industrial Estate (WIE):

Hybrid planning application for detailed and outline planning permission for employment development with ancillary offices for Use Class B8; detailed elements to comprise: revised and upgraded access off existing access into site off Bryn Lane, new circulation roads, drainage infrastructure, ecology mitigation, landscaping and ancillary development and infrastructure; outline elements to comprise: new employment units (up to 3 units) comprising in total up to 93,019 sqm GIA (1,001,250 sqft GIA) of floorspace for Use Class B8, related servicing/service yards with HGV parking and car parking and ancillary development and infrastructure.

- 1.1.2 Wrexham County Borough Council (WCBC) is the Local Highway Authority (LHA) and the Local Planning Authority (LPA). Prime Transport Planning (Prime) has produced this TAA on behalf of the applicant, FI Real Estate Management (FIREM).
- 1.1.3 The document has been prepared in accordance with *Planning Policy Wales* and *Technical Advice Note 18: Transport* as well as a number of local policy documents. It considers the accessibility of the site and the safety for all modes of travel with an emphasis on walking cycling and public transport, while assessing the potential impact on the highway network.
- 1.1.4 The TAA provides an update on the traffic impact assessment presented in the submitted Transport Assessment (TA) prepared by Prime in March 2023 following a consultation response from Mott MacDonald (MM) on behalf of WCBC Highways dated 1st December 2023.
- 1.1.5 The conclusions and recommendations contained herein have been drawn based on information available and obtained in advance of the planning submission to which this report relates.
- 1.1.6 Reasonable checks have been carried out on any third-party information used in the preparation of the report but, nonetheless, Prime Transport Planning accepts no liability for the accuracy or otherwise of this data.
- 1.1.7 Third-party rights are excluded for the use of information contained within this report.

1.2 Scope of Report

- 1.2.1 There were three main issues raised on the response by MM:
1. The cumulative impact of the proposed development in conjunction with a number of additional developments and their associated infrastructure improvements;

2. The distribution of HGV trips; and
 3. The trip rates used to forecast the impact of the proposed development.
- 1.2.2 Points 2 and 3 influence the first point.
- 1.2.3 The remainder of this report is structured as follows:
- **Section 2** provides details of an updated traffic forecasting methodology and additional sensitivity test;
 - **Section 3** provides the results of the updated traffic impact assessment; and
 - **Section 4** concludes the findings of the Transport Assessment Addendum.

2 UPDATED TRAFFIC FORECASTING

2.1 Introduction

- 2.1.1 Several issues raised by MM has resulted in the need to provide updated forecast traffic flows, which is partially due to the passage of time since the application was submitted and the formal consultation response provided on behalf of WCBC Highways, as well as the lack of a full pre-application response from WCBC Highways/MM when requested on 8th November 2022.

2.2 Committed Developments

- 2.2.1 The committed developments included in the original assessment detailed in the TA were as follows:

- Site 2 WIE - 25,069 sqft B2/B8 (Clywedog Rd N);
- Site 3 WIE - 45,079 sqft B2/B8 (Clywedog Rd E);
- Site 4 WIE - 35,015 sqft B2 (Clywedog Rd N).
- Site 1 (Bridgeway Centre) WIE (P/2022/0065) - 120,000 sqft B2/B8 (Bridge Rd);
- Site 5 WIE - 152,000 sqft B8 (Clwedog Rd S);
- The Oaks (P/2019/0877) - 184,000 sqft B1, B2 and B8 (Oak Rd);
- Net World Sports (P/2020/0167); and
- Land to the east of Bryn Lane (P/2020/0017) - 97,500 sqft B2/B8.

- 2.2.2 The applicant's planners along with Prime have reviewed the status of recent applications and have the following recommendations:

- The site known as 'The Oaks' was refused planning permission locally and the appeal was refused, as such, it has been removed from the assessment;
- The 2020 application for Land to the east of Bryn Lane has been replaced by P/2023/0230, but the associated trip generation remains the same;
- Land south of Holt Road (P/2019/0005) is now consented and is included as a committed development;
- Land off Llay New Road (P/2021/1057) is now consented and is included as a committed development; and
- Land at Mold Road (P/2019/0923) is now consented and is included as a committed development.

- 2.2.3 MM requested that the assessment should include the live application Utopia City, Land North of Bryn Lane (P/2023/0497). At the time of the initial assessment this had not been submitted and was not allocated. However, as the site is now allocated for development as Key Strategic Site 3 (KSS3) in the adopted Local Plan (2013-2028), it has been included as a committed development. Prime have liaised with Utopia City's transport consultant, Cora IHT, who recognises the importance of presenting

comparable assessments. As such, both parties have shared their development and committed development flows, therefore the only differences between the assessments should be the baseline traffic flows.

2.2.4 The updated list of committed developments included in the revised assessment presented in this TAA is provided:

- Site 2 WIE - 25,069 sqft B2/B8 (Clywedog Rd N);
- Site 3 WIE - 45,079 sqft B2/B8 (Clywedog Rd E);
- Site 4 WIE - 35,015 sqft B2 (Clywedog Rd N);
- Site 1 (Bridgeway Centre) WIE (P/2022/0065) - 120,000 sqft B2/B8 (Bridge Rd);
- Site 5 WIE - 152,000 sqft B8 (Clwedog Rd S);
- Net World Sports (P/2020/0167);
- Land to the east of Bryn Lane (P/2023/0230) - 97,500 sqft B2/B8;
- Land south of Holt Road (P/2019/0005);
- Land off Llay New Road (P/2021/1057);
- Land at Mold Road (P/2019/0923);
- Pacific Park (P/2020/0603);
- Land off Ash Road South (P/2015/0843); and
- Utopia City (P/2023/0497).

2.3 Background Traffic Growth

2.3.1 TEMPro version 8.0 was used to forecast the background traffic growth for light vehicles in the TA. However, since that assessment was completed, TEMPro version 8.1 has been released. This latest version allows the application of National Traffic Model (NTM) based adjustments for road types. As such, the adjustment has been made for 'A' roads given that the A534 and A5156 are the predominant roads in the study area.

2.3.2 The household and job based planning assumptions with TEMPro have been adjusted so that the forecast assumptions match the base assumptions given that the numbers associated with these assumptions are lower than those associated with the committed developments. The removes the double counting of planning based traffic growth. It follows the methodology presented in the TA but now includes households given the explicit inclusion of traffic from the Land south of Holt Road scheme which sits in the same TEMPro middle layer super output area as the proposed development. A summary of the assumptions is provided in Table 2.1.

Table 2.1: TEMPro Default & Alternative Planning Assumptions between 2022-2027 and 2022-2036

Forecast Year	Default Assumptions			Adjusted Assumptions		
	Base Jobs	Future Jobs	Diff	Base Jobs	Future Jobs	Diff
2027	16630	16816	186	16228	16228	0
2036	16228	16865	637	16228	16228	0
Forecast Year	Base HH	Future HH	Base Jobs	Base HH	Future HH	Diff
2027	5847	5933	86	5847	5847	0
2036	5847	5994	147	5847	5847	0

2.3.3 The revised TEMPro factors are provided in Table 2.2.

Table 2.2: TEMPro Growth Factors (2022 Base)

Forecast Year	Local Growth Figure	
	AM	PM
2027	1.0048	1.0049
2036	1.0456	1.0437

2.3.4 The above growth factors have been applied to the 2022 Observed traffic flows forming the 2027 and 2036 Base traffic flows, as shown in Traffic Flow Diagrams (TFD) 3-6.

2.3.5 The traffic associated with the committed developments is shown in TFDs 7-32, with the total committed development traffic flows shown in TFDs 33 and 34 added to the 2027 and 2036 Base traffic flows, forming the 2027 and 2036 Without Development traffic flows, shown in TFDs 35-38. All TFDs are provided in Appendix 1.

2.4 Improvements Offered by Committed Developments

2.4.1 Several mitigation measures have been offered or suggested by other applicants.

Land south of Holt Road (P/2019/0005)

2.4.2 The consented Land south of Holt Road (KSS2) development is to provide a fifth arm off the A534/A5156/A534 Holt Road roundabout in order to provide a spine road access into the development. No traffic reassignment has been forecast in the associated TA. Further mitigation at the junction was also suggested and presented in Drawing CBO-0322-012 appended to the associated TA, which shows widening of the northern and eastern approaches to the roundabout to provide three lanes.

2.4.3 The same development also proposes to improve the 'Greyhound Roundabout' (A534 Holt Road/Bryn Estyn Road/Cefn Road/Dean Road) by making minor arm realignments and improving pedestrian crossing infrastructure. This is shown in Drawing CBO-03222-013 appended to the associated TA.

- 2.4.4 We understand that WCBC is seeking contributions to the above schemes. The proposed improvement schemes at the A534/A5156/A534 Holt Road roundabout will be assessed in Section 3. The Greyhound Roundabout is outside of the study area but the level of traffic that the proposed development is forecast to add to it will be presented in Section 3.

Utopia City (P/2023/0497)

- 2.4.5 In order to facilitate access into Utopia City, the developer proposes to provide a fifth arm off the Industrial Estate Road/Bryn Lane/Ash Road North/Abenbury Way roundabout. This will require the diameter of the roundabout to be increased and the existing arms realigned accordingly. The design is shown in Drawing 101B (not appended) and was provided to Prime by Cora IHT. Section 3 provides a junction capacity assessment of this arrangement.

2.5 HGV Distribution

- 2.5.1 In their response, MM acknowledged the use of a gravity model to forecast the distribution the HGV flows. MM have requested that this should be compared to the observed turning proportions at key junctions such as the A534/Industrial Estate Road/Sandy Lane/Borras Hall Lane and A483 Gresford Interchange.
- 2.5.2 It should be noted that a direct comparison is not possible as the origin/destination point of the site will differ to those of HGVs on the local highway network, however, it is possible to roughly compare the proportions. The focus of this has been on the abovementioned junctions given the likely concentration of HGV flows to/from the development onto the A483 via the A534 and A5156. The HGV distribution comparison is provided in Table 2.3.

Table 2.3: HGV Distribution Comparison (Obs = Observed, F'Cast = Forecast)

Arm	AM Departures		AM Arrivals		PM Departures		PM Arrivals	
	Obs	F'cast	Obs	F'cast	Obs	F'cast	Obs	F'cast
A534/Industrial Estate Road/Sandy Lane/Borras Hall Lane								
Sandy Ln	0%	0%	1%	0%	6%	0%	0%	0%
A534 W	86%	85%	83%	90%	80%	93%	89%	93%
Borras Hall Ln	0%	0%	2%	0%	0%	0%	0%	0%
A534 E	14%	15%	14%	10%	14%	7%	11%	7%
Gresford Interchange								
A5152	1%	0%	6%	0%	0%	0%	8%	0%
A483 S	26%	45%	25%	38%	28%	38%	22%	42%
Blue Bell Ln	7%	0%	6%	0%	5%	0%	8%	0%
Industrial Park	1%	0%	2%	0%	1%	0%	3%	0%
A483 N	48%	40%	42%	52%	41%	55%	47%	51%
B5445	3%	0%	3%	0%	5%	0%	1%	0%

- 2.5.3 We consider the forecast HGV distribution to be valid given the relatively close proportionate comparison to the observed HGV proportions.

2.6 Trip Rates

- 2.6.1 MM expressed concern that the trip rates used in the TA were lower than those originally presented for preapplication discussions. The former were based on a development known as Florida Farm in St Helens, Merseyside and were a combination of TRICS and the surveyed traffic generation at the Omega North development off junction 8 of the M62, Warrington. The same trip rates were then used in two more applications included in the logistics study referenced during preapplication discussions (TA Appendix A), these being a 1,442,000ft² B8 development in Wigan (Wigan Council ref. A/18/85947/MAJES) and a 1,224,717ft² B8/B2 scheme in Haydock (St Helens council planning ref. P/2017/0254/OUP). Given the acceptance of the use of these hybrid trip rates in support of at least three consented schemes in the North West, it was felt that they were suitable for use in the assessment.
- 2.6.2 The trip rates presented during preapplication discussions were based on the aforementioned study of large scale industrial developments across the county, with the majority being based on trip rates derived from the TRICS database, however there is a very limited number of sites of this scale in TRICS.
- 2.6.3 It was therefore felt that the Florida Farm trip rates would be more appropriate. Whilst MM have not objected to the use of the trip rates presented in the TA, they have requested sensitivity testing using higher trip rates.
- 2.6.4 Prime are aware that MM provided Cora IHT with TRICS based B8 trip rates to use. However, the consultant has shared the associated TRICS reports and whilst the rates may be suitable for Utopia City's B8 element, they are considered to be unsuitable for the proposed development as the sample consists of much smaller B8 sites, which average a gross floor area (GFA) of 8,877m² which compared to that of the proposed development at 93,019², is less than 10% of the scale. The MM sample also includes sites in Northern Ireland, at least one site surveyed during the Covid-19 pandemic and a site in a residential area, none of which are applicable to the proposed development.

Bespoke Trip Generation Surveys

- 2.6.5 Prime have been representing the applicant for a proposed development of a similar scale in Chorley, Lancashire, which has involved consultation with National Highways (NH). It was intended to also use the Florida Farm trip rates for that application, however NH consider the Florida Farm trip rates to be out-of-date and requested new surveys of similar schemes supplemented by appropriate TRICS sites.
- 2.6.6 Three large predominantly B8 sites were identified as sharing similar characteristics to that of the proposed development in Chorley, including having a GFA >500,000ft² (46,451.52m²), being close to the strategic road network, being in locations away from residential areas, modern units, not part of a closely linked supply chain and have a single occupier per unit. The sites listed in Table 2.4 were identified and surveyed.

Table 2.4: Trip Generation Survey Sites

Site Ref	1 Burnley	2 Skelmersdale	3 James Hall, Preston
Occupier	Exertis UK	Great Bear	Spar
GIA (sqm)	69,337	48,154	52,385.6
GIA (sqft)	746,343	518,333	563,879
LPA	Burnley Council	West Lancs BC	Preston CC
App info taken from	APP/2018/0241 - extension	2005/0037	06/2017/1164

2.6.7 All three sites were visited in the week prior to the surveys taking place to confirm that they were fully operational. A good level of activity at the accesses and a reasonable level of car park occupancy was observed. Telephone calls were also made to all three sites also to confirm this in the week prior to the surveys taking place.

2.6.8 The independent traffic survey specialist, 360:TSL, was instructed to undertake the trip generation surveys. The methodology was agreed with NH and consisted of at least one camera being mounted to lighting columns within adopted highway overlooking the accesses to the three sites. The recording took place for 12-hours from 7am to 7pm on Wednesday 16th November 2022, a neutral day by definition of DfT Transport Analysis Guidance (TAG). The survey company then tabulated the data when studying the footage, noting the movements in 15-minute time segments. In agreement with NH, users were classified by pedestrians, cyclists, cars, LGVs, HGVs and buses. No motorcycles were observed. The number of trips were divided by the gross internal areas (GIA) (a unit of measurement which is closely comparable with GFA). The GIAs were divided by 100 in line with the TRICS methodology to derive the trip rates per 100m². The trip generation survey results are provided in Appendix 2.

TRICS Sites

2.6.9 Use of the TRICS database is the most common industry standard method for trip generation calculations. The database contains traffic generation surveys of numerous sites of various land use types across the UK and Eire and, from our own investigations in our logistics study provided during scoping discussions (Appendix A of the TA), TRICS is the most widely used trip generation calculation method for B8 led developments. However, it has a very limited number of sites of a scale and location similar to that of the development proposals, hence NH's request for the bespoke surveys mentioned above. Nevertheless, our recent interrogations found two comparable sites in the database which have been combined with the bespoke surveys to create hybrid trip rates, much like the Florida Farm methodology. These two sites are a Lidl distribution centre in Exeter near the M5 and a Tesco distribution centre in Doncaster near the A1(M) and the M18. Both sites have GIAs greater than 500,000m². The TRICS report outputs are included in Appendix 3.

Hybrid Trip Rates

- 2.6.10 The trip rates from the three surveyed sites were combined with the two TRICS sites to create hybrid trip rates, in turn maximising the sample size and its statistical reliability. The spreadsheets containing the survey results, the TRICS based trip rates, the trip rate calculations and graphs showing trip rate vs floor area correlation were provided to NH and the two local highway authorities for review as part of the Chorley scheme.
- 2.6.11 WSP reviewed the trip rates on behalf of NH and requested that the Great Bear site in Skelmersdale be removed from the sample on the basis of the trip rates being notably lower than the others in the sample. Our view is that, particularly with reference to the correlation graphs provided, sites of this nature do not show general trends in terms of 'x' size of floor area generating 'y' amounts of trips; the trip generation is bespoke to each end user. We felt that the low trip rates at Great Bear would have balanced out the particularly high trip rates at James Hall Spar, Preston, however, we agreed to remove the Great Bear trip rates from the sample in order to provide a particularly robust assessment.
- 2.6.12 The two remaining bespoke survey sites in Lancashire have higher total vehicle trip rates than the two TRICS sites. This hybrid methodology has therefore produced more robust trip rates than if TRICS had been used in isolation.
- 2.6.13 Full trip rate calculations for the hybrid sample along with TRICS outputs for the two TRICS sites are provided in Appendix 4 for reference.
- 2.6.14 The vehicular trip rates used in this assessment as a sensitivity test and applied to the proposed floor area are provided in Table 2.5. The peak hours to be assessed are highlighted in bold font. The trip rates are higher than those used in the original assessment, however we still consider the original assessment trip rates to be valid and the sensitivity test trip rates to be an overestimate, particularly as the hybrid sample includes sites adjacent to the major motorway network in England.

Table 2.5: Vehicular Trip Rate and Trip Generation Summary - Sensitivity Test

Time	Trip Rates			Trip Generation		
	Arrivals	Departures	Total	Arrivals	Departures	Total
Lights						
07:00-08:00	0.083	0.013	0.096	77	12	89
08:00-09:00	0.168	0.018	0.186	156	17	173
09:00-10:00	0.037	0.025	0.062	34	23	57
10:00-11:00	0.030	0.022	0.051	27	20	47
11:00-12:00	0.031	0.032	0.063	29	29	58
12:00-13:00	0.044	0.065	0.109	41	60	101
13:00-14:00	0.078	0.050	0.128	72	47	119
14:00-15:00	0.031	0.116	0.147	29	108	137
15:00-16:00	0.022	0.063	0.085	20	59	79
16:00-17:00	0.033	0.108	0.142	31	101	132
17:00-18:00	0.031	0.161	0.192	29	150	179
18:00-19:00	0.010	0.038	0.047	9	35	44
Daily (12hr)	0.597	0.711	1.309	554	661	1215
Heavies						
07:00-08:00	0.026	0.030	0.056	24	28	52
08:00-09:00	0.025	0.026	0.051	23	24	47
09:00-10:00	0.037	0.036	0.073	35	34	69
10:00-11:00	0.035	0.044	0.079	32	41	73
11:00-12:00	0.023	0.037	0.060	22	34	56
12:00-13:00	0.023	0.038	0.061	21	35	56
13:00-14:00	0.030	0.036	0.067	28	34	62
14:00-15:00	0.031	0.037	0.068	29	34	63
15:00-16:00	0.023	0.029	0.052	21	27	48
16:00-17:00	0.014	0.016	0.030	13	15	28
17:00-18:00	0.019	0.024	0.043	17	23	40
18:00-19:00	0.010	0.020	0.030	9	19	28
Daily (12hr)	0.296	0.373	0.669	274	348	622

2.6.15 Use of the sensitivity test trip rates would result in 220 and 219 two-way trips in the AM and PM peak hours, equivalent to less than four trips per minute. These trips are 78 and 53 more than the main assessment in the respective AM and PM peak hours.

2.6.16 The same distribution used in the main assessment has also been used for the sensitivity test with the flows shown in TFDs 47 and 48. They have been added to the Without Development scenarios for both forecast years forming the With Development 2027 and With Development 2036 Sensitivity Test flows shown in TFDs 49-52. All TFDs are provided in Appendix 1.

2.7 Bus Service and Active Travel Funding

- 2.7.1 It should be noted that the assessment provided in Section 3 does not take into account any reduction in vehicular trips that would likely occur if local bus services were improved. We have attempted to contact WCBC's public transport officer both pre and post-submission yet no response has been received.
- 2.7.2 The applicant is willing to discuss an appropriate contribution towards public transport and active travel improvements in the local area.
- 2.7.3 It should also be noted that the impact assessment presented in Section 3 does not fully take into account the adoption of measures to promote and encourage sustainable travel that will be provided as part of the travel plan process, which may also include measures that link with those of neighbouring developments.

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3 TRAFFIC IMPACT ASSESSMENT

3.1 Absolute and Percentage Assessment

- 3.1.1 The number of trips that the development is forecast to add to key local junctions in the AM and PM network peaks is summarised in absolute and percentage terms in Tables 3.1 and 3.2.

Table 3.1: Comparison of Two-way Traffic Flows - 2027 Without Development and 2027 With Development

Junction	2027 AM Peak				2027 PM Peak			
	Without Dev	With Dev	Abs Diff	% Diff	Without Dev	With Dev	Abs Diff	% Diff
1. The Very Group Site Access/Bryn Lane	410	566	156	38.0%	504	696	192	38.1%
2. Industrial Estate Road/Bryn Lane/Ash Road North/Abenbury Way	2443	2574	131	5.4%	2476	2636	160	6.5%
3. A534/Industrial Estate Road/Sandy Lane/Borras Hall Lane	3339	3470	131	3.9%	3418	3578	160	4.7%
4. A534/A5156/A534 Holt Road	3526	3642	116	3.3%	3604	3747	143	4.0%
5. A5156/Borras Park Road	3421	3523	102	3.0%	3324	3451	127	3.8%
6. Gresford Interchange	4850	4950	100	2.1%	4823	4947	124	2.6%
7. A55 Junction 38 Posthouse RB	6341	6369	28	0.4%	6618	6653	35	0.5%
8. Oak Road/Bryn Lane	426	448	22	5.2%	497	526	29	5.8%
9. Coed Aben Road/Redwither Road/Bridge Road	806	821	15	1.9%	805	824	19	2.4%

Table 3.2: Comparison of Two-way Traffic Flows - 2036 Without Development and 2036 With Development

Junction	2036 AM Peak				2036 PM Peak			
	Without Dev	With Dev	Abs Diff	% Diff	Without Dev	With Dev	Abs Diff	% Diff
1. The Very Group Site Access/Bryn Lane	421	577	156	37.1%	519	711	192	37.0%
2. Industrial Estate Road/Bryn Lane/Ash Road North/Abenbury Way	2513	2644	131	5.2%	2558	2718	160	6.3%
3. A534/Industrial Estate Road/Sandy Lane/Borras Hall Lane	3448	3579	131	3.8%	3523	3683	160	4.5%
4. A534/A5156/A534 Holt Road	3652	3768	116	3.2%	3722	3865	143	3.8%
5. A5156/Borras Park Road	3521	3623	102	2.9%	3428	3555	127	3.7%
6. Gresford Interchange	5018	5118	100	2.0%	4990	5114	124	2.5%
7. A55 Junction 38 Posthouse	6585	6613	28	0.4%	6865	6900	35	0.5%
8. Oak Road/Bryn Lane	440	462	22	5.0%	511	540	29	5.7%
9. Coed Aben Road/Redwither Road/Bridge Road	833	848	15	1.8%	829	848	19	2.3%

- 3.1.2 The greatest increase in traffic as a result of the development is shown to be at the Very Group site access/Bryn Lane junction with the development resulting in 156 and 192 additional two-way trips in the respective AM and PM peak hours. All traffic associated with the proposed development will have to utilise this junction when travelling to and from the site.
- 3.1.3 The Industrial Estate Road/Bryn Lane/Ash Road North/Abenbury Way junction and A534/Industrial Estate Road/Sandy Lane/Borras Hall Lane junction will both experience an increase of 131 and 160 additional two-way trips in the respective AM and PM peak hours (3.8-6.5%). The A534/A5156/A534 Holt Road/Services Access, A5156/Borras Park Road/Borras Road and Gresford Interchange junctions will all experience an increase of between 100 and 143 additional two-way trips (2.0-4.0%), while the A55 Junction 38, Oak Road/Bryn Lane and Coed Aben Road/Redwither Road/Bridge Road will all experience an increase of between 15 and 35 additional two-way trips (0.4-5.8%).
- 3.1.4 During scoping discussions for the Site 1 redevelopment, MM requested that capacity assessments be undertaken at junctions where the increase is greater than 5% or 30 two-way trips. As such, capacity assessments have been undertaken at junctions 1-6 and junction 8. In relation to the A55 Junction 38/A483 (Posthouse Roundabout) junction, the increase in trips exceeds the 30 two-way trip threshold in the PM peak. However, given this increase equates to just 0.5%, the large scale and strategic nature of the junction, we find it reasonable to not undertake detailed capacity assessments at this junction as the impact of the development traffic is likely to be negligible and considerably less than the typical daily fluctuation in traffic flow.
- 3.1.5 As stated in Section 2, although MM have not objected to the use of the trip rates presented in the TA, they have requested sensitivity testing using higher trip rates. As such, the absolute and percentage assessment has been repeated utilising the higher peak hour trip generation figures presented in Table 2.5, referred to as the Sensitivity Test, with the results provided in Tables 3.3 and 3.4.

Table 3.3: Comparison of Two-way Traffic Flows - 2027 Without Development and 2027 With Development Sensitivity Test

Junction	2027 AM Peak				2027 PM Peak			
	Without Dev	With Dev	Abs Diff	% Diff	Without Dev	With Dev	Abs Diff	% Diff
1. The Very Group Site Access/Bryn Lane	410	630	220	53.7%	504	723	219	43.5%
2. Industrial Estate Road/Bryn Lane/Ash Road North/Abenbury Way	2443	2629	186	7.6%	2476	2659	183	7.4%
3. A534/Industrial Estate Road/Sandy Lane/Borras Hall Lane	3339	3525	186	5.6%	3418	3601	183	5.4%
4. A534/A5156/A534 Holt Road	3526	3690	164	4.7%	3604	3768	164	4.6%
5. A5156/Borras Park Road	3421	3566	145	4.2%	3324	3469	145	4.4%
6. Gresford Interchange	4850	4992	142	2.9%	4823	4965	142	2.9%
7. A55 Junction 38 Posthouse RB	6341	6383	42	0.7%	6618	6660	42	0.6%
8. Oak Road/Bryn Lane	426	457	31	7.3%	497	529	32	6.4%
9. Coed Aben Road/Redwither Road/Bridge Road	806	827	21	2.6%	805	828	23	2.9%

Table 3.4: Comparison of Two-way Traffic Flows - 2036 Without Development and 2036 With Development Sensitivity Test

Junction	2036 AM Peak				2036 PM Peak			
	Without Dev	With Dev	Abs Diff	% Diff	Without Dev	With Dev	Abs Diff	% Diff
1. The Very Group Site Access/Bryn Lane	421	641	220	52.3%	519	738	219	42.2%
2. Industrial Estate Road/Bryn Lane/Ash Road North/Abenbury Way	2513	2699	186	7.4%	2558	2741	183	7.2%
3. A534/Industrial Estate Road/Sandy Lane/Borras Hall Lane	3448	3634	186	5.4%	3523	3706	183	5.2%
4. A534/A5156/A534 Holt Road	3652	3816	164	4.5%	3722	3886	164	4.4%
5. A5156/Borras Park Road	3521	3666	145	4.1%	3428	3573	145	4.2%
6. Gresford Interchange	5018	5160	142	2.8%	4990	5132	142	2.8%
7. A55 Junction 38 Posthouse	6585	6627	42	0.6%	6865	6907	42	0.6%
8. Oak Road/Bryn Lane	440	471	31	7.0%	511	543	32	6.3%
9. Coed Aben Road/Redwither Road/Bridge Road	833	854	21	2.5%	829	852	23	2.8%

3.1.6 Utilising the peak hour trip generation figures presented in Table 2.5, the Very Group site access/Bryn Lane junction is expected to experience an increase of 220 and 219 additional two-way trips in the respective AM and PM peak hours.

3.1.7 The Industrial Estate Road/Bryn Lane/Ash Road North/Abenbury Way junction and A534/Industrial Estate Road/Sandy Lane/Borras Hall Lane junction will both experience an increase of 186 and 183 additional two-way trips in the respective AM and PM peak hours (5.2-7.4%). The A534/A5156/A534

Holt Road/Services Access, A5156/Borras Park Road/Borras Road and Gresford Interchange junctions will all experience an increase of between 142 and 164 additional two-way trips (2.8-4.5%), while the A55 Junction 38, Oak Road/Bryn Lane and Coed Aben Road/Redwither Road/Bridge Road will all experience an increase of between 21 and 42 additional two-way trips (0.6-7.0%).

3.2 Junction Capacity Assessment

- 3.2.1 All assessment junctions, with the exception of Gresford Interchange, have been modelled using the industry standard software Junctions 10, development by TRL Software. This software includes the PICADY module which has been used to model the priority-controlled junctions and the ARCADY module which has been used to model the roundabouts. Junctions 10 is the latest version of the software with Junctions 9 used in the original assessment, as such there may be minor differences to the results associated with the updated software. The Gresford Interchange signalised junction has been modelled using LinSig V3.
- 3.2.2 When interpreting the Junctions 10 results, the capacity of each arm or movement is calculated as the Ratio of Flow to Capacity (RFC) with 0.85 representing the practical capacity threshold of the arm and 1.00 representing the theoretical capacity threshold. It is above the practical capacity threshold where capacity problems may begin to occur while exceeding the theoretical capacity means that arms are over capacity.
- 3.2.3 It should be noted that when the theoretical capacity threshold (RFC=1.00) is exceeded, the algorithms in the software can cause an almost exponential deterioration in performance which is known to be unrealistic, so any RFCs greater than 1.00 and the associated queue lengths should be treated with caution. However, even when the threshold is exceeded, the modelling software remains a suitable tool for impact comparison purposes.
- 3.2.4 Modelled queues are shown in passenger car units (PCUs), this being equivalent to a distance of 5.75m which is the length of road space (car length plus gap length) that a typical car will occupy when queuing. In order to convert the traffic flows into PCUs, which is the requisite input flow unit required in the modelling software, a factor of 2.0 has been applied to the heavy vehicle user class, while cars effectively have a factor of 1.0. These factors are commonly accepted in transport modelling.
- 3.2.5 When interpreting LinSig results, the capacity of each lane is calculated as a degree of saturation (DoS) with 90% representing the practical capacity threshold of the lane and 100% representing the theoretical capacity threshold. The capacity of the junction as a whole is indicated by the practical reserve capacity (PRC) with negative values indicating that the practical capacity threshold has been exceeded and a PRC less than -10% indicating that a junction is operating above the theoretical capacity threshold. Queues are the mean maximum queue (MMQ) over the hour modelled.
- 3.2.6 The junction geometry has been coded based on a mixture of OS mapping and aerial photography. Where appropriate, some geometries have also been extracted from the models associated with

other applications in WIE. Slight adjustments have been made to some of the measured geometry in order to improve the level of model calibration.

- 3.2.7 All model report outputs are included in Appendix 5.

Junction 1: The Very Group Site Access/Bryn Lane

- 3.2.8 The results of the model are summarised in Table 3.5.

Table 3.5: Junction Capacity Assessment Results - The Very Group Site Access/Bryn Lane

Arm	AM		PM	
	RFC	Q (PCU)	RFC	Q (PCU)
Observed 2022				
The Very Group Site Access Nearside	0.02	0.0	0.02	0.0
The Very Group Site Access Offside	0.03	0.1	0.02	0.0
Bryn Lane (Southern Arm)	0.02	0.0	0.00	0.0
2027 Without Development				
The Very Group Site Access Nearside	0.03	0.0	0.03	0.0
The Very Group Site Access Offside	0.04	0.1	0.09	0.1
Bryn Lane (Southern Arm)	0.02	0.0	0.00	0.0
2036 Without Development				
The Very Group Site Access Nearside	0.03	0.0	0.03	0.0
The Very Group Site Access Offside	0.04	0.1	0.09	0.1
Bryn Lane (Southern Arm)	0.02	0.0	0.00	0.0
2027 With Development				
The Very Group Site Access Nearside	0.05	0.1	0.07	0.1
The Very Group Site Access Offside	0.24	0.4	0.39	0.7
Bryn Lane (Southern Arm)	0.04	0.0	0.02	0.0
2036 With Development				
The Very Group Site Access Nearside	0.05	0.1	0.07	0.1
The Very Group Site Access Offside	0.24	0.4	0.39	0.7
Bryn Lane (Southern Arm)	0.04	0.0	0.02	0.0
2027 With Development Sensitivity Test				
The Very Group Site Access Nearside	0.03	0.0	0.10	0.1
The Very Group Site Access Offside	0.24	0.5	0.53	1.3
Bryn Lane (Southern Arm)	0.07	0.1	0.01	0.0
2036 With Development Sensitivity Test				
The Very Group Site Access Nearside	0.04	0.0	0.10	0.1
The Very Group Site Access Offside	0.24	0.5	0.54	1.3
Bryn Lane (Southern Arm)	0.07	0.1	0.01	0.0

- 3.2.9 The results show that the junction will continue to operate with considerable level of spare capacity in the '2036 With Development Sensitivity Test' scenario, with the highest RFC being 0.54 on the offside of the Very Group site access in the PM peak.

Junction 2: Industrial Estate Road/Bryn Lane/Ash Road North/Abenbury Way

- 3.2.10 Prime are aware that the Utopia City scheme is to take access from this junction via a new fifth arm, located between the Industrial Estate Road and Bryn Lane arms. This can be described as ‘embedded mitigation’ as it is essential to the delivery of said scheme.
- 3.2.11 Two models have been created, with the first representing the existing layout of the junction but excluding the Utopia City flows. The file associated with the second model was helpfully provided to Prime by Cora IHT and includes the new access arm, increased diameter of the junction and proposed improvements to the existing arms. The results of each model are summarised in Tables 3.6 and 3.7.

Table 3.6: Junction Capacity Assessment Results - Industrial Estate Road/Bryn Lane/Ash Road North/Abenbury Way (Existing Layout Without Utopia City)

Arm	AM		PM	
	RFC	Q (PCU)	RFC	Q (PCU)
Observed 2022				
1 - Bryn Lane	0.21	0.3	0.25	0.4
2 - Ash Road North	0.14	0.2	0.57	1.3
3 - Abenbury Way	0.24	0.4	0.68	2.2
4 - Industrial Estate Road	0.72	2.7	0.24	0.3
2027 Without Development				
1 - Bryn Lane	0.30	0.5	0.33	0.5
2 - Ash Road North	0.16	0.3	0.64	1.8
3 - Abenbury Way	0.31	0.6	0.89	8.1
4 - Industrial Estate Road	0.82	4.8	0.29	0.5
2036 Without Development				
1 - Bryn Lane	0.32	0.6	0.34	0.6
2 - Ash Road North	0.16	0.3	0.67	2.1
3 - Abenbury Way	0.32	0.6	0.95	15.6
4 - Industrial Estate Road	0.85	5.8	0.30	0.5
2027 With Development				
1 - Bryn Lane	0.40	0.8	0.41	0.8
2 - Ash Road North	0.16	0.3	0.68	2.1
3 - Abenbury Way	0.32	0.6	0.98	21.4
4 - Industrial Estate Road	0.86	6.4	0.33	0.6
2036 With Development				
1 - Bryn Lane	0.42	0.9	0.42	0.8
2 - Ash Road North	0.17	0.3	0.71	2.5
3 - Abenbury Way	0.33	0.6	1.04	56.7
4 - Industrial Estate Road	0.89	8.3	0.34	0.6
2027 With Development Sensitivity Test				
1 - Bryn Lane	0.39	0.8	0.45	0.9
2 - Ash Road North	0.16	0.3	0.70	2.3
3 - Abenbury Way	0.32	0.6	1.02	43.0
4 - Industrial Estate Road	0.89	8.6	0.32	0.5
2036 With Development Sensitivity Test				
1 - Bryn Lane	0.42	0.9	0.47	1.0
2 - Ash Road North	0.17	0.3	0.73	2.7
3 - Abenbury Way	0.33	0.6	1.10	93.6
4 - Industrial Estate Road	0.92	11.8	0.30	0.6

- 3.2.12 The results show that Industrial Estate Road in the AM peak is forecast to operate above the practical capacity threshold (0.85) but below the theoretical capacity threshold (1.00) in the '2036 With Development Sensitivity Test' scenario, with an RFC value of 0.92. It is important to note that development traffic in 2036 increases the RFC value by just 0.07, with the impact of traffic growth and committed development traffic being greater, increasing the RFC value by 0.13.
- 3.2.13 In the PM peak, Abenbury Way is forecast to operate above the theoretical capacity threshold (1.00) in the '2036 With Development Sensitivity Test' scenario, with an RFC value of 1.10. The development traffic in 2036 increases the RFC value by 0.15, with the impact of traffic growth and committed development traffic being greater, increasing the RFC value by 0.27. As reported in the TA, from considering the 2022 Observed flows in the Traffic Flow Diagrams, it would appear that the offside flare is underutilised given the low second and third exit flows compared to the much higher first exit flows. From review of the queue lengths, it appears that only the nearside lane is regularly used for this movement despite the first exit having two lanes. In order to better reflect this and improve the level of calibration, this arm has been modelled as a single lane, taking the modelled queues more in line with the observed queues. Should the Utopia City scheme not progress, a simple signing and lining scheme could allow the first exit movement to be taken from the offside flare which should significantly reduce the queue lengths.
- 3.2.14 Industrial Estate Road in the PM peak and Abenbury Way in the AM peak, as well as all remaining arms in both peaks, are expected to operate with spare capacity.

Table 3.7: Junction Capacity Assessment Results - Industrial Estate Road/Bryn Lane/Ash Road North/Abenbury Way/Utopia Access (Proposed – Utopia City Embedded Mitigation)

Arm	AM		PM	
	RFC	Q (PCU)	RFC	Q (PCU)
2027 Without Development				
1 - Bryn Lane	0.34	0.6	0.43	0.8
2 - Ash Road North	0.15	0.3	0.72	2.5
3 - Abenbury Way	0.20	0.3	0.57	1.4
4 - Industrial Estate Road	0.93	13.0	0.41	0.8
5 - Utopia Access	0.49	1.0	0.35	0.6
2036 Without Development				
1 - Bryn Lane	0.36	0.7	0.44	0.9
2 - Ash Road North	0.16	0.3	0.75	3.0
3 - Abenbury Way	0.20	0.3	0.61	1.6
4 - Industrial Estate Road	0.96	20.2	0.42	0.8
5 - Utopia Access	0.52	1.1	0.35	0.6
2027 With Development				
1 - Bryn Lane	0.42	0.9	0.51	1.1
2 - Ash Road North	0.16	0.3	0.76	3.1
3 - Abenbury Way	0.20	0.3	0.61	1.6
4 - Industrial Estate Road	0.97	24.7	0.45	0.9
5 - Utopia Access	0.52	1.2	0.36	0.6
2036 With Development				
1 - Bryn Lane	0.44	1.0	0.52	1.2
2 - Ash Road North	0.16	0.3	0.79	3.8
3 - Abenbury Way	0.21	0.3	0.65	1.9
4 - Industrial Estate Road	1.00	47.3	0.46	1.0
5 - Utopia Access	0.55	1.3	0.37	0.6
2027 With Development Sensitivity Test				
1 - Bryn Lane	0.41	0.9	0.55	1.3
2 - Ash Road North	0.16	0.3	0.78	3.5
3 - Abenbury Way	0.20	0.3	0.64	1.8
4 - Industrial Estate Road	1.00	52.2	0.44	0.9
5 - Utopia Access	0.55	1.3	0.36	0.6
2036 With Development Sensitivity Test				
1 - Bryn Lane	0.42	0.9	0.56	1.4
2 - Ash Road North	0.16	0.3	0.81	4.3
3 - Abenbury Way	0.21	0.3	0.67	2.1
4 - Industrial Estate Road	1.03	99.5	0.45	0.9
5 - Utopia Access	0.56	1.3	0.36	0.6

- 3.2.15 The results show that the junction is predominantly forecast to operate with spare capacity with the exception of Industrial Estate Road in the AM peak in the 2036 With Development Sensitivity Test, which is forecast to operate slightly above the theoretical capacity threshold (1.00), with an RFC value of 1.03. However, it is important to note that development traffic in 2036 is expected to increase the RFC value by just 0.07.

Junction 3: A534/Industrial Estate Road/Sandy Lane/Borras Hall Lane

3.2.16 The results of the model are summarised in Table 3.8.

Table 3.8: Junction Capacity Assessment Results - A534/Industrial Estate Road/Sandy Lane/Borras Hall Lane

Arm	AM		PM	
	RFC	Q (PCU)	RFC	Q (PCU)
Observed 2022				
1 - Borras Hall Lane	0.13	0.2	0.02	0.0
2 - Wrexham Road	0.64	1.9	0.34	0.5
3 - Industrial Estate Road	0.24	0.4	0.71	2.5
4 - Sandy Lane	0.03	0.1	0.06	0.1
5 - A534	0.75	3.2	0.33	0.5
2027 Without Development				
1 - Borras Hall Lane	0.26	0.4	0.03	0.0
2 - Wrexham Road	0.89	8.0	0.40	0.7
3 - Industrial Estate Road	0.36	0.7	0.90	9.3
4 - Sandy Lane	0.04	0.1	0.09	0.1
5 - A534	0.92	12.1	0.44	0.9
2036 Without Development				
1 - Borras Hall Lane	0.31	0.4	0.03	0.0
2 - Wrexham Road	0.97	19.7	0.41	0.7
3 - Industrial Estate Road	0.37	0.7	0.93	13.6
4 - Sandy Lane	0.04	0.1	0.10	0.1
5 - A534	0.95	19.3	0.46	0.9
2027 With Development				
1 - Borras Hall Lane	0.32	0.5	0.03	0.0
2 - Wrexham Road	0.97	19.5	0.42	0.7
3 - Industrial Estate Road	0.39	0.8	0.95	19.3
4 - Sandy Lane	0.04	0.1	0.11	0.1
5 - A534	0.96	21.6	0.48	1.0
2036 With Development				
1 - Borras Hall Lane	0.37	0.6	0.04	0.0
2 - Wrexham Road	1.06	58.0	0.43	0.8
3 - Industrial Estate Road	0.40	0.8	0.98	38.0
4 - Sandy Lane	0.04	0.1	0.13	0.1
5 - A534	0.99	46.0	0.49	1.1
2027 With Development Sensitivity Test				
1 - Borras Hall Lane	0.38	0.6	0.03	0.0
2 - Wrexham Road	1.04	45.7	0.41	0.7
3 - Industrial Estate Road	0.39	0.8	0.98	33.9
4 - Sandy Lane	0.04	0.1	0.12	0.1
5 - A534	0.99	44.9	0.47	1.0
2036 With Development Sensitivity Test				
1 - Borras Hall Lane	0.42	0.7	0.03	0.0
2 - Wrexham Road	1.10	87.2	0.43	0.8
3 - Industrial Estate Road	0.40	0.8	1.01	79.3
4 - Sandy Lane	0.04	0.1	0.13	0.2
5 - A534	1.02	110.9	0.48	1.0

- 3.2.17 The results show that Wrexham Road and the A534 in the AM peak and Industrial Estate Road in the PM peak are forecast to operate above the theoretical capacity threshold (1.00) in the '2036 With Development Sensitivity Test' scenario, with RFC values of 1.10, 1.02 and 1.01 respectively. However, it is important to note that development traffic in 2036 increases the RFC values by 0.07-0.13, with the impact of traffic growth and committed development traffic being much greater, increasing the RFC values by 0.20-0.33.
- 3.2.18 Wrexham Road and the A534 in the PM peak and Industrial Estate Road in the AM peak, as well as all remaining arms in both peaks, are expected to operate with spare capacity.
- 3.2.19 There may be opportunities to increase the capacity at the junction, such as by extending the length of the flare on Wrexham Road subject to the extent of adopted highway. The applicant is willing to discuss such an improvement with WCBC and is willing to provide a contribution commensurate with the scale of the impact of the development.

Junction 4: A534/A5156/A534 Holt Road

- 3.2.20 Prime are aware that the consented Land south of Holt Road scheme is to take access from this junction via a new fifth arm, located between the A534 and Stryt Holt arms.
- 3.2.21 As such, two models have been created, the first representing the existing layout of the junction without traffic from Land south of Holt Road and the second including the new access arm which can be described as embedded mitigation.
- 3.2.22 As part of the works associated with the Land south of Holt Road scheme, it is also proposed to widen the A5156 and A534 arms, so they comprise a third lane. The second model has therefore included these adjustments to said arms.
- 3.2.23 The results of each model are summarised in Tables 3.9 and 3.10.

Table 3.9: Junction Capacity Assessment Results - A534/A5156/A534 Holt Road

Arm	AM		PM	
	RFC	Q (PCU)	RFC	Q (PCU)
Observed 2022				
1 - Services Access	0.33	0.6	0.17	0.2
2 - A534	0.30	0.5	0.70	2.4
3 - Stryt Holt	0.44	0.8	0.44	0.8
4 - A5156	0.73	2.9	0.34	0.5
2027 Without Development				
1 - Services Access	0.47	1.1	0.19	0.2
2 - A534	0.39	0.8	0.85	5.7
3 - Stryt Holt	0.50	1.0	0.54	1.2
4 - A5156	0.86	6.5	0.43	0.8
2036 Without Development				
1 - Services Access	0.55	1.4	0.20	0.3
2 - A534	0.40	0.8	0.88	7.2
3 - Stryt Holt	0.53	1.1	0.57	1.4
4 - A5156	0.89	8.9	0.44	0.9
2027 With Development				
1 - Services Access	0.53	1.3	0.20	0.3
2 - A534	0.42	0.9	0.89	8.2
3 - Stryt Holt	0.52	1.1	0.57	1.4
4 - A5156	0.89	8.8	0.46	0.9
2036 With Development				
1 - Services Access	0.63	1.9	0.21	0.3
2 - A534	0.43	0.9	0.92	11.3
3 - Stryt Holt	0.54	1.2	0.61	1.6
4 - A5156	0.93	13.1	0.47	1.0
2027 With Development Sensitivity Test				
1 - Services Access	0.59	1.7	0.19	0.3
2 - A534	0.41	0.9	0.91	10.3
3 - Stryt Holt	0.52	1.1	0.58	1.4
4 - A5156	0.92	12.0	0.45	0.9
2036 With Development Sensitivity Test				
1 - Services Access	0.71	2.7	0.21	0.3
2 - A534	0.43	0.9	0.94	15.2
3 - Stryt Holt	0.55	1.3	0.62	1.7
4 - A5156	0.96	20.5	0.46	1.0

3.2.24 The results show that the A5156 in the AM peak and A534 in the PM peak are forecast to operate above the practical capacity threshold (0.85) but below the theoretical capacity threshold (1.00) in the '2036 With Development Sensitivity Test' scenario, with RFC values of 0.96 and 0.94 respectively. However, it is important to note that development traffic in 2036 increases the RFC values by just 0.06-0.07, with the impact of traffic growth and committed development traffic being much greater, increasing the RFC values by 0.16-0.18.

3.2.25 The A5156 in the PM peak and A534 in the AM peak, as well as all remaining arms in both peaks, are expected to operate with spare capacity.

Table 3.10: Junction Capacity Assessment Results - A534/A5156/A534 Holt Road/Holt Spine Road and Widening

Arm	AM		PM	
	RFC	Q (PCU)	RFC	Q (PCU)
2027 Without Development				
1 - Services Access	0.55	1.5	0.21	0.3
2 - A534	0.26	0.4	0.57	1.4
3 - Holt Spine Road	0.19	0.2	0.18	0.2
4 - Stryt Holt	0.55	1.3	0.64	1.8
5 - A5156	0.62	1.8	0.32	0.5
2036 Without Development				
1 - Services Access	0.66	2.2	0.22	0.3
2 - A534	0.27	0.4	0.59	1.5
3 - Holt Spine Road	0.20	0.2	0.19	0.2
4 - Stryt Holt	0.58	1.4	0.68	2.2
5 - A5156	0.65	2.0	0.33	0.5
2027 With Development				
1 - Services Access	0.63	2.0	0.22	0.3
2 - A534	0.28	0.5	0.60	1.6
3 - Holt Spine Road	0.20	0.2	0.19	0.2
4 - Stryt Holt	0.57	1.4	0.68	2.2
5 - A5156	0.64	2.0	0.35	0.6
2036 With Development				
1 - Services Access	0.77	3.7	0.23	0.3
2 - A534	0.28	0.5	0.62	1.7
3 - Holt Spine Road	0.20	0.3	0.21	0.3
4 - Stryt Holt	0.60	1.5	0.72	2.7
5 - A5156	0.67	2.2	0.36	0.6
2027 With Development Sensitivity Test				
1 - Services Access	0.72	2.9	0.21	0.3
2 - A534	0.27	0.5	0.61	1.7
3 - Holt Spine Road	0.20	0.2	0.20	0.3
4 - Stryt Holt	0.58	1.4	0.70	2.3
5 - A5156	0.66	2.1	0.34	0.6
2036 With Development Sensitivity Test				
1 - Services Access	0.90	7.8	0.23	0.3
2 - A534	0.28	0.5	0.63	1.8
3 - Holt Spine Road	0.20	0.3	0.22	0.3
4 - Stryt Holt	0.60	1.6	0.74	2.9
5 - A5156	0.69	2.4	0.35	0.6

- 3.2.26 The results show that the junction, with the inclusion of the new access arm and widening of the A5156 and A534 arms, is predominantly forecast to operate with spare capacity with the exception of the services access in the AM peak, which is forecast to operate slightly above the practical capacity threshold (0.85), with an RFC value of 0.90.

- 3.2.27 We understand that WCBC is seeking contributions towards this scheme and the applicant is willing to provide a level of funding commensurate with the scale of the impact of the proposed development.

Junction 5: A5156/Borras Park Road

- 3.2.28 The results of the model are summarised in Table 3.11.

Table 3.11: Junction Capacity Assessment Results - A5156/Borras Park Road

Arm	AM		PM	
	RFC	Q (PCU)	RFC	Q (PCU)
Observed 2022				
1 - Borras Road	0.17	0.2	0.05	0.1
2 - A5156 (Eastern Arm)	0.39	0.8	0.72	2.7
3 - Borras Park Road	0.43	0.7	0.45	0.8
4 - A5156 (Western Arm)	0.87	6.9	0.47	1.0
2027 Without Development				
1 - Borras Road	0.81	3.0	0.06	0.1
2 - A5156 (Eastern Arm)	0.52	1.3	0.89	7.9
3 - Borras Park Road	0.54	1.2	0.83	4.5
4 - A5156 (Western Arm)	1.02	97.1	0.60	1.6
2036 Without Development				
1 - Borras Road	0.91	4.7	0.07	0.1
2 - A5156 (Eastern Arm)	0.53	1.3	0.92	11.0
3 - Borras Park Road	0.58	1.4	0.99	14.5
4 - A5156 (Western Arm)	1.05	201.1	0.62	1.7
2027 With Development				
1 - Borras Road	0.90	4.3	0.07	0.1
2 - A5156 (Eastern Arm)	0.55	1.4	0.93	13.0
3 - Borras Park Road	0.58	1.4	1.07	24.5
4 - A5156 (Western Arm)	1.05	197.2	0.63	1.9
2036 With Development				
1 - Borras Road	0.94	5.3	0.07	0.1
2 - A5156 (Eastern Arm)	0.56	1.5	0.96	21.3
3 - Borras Park Road	0.62	1.6	1.32	64.8
4 - A5156 (Western Arm)	1.09	314.0	0.65	2.0
2027 With Development Sensitivity Test				
1 - Borras Road	0.92	4.9	0.07	0.1
2 - A5156 (Eastern Arm)	0.55	1.4	0.95	17.8
3 - Borras Park Road	0.58	1.4	1.23	49.4
4 - A5156 (Western Arm)	1.08	290.8	0.62	1.8
2036 With Development Sensitivity Test				
1 - Borras Road	0.95	5.7	0.07	0.1
2 - A5156 (Eastern Arm)	0.56	1.5	0.98	33.9
3 - Borras Park Road	0.62	1.6	1.55	90.8
4 - A5156 (Western Arm)	1.11	409.4	0.64	1.9

- 3.2.29 The results show that the A5156 western arm in the AM peak is expected to operate over the theoretical capacity threshold (1.00) in 2036 without the development in place. However, it is

important to note that the level of calibration on this arm is limited, with a modelled queue of 7.3 PCUs and an observed queue of zero, meaning that the associated modelled RFC value is likely to be higher than the associated performance in reality. We have attempted to adjust the geometry to reduce the modelled queue length on this arm, however due to a quirk in the software, the Borrás Park Road arm would experience an unrealistically high level of RFC and queue increase, so the level of calibration presented is something of a middle ground between the performance of the two arms.

- 3.2.30 Whilst the calibration is limited, the model still serves as a suitable tool for quantifying impact. The development traffic is forecast to increase the RFCs on the A5156 arms by up to 0.03 and 0.04, however the traffic growth increases the RFCs on these arms by up to 0.20 and 0.18. Greater increases are forecast to occur on the Borrás Road and Borrás Park Road arms though the reduction in performance of these arms may be linked to the quirk in the software.
- 3.2.31 From review of the traffic flows, which are much higher on the A5156 arms than the other two roads, there may be benefit to replacing the junction with a four arm signal controlled junction. The applicant is willing to discuss improvement options with WCBC and is willing to offer a contribution commensurate with the scale of the impact of the proposed development.

Junction 6: Gresford Interchange

- 3.2.32 A summary of the PRC and delay is provided in Table 3.12 with the full lane-by-lane results provided in Appendix 5. The model has been constructed using the traffic signal controller specs obtained from WCBC.
- 3.2.33 The modelled cycletimes are based on an average of the signal cycles recorded during the 2022 traffic surveys as shown in Appendix F of the TA. The average AM peak cycletime was 54 seconds, ranging from 46 to 66 seconds. The average PM peak cycletime was 63 seconds, ranging from 46 to 75 seconds. This variation in cycletimes is associated with optimised vehicle actuation whereby the signal controller assigns greentime based on real time traffic flow feedback from detector loops. The observed cycletimes have also been applied to the forecast year cycletimes, however it is likely that the controller would increase the cycletimes in line with traffic increases.
- 3.2.34 Video footage undertaken at the time of the traffic surveys has been used to aid model calibration, particularly in terms of lane choice.

Table 3.12: Junction Capacity Assessment Results - Gresford Interchange Existing Layout

Item	AM Peak	PM Peak
2022 Observed		
PRC (%)	0.5	12.3
Delay (pcuHr)	56.46	50.72
2027 Without Development		
PRC (%)	-13.5	1.7
Delay (pcuHr)	102.85	69.81
2036 Without Development		
PRC (%)	-17.0	-1.5
Delay (pcuHr)	159.00	79.86
2027 With Development		
PRC (%)	-16.0	-1.9
Delay (pcuHr)	126.90	78.34
2036 With Development		
PRC (%)	-19.8	-6.0
Delay (pcuHr)	170.07	91.70
2027 With Development Sensitivity Test		
PRC (%)	-18.4	-1.9
Delay (pcuHr)	148.06	80.12
2036 With Development Sensitivity Test		
PRC (%)	-21.7	-6.0
Delay (pcuHr)	211.15	94.39

- 3.2.35 The junction is forecast to operate slightly over the theoretical capacity threshold (PRC = -10%) in the AM peak in 2027 without the development in place and over the practical capacity threshold (PRC = 0%) in the PM peak in 2036 without the development.
- 3.2.36 The traffic growth and the committed developments result in a greater impact than the development proposals, reducing the PRC in the AM peak by 14.0% at 2027 and 17.5% at 2036, compared to the 2.5% and 2.8% of the development traffic respectively in the main assessment and 4.9% and 4.7% in the Sensitivity Test.
- 3.2.37 The junction is forecast to operate with spare capacity in all scenarios in the PM peak, however it is the traffic growth and background traffic that has a greater impact, reducing the PRC by 10.6% at 2027 and 13.8% at 2036, whereas the equivalent PRC reductions caused by the development traffic are 3.6% and 4.5% in the respective forecast years in both the main assessment and the Sensitivity Test.
- 3.2.38 It can be concluded that the impact of the development traffic is minimal. We have however considered the opportunity to improve the performance of the junction. From a closer review of the results, the most critical links are at the conflict between the A483 southbound off-slip (Arm 1) and

the northern circulatory carriageway (Arm 6). Currently, the carriageway markings indicate that lane 1 (nearside) is for the first and second exit (B5445 Chester Road and A5156), lane 2 (middle) is for the second and third exits (A5156 and A5152 Chester Road), and lane 3 (offside) is for the fourth and fifth exits. Lane 1 is a flare fed by lane 2, a long lane, while lane 3 is also a long lane. However, from consideration of the traffic demand, the second exit is by far the most dominant, meaning that lanes 1 and 2 are heavily saturated and lane 3 is underutilised. The performance of these lanes can be considerably improved by changing the arrows and lining so that the middle lane is for the second exit only (remove ahead arrow) and the third lane is for exits three to five.

- 3.2.39 The performance of the junction can be further improved by increasing the cyletimes with 75 seconds being the maximum observed cycletime during the traffic surveys. The model has been re-ran using a 75 second cycletime for all With Development scenarios and the abovementioned changes to the lane markings on the A483 southbound off-slip with the results summarised in Table 3.13.

Table 3.13: Junction Capacity Assessment Results - Gresford Interchange Suggested Changes

Item	AM Peak	PM Peak
2027 With Development		
PRC (%)	-4.1	4.5
Delay (pcuHr)	87.60	72.16
2036 With Development		
PRC (%)	-7.5	1.5
Delay (pcuHr)	105.50	80.44
2027 With Development Sensitivity Test		
PRC (%)	-6.2	2.3
Delay (pcuHr)	95.70	73.61
2036 With Development Sensitivity Test		
PRC (%)	-9.6	-0.6
Delay (pcuHr)	117.18	82.36

- 3.2.40 The results show that the suggested changes more than mitigate the impact of the proposed development. There may be scope to further optimise the performance of the junction following a more detailed review.

Junction 8: Oak Road/Bryn Lane

- 3.2.41 The results of the model are summarised in Table 3.14.

Table 3.14: Junction Capacity Assessment Results - Oak Road/Bryn Lane

Arm	AM		PM	
	RFC	Q (PCU)	RFC	Q (PCU)
Observed 2022				
Bryn Lane Nearside	0.12	0.1	0.10	0.1
Bryn Lane Offside	0.16	0.2	0.17	0.2
Oak Road (Eastern Arm)	0.08	0.1	0.11	0.1
2027 Without Development				
Bryn Lane Nearside	0.16	0.2	0.17	0.2
Bryn Lane Offside	0.19	0.3	0.26	0.4
Oak Road (Eastern Arm)	0.13	0.2	0.13	0.2
2036 Without Development				
Bryn Lane Nearside	0.16	0.2	0.17	0.2
Bryn Lane Offside	0.20	0.3	0.26	0.4
Oak Road (Eastern Arm)	0.13	0.2	0.13	0.2
2027 With Development				
Bryn Lane Nearside	0.17	0.2	0.18	0.2
Bryn Lane Offside	0.21	0.3	0.28	0.4
Oak Road (Eastern Arm)	0.14	0.2	0.14	0.2
2036 With Development				
Bryn Lane Nearside	0.17	0.2	0.18	0.2
Bryn Lane Offside	0.21	0.3	0.29	0.4
Oak Road (Eastern Arm)	0.14	0.2	0.14	0.2
2027 With Development Sensitivity Test				
Bryn Lane Nearside	0.16	0.2	0.18	0.2
Bryn Lane Offside	0.20	0.3	0.30	0.5
Oak Road (Eastern Arm)	0.14	0.2	0.13	0.2
2036 With Development Sensitivity Test				
Bryn Lane Nearside	0.17	0.2	0.19	0.2
Bryn Lane Offside	0.20	0.3	0.30	0.5
Oak Road (Eastern Arm)	0.15	0.2	0.14	0.2

- 3.2.42 The results show that the junction will continue to operate with considerable level of spare capacity in the '2036 With Development Sensitivity Test' scenario, with the highest RFC being 0.30 on the offside of Bryn Lane in the PM peak.

Proposed Site Access

- 3.2.43 The results of the model are summarised in Table 3.15.

Table 3.15: Junction Capacity Assessment Results - Proposed Site Access

Arm	AM		PM	
	RFC	Q (PCU)	RFC	Q (PCU)
2027 With Development				
Proposed Site Access	0.21	0.3	0.34	0.6
The Very Group Access (Eastern Arm)	0.00	0.0	0.00	0.0
2036 With Development				
Proposed Site Access	0.21	0.3	0.34	0.6
The Very Group Access (Eastern Arm)	0.00	0.0	0.00	0.0
2027 With Development Sensitivity Test				
Proposed Site Access	0.22	0.4	0.34	0.6
The Very Group Access (Eastern Arm)	0.00	0.0	0.00	0.0
2036 With Development Sensitivity Test				
Proposed Site Access	0.22	0.4	0.34	0.6
The Very Group Access (Eastern Arm)	0.00	0.0	0.00	0.0

- 3.2.44 The results show that the proposed site access is expected to operate with a considerable level of spare capacity in the '2036 With Development Sensitivity Test' scenario, with the highest RFC being 0.34 in the PM peak. It is important to note that all development traffic will be entering/exiting the site from/to Bryn Lane to the west.

3.3 Impact on CWaCC Network

- 3.3.1 During scoping discussions, CWaCC Highways expressed potential concern regarding an increase in HGVs and staff trips on the A534, A41 roundabout and B5130 past Farndon.
- 3.3.2 With reference to the Sensitivity Test flows shown in TFDs 47 and 48 in Appendix 4, just 14 two-way (8 lights and 6 heavies) are forecast to travel via the A534 east of WIE at the Sandy Lane/Borras Hall Lane roundabout, with the equivalent figure in the PM being 11 two-way trips (8 lights and 3 heavies). The majority of the light vehicle trips will be to Holt and Farndon with the heavy vehicle trips continuing to/from parts of Cheshire.
- 3.3.3 3 and 4 two-way light vehicles in the AM and PM peak respectively are forecast to travel on the A534 via Ridley Wood Lane. These also include trips to Holt and Farndon as well as parts of Chester and Cheshire.
- 3.3.4 Collectively, these figures equate to 17 and 15 trips in the AM and PM peak respectively, with many leaving/joining the A534 at Holt, Farndon and Broxton.
- 3.3.5 The impact on this section of CWaCC's network will therefore be negligible.

3.4 Impact on Greyhound Roundabout

- 3.4.1 As mentioned in Section 2.4, we understand that there is an agreed improvement at the Greyhound roundabout as part of the Land South of Holt Road scheme. The junction lies beyond the agreed study area, but based on the Sensitivity Tests figures, just 19 two-way development traffic trips are forecast to pass through the roundabout.

3.5 Impact on B5310 (Ridleywood and Isycoed)

- 3.5.1 The applicant is aware of local concerns regarding the use of the B5130 with Ridley Wood Road and/or Oak Road as a shortcut. We do not anticipate many HGV drivers associated with the development choosing to travel this way, and as landlord, FIREM will have the ability to discourage their tenants from travelling via this route. Whilst it is not the applicant's responsibility to address existing issues, they are willing to work with the local highway authority to consider other measures to discourage use of this route, such as traffic regulation orders, traffic calming measures and/or improved signage.

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4 SUMMARY AND CONCLUSION

4.1 Summary

4.1.1 This TA Addendum has been produced by Prime to update the traffic impact assessment presented in the TA following a consultation response by MM, WCBC Highways' consultant.

4.1.2 Section 2 of this report has presented the changes to the traffic forecasting methodology which include:

- The inclusion of additional committed developments including the pending proposals known as Utopia City and the consented Land south of Holt Road;
- Updated traffic growth factors using TEMPro version 8.1;
- The validation of the HGV development traffic distribution; and
- Inclusion of a Sensitivity Test using higher hybrid trip rates approved by NH on a similar scheme in the North West of England that uses traffic survey information from similar developments.

4.1.3 The updated junction capacity assessment presented in Section 3 shows that several junctions between the A483 and WIE are currently operating close to capacity. The additional traffic associated with background traffic growth as well as committed and pending developments will reduce the available capacity and in some instances result one or more arms of the junctions operating above theoretical capacity. The impact of the proposed development has been shown to be less than this. The applicant is however aware that there are improvement schemes to be delivered at a number of local junctions and is willing to provide a financial contribution commensurate with the scale of the impact of the scheme.

4.1.4 Prime have also identified possible improvements at the A534/Industrial Estate Road/Sandy Lane/Borras Hall Lane roundabout, the A5156/Borras Park roundabout and at the Gresford Interchange which may be beneficial in terms of helping to deliver future growth.

4.1.5 The applicant and Prime are willing to discuss potential contributions with WCBC.

4.1.6 It has been reiterated that the applicant is also willing to provide funding towards active travel initiatives, including bus service improvements, to be discussed with WCBC. Such improvements are likely to reduce the traffic impact of the scheme as well as neighbouring existing businesses and future developments. The applicant also remains committed to promoting and encouraging sustainable travel through the site's travel plan.

4.2 Conclusion

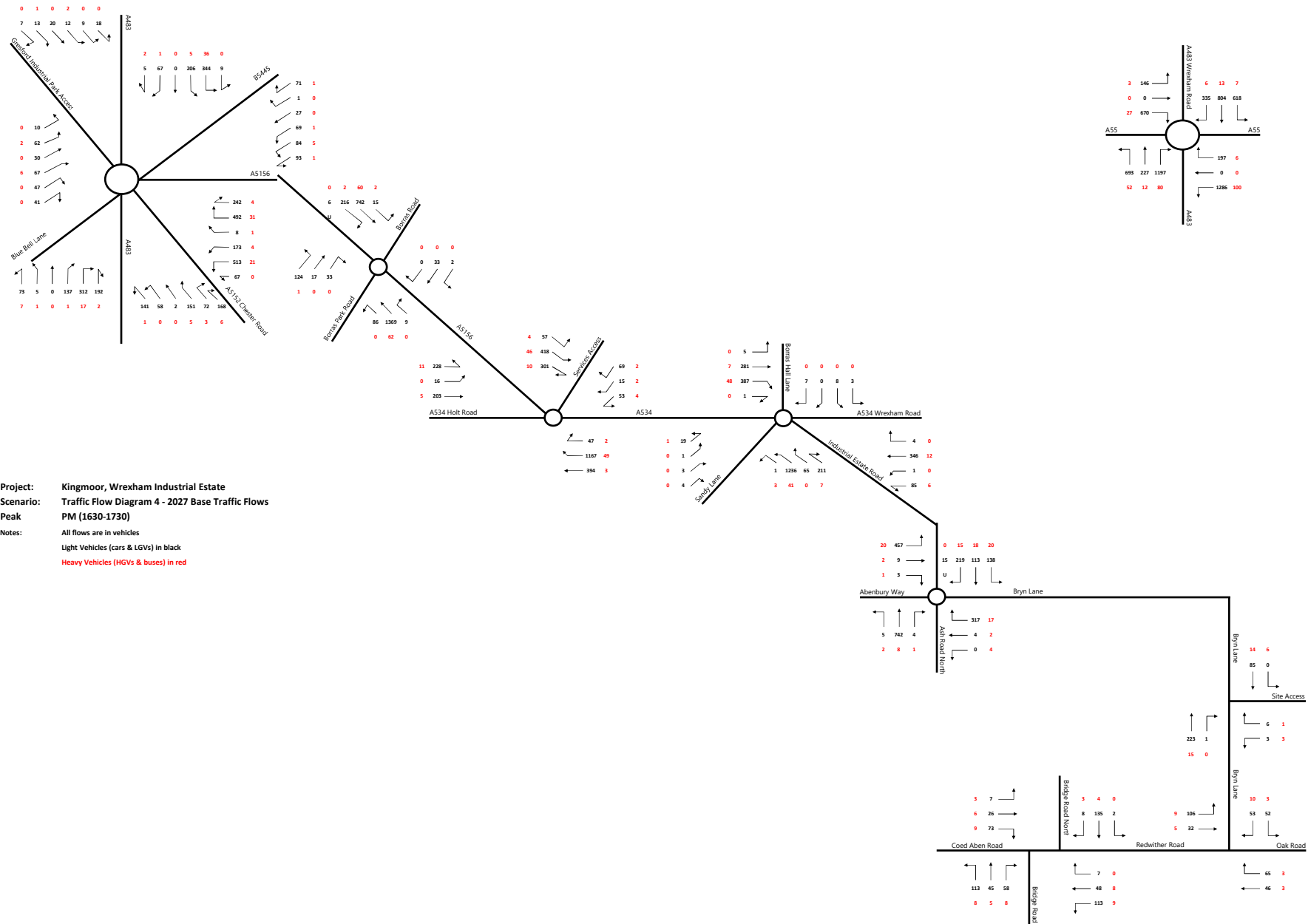
4.2.1 This report concludes that the proposed development would have a negligible to minor impact on the operation of the surrounding highway network.

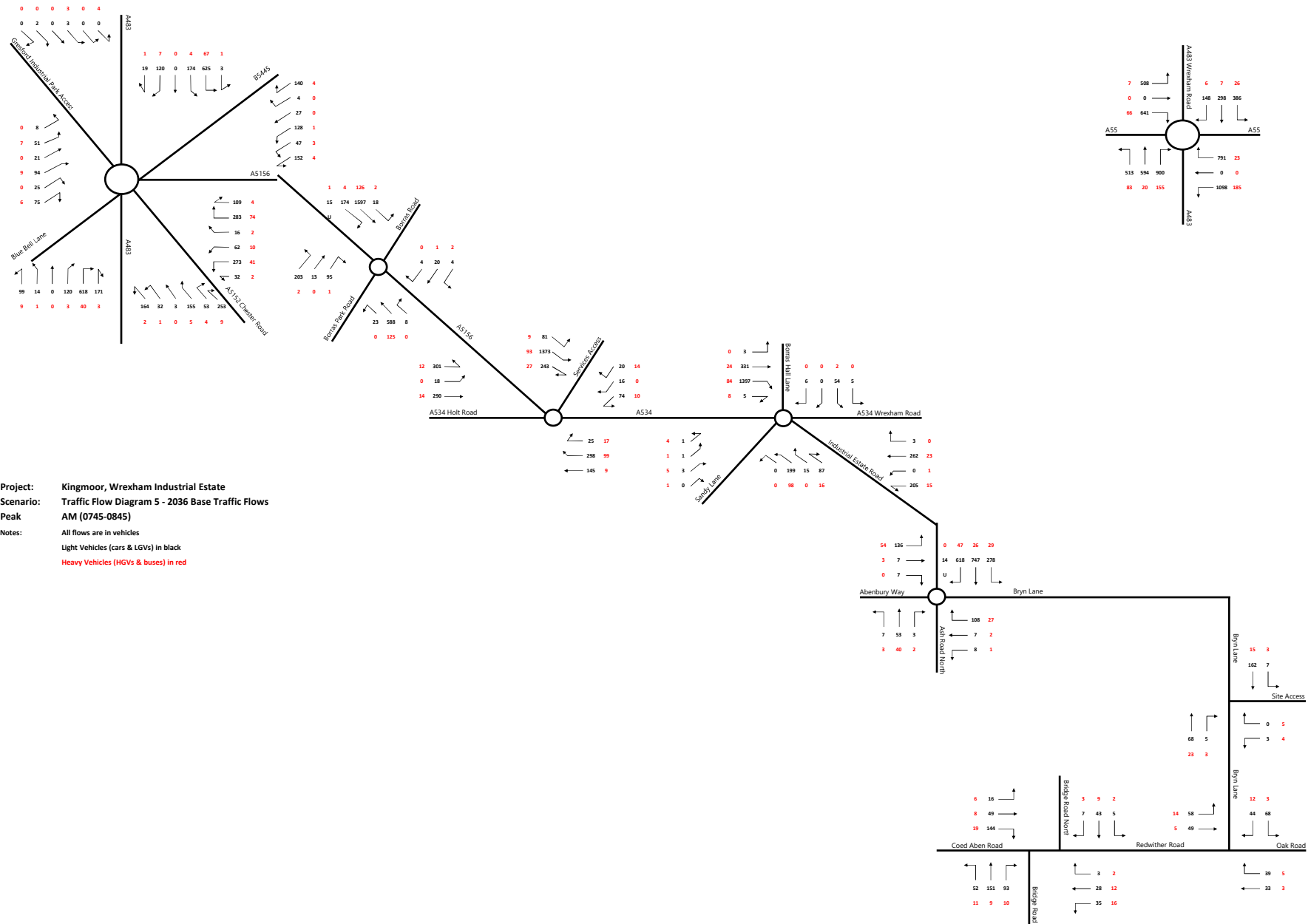
- 4.2.2 As the proposal complies with local and national planning policy and guidance with respect to sustainable accessibility, safety and impact on the highway network, there are no highways or transportation related reasons why planning permission should not be granted. Should the highway authority have any concerns, we are happy to consult further with them.

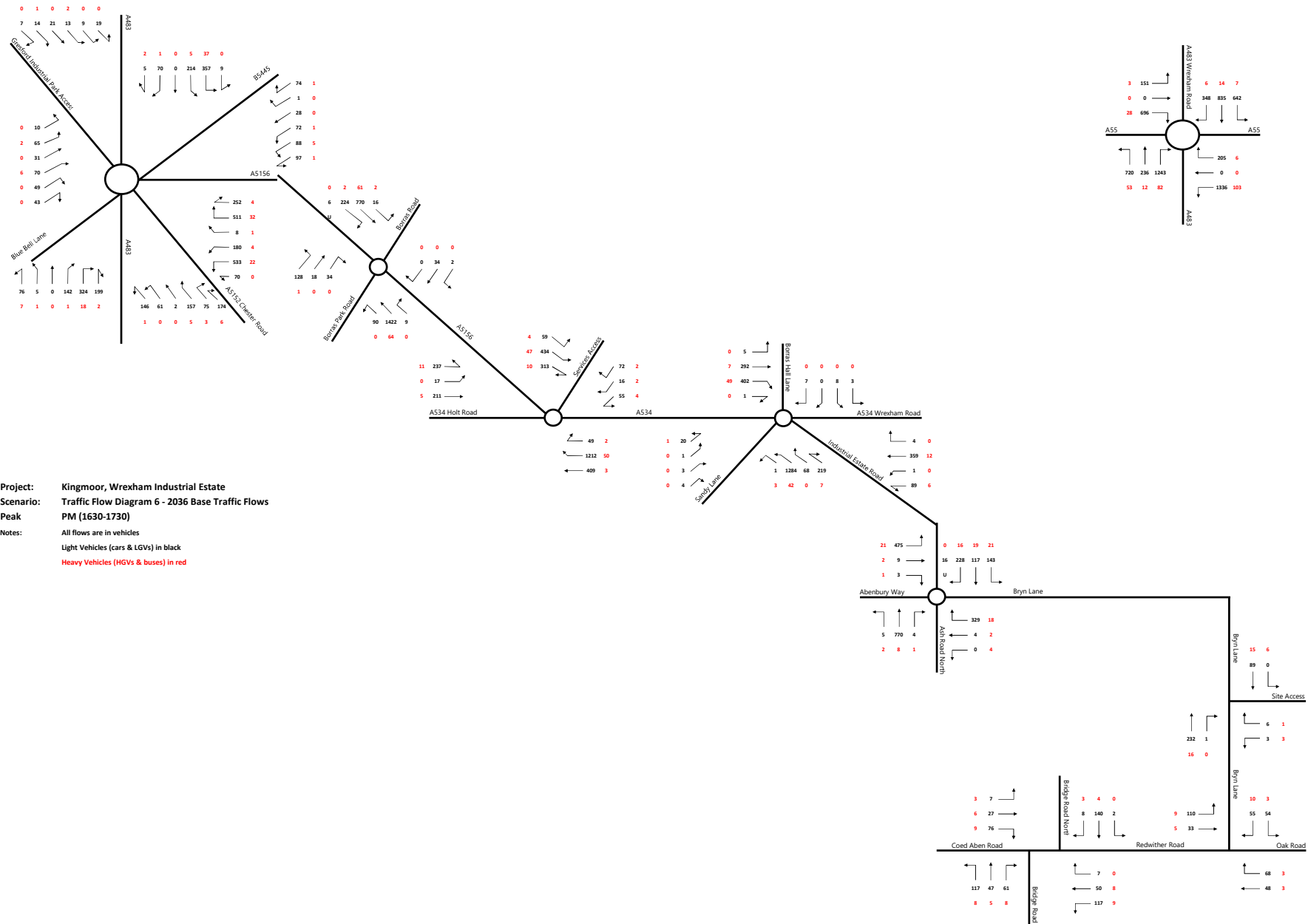
APPENDIX 1

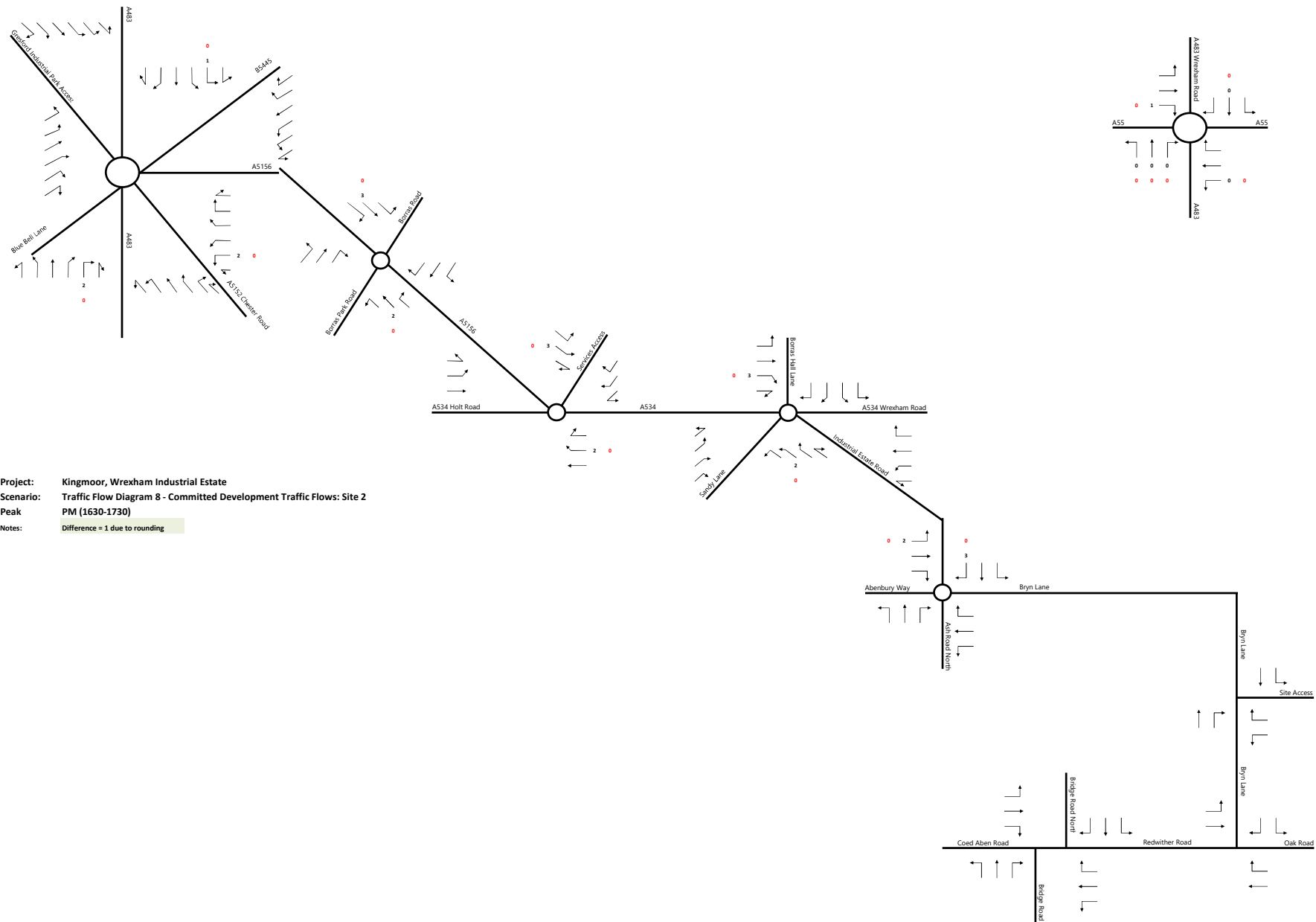
TRAFFIC FLOW DIAGRAMS

Traffic Flow Diagrams			
Reference	Scenario	Peak	Derivation
1	Traffic Flow Diagram 1 - 2022 Observed Traffic Flows	AM (0745-0845)	Raw Data
2	Traffic Flow Diagram 2 - 2022 Observed Traffic Flows	PM (1630-1730)	Raw Data
3	Traffic Flow Diagram 3 - 2027 Base Traffic Flows	AM (0745-0845)	1 * TEMPro
4	Traffic Flow Diagram 4 - 2027 Base Traffic Flows	PM (1630-1730)	2 * TEMPro
5	Traffic Flow Diagram 5 - 2036 Base Traffic Flows	AM (0745-0845)	1 * TEMPro
6	Traffic Flow Diagram 6 - 2036 Base Traffic Flows	PM (1630-1730)	2 * TEMPro
7	Traffic Flow Diagram 7 - Committed Development Traffic Flows: Site 2	AM (0745-0845)	Site 2 TA
8	Traffic Flow Diagram 8 - Committed Development Traffic Flows: Site 2	PM (1630-1730)	Site 2 TA
9	Traffic Flow Diagram 9 - Committed Development Traffic Flows: Site 3	AM (0745-0845)	Site 3 TA
10	Traffic Flow Diagram 10 - Committed Development Traffic Flows: Site 3	PM (1630-1730)	Site 3 TA
11	Traffic Flow Diagram 11 - Committed Development Traffic Flows: Site 4	AM (0745-0845)	Site 4 TA
12	Traffic Flow Diagram 12 - Committed Development Traffic Flows: Site 4	PM (1630-1730)	Site 4 TA
13	Traffic Flow Diagram 13 - Committed Development Traffic Flows: The Bridgeway (App. P/2022/0065)	AM (0745-0845)	P/2022/0065
14	Traffic Flow Diagram 14 - Committed Development Traffic Flows: The Bridgeway (App. P/2022/0065)	PM (1630-1730)	P/2022/0065
15	Traffic Flow Diagram 15 - Committed Development Traffic Flows: Site 5	AM (0745-0845)	Site 5 TA
16	Traffic Flow Diagram 16 - Committed Development Traffic Flows: Site 5	PM (1630-1730)	Site 5 TA
17	Traffic Flow Diagram 17 - Committed Development Traffic Flows: Net World Sports (App. P/2020/0167)	AM (0745-0845)	P/2020/0167
18	Traffic Flow Diagram 18 - Committed Development Traffic Flows: Net World Sports (App. P/2020/0167)	PM (1630-1730)	P/2020/0167
19	Traffic Flow Diagram 19 - Committed Development Traffic Flows: Land East of Bryn Lane (App. P/2023/0230)	AM (0745-0845)	P/2023/0230
20	Traffic Flow Diagram 20 - Committed Development Traffic Flows: Land East of Bryn Lane (App. P/2023/0230)	PM (1630-1730)	P/2023/0230
21	Traffic Flow Diagram 21 - Committed Development Traffic Flows: Land South of Holt Road (App. P/2019/0005)	AM (0745-0845)	P/2019/0005
22	Traffic Flow Diagram 22 - Committed Development Traffic Flows: Land South of Holt Road (App. P/2019/0005)	PM (1630-1730)	P/2019/0005
23	Traffic Flow Diagram 23 - Committed Development Traffic Flows: Land off Llay New Road (App. P/2021/1057)	AM (0745-0845)	P/2021/1057
24	Traffic Flow Diagram 24 - Committed Development Traffic Flows: Land off Llay New Road (App. P/2021/1057)	PM (1630-1730)	P/2021/1057
25	Traffic Flow Diagram 25 - Committed Development Traffic Flows: Land at Mold Road (App. P/2019/0923)	AM (0745-0845)	P/2019/0923
26	Traffic Flow Diagram 26 - Committed Development Traffic Flows: Land at Mold Road (App. P/2019/0923)	PM (1630-1730)	P/2019/0923
27	Traffic Flow Diagram 27 - Committed Development Traffic Flows: Pacific Park (App. P/2020/0603)	AM (0745-0845)	P/2020/0603
28	Traffic Flow Diagram 28 - Committed Development Traffic Flows: Pacific Park (App. P/2020/0603)	PM (1630-1730)	P/2020/0603
29	Traffic Flow Diagram 29 - Committed Development Traffic Flows: Land off Ash Road South (App. P/2015/0843)	AM (0745-0845)	P/2015/0843
30	Traffic Flow Diagram 30 - Committed Development Traffic Flows: Land off Ash Road South (App. P/2015/0843)	PM (1630-1730)	P/2015/0843
31	Traffic Flow Diagram 31 - Committed Development Traffic Flows: Land North of Bryn Lane (Utopia) (App. P/2023/0497)	AM (0745-0845)	P/2023/0497
32	Traffic Flow Diagram 32 - Committed Development Traffic Flows: Land North of Bryn Lane (Utopia) (App. P/2023/0497)	PM (1630-1730)	P/2023/0497
33	Traffic Flow Diagram 33 - Total Committed Development Traffic Flows	AM (0745-0845)	7+9+11+13+15+17+19+21+23+25+27+29+31
34	Traffic Flow Diagram 34 - Total Committed Development Traffic Flows	PM (1630-1730)	8+10+12+14+16+18+20+22+24+26+28+30+32
35	Traffic Flow Diagram 35 - 2027 Without Development Traffic Flows	AM (0745-0845)	3+33
36	Traffic Flow Diagram 36 - 2027 Without Development Traffic Flows	PM (1630-1730)	4+34
37	Traffic Flow Diagram 37 - 2036 Without Development Traffic Flows	AM (0745-0845)	5+33
38	Traffic Flow Diagram 38 - 2036 Without Development Traffic Flows	PM (1630-1730)	6+34
39	Traffic Flow Diagram 39 - Development Traffic Distribution	AM (0745-0845)	MTW Census
40	Traffic Flow Diagram 40 - Development Traffic Distribution	PM (1630-1730)	MTW Census
41	Traffic Flow Diagram 41 - Development Traffic Flows	AM (0745-0845)	TRICS*39
42	Traffic Flow Diagram 42 - Development Traffic Flows	PM (1630-1730)	TRICS*40
43	Traffic Flow Diagram 43 - 2027 With Development Traffic Flows	AM (0745-0845)	35+41
44	Traffic Flow Diagram 44 - 2027 With Development Traffic Flows	PM (1630-1730)	36+42
45	Traffic Flow Diagram 45 - 2036 With Development Traffic Flows	AM (0745-0845)	37+41
46	Traffic Flow Diagram 46 - 2036 With Development Traffic Flows	PM (1630-1730)	38+42
47	Traffic Flow Diagram 47 - Development Traffic Flows: Sensitivity Test	AM (0745-0845)	ST Sample*39
48	Traffic Flow Diagram 48 - Development Traffic Flows: Sensitivity Test	PM (1630-1730)	ST Sample*40
49	Traffic Flow Diagram 49 - 2027 With Development Traffic Flows: Sensitivity Test	AM (0745-0845)	35+47
50	Traffic Flow Diagram 50 - 2027 With Development Traffic Flows: Sensitivity Test	PM (1630-1730)	36+48
51	Traffic Flow Diagram 51 - 2036 With Development Traffic Flows: Sensitivity Test	AM (0745-0845)	37+47
52	Traffic Flow Diagram 52 - 2036 With Development Traffic Flows: Sensitivity Test	PM (1630-1730)	38+48

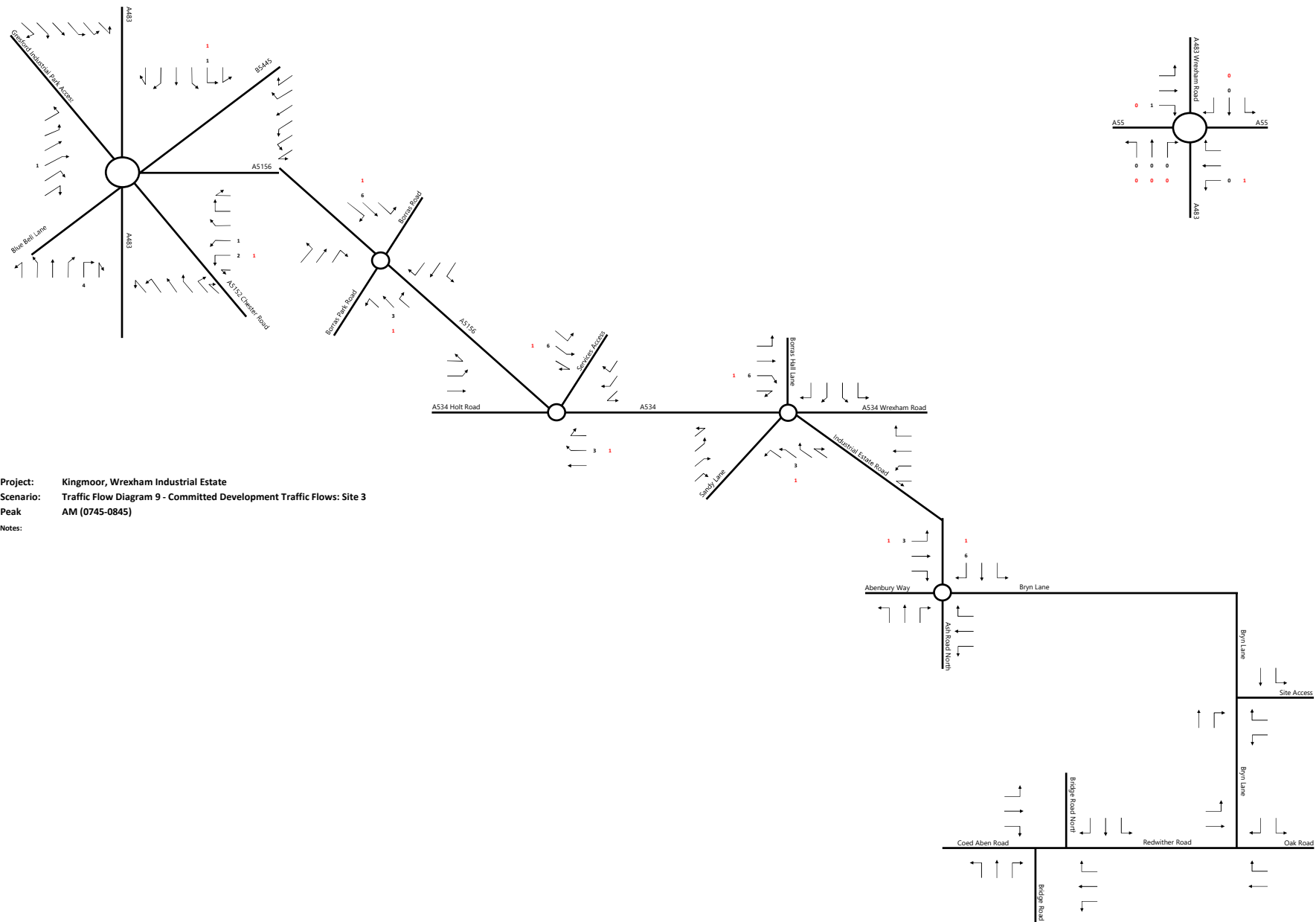




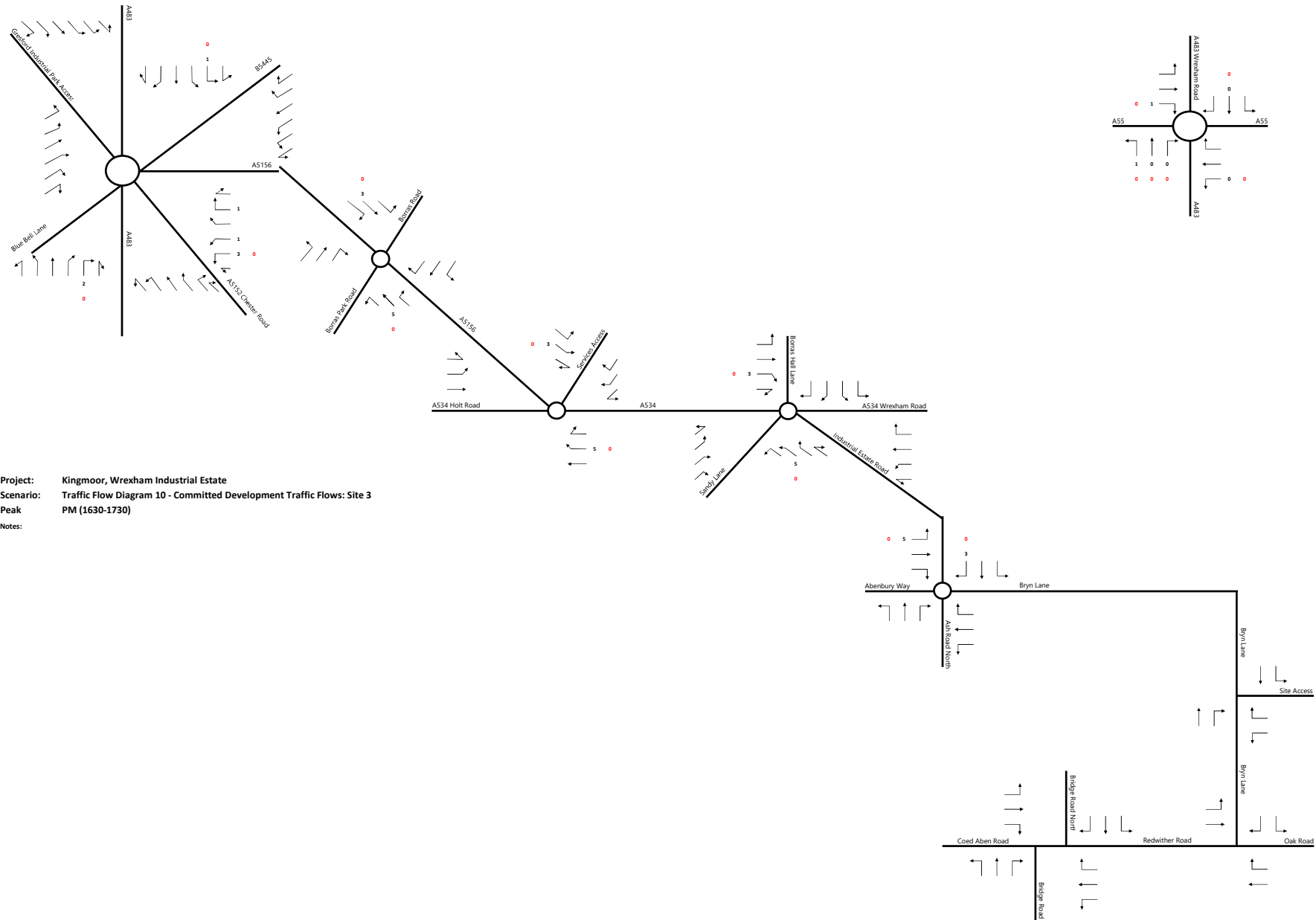




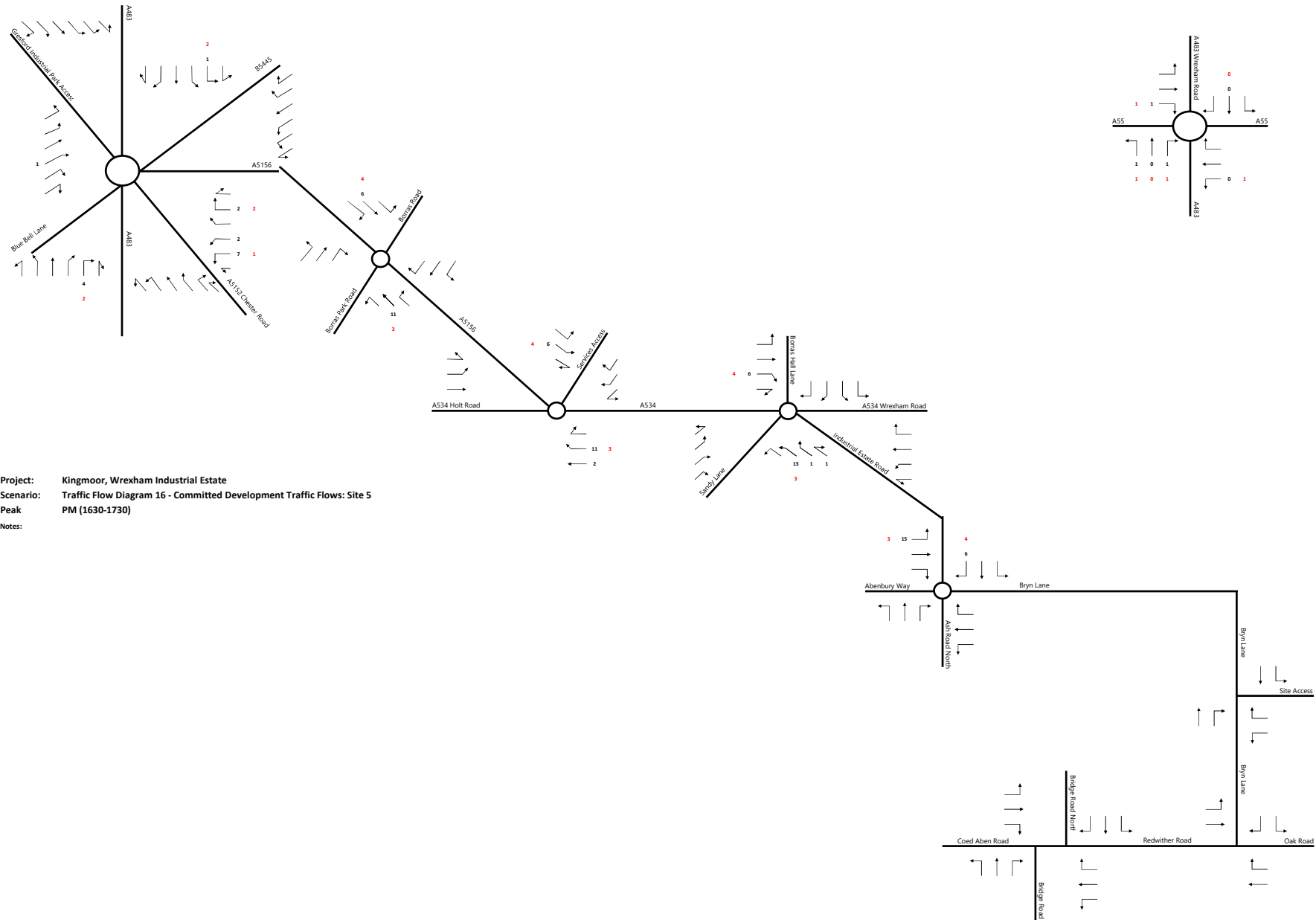
Project: Kingmoor, Wrexham Industrial Estate
 Scenario: Traffic Flow Diagram 8 - Committed Development Traffic Flows: Site 2
 Peak: PM (1630-1730)
 Notes: Difference = 1 due to rounding



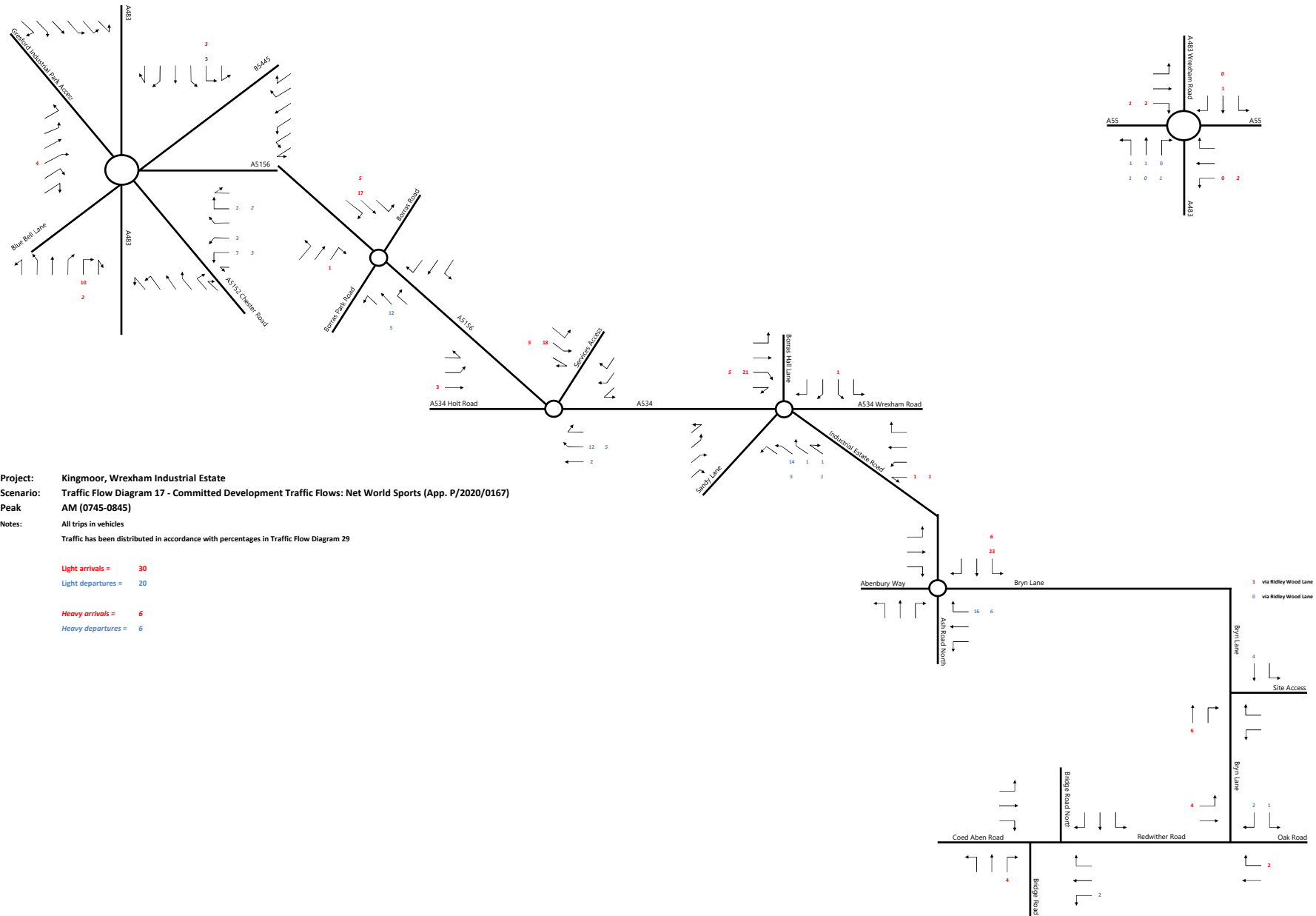
Project: Kingmoor, Wrexham Industrial Estate
 Scenario: Traffic Flow Diagram 9 - Committed Development Traffic Flows: Site 3
 Peak: AM (0745-0845)
 Notes:

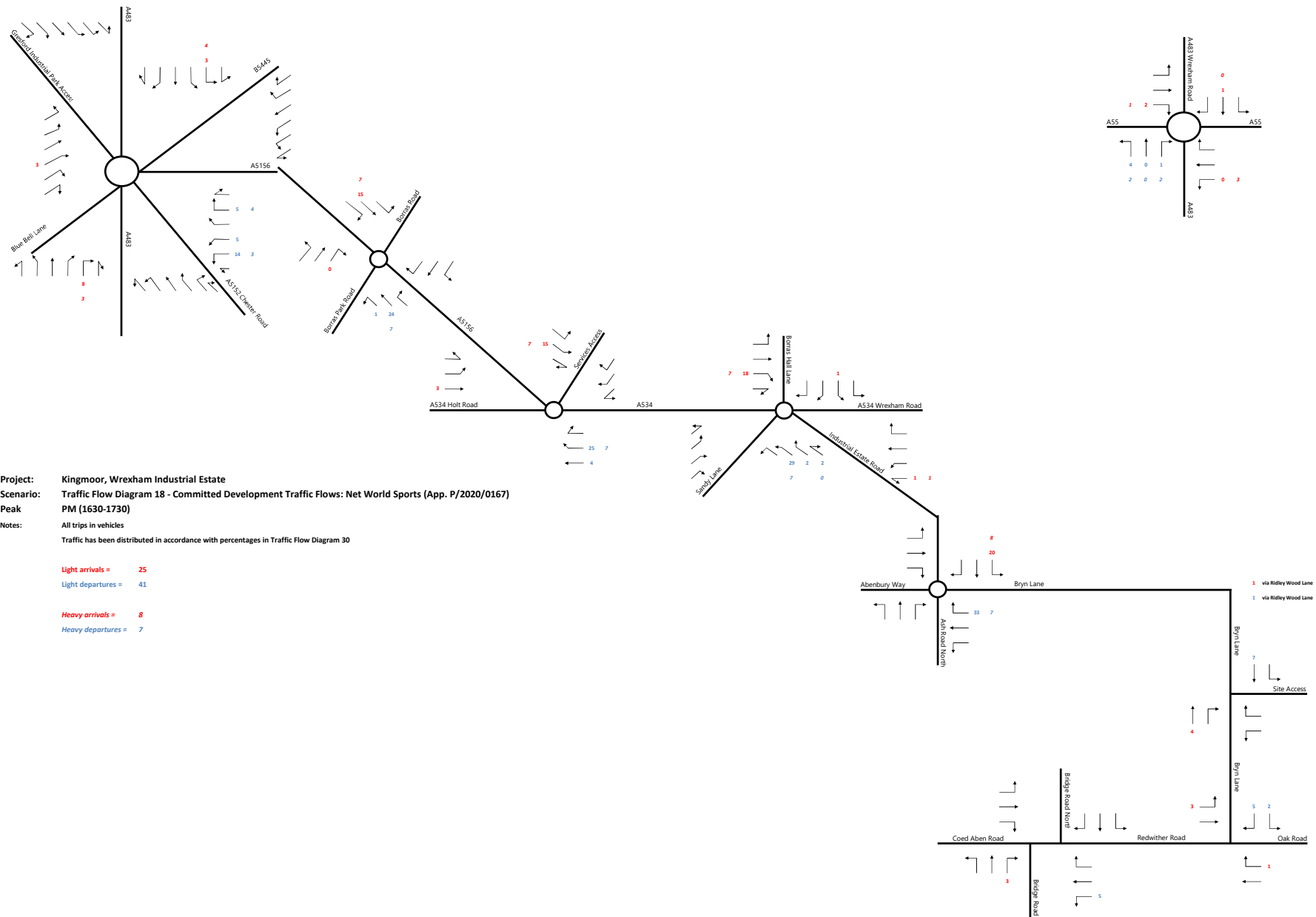


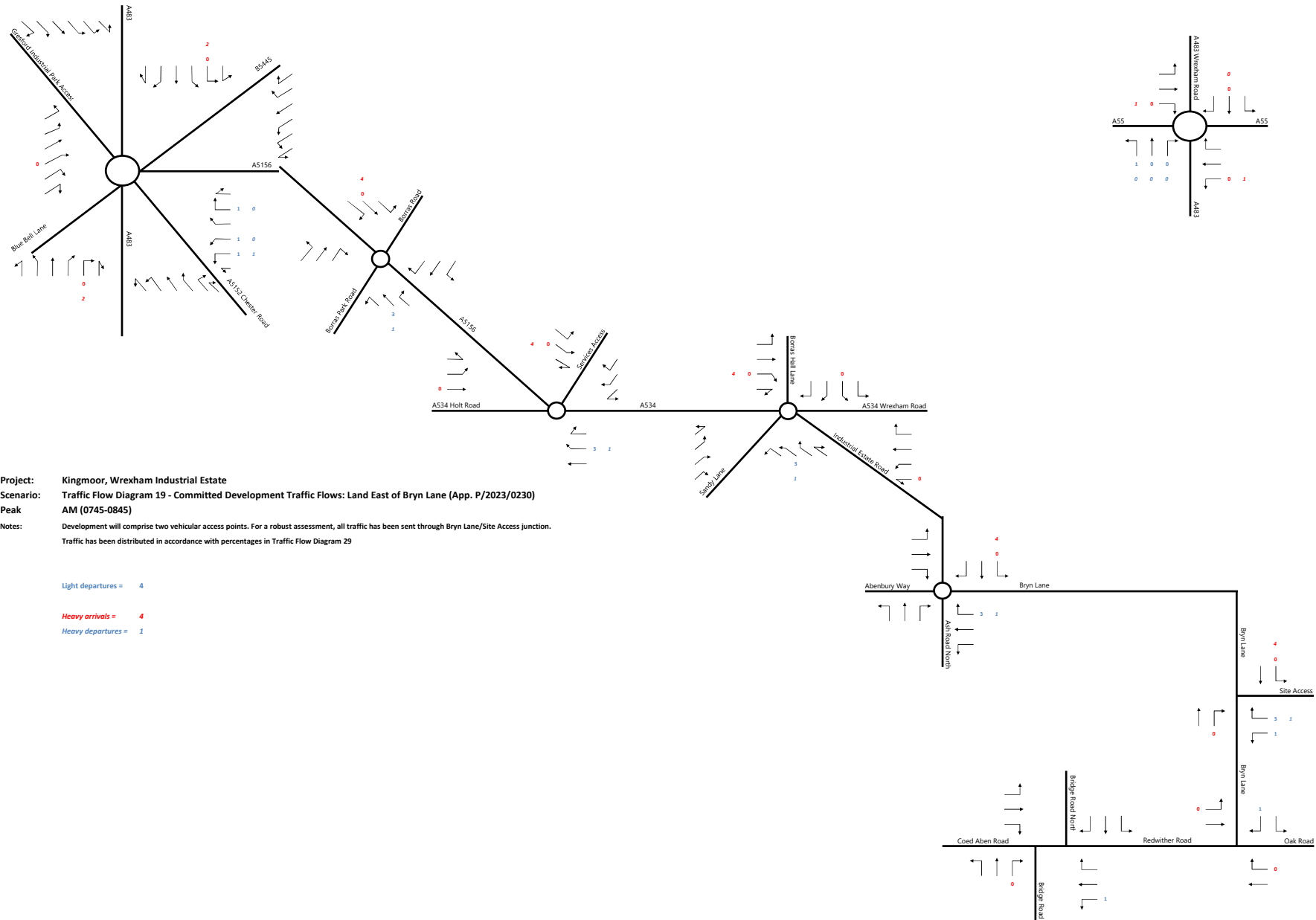
Project: Kingmoor, Wrexham Industrial Estate
 Scenario: Traffic Flow Diagram 10 - Committed Development Traffic Flows: Site 3
 Peak: PM (1630-1730)
 Notes:

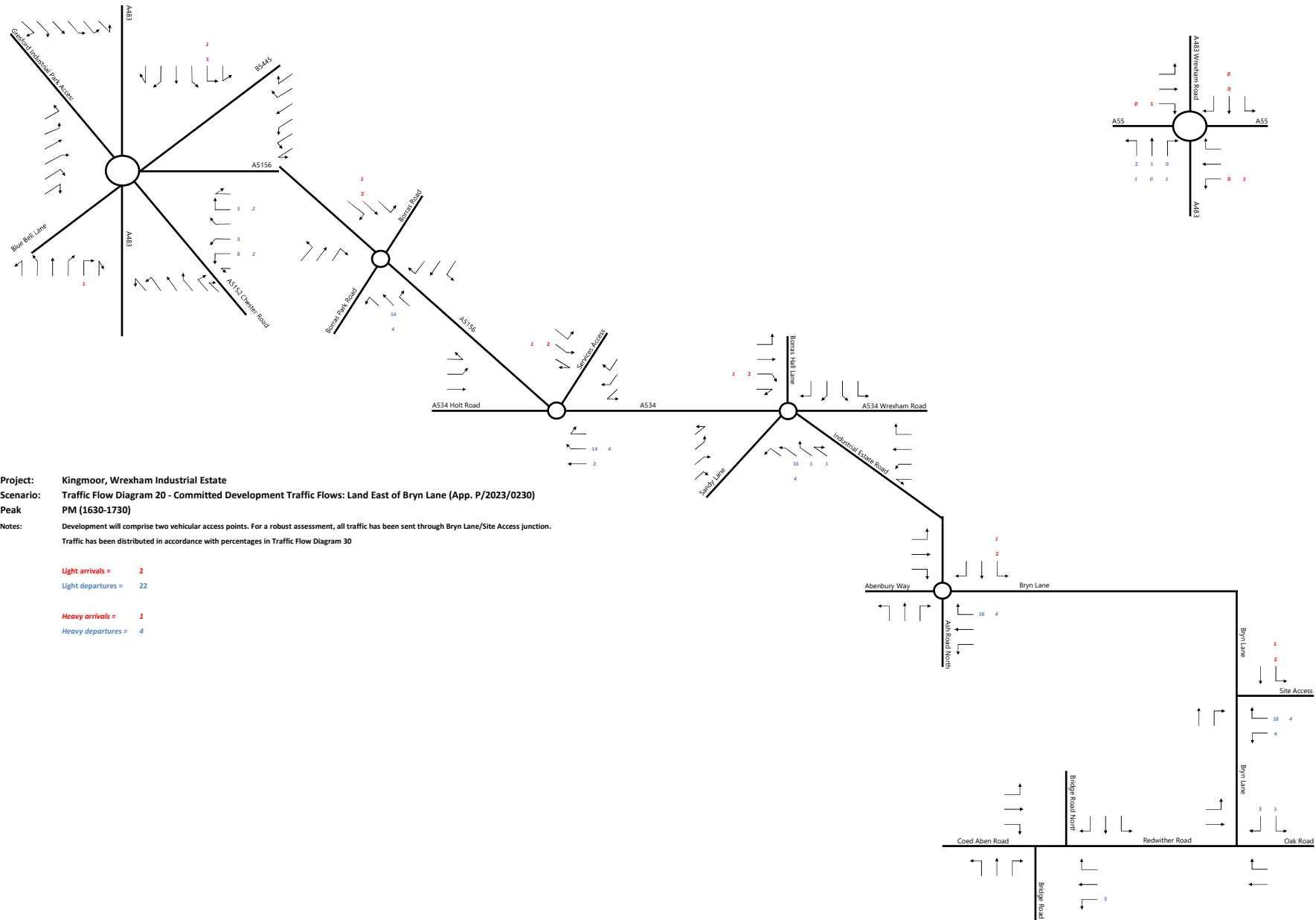


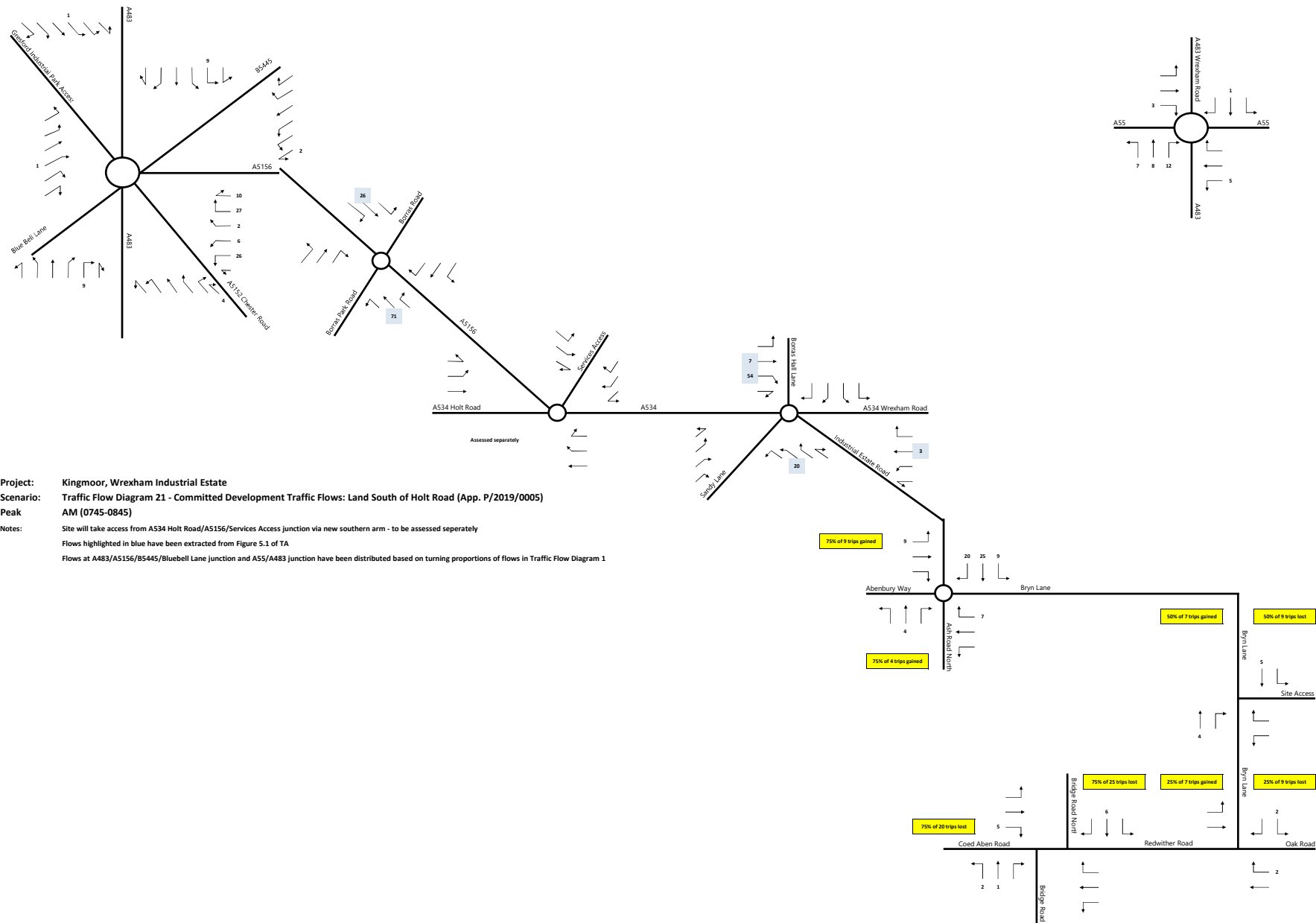
Project: Kingmoor, Wrexham Industrial Estate
 Scenario: Traffic Flow Diagram 16 - Committed Development Traffic Flows: Site 5
 Peak: PM (1630-1730)
 Notes:

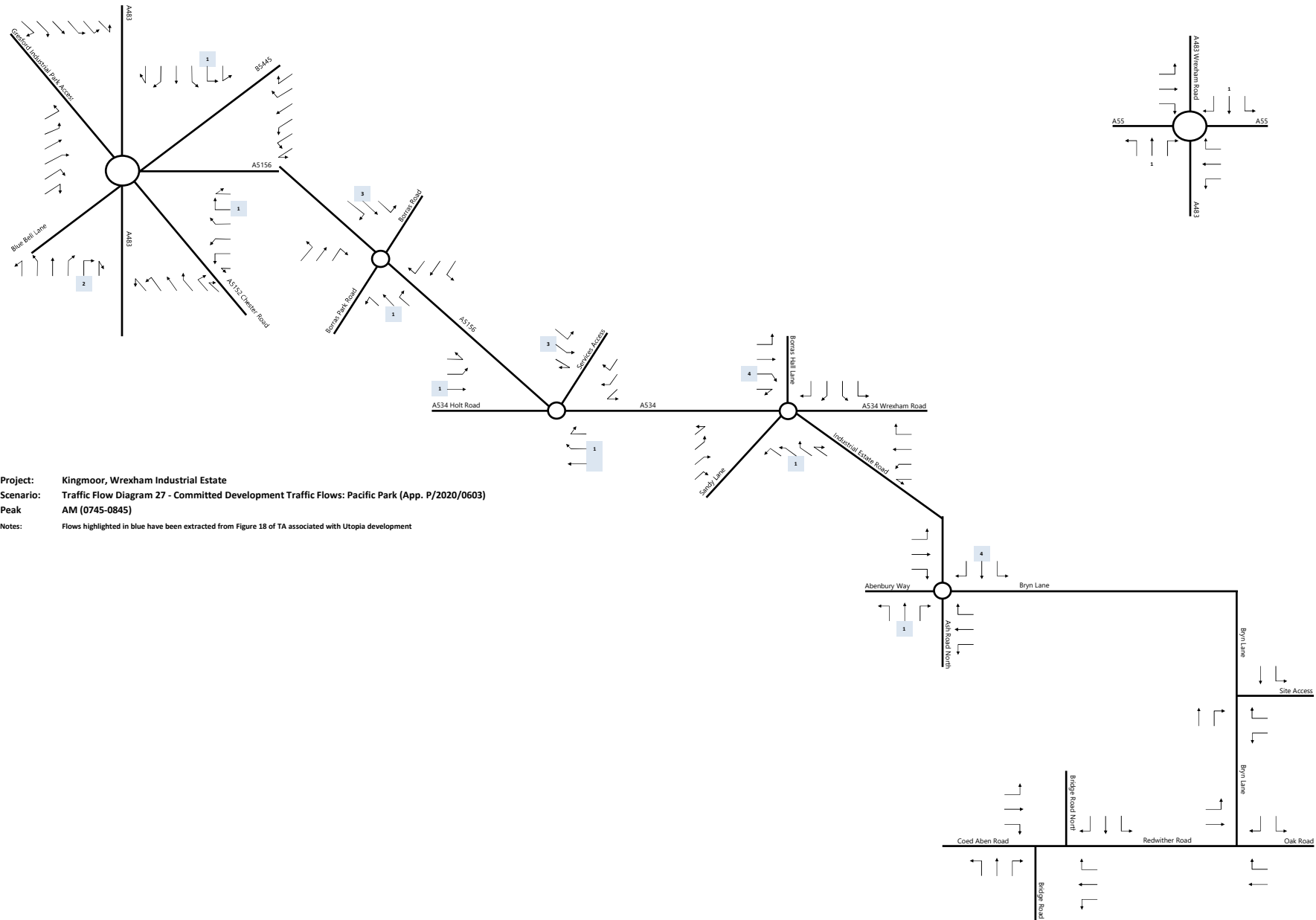




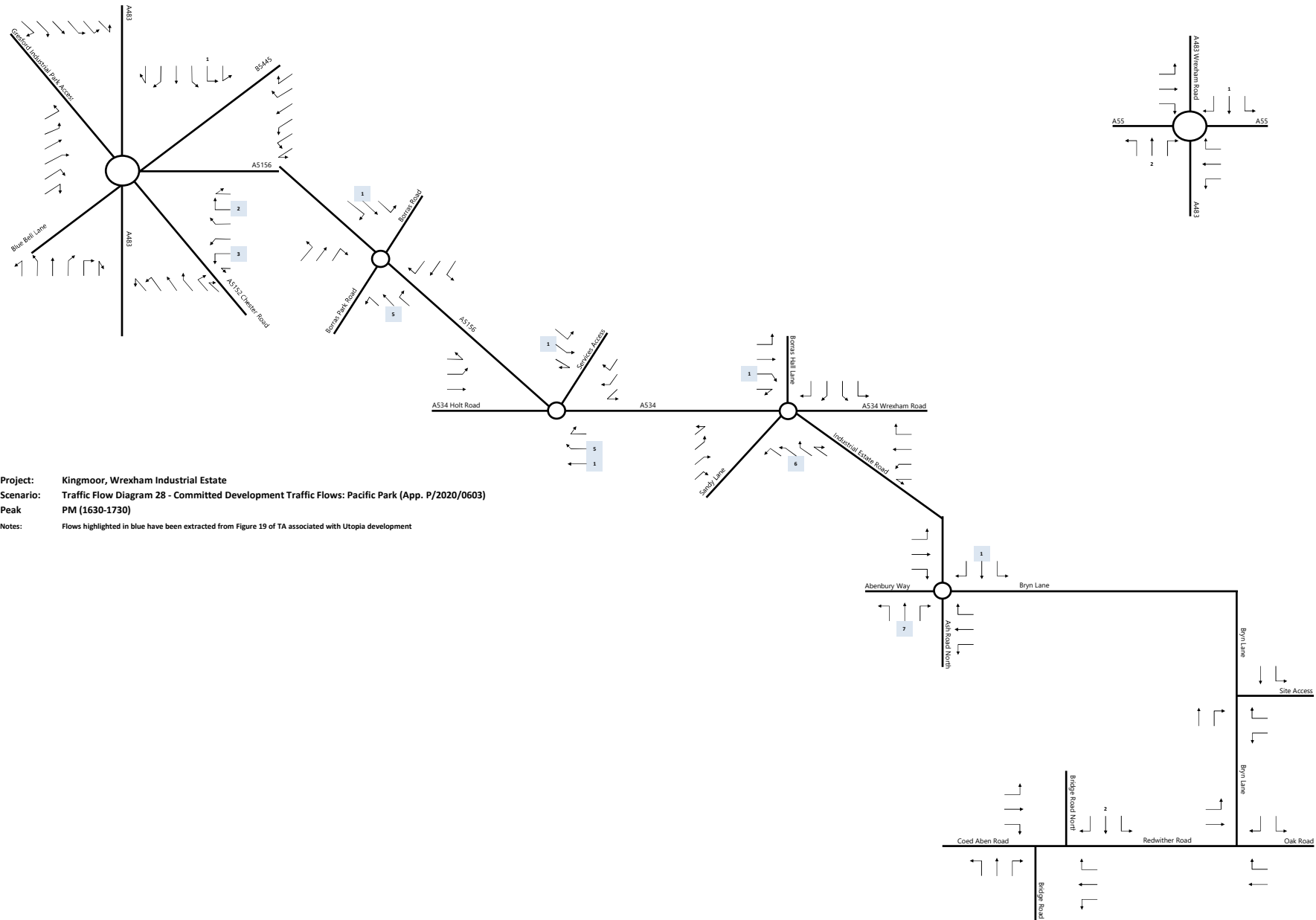




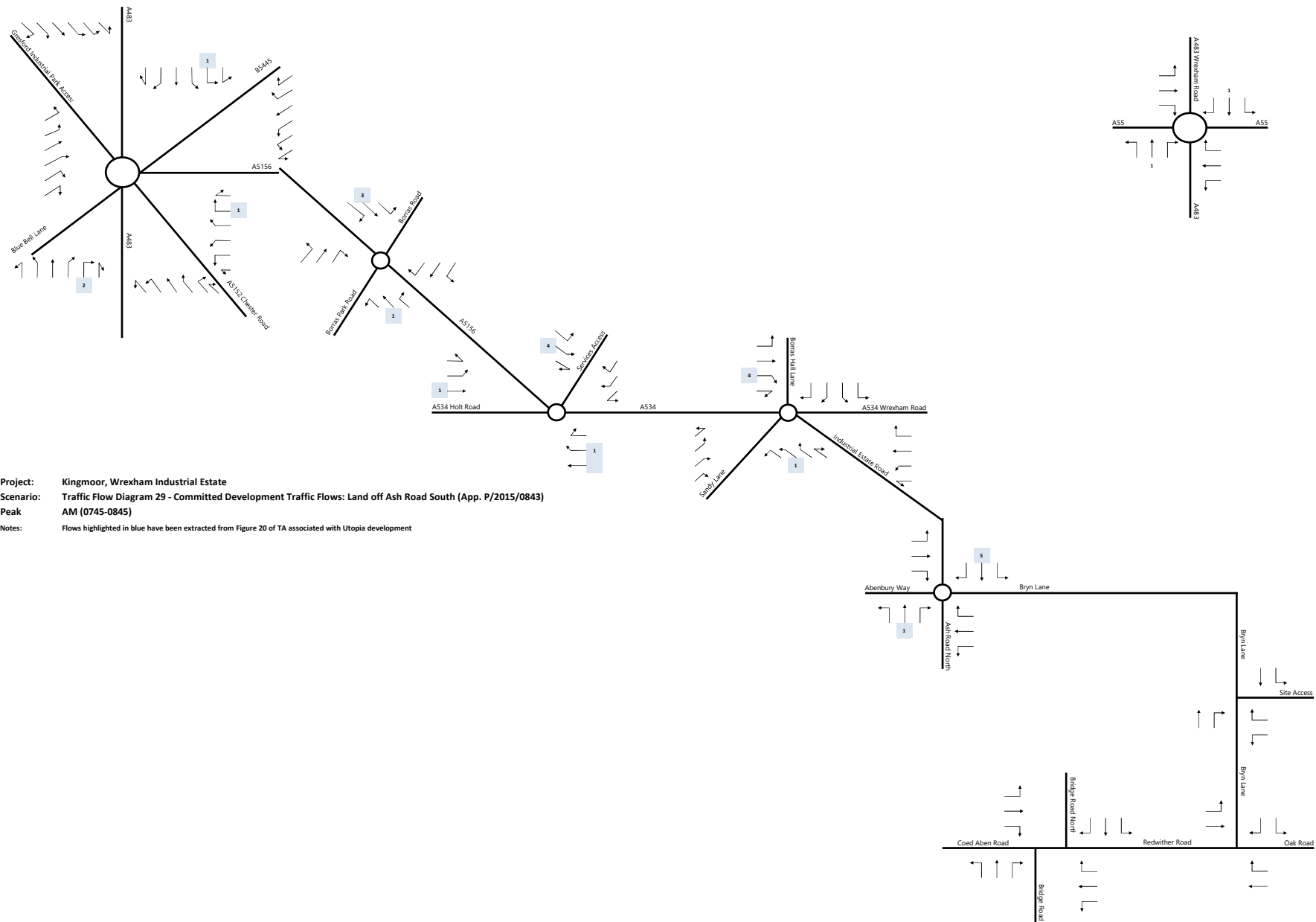




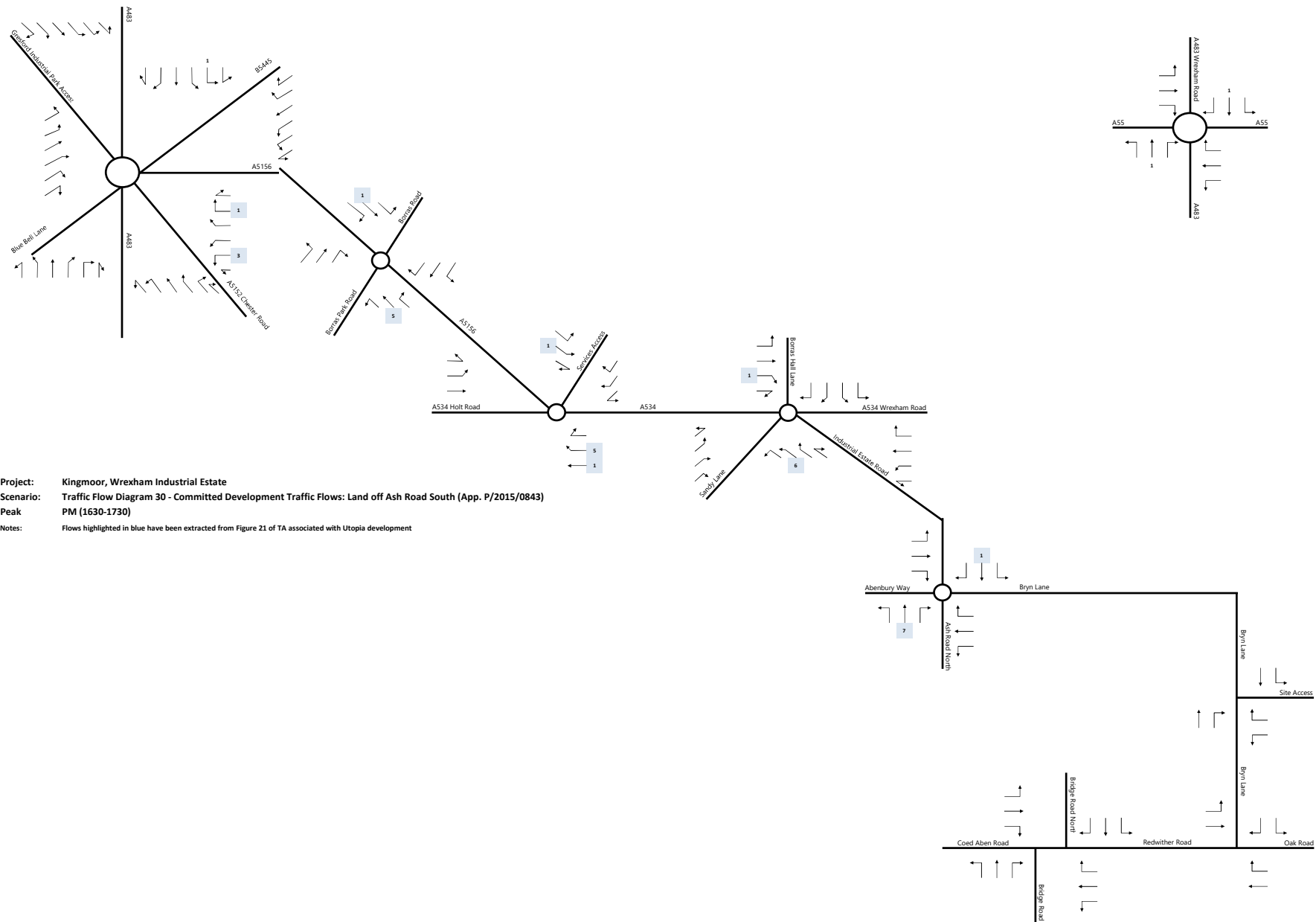
Project: Kingmoor, Wrexham Industrial Estate
Scenario: Traffic Flow Diagram 27 - Committed Development Traffic Flows: Pacific Park (App. P/2020/0603)
Peak: AM (0745-0845)
Notes: Flows highlighted in blue have been extracted from Figure 18 of TA associated with Utopia development



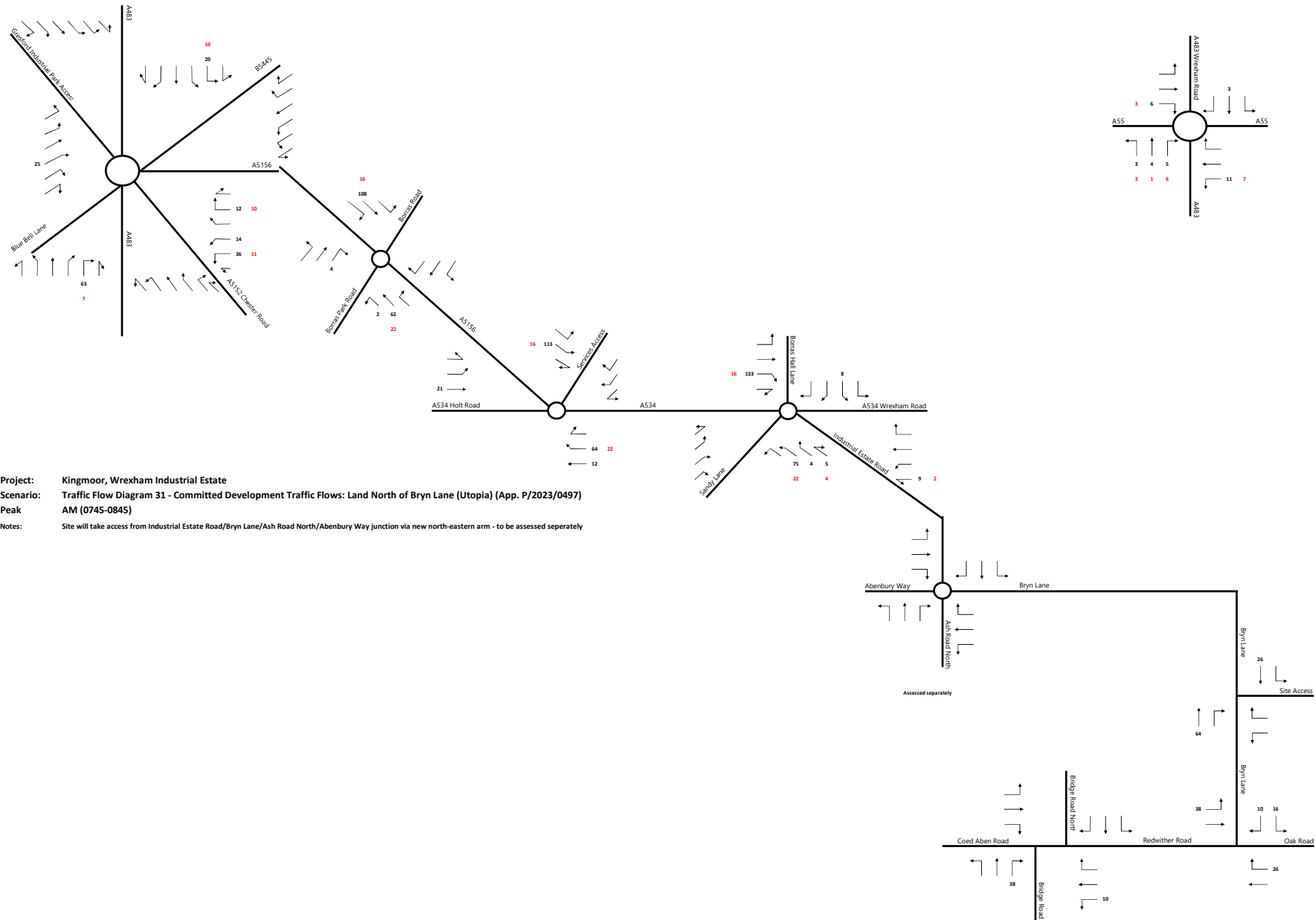
Project: Kingmoor, Wrexham Industrial Estate
Scenario: Traffic Flow Diagram 28 - Committed Development Traffic Flows: Pacific Park (App. P/2020/0603)
Peak: PM (1630-1730)
Notes: Flows highlighted in blue have been extracted from Figure 19 of TA associated with Utopia development



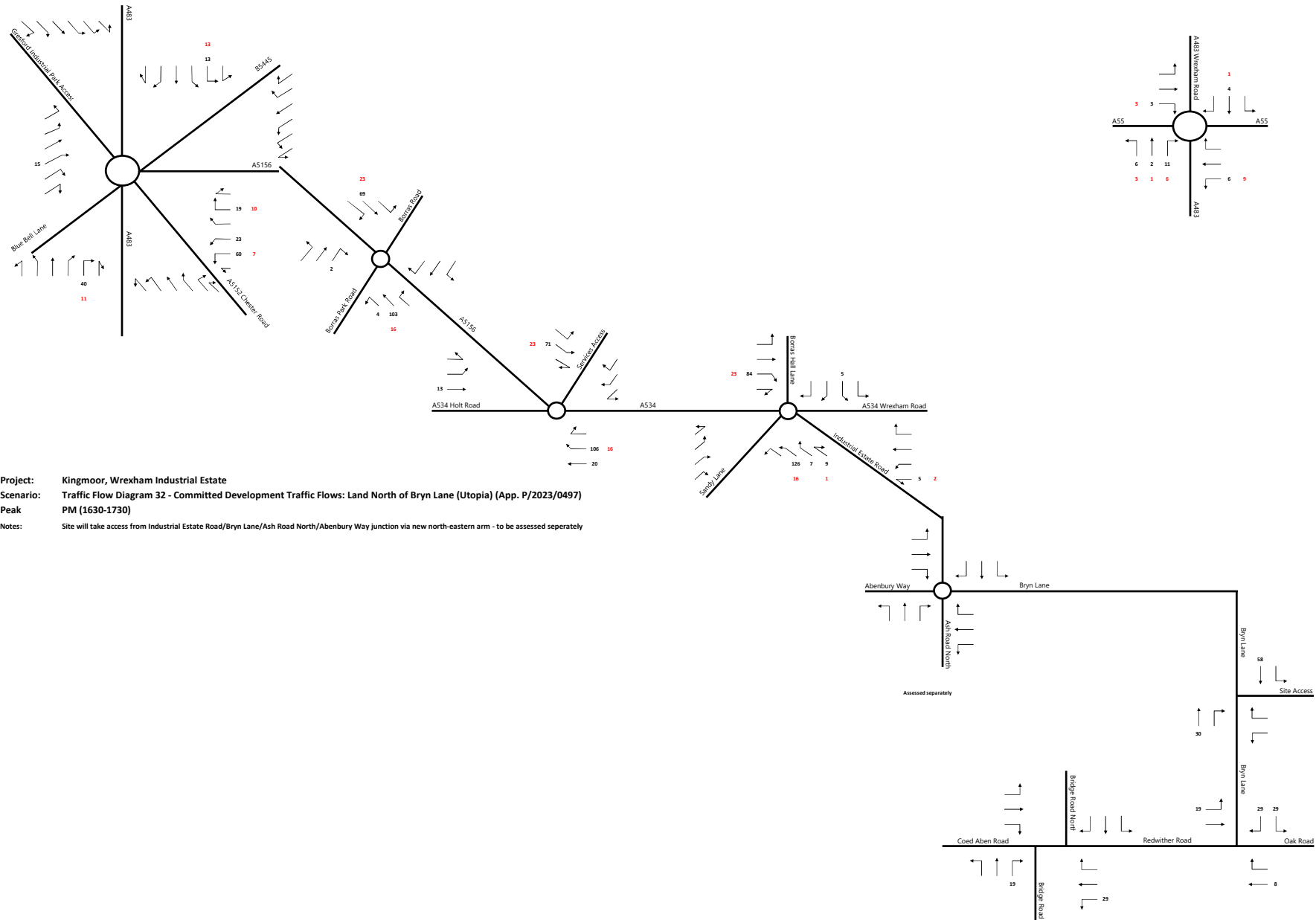
Project: Kingmoor, Wrexham Industrial Estate
Scenario: Traffic Flow Diagram 29 - Committed Development Traffic Flows: Land off Ash Road South (App. P/2015/0843)
Peak AM (0745-0845)
Notes: Flows highlighted in blue have been extracted from Figure 20 of TA associated with Utopia development



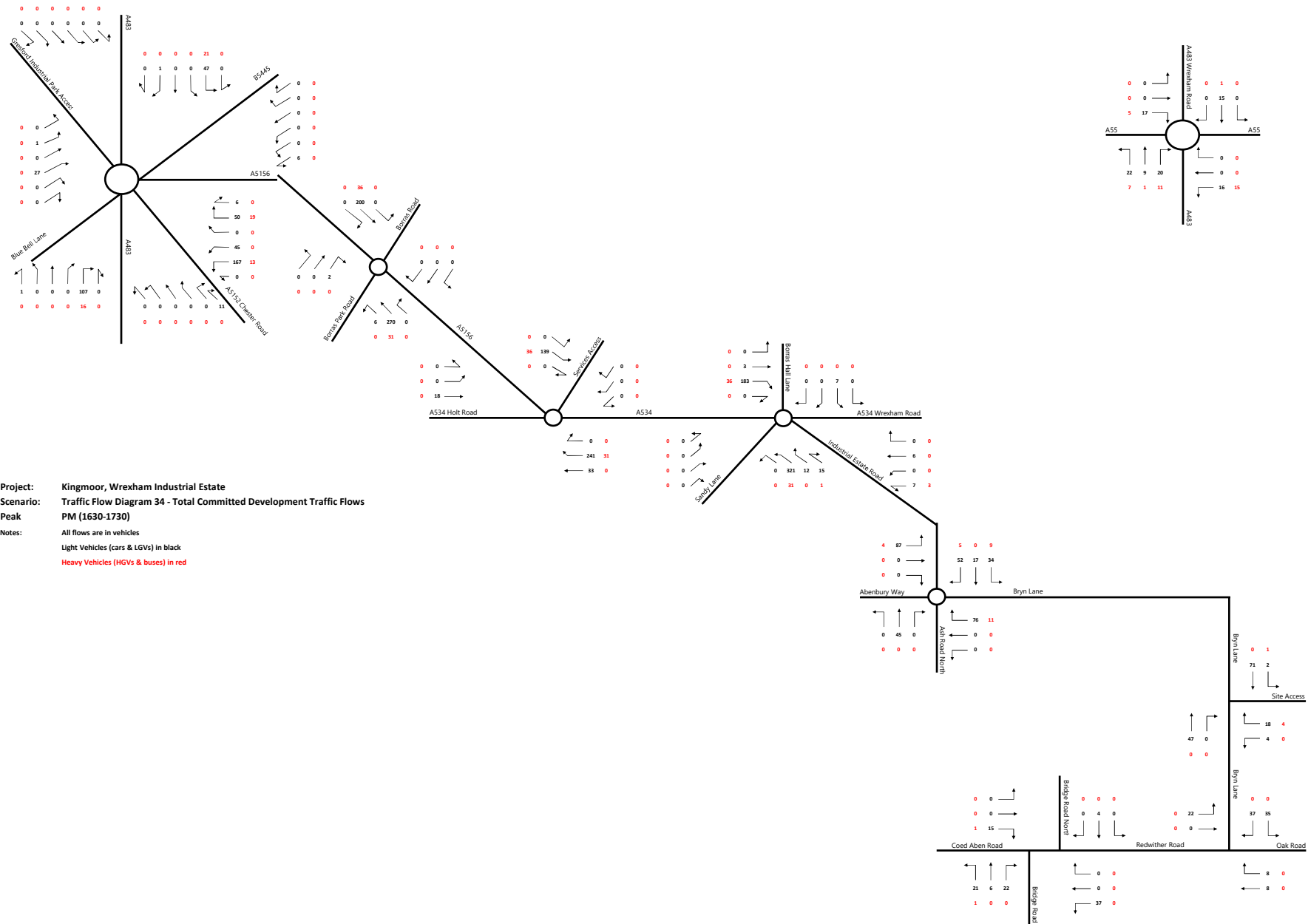
Project: Kingmoor, Wrexham Industrial Estate
Scenario: Traffic Flow Diagram 30 - Committed Development Traffic Flows: Land off Ash Road South (App. P/2015/0843)
Peak: PM (1630-1730)
Notes: Flows highlighted in blue have been extracted from Figure 21 of TA associated with Utopia development



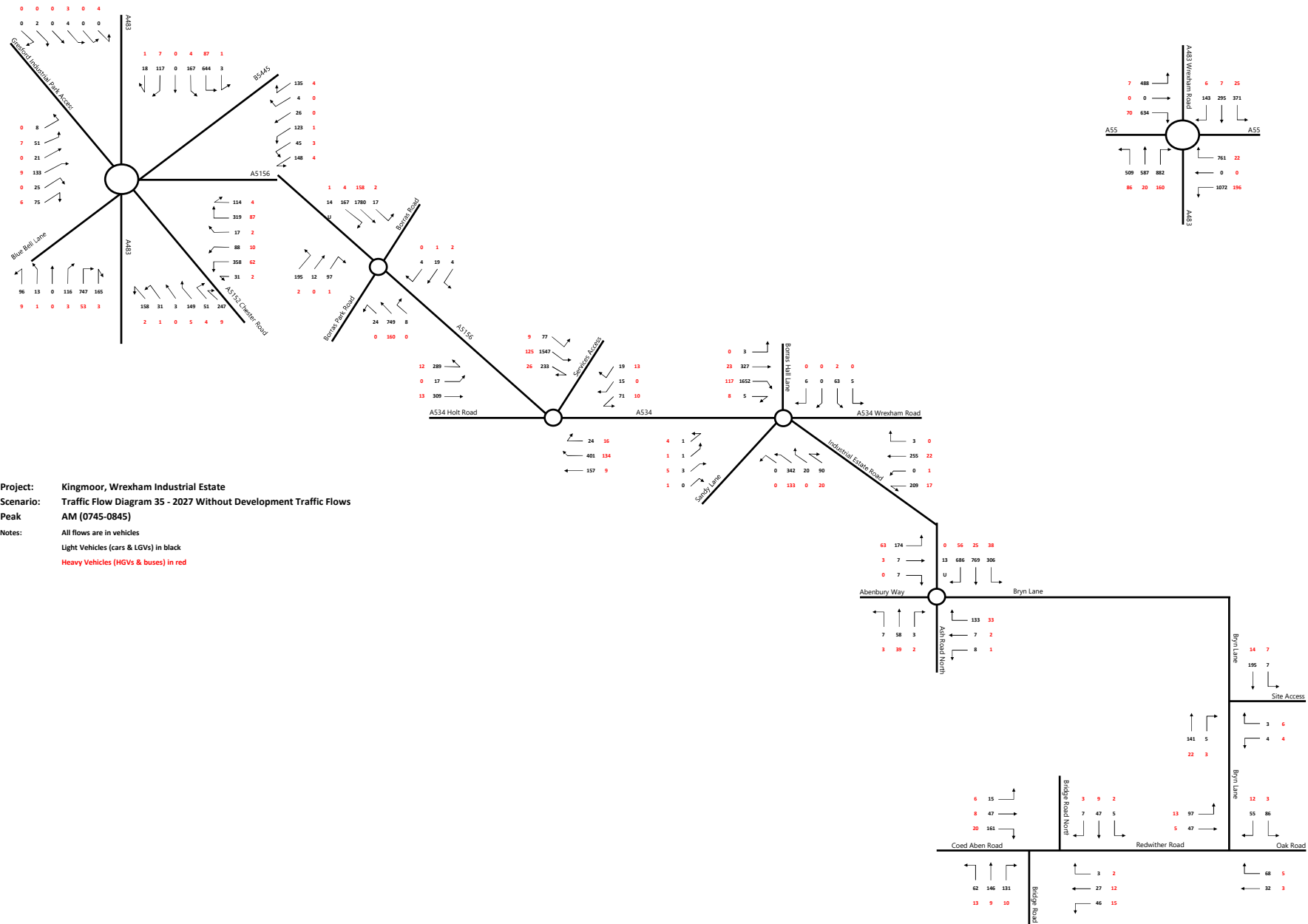
Project: Kingmoor, Wrexham Industrial Estate
Scenario: Traffic Flow Diagram 31 - Committed Development Traffic Flows: Land North of Bryn Lane (Utopia) (App. P/2023/0497)
Peak: AM (0745-0845)
Notes: Site will take access from Industrial Estate Road/Bryn Lane/Ash Road North/Abenbury Way junction via new north-eastern arm - to be assessed separately

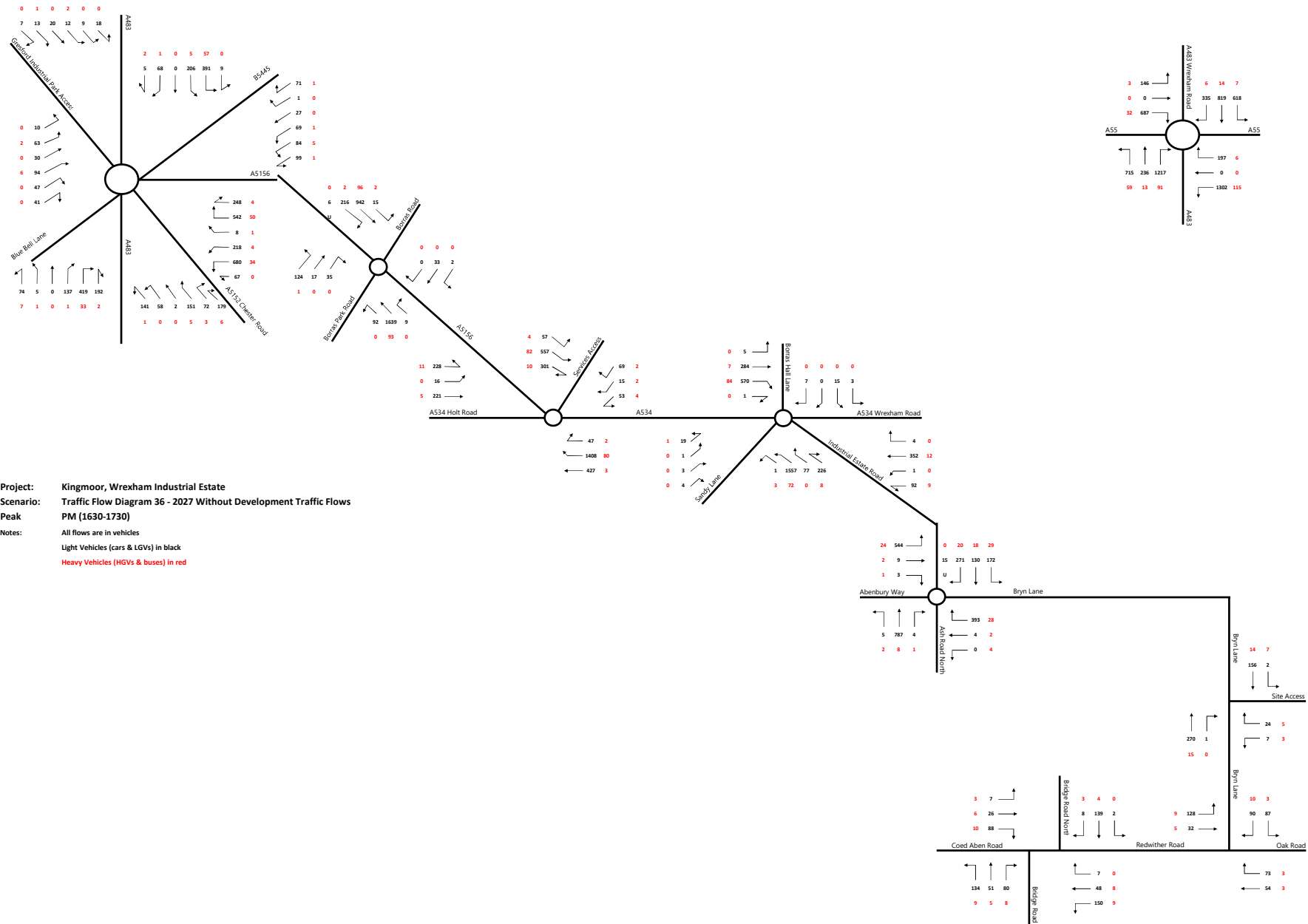


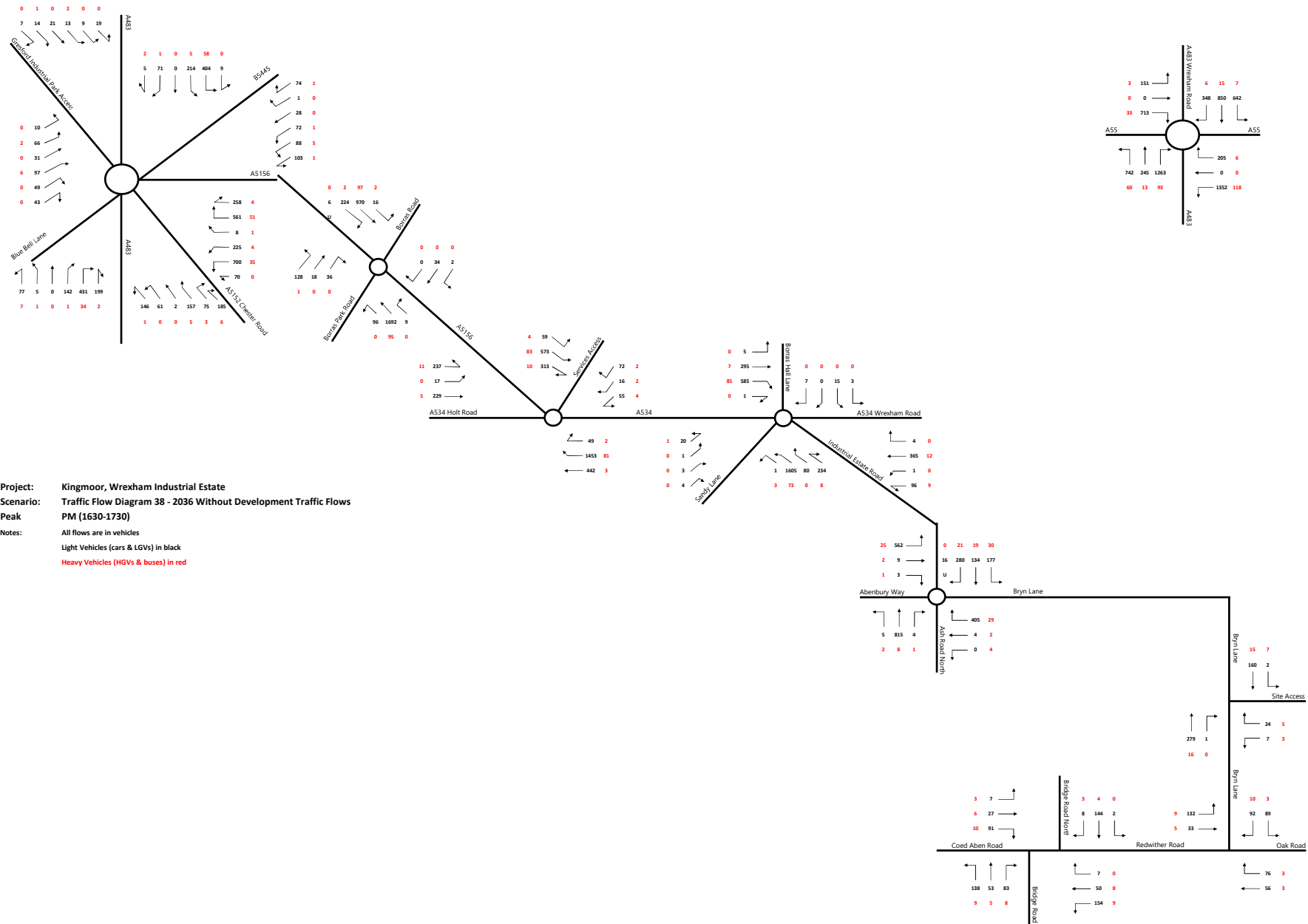
Project: Kingmoor, Wrexham Industrial Estate
Scenario: Traffic Flow Diagram 32 - Committed Development Traffic Flows: Land North of Bryn Lane (Utopia) (App. P/2023/0497)
Peak: PM (1630-1730)
Notes: Site will take access from Industrial Estate Road/Bryn Lane/Ash Road North/Abenbury Way junction via new north-eastern arm - to be assessed seperately



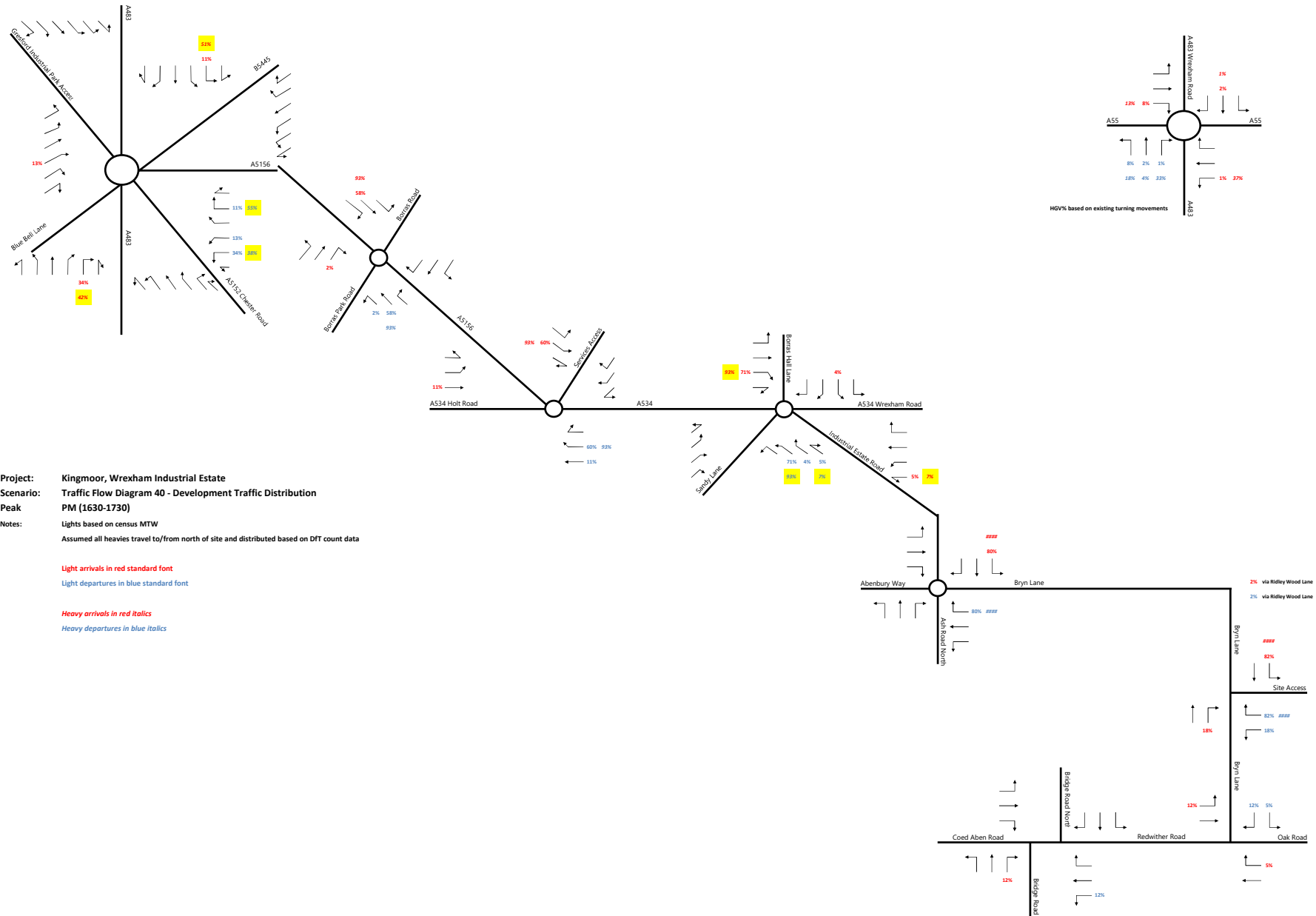
Project: Kingmoor, Wrexham Industrial Estate
Scenario: Traffic Flow Diagram 34 - Total Committed Development Traffic Flows
Peak: PM (1630-1730)
Notes: All flows are in vehicles
 Light Vehicles (cars & LGVs) in black
 Heavy Vehicles (HGVs & buses) in red

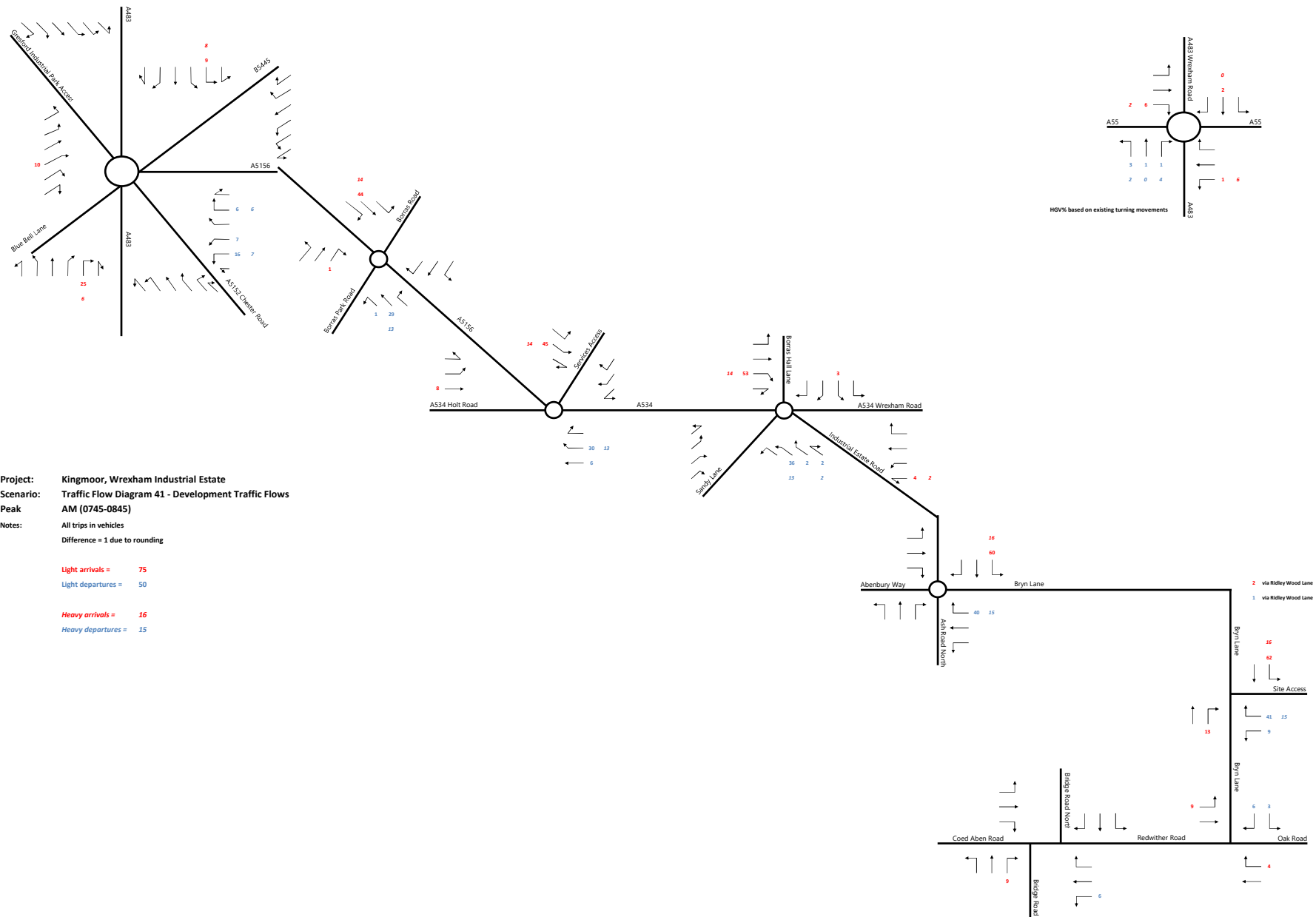


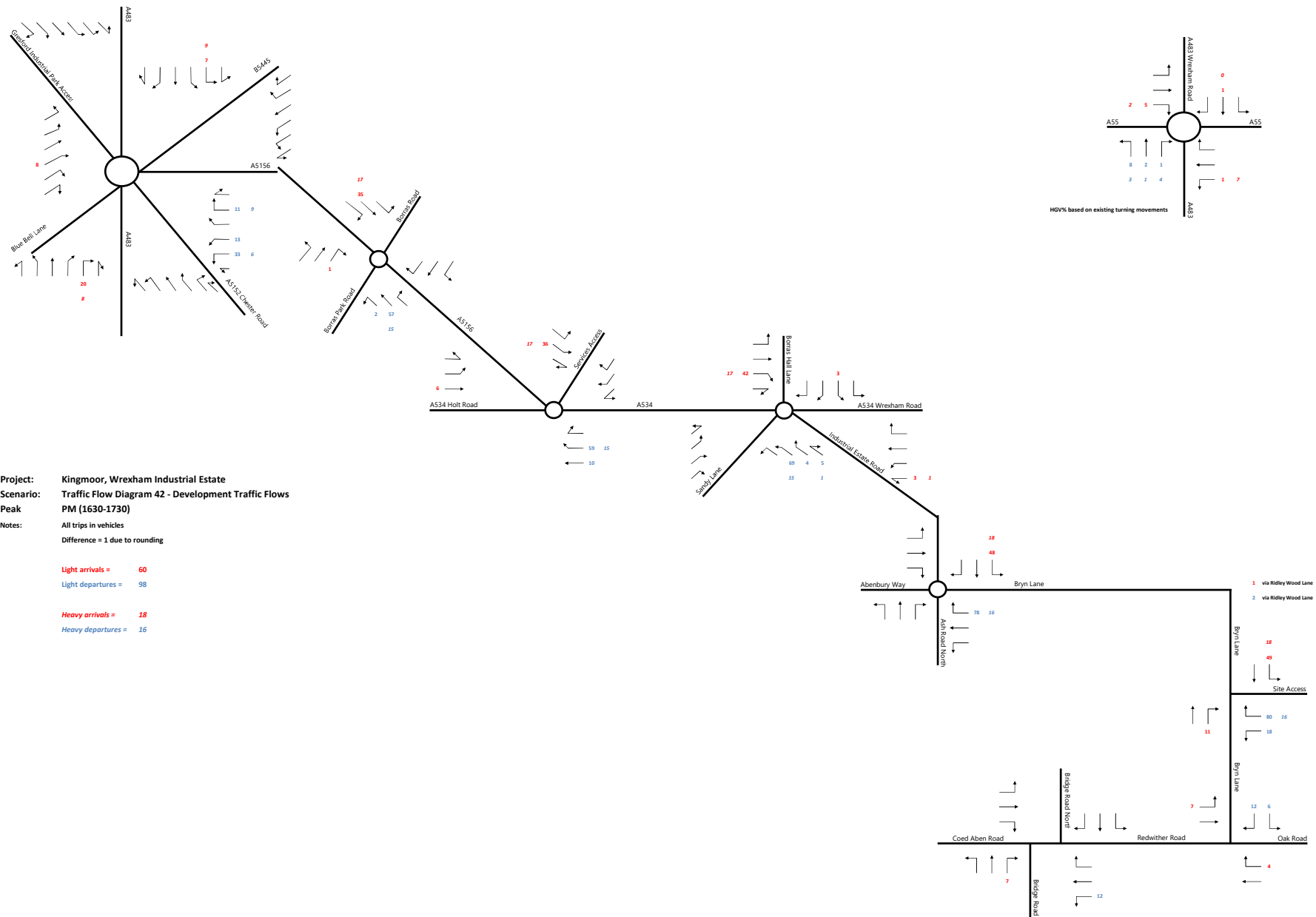


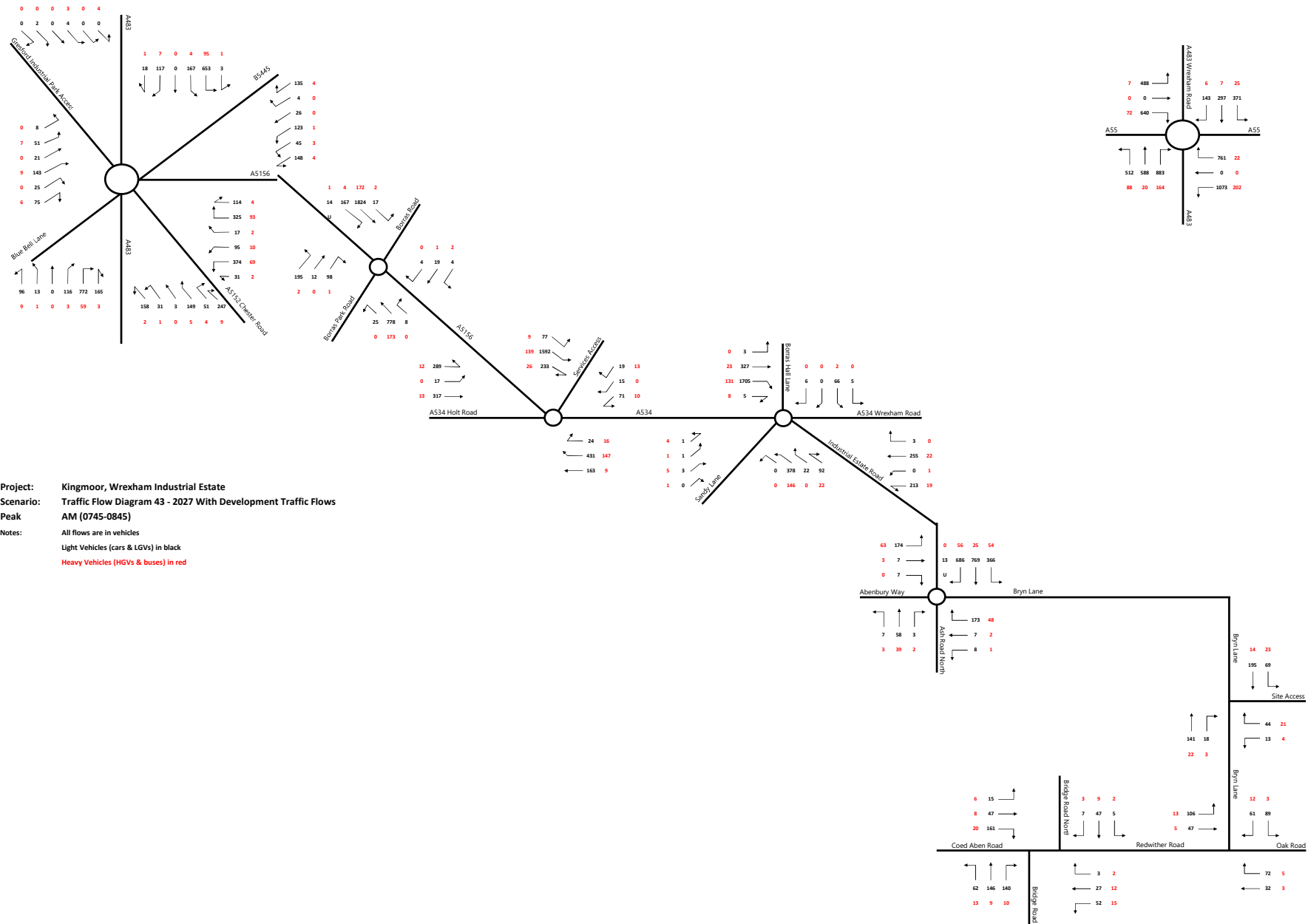


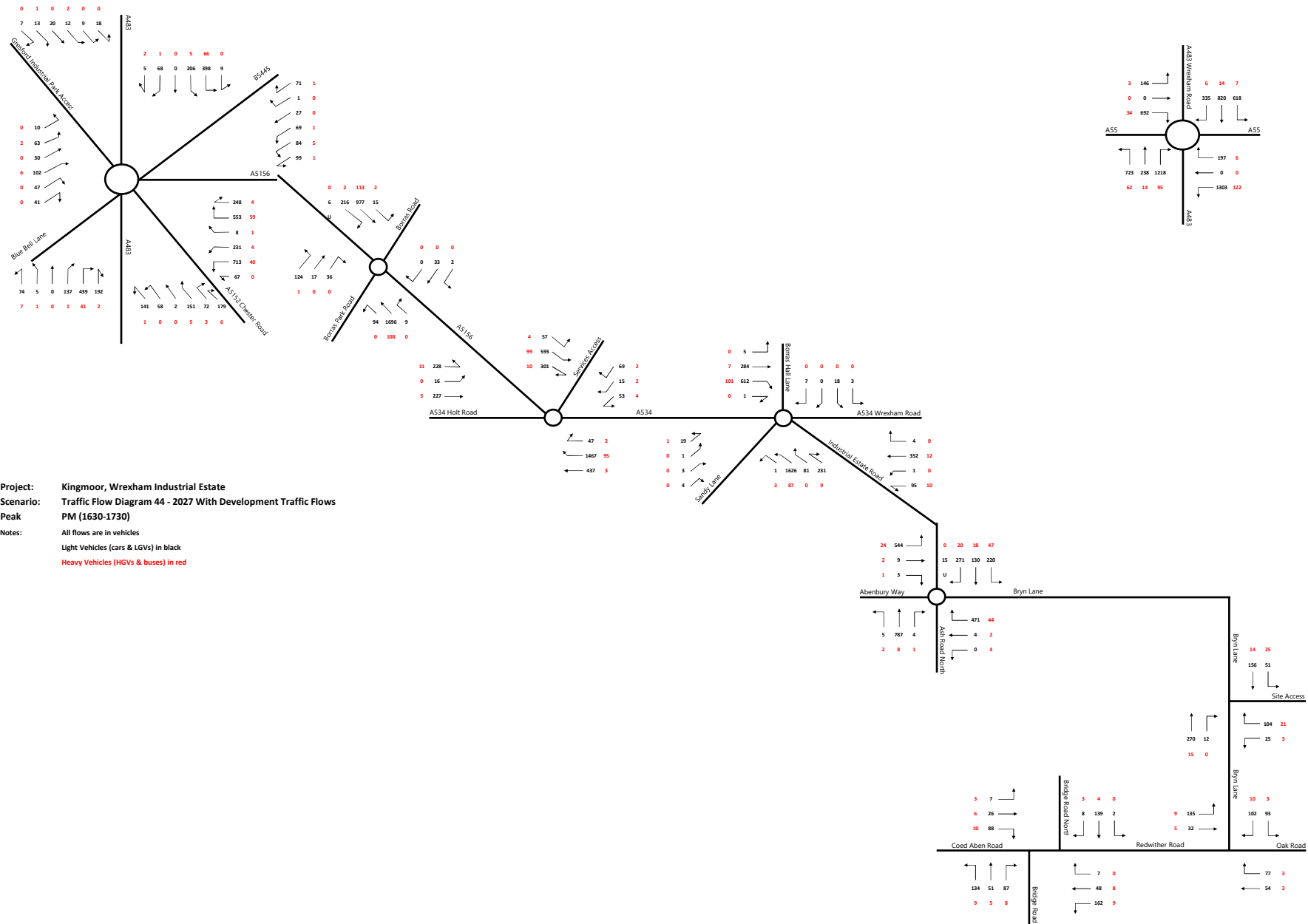
Project: Kingmoor, Wrexham Industrial Estate
Scenario: Traffic Flow Diagram 38 - 2036 Without Development Traffic Flows
Peak: PM (1630-1730)
Notes: All flows are in vehicles
 Light Vehicles (cars & LGVs) in black
 Heavy Vehicles (HGVs & buses) in red

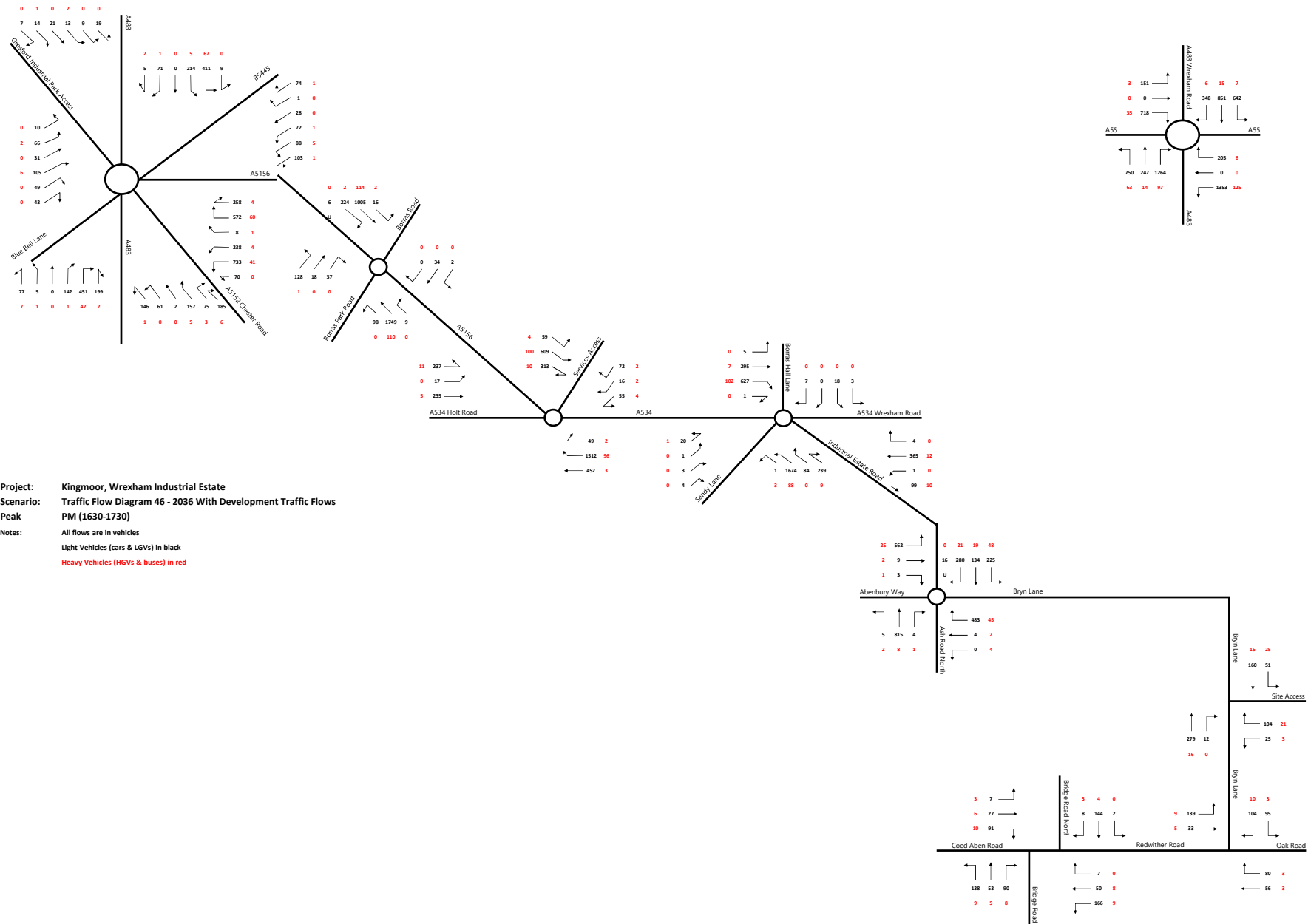


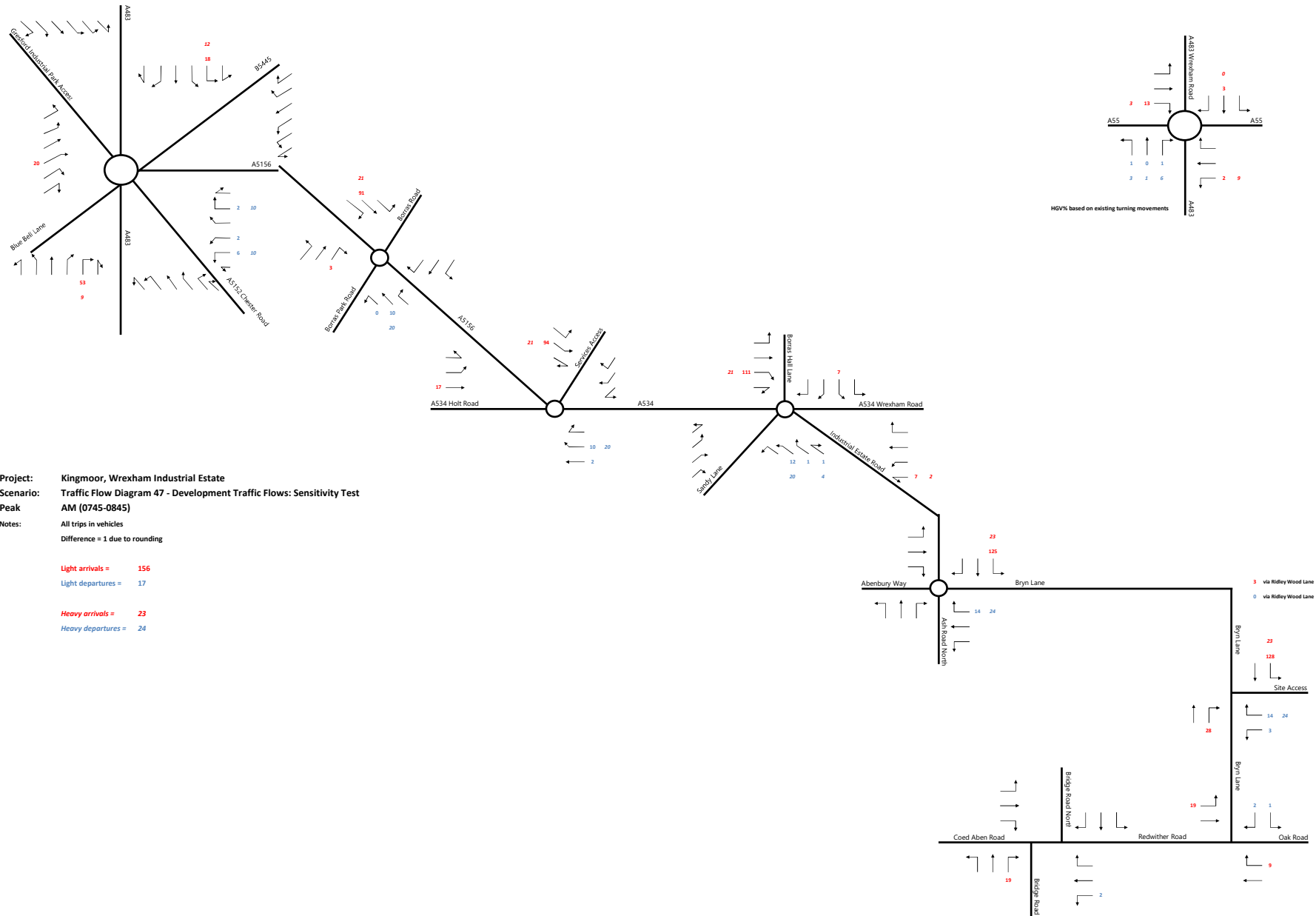


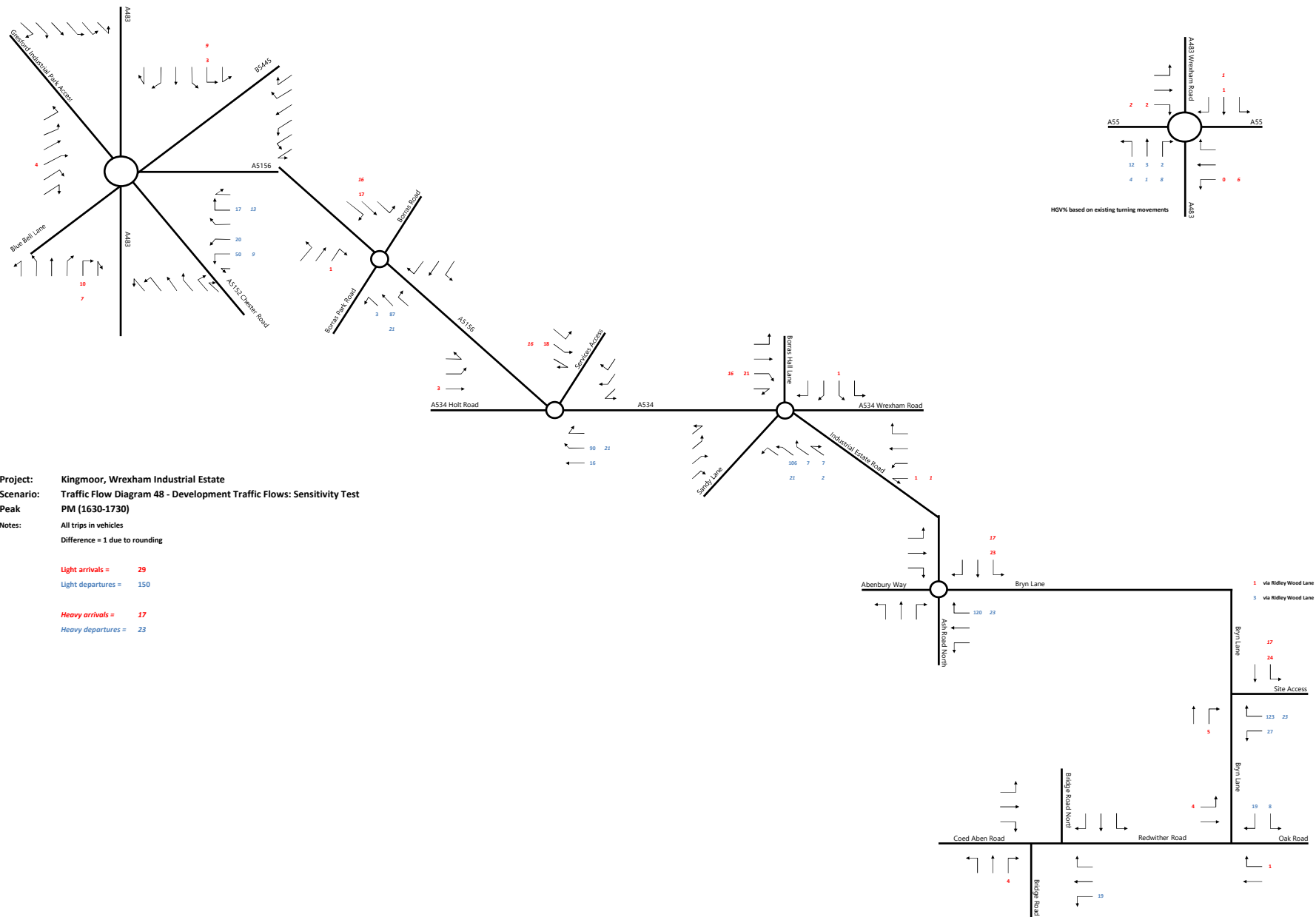


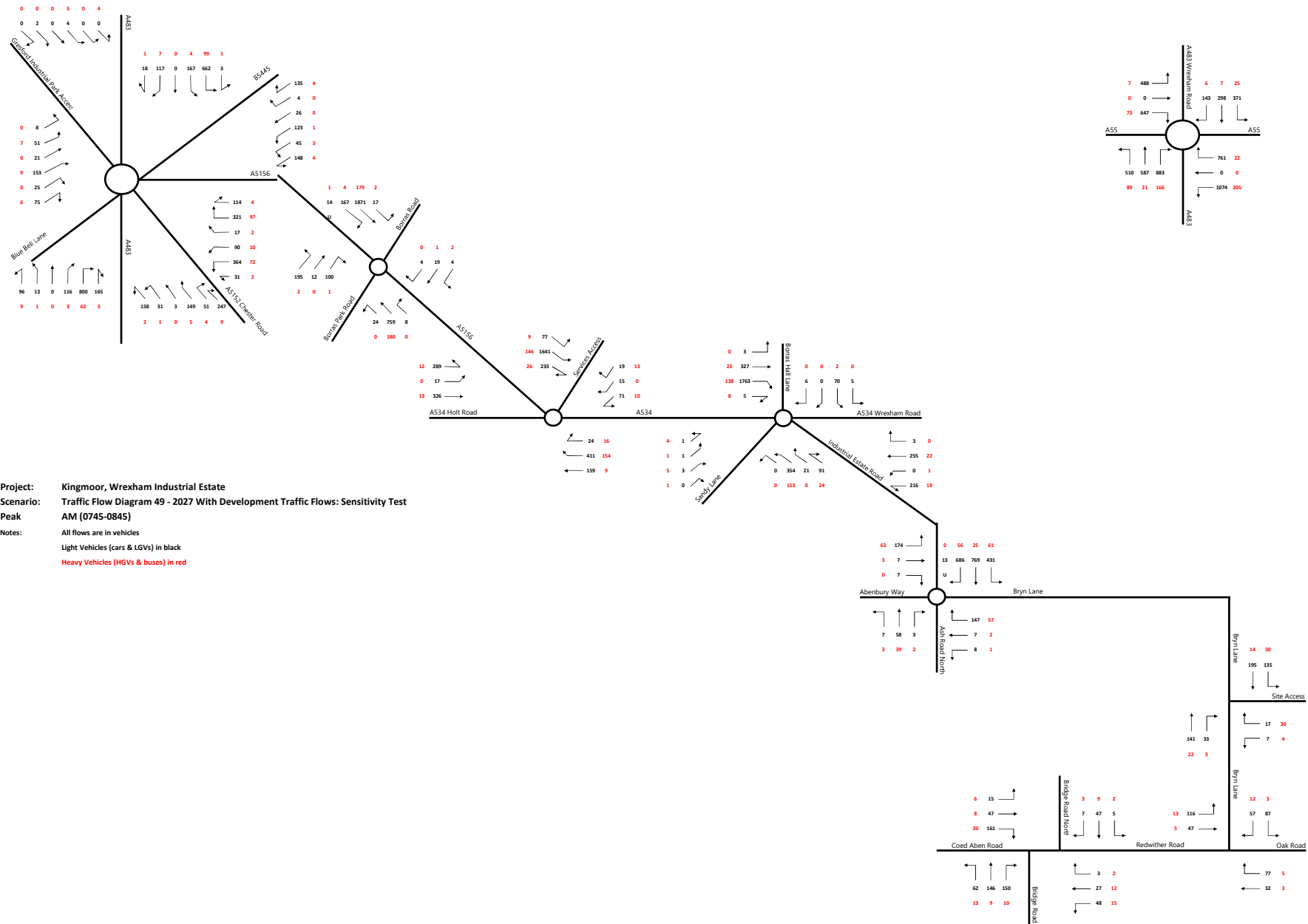


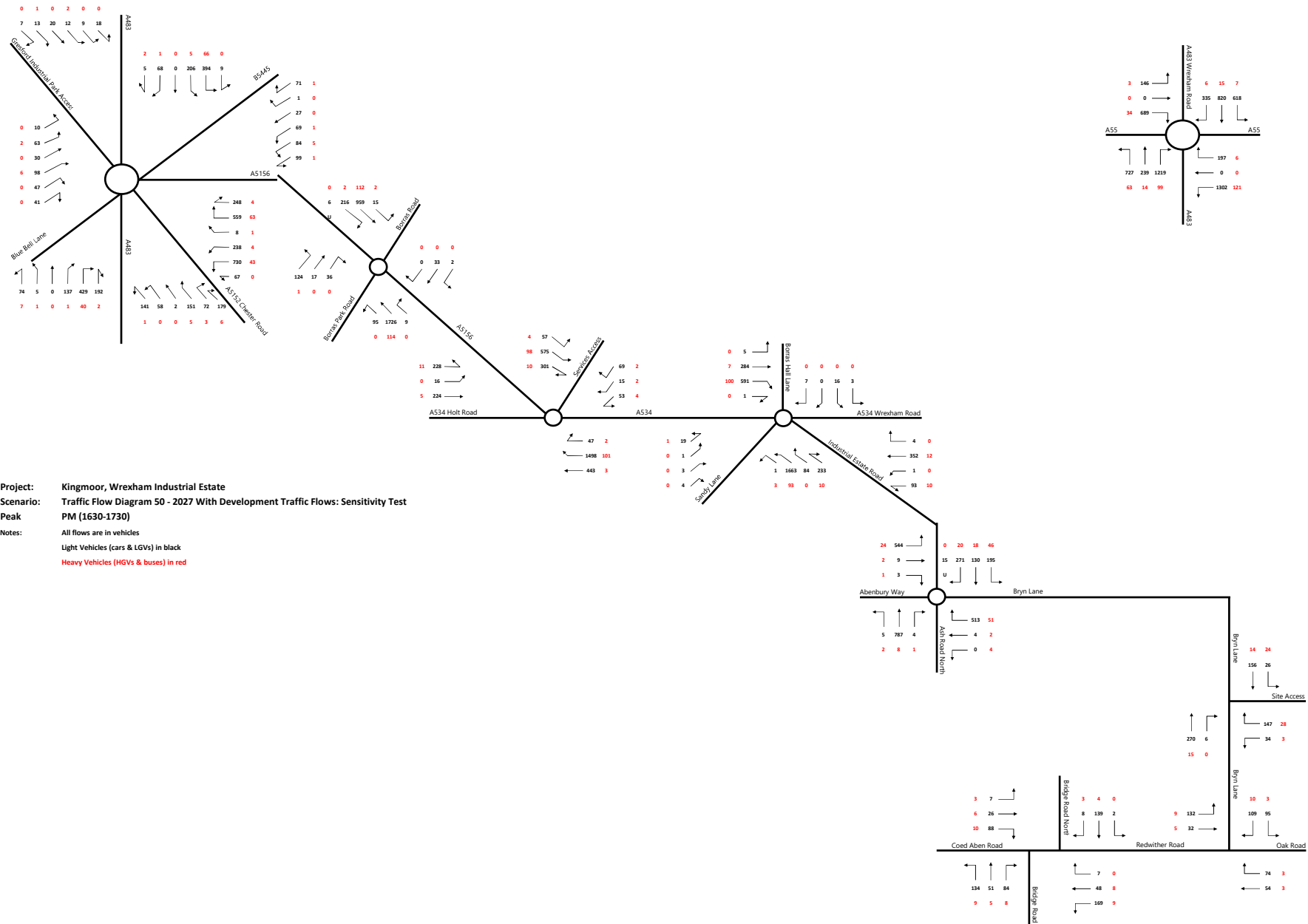


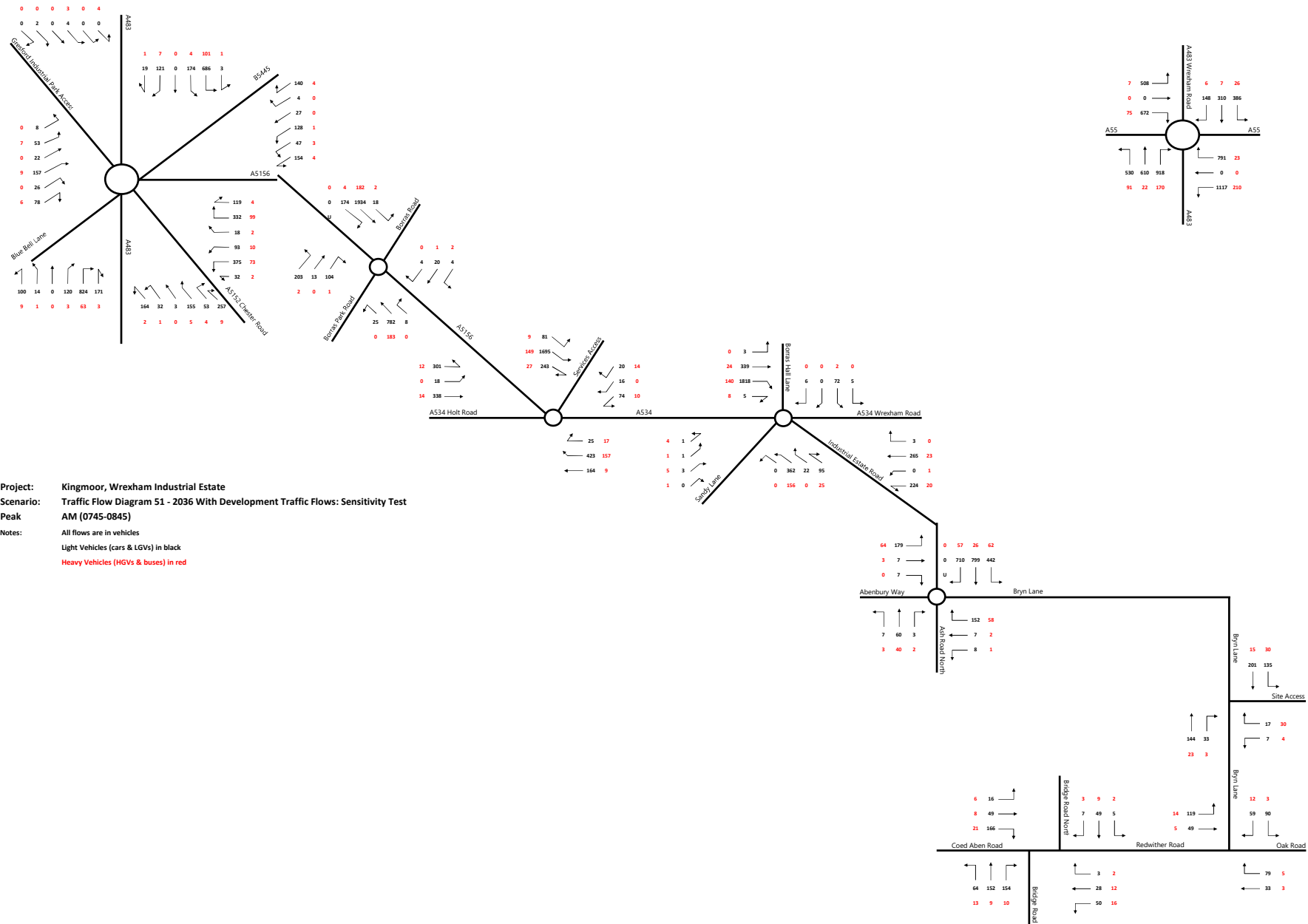




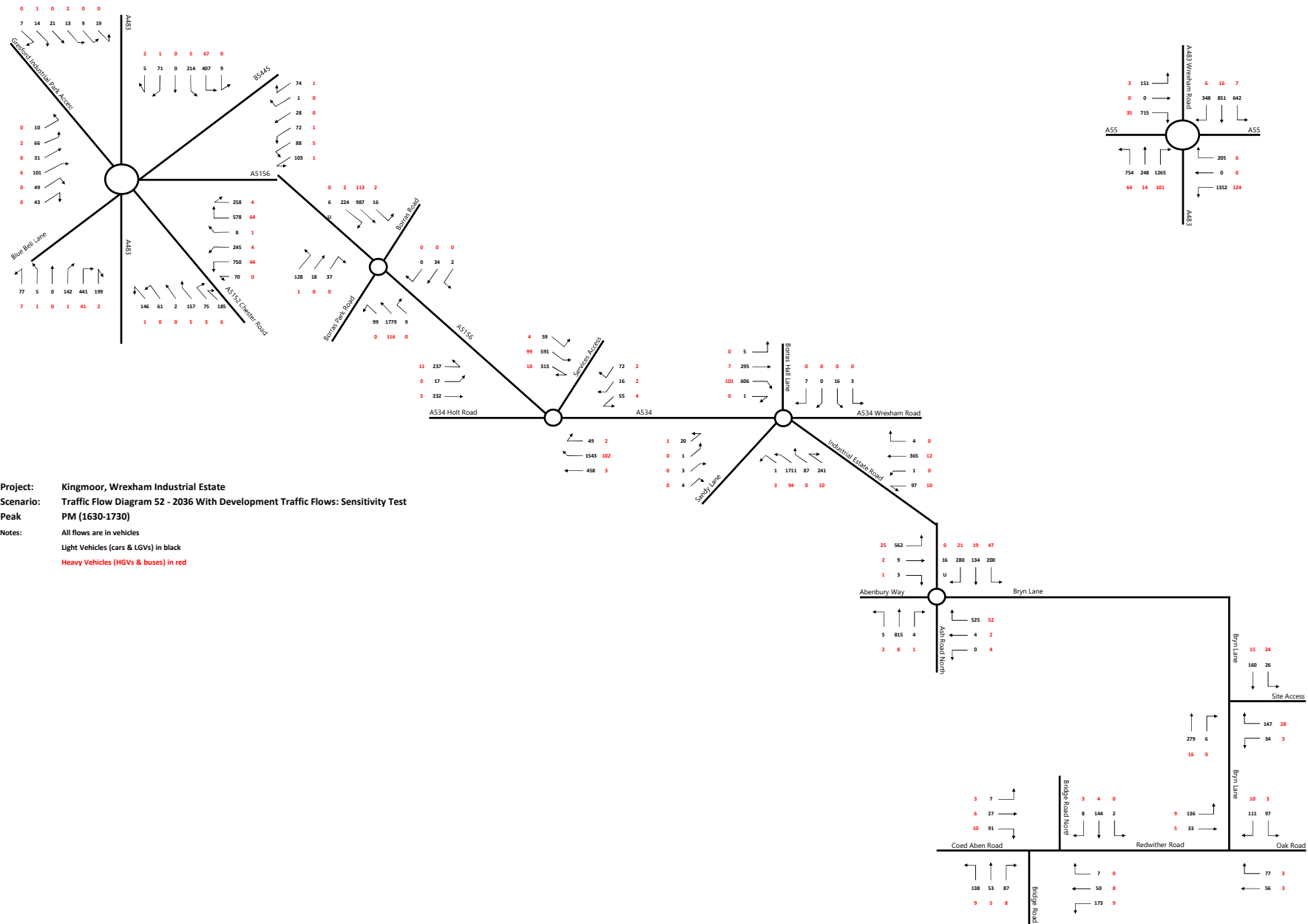








Project: Kingmoor, Wrexham Industrial Estate
 Scenario: Traffic Flow Diagram 51 - 2036 With Development Traffic Flows: Sensitivity Test
 Peak: AM (0745-0845)
 Notes: All flows are in vehicles
 Light Vehicles (cars & LGVs) in black
 Heavy Vehicles (HGVs & buses) in red



Project: Kingmoor, Wrexham Industrial Estate
Scenario: Traffic Flow Diagram 52 - 2036 With Development Traffic Flows: Sensitivity Test
Peak: PM (1630-1730)
Notes: All flows are in vehicles
 Light Vehicles (cars & LGVs) in black
 Heavy Vehicles (HGVs & buses) in red

APPENDIX 2

TRIP GENERATION SURVEY RESULTS

Exertis, Burnley, Wednesday 16th November 2022

Access: 1
Approach: Exertis, Burnley

TIME	Inbound						Outbound					
	PED	CYCLE	CAR	LGV	HGV	TOTAL	PED	CYCLE	CAR	LGV	HGV	TOTAL
07:00 - 07:15	0	0	0	0	4	4	0	0	0	1	2	3
07:15 - 07:30	0	0	0	0	1	1	0	0	0	0	1	1
07:30 - 07:45	0	0	0	0	0	0	0	0	0	0	4	4
07:45 - 08:00	0	0	0	0	4	4	0	0	0	1	3	4
08:00 - 08:15	0	0	0	0	2	2	0	0	0	0	0	0
08:15 - 08:30	0	0	0	2	3	5	0	0	0	0	1	1
08:30 - 08:45	0	0	0	1	2	3	0	0	0	1	0	1
08:45 - 09:00	0	0	0	1	3	4	0	0	0	2	2	4
09:00 - 09:15	0	0	0	0	4	4	0	0	0	0	3	3
09:15 - 09:30	0	0	0	0	2	2	0	0	0	0	3	3
09:30 - 09:45	0	0	0	0	0	0	0	0	0	0	1	1
09:45 - 10:00	0	0	0	4	4	8	0	0	0	2	1	3
10:00 - 10:15	0	0	0	1	2	3	0	0	0	0	1	1
10:15 - 10:30	0	0	0	1	3	4	0	0	0	1	4	5
10:30 - 10:45	0	0	0	1	2	3	0	0	0	1	2	3
10:45 - 11:00	0	0	0	0	2	2	0	0	0	2	2	4
11:00 - 11:15	0	0	0	1	2	3	0	0	0	0	4	4
11:15 - 11:30	0	0	0	2	1	3	0	0	0	1	2	3
11:30 - 11:45	0	0	0	0	0	0	0	0	0	1	4	5
11:45 - 12:00	0	0	0	2	0	2	0	0	0	1	1	2
12:00 - 12:15	0	0	0	0	0	0	0	0	0	2	2	4
12:15 - 12:30	0	0	0	0	2	2	0	0	0	0	1	1
12:30 - 12:45	0	0	0	0	1	1	0	0	0	0	3	3
12:45 - 13:00	0	0	0	0	1	1	0	0	0	0	2	2
13:00 - 13:15	0	0	0	0	1	1	0	0	0	0	2	2
13:15 - 13:30	0	0	0	0	0	0	0	0	0	0	0	0
13:30 - 13:45	0	0	0	0	3	3	0	0	0	0	1	1
13:45 - 14:00	0	0	0	0	0	0	0	0	0	0	1	1
14:00 - 14:15	0	0	0	0	1	1	0	0	0	0	1	1
14:15 - 14:30	0	0	0	0	0	0	0	0	0	0	0	0
14:30 - 14:45	0	0	0	1	1	2	0	0	0	1	1	2
14:45 - 15:00	0	0	0	0	1	1	0	0	0	1	1	2
15:00 - 15:15	0	0	0	0	1	1	0	0	0	1	1	2
15:15 - 15:30	0	0	0	0	1	1	0	0	0	0	0	0
15:30 - 15:45	0	0	0	0	0	0	0	0	0	0	2	2
15:45 - 16:00	0	0	0	0	1	1	0	0	0	0	0	0
16:00 - 16:15	0	0	0	0	0	0	0	0	0	0	0	0
16:15 - 16:30	0	0	0	1	0	1	0	0	0	1	1	2
16:30 - 16:45	0	0	0	0	1	1	0	0	0	0	0	0
16:45 - 17:00	0	0	0	0	1	1	0	0	0	0	1	1
17:00 - 17:15	0	0	0	0	0	0	0	0	0	0	0	0
17:15 - 17:30	0	0	0	1	2	3	0	0	0	0	0	0
17:30 - 17:45	0	0	0	0	1	1	0	0	0	1	0	1
17:45 - 18:00	0	0	0	0	1	1	0	0	0	1	2	3
18:00 - 18:15	0	0	0	0	0	0	0	0	0	0	0	0
18:15 - 18:30	0	0	0	0	2	2	0	0	0	0	1	1
18:30 - 18:45	0	0	0	0	0	0	0	0	0	0	0	0
18:45 - 19:00	0	0	0	0	2	2	0	0	0	0	1	1

Exertis, Burnley, Wednesday 16th November 2022

Access: 2
Approach: Exertis, Burnley

TIME	Inbound						Outbound					
	PED	CYCLE	CAR	LGV	HGV	TOTAL	PED	CYCLE	CAR	LGV	HGV	TOTAL
07:00 - 07:15	0	0	4	0	0	4	0	0	1	0	0	1
07:15 - 07:30	2	0	2	0	0	4	0	0	1	0	0	1
07:30 - 07:45	10	1	19	0	0	30	0	0	2	0	0	2
07:45 - 08:00	5	2	26	0	0	33	1	0	1	0	0	2
08:00 - 08:15	5	0	23	1	0	29	0	0	1	0	0	1
08:15 - 08:30	8	0	27	0	0	35	0	0	1	0	0	1
08:30 - 08:45	30	0	48	0	0	78	0	2	1	0	0	3
08:45 - 09:00	23	0	68	0	0	91	0	0	2	0	0	2
09:00 - 09:15	3	1	12	0	0	16	0	0	2	0	0	2
09:15 - 09:30	0	0	3	1	0	4	1	0	5	0	0	6
09:30 - 09:45	4	0	5	0	0	9	1	0	1	1	0	3
09:45 - 10:00	6	0	5	0	0	11	0	0	0	0	0	0
10:00 - 10:15	1	1	2	0	0	4	0	1	0	0	0	1
10:15 - 10:30	0	1	0	0	0	1	0	0	1	0	0	1
10:30 - 10:45	1	0	1	0	0	2	0	0	1	0	0	1
10:45 - 11:00	0	0	2	0	0	2	0	0	2	0	0	2
11:00 - 11:15	0	0	1	0	0	1	0	0	0	0	0	0
11:15 - 11:30	1	0	0	0	0	1	0	0	0	0	0	0
11:30 - 11:45	1	0	2	0	0	3	0	0	0	0	0	0
11:45 - 12:00	0	0	0	0	0	0	0	0	3	0	0	3
12:00 - 12:15	1	0	0	0	0	1	9	0	9	0	0	18
12:15 - 12:30	3	0	4	0	0	7	0	0	3	0	0	3
12:30 - 12:45	3	0	4	0	0	7	15	0	2	0	0	17
12:45 - 13:00	16	0	9	0	0	25	1	0	4	0	0	5
13:00 - 13:15	5	0	3	0	0	8	9	1	13	0	0	23
13:15 - 13:30	10	1	8	0	0	19	0	0	1	0	0	1
13:30 - 13:45	16	4	33	0	0	53	1	0	1	0	0	2
13:45 - 14:00	11	0	30	0	0	41	8	0	12	0	0	20
14:00 - 14:15	0	0	1	0	0	1	17	3	52	2	0	74
14:15 - 14:30	1	0	2	0	0	3	1	0	9	0	0	10
14:30 - 14:45	0	0	1	0	0	1	0	1	1	0	0	2
14:45 - 15:00	0	0	0	0	0	0	0	0	3	0	0	3
15:00 - 15:15	0	0	0	0	0	0	4	0	15	0	0	19
15:15 - 15:30	0	0	0	0	0	0	1	0	2	0	0	3
15:30 - 15:45	0	0	2	0	0	2	0	0	2	0	0	2
15:45 - 16:00	0	0	2	0	0	2	0	0	2	0	0	2
16:00 - 16:15	0	0	2	1	0	3	8	2	24	0	0	34
16:15 - 16:30	2	0	1	0	0	3	1	0	9	2	0	12
16:30 - 16:45	3	0	1	0	0	4	1	0	20	0	0	21
16:45 - 17:00	1	0	7	0	0	8	1	0	14	0	0	15
17:00 - 17:15	0	0	0	0	0	0	21	1	32	1	0	55
17:15 - 17:30	1	0	4	0	0	5	5	0	16	0	0	21
17:30 - 17:45	1	0	3	0	0	4	16	0	79	0	0	95
17:45 - 18:00	3	0	3	0	0	6	2	0	14	0	0	16
18:00 - 18:15	0	0	0	0	0	0	10	1	15	0	0	26
18:15 - 18:30	2	0	0	0	0	2	1	0	4	0	0	5
18:30 - 18:45	0	0	1	0	0	1	2	0	5	0	0	7
18:45 - 19:00	0	0	1	0	0	1	3	0	1	0	0	4

Exertis, Burnley, Wednesday 16th November 2022

Access: Both Combined
Approach: Exertis, Burnley
GIA (sqm) 69337
GIA/100 (sqm) 693.37
15-minute increments

TIME	Observed Trips												Trip Rate											
	Inbound						Outbound						Inbound						Outbound					
	PED	CYCLE	CAR	LGV	HGV	TOTAL	PED	CYCLE	CAR	LGV	HGV	TOTAL	PED	CYCLE	CAR	LGV	HGV	TOTAL	PED	CYCLE	CAR	LGV	HGV	TOTAL
07:00 - 07:15	0	0	4	0	4	8	0	0	1	1	2	4	0.000	0.000	0.006	0.000	0.006	0	0.000	0.000	0.001	0.001	0.003	0
07:15 - 07:30	2	0	2	0	1	5	0	0	1	0	1	2	0.003	0.000	0.003	0.000	0.001	0	0.000	0.000	0.001	0.000	0.001	0
07:30 - 07:45	10	1	19	0	0	30	0	0	2	0	4	6	0.014	0.001	0.027	0.000	0.000	0	0.000	0.000	0.003	0.000	0.006	0
07:45 - 08:00	5	2	26	0	4	37	1	0	1	1	3	6	0.007	0.003	0.037	0.000	0.006	0	0.001	0.000	0.001	0.001	0.004	0
08:00 - 08:15	5	0	23	1	2	31	0	0	1	0	0	1	0.007	0.000	0.033	0.001	0.003	0	0.000	0.000	0.001	0.000	0.000	0
08:15 - 08:30	8	0	27	2	3	40	0	0	1	0	1	2	0.012	0.000	0.039	0.003	0.004	0	0.000	0.000	0.001	0.000	0.001	0
08:30 - 08:45	30	0	48	1	2	81	0	2	1	1	0	4	0.043	0.000	0.069	0.001	0.003	0	0.000	0.003	0.001	0.001	0.000	0
08:45 - 09:00	23	0	68	1	3	95	0	0	2	2	2	6	0.033	0.000	0.098	0.001	0.004	0	0.000	0.000	0.003	0.003	0.003	0
09:00 - 09:15	3	1	12	0	4	20	0	0	2	0	3	5	0.004	0.001	0.017	0.000	0.006	0	0.000	0.000	0.003	0.000	0.004	0
09:15 - 09:30	0	0	3	1	2	6	1	0	5	0	3	9	0.000	0.000	0.004	0.001	0.003	0	0.001	0.000	0.007	0.000	0.004	0
09:30 - 09:45	4	0	5	0	0	9	1	0	1	1	1	4	0.006	0.000	0.007	0.000	0.000	0	0.001	0.000	0.001	0.001	0.001	0
09:45 - 10:00	6	0	5	4	4	19	0	0	0	2	1	3	0.009	0.000	0.007	0.006	0.006	0	0.000	0.000	0.000	0.003	0.001	0
10:00 - 10:15	1	1	2	1	2	7	0	1	0	0	1	2	0.001	0.001	0.003	0.001	0.003	0	0.000	0.001	0.000	0.000	0.001	0
10:15 - 10:30	0	1	0	1	3	5	0	0	1	1	4	6	0.000	0.001	0.000	0.001	0.004	0	0.000	0.000	0.001	0.001	0.006	0
10:30 - 10:45	1	0	1	1	2	5	0	0	1	1	2	4	0.001	0.000	0.001	0.001	0.003	0	0.000	0.000	0.001	0.001	0.003	0
10:45 - 11:00	0	0	2	0	2	4	0	0	2	2	2	6	0.000	0.000	0.003	0.000	0.003	0	0.000	0.000	0.003	0.003	0.003	0
11:00 - 11:15	0	0	1	1	2	4	0	0	0	0	4	4	0.000	0.000	0.001	0.001	0.003	0	0.000	0.000	0.000	0.000	0.006	0
11:15 - 11:30	1	0	0	2	1	4	0	0	0	1	2	3	0.001	0.000	0.000	0.003	0.001	0	0.000	0.000	0.000	0.001	0.003	0
11:30 - 11:45	1	0	2	0	0	3	0	0	0	1	4	5	0.001	0.000	0.003	0.000	0.000	0	0.000	0.000	0.000	0.001	0.006	0
11:45 - 12:00	0	0	0	2	0	2	0	0	3	1	1	5	0.000	0.000	0.000	0.003	0.000	0	0.000	0.000	0.004	0.001	0.001	0
12:00 - 12:15	1	0	0	0	0	1	9	0	9	2	2	22	0.001	0.000	0.000	0.000	0.000	0	0.013	0.000	0.013	0.003	0.003	0
12:15 - 12:30	3	0	4	0	2	9	0	0	3	0	1	4	0.004	0.000	0.006	0.000	0.003	0	0.000	0.000	0.004	0.000	0.001	0
12:30 - 12:45	3	0	4	0	1	8	15	0	2	0	3	20	0.004	0.000	0.006	0.000	0.001	0	0.022	0.000	0.003	0.000	0.004	0
12:45 - 13:00	16	0	9	0	1	26	1	0	4	0	2	7	0.023	0.000	0.013	0.000	0.001	0	0.001	0.000	0.006	0.000	0.003	0
13:00 - 13:15	5	0	3	0	1	9	9	1	13	0	2	25	0.007	0.000	0.004	0.000	0.001	0	0.013	0.001	0.019	0.000	0.003	0
13:15 - 13:30	10	1	8	0	0	19	0	0	1	0	0	1	0.014	0.001	0.012	0.000	0.000	0	0.000	0.000	0.001	0.000	0.000	0
13:30 - 13:45	16	4	33	0	3	56	1	0	1	0	1	3	0.023	0.006	0.048	0.000	0.004	0	0.001	0.000	0.001	0.000	0.001	0
13:45 - 14:00	11	0	30	0	0	41	8	0	12	0	1	21	0.016	0.000	0.043	0.000	0.000	0	0.012	0.000	0.017	0.000	0.001	0
14:00 - 14:15	0	0	1	0	1	2	17	3	52	2	1	75	0.000	0.000	0.001	0.000	0.001	0	0.025	0.004	0.075	0.003	0.001	0
14:15 - 14:30	1	0	2	0	0	3	1	0	9	0	0	10	0.001	0.000	0.003	0.000	0.000	0	0.001	0.000	0.013	0.000	0.000	0
14:30 - 14:45	0	0	1	1	1	3	0	1	1	1	1	4	0.000	0.000	0.001	0.001	0.001	0	0.000	0.001	0.001	0.001	0.001	0
14:45 - 15:00	0	0	0	0	1	1	0	0	3	1	1	5	0.000	0.000	0.000	0.000	0.001	0	0.000	0.000	0.004	0.001	0.001	0
15:00 - 15:15	0	0	0	0	1	1	4	0	15	1	1	21	0.000	0.000	0.000	0.000	0.001	0	0.006	0.000	0.022	0.001	0.001	0
15:15 - 15:30	0	0	0	0	1	1	1	0	2	0	0	3	0.000	0.000	0.000	0.000	0.001	0	0.001	0.000	0.003	0.000	0.000	0
15:30 - 15:45	0	0	2	0	0	2	0	0	2	0	2	4	0.000	0.000	0.003	0.000	0.000	0	0.000	0.000	0.003	0.000	0.003	0
15:45 - 16:00	0	0	2	0	1	3	0	0	2	0	0	2	0.000	0.000	0.003	0.000	0.001	0	0.000	0.000	0.003	0.000	0.000	0
16:00 - 16:15	0	0	2	1	0	3	8	2	24	0	0	34	0.000	0.000	0.003	0.001	0.000	0	0.012	0.003	0.035	0.000	0.000	0
16:15 - 16:30	2	0	1	1	0	4	1	0	9	3	1	14	0.003	0.000	0.001	0.001	0.000	0	0.001	0.000	0.013	0.004	0.001	0
16:30 - 16:45	3	0	1	0	1	5	1	0	20	0	0	21	0.004	0.000	0.001	0.000	0.001	0	0.001	0.000	0.029	0.000	0.000	0
16:45 - 17:00	1	0	7	0	1	9	1	0	14	0	1	16	0.001	0.000	0.010	0.000	0.001	0	0.001	0.000	0.020	0.000	0.001	0
17:00 - 17:15	0	0	0	0	0	0	21	1	32	1	0	55	0.000	0.000	0.000	0.000	0.000	0	0.030	0.001	0.046	0.001	0.000	0
17:15 - 17:30	1	0	4	1	2	8	5	0	16	0	0	21	0.001	0.000	0.006	0.001	0.003	0	0.007	0.000	0.023	0.000	0.000	0
17:30 - 17:45	1	0	3	0	1	5	16	0	79	1	0	96	0.001	0.000	0.004	0.000	0.001	0	0.023	0.000	0.114	0.001	0.000	0
17:45 - 18:00	3	0	3	0	1	7	2	0	14	1	2	19	0.004	0.000	0.004	0.000	0.001	0	0.003	0.000	0.020	0.001	0.003	0
18:00 - 18:15	0	0	0	0	0	0	0	10	1	15	0	26	0.000	0.000	0.000	0.000	0.000	0	0.014	0.001	0.022	0.000	0.000	0
18:15 - 18:30	2	0	0	0	2	4	1	0	4	0	1	6	0.003	0.000	0.000	0.000	0.003	0	0.001	0.000	0.006	0.000	0.001	0
18:30 - 18:45	0	0	1	0	0	1	2	0	5	0	0	7	0.000	0.000	0.001	0.000	0.000	0	0.003	0.000	0.007	0.000	0.000	0
18:45 - 19:00	0	0	1	0	2	3	3	0	1	0	1	5	0.000	0.000	0.001	0.000	0.003	0	0.004	0.000	0.001	0.000	0.001	0
12-Hour	179	11	372	22	65	649	140	12	389	28	65	634	0.258	0.016	0.537	0.032	0.094	0.936	0.202	0.017	0.561	0.040	0.094	0.914

Exertis, Burnley, Wednesday 16th November 2022

Access: Both Combined
Approach: Extertis, Burnley
GIA (sqm) 69337
GIA/100 (sqm) 693.37
30-minute increments

TIME	Observed Trips												Trip Rate											
	Inbound						Outbound						Inbound						Outbound					
	PED	CYCLE	CAR	LGV	HGV	TOTAL	PED	CYCLE	CAR	LGV	HGV	TOTAL	PED	CYCLE	CAR	LGV	HGV	TOTAL	PED	CYCLE	CAR	LGV	HGV	TOTAL
07:00 - 07:30	2	0	6	0	5	13	0	0	2	1	3	6	0.003	0.000	0.009	0.000	0.007	0.019	0.000	0.000	0.003	0.001	0.004	0.009
07:15 - 07:45	12	1	21	0	1	35	0	0	3	0	5	8	0.017	0.001	0.030	0.000	0.001	0.050	0.000	0.000	0.004	0.000	0.007	0.012
07:30 - 08:00	15	3	45	0	4	67	1	0	3	1	7	12	0.022	0.004	0.065	0.000	0.006	0.097	0.001	0.000	0.004	0.001	0.010	0.017
07:45 - 08:15	10	2	49	1	6	68	1	0	2	1	3	7	0.014	0.003	0.071	0.001	0.009	0.098	0.001	0.000	0.003	0.001	0.004	0.010
08:00 - 08:30	13	0	50	3	5	71	0	0	2	0	1	3	0.019	0.000	0.072	0.004	0.007	0.102	0.000	0.000	0.003	0.000	0.001	0.004
08:15 - 08:45	38	0	75	3	5	121	0	2	2	1	1	6	0.055	0.000	0.108	0.004	0.007	0.175	0.000	0.003	0.003	0.001	0.001	0.009
08:30 - 09:00	53	0	116	2	5	176	0	2	3	3	2	10	0.076	0.000	0.167	0.003	0.007	0.254	0.000	0.003	0.004	0.004	0.003	0.014
08:45 - 09:15	26	1	80	1	7	115	0	0	4	2	5	11	0.037	0.001	0.115	0.001	0.010	0.166	0.000	0.000	0.006	0.003	0.007	0.016
09:00 - 09:30	3	1	15	1	6	26	1	0	7	0	6	14	0.004	0.001	0.022	0.001	0.009	0.037	0.001	0.000	0.010	0.000	0.009	0.020
09:15 - 09:45	4	0	8	1	2	15	2	0	6	1	4	13	0.006	0.000	0.012	0.001	0.003	0.022	0.003	0.000	0.009	0.001	0.006	0.019
09:30 - 10:00	10	0	10	4	4	28	1	0	1	3	2	7	0.014	0.000	0.014	0.006	0.006	0.040	0.001	0.000	0.001	0.004	0.003	0.010
09:45 - 10:15	7	1	7	5	6	26	0	1	0	2	2	5	0.010	0.001	0.010	0.007	0.009	0.037	0.000	0.001	0.000	0.003	0.003	0.007
10:00 - 10:30	1	2	2	2	5	12	0	1	1	1	5	8	0.001	0.003	0.003	0.003	0.007	0.017	0.000	0.001	0.001	0.001	0.007	0.012
10:15 - 10:45	1	1	1	2	5	10	0	0	2	2	6	10	0.001	0.001	0.001	0.003	0.007	0.014	0.000	0.000	0.003	0.003	0.009	0.014
10:30 - 11:00	1	0	3	1	4	9	0	0	3	3	4	10	0.001	0.000	0.004	0.001	0.006	0.013	0.000	0.000	0.004	0.004	0.006	0.014
10:45 - 11:15	0	0	3	1	4	8	0	0	2	2	6	10	0.000	0.000	0.004	0.001	0.006	0.012	0.000	0.000	0.003	0.003	0.009	0.014
11:00 - 11:30	1	0	1	3	3	8	0	0	0	1	6	7	0.001	0.000	0.001	0.004	0.004	0.012	0.000	0.000	0.000	0.001	0.009	0.010
11:15 - 11:45	2	0	2	2	1	7	0	0	0	2	6	8	0.003	0.000	0.003	0.003	0.001	0.010	0.000	0.000	0.000	0.003	0.009	0.012
11:30 - 12:00	1	0	2	2	0	5	0	0	3	2	5	10	0.001	0.000	0.003	0.003	0.000	0.007	0.000	0.000	0.004	0.003	0.007	0.014
11:45 - 12:15	1	0	0	2	0	3	9	0	12	3	3	27	0.001	0.000	0.000	0.003	0.000	0.004	0.013	0.000	0.017	0.004	0.004	0.039
12:00 - 12:30	4	0	4	0	2	10	9	0	12	2	3	26	0.006	0.000	0.006	0.000	0.003	0.014	0.013	0.000	0.017	0.003	0.004	0.037
12:15 - 12:45	6	0	8	0	3	17	15	0	5	0	4	24	0.009	0.000	0.012	0.000	0.004	0.025	0.022	0.000	0.007	0.000	0.006	0.035
12:30 - 13:00	19	0	13	0	2	34	16	0	6	0	5	27	0.027	0.000	0.019	0.000	0.003	0.049	0.023	0.000	0.009	0.000	0.007	0.039
12:45 - 13:15	21	0	12	0	2	35	10	1	17	0	4	32	0.030	0.000	0.017	0.000	0.003	0.050	0.014	0.001	0.025	0.000	0.006	0.046
13:00 - 13:30	15	1	11	0	1	28	9	1	14	0	2	26	0.022	0.001	0.016	0.000	0.001	0.040	0.013	0.001	0.020	0.000	0.003	0.037
13:15 - 13:45	26	5	41	0	3	75	1	0	2	0	1	4	0.037	0.007	0.059	0.000	0.004	0.108	0.001	0.000	0.003	0.000	0.001	0.006
13:30 - 14:00	27	4	63	0	3	97	9	0	13	0	2	24	0.039	0.006	0.091	0.000	0.004	0.140	0.013	0.000	0.019	0.000	0.003	0.035
13:45 - 14:15	11	0	31	0	1	43	25	3	64	2	2	96	0.016	0.000	0.045	0.000	0.001	0.062	0.036	0.004	0.092	0.003	0.003	0.138
14:00 - 14:30	1	0	3	0	1	5	18	3	61	2	1	85	0.001	0.000	0.004	0.000	0.001	0.007	0.026	0.004	0.088	0.003	0.001	0.123
14:15 - 14:45	1	0	3	1	1	6	1	1	10	1	1	14	0.001	0.000	0.004	0.001	0.001	0.009	0.001	0.001	0.014	0.001	0.001	0.020
14:30 - 15:00	0	0	1	1	2	4	0	1	4	2	2	9	0.000	0.000	0.001	0.001	0.003	0.006	0.000	0.001	0.006	0.003	0.003	0.013
14:45 - 15:15	0	0	0	0	2	2	4	0	18	2	2	26	0.000	0.000	0.000	0.000	0.003	0.003	0.006	0.000	0.026	0.003	0.003	0.037
15:00 - 15:30	0	0	0	0	2	2	5	0	17	1	1	24	0.000	0.000	0.000	0.000	0.003	0.003	0.007	0.000	0.025	0.001	0.001	0.035
15:15 - 15:45	0	0	2	0	1	3	1	0	4	0	2	7	0.000	0.000	0.003	0.000	0.001	0.004	0.001	0.000	0.006	0.000	0.003	0.010
15:30 - 16:00	0	0	4	0	1	5	0	0	4	0	2	6	0.000	0.000	0.006	0.000	0.001	0.007	0.000	0.000	0.006	0.000	0.003	0.009
15:45 - 16:15	0	0	4	1	1	6	8	2	26	0	0	36	0.000	0.000	0.006	0.001	0.001	0.009	0.012	0.003	0.037	0.000	0.000	0.052
16:00 - 16:30	2	0	3	2	0	7	9	2	33	3	1	48	0.003	0.000	0.004	0.003	0.000	0.010	0.013	0.003	0.048	0.004	0.001	0.069
16:15 - 16:45	5	0	2	1	1	9	2	0	29	3	1	35	0.007	0.000	0.003	0.001	0.001	0.013	0.003	0.000	0.042	0.004	0.001	0.050
16:30 - 17:00	4	0	8	0	2	14	2	0	34	0	1	37	0.006	0.000	0.012	0.000	0.003	0.020	0.003	0.000	0.049	0.000	0.001	0.053
16:45 - 17:15	1	0	7	0	1	9	22	1	46	1	1	71	0.001	0.000	0.010	0.000	0.001	0.013	0.032	0.001	0.066	0.001	0.001	0.102
17:00 - 17:30	1	0	4	1	2	8	26	1	48	1	0	76	0.001	0.000	0.006	0.001	0.003	0.012	0.037	0.001	0.069	0.001	0.000	0.110
17:15 - 17:45	2	0	7	1	3	13	21	0	95	1	0	117	0.003	0.000	0.010	0.001	0.004	0.019	0.030	0.000	0.137	0.001	0.000	0.169
17:30 - 18:00	4	0	6	0	2	12	18	0	93	2	2	115	0.006	0.000	0.009	0.000	0.003	0.017	0.026	0.000	0.134	0.003	0.003	0.166
17:45 - 18:15	3	0	3	0	1	7	12	1	29	1	2	45	0.004	0.000	0.004	0.000	0.001	0.010	0.017	0.001	0.042	0.001	0.003	0.065
18:00 - 18:30	2	0	0	0	2	4	11	1	19	0	1	32	0.003	0.000	0.000	0.000	0.003	0.006	0.016	0.001	0.027	0.000	0.001	0.046
18:15 - 18:45	2	0	1	0	2	5	3	0	9	0	1	13	0.003	0.000	0.001	0.000	0.003	0.007	0.004	0.000	0.013	0.000	0.001	0.019
18:30 - 19:00	0	0	2	0	2	4	5	0	6	0	1	12	0.000	0.000	0.003	0.000	0.003	0.006	0.007	0.000	0.009	0.000	0.001	0.017
12-Hour	358	22	739	44	124	1287	277	24	776	55	127	1259	0.516	0.032	1.066	0.063	0.179	1.856	0.399	0.035	1.119	0.079	0.183	1.816

Great Bear, Skelmersdale, Wednesday 16th November 2022

Approach: Great Bear, Skelmersdale
 GIA (sqm) 48154
 GIA/100 (sqm) 481.54
 15-minute increments

TIME	Observed Trips												Trip Rate											
	Inbound						Outbound						Inbound						Outbound					
	PED	CYCLE	CAR	LGV	HGV	TOTAL	PED	CYCLE	CAR	LGV	HGV	TOTAL	PED	CYCLE	CAR	LGV	HGV	TOTAL	PED	CYCLE	CAR	LGV	HGV	TOTAL
07:00 - 07:15	1	0	0	0	2	3	0	0	0	0	4	4	0.002	0.000	0.000	0.000	0.004	0	0.000	0.000	0.000	0.000	0.008	0
07:15 - 07:30	0	0	4	0	2	6	0	0	1	0	1	2	0.000	0.000	0.008	0.000	0.004	0	0.000	0.000	0.002	0.000	0.002	0
07:30 - 07:45	0	0	6	1	0	7	0	0	2	0	1	3	0.000	0.000	0.012	0.002	0.000	0	0.000	0.000	0.004	0.000	0.002	0
07:45 - 08:00	1	0	2	0	2	5	1	0	2	0	3	6	0.002	0.000	0.004	0.000	0.004	0	0.002	0.000	0.004	0.000	0.006	0
08:00 - 08:15	1	0	4	2	1	8	0	0	0	0	2	2	0.002	0.000	0.008	0.004	0.002	0	0.000	0.000	0.000	0.000	0.004	0
08:15 - 08:30	0	0	4	1	2	7	0	0	0	0	0	0	0.000	0.000	0.008	0.002	0.004	0	0.000	0.000	0.000	0.000	0.000	0
08:30 - 08:45	0	0	6	0	2	8	0	0	1	0	2	3	0.000	0.000	0.012	0.000	0.004	0	0.000	0.000	0.002	0.000	0.004	0
08:45 - 09:00	0	0	4	3	1	8	1	0	1	1	4	7	0.000	0.000	0.008	0.006	0.002	0	0.002	0.000	0.002	0.002	0.008	0
09:00 - 09:15	0	0	2	1	2	5	1	0	0	0	2	3	0.000	0.000	0.004	0.002	0.004	0	0.002	0.000	0.000	0.000	0.004	0
09:15 - 09:30	0	0	0	0	2	2	0	0	2	1	1	4	0.000	0.000	0.000	0.000	0.004	0	0.000	0.000	0.004	0.002	0.002	0
09:30 - 09:45	0	0	4	0	1	5	1	0	0	0	1	2	0.000	0.000	0.008	0.000	0.002	0	0.002	0.000	0.000	0.000	0.002	0
09:45 - 10:00	2	0	2	0	1	5	1	0	0	0	3	4	0.004	0.000	0.004	0.000	0.002	0	0.002	0.000	0.000	0.000	0.006	0
10:00 - 10:15	1	0	1	0	0	2	1	0	1	0	1	3	0.002	0.000	0.002	0.000	0.000	0	0.002	0.000	0.002	0.000	0.002	0
10:15 - 10:30	0	0	0	0	5	5	1	0	0	0	2	3	0.000	0.000	0.000	0.000	0.010	0	0.002	0.000	0.000	0.000	0.004	0
10:30 - 10:45	1	0	1	0	1	3	1	0	0	1	2	4	0.002	0.000	0.002	0.000	0.002	0	0.002	0.000	0.000	0.002	0.004	0
10:45 - 11:00	1	0	2	2	5	10	0	0	2	0	2	4	0.002	0.000	0.004	0.004	0.010	0	0.000	0.000	0.004	0.000	0.004	0
11:00 - 11:15	0	0	0	0	3	3	1	0	2	1	3	7	0.000	0.000	0.000	0.000	0.006	0	0.002	0.000	0.004	0.002	0.006	0
11:15 - 11:30	0	0	0	1	1	2	1	0	4	1	3	9	0.000	0.000	0.000	0.002	0.002	0	0.002	0.000	0.008	0.002	0.006	0
11:30 - 11:45	0	0	0	1	0	1	1	0	1	2	1	5	0.000	0.000	0.000	0.002	0.000	0	0.002	0.000	0.002	0.004	0.002	0
11:45 - 12:00	0	0	2	0	1	3	1	0	0	0	3	4	0.000	0.000	0.004	0.000	0.002	0	0.002	0.000	0.000	0.000	0.006	0
12:00 - 12:15	0	0	0	0	0	0	0	0	3	0	1	4	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.006	0.000	0.002	0
12:15 - 12:30	0	0	1	0	2	3	0	0	2	1	1	4	0.000	0.000	0.002	0.000	0.004	0	0.000	0.000	0.004	0.002	0.002	0
12:30 - 12:45	0	0	2	0	2	4	0	0	0	2	1	3	0.000	0.000	0.004	0.000	0.004	0	0.000	0.000	0.000	0.004	0.002	0
12:45 - 13:00	0	0	5	0	0	5	0	0	2	0	2	4	0.000	0.000	0.010	0.000	0.000	0	0.000	0.000	0.004	0.000	0.004	0
13:00 - 13:15	0	0	2	0	0	2	0	0	2	1	1	4	0.000	0.000	0.004	0.000	0.000	0	0.000	0.000	0.004	0.002	0.002	0
13:15 - 13:30	0	0	13	1	3	17	0	0	1	0	2	3	0.000	0.000	0.027	0.002	0.006	0	0.000	0.000	0.002	0.000	0.004	0
13:30 - 13:45	0	0	6	1	3	10	1	0	3	1	0	5	0.000	0.000	0.012	0.002	0.006	0	0.002	0.000	0.006	0.002	0.000	0
13:45 - 14:00	0	0	6	0	2	8	0	0	1	0	3	4	0.000	0.000	0.012	0.000	0.004	0	0.000	0.000	0.002	0.000	0.006	0
14:00 - 14:15	0	0	1	1	5	7	1	1	35	0	2	39	0.000	0.000	0.002	0.002	0.010	0	0.002	0.002	0.073	0.000	0.004	0
14:15 - 14:30	0	0	2	2	1	5	2	0	5	0	2	9	0.000	0.000	0.004	0.004	0.002	0	0.004	0.000	0.010	0.000	0.004	0
14:30 - 14:45	0	0	1	0	3	4	1	0	3	1	3	8	0.000	0.000	0.002	0.000	0.006	0	0.002	0.000	0.006	0.002	0.006	0
14:45 - 15:00	0	0	0	1	2	3	1	1	2	2	1	7	0.000	0.000	0.000	0.002	0.004	0	0.002	0.002	0.004	0.004	0.002	0
15:00 - 15:15	0	0	1	0	1	2	1	0	5	0	2	8	0.000	0.000	0.002	0.000	0.002	0	0.002	0.000	0.010	0.000	0.004	0
15:15 - 15:30	0	0	2	0	3	5	1	0	4	1	4	10	0.000	0.000	0.004	0.000	0.006	0	0.002	0.000	0.008	0.002	0.008	0
15:30 - 15:45	0	0	0	0	1	1	0	0	3	1	0	4	0.000	0.000	0.000	0.000	0.002	0	0.000	0.000	0.006	0.002	0.000	0
15:45 - 16:00	1	0	0	0	2	3	0	0	5	1	3	9	0.002	0.000	0.000	0.000	0.004	0	0.000	0.000	0.010	0.002	0.006	0
16:00 - 16:15	0	0	2	0	2	4	2	0	9	0	1	12	0.000	0.000	0.004	0.000	0.004	0	0.004	0.000	0.019	0.000	0.002	0
16:15 - 16:30	0	0	3	0	1	4	2	0	5	0	1	8	0.000	0.000	0.006	0.000	0.002	0	0.004	0.000	0.010	0.000	0.002	0
16:30 - 16:45	0	0	1	1	3	5	1	0	2	0	0	3	0.000	0.000	0.002	0.002	0.006	0	0.002	0.000	0.004	0.000	0.000	0
16:45 - 17:00	0	0	3	0	1	4	1	0	4	1	2	8	0.000	0.000	0.006	0.000	0.002	0	0.002	0.000	0.008	0.002	0.004	0
17:00 - 17:15	0	0	6	0	2	8	0	0	6	0	1	7	0.000	0.000	0.012	0.000	0.004	0	0.000	0.000	0.012	0.000	0.002	0
17:15 - 17:30	1	0	4	1	1	7	0	0	4	0	2	6	0.002	0.000	0.008	0.002	0.002	0	0.000	0.000	0.008	0.000	0.004	0
17:30 - 17:45	1	0	8	0	0	9	0	0	4	0	1	5	0.002	0.000	0.017	0.000	0.000	0	0.000	0.000	0.008	0.000	0.002	0
17:45 - 18:00	0	0	4	0	1	5	0	0	2	1	1	4	0.000	0.000	0.008	0.000	0.002	0	0.000	0.000	0.004	0.002	0.002	0
18:00 - 18:15	0	0	1	0	0	1	0	0	17	0	2	19	0.000	0.000	0.002	0.000	0.000	0	0.000	0.000	0.035	0.000	0.004	0
18:15 - 18:30	0	0	1	0	1	2	0	0	0	0	1	1	0.000	0.000	0.002	0.000	0.002	0	0.000	0.000	0.000	0.000	0.002	0
18:30 - 18:45	0	0	2	0	1	3	0	0	1	0	0	1	0.000	0.000	0.004	0.000	0.002	0	0.000	0.000	0.002	0.000	0.000	0
18:45 - 19:00	0	0	2	0	0	2	0	0	0	0	1	1	0.000	0.000	0.004	0.000	0.000	0	0.000	0.000	0.000	0.000	0.002	0
12-Hour	11	0	123	20	77	231	26	2	149	20	82	279	0.023	0.000	0.255	0.042	0.160	0.480	0.054	0.004	0.309	0.042	0.170	0.579

Great Bear, Skelmersdale, Wednesday 16th November 2022

Approach: Great Bear, Skelmersdale
 GIA (sqm) 48154
 GIA/100 (sqm) 481.54
 30-minute increments

TIME	Observed Trips												Trip Rate											
	Inbound						Outbound						Inbound						Outbound					
	PED	CYCLE	CAR	LGV	HGV	TOTAL	PED	CYCLE	CAR	LGV	HGV	TOTAL	PED	CYCLE	CAR	LGV	HGV	TOTAL	PED	CYCLE	CAR	LGV	HGV	TOTAL
07:00 - 07:30	1	0	4	0	4	9	0	0	1	0	5	6	0.002	0.000	0.008	0.000	0.008	0.019	0.000	0.000	0.002	0.000	0.010	0.012
07:15 - 07:45	0	0	10	1	2	13	0	0	3	0	2	5	0.000	0.000	0.021	0.002	0.004	0.027	0.000	0.000	0.006	0.000	0.004	0.010
07:30 - 08:00	1	0	8	1	2	12	1	0	4	0	4	9	0.002	0.000	0.017	0.002	0.004	0.025	0.002	0.000	0.008	0.000	0.008	0.019
07:45 - 08:15	2	0	6	2	3	13	1	0	2	0	5	8	0.004	0.000	0.012	0.004	0.006	0.027	0.002	0.000	0.004	0.000	0.010	0.017
08:00 - 08:30	1	0	8	3	3	15	0	0	0	0	2	2	0.002	0.000	0.017	0.006	0.006	0.031	0.000	0.000	0.000	0.000	0.004	0.004
08:15 - 08:45	0	0	10	1	4	15	0	0	1	0	2	3	0.000	0.000	0.021	0.002	0.008	0.031	0.000	0.000	0.002	0.000	0.004	0.006
08:30 - 09:00	0	0	10	3	3	16	1	0	2	1	6	10	0.000	0.000	0.021	0.006	0.006	0.033	0.002	0.000	0.004	0.002	0.012	0.021
08:45 - 09:15	0	0	6	4	3	13	2	0	1	1	6	10	0.000	0.000	0.012	0.008	0.006	0.027	0.004	0.000	0.002	0.002	0.012	0.021
09:00 - 09:30	0	0	2	1	4	7	1	0	2	1	3	7	0.000	0.000	0.004	0.002	0.008	0.015	0.002	0.000	0.004	0.002	0.006	0.015
09:15 - 09:45	0	0	4	0	3	7	1	0	2	1	2	6	0.000	0.000	0.008	0.000	0.006	0.015	0.002	0.000	0.004	0.002	0.004	0.012
09:30 - 10:00	2	0	6	0	2	10	2	0	0	0	4	6	0.004	0.000	0.012	0.000	0.004	0.021	0.004	0.000	0.000	0.000	0.008	0.012
09:45 - 10:15	3	0	3	0	1	7	2	0	1	0	4	7	0.006	0.000	0.006	0.000	0.002	0.015	0.004	0.000	0.002	0.000	0.008	0.015
10:00 - 10:30	1	0	1	0	5	7	2	0	1	0	3	6	0.002	0.000	0.002	0.000	0.010	0.015	0.004	0.000	0.002	0.000	0.006	0.012
10:15 - 10:45	1	0	1	0	6	8	2	0	0	1	4	7	0.002	0.000	0.002	0.000	0.012	0.017	0.004	0.000	0.000	0.002	0.008	0.015
10:30 - 11:00	2	0	3	2	6	13	1	0	2	1	4	8	0.004	0.000	0.006	0.004	0.012	0.027	0.002	0.000	0.004	0.002	0.008	0.017
10:45 - 11:15	1	0	2	2	8	13	1	0	4	1	5	11	0.002	0.000	0.004	0.004	0.017	0.027	0.002	0.000	0.008	0.002	0.010	0.023
11:00 - 11:30	0	0	0	1	4	5	2	0	6	2	6	16	0.000	0.000	0.000	0.002	0.008	0.010	0.004	0.000	0.012	0.004	0.012	0.033
11:15 - 11:45	0	0	0	2	1	3	2	0	5	3	4	14	0.000	0.000	0.000	0.004	0.002	0.006	0.004	0.000	0.010	0.006	0.008	0.029
11:30 - 12:00	0	0	2	1	1	4	2	0	1	2	4	9	0.000	0.000	0.004	0.002	0.002	0.008	0.004	0.000	0.002	0.004	0.008	0.019
11:45 - 12:15	0	0	2	0	1	3	1	0	3	0	4	8	0.000	0.000	0.004	0.000	0.002	0.006	0.002	0.000	0.006	0.000	0.008	0.017
12:00 - 12:30	0	0	1	0	2	3	0	0	5	1	2	8	0.000	0.000	0.002	0.000	0.004	0.006	0.000	0.000	0.010	0.002	0.004	0.017
12:15 - 12:45	0	0	3	0	4	7	0	0	2	3	2	7	0.000	0.000	0.006	0.000	0.008	0.015	0.000	0.000	0.004	0.006	0.004	0.015
12:30 - 13:00	0	0	7	0	2	9	0	0	2	2	3	7	0.000	0.000	0.015	0.000	0.004	0.019	0.000	0.000	0.004	0.004	0.006	0.015
12:45 - 13:15	0	0	7	0	0	7	0	0	4	1	3	8	0.000	0.000	0.015	0.000	0.000	0.015	0.000	0.000	0.008	0.002	0.006	0.017
13:00 - 13:30	0	0	15	1	3	19	0	0	3	1	3	7	0.000	0.000	0.031	0.002	0.006	0.039	0.000	0.000	0.006	0.002	0.006	0.015
13:15 - 13:45	0	0	19	2	6	27	1	0	4	1	2	8	0.000	0.000	0.039	0.004	0.012	0.056	0.002	0.000	0.008	0.002	0.004	0.017
13:30 - 14:00	0	0	12	1	5	18	1	0	4	1	3	9	0.000	0.000	0.025	0.002	0.010	0.037	0.002	0.000	0.008	0.002	0.006	0.019
13:45 - 14:15	0	0	7	1	7	15	1	1	36	0	5	43	0.000	0.000	0.015	0.002	0.015	0.031	0.002	0.002	0.075	0.000	0.010	0.089
14:00 - 14:30	0	0	3	3	6	12	3	1	40	0	4	48	0.000	0.000	0.006	0.006	0.012	0.025	0.006	0.002	0.083	0.000	0.008	0.100
14:15 - 14:45	0	0	3	2	4	9	3	0	8	1	5	17	0.000	0.000	0.006	0.004	0.008	0.019	0.006	0.000	0.017	0.002	0.010	0.035
14:30 - 15:00	0	0	1	1	5	7	2	1	5	3	4	15	0.000	0.000	0.002	0.002	0.010	0.015	0.004	0.002	0.010	0.006	0.008	0.031
14:45 - 15:15	0	0	1	1	3	5	2	1	7	2	3	15	0.000	0.000	0.002	0.002	0.006	0.010	0.004	0.002	0.015	0.004	0.006	0.031
15:00 - 15:30	0	0	3	0	4	7	2	0	9	1	6	18	0.000	0.000	0.006	0.000	0.008	0.015	0.004	0.000	0.019	0.002	0.012	0.037
15:15 - 15:45	0	0	2	0	4	6	1	0	7	2	4	14	0.000	0.000	0.004	0.000	0.008	0.012	0.002	0.000	0.015	0.004	0.008	0.029
15:30 - 16:00	1	0	0	0	3	4	0	0	8	2	3	13	0.002	0.000	0.000	0.000	0.006	0.008	0.000	0.000	0.017	0.004	0.006	0.027
15:45 - 16:15	1	0	2	0	4	7	2	0	14	1	4	21	0.002	0.000	0.004	0.000	0.008	0.015	0.004	0.000	0.029	0.002	0.008	0.044
16:00 - 16:30	0	0	5	0	3	8	4	0	14	0	2	20	0.000	0.000	0.010	0.000	0.006	0.017	0.008	0.000	0.029	0.000	0.004	0.042
16:15 - 16:45	0	0	4	1	4	9	3	0	7	0	1	11	0.000	0.000	0.008	0.002	0.008	0.019	0.006	0.000	0.015	0.000	0.002	0.023
16:30 - 17:00	0	0	4	1	4	9	2	0	6	1	2	11	0.000	0.000	0.008	0.002	0.008	0.019	0.004	0.000	0.012	0.002	0.004	0.023
16:45 - 17:15	0	0	9	0	3	12	1	0	10	1	3	15	0.000	0.000	0.019	0.000	0.006	0.025	0.002	0.000	0.021	0.002	0.006	0.031
17:00 - 17:30	1	0	10	1	3	15	0	0	10	0	3	13	0.002	0.000	0.021	0.002	0.006	0.031	0.000	0.000	0.021	0.000	0.006	0.027
17:15 - 17:45	2	0	12	1	1	16	0	0	8	0	3	11	0.004	0.000	0.025	0.002	0.002	0.033	0.000	0.000	0.017	0.000	0.006	0.023
17:30 - 18:00	1	0	12	0	1	14	0	0	6	1	2	9	0.002	0.000	0.025	0.000	0.002	0.029	0.000	0.000	0.012	0.002	0.004	0.019
17:45 - 18:15	0	0	5	0	1	6	0	0	19	1	3	23	0.000	0.000	0.010	0.000	0.002	0.012	0.000	0.000	0.039	0.002	0.006	0.048
18:00 - 18:30	0	0	2	0	1	3	0	0	17	0	3	20	0.000	0.000	0.004	0.000	0.002	0.006	0.000	0.000	0.035	0.000	0.006	0.042
18:15 - 18:45	0	0	3	0	2	5	0	0	1	0	1	2	0.000	0.000	0.006	0.000	0.004	0.010	0.000	0.000	0.002	0.000	0.002	0.004
18:30 - 19:00	0	0	4	0	1	5	0	0	1	0	1	2	0.000	0.000	0.008	0.000	0.002	0.010	0.000	0.000	0.002	0.000	0.002	0.004
12-Hour	21	0	244	40	152	457	52	4	298	40	159	553	0.044	0.000	0.507	0.083	0.316	0.949	0.108	0.008	0.619	0.083	0.330	1.148

James Hall Spar, Preston, Wednesday 16th November 2022

Approach: James Hall Spar, Preston
 GIA (sqm) 52386
 GIA/100 (sqm) 523.86
 15-minute increments

	Observed Trips												Trip Rate											
	Inbound						Outbound						Inbound						Outbound					
TIME	PED	CYCLE	CAR	LGV	HGV	TOTAL	PED	CYCLE	CAR	LGV	HGV	TOTAL	PED	CYCLE	CAR	LGV	HGV	TOTAL	PED	CYCLE	CAR	LGV	HGV	TOTAL
07:00 - 07:15	0	0	18	1	2	21	0	0	5	1	2	8	0.000	0.000	0.034	0.002	0.004	0	0.000	0.000	0.010	0.002	0.004	0
07:15 - 07:30	3	0	29	0	3	35	0	0	1	0	4	5	0.006	0.000	0.055	0.000	0.006	0	0.000	0.000	0.002	0.000	0.008	0
07:30 - 07:45	3	0	11	1	2	17	0	0	1	0	0	1	0.006	0.000	0.021	0.002	0.004	0	0.000	0.000	0.002	0.000	0.000	0
07:45 - 08:00	0	0	40	3	4	47	0	0	3	2	6	11	0.000	0.000	0.076	0.006	0.008	0	0.000	0.000	0.006	0.004	0.011	0
08:00 - 08:15	0	0	61	3	0	64	0	0	2	2	2	6	0.000	0.000	0.116	0.006	0.000	0	0.000	0.000	0.004	0.004	0.004	0
08:15 - 08:30	0	0	43	2	7	52	0	0	2	2	3	7	0.000	0.000	0.082	0.004	0.013	0	0.000	0.000	0.004	0.004	0.006	0
08:30 - 08:45	3	0	23	1	0	27	0	0	2	0	0	2	0.006	0.000	0.044	0.002	0.000	0	0.000	0.000	0.004	0.000	0.000	0
08:45 - 09:00	5	3	14	1	1	24	1	0	2	0	4	7	0.010	0.006	0.027	0.002	0.002	0	0.002	0.000	0.004	0.000	0.008	0
09:00 - 09:15	3	0	10	2	6	21	4	0	1	1	3	9	0.006	0.000	0.019	0.004	0.011	0	0.008	0.000	0.002	0.002	0.006	0
09:15 - 09:30	2	1	5	1	3	12	1	0	1	1	6	9	0.004	0.002	0.010	0.002	0.006	0	0.002	0.000	0.002	0.002	0.011	0
09:30 - 09:45	0	0	0	1	5	6	1	0	1	0	2	4	0.000	0.000	0.000	0.002	0.010	0	0.002	0.000	0.002	0.000	0.004	0
09:45 - 10:00	0	0	3	3	7	13	0	0	5	4	3	12	0.000	0.000	0.006	0.006	0.013	0	0.000	0.000	0.010	0.008	0.006	0
10:00 - 10:15	0	0	2	1	5	8	0	0	3	0	4	7	0.000	0.000	0.004	0.002	0.010	0	0.000	0.000	0.006	0.000	0.008	0
10:15 - 10:30	2	0	3	4	3	12	1	0	0	1	3	5	0.004	0.000	0.006	0.008	0.006	0	0.002	0.000	0.000	0.002	0.006	0
10:30 - 10:45	1	1	5	1	6	14	0	0	1	4	7	12	0.002	0.002	0.010	0.002	0.011	0	0.000	0.000	0.002	0.008	0.013	0
10:45 - 11:00	1	0	0	0	7	8	4	0	2	0	5	11	0.002	0.000	0.000	0.000	0.013	0	0.008	0.000	0.004	0.000	0.010	0
11:00 - 11:15	0	0	2	1	5	8	0	0	6	2	6	14	0.000	0.000	0.004	0.002	0.010	0	0.000	0.000	0.011	0.004	0.011	0
11:15 - 11:30	0	0	9	0	2	11	3	0	5	1	7	16	0.000	0.000	0.017	0.000	0.004	0	0.006	0.000	0.010	0.002	0.013	0
11:30 - 11:45	0	0	5	1	1	7	2	0	3	1	6	12	0.000	0.000	0.010	0.002	0.002	0	0.004	0.000	0.006	0.002	0.011	0
11:45 - 12:00	0	0	3	1	5	9	0	0	4	2	3	9	0.000	0.000	0.006	0.002	0.010	0	0.000	0.000	0.008	0.004	0.006	0
12:00 - 12:15	5	0	0	0	4	9	9	0	14	2	5	30	0.010	0.000	0.000	0.000	0.008	0	0.017	0.000	0.027	0.004	0.010	0
12:15 - 12:30	10	0	4	2	4	20	6	0	9	1	5	21	0.019	0.000	0.008	0.004	0.008	0	0.011	0.000	0.017	0.002	0.010	0
12:30 - 12:45	9	0	10	2	3	24	12	0	14	1	2	29	0.017	0.000	0.019	0.004	0.006	0	0.023	0.000	0.027	0.002	0.004	0
12:45 - 13:00	5	0	9	0	6	20	16	0	11	0	2	29	0.010	0.000	0.017	0.000	0.011	0	0.031	0.000	0.021	0.000	0.004	0
13:00 - 13:15	7	0	12	0	8	27	3	0	14	0	3	20	0.013	0.000	0.023	0.000	0.015	0	0.006	0.000	0.027	0.000	0.006	0
13:15 - 13:30	4	0	13	0	13	30	3	1	5	2	3	14	0.008	0.000	0.025	0.000	0.025	0	0.006	0.002	0.010	0.004	0.006	0
13:30 - 13:45	5	0	14	1	9	29	2	1	6	0	8	17	0.010	0.000	0.027	0.002	0.017	0	0.004	0.002	0.011	0.000	0.015	0
13:45 - 14:00	5	1	6	1	13	26	4	0	7	0	7	18	0.010	0.002	0.011	0.002	0.025	0	0.008	0.000	0.013	0.000	0.013	0
14:00 - 14:15	0	0	3	6	10	19	1	0	13	3	6	23	0.000	0.000	0.006	0.011	0.019	0	0.002	0.000	0.025	0.006	0.011	0
14:15 - 14:30	0	1	6	2	6	15	10	1	19	6	5	41	0.000	0.002	0.011	0.004	0.011	0	0.019	0.002	0.036	0.011	0.010	0
14:30 - 14:45	0	0	1	1	14	16	14	2	25	2	4	47	0.000	0.000	0.002	0.002	0.027	0	0.027	0.004	0.048	0.004	0.008	0
14:45 - 15:00	1	0	3	1	7	12	1	3	15	2	6	27	0.002	0.000	0.006	0.002	0.013	0	0.002	0.006	0.029	0.004	0.011	0
15:00 - 15:15	3	0	3	1	6	13	2	5	25	0	8	40	0.006	0.000	0.006	0.002	0.011	0	0.004	0.010	0.048	0.000	0.015	0
15:15 - 15:30	2	0	2	1	5	10	1	1	15	0	3	20	0.004	0.000	0.004	0.002	0.010	0	0.002	0.002	0.029	0.000	0.006	0
15:30 - 15:45	4	0	2	0	5	11	1	2	24	1	0	28	0.008	0.000	0.004	0.000	0.010	0	0.002	0.004	0.046	0.002	0.000	0
15:45 - 16:00	2	0	2	1	5	10	2	0	8	2	3	15	0.004	0.000	0.004	0.002	0.010	0	0.004	0.000	0.015	0.004	0.006	0
16:00 - 16:15	0	0	10	0	4	14	1	0	19	4	3	27	0.000	0.000	0.019	0.000	0.008	0	0.002	0.000	0.036	0.008	0.006	0
16:15 - 16:30	1	0	8	0	3	12	13	0	53	1	0	67	0.002	0.000	0.015	0.000	0.006	0	0.025	0.000	0.101	0.002	0.000	0
16:30 - 16:45	0	1	8	2	2	13	4	3	50	2	0	59	0.000	0.002	0.015	0.004	0.004	0	0.008	0.006	0.095	0.004	0.000	0
16:45 - 17:00	1	0	5	3	1	10	1	0	15	0	1	17	0.002	0.000	0.010	0.006	0.002	0	0.002	0.000	0.029	0.000	0.002	0
17:00 - 17:15	1	2	8	0	0	11	4	0	79	2	3	88	0.002	0.004	0.015	0.000	0.000	0	0.008	0.000	0.151	0.004	0.006	0
17:15 - 17:30	4	0	10	0	1	15	2	1	43	0	1	47	0.008	0.000	0.019	0.000	0.002	0	0.004	0.002	0.082	0.000	0.002	0
17:30 - 17:45	5	2	5	1	1	14	7	2	36	0	3	48	0.010	0.004	0.010	0.002	0.002	0	0.013	0.004	0.069	0.000	0.006	0
17:45 - 18:00	0	0	7	1	1	9	4	0	23	1	1	29	0.000	0.000	0.013	0.002	0.002	0	0.008	0.000	0.044	0.002	0.002	0
18:00 - 18:15	0	0	0	0	1	1	2	3	10	0	0	15	0.000	0.000	0.000	0.000	0.002	0	0.004	0.006	0.019	0.000	0.000	0
18:15 - 18:30	0	0	3	0	0	3	1	1	6	1	0	9	0.000	0.000	0.006	0.000	0.000	0	0.002	0.002	0.011	0.002	0.000	0
18:30 - 18:45	0	0	1	0	0	1	1	2	3	1	1	8	0.000	0.000	0.002	0.000	0.000	0	0.002	0.004	0.006	0.002	0.002	0
18:45 - 19:00	0	0	0	0	1	1	0	1	5	0	0	6	0.000	0.000	0.000	0.000	0.002	0	0.000	0.002	0.010	0.000	0.000	0
12-Hour	97	12	441	54	207	811	144	29	616	58	159	1006	0.185	0.023	0.842	0.103	0.395	1.548	0.275	0.055	1.176	0.111	0.304	1.920

James Hall Spar, Preston, Wednesday 16th November 2022

Approach: James Hall Spar, Preston
GIA (sqm) 52386
GIA/100 (sqm) 523.86
30-minute increments

TIME	Observed Trips												Trip Rate											
	Inbound						Outbound						Inbound						Outbound					
	PED	CYCLE	CAR	LGV	HGV	TOTAL	PED	CYCLE	CAR	LGV	HGV	TOTAL	PED	CYCLE	CAR	LGV	HGV	TOTAL	PED	CYCLE	CAR	LGV	HGV	TOTAL
07:00 - 07:30	3	0	47	1	5	56	0	0	6	1	6	13	0.006	0.000	0.090	0.002	0.010	0.107	0.000	0.000	0.011	0.002	0.011	0.025
07:15 - 07:45	6	0	40	1	5	52	0	0	2	0	4	6	0.011	0.000	0.076	0.002	0.010	0.099	0.000	0.000	0.004	0.000	0.008	0.011
07:30 - 08:00	3	0	51	4	6	64	0	0	4	2	6	12	0.006	0.000	0.097	0.008	0.011	0.122	0.000	0.000	0.008	0.004	0.011	0.023
07:45 - 08:15	0	0	101	6	4	111	0	0	5	4	8	17	0.000	0.000	0.193	0.011	0.008	0.212	0.000	0.000	0.010	0.008	0.015	0.032
08:00 - 08:30	0	0	104	5	7	116	0	0	4	4	5	13	0.000	0.000	0.199	0.010	0.013	0.221	0.000	0.000	0.008	0.008	0.010	0.025
08:15 - 08:45	3	0	66	3	7	79	0	0	4	2	3	9	0.006	0.000	0.126	0.006	0.013	0.151	0.000	0.000	0.008	0.004	0.006	0.017
08:30 - 09:00	8	3	37	2	1	51	1	0	4	0	4	9	0.015	0.006	0.071	0.004	0.002	0.097	0.002	0.000	0.008	0.000	0.008	0.017
08:45 - 09:15	8	3	24	3	7	45	5	0	3	1	7	16	0.015	0.006	0.046	0.006	0.013	0.086	0.010	0.000	0.006	0.002	0.013	0.031
09:00 - 09:30	5	1	15	3	9	33	5	0	2	2	9	18	0.010	0.002	0.029	0.006	0.017	0.063	0.010	0.000	0.004	0.004	0.017	0.034
09:15 - 09:45	2	1	5	2	8	18	2	0	2	1	8	13	0.004	0.002	0.010	0.004	0.015	0.034	0.004	0.000	0.004	0.002	0.015	0.025
09:30 - 10:00	0	0	3	4	12	19	1	0	6	4	5	16	0.000	0.000	0.006	0.008	0.023	0.036	0.002	0.000	0.011	0.008	0.010	0.031
09:45 - 10:15	0	0	5	4	12	21	0	0	8	4	7	19	0.000	0.000	0.010	0.008	0.023	0.040	0.000	0.000	0.015	0.008	0.013	0.036
10:00 - 10:30	2	0	5	5	8	20	1	0	3	1	7	12	0.004	0.000	0.010	0.010	0.015	0.038	0.002	0.000	0.006	0.002	0.013	0.023
10:15 - 10:45	3	1	8	5	9	26	1	0	1	5	10	17	0.006	0.002	0.015	0.010	0.017	0.050	0.002	0.000	0.002	0.010	0.019	0.032
10:30 - 11:00	2	1	5	1	13	22	4	0	3	4	12	23	0.004	0.002	0.010	0.002	0.025	0.042	0.008	0.000	0.006	0.008	0.023	0.044
10:45 - 11:15	1	0	2	1	12	16	4	0	8	2	11	25	0.002	0.000	0.004	0.002	0.023	0.031	0.008	0.000	0.015	0.004	0.021	0.048
11:00 - 11:30	0	0	11	1	7	19	3	0	11	3	13	30	0.000	0.000	0.021	0.002	0.013	0.036	0.006	0.000	0.021	0.006	0.025	0.057
11:15 - 11:45	0	0	14	1	3	18	5	0	8	2	13	28	0.000	0.000	0.027	0.002	0.006	0.034	0.010	0.000	0.015	0.004	0.025	0.053
11:30 - 12:00	0	0	8	2	6	16	2	0	7	3	9	21	0.000	0.000	0.015	0.004	0.011	0.031	0.004	0.000	0.013	0.006	0.017	0.040
11:45 - 12:15	5	0	3	1	9	18	9	0	18	4	8	39	0.010	0.000	0.006	0.002	0.017	0.034	0.017	0.000	0.034	0.008	0.015	0.074
12:00 - 12:30	15	0	4	2	8	29	15	0	23	3	10	51	0.029	0.000	0.008	0.004	0.015	0.055	0.029	0.000	0.044	0.006	0.019	0.097
12:15 - 12:45	19	0	14	4	7	44	18	0	23	2	7	50	0.036	0.000	0.027	0.008	0.013	0.084	0.034	0.000	0.044	0.004	0.013	0.095
12:30 - 13:00	14	0	19	2	9	44	28	0	25	1	4	58	0.027	0.000	0.036	0.004	0.017	0.084	0.053	0.000	0.048	0.002	0.008	0.111
12:45 - 13:15	12	0	21	0	14	47	19	0	25	0	5	49	0.023	0.000	0.040	0.000	0.027	0.090	0.036	0.000	0.048	0.000	0.010	0.094
13:00 - 13:30	11	0	25	0	21	57	6	1	19	2	6	34	0.021	0.000	0.048	0.000	0.040	0.109	0.011	0.002	0.036	0.004	0.011	0.065
13:15 - 13:45	9	0	27	1	22	59	5	2	11	2	11	31	0.017	0.000	0.052	0.002	0.042	0.113	0.010	0.004	0.021	0.004	0.021	0.059
13:30 - 14:00	10	1	20	2	22	55	6	1	13	0	15	35	0.019	0.002	0.038	0.004	0.042	0.105	0.011	0.002	0.025	0.000	0.029	0.067
13:45 - 14:15	5	1	9	7	23	45	5	0	20	3	13	41	0.010	0.002	0.017	0.013	0.044	0.086	0.010	0.000	0.038	0.006	0.025	0.078
14:00 - 14:30	0	1	9	8	16	34	11	1	32	9	11	64	0.000	0.002	0.017	0.015	0.031	0.065	0.021	0.002	0.061	0.017	0.021	0.122
14:15 - 14:45	0	1	7	3	20	31	24	3	44	8	9	88	0.000	0.002	0.013	0.006	0.038	0.059	0.046	0.006	0.084	0.015	0.017	0.168
14:30 - 15:00	1	0	4	2	21	28	15	5	40	4	10	74	0.002	0.000	0.008	0.004	0.040	0.053	0.029	0.010	0.076	0.008	0.019	0.141
14:45 - 15:15	4	0	6	2	13	25	3	8	40	2	14	67	0.008	0.000	0.011	0.004	0.025	0.048	0.006	0.015	0.076	0.004	0.027	0.128
15:00 - 15:30	5	0	5	2	11	23	3	6	40	0	11	60	0.010	0.000	0.010	0.004	0.021	0.044	0.006	0.011	0.076	0.000	0.021	0.115
15:15 - 15:45	6	0	4	1	10	21	2	3	39	1	3	48	0.011	0.000	0.008	0.002	0.019	0.040	0.004	0.006	0.074	0.002	0.006	0.092
15:30 - 16:00	6	0	4	1	10	21	3	2	32	3	3	43	0.011	0.000	0.008	0.002	0.019	0.040	0.006	0.004	0.061	0.006	0.006	0.082
15:45 - 16:15	2	0	12	1	9	24	3	0	27	6	6	42	0.004	0.000	0.023	0.002	0.017	0.046	0.006	0.000	0.052	0.011	0.011	0.080
16:00 - 16:30	1	0	18	0	7	26	14	0	72	5	3	94	0.002	0.000	0.034	0.000	0.013	0.050	0.027	0.000	0.137	0.010	0.006	0.179
16:15 - 16:45	1	1	16	2	5	25	17	3	103	3	0	126	0.002	0.002	0.031	0.004	0.010	0.048	0.032	0.006	0.197	0.006	0.000	0.241
16:30 - 17:00	1	1	13	5	3	23	5	3	65	2	1	76	0.002	0.002	0.025	0.010	0.006	0.044	0.010	0.006	0.124	0.004	0.002	0.145
16:45 - 17:15	2	2	13	3	1	21	5	0	94	2	4	105	0.004	0.004	0.025	0.006	0.002	0.040	0.010	0.000	0.179	0.004	0.008	0.200
17:00 - 17:30	5	2	18	0	1	26	6	1	122	2	4	135	0.010	0.004	0.034	0.000	0.002	0.050	0.011	0.002	0.233	0.004	0.008	0.258
17:15 - 17:45	9	2	15	1	2	29	9	3	79	0	4	95	0.017	0.004	0.029	0.002	0.004	0.055	0.017	0.006	0.151	0.000	0.008	0.181
17:30 - 18:00	5	2	12	2	2	23	11	2	59	1	4	77	0.010	0.004	0.023	0.004	0.004	0.044	0.021	0.004	0.113	0.002	0.008	0.147
17:45 - 18:15	0	0	7	1	2	10	6	3	33	1	1	44	0.000	0.000	0.013	0.002	0.004	0.019	0.011	0.006	0.063	0.002	0.002	0.084
18:00 - 18:30	0	0	3	0	1	4	3	4	16	1	0	24	0.000	0.000	0.006	0.000	0.002	0.008	0.006	0.008	0.031	0.002	0.000	0.046
18:15 - 18:45	0	0	4	0	0	4	2	3	9	2	1	17	0.000	0.000	0.008	0.000	0.000	0.008	0.004	0.006	0.017	0.004	0.002	0.032
18:30 - 19:00	0	0	1	0	1	2	1	3	8	1	1	14	0.000	0.000	0.002	0.000	0.002	0.004	0.002	0.006	0.015	0.002	0.002	0.027
12-Hour	194	24	864	107	411	1600	288	57	1222	115	316	1998	0.370	0.046	1.649	0.204	0.785	3.054	0.550	0.109	2.333	0.220	0.603	3.814

APPENDIX 3

TRICS REPORT OUTPUTS

PRIME Transport Planning ' Hurricane Court Liverpool

Licence No: 753001

Calculation Reference: AUDIT-753001-221201-1215

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
Category : F - WAREHOUSING (COMMERCIAL)
MULTI-MODAL TOTAL VEHICLES

Selected regions and areas:

03 SOUTH WEST
DV DEVON 1 days

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

Primary Filtering selection:

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

Parameter: Gross floor area
Actual Range: 49081 to 49081 (units: sqm)
Range Selected by User: 3824 to 80100 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/14 to 22/11/21

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

Selected survey days:

Monday 1 days

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

Selected survey types:

Manual count 1 days
Directional ATC Count 0 days

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

Selected Locations:

Free Standing (PPS6 Out of Town) 1

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

Selected Location Sub Categories:

Out of Town 1

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

Secondary Filtering selection:

Use Class:

B8 1 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Filter by Site Operations Breakdown:

All Surveys Included

Population within 500m Range:

All Surveys Included

Secondary Filtering selection (Cont.):

Population within 1 mile:

1,001 to 5,000 1 days

*This data displays the number of selected surveys within stated 1-mile radii of population.*Population within 5 miles:

100,001 to 125,000 1 days

*This data displays the number of selected surveys within stated 5-mile radii of population.*Car ownership within 5 miles:

1.1 to 1.5 1 days

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

No 1 days

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

No PTAL Present 1 days

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

LIST OF SITES relevant to selection parameters

1 DV-02-F-03 LIDL DISTRIBUTION CENTRE DEVON

CHILLPARK BRAKE

NEAR EXETER

CLYST HONITON

Free Standing (PPS6 Out of Town)

Out of Town

Total Gross floor area: 49081 sqm

Survey date: MONDAY 22/11/21 Survey Type: MANUAL

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

MANUALLY DESELECTED SITES

Site Ref	Reason for Deselection
EX-02-F-01	small size
SY-02-F-01	1

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)
MULTI-MODAL TOTAL VEHICLES
 Calculation factor: 100 sqm
 BOLD print indicates peak (busiest) period
 Total People to Total Vehicles ratio (all time periods and directions): 1.14

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30	1	49081	0.061	1	49081	0.016	1	49081	0.077
05:30 - 06:00	1	49081	0.073	1	49081	0.014	1	49081	0.087
06:00 - 06:30	1	49081	0.033	1	49081	0.024	1	49081	0.057
06:30 - 07:00	1	49081	0.047	1	49081	0.020	1	49081	0.067
07:00 - 07:30	1	49081	0.039	1	49081	0.020	1	49081	0.059
07:30 - 08:00	1	49081	0.053	1	49081	0.033	1	49081	0.086
08:00 - 08:30	1	49081	0.081	1	49081	0.035	1	49081	0.116
08:30 - 09:00	1	49081	0.086	1	49081	0.033	1	49081	0.119
09:00 - 09:30	1	49081	0.053	1	49081	0.035	1	49081	0.088
09:30 - 10:00	1	49081	0.033	1	49081	0.037	1	49081	0.070
10:00 - 10:30	1	49081	0.053	1	49081	0.033	1	49081	0.086
10:30 - 11:00	1	49081	0.026	1	49081	0.022	1	49081	0.048
11:00 - 11:30	1	49081	0.020	1	49081	0.026	1	49081	0.046
11:30 - 12:00	1	49081	0.037	1	49081	0.031	1	49081	0.068
12:00 - 12:30	1	49081	0.031	1	49081	0.049	1	49081	0.080
12:30 - 13:00	1	49081	0.047	1	49081	0.053	1	49081	0.100
13:00 - 13:30	1	49081	0.035	1	49081	0.043	1	49081	0.078
13:30 - 14:00	1	49081	0.029	1	49081	0.065	1	49081	0.094
14:00 - 14:30	1	49081	0.020	1	49081	0.075	1	49081	0.095
14:30 - 15:00	1	49081	0.024	1	49081	0.067	1	49081	0.091
15:00 - 15:30	1	49081	0.014	1	49081	0.029	1	49081	0.043
15:30 - 16:00	1	49081	0.016	1	49081	0.035	1	49081	0.051
16:00 - 16:30	1	49081	0.010	1	49081	0.018	1	49081	0.028
16:30 - 17:00	1	49081	0.020	1	49081	0.024	1	49081	0.044
17:00 - 17:30	1	49081	0.022	1	49081	0.045	1	49081	0.067
17:30 - 18:00	1	49081	0.024	1	49081	0.045	1	49081	0.069
18:00 - 18:30	1	49081	0.014	1	49081	0.029	1	49081	0.043
18:30 - 19:00	1	49081	0.002	1	49081	0.022	1	49081	0.024
19:00 - 19:30	1	49081	0.014	1	49081	0.020	1	49081	0.034
19:30 - 20:00	1	49081	0.010	1	49081	0.006	1	49081	0.016
20:00 - 20:30	1	49081	0.024	1	49081	0.008	1	49081	0.032
20:30 - 21:00	1	49081	0.010	1	49081	0.022	1	49081	0.032
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			1.061			1.034			2.095

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

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

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Parameter summary

Trip rate parameter range selected:	49081 - 49081 (units: sqm)
Survey date range:	01/01/14 - 22/11/21
Number of weekdays (Monday-Friday):	1
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	2

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

PRIME Transport Planning ' Hurricane Court Liverpool

Licence No: 753001

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)

MULTI-MODAL TAXIS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30	1	49081	0.000	1	49081	0.000	1	49081	0.000
05:30 - 06:00	1	49081	0.000	1	49081	0.000	1	49081	0.000
06:00 - 06:30	1	49081	0.000	1	49081	0.000	1	49081	0.000
06:30 - 07:00	1	49081	0.000	1	49081	0.000	1	49081	0.000
07:00 - 07:30	1	49081	0.000	1	49081	0.000	1	49081	0.000
07:30 - 08:00	1	49081	0.000	1	49081	0.000	1	49081	0.000
08:00 - 08:30	1	49081	0.000	1	49081	0.000	1	49081	0.000
08:30 - 09:00	1	49081	0.000	1	49081	0.000	1	49081	0.000
09:00 - 09:30	1	49081	0.002	1	49081	0.002	1	49081	0.004
09:30 - 10:00	1	49081	0.000	1	49081	0.000	1	49081	0.000
10:00 - 10:30	1	49081	0.000	1	49081	0.000	1	49081	0.000
10:30 - 11:00	1	49081	0.000	1	49081	0.000	1	49081	0.000
11:00 - 11:30	1	49081	0.000	1	49081	0.000	1	49081	0.000
11:30 - 12:00	1	49081	0.000	1	49081	0.000	1	49081	0.000
12:00 - 12:30	1	49081	0.002	1	49081	0.002	1	49081	0.004
12:30 - 13:00	1	49081	0.000	1	49081	0.000	1	49081	0.000
13:00 - 13:30	1	49081	0.000	1	49081	0.000	1	49081	0.000
13:30 - 14:00	1	49081	0.000	1	49081	0.000	1	49081	0.000
14:00 - 14:30	1	49081	0.000	1	49081	0.000	1	49081	0.000
14:30 - 15:00	1	49081	0.000	1	49081	0.000	1	49081	0.000
15:00 - 15:30	1	49081	0.000	1	49081	0.000	1	49081	0.000
15:30 - 16:00	1	49081	0.000	1	49081	0.000	1	49081	0.000
16:00 - 16:30	1	49081	0.000	1	49081	0.000	1	49081	0.000
16:30 - 17:00	1	49081	0.000	1	49081	0.000	1	49081	0.000
17:00 - 17:30	1	49081	0.000	1	49081	0.000	1	49081	0.000
17:30 - 18:00	1	49081	0.000	1	49081	0.000	1	49081	0.000
18:00 - 18:30	1	49081	0.000	1	49081	0.000	1	49081	0.000
18:30 - 19:00	1	49081	0.000	1	49081	0.000	1	49081	0.000
19:00 - 19:30	1	49081	0.000	1	49081	0.000	1	49081	0.000
19:30 - 20:00	1	49081	0.000	1	49081	0.000	1	49081	0.000
20:00 - 20:30	1	49081	0.000	1	49081	0.000	1	49081	0.000
20:30 - 21:00	1	49081	0.000	1	49081	0.000	1	49081	0.000
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			0.004			0.004			0.008

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

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

PRIME Transport Planning ' Hurricane Court Liverpool

Licence No: 753001

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)

MULTI-MODAL OGVS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30	1	49081	0.014	1	49081	0.008	1	49081	0.022
05:30 - 06:00	1	49081	0.008	1	49081	0.002	1	49081	0.010
06:00 - 06:30	1	49081	0.022	1	49081	0.014	1	49081	0.036
06:30 - 07:00	1	49081	0.020	1	49081	0.006	1	49081	0.026
07:00 - 07:30	1	49081	0.026	1	49081	0.012	1	49081	0.038
07:30 - 08:00	1	49081	0.020	1	49081	0.029	1	49081	0.049
08:00 - 08:30	1	49081	0.018	1	49081	0.020	1	49081	0.038
08:30 - 09:00	1	49081	0.024	1	49081	0.014	1	49081	0.038
09:00 - 09:30	1	49081	0.037	1	49081	0.029	1	49081	0.066
09:30 - 10:00	1	49081	0.024	1	49081	0.020	1	49081	0.044
10:00 - 10:30	1	49081	0.037	1	49081	0.016	1	49081	0.053
10:30 - 11:00	1	49081	0.008	1	49081	0.020	1	49081	0.028
11:00 - 11:30	1	49081	0.012	1	49081	0.014	1	49081	0.026
11:30 - 12:00	1	49081	0.014	1	49081	0.016	1	49081	0.030
12:00 - 12:30	1	49081	0.008	1	49081	0.022	1	49081	0.030
12:30 - 13:00	1	49081	0.010	1	49081	0.020	1	49081	0.030
13:00 - 13:30	1	49081	0.004	1	49081	0.020	1	49081	0.024
13:30 - 14:00	1	49081	0.000	1	49081	0.022	1	49081	0.022
14:00 - 14:30	1	49081	0.006	1	49081	0.016	1	49081	0.022
14:30 - 15:00	1	49081	0.004	1	49081	0.014	1	49081	0.018
15:00 - 15:30	1	49081	0.006	1	49081	0.004	1	49081	0.010
15:30 - 16:00	1	49081	0.004	1	49081	0.004	1	49081	0.008
16:00 - 16:30	1	49081	0.004	1	49081	0.006	1	49081	0.010
16:30 - 17:00	1	49081	0.008	1	49081	0.002	1	49081	0.010
17:00 - 17:30	1	49081	0.008	1	49081	0.008	1	49081	0.016
17:30 - 18:00	1	49081	0.018	1	49081	0.008	1	49081	0.026
18:00 - 18:30	1	49081	0.008	1	49081	0.006	1	49081	0.014
18:30 - 19:00	1	49081	0.000	1	49081	0.008	1	49081	0.008
19:00 - 19:30	1	49081	0.006	1	49081	0.006	1	49081	0.012
19:30 - 20:00	1	49081	0.006	1	49081	0.002	1	49081	0.008
20:00 - 20:30	1	49081	0.006	1	49081	0.002	1	49081	0.008
20:30 - 21:00	1	49081	0.004	1	49081	0.002	1	49081	0.006
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			0.394			0.392			0.786

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

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

PRIME Transport Planning ' Hurricane Court Liverpool

Licence No: 753001

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)

MULTI-MODAL CYCLISTS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30	1	49081	0.002	1	49081	0.000	1	49081	0.002
05:30 - 06:00	1	49081	0.004	1	49081	0.000	1	49081	0.004
06:00 - 06:30	1	49081	0.000	1	49081	0.002	1	49081	0.002
06:30 - 07:00	1	49081	0.000	1	49081	0.000	1	49081	0.000
07:00 - 07:30	1	49081	0.002	1	49081	0.000	1	49081	0.002
07:30 - 08:00	1	49081	0.000	1	49081	0.000	1	49081	0.000
08:00 - 08:30	1	49081	0.002	1	49081	0.000	1	49081	0.002
08:30 - 09:00	1	49081	0.000	1	49081	0.000	1	49081	0.000
09:00 - 09:30	1	49081	0.000	1	49081	0.000	1	49081	0.000
09:30 - 10:00	1	49081	0.000	1	49081	0.000	1	49081	0.000
10:00 - 10:30	1	49081	0.000	1	49081	0.000	1	49081	0.000
10:30 - 11:00	1	49081	0.000	1	49081	0.000	1	49081	0.000
11:00 - 11:30	1	49081	0.000	1	49081	0.000	1	49081	0.000
11:30 - 12:00	1	49081	0.000	1	49081	0.000	1	49081	0.000
12:00 - 12:30	1	49081	0.004	1	49081	0.000	1	49081	0.004
12:30 - 13:00	1	49081	0.000	1	49081	0.000	1	49081	0.000
13:00 - 13:30	1	49081	0.002	1	49081	0.000	1	49081	0.002
13:30 - 14:00	1	49081	0.002	1	49081	0.000	1	49081	0.002
14:00 - 14:30	1	49081	0.000	1	49081	0.004	1	49081	0.004
14:30 - 15:00	1	49081	0.000	1	49081	0.000	1	49081	0.000
15:00 - 15:30	1	49081	0.000	1	49081	0.000	1	49081	0.000
15:30 - 16:00	1	49081	0.000	1	49081	0.000	1	49081	0.000
16:00 - 16:30	1	49081	0.000	1	49081	0.000	1	49081	0.000
16:30 - 17:00	1	49081	0.000	1	49081	0.002	1	49081	0.002
17:00 - 17:30	1	49081	0.000	1	49081	0.002	1	49081	0.002
17:30 - 18:00	1	49081	0.000	1	49081	0.000	1	49081	0.000
18:00 - 18:30	1	49081	0.000	1	49081	0.000	1	49081	0.000
18:30 - 19:00	1	49081	0.000	1	49081	0.000	1	49081	0.000
19:00 - 19:30	1	49081	0.000	1	49081	0.000	1	49081	0.000
19:30 - 20:00	1	49081	0.000	1	49081	0.000	1	49081	0.000
20:00 - 20:30	1	49081	0.000	1	49081	0.000	1	49081	0.000
20:30 - 21:00	1	49081	0.002	1	49081	0.000	1	49081	0.002
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			0.020			0.010			0.030

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

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

PRIME Transport Planning ' Hurricane Court Liverpool

Licence No: 753001

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)

MULTI-MODAL VEHICLE OCCUPANTS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30	1	49081	0.063	1	49081	0.016	1	49081	0.079
05:30 - 06:00	1	49081	0.079	1	49081	0.014	1	49081	0.093
06:00 - 06:30	1	49081	0.033	1	49081	0.024	1	49081	0.057
06:30 - 07:00	1	49081	0.049	1	49081	0.022	1	49081	0.071
07:00 - 07:30	1	49081	0.039	1	49081	0.020	1	49081	0.059
07:30 - 08:00	1	49081	0.059	1	49081	0.033	1	49081	0.092
08:00 - 08:30	1	49081	0.088	1	49081	0.037	1	49081	0.125
08:30 - 09:00	1	49081	0.102	1	49081	0.033	1	49081	0.135
09:00 - 09:30	1	49081	0.053	1	49081	0.033	1	49081	0.086
09:30 - 10:00	1	49081	0.033	1	49081	0.039	1	49081	0.072
10:00 - 10:30	1	49081	0.053	1	49081	0.033	1	49081	0.086
10:30 - 11:00	1	49081	0.029	1	49081	0.022	1	49081	0.051
11:00 - 11:30	1	49081	0.020	1	49081	0.026	1	49081	0.046
11:30 - 12:00	1	49081	0.043	1	49081	0.033	1	49081	0.076
12:00 - 12:30	1	49081	0.033	1	49081	0.051	1	49081	0.084
12:30 - 13:00	1	49081	0.059	1	49081	0.057	1	49081	0.116
13:00 - 13:30	1	49081	0.037	1	49081	0.049	1	49081	0.086
13:30 - 14:00	1	49081	0.037	1	49081	0.071	1	49081	0.108
14:00 - 14:30	1	49081	0.020	1	49081	0.084	1	49081	0.104
14:30 - 15:00	1	49081	0.022	1	49081	0.075	1	49081	0.097
15:00 - 15:30	1	49081	0.014	1	49081	0.031	1	49081	0.045
15:30 - 16:00	1	49081	0.016	1	49081	0.037	1	49081	0.053
16:00 - 16:30	1	49081	0.010	1	49081	0.018	1	49081	0.028
16:30 - 17:00	1	49081	0.022	1	49081	0.031	1	49081	0.053
17:00 - 17:30	1	49081	0.022	1	49081	0.051	1	49081	0.073
17:30 - 18:00	1	49081	0.024	1	49081	0.055	1	49081	0.079
18:00 - 18:30	1	49081	0.016	1	49081	0.031	1	49081	0.047
18:30 - 19:00	1	49081	0.002	1	49081	0.024	1	49081	0.026
19:00 - 19:30	1	49081	0.014	1	49081	0.022	1	49081	0.036
19:30 - 20:00	1	49081	0.010	1	49081	0.006	1	49081	0.016
20:00 - 20:30	1	49081	0.026	1	49081	0.008	1	49081	0.034
20:30 - 21:00	1	49081	0.010	1	49081	0.026	1	49081	0.036
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			1.137			1.112			2.249

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

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PRIME Transport Planning ' Hurricane Court Liverpool

Licence No: 753001

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)

MULTI-MODAL PEDESTRIANS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30	1	49081	0.000	1	49081	0.000	1	49081	0.000
05:30 - 06:00	1	49081	0.000	1	49081	0.000	1	49081	0.000
06:00 - 06:30	1	49081	0.000	1	49081	0.000	1	49081	0.000
06:30 - 07:00	1	49081	0.000	1	49081	0.000	1	49081	0.000
07:00 - 07:30	1	49081	0.000	1	49081	0.000	1	49081	0.000
07:30 - 08:00	1	49081	0.000	1	49081	0.000	1	49081	0.000
08:00 - 08:30	1	49081	0.000	1	49081	0.000	1	49081	0.000
08:30 - 09:00	1	49081	0.000	1	49081	0.000	1	49081	0.000
09:00 - 09:30	1	49081	0.000	1	49081	0.000	1	49081	0.000
09:30 - 10:00	1	49081	0.000	1	49081	0.000	1	49081	0.000
10:00 - 10:30	1	49081	0.000	1	49081	0.000	1	49081	0.000
10:30 - 11:00	1	49081	0.000	1	49081	0.000	1	49081	0.000
11:00 - 11:30	1	49081	0.000	1	49081	0.000	1	49081	0.000
11:30 - 12:00	1	49081	0.000	1	49081	0.000	1	49081	0.000
12:00 - 12:30	1	49081	0.002	1	49081	0.000	1	49081	0.002
12:30 - 13:00	1	49081	0.000	1	49081	0.000	1	49081	0.000
13:00 - 13:30	1	49081	0.000	1	49081	0.000	1	49081	0.000
13:30 - 14:00	1	49081	0.000	1	49081	0.000	1	49081	0.000
14:00 - 14:30	1	49081	0.000	1	49081	0.000	1	49081	0.000
14:30 - 15:00	1	49081	0.000	1	49081	0.000	1	49081	0.000
15:00 - 15:30	1	49081	0.000	1	49081	0.000	1	49081	0.000
15:30 - 16:00	1	49081	0.000	1	49081	0.000	1	49081	0.000
16:00 - 16:30	1	49081	0.000	1	49081	0.000	1	49081	0.000
16:30 - 17:00	1	49081	0.000	1	49081	0.000	1	49081	0.000
17:00 - 17:30	1	49081	0.000	1	49081	0.000	1	49081	0.000
17:30 - 18:00	1	49081	0.000	1	49081	0.002	1	49081	0.002
18:00 - 18:30	1	49081	0.000	1	49081	0.000	1	49081	0.000
18:30 - 19:00	1	49081	0.000	1	49081	0.000	1	49081	0.000
19:00 - 19:30	1	49081	0.000	1	49081	0.000	1	49081	0.000
19:30 - 20:00	1	49081	0.000	1	49081	0.000	1	49081	0.000
20:00 - 20:30	1	49081	0.000	1	49081	0.000	1	49081	0.000
20:30 - 21:00	1	49081	0.000	1	49081	0.000	1	49081	0.000
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			0.002			0.002			0.004

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

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

PRIME Transport Planning ' Hurricane Court Liverpool

Licence No: 753001

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)

MULTI-MODAL BUS/TRAM PASSENGERS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30	1	49081	0.000	1	49081	0.002	1	49081	0.002
05:30 - 06:00	1	49081	0.008	1	49081	0.000	1	49081	0.008
06:00 - 06:30	1	49081	0.000	1	49081	0.002	1	49081	0.002
06:30 - 07:00	1	49081	0.000	1	49081	0.000	1	49081	0.000
07:00 - 07:30	1	49081	0.004	1	49081	0.000	1	49081	0.004
07:30 - 08:00	1	49081	0.004	1	49081	0.000	1	49081	0.004
08:00 - 08:30	1	49081	0.000	1	49081	0.000	1	49081	0.000
08:30 - 09:00	1	49081	0.004	1	49081	0.000	1	49081	0.004
09:00 - 09:30	1	49081	0.002	1	49081	0.000	1	49081	0.002
09:30 - 10:00	1	49081	0.002	1	49081	0.002	1	49081	0.004
10:00 - 10:30	1	49081	0.000	1	49081	0.000	1	49081	0.000
10:30 - 11:00	1	49081	0.000	1	49081	0.002	1	49081	0.002
11:00 - 11:30	1	49081	0.004	1	49081	0.000	1	49081	0.004
11:30 - 12:00	1	49081	0.000	1	49081	0.002	1	49081	0.002
12:00 - 12:30	1	49081	0.008	1	49081	0.000	1	49081	0.008
12:30 - 13:00	1	49081	0.002	1	49081	0.000	1	49081	0.002
13:00 - 13:30	1	49081	0.016	1	49081	0.002	1	49081	0.018
13:30 - 14:00	1	49081	0.004	1	49081	0.002	1	49081	0.006
14:00 - 14:30	1	49081	0.000	1	49081	0.006	1	49081	0.006
14:30 - 15:00	1	49081	0.000	1	49081	0.004	1	49081	0.004
15:00 - 15:30	1	49081	0.000	1	49081	0.000	1	49081	0.000
15:30 - 16:00	1	49081	0.000	1	49081	0.004	1	49081	0.004
16:00 - 16:30	1	49081	0.002	1	49081	0.000	1	49081	0.002
16:30 - 17:00	1	49081	0.000	1	49081	0.004	1	49081	0.004
17:00 - 17:30	1	49081	0.000	1	49081	0.002	1	49081	0.002
17:30 - 18:00	1	49081	0.000	1	49081	0.000	1	49081	0.000
18:00 - 18:30	1	49081	0.000	1	49081	0.002	1	49081	0.002
18:30 - 19:00	1	49081	0.000	1	49081	0.002	1	49081	0.002
19:00 - 19:30	1	49081	0.000	1	49081	0.002	1	49081	0.002
19:30 - 20:00	1	49081	0.000	1	49081	0.002	1	49081	0.002
20:00 - 20:30	1	49081	0.006	1	49081	0.000	1	49081	0.006
20:30 - 21:00	1	49081	0.000	1	49081	0.002	1	49081	0.002
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			0.066			0.044			0.110

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

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

PRIME Transport Planning ' Hurricane Court Liverpool

Licence No: 753001

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)

MULTI-MODAL PUBLIC TRANSPORT USERS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30	1	49081	0.000	1	49081	0.002	1	49081	0.002
05:30 - 06:00	1	49081	0.008	1	49081	0.000	1	49081	0.008
06:00 - 06:30	1	49081	0.000	1	49081	0.002	1	49081	0.002
06:30 - 07:00	1	49081	0.000	1	49081	0.000	1	49081	0.000
07:00 - 07:30	1	49081	0.004	1	49081	0.000	1	49081	0.004
07:30 - 08:00	1	49081	0.004	1	49081	0.000	1	49081	0.004
08:00 - 08:30	1	49081	0.000	1	49081	0.000	1	49081	0.000
08:30 - 09:00	1	49081	0.004	1	49081	0.000	1	49081	0.004
09:00 - 09:30	1	49081	0.002	1	49081	0.000	1	49081	0.002
09:30 - 10:00	1	49081	0.002	1	49081	0.002	1	49081	0.004
10:00 - 10:30	1	49081	0.000	1	49081	0.000	1	49081	0.000
10:30 - 11:00	1	49081	0.000	1	49081	0.002	1	49081	0.002
11:00 - 11:30	1	49081	0.004	1	49081	0.000	1	49081	0.004
11:30 - 12:00	1	49081	0.000	1	49081	0.002	1	49081	0.002
12:00 - 12:30	1	49081	0.008	1	49081	0.000	1	49081	0.008
12:30 - 13:00	1	49081	0.002	1	49081	0.000	1	49081	0.002
13:00 - 13:30	1	49081	0.016	1	49081	0.002	1	49081	0.018
13:30 - 14:00	1	49081	0.004	1	49081	0.002	1	49081	0.006
14:00 - 14:30	1	49081	0.000	1	49081	0.006	1	49081	0.006
14:30 - 15:00	1	49081	0.000	1	49081	0.004	1	49081	0.004
15:00 - 15:30	1	49081	0.000	1	49081	0.000	1	49081	0.000
15:30 - 16:00	1	49081	0.000	1	49081	0.004	1	49081	0.004
16:00 - 16:30	1	49081	0.002	1	49081	0.000	1	49081	0.002
16:30 - 17:00	1	49081	0.000	1	49081	0.004	1	49081	0.004
17:00 - 17:30	1	49081	0.000	1	49081	0.002	1	49081	0.002
17:30 - 18:00	1	49081	0.000	1	49081	0.000	1	49081	0.000
18:00 - 18:30	1	49081	0.000	1	49081	0.002	1	49081	0.002
18:30 - 19:00	1	49081	0.000	1	49081	0.002	1	49081	0.002
19:00 - 19:30	1	49081	0.000	1	49081	0.002	1	49081	0.002
19:30 - 20:00	1	49081	0.000	1	49081	0.002	1	49081	0.002
20:00 - 20:30	1	49081	0.006	1	49081	0.000	1	49081	0.006
20:30 - 21:00	1	49081	0.000	1	49081	0.002	1	49081	0.002
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			0.066			0.044			0.110

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

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

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)
MULTI-MODAL TOTAL PEOPLE
 Calculation factor: 100 sqm
 BOLD print indicates peak (busiest) period
 Total People to Total Vehicles ratio (all time periods and directions): 1.14

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30	1	49081	0.065	1	49081	0.018	1	49081	0.083
05:30 - 06:00	1	49081	0.092	1	49081	0.014	1	49081	0.106
06:00 - 06:30	1	49081	0.033	1	49081	0.029	1	49081	0.062
06:30 - 07:00	1	49081	0.049	1	49081	0.022	1	49081	0.071
07:00 - 07:30	1	49081	0.045	1	49081	0.020	1	49081	0.065
07:30 - 08:00	1	49081	0.063	1	49081	0.033	1	49081	0.096
08:00 - 08:30	1	49081	0.090	1	49081	0.037	1	49081	0.127
08:30 - 09:00	1	49081	0.106	1	49081	0.033	1	49081	0.139
09:00 - 09:30	1	49081	0.055	1	49081	0.033	1	49081	0.088
09:30 - 10:00	1	49081	0.035	1	49081	0.041	1	49081	0.076
10:00 - 10:30	1	49081	0.053	1	49081	0.033	1	49081	0.086
10:30 - 11:00	1	49081	0.029	1	49081	0.024	1	49081	0.053
11:00 - 11:30	1	49081	0.024	1	49081	0.026	1	49081	0.050
11:30 - 12:00	1	49081	0.043	1	49081	0.035	1	49081	0.078
12:00 - 12:30	1	49081	0.047	1	49081	0.051	1	49081	0.098
12:30 - 13:00	1	49081	0.061	1	49081	0.057	1	49081	0.118
13:00 - 13:30	1	49081	0.055	1	49081	0.051	1	49081	0.106
13:30 - 14:00	1	49081	0.043	1	49081	0.073	1	49081	0.116
14:00 - 14:30	1	49081	0.020	1	49081	0.094	1	49081	0.114
14:30 - 15:00	1	49081	0.022	1	49081	0.079	1	49081	0.101
15:00 - 15:30	1	49081	0.014	1	49081	0.031	1	49081	0.045
15:30 - 16:00	1	49081	0.016	1	49081	0.041	1	49081	0.057
16:00 - 16:30	1	49081	0.012	1	49081	0.018	1	49081	0.030
16:30 - 17:00	1	49081	0.022	1	49081	0.037	1	49081	0.059
17:00 - 17:30	1	49081	0.022	1	49081	0.055	1	49081	0.077
17:30 - 18:00	1	49081	0.024	1	49081	0.057	1	49081	0.081
18:00 - 18:30	1	49081	0.016	1	49081	0.033	1	49081	0.049
18:30 - 19:00	1	49081	0.002	1	49081	0.026	1	49081	0.028
19:00 - 19:30	1	49081	0.014	1	49081	0.024	1	49081	0.038
19:30 - 20:00	1	49081	0.010	1	49081	0.008	1	49081	0.018
20:00 - 20:30	1	49081	0.033	1	49081	0.008	1	49081	0.041
20:30 - 21:00	1	49081	0.012	1	49081	0.029	1	49081	0.041
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			1.227			1.170			2.397

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

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

PRIME Transport Planning ' Hurricane Court Liverpool

Licence No: 753001

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)

MULTI-MODAL CARS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30	1	49081	0.039	1	49081	0.008	1	49081	0.047
05:30 - 06:00	1	49081	0.059	1	49081	0.010	1	49081	0.069
06:00 - 06:30	1	49081	0.008	1	49081	0.008	1	49081	0.016
06:30 - 07:00	1	49081	0.026	1	49081	0.014	1	49081	0.040
07:00 - 07:30	1	49081	0.012	1	49081	0.008	1	49081	0.020
07:30 - 08:00	1	49081	0.031	1	49081	0.004	1	49081	0.035
08:00 - 08:30	1	49081	0.051	1	49081	0.010	1	49081	0.061
08:30 - 09:00	1	49081	0.043	1	49081	0.010	1	49081	0.053
09:00 - 09:30	1	49081	0.010	1	49081	0.002	1	49081	0.012
09:30 - 10:00	1	49081	0.004	1	49081	0.010	1	49081	0.014
10:00 - 10:30	1	49081	0.010	1	49081	0.012	1	49081	0.022
10:30 - 11:00	1	49081	0.018	1	49081	0.002	1	49081	0.020
11:00 - 11:30	1	49081	0.006	1	49081	0.006	1	49081	0.012
11:30 - 12:00	1	49081	0.016	1	49081	0.012	1	49081	0.028
12:00 - 12:30	1	49081	0.016	1	49081	0.016	1	49081	0.032
12:30 - 13:00	1	49081	0.026	1	49081	0.024	1	49081	0.050
13:00 - 13:30	1	49081	0.018	1	49081	0.018	1	49081	0.036
13:30 - 14:00	1	49081	0.026	1	49081	0.031	1	49081	0.057
14:00 - 14:30	1	49081	0.008	1	49081	0.051	1	49081	0.059
14:30 - 15:00	1	49081	0.012	1	49081	0.047	1	49081	0.059
15:00 - 15:30	1	49081	0.002	1	49081	0.018	1	49081	0.020
15:30 - 16:00	1	49081	0.010	1	49081	0.018	1	49081	0.028
16:00 - 16:30	1	49081	0.004	1	49081	0.012	1	49081	0.016
16:30 - 17:00	1	49081	0.010	1	49081	0.016	1	49081	0.026
17:00 - 17:30	1	49081	0.014	1	49081	0.033	1	49081	0.047
17:30 - 18:00	1	49081	0.006	1	49081	0.033	1	49081	0.039
18:00 - 18:30	1	49081	0.006	1	49081	0.022	1	49081	0.028
18:30 - 19:00	1	49081	0.000	1	49081	0.012	1	49081	0.012
19:00 - 19:30	1	49081	0.006	1	49081	0.008	1	49081	0.014
19:30 - 20:00	1	49081	0.004	1	49081	0.004	1	49081	0.008
20:00 - 20:30	1	49081	0.018	1	49081	0.006	1	49081	0.024
20:30 - 21:00	1	49081	0.006	1	49081	0.020	1	49081	0.026
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			0.525			0.505			1.030

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

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PRIME Transport Planning ' Hurricane Court Liverpool

Licence No: 753001

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)

MULTI-MODAL LGVS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30	1	49081	0.002	1	49081	0.000	1	49081	0.002
05:30 - 06:00	1	49081	0.002	1	49081	0.000	1	49081	0.002
06:00 - 06:30	1	49081	0.000	1	49081	0.000	1	49081	0.000
06:30 - 07:00	1	49081	0.000	1	49081	0.000	1	49081	0.000
07:00 - 07:30	1	49081	0.000	1	49081	0.000	1	49081	0.000
07:30 - 08:00	1	49081	0.002	1	49081	0.000	1	49081	0.002
08:00 - 08:30	1	49081	0.012	1	49081	0.004	1	49081	0.016
08:30 - 09:00	1	49081	0.018	1	49081	0.008	1	49081	0.026
09:00 - 09:30	1	49081	0.004	1	49081	0.002	1	49081	0.006
09:30 - 10:00	1	49081	0.004	1	49081	0.006	1	49081	0.010
10:00 - 10:30	1	49081	0.006	1	49081	0.004	1	49081	0.010
10:30 - 11:00	1	49081	0.000	1	49081	0.000	1	49081	0.000
11:00 - 11:30	1	49081	0.002	1	49081	0.006	1	49081	0.008
11:30 - 12:00	1	49081	0.004	1	49081	0.002	1	49081	0.006
12:00 - 12:30	1	49081	0.004	1	49081	0.006	1	49081	0.010
12:30 - 13:00	1	49081	0.006	1	49081	0.008	1	49081	0.014
13:00 - 13:30	1	49081	0.006	1	49081	0.004	1	49081	0.010
13:30 - 14:00	1	49081	0.002	1	49081	0.006	1	49081	0.008
14:00 - 14:30	1	49081	0.006	1	49081	0.004	1	49081	0.010
14:30 - 15:00	1	49081	0.008	1	49081	0.004	1	49081	0.012
15:00 - 15:30	1	49081	0.006	1	49081	0.006	1	49081	0.012
15:30 - 16:00	1	49081	0.002	1	49081	0.012	1	49081	0.014
16:00 - 16:30	1	49081	0.002	1	49081	0.000	1	49081	0.002
16:30 - 17:00	1	49081	0.002	1	49081	0.006	1	49081	0.008
17:00 - 17:30	1	49081	0.000	1	49081	0.002	1	49081	0.002
17:30 - 18:00	1	49081	0.000	1	49081	0.004	1	49081	0.004
18:00 - 18:30	1	49081	0.000	1	49081	0.000	1	49081	0.000
18:30 - 19:00	1	49081	0.002	1	49081	0.002	1	49081	0.004
19:00 - 19:30	1	49081	0.000	1	49081	0.006	1	49081	0.006
19:30 - 20:00	1	49081	0.000	1	49081	0.000	1	49081	0.000
20:00 - 20:30	1	49081	0.000	1	49081	0.000	1	49081	0.000
20:30 - 21:00	1	49081	0.000	1	49081	0.000	1	49081	0.000
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			0.102			0.102			0.204

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

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

PRIME Transport Planning ' Hurricane Court Liverpool

Licence No: 753001

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)

MULTI-MODAL MOTOR CYCLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30	1	49081	0.006	1	49081	0.000	1	49081	0.006
05:30 - 06:00	1	49081	0.004	1	49081	0.002	1	49081	0.006
06:00 - 06:30	1	49081	0.002	1	49081	0.002	1	49081	0.004
06:30 - 07:00	1	49081	0.000	1	49081	0.000	1	49081	0.000
07:00 - 07:30	1	49081	0.000	1	49081	0.000	1	49081	0.000
07:30 - 08:00	1	49081	0.000	1	49081	0.000	1	49081	0.000
08:00 - 08:30	1	49081	0.000	1	49081	0.000	1	49081	0.000
08:30 - 09:00	1	49081	0.000	1	49081	0.000	1	49081	0.000
09:00 - 09:30	1	49081	0.000	1	49081	0.000	1	49081	0.000
09:30 - 10:00	1	49081	0.000	1	49081	0.000	1	49081	0.000
10:00 - 10:30	1	49081	0.000	1	49081	0.000	1	49081	0.000
10:30 - 11:00	1	49081	0.000	1	49081	0.000	1	49081	0.000
11:00 - 11:30	1	49081	0.000	1	49081	0.000	1	49081	0.000
11:30 - 12:00	1	49081	0.002	1	49081	0.000	1	49081	0.002
12:00 - 12:30	1	49081	0.000	1	49081	0.002	1	49081	0.002
12:30 - 13:00	1	49081	0.004	1	49081	0.000	1	49081	0.004
13:00 - 13:30	1	49081	0.006	1	49081	0.000	1	49081	0.006
13:30 - 14:00	1	49081	0.000	1	49081	0.006	1	49081	0.006
14:00 - 14:30	1	49081	0.000	1	49081	0.004	1	49081	0.004
14:30 - 15:00	1	49081	0.000	1	49081	0.002	1	49081	0.002
15:00 - 15:30	1	49081	0.000	1	49081	0.000	1	49081	0.000
15:30 - 16:00	1	49081	0.000	1	49081	0.000	1	49081	0.000
16:00 - 16:30	1	49081	0.000	1	49081	0.000	1	49081	0.000
16:30 - 17:00	1	49081	0.000	1	49081	0.000	1	49081	0.000
17:00 - 17:30	1	49081	0.000	1	49081	0.002	1	49081	0.002
17:30 - 18:00	1	49081	0.000	1	49081	0.000	1	49081	0.000
18:00 - 18:30	1	49081	0.000	1	49081	0.000	1	49081	0.000
18:30 - 19:00	1	49081	0.000	1	49081	0.000	1	49081	0.000
19:00 - 19:30	1	49081	0.002	1	49081	0.000	1	49081	0.002
19:30 - 20:00	1	49081	0.000	1	49081	0.000	1	49081	0.000
20:00 - 20:30	1	49081	0.000	1	49081	0.000	1	49081	0.000
20:30 - 21:00	1	49081	0.000	1	49081	0.000	1	49081	0.000
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			0.026			0.020			0.046

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

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

PRIME Transport Planning ' Hurricane Court Liverpool

Licence No: 753001

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)

MULTI-MODAL Servicing Vehicles

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30	1	49081	0.016	1	49081	0.008	1	49081	0.024
05:30 - 06:00	1	49081	0.010	1	49081	0.004	1	49081	0.014
06:00 - 06:30	1	49081	0.022	1	49081	0.014	1	49081	0.036
06:30 - 07:00	1	49081	0.020	1	49081	0.006	1	49081	0.026
07:00 - 07:30	1	49081	0.026	1	49081	0.012	1	49081	0.038
07:30 - 08:00	1	49081	0.022	1	49081	0.029	1	49081	0.051
08:00 - 08:30	1	49081	0.031	1	49081	0.024	1	49081	0.055
08:30 - 09:00	1	49081	0.043	1	49081	0.022	1	49081	0.065
09:00 - 09:30	1	49081	0.041	1	49081	0.031	1	49081	0.072
09:30 - 10:00	1	49081	0.029	1	49081	0.026	1	49081	0.055
10:00 - 10:30	1	49081	0.043	1	49081	0.020	1	49081	0.063
10:30 - 11:00	1	49081	0.008	1	49081	0.020	1	49081	0.028
11:00 - 11:30	1	49081	0.014	1	49081	0.020	1	49081	0.034
11:30 - 12:00	1	49081	0.018	1	49081	0.018	1	49081	0.036
12:00 - 12:30	1	49081	0.012	1	49081	0.029	1	49081	0.041
12:30 - 13:00	1	49081	0.016	1	49081	0.029	1	49081	0.045
13:00 - 13:30	1	49081	0.010	1	49081	0.024	1	49081	0.034
13:30 - 14:00	1	49081	0.002	1	49081	0.029	1	49081	0.031
14:00 - 14:30	1	49081	0.012	1	49081	0.020	1	49081	0.032
14:30 - 15:00	1	49081	0.012	1	49081	0.018	1	49081	0.030
15:00 - 15:30	1	49081	0.012	1	49081	0.010	1	49081	0.022
15:30 - 16:00	1	49081	0.006	1	49081	0.016	1	49081	0.022
16:00 - 16:30	1	49081	0.006	1	49081	0.006	1	49081	0.012
16:30 - 17:00	1	49081	0.010	1	49081	0.008	1	49081	0.018
17:00 - 17:30	1	49081	0.008	1	49081	0.010	1	49081	0.018
17:30 - 18:00	1	49081	0.018	1	49081	0.012	1	49081	0.030
18:00 - 18:30	1	49081	0.008	1	49081	0.006	1	49081	0.014
18:30 - 19:00	1	49081	0.002	1	49081	0.010	1	49081	0.012
19:00 - 19:30	1	49081	0.006	1	49081	0.012	1	49081	0.018
19:30 - 20:00	1	49081	0.006	1	49081	0.002	1	49081	0.008
20:00 - 20:30	1	49081	0.006	1	49081	0.002	1	49081	0.008
20:30 - 21:00	1	49081	0.004	1	49081	0.002	1	49081	0.006
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			0.499			0.499			0.998

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

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PRIME Transport Planning ' Hurricane Court Liverpool

Licence No: 753001

Calculation Reference: AUDIT-753001-221201-1205

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
 Category : F - WAREHOUSING (COMMERCIAL)
 MULTI-MODAL TOTAL VEHICLES

Selected regions and areas:

07 YORKSHIRE & NORTH LINCOLNSHIRE
 SY SOUTH YORKSHIRE 1 days

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

Primary Filtering selection:

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

Parameter: Gross floor area
 Actual Range: 80100 to 80100 (units: sqm)
 Range Selected by User: 3824 to 80100 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/14 to 22/11/21

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

Selected survey days:

Tuesday 1 days

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

Selected survey types:

Manual count 1 days
 Directional ATC Count 0 days

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

Selected Locations:

Suburban Area (PPS6 Out of Centre) 1

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

Selected Location Sub Categories:

Industrial Zone 1

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

Secondary Filtering selection:

Use Class:

B8 1 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Filter by Site Operations Breakdown:

All Surveys Included

Population within 500m Range:

All Surveys Included

Secondary Filtering selection (Cont.):

Population within 1 mile:

25,001 to 50,000 1 days

*This data displays the number of selected surveys within stated 1-mile radii of population.*Population within 5 miles:

125,001 to 250,000 1 days

*This data displays the number of selected surveys within stated 5-mile radii of population.*Car ownership within 5 miles:

1.1 to 1.5 1 days

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

No 1 days

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

No PTAL Present 1 days

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

LIST OF SITES relevant to selection parameters

1

SY-02-F-01

MIDDLE BANK

DONCASTER

TESCO DISTRIBUTION CENTRE

SOUTH YORKSHIRE

Suburban Area (PPS6 Out of Centre)

Industrial Zone

Total Gross floor area: 80100 sqm

Survey date: TUESDAY 21/09/21

Survey Type: MANUAL

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

MANUALLY DESELECTED SITES

Site Ref	Reason for Deselection
DV-02-F-03	2
EX-02-F-01	small size

PRIME Transport Planning ' Hurricane Court Liverpool

Licence No: 753001

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)

MULTI-MODAL TOTAL VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Total People to Total Vehicles ratio (all time periods and directions): 1.17

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30	1	80100	0.057	1	80100	0.021	1	80100	0.078
05:30 - 06:00	1	80100	0.090	1	80100	0.022	1	80100	0.112
06:00 - 06:30	1	80100	0.014	1	80100	0.056	1	80100	0.070
06:30 - 07:00	1	80100	0.024	1	80100	0.075	1	80100	0.099
07:00 - 07:30	1	80100	0.017	1	80100	0.016	1	80100	0.033
07:30 - 08:00	1	80100	0.022	1	80100	0.009	1	80100	0.031
08:00 - 08:30	1	80100	0.019	1	80100	0.014	1	80100	0.033
08:30 - 09:00	1	80100	0.026	1	80100	0.014	1	80100	0.040
09:00 - 09:30	1	80100	0.032	1	80100	0.017	1	80100	0.049
09:30 - 10:00	1	80100	0.035	1	80100	0.044	1	80100	0.079
10:00 - 10:30	1	80100	0.044	1	80100	0.047	1	80100	0.091
10:30 - 11:00	1	80100	0.040	1	80100	0.040	1	80100	0.080
11:00 - 11:30	1	80100	0.036	1	80100	0.015	1	80100	0.051
11:30 - 12:00	1	80100	0.045	1	80100	0.052	1	80100	0.097
12:00 - 12:30	1	80100	0.040	1	80100	0.051	1	80100	0.091
12:30 - 13:00	1	80100	0.044	1	80100	0.061	1	80100	0.105
13:00 - 13:30	1	80100	0.045	1	80100	0.030	1	80100	0.075
13:30 - 14:00	1	80100	0.049	1	80100	0.039	1	80100	0.088
14:00 - 14:30	1	80100	0.036	1	80100	0.100	1	80100	0.136
14:30 - 15:00	1	80100	0.044	1	80100	0.030	1	80100	0.074
15:00 - 15:30	1	80100	0.044	1	80100	0.027	1	80100	0.071
15:30 - 16:00	1	80100	0.034	1	80100	0.035	1	80100	0.069
16:00 - 16:30	1	80100	0.021	1	80100	0.030	1	80100	0.051
16:30 - 17:00	1	80100	0.031	1	80100	0.016	1	80100	0.047
17:00 - 17:30	1	80100	0.035	1	80100	0.016	1	80100	0.051
17:30 - 18:00	1	80100	0.031	1	80100	0.022	1	80100	0.053
18:00 - 18:30	1	80100	0.022	1	80100	0.040	1	80100	0.062
18:30 - 19:00	1	80100	0.020	1	80100	0.029	1	80100	0.049
19:00 - 19:30	1	80100	0.016	1	80100	0.015	1	80100	0.031
19:30 - 20:00	1	80100	0.020	1	80100	0.030	1	80100	0.050
20:00 - 20:30	1	80100	0.012	1	80100	0.025	1	80100	0.037
20:30 - 21:00	1	80100	0.025	1	80100	0.020	1	80100	0.045
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			1.070			1.058			2.128

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

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

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Parameter summary

Trip rate parameter range selected:	80100 - 80100 (units: sqm)
Survey date range:	01/01/14 - 22/11/21
Number of weekdays (Monday-Friday):	1
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	2

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

PRIME Transport Planning ' Hurricane Court Liverpool

Licence No: 753001

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)

MULTI-MODAL TAXIS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30	1	80100	0.001	1	80100	0.000	1	80100	0.001
05:30 - 06:00	1	80100	0.000	1	80100	0.001	1	80100	0.001
06:00 - 06:30	1	80100	0.001	1	80100	0.001	1	80100	0.002
06:30 - 07:00	1	80100	0.000	1	80100	0.000	1	80100	0.000
07:00 - 07:30	1	80100	0.000	1	80100	0.000	1	80100	0.000
07:30 - 08:00	1	80100	0.000	1	80100	0.000	1	80100	0.000
08:00 - 08:30	1	80100	0.000	1	80100	0.000	1	80100	0.000
08:30 - 09:00	1	80100	0.002	1	80100	0.002	1	80100	0.004
09:00 - 09:30	1	80100	0.002	1	80100	0.001	1	80100	0.003
09:30 - 10:00	1	80100	0.001	1	80100	0.002	1	80100	0.003
10:00 - 10:30	1	80100	0.000	1	80100	0.000	1	80100	0.000
10:30 - 11:00	1	80100	0.000	1	80100	0.000	1	80100	0.000
11:00 - 11:30	1	80100	0.001	1	80100	0.000	1	80100	0.001
11:30 - 12:00	1	80100	0.000	1	80100	0.001	1	80100	0.001
12:00 - 12:30	1	80100	0.000	1	80100	0.000	1	80100	0.000
12:30 - 13:00	1	80100	0.000	1	80100	0.000	1	80100	0.000
13:00 - 13:30	1	80100	0.000	1	80100	0.000	1	80100	0.000
13:30 - 14:00	1	80100	0.000	1	80100	0.000	1	80100	0.000
14:00 - 14:30	1	80100	0.000	1	80100	0.000	1	80100	0.000
14:30 - 15:00	1	80100	0.000	1	80100	0.000	1	80100	0.000
15:00 - 15:30	1	80100	0.000	1	80100	0.000	1	80100	0.000
15:30 - 16:00	1	80100	0.000	1	80100	0.000	1	80100	0.000
16:00 - 16:30	1	80100	0.000	1	80100	0.000	1	80100	0.000
16:30 - 17:00	1	80100	0.001	1	80100	0.001	1	80100	0.002
17:00 - 17:30	1	80100	0.000	1	80100	0.000	1	80100	0.000
17:30 - 18:00	1	80100	0.000	1	80100	0.000	1	80100	0.000
18:00 - 18:30	1	80100	0.000	1	80100	0.000	1	80100	0.000
18:30 - 19:00	1	80100	0.000	1	80100	0.000	1	80100	0.000
19:00 - 19:30	1	80100	0.001	1	80100	0.001	1	80100	0.002
19:30 - 20:00	1	80100	0.000	1	80100	0.000	1	80100	0.000
20:00 - 20:30	1	80100	0.000	1	80100	0.000	1	80100	0.000
20:30 - 21:00	1	80100	0.000	1	80100	0.000	1	80100	0.000
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			0.010			0.010			0.020

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

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

PRIME Transport Planning ' Hurricane Court Liverpool

Licence No: 753001

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)

MULTI-MODAL OGVS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30	1	80100	0.009	1	80100	0.002	1	80100	0.011
05:30 - 06:00	1	80100	0.002	1	80100	0.004	1	80100	0.006
06:00 - 06:30	1	80100	0.001	1	80100	0.004	1	80100	0.005
06:30 - 07:00	1	80100	0.006	1	80100	0.005	1	80100	0.011
07:00 - 07:30	1	80100	0.014	1	80100	0.012	1	80100	0.026
07:30 - 08:00	1	80100	0.010	1	80100	0.006	1	80100	0.016
08:00 - 08:30	1	80100	0.014	1	80100	0.010	1	80100	0.024
08:30 - 09:00	1	80100	0.014	1	80100	0.010	1	80100	0.024
09:00 - 09:30	1	80100	0.017	1	80100	0.012	1	80100	0.029
09:30 - 10:00	1	80100	0.016	1	80100	0.012	1	80100	0.028
10:00 - 10:30	1	80100	0.020	1	80100	0.012	1	80100	0.032
10:30 - 11:00	1	80100	0.021	1	80100	0.037	1	80100	0.058
11:00 - 11:30	1	80100	0.014	1	80100	0.009	1	80100	0.023
11:30 - 12:00	1	80100	0.024	1	80100	0.012	1	80100	0.036
12:00 - 12:30	1	80100	0.016	1	80100	0.015	1	80100	0.031
12:30 - 13:00	1	80100	0.020	1	80100	0.021	1	80100	0.041
13:00 - 13:30	1	80100	0.014	1	80100	0.017	1	80100	0.031
13:30 - 14:00	1	80100	0.016	1	80100	0.011	1	80100	0.027
14:00 - 14:30	1	80100	0.017	1	80100	0.015	1	80100	0.032
14:30 - 15:00	1	80100	0.022	1	80100	0.019	1	80100	0.041
15:00 - 15:30	1	80100	0.022	1	80100	0.020	1	80100	0.042
15:30 - 16:00	1	80100	0.016	1	80100	0.017	1	80100	0.033
16:00 - 16:30	1	80100	0.010	1	80100	0.014	1	80100	0.024
16:30 - 17:00	1	80100	0.014	1	80100	0.007	1	80100	0.021
17:00 - 17:30	1	80100	0.021	1	80100	0.011	1	80100	0.032
17:30 - 18:00	1	80100	0.016	1	80100	0.015	1	80100	0.031
18:00 - 18:30	1	80100	0.009	1	80100	0.019	1	80100	0.028
18:30 - 19:00	1	80100	0.012	1	80100	0.021	1	80100	0.033
19:00 - 19:30	1	80100	0.007	1	80100	0.011	1	80100	0.018
19:30 - 20:00	1	80100	0.006	1	80100	0.020	1	80100	0.026
20:00 - 20:30	1	80100	0.011	1	80100	0.016	1	80100	0.027
20:30 - 21:00	1	80100	0.006	1	80100	0.012	1	80100	0.018
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			0.437			0.428			0.865

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

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

PRIME Transport Planning ' Hurricane Court Liverpool

Licence No: 753001

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)

MULTI-MODAL CYCLISTS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30	1	80100	0.000	1	80100	0.000	1	80100	0.000
05:30 - 06:00	1	80100	0.005	1	80100	0.000	1	80100	0.005
06:00 - 06:30	1	80100	0.000	1	80100	0.000	1	80100	0.000
06:30 - 07:00	1	80100	0.000	1	80100	0.000	1	80100	0.000
07:00 - 07:30	1	80100	0.000	1	80100	0.000	1	80100	0.000
07:30 - 08:00	1	80100	0.000	1	80100	0.000	1	80100	0.000
08:00 - 08:30	1	80100	0.000	1	80100	0.000	1	80100	0.000
08:30 - 09:00	1	80100	0.000	1	80100	0.000	1	80100	0.000
09:00 - 09:30	1	80100	0.000	1	80100	0.000	1	80100	0.000
09:30 - 10:00	1	80100	0.000	1	80100	0.000	1	80100	0.000
10:00 - 10:30	1	80100	0.000	1	80100	0.001	1	80100	0.001
10:30 - 11:00	1	80100	0.004	1	80100	0.000	1	80100	0.004
11:00 - 11:30	1	80100	0.000	1	80100	0.000	1	80100	0.000
11:30 - 12:00	1	80100	0.000	1	80100	0.000	1	80100	0.000
12:00 - 12:30	1	80100	0.000	1	80100	0.000	1	80100	0.000
12:30 - 13:00	1	80100	0.000	1	80100	0.000	1	80100	0.000
13:00 - 13:30	1	80100	0.002	1	80100	0.000	1	80100	0.002
13:30 - 14:00	1	80100	0.002	1	80100	0.000	1	80100	0.002
14:00 - 14:30	1	80100	0.000	1	80100	0.000	1	80100	0.000
14:30 - 15:00	1	80100	0.000	1	80100	0.001	1	80100	0.001
15:00 - 15:30	1	80100	0.000	1	80100	0.000	1	80100	0.000
15:30 - 16:00	1	80100	0.000	1	80100	0.001	1	80100	0.001
16:00 - 16:30	1	80100	0.000	1	80100	0.001	1	80100	0.001
16:30 - 17:00	1	80100	0.000	1	80100	0.000	1	80100	0.000
17:00 - 17:30	1	80100	0.000	1	80100	0.000	1	80100	0.000
17:30 - 18:00	1	80100	0.001	1	80100	0.000	1	80100	0.001
18:00 - 18:30	1	80100	0.001	1	80100	0.000	1	80100	0.001
18:30 - 19:00	1	80100	0.000	1	80100	0.000	1	80100	0.000
19:00 - 19:30	1	80100	0.000	1	80100	0.006	1	80100	0.006
19:30 - 20:00	1	80100	0.000	1	80100	0.004	1	80100	0.004
20:00 - 20:30	1	80100	0.000	1	80100	0.000	1	80100	0.000
20:30 - 21:00	1	80100	0.000	1	80100	0.000	1	80100	0.000
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			0.015			0.014			0.029

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

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

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)
 MULTI-MODAL VEHICLE OCCUPANTS
 Calculation factor: 100 sqm
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30	1	80100	0.062	1	80100	0.021	1	80100	0.083
05:30 - 06:00	1	80100	0.094	1	80100	0.022	1	80100	0.116
06:00 - 06:30	1	80100	0.014	1	80100	0.056	1	80100	0.070
06:30 - 07:00	1	80100	0.024	1	80100	0.075	1	80100	0.099
07:00 - 07:30	1	80100	0.017	1	80100	0.016	1	80100	0.033
07:30 - 08:00	1	80100	0.022	1	80100	0.009	1	80100	0.031
08:00 - 08:30	1	80100	0.020	1	80100	0.014	1	80100	0.034
08:30 - 09:00	1	80100	0.029	1	80100	0.012	1	80100	0.041
09:00 - 09:30	1	80100	0.034	1	80100	0.020	1	80100	0.054
09:30 - 10:00	1	80100	0.036	1	80100	0.044	1	80100	0.080
10:00 - 10:30	1	80100	0.044	1	80100	0.049	1	80100	0.093
10:30 - 11:00	1	80100	0.040	1	80100	0.040	1	80100	0.080
11:00 - 11:30	1	80100	0.037	1	80100	0.015	1	80100	0.052
11:30 - 12:00	1	80100	0.045	1	80100	0.057	1	80100	0.102
12:00 - 12:30	1	80100	0.040	1	80100	0.051	1	80100	0.091
12:30 - 13:00	1	80100	0.044	1	80100	0.064	1	80100	0.108
13:00 - 13:30	1	80100	0.046	1	80100	0.030	1	80100	0.076
13:30 - 14:00	1	80100	0.049	1	80100	0.041	1	80100	0.090
14:00 - 14:30	1	80100	0.037	1	80100	0.114	1	80100	0.151
14:30 - 15:00	1	80100	0.044	1	80100	0.035	1	80100	0.079
15:00 - 15:30	1	80100	0.044	1	80100	0.027	1	80100	0.071
15:30 - 16:00	1	80100	0.034	1	80100	0.037	1	80100	0.071
16:00 - 16:30	1	80100	0.014	1	80100	0.034	1	80100	0.048
16:30 - 17:00	1	80100	0.031	1	80100	0.016	1	80100	0.047
17:00 - 17:30	1	80100	0.034	1	80100	0.019	1	80100	0.053
17:30 - 18:00	1	80100	0.030	1	80100	0.022	1	80100	0.052
18:00 - 18:30	1	80100	0.021	1	80100	0.045	1	80100	0.066
18:30 - 19:00	1	80100	0.022	1	80100	0.031	1	80100	0.053
19:00 - 19:30	1	80100	0.012	1	80100	0.015	1	80100	0.027
19:30 - 20:00	1	80100	0.021	1	80100	0.030	1	80100	0.051
20:00 - 20:30	1	80100	0.012	1	80100	0.025	1	80100	0.037
20:30 - 21:00	1	80100	0.026	1	80100	0.020	1	80100	0.046
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			1.079			1.106			2.185

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

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PRIME Transport Planning ' Hurricane Court Liverpool

Licence No: 753001

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)

MULTI-MODAL PEDESTRIANS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30	1	80100	0.002	1	80100	0.000	1	80100	0.002
05:30 - 06:00	1	80100	0.016	1	80100	0.025	1	80100	0.041
06:00 - 06:30	1	80100	0.015	1	80100	0.000	1	80100	0.015
06:30 - 07:00	1	80100	0.000	1	80100	0.000	1	80100	0.000
07:00 - 07:30	1	80100	0.000	1	80100	0.000	1	80100	0.000
07:30 - 08:00	1	80100	0.002	1	80100	0.001	1	80100	0.003
08:00 - 08:30	1	80100	0.000	1	80100	0.000	1	80100	0.000
08:30 - 09:00	1	80100	0.000	1	80100	0.000	1	80100	0.000
09:00 - 09:30	1	80100	0.015	1	80100	0.000	1	80100	0.015
09:30 - 10:00	1	80100	0.011	1	80100	0.000	1	80100	0.011
10:00 - 10:30	1	80100	0.000	1	80100	0.000	1	80100	0.000
10:30 - 11:00	1	80100	0.004	1	80100	0.001	1	80100	0.005
11:00 - 11:30	1	80100	0.009	1	80100	0.000	1	80100	0.009
11:30 - 12:00	1	80100	0.007	1	80100	0.002	1	80100	0.009
12:00 - 12:30	1	80100	0.002	1	80100	0.001	1	80100	0.003
12:30 - 13:00	1	80100	0.007	1	80100	0.001	1	80100	0.008
13:00 - 13:30	1	80100	0.000	1	80100	0.000	1	80100	0.000
13:30 - 14:00	1	80100	0.000	1	80100	0.000	1	80100	0.000
14:00 - 14:30	1	80100	0.000	1	80100	0.004	1	80100	0.004
14:30 - 15:00	1	80100	0.000	1	80100	0.002	1	80100	0.002
15:00 - 15:30	1	80100	0.000	1	80100	0.000	1	80100	0.000
15:30 - 16:00	1	80100	0.000	1	80100	0.000	1	80100	0.000
16:00 - 16:30	1	80100	0.000	1	80100	0.011	1	80100	0.011
16:30 - 17:00	1	80100	0.000	1	80100	0.011	1	80100	0.011
17:00 - 17:30	1	80100	0.001	1	80100	0.000	1	80100	0.001
17:30 - 18:00	1	80100	0.006	1	80100	0.000	1	80100	0.006
18:00 - 18:30	1	80100	0.000	1	80100	0.001	1	80100	0.001
18:30 - 19:00	1	80100	0.000	1	80100	0.002	1	80100	0.002
19:00 - 19:30	1	80100	0.001	1	80100	0.004	1	80100	0.005
19:30 - 20:00	1	80100	0.002	1	80100	0.026	1	80100	0.028
20:00 - 20:30	1	80100	0.000	1	80100	0.022	1	80100	0.022
20:30 - 21:00	1	80100	0.006	1	80100	0.000	1	80100	0.006
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			0.106			0.114			0.220

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

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

PRIME Transport Planning ' Hurricane Court Liverpool

Licence No: 753001

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)

MULTI-MODAL BUS/TRAM PASSENGERS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30	1	80100	0.000	1	80100	0.000	1	80100	0.000
05:30 - 06:00	1	80100	0.010	1	80100	0.006	1	80100	0.016
06:00 - 06:30	1	80100	0.007	1	80100	0.000	1	80100	0.007
06:30 - 07:00	1	80100	0.000	1	80100	0.000	1	80100	0.000
07:00 - 07:30	1	80100	0.000	1	80100	0.000	1	80100	0.000
07:30 - 08:00	1	80100	0.000	1	80100	0.001	1	80100	0.001
08:00 - 08:30	1	80100	0.000	1	80100	0.000	1	80100	0.000
08:30 - 09:00	1	80100	0.000	1	80100	0.000	1	80100	0.000
09:00 - 09:30	1	80100	0.004	1	80100	0.000	1	80100	0.004
09:30 - 10:00	1	80100	0.000	1	80100	0.000	1	80100	0.000
10:00 - 10:30	1	80100	0.000	1	80100	0.001	1	80100	0.001
10:30 - 11:00	1	80100	0.000	1	80100	0.001	1	80100	0.001
11:00 - 11:30	1	80100	0.001	1	80100	0.000	1	80100	0.001
11:30 - 12:00	1	80100	0.002	1	80100	0.002	1	80100	0.004
12:00 - 12:30	1	80100	0.000	1	80100	0.002	1	80100	0.002
12:30 - 13:00	1	80100	0.000	1	80100	0.000	1	80100	0.000
13:00 - 13:30	1	80100	0.000	1	80100	0.000	1	80100	0.000
13:30 - 14:00	1	80100	0.000	1	80100	0.000	1	80100	0.000
14:00 - 14:30	1	80100	0.000	1	80100	0.001	1	80100	0.001
14:30 - 15:00	1	80100	0.000	1	80100	0.001	1	80100	0.001
15:00 - 15:30	1	80100	0.000	1	80100	0.000	1	80100	0.000
15:30 - 16:00	1	80100	0.000	1	80100	0.000	1	80100	0.000
16:00 - 16:30	1	80100	0.000	1	80100	0.000	1	80100	0.000
16:30 - 17:00	1	80100	0.000	1	80100	0.001	1	80100	0.001
17:00 - 17:30	1	80100	0.001	1	80100	0.000	1	80100	0.001
17:30 - 18:00	1	80100	0.001	1	80100	0.000	1	80100	0.001
18:00 - 18:30	1	80100	0.001	1	80100	0.000	1	80100	0.001
18:30 - 19:00	1	80100	0.001	1	80100	0.000	1	80100	0.001
19:00 - 19:30	1	80100	0.001	1	80100	0.000	1	80100	0.001
19:30 - 20:00	1	80100	0.000	1	80100	0.007	1	80100	0.007
20:00 - 20:30	1	80100	0.000	1	80100	0.000	1	80100	0.000
20:30 - 21:00	1	80100	0.000	1	80100	0.000	1	80100	0.000
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			0.029			0.023			0.052

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

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

PRIME Transport Planning ' Hurricane Court Liverpool

Licence No: 753001

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)

MULTI-MODAL PUBLIC TRANSPORT USERS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30	1	80100	0.000	1	80100	0.000	1	80100	0.000
05:30 - 06:00	1	80100	0.010	1	80100	0.006	1	80100	0.016
06:00 - 06:30	1	80100	0.007	1	80100	0.000	1	80100	0.007
06:30 - 07:00	1	80100	0.000	1	80100	0.000	1	80100	0.000
07:00 - 07:30	1	80100	0.000	1	80100	0.000	1	80100	0.000
07:30 - 08:00	1	80100	0.000	1	80100	0.001	1	80100	0.001
08:00 - 08:30	1	80100	0.000	1	80100	0.000	1	80100	0.000
08:30 - 09:00	1	80100	0.000	1	80100	0.000	1	80100	0.000
09:00 - 09:30	1	80100	0.004	1	80100	0.000	1	80100	0.004
09:30 - 10:00	1	80100	0.000	1	80100	0.000	1	80100	0.000
10:00 - 10:30	1	80100	0.000	1	80100	0.001	1	80100	0.001
10:30 - 11:00	1	80100	0.000	1	80100	0.001	1	80100	0.001
11:00 - 11:30	1	80100	0.001	1	80100	0.000	1	80100	0.001
11:30 - 12:00	1	80100	0.002	1	80100	0.002	1	80100	0.004
12:00 - 12:30	1	80100	0.000	1	80100	0.002	1	80100	0.002
12:30 - 13:00	1	80100	0.000	1	80100	0.000	1	80100	0.000
13:00 - 13:30	1	80100	0.000	1	80100	0.000	1	80100	0.000
13:30 - 14:00	1	80100	0.000	1	80100	0.000	1	80100	0.000
14:00 - 14:30	1	80100	0.000	1	80100	0.001	1	80100	0.001
14:30 - 15:00	1	80100	0.000	1	80100	0.001	1	80100	0.001
15:00 - 15:30	1	80100	0.000	1	80100	0.000	1	80100	0.000
15:30 - 16:00	1	80100	0.000	1	80100	0.000	1	80100	0.000
16:00 - 16:30	1	80100	0.000	1	80100	0.000	1	80100	0.000
16:30 - 17:00	1	80100	0.000	1	80100	0.001	1	80100	0.001
17:00 - 17:30	1	80100	0.001	1	80100	0.000	1	80100	0.001
17:30 - 18:00	1	80100	0.001	1	80100	0.000	1	80100	0.001
18:00 - 18:30	1	80100	0.001	1	80100	0.000	1	80100	0.001
18:30 - 19:00	1	80100	0.001	1	80100	0.000	1	80100	0.001
19:00 - 19:30	1	80100	0.001	1	80100	0.000	1	80100	0.001
19:30 - 20:00	1	80100	0.000	1	80100	0.007	1	80100	0.007
20:00 - 20:30	1	80100	0.000	1	80100	0.000	1	80100	0.000
20:30 - 21:00	1	80100	0.000	1	80100	0.000	1	80100	0.000
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			0.029			0.023			0.052

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

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

PRIME Transport Planning ' Hurricane Court Liverpool

Licence No: 753001

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)

MULTI-MODAL TOTAL PEOPLE

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Total People to Total Vehicles ratio (all time periods and directions): 1.17

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30	1	80100	0.065	1	80100	0.021	1	80100	0.086
05:30 - 06:00	1	80100	0.125	1	80100	0.054	1	80100	0.179
06:00 - 06:30	1	80100	0.036	1	80100	0.056	1	80100	0.092
06:30 - 07:00	1	80100	0.024	1	80100	0.075	1	80100	0.099
07:00 - 07:30	1	80100	0.017	1	80100	0.016	1	80100	0.033
07:30 - 08:00	1	80100	0.025	1	80100	0.011	1	80100	0.036
08:00 - 08:30	1	80100	0.020	1	80100	0.014	1	80100	0.034
08:30 - 09:00	1	80100	0.029	1	80100	0.012	1	80100	0.041
09:00 - 09:30	1	80100	0.052	1	80100	0.020	1	80100	0.072
09:30 - 10:00	1	80100	0.047	1	80100	0.044	1	80100	0.091
10:00 - 10:30	1	80100	0.044	1	80100	0.051	1	80100	0.095
10:30 - 11:00	1	80100	0.047	1	80100	0.042	1	80100	0.089
11:00 - 11:30	1	80100	0.047	1	80100	0.015	1	80100	0.062
11:30 - 12:00	1	80100	0.055	1	80100	0.062	1	80100	0.117
12:00 - 12:30	1	80100	0.042	1	80100	0.055	1	80100	0.097
12:30 - 13:00	1	80100	0.051	1	80100	0.065	1	80100	0.116
13:00 - 13:30	1	80100	0.049	1	80100	0.030	1	80100	0.079
13:30 - 14:00	1	80100	0.051	1	80100	0.041	1	80100	0.092
14:00 - 14:30	1	80100	0.037	1	80100	0.119	1	80100	0.156
14:30 - 15:00	1	80100	0.044	1	80100	0.040	1	80100	0.084
15:00 - 15:30	1	80100	0.044	1	80100	0.027	1	80100	0.071
15:30 - 16:00	1	80100	0.034	1	80100	0.039	1	80100	0.073
16:00 - 16:30	1	80100	0.014	1	80100	0.046	1	80100	0.060
16:30 - 17:00	1	80100	0.031	1	80100	0.029	1	80100	0.060
17:00 - 17:30	1	80100	0.036	1	80100	0.019	1	80100	0.055
17:30 - 18:00	1	80100	0.039	1	80100	0.022	1	80100	0.061
18:00 - 18:30	1	80100	0.024	1	80100	0.046	1	80100	0.070
18:30 - 19:00	1	80100	0.024	1	80100	0.034	1	80100	0.058
19:00 - 19:30	1	80100	0.015	1	80100	0.025	1	80100	0.040
19:30 - 20:00	1	80100	0.024	1	80100	0.067	1	80100	0.091
20:00 - 20:30	1	80100	0.012	1	80100	0.047	1	80100	0.059
20:30 - 21:00	1	80100	0.032	1	80100	0.020	1	80100	0.052
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			1.236			1.264			2.500

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

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

PRIME Transport Planning ' Hurricane Court Liverpool

Licence No: 753001

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)

MULTI-MODAL CARS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30	1	80100	0.047	1	80100	0.019	1	80100	0.066
05:30 - 06:00	1	80100	0.087	1	80100	0.017	1	80100	0.104
06:00 - 06:30	1	80100	0.010	1	80100	0.051	1	80100	0.061
06:30 - 07:00	1	80100	0.015	1	80100	0.069	1	80100	0.084
07:00 - 07:30	1	80100	0.004	1	80100	0.004	1	80100	0.008
07:30 - 08:00	1	80100	0.012	1	80100	0.002	1	80100	0.014
08:00 - 08:30	1	80100	0.005	1	80100	0.004	1	80100	0.009
08:30 - 09:00	1	80100	0.006	1	80100	0.001	1	80100	0.007
09:00 - 09:30	1	80100	0.010	1	80100	0.004	1	80100	0.014
09:30 - 10:00	1	80100	0.015	1	80100	0.029	1	80100	0.044
10:00 - 10:30	1	80100	0.020	1	80100	0.031	1	80100	0.051
10:30 - 11:00	1	80100	0.017	1	80100	0.002	1	80100	0.019
11:00 - 11:30	1	80100	0.020	1	80100	0.006	1	80100	0.026
11:30 - 12:00	1	80100	0.020	1	80100	0.034	1	80100	0.054
12:00 - 12:30	1	80100	0.022	1	80100	0.036	1	80100	0.058
12:30 - 13:00	1	80100	0.024	1	80100	0.037	1	80100	0.061
13:00 - 13:30	1	80100	0.031	1	80100	0.012	1	80100	0.043
13:30 - 14:00	1	80100	0.032	1	80100	0.026	1	80100	0.058
14:00 - 14:30	1	80100	0.019	1	80100	0.082	1	80100	0.101
14:30 - 15:00	1	80100	0.021	1	80100	0.011	1	80100	0.032
15:00 - 15:30	1	80100	0.019	1	80100	0.007	1	80100	0.026
15:30 - 16:00	1	80100	0.017	1	80100	0.017	1	80100	0.034
16:00 - 16:30	1	80100	0.011	1	80100	0.016	1	80100	0.027
16:30 - 17:00	1	80100	0.016	1	80100	0.007	1	80100	0.023
17:00 - 17:30	1	80100	0.014	1	80100	0.005	1	80100	0.019
17:30 - 18:00	1	80100	0.015	1	80100	0.007	1	80100	0.022
18:00 - 18:30	1	80100	0.012	1	80100	0.017	1	80100	0.029
18:30 - 19:00	1	80100	0.007	1	80100	0.004	1	80100	0.011
19:00 - 19:30	1	80100	0.007	1	80100	0.002	1	80100	0.009
19:30 - 20:00	1	80100	0.014	1	80100	0.010	1	80100	0.024
20:00 - 20:30	1	80100	0.001	1	80100	0.009	1	80100	0.010
20:30 - 21:00	1	80100	0.017	1	80100	0.007	1	80100	0.024
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			0.587			0.585			1.172

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

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

PRIME Transport Planning ' Hurricane Court Liverpool

Licence No: 753001

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)

MULTI-MODAL LGVS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30	1	80100	0.000	1	80100	0.000	1	80100	0.000
05:30 - 06:00	1	80100	0.000	1	80100	0.000	1	80100	0.000
06:00 - 06:30	1	80100	0.001	1	80100	0.000	1	80100	0.001
06:30 - 07:00	1	80100	0.002	1	80100	0.001	1	80100	0.003
07:00 - 07:30	1	80100	0.000	1	80100	0.000	1	80100	0.000
07:30 - 08:00	1	80100	0.000	1	80100	0.000	1	80100	0.000
08:00 - 08:30	1	80100	0.000	1	80100	0.000	1	80100	0.000
08:30 - 09:00	1	80100	0.004	1	80100	0.000	1	80100	0.004
09:00 - 09:30	1	80100	0.002	1	80100	0.000	1	80100	0.002
09:30 - 10:00	1	80100	0.002	1	80100	0.000	1	80100	0.002
10:00 - 10:30	1	80100	0.004	1	80100	0.004	1	80100	0.008
10:30 - 11:00	1	80100	0.001	1	80100	0.000	1	80100	0.001
11:00 - 11:30	1	80100	0.001	1	80100	0.000	1	80100	0.001
11:30 - 12:00	1	80100	0.001	1	80100	0.005	1	80100	0.006
12:00 - 12:30	1	80100	0.001	1	80100	0.000	1	80100	0.001
12:30 - 13:00	1	80100	0.000	1	80100	0.002	1	80100	0.002
13:00 - 13:30	1	80100	0.000	1	80100	0.000	1	80100	0.000
13:30 - 14:00	1	80100	0.000	1	80100	0.001	1	80100	0.001
14:00 - 14:30	1	80100	0.000	1	80100	0.002	1	80100	0.002
14:30 - 15:00	1	80100	0.000	1	80100	0.000	1	80100	0.000
15:00 - 15:30	1	80100	0.002	1	80100	0.000	1	80100	0.002
15:30 - 16:00	1	80100	0.000	1	80100	0.000	1	80100	0.000
16:00 - 16:30	1	80100	0.000	1	80100	0.000	1	80100	0.000
16:30 - 17:00	1	80100	0.000	1	80100	0.000	1	80100	0.000
17:00 - 17:30	1	80100	0.000	1	80100	0.000	1	80100	0.000
17:30 - 18:00	1	80100	0.000	1	80100	0.000	1	80100	0.000
18:00 - 18:30	1	80100	0.001	1	80100	0.004	1	80100	0.005
18:30 - 19:00	1	80100	0.000	1	80100	0.004	1	80100	0.004
19:00 - 19:30	1	80100	0.000	1	80100	0.000	1	80100	0.000
19:30 - 20:00	1	80100	0.000	1	80100	0.000	1	80100	0.000
20:00 - 20:30	1	80100	0.000	1	80100	0.000	1	80100	0.000
20:30 - 21:00	1	80100	0.001	1	80100	0.000	1	80100	0.001
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			0.023			0.023			0.046

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

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

PRIME Transport Planning ' Hurricane Court Liverpool

Licence No: 753001

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)

MULTI-MODAL Servicing Vehicles

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30	1	80100	0.009	1	80100	0.002	1	80100	0.011
05:30 - 06:00	1	80100	0.002	1	80100	0.004	1	80100	0.006
06:00 - 06:30	1	80100	0.002	1	80100	0.004	1	80100	0.006
06:30 - 07:00	1	80100	0.009	1	80100	0.006	1	80100	0.015
07:00 - 07:30	1	80100	0.014	1	80100	0.012	1	80100	0.026
07:30 - 08:00	1	80100	0.010	1	80100	0.006	1	80100	0.016
08:00 - 08:30	1	80100	0.014	1	80100	0.010	1	80100	0.024
08:30 - 09:00	1	80100	0.017	1	80100	0.010	1	80100	0.027
09:00 - 09:30	1	80100	0.020	1	80100	0.012	1	80100	0.032
09:30 - 10:00	1	80100	0.019	1	80100	0.012	1	80100	0.031
10:00 - 10:30	1	80100	0.024	1	80100	0.016	1	80100	0.040
10:30 - 11:00	1	80100	0.022	1	80100	0.037	1	80100	0.059
11:00 - 11:30	1	80100	0.015	1	80100	0.009	1	80100	0.024
11:30 - 12:00	1	80100	0.025	1	80100	0.017	1	80100	0.042
12:00 - 12:30	1	80100	0.017	1	80100	0.015	1	80100	0.032
12:30 - 13:00	1	80100	0.020	1	80100	0.024	1	80100	0.044
13:00 - 13:30	1	80100	0.014	1	80100	0.017	1	80100	0.031
13:30 - 14:00	1	80100	0.016	1	80100	0.012	1	80100	0.028
14:00 - 14:30	1	80100	0.017	1	80100	0.017	1	80100	0.034
14:30 - 15:00	1	80100	0.022	1	80100	0.019	1	80100	0.041
15:00 - 15:30	1	80100	0.025	1	80100	0.020	1	80100	0.045
15:30 - 16:00	1	80100	0.016	1	80100	0.017	1	80100	0.033
16:00 - 16:30	1	80100	0.010	1	80100	0.014	1	80100	0.024
16:30 - 17:00	1	80100	0.014	1	80100	0.007	1	80100	0.021
17:00 - 17:30	1	80100	0.021	1	80100	0.011	1	80100	0.032
17:30 - 18:00	1	80100	0.016	1	80100	0.015	1	80100	0.031
18:00 - 18:30	1	80100	0.010	1	80100	0.022	1	80100	0.032
18:30 - 19:00	1	80100	0.012	1	80100	0.025	1	80100	0.037
19:00 - 19:30	1	80100	0.007	1	80100	0.011	1	80100	0.018
19:30 - 20:00	1	80100	0.006	1	80100	0.020	1	80100	0.026
20:00 - 20:30	1	80100	0.011	1	80100	0.016	1	80100	0.027
20:30 - 21:00	1	80100	0.007	1	80100	0.012	1	80100	0.019
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			0.463			0.451			0.914

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

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

APPENDIX 4

HYBRID TRIP RATES

Cars

HALF HOURLY

User Class: Cars

Site:		Exertis, Burnley			James Hall Spar, Preston			Lidl, Exeter			Tesco, Doncaster			Average	
Time	Arrivals	Departures	Total	Arrivals	Departures	Total	Arrivals	Departures	Total	Arrivals	Departures	Total	Arrivals	Departures	Total
07:00 - 07:30	0.009	0.003	0.012	0.090	0.011	0.101	0.012	0.008	0.020	0.004	0.004	0.008	0.029	0.007	0.035
07:30 - 08:00	0.065	0.004	0.069	0.097	0.008	0.105	0.031	0.004	0.035	0.012	0.002	0.014	0.051	0.004	0.056
08:00 - 08:30	0.072	0.003	0.075	0.199	0.008	0.206	0.051	0.010	0.061	0.005	0.004	0.009	0.082	0.006	0.088
08:30 - 09:00	0.167	0.004	0.172	0.071	0.008	0.078	0.043	0.010	0.053	0.008	0.003	0.011	0.072	0.006	0.078
09:00 - 09:30	0.022	0.010	0.032	0.029	0.004	0.032	0.012	0.004	0.016	0.012	0.005	0.017	0.019	0.006	0.024
09:30 - 10:00	0.014	0.001	0.016	0.006	0.011	0.017	0.004	0.010	0.014	0.016	0.031	0.047	0.010	0.013	0.024
10:00 - 10:30	0.003	0.001	0.004	0.010	0.006	0.015	0.010	0.012	0.022	0.020	0.031	0.051	0.011	0.013	0.023
10:30 - 11:00	0.004	0.004	0.009	0.010	0.006	0.015	0.018	0.002	0.020	0.017	0.002	0.019	0.012	0.004	0.016
11:00 - 11:30	0.001	0.000	0.001	0.021	0.021	0.042	0.006	0.006	0.012	0.021	0.006	0.027	0.012	0.008	0.021
11:30 - 12:00	0.003	0.004	0.007	0.015	0.013	0.029	0.016	0.012	0.028	0.020	0.035	0.055	0.014	0.016	0.030
12:00 - 12:30	0.006	0.017	0.023	0.008	0.044	0.052	0.018	0.018	0.036	0.022	0.036	0.058	0.013	0.029	0.042
12:30 - 13:00	0.019	0.009	0.027	0.036	0.048	0.084	0.026	0.024	0.050	0.024	0.037	0.061	0.026	0.029	0.056
13:00 - 13:30	0.016	0.020	0.036	0.048	0.036	0.084	0.018	0.018	0.036	0.031	0.012	0.043	0.028	0.022	0.050
13:30 - 14:00	0.091	0.019	0.110	0.038	0.025	0.063	0.026	0.031	0.057	0.032	0.026	0.058	0.047	0.025	0.072
14:00 - 14:30	0.004	0.088	0.092	0.017	0.061	0.078	0.008	0.051	0.059	0.019	0.082	0.101	0.012	0.071	0.083
14:30 - 15:00	0.001	0.006	0.007	0.008	0.076	0.084	0.012	0.047	0.059	0.021	0.011	0.032	0.011	0.035	0.046
15:00 - 15:30	0.000	0.025	0.025	0.010	0.076	0.086	0.002	0.018	0.020	0.019	0.007	0.026	0.008	0.031	0.039
15:30 - 16:00	0.006	0.006	0.012	0.008	0.061	0.069	0.010	0.018	0.028	0.017	0.017	0.034	0.010	0.025	0.036
16:00 - 16:30	0.004	0.048	0.052	0.034	0.137	0.172	0.004	0.012	0.016	0.011	0.016	0.027	0.013	0.053	0.067
16:30 - 17:00	0.012	0.049	0.061	0.025	0.124	0.149	0.010	0.016	0.026	0.017	0.008	0.025	0.016	0.049	0.065
17:00 - 17:30	0.006	0.069	0.075	0.034	0.233	0.267	0.014	0.033	0.047	0.014	0.005	0.019	0.017	0.085	0.102
17:30 - 18:00	0.009	0.134	0.143	0.023	0.113	0.136	0.006	0.033	0.039	0.015	0.007	0.022	0.013	0.072	0.085
18:00 - 18:30	0.000	0.027	0.027	0.006	0.031	0.036	0.006	0.022	0.028	0.012	0.017	0.029	0.006	0.024	0.030
18:30 - 19:00	0.003	0.009	0.012	0.002	0.015	0.017	0.000	0.012	0.012	0.007	0.004	0.011	0.003	0.010	0.013
12-hour	0.537	0.561	1.098	0.842	1.176	2.018	0.363	0.431	0.794	0.396	0.408	0.804	0.534	0.644	1.178

HOURLY BY HALF HOUR

User Class: Cars

Site:		Exertis, Burnley			James Hall Spar, Preston			Lidl, Exeter			Tesco, Doncaster			Average	
Time	Arrivals	Departures	Total	Arrivals	Departures	Total	Arrivals	Departures	Total	Arrivals	Departures	Total	Arrivals	Departures	Total
07:00 - 08:00	0.074	0.007	0.081	0.187	0.019	0.206	0.043	0.012	0.055	0.016	0.006	0.022	0.080	0.011	0.091
07:30 - 08:30	0.137	0.007	0.144	0.296	0.015	0.311	0.082	0.014	0.096	0.017	0.006	0.023	0.133	0.011	0.144
08:00 - 09:00	0.239	0.007	0.247	0.269	0.015	0.284	0.094	0.020	0.114	0.013	0.007	0.020	0.154	0.012	0.166
08:30 - 09:30	0.189	0.014	0.203	0.099	0.011	0.111	0.055	0.014	0.069	0.020	0.008	0.028	0.091	0.012	0.103
09:00 - 10:00	0.036	0.012	0.048	0.034	0.015	0.050	0.016	0.014	0.030	0.028	0.036	0.064	0.029	0.019	0.048
09:30 - 10:30	0.017	0.003	0.020	0.015	0.017	0.032	0.014	0.022	0.036	0.036	0.062	0.098	0.021	0.026	0.047
10:00 - 11:00	0.007	0.006	0.013	0.019	0.011	0.031	0.028	0.014	0.042	0.037	0.033	0.070	0.023	0.016	0.039
10:30 - 11:30	0.006	0.004	0.010	0.031	0.027	0.057	0.024	0.008	0.032	0.038	0.008	0.046	0.025	0.012	0.036
11:00 - 12:00	0.004	0.004	0.009	0.036	0.034	0.071	0.022	0.018	0.040	0.041	0.041	0.082	0.026	0.024	0.050
11:30 - 12:30	0.009	0.022	0.030	0.023	0.057	0.080	0.034	0.030	0.064	0.042	0.071	0.113	0.027	0.045	0.072
12:00 - 13:00	0.025	0.026	0.050	0.044	0.092	0.136	0.044	0.042	0.086	0.046	0.073	0.119	0.040	0.058	0.098
12:30 - 13:30	0.035	0.029	0.063	0.084	0.084	0.168	0.044	0.042	0.086	0.055	0.049	0.104	0.054	0.051	0.105
13:00 - 14:00	0.107	0.039	0.146	0.086	0.061	0.147	0.044	0.049	0.093	0.063	0.038	0.101	0.075	0.047	0.122
13:30 - 14:30	0.095	0.107	0.202	0.055	0.086	0.141	0.034	0.082	0.116	0.051	0.108	0.159	0.059	0.096	0.155
14:00 - 15:00	0.006	0.094	0.100	0.025	0.137	0.162	0.020	0.098	0.118	0.040	0.093	0.133	0.023	0.106	0.128
14:30 - 15:30	0.001	0.030	0.032	0.017	0.153	0.170	0.014	0.065	0.079	0.040	0.018	0.058	0.018	0.067	0.085
15:00 - 16:00	0.006	0.030	0.036	0.017	0.137	0.155	0.012	0.036	0.048	0.036	0.024	0.060	0.018	0.057	0.075
15:30 - 16:30	0.010	0.053	0.063	0.042	0.199	0.241	0.014	0.030	0.044	0.028	0.033	0.061	0.024	0.079	0.102
16:00 - 17:00	0.016	0.097	0.112	0.059	0.262	0.321	0.014	0.028	0.042	0.028	0.024	0.052	0.029	0.103	0.132
16:30 - 17:30	0.017	0.118	0.136	0.059	0.357	0.416	0.024	0.049	0.073	0.031	0.013	0.044	0.033	0.134	0.167
17:00 - 18:00	0.014	0.203	0.218	0.057	0.346	0.403	0.020	0.066	0.086	0.029	0.012	0.041	0.030	0.157	0.187
17:30 - 18:30	0.009	0.162	0.170	0.029	0.143	0.172	0.012	0.055	0.067	0.027	0.024	0.051	0.019	0.096	0.115
18:00 - 19:00	0.003	0.036	0.039	0.008	0.046	0.053	0.006	0.034	0.040	0.019	0.021	0.040	0.009	0.034	0.043
12-hour	1.061	1.111	2.172	1.592	2.325	3.917	0.714	0.842	1.556	0.781	0.808	1.589	1.037	1.271	2.309

HOURLY ON THE HOUR

User Class: Cars

Site:		Exertis, Burnley			James Hall Spar, Preston			Lidl, Exeter			Tesco, Doncaster			Average	
Time	Arrivals	Departures	Total	Arrivals	Departures	Total	Arrivals	Departures	Total	Arrivals	Departures	Total	Arrivals	Departures	Total
07:00 - 08:00	0.074	0.007	0.081	0.187	0.019	0.206	0.043	0.012	0.055	0.016	0.006	0.022	0.080	0.011	0.091
08:00 - 09:00	0.239	0.007	0.247	0.269	0.015	0.284	0.094	0.020	0.114	0.013	0.007	0.020	0.154	0.012	0.166
09:00 - 10:00	0.036	0.012	0.048	0.034	0.015	0.050	0.016	0.014	0.030	0.028	0.036	0.064	0.029	0.019	0.048
10:00 - 11:00	0.007	0.006	0.013	0.019	0.011	0.031	0.028	0.014	0.042	0.037	0.033	0.070	0.023	0.016	0.039
11:00 - 12:00	0.004	0.004	0.009	0.036	0.034	0.071	0.022	0.018	0.040	0.041	0.041	0.082	0.026	0.024	0.050
12:00 - 13:00	0.025	0.026	0.050	0.044	0.092	0.136	0.044	0.042	0.086	0.046	0.073	0.119	0.040	0.058	0.098
13:00 - 14:00	0.107	0.039	0.146	0.086	0.061	0.147	0.044	0.049	0.093	0.063	0.038	0.101	0.075	0.047	0.122
14:00 - 15:00	0.006	0.094	0.100	0.025	0.137	0.162	0.020	0.098	0.118	0.040	0.093	0.133	0.023	0.106	0.128
15:00 - 16:00	0.006	0.030	0.036	0.017	0.137	0.155	0.012	0.036	0.048	0.036	0.024	0.060	0.018	0.057	0.075
16:00 - 17:00	0.016	0.097	0.112	0.059	0.262	0.321	0.014	0.028	0.042	0.028	0.024	0.052	0.029	0.103	0.132
17:00 - 18:00	0.014	0.203	0.218	0.057	0.346	0.403	0.020	0.066	0.086	0.029	0.012	0.041	0.030	0.157	0.187
18:00 - 19:00	0.003	0.036	0.039	0.008	0.046	0.053	0.006	0.034	0.040	0.019	0.021	0.040	0.009	0.034	0.043
12-hour	0.537	0.561	1.098	0.842	1.176	2.018	0.363	0.431	0.794	0.396	0.408	0.804	0.534	0.644	1.178

HALF HOURLY

User Class: LGVs

Site:	Exertis, Burnley						James Hall Spar, Preston			Lidl, Exeter			Tesco, Doncaster			Average	
Time	Arrivals	Departures		Total	Arrivals	Departures		Total	Arrivals	Departures		Total	Arrivals	Departures		Total	
07:00 - 07:30	0.000	0.001	0.001	0.002	0.002	0.002	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	
07:30 - 08:00	0.000	0.001	0.001	0.008	0.004	0.011	0.002	0.000	0.002	0.000	0.000	0.000	0.002	0.001	0.004		
08:00 - 08:30	0.004	0.000	0.004	0.010	0.008	0.017	0.012	0.004	0.016	0.000	0.000	0.000	0.006	0.003	0.009		
08:30 - 09:00	0.003	0.004	0.007	0.004	0.000	0.004	0.018	0.008	0.026	0.004	0.000	0.004	0.007	0.003	0.010		
09:00 - 09:30	0.001	0.000	0.001	0.006	0.004	0.010	0.004	0.002	0.006	0.002	0.000	0.002	0.003	0.001	0.005		
09:30 - 10:00	0.006	0.004	0.010	0.008	0.008	0.015	0.004	0.006	0.010	0.002	0.000	0.002	0.005	0.004	0.009		
10:00 - 10:30	0.003	0.001	0.004	0.010	0.002	0.011	0.006	0.004	0.010	0.004	0.004	0.008	0.006	0.003	0.008		
10:30 - 11:00	0.001	0.004	0.006	0.002	0.008	0.010	0.000	0.000	0.000	0.001	0.000	0.001	0.001	0.003	0.004		
11:00 - 11:30	0.004	0.001	0.006	0.002	0.006	0.008	0.002	0.006	0.008	0.001	0.000	0.001	0.002	0.003	0.006		
11:30 - 12:00	0.003	0.003	0.006	0.004	0.006	0.010	0.004	0.002	0.006	0.001	0.005	0.006	0.003	0.004	0.007		
12:00 - 12:30	0.000	0.003	0.003	0.004	0.006	0.010	0.004	0.006	0.010	0.001	0.000	0.001	0.002	0.004	0.006		
12:30 - 13:00	0.000	0.000	0.000	0.004	0.002	0.006	0.006	0.008	0.014	0.000	0.002	0.002	0.002	0.003	0.005		
13:00 - 13:30	0.000	0.000	0.000	0.000	0.004	0.004	0.006	0.004	0.010	0.000	0.000	0.000	0.002	0.002	0.003		
13:30 - 14:00	0.000	0.000	0.000	0.004	0.000	0.004	0.002	0.006	0.008	0.000	0.001	0.001	0.001	0.002	0.003		
14:00 - 14:30	0.000	0.003	0.003	0.015	0.017	0.032	0.006	0.004	0.010	0.000	0.002	0.002	0.005	0.007	0.012		
14:30 - 15:00	0.001	0.003	0.004	0.004	0.008	0.011	0.008	0.004	0.012	0.000	0.000	0.000	0.003	0.004	0.007		
15:00 - 15:30	0.000	0.001	0.001	0.004	0.000	0.004	0.006	0.006	0.012	0.002	0.000	0.002	0.003	0.002	0.005		
15:30 - 16:00	0.000	0.000	0.000	0.002	0.006	0.008	0.002	0.012	0.014	0.000	0.000	0.000	0.001	0.004	0.005		
16:00 - 16:30	0.003	0.004	0.007	0.000	0.010	0.010	0.002	0.000	0.002	0.000	0.000	0.000	0.001	0.003	0.005		
16:30 - 17:00	0.000	0.000	0.000	0.010	0.004	0.013	0.002	0.006	0.008	0.000	0.000	0.000	0.003	0.002	0.005		
17:00 - 17:30	0.001	0.001	0.003	0.000	0.004	0.004	0.000	0.002	0.002	0.000	0.000	0.000	0.000	0.002	0.002		
17:30 - 18:00	0.000	0.003	0.003	0.004	0.002	0.006	0.000	0.004	0.004	0.000	0.000	0.000	0.001	0.002	0.003		
18:00 - 18:30	0.000	0.000	0.000	0.000	0.002	0.002	0.000	0.000	0.000	0.001	0.004	0.005	0.000	0.001	0.002		
18:30 - 19:00	0.000	0.000	0.000	0.000	0.002	0.002	0.002	0.002	0.004	0.000	0.004	0.004	0.001	0.002	0.002		
12-hour	0.032	0.040	0.072	0.103	0.111	0.214	0.098	0.096	0.194	0.019	0.022	0.041	0.063	0.067	0.130		

HOURLY BY HALF HOUR

User Class: LGVs

Site:	Exertis, Burnley			James Hall Spar, Preston			Lidl, Exeter			Tesco, Doncaster			Average		
Time	Arrivals	Departures	Total	Arrivals	Departures	Total	Arrivals	Departures	Total	Arrivals	Departures	Total	Arrivals	Departures	Total
07:00 - 08:00	0.000	0.003	0.003	0.010	0.006	0.015	0.002	0.000	0.002	0.000	0.000	0.000	0.003	0.002	0.005
07:30 - 08:30	0.004	0.001	0.006	0.017	0.011	0.029	0.014	0.004	0.018	0.000	0.000	0.000	0.009	0.004	0.013
08:00 - 09:00	0.007	0.004	0.012	0.013	0.008	0.021	0.030	0.012	0.042	0.004	0.000	0.004	0.014	0.006	0.020
08:30 - 09:30	0.004	0.004	0.009	0.010	0.004	0.013	0.022	0.010	0.032	0.006	0.000	0.006	0.010	0.005	0.015
09:00 - 10:00	0.007	0.004	0.012	0.013	0.011	0.025	0.008	0.008	0.016	0.004	0.000	0.004	0.008	0.006	0.014
09:30 - 10:30	0.009	0.006	0.014	0.017	0.010	0.027	0.010	0.010	0.020	0.006	0.004	0.010	0.010	0.007	0.018
10:00 - 11:00	0.004	0.006	0.010	0.011	0.010	0.021	0.006	0.004	0.010	0.005	0.004	0.009	0.007	0.006	0.013
10:30 - 11:30	0.006	0.006	0.012	0.004	0.013	0.017	0.002	0.006	0.008	0.002	0.000	0.002	0.003	0.006	0.010
11:00 - 12:00	0.007	0.004	0.012	0.006	0.011	0.017	0.006	0.008	0.014	0.002	0.005	0.007	0.005	0.007	0.012
11:30 - 12:30	0.003	0.006	0.009	0.008	0.011	0.019	0.008	0.008	0.016	0.002	0.005	0.007	0.005	0.008	0.013
12:00 - 13:00	0.000	0.003	0.003	0.008	0.008	0.015	0.010	0.014	0.024	0.001	0.002	0.003	0.005	0.007	0.011
12:30 - 13:30	0.000	0.000	0.000	0.004	0.006	0.010	0.012	0.012	0.024	0.000	0.002	0.002	0.004	0.005	0.009
13:00 - 14:00	0.000	0.000	0.000	0.004	0.004	0.008	0.008	0.010	0.018	0.000	0.001	0.001	0.003	0.004	0.007
13:30 - 14:30	0.000	0.003	0.003	0.019	0.017	0.036	0.008	0.010	0.018	0.000	0.003	0.003	0.007	0.008	0.015
14:00 - 15:00	0.001	0.006	0.007	0.019	0.025	0.044	0.014	0.008	0.022	0.000	0.002	0.002	0.009	0.010	0.019
14:30 - 15:30	0.001	0.004	0.006	0.008	0.008	0.015	0.014	0.010	0.024	0.002	0.000	0.002	0.006	0.005	0.012
15:00 - 16:00	0.000	0.001	0.001	0.006	0.006	0.011	0.008	0.018	0.026	0.002	0.000	0.002	0.004	0.006	0.010
15:30 - 16:30	0.003	0.004	0.007	0.002	0.015	0.017	0.004	0.012	0.016	0.000	0.000	0.000	0.002	0.008	0.010
16:00 - 17:00	0.003	0.004	0.007	0.010	0.013	0.023	0.004	0.006	0.010	0.000	0.000	0.000	0.004	0.006	0.010
16:30 - 17:30	0.001	0.001	0.003	0.010	0.008	0.017	0.002	0.008	0.010	0.000	0.000	0.000	0.003	0.004	0.008
17:00 - 18:00	0.001	0.004	0.006	0.004	0.006	0.010	0.000	0.006	0.006	0.000	0.000	0.000	0.001	0.004	0.005
17:30 - 18:30	0.000	0.003	0.003	0.004	0.004	0.008	0.000	0.004	0.004	0.001	0.004	0.005	0.001	0.004	0.005
18:00 - 19:00	0.000	0.000	0.000	0.000	0.004	0.004	0.002	0.002	0.004	0.001	0.008	0.009	0.001	0.003	0.004
12-hour	0.063	0.079	0.143	0.204	0.218	0.422	0.194	0.190	0.384	0.038	0.040	0.078	0.125	0.132	0.257

HOURLY ON THE HOUR

User Class: LGVs

Site:	Exertis, Burnley			James Hall Spar, Preston			Lidl, Exeter			Tesco, Doncaster			Average		
Time	Arrivals	Departures	Total	Arrivals	Departures	Total	Arrivals	Departures	Total	Arrivals	Departures	Total	Arrivals	Departures	Total
07:00 - 08:00	0.000	0.003	0.003	0.010	0.006	0.015	0.002	0.000	0.002	0.000	0.000	0.000	0.003	0.002	0.005
08:00 - 09:00	0.007	0.004	0.012	0.013	0.008	0.021	0.030	0.012	0.042	0.004	0.000	0.004	0.014	0.006	0.020
09:00 - 10:00	0.007	0.004	0.012	0.013	0.011	0.025	0.008	0.008	0.016	0.004	0.000	0.004	0.008	0.006	0.014
10:00 - 11:00	0.004	0.006	0.010	0.011	0.010	0.021	0.006	0.004	0.010	0.005	0.004	0.009	0.007	0.006	0.013
11:00 - 12:00	0.007	0.004	0.012	0.006	0.011	0.017	0.006	0.008	0.014	0.002	0.005	0.007	0.005	0.007	0.012
12:00 - 13:00	0.000	0.003	0.003	0.008	0.008	0.015	0.010	0.014	0.024	0.001	0.002	0.003	0.005	0.007	0.011
13:00 - 14:00	0.000	0.000	0.000	0.004	0.004	0.008	0.008	0.010	0.018	0.000	0.001	0.001	0.003	0.004	0.007
14:00 - 15:00	0.001	0.006	0.007	0.019	0.025	0.044	0.014	0.008	0.022	0.000	0.002	0.002	0.009	0.010	0.019
15:00 - 16:00	0.000	0.001	0.001	0.006	0.006	0.011	0.008	0.018	0.026	0.002	0.000	0.002	0.004	0.006	0.010
16:00 - 17:00	0.003	0.004	0.007	0.010	0.013	0.023	0.004	0.006	0.010	0.000	0.000	0.000	0.004	0.006	0.010
17:00 - 18:00	0.001	0.004	0.006	0.004	0.006	0.010	0.000	0.006	0.006	0.000	0.000	0.000	0.001	0.004	0.005
18:00 - 19:00	0.000	0.000	0.000	0.000	0.004	0.004	0.002	0.002	0.004	0.001	0.008	0.009	0.001	0.003	0.004
12-hour	0.032	0.040	0.072	0.103	0.111	0.214	0.098	0.096	0.194	0.019	0.022	0.041	0.063	0.067	0.130

HGVs

HALF HOURLY

User Class: HGVs

Site:	Exertis, Burnley						James Hall Spar, Preston						Lidl, Exeter						Tesco, Doncaster						Average					
Time	Arrivals		Departures		Total		Arrivals		Departures		Total		Arrivals		Departures		Total		Arrivals		Departures		Total		Arrivals		Departures		Total	
07:00 - 07:30	0.007		0.004		0.012		0.010		0.011		0.021		0.026		0.012		0.038		0.014		0.026		0.040		0.014		0.013		0.028	
07:30 - 08:00	0.006		0.010		0.016		0.011		0.011		0.023		0.020		0.029		0.049		0.010		0.016		0.026		0.012		0.017		0.028	
08:00 - 08:30	0.007		0.001		0.009		0.013		0.010		0.023		0.018		0.020		0.038		0.014		0.024		0.038		0.013		0.014		0.027	
08:30 - 09:00	0.007		0.003		0.010		0.002		0.008		0.010		0.024		0.014		0.038		0.014		0.024		0.038		0.012		0.012		0.024	
09:00 - 09:30	0.009		0.009		0.017		0.017		0.017		0.034		0.037		0.029		0.066		0.017		0.029		0.046		0.020		0.021		0.041	
09:30 - 10:00	0.006		0.003		0.009		0.023		0.010		0.032		0.024		0.020		0.044		0.016		0.028		0.044		0.017		0.015		0.032	
10:00 - 10:30	0.007		0.007		0.014		0.015		0.013		0.029		0.037		0.016		0.053		0.020		0.032		0.052		0.020		0.017		0.037	
10:30 - 11:00	0.006		0.006		0.012		0.025		0.023		0.048		0.008		0.020		0.028		0.021		0.058		0.079		0.015		0.027		0.042	
11:00 - 11:30	0.004		0.009		0.013		0.013		0.025		0.038		0.012		0.014		0.026		0.014		0.023		0.037		0.011		0.018		0.029	
11:30 - 12:00	0.000		0.007		0.007		0.011		0.017		0.029		0.014		0.016		0.030		0.024		0.036		0.060		0.012		0.019		0.031	
12:00 - 12:30	0.003		0.004		0.007		0.015		0.019		0.034		0.008		0.022		0.030		0.016		0.031		0.047		0.011		0.019		0.030	
12:30 - 13:00	0.003		0.007		0.010		0.017		0.008		0.025		0.010		0.020		0.030		0.020		0.041		0.061		0.013		0.019		0.031	
13:00 - 13:30	0.001		0.003		0.004		0.040		0.011		0.052		0.004		0.020		0.024		0.014		0.031		0.045		0.015		0.016		0.031	
13:30 - 14:00	0.004		0.003		0.007		0.042		0.029		0.071		0.000		0.022		0.022		0.016		0.027		0.043		0.016		0.020		0.036	
14:00 - 14:30	0.001		0.001		0.003		0.031		0.021		0.052		0.006		0.016		0.022		0.017		0.032		0.049		0.014		0.018		0.031	
14:30 - 15:00	0.003		0.003		0.006		0.040		0.019		0.059		0.004		0.014		0.018		0.022		0.041		0.063		0.017		0.019		0.036	
15:00 - 15:30	0.003		0.001		0.004		0.021		0.021		0.042		0.006		0.004		0.010		0.022		0.042		0.064		0.013		0.017		0.030	
15:30 - 16:00	0.001		0.003		0.004		0.019		0.006		0.025		0.004		0.004		0.008		0.016		0.033		0.049		0.010		0.011		0.022	
16:00 - 16:30	0.000		0.001		0.001		0.013		0.006		0.019		0.004		0.006		0.010		0.010		0.024		0.034		0.007		0.009		0.016	
16:30 - 17:00	0.003		0.001		0.004		0.006		0.002		0.008		0.008		0.002		0.010		0.014		0.021		0.035		0.008		0.007		0.014	
17:00 - 17:30	0.003		0.000		0.003		0.002		0.008		0.010		0.008		0.008		0.016		0.021		0.032		0.053		0.008		0.012		0.020	
17:30 - 18:00	0.003		0.003		0.006		0.004		0.008		0.011		0.018		0.008		0.026		0.016		0.031		0.047		0.010		0.012		0.023	
18:00 - 18:30	0.003		0.001		0.004		0.002		0.000		0.002		0.008		0.006		0.014		0.009		0.028		0.037		0.005		0.009		0.014	
18:30 - 19:00	0.003		0.001		0.004		0.002		0.002		0.004		0.000		0.008		0.008		0.012		0.033		0.045		0.004		0.011		0.015	
12-hour	0.094		0.094		0.187		0.395		0.304		0.699		0.308		0.350		0.658		0.389		0.743		1.132		0.296		0.373		0.669	

HOURLY BY HALF HOUR

User Class: HGVs

Site:	Exertis, Burnley						James Hall Spar, Preston						Lidl, Exeter						Tesco, Doncaster						Average	
Time	Arrivals		Departures		Total	Arrivals		Departures		Total	Arrivals		Departures		Total	Arrivals		Departures		Total	Arrivals		Departures		Total	
07:00 - 08:00	0.013	0.013	0.014	0.014	0.027	0.021	0.021	0.023	0.023	0.044	0.046	0.041	0.041	0.087	0.087	0.024	0.024	0.042	0.042	0.066	0.066	0.026	0.026	0.030	0.056	
07:30 - 08:30	0.013	0.013	0.012	0.012	0.025	0.025	0.025	0.021	0.021	0.046	0.038	0.049	0.049	0.087	0.087	0.024	0.024	0.040	0.040	0.064	0.064	0.025	0.025	0.030	0.055	
08:00 - 09:00	0.014	0.014	0.004	0.004	0.019	0.015	0.015	0.017	0.017	0.032	0.042	0.034	0.034	0.076	0.076	0.028	0.028	0.048	0.048	0.076	0.076	0.025	0.025	0.026	0.051	
08:30 - 09:30	0.016	0.016	0.012	0.012	0.027	0.019	0.019	0.025	0.025	0.044	0.061	0.043	0.043	0.104	0.104	0.031	0.031	0.053	0.053	0.084	0.084	0.032	0.032	0.033	0.065	
09:00 - 10:00	0.014	0.014	0.012	0.012	0.026	0.040	0.040	0.027	0.027	0.067	0.061	0.049	0.049	0.110	0.110	0.033	0.033	0.057	0.057	0.090	0.090	0.037	0.037	0.036	0.073	
09:30 - 10:30	0.013	0.013	0.010	0.010	0.023	0.038	0.038	0.023	0.023	0.061	0.061	0.036	0.036	0.097	0.097	0.036	0.036	0.060	0.060	0.096	0.096	0.037	0.037	0.032	0.069	
10:00 - 11:00	0.013	0.013	0.013	0.013	0.026	0.040	0.040	0.036	0.036	0.076	0.045	0.036	0.036	0.081	0.081	0.041	0.041	0.090	0.090	0.131	0.131	0.035	0.035	0.044	0.079	
10:30 - 11:30	0.010	0.010	0.014	0.014	0.025	0.038	0.038	0.048	0.048	0.086	0.020	0.034	0.034	0.054	0.054	0.035	0.035	0.081	0.081	0.116	0.116	0.026	0.026	0.044	0.070	
11:00 - 12:00	0.004	0.004	0.016	0.016	0.020	0.025	0.025	0.042	0.042	0.067	0.026	0.030	0.030	0.056	0.056	0.038	0.038	0.059	0.059	0.097	0.097	0.023	0.023	0.037	0.060	
11:30 - 12:30	0.003	0.003	0.012	0.012	0.014	0.027	0.027	0.036	0.036	0.063	0.022	0.038	0.038	0.060	0.060	0.040	0.040	0.067	0.067	0.107	0.107	0.023	0.023	0.038	0.061	
12:00 - 13:00	0.006	0.006	0.012	0.012	0.017	0.032	0.032	0.027	0.027	0.059	0.018	0.042	0.042	0.060	0.060	0.036	0.036	0.072	0.072	0.108	0.108	0.023	0.023	0.038	0.061	
12:30 - 13:30	0.004	0.004	0.010	0.010	0.014	0.057	0.057	0.019	0.019	0.076	0.014	0.040	0.040	0.054	0.054	0.034	0.034	0.072	0.072	0.106	0.106	0.027	0.027	0.035	0.063	
13:00 - 14:00	0.006	0.006	0.006	0.006	0.012	0.082	0.082	0.040	0.040	0.122	0.004	0.042	0.042	0.046	0.046	0.030	0.030	0.058	0.058	0.088	0.088	0.030	0.030	0.036	0.067	
13:30 - 14:30	0.006	0.006	0.004	0.004	0.010	0.073	0.073	0.050	0.050	0.122	0.006	0.038	0.038	0.044	0.044	0.033	0.033	0.059	0.059	0.092	0.092	0.029	0.029	0.038	0.067	
14:00 - 15:00	0.004	0.004	0.004	0.004	0.009	0.071	0.071	0.040	0.040	0.111	0.010	0.030	0.030	0.040	0.040	0.039	0.039	0.073	0.073	0.112	0.112	0.031	0.031	0.037	0.068	
14:30 - 15:30	0.006	0.006	0.004	0.004	0.010	0.061	0.061	0.040	0.040	0.101	0.010	0.018	0.018	0.028	0.028	0.044	0.044	0.083	0.083	0.127	0.127	0.030	0.030	0.036	0.067	
15:00 - 16:00	0.004	0.004	0.004	0.004	0.009	0.040	0.040	0.027	0.027	0.067	0.010	0.008	0.008	0.018	0.018	0.038	0.038	0.075	0.075	0.113	0.113	0.023	0.023	0.029	0.052	
15:30 - 16:30	0.001	0.001	0.004	0.004	0.006	0.032	0.032	0.011	0.011	0.044	0.008	0.010	0.010	0.018	0.018	0.026	0.026	0.057	0.057	0.083	0.083	0.017	0.017	0.021	0.038	
16:00 - 17:00	0.003	0.003	0.003	0.003	0.006	0.019	0.019	0.008	0.008	0.027	0.012	0.008	0.008	0.020	0.020	0.024	0.024	0.045	0.045	0.069	0.069	0.014	0.014	0.016	0.030	
16:30 - 17:30	0.006	0.006	0.001	0.001	0.007	0.008	0.008	0.010	0.010	0.017	0.016	0.010	0.010	0.026	0.026	0.035	0.035	0.053	0.053	0.088	0.088	0.016	0.016	0.018	0.035	
17:00 - 18:00	0.006	0.006	0.003	0.003	0.009	0.006	0.006	0.015	0.015	0.021	0.026	0.016	0.016	0.042	0.042	0.037	0.037	0.063	0.063	0.100	0.100	0.019	0.019	0.024	0.043	
17:30 - 18:30	0.006	0.006	0.004	0.004	0.010	0.006	0.006	0.008	0.008	0.013	0.026	0.014	0.014	0.040	0.040	0.025	0.025	0.059	0.059	0.084	0.084	0.016	0.016	0.021	0.037	
18:00 - 19:00	0.006	0.006	0.003	0.003	0.009	0.004	0.004	0.002	0.002	0.006	0.008	0.014	0.014	0.022	0.022	0.021	0.021	0.061	0.061	0.082	0.082	0.010	0.010	0.020	0.030	
12-hour	0.177	0.177	0.182	0.182	0.359	0.779	0.779	0.594	0.594	1.373	0.590	0.680	0.680	1.270	1.270	0.752	0.752	1.427	1.427	2.179	2.179	0.575	0.575	0.721	1.295	

HOURLY ON THE HOUR

User Class: HGVs

Site:	Exertis, Burnley						James Hall Spar, Preston			Lidl, Exeter			Tesco, Doncaster			Average	
Time	Arrivals	Departures	Total	Arrivals	Departures	Total	Arrivals	Departures	Total	Arrivals	Departures	Total	Arrivals	Departures	Total		
07:00 - 08:00	0.013	0.014	0.027	0.021	0.023	0.044	0.046	0.041	0.087	0.024	0.042	0.066	0.026	0.030	0.056		
08:00 - 09:00	0.014	0.004	0.019	0.015	0.017	0.032	0.042	0.034	0.076	0.028	0.048	0.076	0.025	0.026	0.051		
09:00 - 10:00	0.014	0.012	0.026	0.040	0.027	0.067	0.061	0.049	0.110	0.033	0.057	0.090	0.037	0.036	0.073		
10:00 - 11:00	0.013	0.013	0.026	0.040	0.036	0.076	0.045	0.036	0.081	0.041	0.090	0.131	0.035	0.044	0.079		
11:00 - 12:00	0.004	0.016	0.020	0.025	0.042	0.067	0.026	0.030	0.056	0.038	0.059	0.097	0.023	0.037	0.060		
12:00 - 13:00	0.006	0.012	0.017	0.032	0.027	0.059	0.018	0.042	0.060	0.036	0.072	0.108	0.023	0.038	0.061		
13:00 - 14:00	0.006	0.006	0.012	0.082	0.040	0.122	0.004	0.042	0.046	0.030	0.058	0.088	0.030	0.036	0.067		
14:00 - 15:00	0.004	0.004	0.009	0.071	0.040	0.111	0.010	0.030	0.040	0.039	0.073	0.112	0.031	0.037	0.068		
15:00 - 16:00	0.004	0.004	0.009	0.040	0.027	0.067	0.010	0.008	0.018	0.038	0.075	0.113	0.023	0.029	0.052		
16:00 - 17:00	0.003	0.003	0.006	0.019	0.008	0.027	0.012	0.008	0.020	0.024	0.045	0.069	0.014	0.016	0.030		
17:00 - 18:00	0.006	0.003	0.009	0.006	0.015	0.021	0.026	0.016	0.042	0.037	0.063	0.100	0.019	0.024	0.043		
18:00 - 19:00	0.006	0.003	0.009	0.004	0.002	0.006	0.008	0.014	0.022	0.021	0.061	0.082	0.010	0.020	0.030		
12-hour	0.094	0.094	0.187	0.395	0.304	0.699	0.308	0.350	0.658	0.389	0.743	1.132	0.296	0.373	0.669		

HALF HOURLY

User Class: Cycle

Site:

Time	Exertis, Burnley			James Hall Spar, Preston			Lidl, Exeter			Tesco, Doncaster			Average	
	Arrivals	Departures	Total	Arrivals	Departures	Total	Arrivals	Departures	Total	Arrivals	Departures	Total	Arrivals	Departures
07:00 - 07:30	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.002	0.000	0.000	0.000	0.001	0.000
07:30 - 08:00	0.004	0.000	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
08:00 - 08:30	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.002	0.000	0.000	0.000	0.001	0.000
08:30 - 09:00	0.000	0.003	0.003	0.006	0.000	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001
09:00 - 09:30	0.001	0.000	0.001	0.002	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
09:30 - 10:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10:00 - 10:30	0.003	0.001	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.001
10:30 - 11:00	0.000	0.000	0.000	0.002	0.000	0.002	0.000	0.000	0.000	0.004	0.000	0.004	0.001	0.000
11:00 - 11:30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11:30 - 12:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12:00 - 12:30	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.000	0.004	0.000	0.000	0.000	0.001	0.000
12:30 - 13:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
13:00 - 13:30	0.001	0.001	0.003	0.000	0.002	0.002	0.002	0.000	0.002	0.002	0.000	0.002	0.001	0.001
13:30 - 14:00	0.006	0.000	0.006	0.002	0.002	0.004	0.002	0.000	0.002	0.002	0.000	0.002	0.003	0.000
14:00 - 14:30	0.000	0.004	0.004	0.002	0.002	0.004	0.000	0.004	0.004	0.000	0.000	0.000	0.000	0.003
14:30 - 15:00	0.000	0.001	0.001	0.000	0.010	0.010	0.000	0.000	0.000	0.000	0.001	0.001	0.000	0.003
15:00 - 15:30	0.000	0.000	0.000	0.000	0.011	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003
15:30 - 16:00	0.000	0.000	0.000	0.000	0.004	0.004	0.000	0.000	0.000	0.000	0.001	0.001	0.000	0.001
16:00 - 16:30	0.000	0.003	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.000	0.001
16:30 - 17:00	0.000	0.000	0.000	0.002	0.006	0.008	0.000	0.002	0.002	0.000	0.000	0.000	0.000	0.002
17:00 - 17:30	0.000	0.001	0.001	0.004	0.002	0.006	0.000	0.002	0.002	0.000	0.000	0.000	0.001	0.001
17:30 - 18:00	0.000	0.000	0.000	0.004	0.004	0.008	0.000	0.000	0.000	0.001	0.000	0.001	0.001	0.001
18:00 - 18:30	0.000	0.001	0.001	0.000	0.008	0.008	0.000	0.000	0.000	0.001	0.000	0.001	0.000	0.002
18:30 - 19:00	0.000	0.000	0.000	0.000	0.006	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
12-hour	0.016	0.017	0.033	0.023	0.055	0.078	0.012	0.008	0.020	0.010	0.004	0.014	0.015	0.021

HOURLY BY HALF HOUR

User Class: Cycle

Site:

Time	Exertis, Burnley			James Hall Spar, Preston			Lidl, Exeter			Tesco, Doncaster			Average	
	Arrivals	Departures	Total	Arrivals	Departures	Total	Arrivals	Departures	Total	Arrivals	Departures	Total	Arrivals	Departures
07:00 - 08:00	0.004	0.000	0.004	0.000	0.000	0.000	0.002	0.000	0.002	0.000	0.000	0.000	0.002	0.000
07:30 - 08:30	0.004	0.000	0.004	0.000	0.000	0.000	0.002	0.000	0.002	0.000	0.000	0.000	0.002	0.000
08:00 - 09:00	0.000	0.003	0.003	0.006	0.000	0.006	0.002	0.000	0.002	0.000	0.000	0.000	0.002	0.001
08:30 - 09:30	0.001	0.003	0.004	0.008	0.000	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.001
09:00 - 10:00	0.001	0.000	0.001	0.002	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
09:30 - 10:30	0.003	0.001	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.001
10:00 - 11:00	0.003	0.001	0.004	0.002	0.000	0.002	0.000	0.000	0.000	0.004	0.001	0.005	0.002	0.001
10:30 - 11:30	0.000	0.000	0.000	0.002	0.000	0.002	0.000	0.000	0.000	0.004	0.000	0.004	0.001	0.000
11:00 - 12:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
11:30 - 12:30	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.000	0.004	0.000	0.000	0.000	0.001	0.000
12:00 - 13:00	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.000	0.004	0.000	0.000	0.000	0.001	0.000
12:30 - 13:30	0.001	0.001	0.003	0.000	0.002	0.002	0.002	0.000	0.002	0.002	0.000	0.002	0.001	0.001
13:00 - 14:00	0.007	0.001	0.009	0.002	0.004	0.006	0.004	0.000	0.004	0.004	0.000	0.004	0.004	0.001
13:30 - 14:30	0.006	0.004	0.010	0.004	0.004	0.008	0.002	0.004	0.006	0.002	0.000	0.002	0.003	0.003
14:00 - 15:00	0.000	0.006	0.006	0.002	0.011	0.013	0.000	0.004	0.004	0.000	0.001	0.001	0.000	0.006
14:30 - 15:30	0.000	0.001	0.001	0.000	0.021	0.021	0.000	0.000	0.000	0.000	0.001	0.001	0.000	0.006
15:00 - 16:00	0.000	0.000	0.000	0.000	0.015	0.015	0.000	0.000	0.000	0.000	0.001	0.001	0.000	0.004
15:30 - 16:30	0.000	0.003	0.003	0.000	0.004	0.004	0.000	0.000	0.000	0.000	0.002	0.002	0.000	0.002
16:00 - 17:00	0.000	0.003	0.003	0.002	0.006	0.008	0.000	0.002	0.002	0.000	0.001	0.001	0.000	0.003
16:30 - 17:30	0.000	0.001	0.001	0.006	0.008	0.013	0.000	0.004	0.004	0.000	0.000	0.000	0.001	0.003
17:00 - 18:00	0.000	0.001	0.001	0.008	0.006	0.013	0.000	0.002	0.002	0.001	0.000	0.001	0.002	0.002
17:30 - 18:30	0.000	0.001	0.001	0.004	0.011	0.015	0.000	0.000	0.000	0.002	0.000	0.002	0.001	0.003
18:00 - 19:00	0.000	0.001	0.001	0.000	0.013	0.013	0.000	0.000	0.000	0.001	0.000	0.001	0.000	0.004
12-hour	0.032	0.035	0.066	0.046	0.105	0.151	0.022	0.016	0.038	0.020	0.008	0.028	0.030	0.041

HOURLY ON THE HOUR

User Class: Cycle

Site:

Time	Exertis, Burnley			James Hall Spar, Preston			Lidl, Exeter			Tesco, Doncaster			Average	
	Arrivals	Departures	Total	Arrivals	Departures	Total	Arrivals	Departures	Total	Arrivals	Departures	Total	Arrivals	Departures
07:00 - 08:00	0.004	0.000	0.004	0.000	0.000	0.000	0.002	0.000	0.002	0.000	0.000	0.000	0.002	0.000
08:00 - 09:00	0.000	0.003	0.003	0.006	0.000	0.006	0.002	0.000	0.002	0.000	0.000	0.000	0.002	0.001
09:00 - 10:00	0.001	0.000	0.001	0.002	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
10:00 - 11:00	0.003	0.001	0.004	0.002	0.000	0.002	0.000	0.000	0.000	0.004	0.001	0.005	0.002	0.001
11:00 - 12:00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12:00 - 13:00	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.000	0.004	0.000	0.000	0.000	0.001	0.000
13:00 - 14:00	0.007	0.001	0.009	0.002	0.004	0.006	0.004	0.000	0.004	0.004	0.000	0.004	0.004	0.001
14:00 - 15:00	0.000	0.006	0.006	0.002	0.011	0.013	0.000	0.004	0.004	0.000	0.001	0.001	0.000	0.006
15:00 - 16:00	0.000	0.000	0.000	0.000	0.015	0.015	0.000	0.000	0.000	0.000	0.001	0.001	0.000	0.004
16:00 - 17:00	0.000	0.003	0.003	0.002	0.006	0.008	0.000	0.002	0.002	0.000	0.001	0.001	0.000	0.003
17:00 - 18:00	0.000	0.001	0.001	0.008	0.006	0.013	0.000	0.002	0.002	0.001	0.000	0.001	0.002	0.002
18:00 - 19:00	0.000	0.001	0.001	0.000	0.013	0.013	0.000	0.000	0.000	0.001	0.000	0.001	0.000	0.004
12-hour	0.016	0.017	0.033	0.023	0.055	0.078	0.012	0.008	0.020	0.010	0.004	0.014	0.015	0.021

Peds

HALF HOURLY

User Class: Ped

Site:	Exertis, Burnley			James Hall Spar, Preston			Lidl, Exeter			Tesco, Doncaster			Average		
Time	Arrivals	Departures	Total	Arrivals	Departures	Total	Arrivals	Departures	Total	Arrivals	Departures	Total	Arrivals	Departures	Total
07:00 - 07:30	0.003	0.000	0.003	0.006	0.000	0.006	0.004	0.000	0.004	0.000	0.000	0.000	0.003	0.000	0.003
07:30 - 08:00	0.022	0.001	0.023	0.006	0.000	0.006	0.004	0.000	0.004	0.002	0.002	0.004	0.008	0.001	0.009
08:00 - 08:30	0.019	0.000	0.019	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005	0.000	0.005
08:30 - 09:00	0.076	0.000	0.076	0.015	0.002	0.017	0.004	0.000	0.004	0.000	0.000	0.000	0.024	0.000	0.024
09:00 - 09:30	0.004	0.001	0.006	0.010	0.010	0.019	0.002	0.000	0.002	0.019	0.000	0.019	0.009	0.003	0.011
09:30 - 10:00	0.014	0.001	0.016	0.000	0.002	0.002	0.002	0.002	0.004	0.011	0.000	0.011	0.007	0.001	0.008
10:00 - 10:30	0.001	0.000	0.001	0.004	0.002	0.006	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.002
10:30 - 11:00	0.001	0.000	0.001	0.004	0.008	0.011	0.000	0.002	0.002	0.004	0.002	0.006	0.002	0.003	0.005
11:00 - 11:30	0.001	0.000	0.001	0.000	0.006	0.006	0.004	0.000	0.004	0.010	0.000	0.010	0.004	0.001	0.005
11:30 - 12:00	0.001	0.000	0.001	0.000	0.004	0.004	0.000	0.002	0.002	0.009	0.004	0.013	0.003	0.002	0.005
12:00 - 12:30	0.006	0.013	0.019	0.029	0.029	0.057	0.010	0.000	0.010	0.002	0.003	0.005	0.012	0.011	0.023
12:30 - 13:00	0.027	0.023	0.050	0.027	0.053	0.080	0.002	0.000	0.002	0.007	0.001	0.008	0.016	0.019	0.035
13:00 - 13:30	0.022	0.013	0.035	0.021	0.011	0.032	0.016	0.002	0.018	0.000	0.000	0.000	0.015	0.007	0.021
13:30 - 14:00	0.039	0.013	0.052	0.019	0.011	0.031	0.004	0.002	0.006	0.000	0.000	0.000	0.016	0.007	0.022
14:00 - 14:30	0.001	0.026	0.027	0.000	0.021	0.021	0.000	0.006	0.006	0.000	0.005	0.005	0.000	0.014	0.015
14:30 - 15:00	0.000	0.000	0.000	0.002	0.029	0.031	0.000	0.004	0.004	0.000	0.003	0.003	0.000	0.009	0.009
15:00 - 15:30	0.000	0.007	0.007	0.010	0.006	0.015	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.003	0.006
15:30 - 16:00	0.000	0.000	0.000	0.011	0.006	0.017	0.000	0.004	0.004	0.000	0.000	0.000	0.003	0.002	0.005
16:00 - 16:30	0.003	0.013	0.016	0.002	0.027	0.029	0.002	0.000	0.002	0.000	0.011	0.011	0.002	0.013	0.014
16:30 - 17:00	0.006	0.003	0.009	0.002	0.010	0.011	0.000	0.004	0.004	0.000	0.012	0.012	0.002	0.007	0.009
17:00 - 17:30	0.001	0.037	0.039	0.010	0.011	0.021	0.000	0.002	0.002	0.002	0.000	0.002	0.003	0.013	0.016
17:30 - 18:00	0.006	0.026	0.032	0.010	0.021	0.031	0.000	0.002	0.002	0.007	0.000	0.007	0.006	0.012	0.018
18:00 - 18:30	0.003	0.016	0.019	0.000	0.006	0.006	0.000	0.002	0.002	0.001	0.001	0.002	0.001	0.006	0.007
18:30 - 19:00	0.000	0.007	0.007	0.000	0.002	0.002	0.000	0.002	0.002	0.001	0.002	0.003	0.000	0.003	0.004
12-hour	0.258	0.202	0.460	0.185	0.275	0.460	0.054	0.036	0.090	0.075	0.047	0.122	0.143	0.140	0.283

HOURLY BY HALF HOUR

User Class: Ped

Site:	Exertis, Burnley			James Hall Spar, Preston			Lidl, Exeter			Tesco, Doncaster			Average		
Time	Arrivals	Departures	Total	Arrivals	Departures	Total	Arrivals	Departures	Total	Arrivals	Departures	Total	Arrivals	Departures	Total
07:00 - 08:00	0.025	0.001	0.026	0.011	0.000	0.011	0.008	0.000	0.008	0.002	0.002	0.004	0.011	0.001	0.012
07:30 - 08:30	0.040	0.001	0.042	0.006	0.000	0.006	0.004	0.000	0.004	0.002	0.002	0.004	0.013	0.001	0.014
08:00 - 09:00	0.095	0.000	0.095	0.015	0.002	0.017	0.004	0.000	0.004	0.000	0.000	0.000	0.029	0.000	0.029
08:30 - 09:30	0.081	0.001	0.082	0.025	0.011	0.036	0.006	0.000	0.006	0.019	0.000	0.019	0.033	0.003	0.036
09:00 - 10:00	0.019	0.003	0.022	0.010	0.011	0.021	0.004	0.002	0.006	0.030	0.000	0.030	0.016	0.004	0.020
09:30 - 10:30	0.016	0.001	0.017	0.004	0.004	0.008	0.002	0.002	0.004	0.011	0.001	0.012	0.008	0.002	0.010
10:00 - 11:00	0.003	0.000	0.003	0.008	0.010	0.017	0.000	0.002	0.002	0.004	0.003	0.007	0.004	0.004	0.007
10:30 - 11:30	0.003	0.000	0.003	0.004	0.013	0.017	0.004	0.002	0.006	0.014	0.002	0.016	0.006	0.004	0.011
11:00 - 12:00	0.003	0.000	0.003	0.000	0.010	0.010	0.004	0.002	0.006	0.019	0.004	0.023	0.006	0.004	0.010
11:30 - 12:30	0.007	0.013	0.020	0.029	0.032	0.061	0.010	0.002	0.012	0.011	0.007	0.018	0.014	0.014	0.028
12:00 - 13:00	0.033	0.036	0.069	0.055	0.082	0.137	0.012	0.000	0.012	0.009	0.004	0.013	0.027	0.031	0.058
12:30 - 13:30	0.049	0.036	0.085	0.048	0.065	0.113	0.018	0.002	0.020	0.007	0.001	0.008	0.030	0.026	0.056
13:00 - 14:00	0.061	0.026	0.087	0.040	0.023	0.063	0.020	0.004	0.024	0.000	0.000	0.000	0.030	0.013	0.043
13:30 - 14:30	0.040	0.039	0.079	0.019	0.032	0.052	0.004	0.008	0.012	0.000	0.005	0.005	0.016	0.021	0.037
14:00 - 15:00	0.001	0.026	0.027	0.002	0.050	0.052	0.000	0.010	0.010	0.000	0.008	0.008	0.001	0.023	0.024
14:30 - 15:30	0.000	0.007	0.007	0.011	0.034	0.046	0.000	0.004	0.004	0.000	0.003	0.003	0.003	0.012	0.015
15:00 - 16:00	0.000	0.007	0.007	0.021	0.011	0.032	0.000	0.004	0.004	0.000	0.000	0.000	0.005	0.006	0.011
15:30 - 16:30	0.003	0.013	0.016	0.013	0.032	0.046	0.002	0.004	0.006	0.000	0.011	0.011	0.005	0.015	0.020
16:00 - 17:00	0.009	0.016	0.025	0.004	0.036	0.040	0.002	0.004	0.006	0.000	0.023	0.023	0.004	0.020	0.023
16:30 - 17:30	0.007	0.040	0.048	0.011	0.021	0.032	0.000	0.006	0.006	0.002	0.012	0.014	0.005	0.020	0.025
17:00 - 18:00	0.007	0.063	0.071	0.019	0.032	0.052	0.000	0.004	0.004	0.009	0.000	0.009	0.009	0.025	0.034
17:30 - 18:30	0.009	0.042	0.050	0.010	0.027	0.036	0.000	0.004	0.004	0.008	0.001	0.009	0.007	0.018	0.025
18:00 - 19:00	0.003	0.023	0.026	0.000	0.008	0.008	0.000	0.004	0.004	0.002	0.003	0.005	0.001	0.009	0.011
12-hour	0.513	0.397	0.910	0.365	0.548	0.912	0.104	0.070	0.174	0.149	0.092	0.241	0.283	0.277	0.559

HOURLY ON THE HOUR

User Class: Ped

Site:	Exertis, Burnley			James Hall Spar, Preston			Lidl, Exeter			Tesco, Doncaster			Average		
Time	Arrivals	Departures	Total	Arrivals	Departures	Total	Arrivals	Departures	Total	Arrivals	Departures	Total	Arrivals	Departures	Total
07:00 - 08:00	0.025	0.001	0.026	0.011	0.000	0.011	0.008	0.000	0.008	0.002	0.002	0.004	0.011	0.001	0.012
08:00 - 09:00	0.095	0.000	0.095	0.015	0.002	0.017	0.004	0.000	0.004	0.000	0.000	0.000	0.029	0.000	0.029
09:00 - 10:00	0.019	0.003	0.022	0.010	0.011	0.021	0.004	0.002	0.006	0.030	0.000	0.030	0.016	0.004	0.020
10:00 - 11:00	0.003	0.000	0.003	0.008	0.010	0.017	0.000	0.002	0.002	0.004	0.003	0.007	0.004	0.004	0.007
11:00 - 12:00	0.003	0.000	0.003	0.000	0.010	0.010	0.004	0.002	0.006	0.019	0.004	0.023	0.006	0.004	0.010
12:00 - 13:00	0.033	0.036	0.069	0.055	0.082	0.137	0.012	0.000	0.012	0.009	0.004	0.013	0.027	0.031	0.058
13:00 - 14:00	0.061	0.026	0.087	0.040	0.023	0.063	0.020	0.004	0.024	0.000	0.000	0.000	0.030	0.013	0.043
14:00 - 15:00	0.001	0.026	0.027	0.002	0.050	0.052	0.000	0.010	0.010	0.000	0.008	0.008	0.001	0.023	0.024
15:00 - 16:00	0.000	0.007	0.007	0.021	0.011	0.032	0.000	0.004	0.004	0.000	0.000	0.000	0.005	0.006	0.011
16:00 - 17:00	0.009	0.016	0.025	0.004	0.036	0.040	0.002	0.004	0.006	0.000	0.023	0.023	0.004	0.020	0.023
17:00 - 18:00	0.007	0.063	0.071	0.019	0.032	0.052	0.000	0.004	0.004	0.009	0.000	0.009	0.009	0.025	0.034
18:00 - 19:00	0.003	0.023	0.026	0.000	0.008	0.008	0.000	0.004	0.004	0.002	0.003	0.005	0.001	0.009	0.011
12-hour	0.258	0.202	0.460	0.185	0.275	0.460	0.054	0.036	0.090	0.075	0.047	0.122	0.143	0.140	0.283

APPENDIX 5

CAPACITY ASSESSMENT REPORT OUTPUTS

Junctions 10
PICADY 10 - Priority Intersection Module
Version: 10.1.1.1905 © Copyright TRL Software Limited, 2023
For sales and distribution information, program advice and maintenance, contact TRL Software: +44 (0)1344 379777 software@trl.co.uk trlsoftware.com
The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution

Filename: Import of 1- Bryn Lane_Very Group Access Road_Priority.j10

Path: N:\Projects 2021\P21066 - Kingmoor, Wrexham Industrial Estate\6.Technical\Models\Import to Junctions 10

Report generation date: 14/02/2024 16:12:27

»Observed 2022, AM
»Observed 2022, PM
»Without Dev 2027, AM
»Without Dev 2027, PM
»Without Dev 2036, AM
»Without Dev 2036, PM
»With Dev 2027, AM
»With Dev 2027, PM
»With Dev 2036, AM
»With Dev 2036, PM
»With Dev 2027 Sensitivity Test, AM
»With Dev 2027 Sensitivity Test, PM
»With Dev 2036 Sensitivity Test, AM
»With Dev 2036 Sensitivity Test, PM

File summary

File Description

Title	Bryn Lane/Site Access
Location	Wrexham
Site number	
Date	13/02/2024
Version	
Status	Final
Identifier	
Client	FIREM
Jobnumber	P21066
Enumerator	GHClb.gaze
Description	Checked by D. Stoddart

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

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use simulation for HCM roundabouts	Use iterations for HCM roundabouts
5.75						0.85	36.00	20.00		

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Observed 2022	AM	ONE HOUR	07:15	08:45	15	✓
D2	Observed 2022	PM	ONE HOUR	16:15	17:45	15	✓
D3	Without Dev 2027	AM	ONE HOUR	07:15	08:45	15	✓
D4	Without Dev 2027	PM	ONE HOUR	16:15	17:45	15	✓
D5	Without Dev 2036	AM	ONE HOUR	07:15	08:45	15	✓
D6	Without Dev 2036	PM	ONE HOUR	16:15	17:45	15	✓
D7	With Dev 2027	AM	ONE HOUR	07:15	08:45	15	✓
D8	With Dev 2027	PM	ONE HOUR	16:15	17:45	15	✓
D9	With Dev 2036	AM	ONE HOUR	07:15	08:45	15	✓
D10	With Dev 2036	PM	ONE HOUR	16:15	17:45	15	✓
D11	With Dev 2027 Sensitivity Test	AM	ONE HOUR	07:15	08:45	15	✓
D12	With Dev 2027 Sensitivity Test	PM	ONE HOUR	16:15	17:45	15	✓
D13	With Dev 2036 Sensitivity Test	AM	ONE HOUR	07:15	08:45	15	✓
D14	With Dev 2036 Sensitivity Test	PM	ONE HOUR	16:15	17:45	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Observed 2022, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - The Very Group Access Road - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Bryn Lane/The Very Group Access Road	T-Junction	Two-way	Two-way	Two-way		1.11	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1.11	A

Arms

Arms

Arm	Name	Description	Arm type
A	Bryn Lane (Northern Arm)		Major
B	The Very Group Access Road		Minor
C	Bryn Lane (Southern Arm)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Width for right-turn storage (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - Bryn Lane (Southern Arm)	7.20		✓	3.50	250.0	✓	9.00

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 - The Very Group Access Road	One lane plus flare	10.00	8.80	5.20	3.30	2.70	✓	2.00	48	33

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	560	0.097	0.245	0.154	0.349
B-C	709	0.103	0.260	-	-
C-B	820	0.301	0.301	-	-

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

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Observed 2022	AM	ONE HOUR	07:15	08:45	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Bryn Lane (Northern Arm)		ONE HOUR	✓	205	100.000
B - The Very Group Access Road		ONE HOUR	✓	26	100.000
C - Bryn Lane (Southern Arm)		ONE HOUR	✓	133	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Bryn Lane (Northern Arm)	B - The Very Group Access Road	C - Bryn Lane (Southern Arm)
From	A - Bryn Lane (Northern Arm)	0	15	190
	B - The Very Group Access Road	13	0	13
	C - Bryn Lane (Southern Arm)	120	13	0

Vehicle Mix

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

Heavy Vehicle %

	To			
		A - Bryn Lane (Northern Arm)	B - The Very Group Access Road	C - Bryn Lane (Southern Arm)
From	A - Bryn Lane (Northern Arm)	0	30	8
	B - The Very Group Access Road	100	0	57
	C - Bryn Lane (Southern Arm)	25	38	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.02	8.93	0.0	A	12	18
B-A	0.03	15.37	0.1	C	12	18
C-AB	0.02	6.70	0.0	A	12	18
C-A					110	165
AB					14	21
A-C					174	262

Observed 2022, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - The Very Group Access Road - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Bryn Lane/The Very Group Access Road	T-Junction	Two-way	Two-way	Two-way		0.42	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.42	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	Observed 2022	PM	ONE HOUR	16:15	17:45	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Bryn Lane (Northern Arm)		ONE HOUR	✓	135	100.000
B - The Very Group Access Road		ONE HOUR	✓	20	100.000
C - Bryn Lane (Southern Arm)		ONE HOUR	✓	261	100.000

Origin-Destination Data

Demand (PCU/hr)

	To		
	A - Bryn Lane (Northern Arm)	B - The Very Group Access Road	C - Bryn Lane (Southern Arm)
From			
A - Bryn Lane (Northern Arm)	0	15	120
B - The Very Group Access Road	9	0	11
C - Bryn Lane (Southern Arm)	260	1	0

Vehicle Mix

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

Heavy Vehicle %

	To		
	A - Bryn Lane (Northern Arm)	B - The Very Group Access Road	C - Bryn Lane (Southern Arm)
From			
A - Bryn Lane (Northern Arm)	0	100	14
B - The Very Group Access Road	14	0	50
C - Bryn Lane (Southern Arm)	6	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.02	8.04	0.0	A	10	15
B-A	0.02	8.91	0.0	A	8	12
C-AB	0.00	4.65	0.0	A	0.92	1
C-A					239	358
A-B					14	21
A-C					110	165

Without Dev 2027, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - The Very Group Access Road - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Bryn Lane/The Very Group Access Road	T-Junction	Two-way	Two-way	Two-way		0.92	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.92	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	Without Dev 2027	AM	ONE HOUR	07:15	08:45	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Bryn Lane (Northern Arm)		ONE HOUR	✓	255	100.000
B - The Very Group Access Road		ONE HOUR	✓	32	100.000
C - Bryn Lane (Southern Arm)		ONE HOUR	✓	209	100.000

Origin-Destination Data

Demand (PCU/hr)

	To		
	A - Bryn Lane (Northern Arm)	B - The Very Group Access Road	C - Bryn Lane (Southern Arm)
From			
A - Bryn Lane (Northern Arm)	0	25	230
B - The Very Group Access Road	18	0	14
C - Bryn Lane (Southern Arm)	196	13	0

Vehicle Mix

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

Heavy Vehicle %

	To		
	A - Bryn Lane (Northern Arm)	B - The Very Group Access Road	C - Bryn Lane (Southern Arm)
From			
A - Bryn Lane (Northern Arm)	0	50	7
B - The Very Group Access Road	67	0	50
C - Bryn Lane (Southern Arm)	14	38	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.03	8.98	0.0	A	13	19
B-A	0.04	13.33	0.1	B	17	25
C-AB	0.02	6.86	0.0	A	12	18
C-A					180	270
A-B					23	34
A-C					211	317

Without Dev 2027, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - The Very Group Access Road - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Bryn Lane/The Very Group Access Road	T-Junction	Two-way	Two-way	Two-way		0.88	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.88	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	Without Dev 2027	PM	ONE HOUR	16:15	17:45	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Bryn Lane (Northern Arm)		ONE HOUR	✓	211	100.000
B - The Very Group Access Road		ONE HOUR	✓	52	100.000
C - Bryn Lane (Southern Arm)		ONE HOUR	✓	309	100.000

Origin-Destination Data

Demand (PCU/hr)

	To		
	A - Bryn Lane (Northern Arm)	B - The Very Group Access Road	C - Bryn Lane (Southern Arm)
From			
A - Bryn Lane (Northern Arm)	0	20	191
B - The Very Group Access Road	37	0	15
C - Bryn Lane (Southern Arm)	308	1	0

Vehicle Mix

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

Heavy Vehicle %

	To		
	A - Bryn Lane (Northern Arm)	B - The Very Group Access Road	C - Bryn Lane (Southern Arm)
From			
A - Bryn Lane (Northern Arm)	0	78	8
B - The Very Group Access Road	17	0	30
C - Bryn Lane (Southern Arm)	5	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.03	7.96	0.0	A	14	21
B-A	0.09	10.27	0.1	B	34	51
C-AB	0.00	4.80	0.0	A	0.92	1
C-A					283	424
A-B					18	28
A-C					175	263

Without Dev 2036, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - The Very Group Access Road - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Bryn Lane/The Very Group Access Road	T-Junction	Two-way	Two-way	Two-way		0.90	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.90	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	Without Dev 2036	AM	ONE HOUR	07:15	08:45	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Bryn Lane (Northern Arm)		ONE HOUR	✓	263	100.000
B - The Very Group Access Road		ONE HOUR	✓	32	100.000
C - Bryn Lane (Southern Arm)		ONE HOUR	✓	214	100.000

Origin-Destination Data

Demand (PCU/hr)

	To		
	A - Bryn Lane (Northern Arm)	B - The Very Group Access Road	C - Bryn Lane (Southern Arm)
From			
A - Bryn Lane (Northern Arm)	0	25	238
B - The Very Group Access Road	18	0	14
C - Bryn Lane (Southern Arm)	201	13	0

Vehicle Mix

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

Heavy Vehicle %

	To		
	A - Bryn Lane (Northern Arm)	B - The Very Group Access Road	C - Bryn Lane (Southern Arm)
From			
A - Bryn Lane (Northern Arm)	0	50	7
B - The Very Group Access Road	67	0	50
C - Bryn Lane (Southern Arm)	14	38	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.03	9.02	0.0	A	13	19
B-A	0.04	13.42	0.1	B	17	25
C-AB	0.02	6.88	0.0	A	12	18
C-A					184	277
A-B					23	34
A-C					218	328

Without Dev 2036, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - The Very Group Access Road - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Bryn Lane/The Very Group Access Road	T-Junction	Two-way	Two-way	Two-way		0.86	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	0.86	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	Without Dev 2036	PM	ONE HOUR	16:15	17:45	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Bryn Lane (Northern Arm)		ONE HOUR	✓	218	100.000
B - The Very Group Access Road		ONE HOUR	✓	52	100.000
C - Bryn Lane (Southern Arm)		ONE HOUR	✓	320	100.000

Origin-Destination Data

Demand (PCU/hr)

	To		
	A - Bryn Lane (Northern Arm)	B - The Very Group Access Road	C - Bryn Lane (Southern Arm)
From			
A - Bryn Lane (Northern Arm)	0	20	198
B - The Very Group Access Road	37	0	15
C - Bryn Lane (Southern Arm)	319	1	0

Vehicle Mix

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

Heavy Vehicle %

	To		
	A - Bryn Lane (Northern Arm)	B - The Very Group Access Road	C - Bryn Lane (Southern Arm)
From			
A - Bryn Lane (Northern Arm)	0	78	9
B - The Very Group Access Road	17	0	30
C - Bryn Lane (Southern Arm)	5	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.03	7.99	0.0	A	14	21
B-A	0.09	10.36	0.1	B	34	51
C-AB	0.00	4.82	0.0	A	0.92	1
C-A					293	439
A-B					18	28
A-C					182	273

With Dev 2027, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - The Very Group Access Road - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Bryn Lane/The Very Group Access Road	T-Junction	Two-way	Two-way	Two-way		2.47	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.47	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	With Dev 2027	AM	ONE HOUR	07:15	08:45	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Bryn Lane (Northern Arm)		ONE HOUR	✓	357	100.000
B - The Very Group Access Road		ONE HOUR	✓	120	100.000
C - Bryn Lane (Southern Arm)		ONE HOUR	✓	222	100.000

Origin-Destination Data

Demand (PCU/hr)

	To		
	A - Bryn Lane (Northern Arm)	B - The Very Group Access Road	C - Bryn Lane (Southern Arm)
From			
A - Bryn Lane (Northern Arm)	0	127	230
B - The Very Group Access Road	97	0	23
C - Bryn Lane (Southern Arm)	196	26	0

Vehicle Mix

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

Heavy Vehicle %

	To		
	A - Bryn Lane (Northern Arm)	B - The Very Group Access Road	C - Bryn Lane (Southern Arm)
From			
A - Bryn Lane (Northern Arm)	0	25	7
B - The Very Group Access Road	32	0	24
C - Bryn Lane (Southern Arm)	14	14	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.05	8.51	0.1	A	21	32
B-A	0.24	14.15	0.4	B	89	134
C-AB	0.04	6.11	0.0	A	24	36
C-A					180	270
A-B					117	175
A-C					211	317

With Dev 2027, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - The Very Group Access Road - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Bryn Lane/The Very Group Access Road	T-Junction	Two-way	Two-way	Two-way		3.41	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.41	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	With Dev 2027	PM	ONE HOUR	16:15	17:45	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Bryn Lane (Northern Arm)		ONE HOUR	✓	305	100.000
B - The Very Group Access Road		ONE HOUR	✓	190	100.000
C - Bryn Lane (Southern Arm)		ONE HOUR	✓	320	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
From		A - Bryn Lane (Northern Arm)	B - The Very Group Access Road	C - Bryn Lane (Southern Arm)
	A - Bryn Lane (Northern Arm)	0	114	191
	B - The Very Group Access Road	157	0	33
	C - Bryn Lane (Southern Arm)	308	12	0

Vehicle Mix

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

Heavy Vehicle %

	To			
From		A - Bryn Lane (Northern Arm)	B - The Very Group Access Road	C - Bryn Lane (Southern Arm)
	A - Bryn Lane (Northern Arm)	0	33	8
	B - The Very Group Access Road	17	0	11
	C - Bryn Lane (Southern Arm)	5	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.07	8.17	0.1	A	30	45
B-A	0.39	15.59	0.7	C	144	216
C-AB	0.02	5.10	0.0	A	11	17
C-A					283	424
A-B					105	157
A-C					175	263

With Dev 2036, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - The Very Group Access Road - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Bryn Lane/The Very Group Access Road	T-Junction	Two-way	Two-way	Two-way		2.45	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.45	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D9	With Dev 2036	AM	ONE HOUR	07:15	08:45	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Bryn Lane (Northern Arm)		ONE HOUR	✓	365	100.000
B - The Very Group Access Road		ONE HOUR	✓	120	100.000
C - Bryn Lane (Southern Arm)		ONE HOUR	✓	227	100.000

Origin-Destination Data

Demand (PCU/hr)

	To		
	A - Bryn Lane (Northern Arm)	B - The Very Group Access Road	C - Bryn Lane (Southern Arm)
From			
A - Bryn Lane (Northern Arm)	0	127	238
B - The Very Group Access Road	97	0	23
C - Bryn Lane (Southern Arm)	201	26	0

Vehicle Mix

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

Heavy Vehicle %

	To		
	A - Bryn Lane (Northern Arm)	B - The Very Group Access Road	C - Bryn Lane (Southern Arm)
From			
A - Bryn Lane (Northern Arm)	0	25	7
B - The Very Group Access Road	32	0	24
C - Bryn Lane (Southern Arm)	14	14	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.05	8.54	0.1	A	21	32
B-A	0.24	14.28	0.4	B	89	134
C-AB	0.04	6.13	0.0	A	24	36
C-A					184	277
A-B					117	175
A-C					218	328

With Dev 2036, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - The Very Group Access Road - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Bryn Lane/The Very Group Access Road	T-Junction	Two-way	Two-way	Two-way		3.38	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.38	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D10	With Dev 2036	PM	ONE HOUR	16:15	17:45	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Bryn Lane (Northern Arm)		ONE HOUR	✓	312	100.000
B - The Very Group Access Road		ONE HOUR	✓	190	100.000
C - Bryn Lane (Southern Arm)		ONE HOUR	✓	331	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Bryn Lane (Northern Arm)	B - The Very Group Access Road	C - Bryn Lane (Southern Arm)
From	A - Bryn Lane (Northern Arm)	0	114	198
	B - The Very Group Access Road	157	0	33
	C - Bryn Lane (Southern Arm)	319	12	0

Vehicle Mix

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

Heavy Vehicle %

	To			
From		A - Bryn Lane (Northern Arm)	B - The Very Group Access Road	C - Bryn Lane (Southern Arm)
	A - Bryn Lane (Northern Arm)	0	33	9
	B - The Very Group Access Road	17	0	11
	C - Bryn Lane (Southern Arm)	5	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.07	8.22	0.1	A	30	45
B-A	0.39	15.82	0.7	C	144	216
C-AB	0.02	5.11	0.0	A	11	17
C-A					293	439
A-B					105	157
A-C					182	273

With Dev 2027 Sensitivity Test, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - The Very Group Access Road - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Bryn Lane/The Very Group Access Road	T-Junction	Two-way	Two-way	Two-way		2.63	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.63	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D11	With Dev 2027 Sensitivity Test	AM	ONE HOUR	07:15	08:45	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Bryn Lane (Northern Arm)		ONE HOUR	✓	440	100.000
B - The Very Group Access Road		ONE HOUR	✓	109	100.000
C - Bryn Lane (Southern Arm)		ONE HOUR	✓	237	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To			
	A - Bryn Lane (Northern Arm)	B - The Very Group Access Road	C - Bryn Lane (Southern Arm)	
A - Bryn Lane (Northern Arm)	0	210	230	
B - The Very Group Access Road	92	0	17	
C - Bryn Lane (Southern Arm)	196	41	0	

Vehicle Mix

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

Heavy Vehicle %

From	To		
	A - Bryn Lane (Northern Arm)	B - The Very Group Access Road	C - Bryn Lane (Southern Arm)
A - Bryn Lane (Northern Arm)	0	18	7
B - The Very Group Access Road	64	0	36
C - Bryn Lane (Southern Arm)	14	8	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.03	9.48	0.0	A	16	23
B-A	0.24	17.93	0.5	C	84	127
C-AB	0.07	6.20	0.1	A	38	56
C-A					180	270
A-B					193	289
A-C					211	317

With Dev 2027 Sensitivity Test, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - The Very Group Access Road - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Bryn Lane/The Very Group Access Road	T-Junction	Two-way	Two-way	Two-way		5.57	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.57	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D12	With Dev 2027 Sensitivity Test	PM	ONE HOUR	16:15	17:45	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Bryn Lane (Northern Arm)		ONE HOUR	✓	277	100.000
B - The Very Group Access Road		ONE HOUR	✓	259	100.000
C - Bryn Lane (Southern Arm)		ONE HOUR	✓	314	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To			
	A - Bryn Lane (Northern Arm)	B - The Very Group Access Road	C - Bryn Lane (Southern Arm)	
A - Bryn Lane (Northern Arm)	0	86	191	
B - The Very Group Access Road	217	0	42	
C - Bryn Lane (Southern Arm)	308	6	0	

Vehicle Mix

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

Heavy Vehicle %

From	To		
	A - Bryn Lane (Northern Arm)	B - The Very Group Access Road	C - Bryn Lane (Southern Arm)
A - Bryn Lane (Northern Arm)	0	48	8
B - The Very Group Access Road	16	0	8
C - Bryn Lane (Southern Arm)	5	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.10	9.08	0.1	A	39	58
B-A	0.53	19.93	1.3	C	199	299
C-AB	0.01	4.99	0.0	A	6	8
C-A					283	424
A-B					79	118
A-C					175	263

With Dev 2036 Sensitivity Test, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - The Very Group Access Road - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Bryn Lane/The Very Group Access Road	T-Junction	Two-way	Two-way	Two-way		2.61	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.61	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D13	With Dev 2036 Sensitivity Test	AM	ONE HOUR	07:15	08:45	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Bryn Lane (Northern Arm)		ONE HOUR	✓	448	100.000
B - The Very Group Access Road		ONE HOUR	✓	109	100.000
C - Bryn Lane (Southern Arm)		ONE HOUR	✓	242	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To			
		A - Bryn Lane (Northern Arm)	B - The Very Group Access Road	C - Bryn Lane (Southern Arm)
	A - Bryn Lane (Northern Arm)	0	210	238
	B - The Very Group Access Road	92	0	17
	C - Bryn Lane (Southern Arm)	201	41	0

Vehicle Mix

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

Heavy Vehicle %

From	To			
		A - Bryn Lane (Northern Arm)	B - The Very Group Access Road	C - Bryn Lane (Southern Arm)
	A - Bryn Lane (Northern Arm)	0	18	7
	B - The Very Group Access Road	64	0	36
	C - Bryn Lane (Southern Arm)	14	8	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.04	9.52	0.0	A	16	23
B-A	0.24	18.10	0.5	C	84	127
C-AB	0.07	6.22	0.1	A	38	56
C-A					184	277
A-B					193	289
A-C					218	328

With Dev 2036 Sensitivity Test, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - The Very Group Access Road - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Bryn Lane/The Very Group Access Road	T-Junction	Two-way	Two-way	Two-way		5.55	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.55	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D14	With Dev 2036 Sensitivity Test	PM	ONE HOUR	16:15	17:45	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Bryn Lane (Northern Arm)		ONE HOUR	✓	284	100.000
B - The Very Group Access Road		ONE HOUR	✓	259	100.000
C - Bryn Lane (Southern Arm)		ONE HOUR	✓	325	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Bryn Lane (Northern Arm)	B - The Very Group Access Road	C - Bryn Lane (Southern Arm)
From	A - Bryn Lane (Northern Arm)	0	86	198
	B - The Very Group Access Road	217	0	42
	C - Bryn Lane (Southern Arm)	319	6	0

Vehicle Mix

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

Heavy Vehicle %

	To			
		A - Bryn Lane (Northern Arm)	B - The Very Group Access Road	C - Bryn Lane (Southern Arm)
From	A - Bryn Lane (Northern Arm)	0	48	9
	B - The Very Group Access Road	16	0	8
	C - Bryn Lane (Southern Arm)	5	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.10	9.16	0.1	A	39	58
B-A	0.54	20.29	1.3	C	199	299
C-AB	0.01	5.00	0.0	A	6	8
C-A					293	439
A-B					79	118
A-C					182	273

Junctions 10
ARCADY 10 - Roundabout Module
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Filename: Import of 2 - Bryn-Ash-Aben-Ind Est (Single Lane Aben).j10

Path: N:\Projects 2021\P21066 - Kingmoor, Wrexham Industrial Estate\6.Technical\Models\Import to Junctions 10

Report generation date: 14/02/2024 16:38:19

»Observed 2022, AM
»Observed 2022, PM
»Without Dev 2027, AM
»Without Dev 2027, PM
»Without Dev 2036, AM
»Without Dev 2036, PM
»With Dev 2027, AM
»With Dev 2027, PM
»With Dev 2036, AM
»With Dev 2036, PM
»With Dev 2027 Sensitivity Test, AM
»With Dev 2027 Sensitivity Test, PM
»With Dev 2036 Sensitivity Test, AM
»With Dev 2036 Sensitivity Test, PM

File summary

File Description

Title	Industrial Estate Road/Bryn Lane/Ash Road North/Abenbury Way
Location	Wrexham
Site number	
Date	13/02/2024
Version	
Status	Final
Identifier	
Client	FIREM
Jobnumber	P21066
Enumerator	GHClb.gaze
Description	Checked by D. Stoddart

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

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use simulation for HCM roundabouts	Use iterations for HCM roundabouts
5.75						0.85	36.00	20.00		

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	Observed 2022	AM	FLAT	07:45	09:15	90	15	✓
D2	Observed 2022	PM	FLAT	16:30	18:00	90	15	✓
D3	Without Dev 2027	AM	FLAT	07:45	09:15	90	15	✓
D4	Without Dev 2027	PM	FLAT	16:30	18:00	90	15	✓
D5	Without Dev 2036	AM	FLAT	07:45	09:15	90	15	✓
D6	Without Dev 2036	PM	FLAT	16:30	18:00	90	15	✓
D7	With Dev 2027	AM	FLAT	07:45	09:15	90	15	✓
D8	With Dev 2027	PM	FLAT	16:30	18:00	90	15	✓
D9	With Dev 2036	AM	FLAT	07:45	09:15	90	15	✓
D10	With Dev 2036	PM	FLAT	16:30	18:00	90	15	✓
D11	With Dev 2027 Sensitivity Test	AM	FLAT	07:45	09:15	90	15	✓
D12	With Dev 2027 Sensitivity Test	PM	FLAT	16:30	18:00	90	15	✓
D13	With Dev 2036 Sensitivity Test	AM	FLAT	07:45	09:15	90	15	✓
D14	With Dev 2036 Sensitivity Test	PM	FLAT	16:30	18:00	90	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Observed 2022, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Industrial Estate Road/Bryn Lane/Ash Road North/Abenbury Way	Standard Roundabout		1, 2, 3, 4	5.43	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.43	A

Arms

Arms

Arm	Name	Description	No give-way line
1	Bryn Lane		
2	Ash Road North		
3	Abenbury Way		
4	Industrial Estate Road		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1 - Bryn Lane	3.60	7.00	17.7	40.7	59.7	34.6		
2 - Ash Road North	3.60	7.50	21.0	10.0	59.7	35.2		
3 - Abenbury Way	3.60	5.00	5.0	60.3	59.7	34.5		
4 - Industrial Estate Road	7.00	9.70	7.5	48.0	59.7	34.2		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Bryn Lane	0.569	1744
2 - Ash Road North	0.543	1709
3 - Abenbury Way	0.500	1337
4 - Industrial Estate Road	0.708	2536

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	Observed 2022	AM	FLAT	07:45	09:15	90	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		FLAT	✓	191	100.000
2 - Ash Road North		FLAT	✓	169	100.000
3 - Abenbury Way		FLAT	✓	282	100.000
4 - Industrial Estate Road		FLAT	✓	1817	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
	1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	
From	1 - Bryn Lane	0	11	12	168
	2 - Ash Road North	8	0	15	146
	3 - Abenbury Way	15	7	0	260
	4 - Industrial Estate Road	336	777	704	0

Vehicle Mix

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

Heavy Vehicle %

	To				
	1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	
From	1 - Bryn Lane	0	11	22	20
	2 - Ash Road North	40	0	30	43
	3 - Abenbury Way	30	0	0	29
	4 - Industrial Estate Road	10	3	7	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Bryn Lane	0.21	6.10	0.3	A	191	287
2 - Ash Road North	0.14	4.80	0.2	A	169	254
3 - Abenbury Way	0.24	5.14	0.4	A	282	423
4 - Industrial Estate Road	0.72	5.46	2.7	A	1817	2726

Observed 2022, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Industrial Estate Road/Bryn Lane/Ash Road North/Abenbury Way	Standard Roundabout		1, 2, 3, 4	6.67	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.67	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D2	Observed 2022	PM	FLAT	16:30	18:00	90	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		FLAT	✓	377	100.000
2 - Ash Road North		FLAT	✓	775	100.000
3 - Abenbury Way		FLAT	✓	525	100.000
4 - Industrial Estate Road		FLAT	✓	600	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
From	1 - Bryn Lane	10	9	358
	2 - Ash Road North	7	10	758
	3 - Abenbury Way	14	0	505
	4 - Industrial Estate Road	187	157	256

Vehicle Mix

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

Heavy Vehicle %

	To			
	1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
From	1 - Bryn Lane	0	100	33
	2 - Ash Road North	20	0	29
	3 - Abenbury Way	18	25	0
	4 - Industrial Estate Road	13	14	6

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Bryn Lane	0.25	3.41	0.4	A	377	566
2 - Ash Road North	0.57	6.13	1.3	A	775	1163
3 - Abenbury Way	0.68	15.05	2.2	C	525	788
4 - Industrial Estate Road	0.24	2.07	0.3	A	600	900

Without Dev 2027, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Industrial Estate Road/Bryn Lane/Ash Road North/Abenbury Way	Standard Roundabout		1, 2, 3, 4	7.80	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	7.80	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D3	Without Dev 2027	AM	FLAT	07:45	09:15	90	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		FLAT	✓	239	100.000
2 - Ash Road North		FLAT	✓	179	100.000
3 - Abenbury Way		FLAT	✓	354	100.000
4 - Industrial Estate Road		FLAT	✓	2059	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
From 1 - Bryn Lane	0	11	12	216
2 - Ash Road North	8	0	15	156
3 - Abenbury Way	15	7	0	332
4 - Industrial Estate Road	401	832	826	0

Vehicle Mix

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

Heavy Vehicle %

	To			
	1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
From 1 - Bryn Lane	0	11	22	20
2 - Ash Road North	40	0	30	40
3 - Abenbury Way	30	0	0	27
4 - Industrial Estate Road	11	3	8	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Bryn Lane	0.30	7.71	0.5	A	239	359
2 - Ash Road North	0.16	5.23	0.3	A	179	269
3 - Abenbury Way	0.31	5.72	0.6	A	354	531
4 - Industrial Estate Road	0.82	8.40	4.8	A	2059	3089

Without Dev 2027, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Industrial Estate Road/Bryn Lane/Ash Road North/Abenbury Way	Standard Roundabout		1, 2, 3, 4	15.18	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	15.18	C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D4	Without Dev 2027	PM	FLAT	16:30	18:00	90	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		FLAT	✓	482	100.000
2 - Ash Road North		FLAT	✓	824	100.000
3 - Abenbury Way		FLAT	✓	624	100.000
4 - Industrial Estate Road		FLAT	✓	741	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
From	1 - Bryn Lane	0	10	9
	2 - Ash Road North	7	0	10
	3 - Abenbury Way	14	6	0
	4 - Industrial Estate Road	245	175	321

Vehicle Mix

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

Heavy Vehicle %

	To			
	1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
From	1 - Bryn Lane	0	100	33
	2 - Ash Road North	20	0	29
	3 - Abenbury Way	18	25	0
	4 - Industrial Estate Road	14	12	7

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Bryn Lane	0.33	3.98	0.5	A	482	723
2 - Ash Road North	0.64	8.02	1.8	A	824	1236
3 - Abenbury Way	0.89	48.63	8.1	E	624	936
4 - Industrial Estate Road	0.29	2.24	0.5	A	741	1112

Without Dev 2036, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Industrial Estate Road/Bryn Lane/Ash Road North/Abenbury Way	Standard Roundabout		1, 2, 3, 4	9.03	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	9.03	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D5	Without Dev 2036	AM	FLAT	07:45	09:15	90	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		FLAT	✓	246	100.000
2 - Ash Road North		FLAT	✓	183	100.000
3 - Abenbury Way		FLAT	✓	361	100.000
4 - Industrial Estate Road		FLAT	✓	2132	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
From	1 - Bryn Lane	0	11	12
	2 - Ash Road North	8	0	15
	3 - Abenbury Way	15	7	0
	4 - Industrial Estate Road	415	864	853

Vehicle Mix

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

Heavy Vehicle %

	To			
	1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
From	1 - Bryn Lane	0	11	22
	2 - Ash Road North	40	0	30
	3 - Abenbury Way	30	0	26
	4 - Industrial Estate Road	11	3	7

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Bryn Lane	0.32	8.31	0.6	A	246	369
2 - Ash Road North	0.16	5.35	0.3	A	183	275
3 - Abenbury Way	0.32	5.80	0.6	A	361	542
4 - Industrial Estate Road	0.85	9.98	5.8	A	2132	3198

Without Dev 2036, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Industrial Estate Road/Bryn Lane/Ash Road North/Abenbury Way	Standard Roundabout		1, 2, 3, 4	25.51	D

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	25.51	D

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D6	Without Dev 2036	PM	FLAT	16:30	18:00	90	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		FLAT	✓	497	100.000
2 - Ash Road North		FLAT	✓	852	100.000
3 - Abenbury Way		FLAT	✓	645	100.000
4 - Industrial Estate Road		FLAT	✓	767	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
From 1 - Bryn Lane	0	10	9	478
2 - Ash Road North	7	0	10	835
3 - Abenbury Way	14	6	0	625
4 - Industrial Estate Road	252	182	333	0

Vehicle Mix

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

Heavy Vehicle %

	To			
	1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
From 1 - Bryn Lane	0	100	33	7
2 - Ash Road North	20	0	29	1
3 - Abenbury Way	18	25	0	4
4 - Industrial Estate Road	14	12	7	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Bryn Lane	0.34	4.09	0.6	A	497	746
2 - Ash Road North	0.67	8.85	2.1	A	852	1278
3 - Abenbury Way	0.95	91.64	15.6	F	645	968
4 - Industrial Estate Road	0.30	2.28	0.5	A	767	1151

With Dev 2027, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Industrial Estate Road/Bryn Lane/Ash Road North/Abenbury Way	Standard Roundabout		1, 2, 3, 4	9.74	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	9.74	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D7	With Dev 2027	AM	FLAT	07:45	09:15	90	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		FLAT	✓	316	100.000
2 - Ash Road North		FLAT	✓	179	100.000
3 - Abenbury Way		FLAT	✓	354	100.000
4 - Industrial Estate Road		FLAT	✓	2159	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
From 1 - Bryn Lane	0	11	12	293
2 - Ash Road North	8	0	15	156
3 - Abenbury Way	15	7	0	332
4 - Industrial Estate Road	501	832	826	0

Vehicle Mix

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

Heavy Vehicle %

	To			
	1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
From 1 - Bryn Lane	0	11	22	22
2 - Ash Road North	40	0	30	40
3 - Abenbury Way	30	0	0	27
4 - Industrial Estate Road	13	3	8	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Bryn Lane	0.40	9.08	0.8	A	316	474
2 - Ash Road North	0.16	5.47	0.3	A	179	269
3 - Abenbury Way	0.32	6.01	0.6	A	354	531
4 - Industrial Estate Road	0.86	10.80	6.4	B	2159	3239

With Dev 2027, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Industrial Estate Road/Bryn Lane/Ash Road North/Abenbury Way	Standard Roundabout		1, 2, 3, 4	32.18	D

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	32.18	D

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D8	With Dev 2027	PM	FLAT	16:30	18:00	90	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		FLAT	✓	600	100.000
2 - Ash Road North		FLAT	✓	824	100.000
3 - Abenbury Way		FLAT	✓	624	100.000
4 - Industrial Estate Road		FLAT	✓	834	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
From 1 - Bryn Lane	0	10	9	581
2 - Ash Road North	7	0	10	807
3 - Abenbury Way	14	6	0	604
4 - Industrial Estate Road	338	175	321	0

Vehicle Mix

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

Heavy Vehicle %

	To			
	1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
From 1 - Bryn Lane	0	100	33	9
2 - Ash Road North	20	0	29	1
3 - Abenbury Way	18	25	0	4
4 - Industrial Estate Road	18	12	7	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Bryn Lane	0.41	4.60	0.8	A	600	900
2 - Ash Road North	0.68	9.34	2.1	A	824	1236
3 - Abenbury Way	0.98	128.66	21.4	F	624	936
4 - Industrial Estate Road	0.33	2.40	0.6	A	834	1251

With Dev 2036, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Industrial Estate Road/Bryn Lane/Ash Road North/Abenbury Way	Standard Roundabout		1, 2, 3, 4	11.83	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	11.83	B

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D9	With Dev 2036	AM	FLAT	07:45	09:15	90	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		FLAT	✓	324	100.000
2 - Ash Road North		FLAT	✓	183	100.000
3 - Abenbury Way		FLAT	✓	361	100.000
4 - Industrial Estate Road		FLAT	✓	2232	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
From 1 - Bryn Lane	0	11	12	301
2 - Ash Road North	8	0	15	160
3 - Abenbury Way	15	7	0	339
4 - Industrial Estate Road	515	864	853	0

Vehicle Mix

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

Heavy Vehicle %

	To			
	1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
From 1 - Bryn Lane	0	11	22	22
2 - Ash Road North	40	0	30	40
3 - Abenbury Way	30	0	0	26
4 - Industrial Estate Road	13	3	7	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Bryn Lane	0.42	9.92	0.9	A	324	486
2 - Ash Road North	0.17	5.60	0.3	A	183	275
3 - Abenbury Way	0.33	6.11	0.6	A	361	542
4 - Industrial Estate Road	0.89	13.54	8.3	B	2232	3348

With Dev 2036, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Industrial Estate Road/Bryn Lane/Ash Road North/Abenbury Way	Standard Roundabout		1, 2, 3, 4	74.38	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	74.38	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D10	With Dev 2036	PM	FLAT	16:30	18:00	90	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		FLAT	✓	615	100.000
2 - Ash Road North		FLAT	✓	852	100.000
3 - Abenbury Way		FLAT	✓	645	100.000
4 - Industrial Estate Road		FLAT	✓	860	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
From 1 - Bryn Lane	0	10	9	596
2 - Ash Road North	7	0	10	835
3 - Abenbury Way	14	6	0	625
4 - Industrial Estate Road	345	182	333	0

Vehicle Mix

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

Heavy Vehicle %

	To			
	1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
From 1 - Bryn Lane	0	100	33	9
2 - Ash Road North	20	0	29	1
3 - Abenbury Way	18	25	0	4
4 - Industrial Estate Road	18	12	7	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Bryn Lane	0.42	4.74	0.8	A	615	923
2 - Ash Road North	0.71	10.47	2.5	B	852	1278
3 - Abenbury Way	1.04	321.14	56.7	F	645	968
4 - Industrial Estate Road	0.34	2.44	0.6	A	860	1290

With Dev 2027 Sensitivity Test, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Industrial Estate Road/Bryn Lane/Ash Road North/Abenbury Way	Standard Roundabout		1, 2, 3, 4	12.16	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	12.16	B

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D11	With Dev 2027 Sensitivity Test	AM	FLAT	07:45	09:15	90	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		FLAT	✓	313	100.000
2 - Ash Road North		FLAT	✓	179	100.000
3 - Abenbury Way		FLAT	✓	354	100.000
4 - Industrial Estate Road		FLAT	✓	2242	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
From	1 - Bryn Lane	11	12	290
	2 - Ash Road North	0	15	156
	3 - Abenbury Way	7	0	332
	4 - Industrial Estate Road	832	826	0

Vehicle Mix

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

Heavy Vehicle %

	To			
	1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
From	1 - Bryn Lane	0	11	22
	2 - Ash Road North	40	0	30
	3 - Abenbury Way	30	0	27
	4 - Industrial Estate Road	12	3	8

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Bryn Lane	0.39	9.44	0.8	A	313	470
2 - Ash Road North	0.16	5.46	0.3	A	179	269
3 - Abenbury Way	0.32	6.00	0.6	A	354	531
4 - Industrial Estate Road	0.89	14.05	8.6	B	2242	3363

With Dev 2027 Sensitivity Test, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Industrial Estate Road/Bryn Lane/Ash Road North/Abenbury Way	Standard Roundabout		1, 2, 3, 4	58.77	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	58.77	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D12	With Dev 2027 Sensitivity Test	PM	FLAT	16:30	18:00	90	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		FLAT	✓	660	100.000
2 - Ash Road North		FLAT	✓	824	100.000
3 - Abenbury Way		FLAT	✓	624	100.000
4 - Industrial Estate Road		FLAT	✓	806	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
From	1 - Bryn Lane	10	9	641
	2 - Ash Road North	0	10	807
	3 - Abenbury Way	14	0	604
	4 - Industrial Estate Road	310	175	321

Vehicle Mix

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

Heavy Vehicle %

	To			
	1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
From	1 - Bryn Lane	0	100	33
	2 - Ash Road North	20	0	29
	3 - Abenbury Way	18	25	0
	4 - Industrial Estate Road	19	12	7

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Bryn Lane	0.45	4.96	0.9	A	660	990
2 - Ash Road North	0.70	10.18	2.3	B	824	1236
3 - Abenbury Way	1.02	252.69	43.0	F	624	936
4 - Industrial Estate Road	0.32	2.36	0.5	A	806	1209

With Dev 2036 Sensitivity Test, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Industrial Estate Road/Bryn Lane/Ash Road North/Abenbury Way	Standard Roundabout		1, 2, 3, 4	15.80	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	15.80	C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D13	With Dev 2036 Sensitivity Test	AM	FLAT	07:45	09:15	90	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		FLAT	✓	320	100.000
2 - Ash Road North		FLAT	✓	183	100.000
3 - Abenbury Way		FLAT	✓	361	100.000
4 - Industrial Estate Road		FLAT	✓	2314	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
From	1 - Bryn Lane	11	12	297
	2 - Ash Road North	0	15	160
	3 - Abenbury Way	7	0	339
	4 - Industrial Estate Road	864	853	0

Vehicle Mix

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

Heavy Vehicle %

	To			
	1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
From	1 - Bryn Lane	0	11	22
	2 - Ash Road North	40	0	30
	3 - Abenbury Way	30	0	0
	4 - Industrial Estate Road	12	3	7

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Bryn Lane	0.42	10.28	0.9	B	320	480
2 - Ash Road North	0.17	5.59	0.3	A	183	275
3 - Abenbury Way	0.33	6.09	0.6	A	361	542
4 - Industrial Estate Road	0.92	18.88	11.8	C	2314	3471

With Dev 2036 Sensitivity Test, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Industrial Estate Road/Bryn Lane/Ash Road North/Abenbury Way	Standard Roundabout		1, 2, 3, 4	120.99	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	120.99	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D14	With Dev 2036 Sensitivity Test	PM	FLAT	16:30	18:00	90	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		FLAT	✓	674	100.000
2 - Ash Road North		FLAT	✓	852	100.000
3 - Abenbury Way		FLAT	✓	645	100.000
4 - Industrial Estate Road		FLAT	✓	833	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
From 1 - Bryn Lane	0	10	9	655
2 - Ash Road North	7	0	10	835
3 - Abenbury Way	14	6	0	625
4 - Industrial Estate Road	318	182	333	0

Vehicle Mix

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

Heavy Vehicle %

	To			
	1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road
From 1 - Bryn Lane	0	100	33	9
2 - Ash Road North	20	0	29	1
3 - Abenbury Way	18	25	0	4
4 - Industrial Estate Road	19	12	7	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Bryn Lane	0.47	5.11	1.0	A	674	1011
2 - Ash Road North	0.73	11.53	2.7	B	852	1278
3 - Abenbury Way	1.10	539.82	93.6	F	645	968
4 - Industrial Estate Road	0.33	2.40	0.6	A	833	1250

Junctions 10
ARCADY 10 - Roundabout Module
Version: 10.1.1.1905 © Copyright TRL Software Limited, 2023
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Filename: Proposed Site Access ARCADY (Impr) BG.j10

Path: N:\Projects 2021\P21066 - Kingmoor, Wrexham Industrial Estate\6.Technical\Models\Import to Junctions 10\Cora IHT Site Access Model (Prime Junction 2)

Report generation date: 14/02/2024 16:45:43

»Without Dev 2027, AM
»Without Dev 2027, PM
»Without Dev 2036, AM
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»With Dev 2036, AM
»With Dev 2036, PM
»With Dev 2027 Sensitivity Test, AM
»With Dev 2027 Sensitivity Test, PM
»With Dev 2036 Sensitivity Test, AM
»With Dev 2036 Sensitivity Test, PM

File summary

File Description

Title	Industrial Estate Road/Bryn Lane/Ash Road North/Abenbury Way/Utopia Access
Location	Wrexham
Site number	
Date	13/02/2024
Version	
Status	Final
Identifier	
Client	FIREM
Jobnumber	P21066
Enumerator	GHClb.gaze
Description	Checked by D. Stoddart

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 period length (min)	Time segment length (min)
D1	Without Dev 2027	AM	FLAT	07:45	08:45	60	15
D2	Without Dev 2027	PM	FLAT	16:30	17:30	60	15
D3	Without Dev 2036	AM	FLAT	07:45	08:45	60	15
D4	Without Dev 2036	PM	FLAT	16:30	17:30	60	15
D5	With Dev 2027	AM	FLAT	07:45	08:45	60	15
D6	With Dev 2027	PM	FLAT	16:30	17:30	60	15
D7	With Dev 2036	AM	FLAT	07:45	08:45	60	15
D8	With Dev 2036	PM	FLAT	16:30	17:30	60	15
D9	With Dev 2027 Sensitivity Test	AM	FLAT	07:45	08:45	60	15
D10	With Dev 2027 Sensitivity Test	PM	FLAT	16:30	17:30	60	15
D11	With Dev 2036 Sensitivity Test	AM	FLAT	07:45	08:45	60	15
D12	With Dev 2036 Sensitivity Test	PM	FLAT	16:30	17:30	60	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Without Dev 2027, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - Bryn Lane - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - Abenbury Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Industrial Estate Road/Bryn Lane/Ash Road North/Abenbury Way/Utopia Access	Standard Roundabout		1, 2, 3, 4, 5	15.27	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	15.27	C

Arms

Arms

Arm	Name	Description	No give-way line
1	Bryn Lane		
2	Ash Road North		
3	Abenbury Way		
4	Industrial Estate Road		
5	Utopia Access		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1 - Bryn Lane	3.77	8.01	33.4	38.9	70.0	28.0		
2 - Ash Road North	4.33	9.11	15.2	20.0	70.0	48.0		
3 - Abenbury Way	3.92	8.82	30.2	57.7	70.0	30.0		
4 - Industrial Estate Road	8.50	9.02	9.5	37.4	70.0	41.0		
5 - Utopia Access	3.65	10.00	19.5	25.2	70.0	31.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Bryn Lane	0.579	2119
2 - Ash Road North	0.523	1907
3 - Abenbury Way	0.597	2234
4 - Industrial Estate Road	0.654	2668
5 - Utopia Access	0.564	2062

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D1	Without Dev 2027	AM	FLAT	07:45	08:45	60	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		✓	353	100.000
2 - Ash Road North		✓	179	100.000
3 - Abenbury Way		✓	354	100.000
4 - Industrial Estate Road		✓	2401	100.000
5 - Utopia Access		✓	444	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
From		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Utopia Access
	1 - Bryn Lane	0	4	6	296	47
	2 - Ash Road North	7	0	14	137	21
	3 - Abenbury Way	14	4	0	301	35
	4 - Industrial Estate Road	541	737	756	0	367
	5 - Utopia Access	58	100	74	212	0

Vehicle Mix

Heavy Vehicle %

		To				
From		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Utopia Access
	1 - Bryn Lane	0	50	67	29	0
	2 - Ash Road North	50	0	33	50	0
	3 - Abenbury Way	33	0	0	31	0
	4 - Industrial Estate Road	12	4	8	0	5
	5 - Utopia Access	0	0	0	14	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Bryn Lane	0.34	6.62	0.6	A
2 - Ash Road North	0.15	5.05	0.3	A
3 - Abenbury Way	0.20	3.14	0.3	A
4 - Industrial Estate Road	0.93	20.37	13.0	C
5 - Utopia Access	0.49	8.38	1.0	A

Without Dev 2027, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - Bryn Lane - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - Abenbury Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Industrial Estate Road/Bryn Lane/Ash Road North/Abenbury Way/Utopia Access	Standard Roundabout		1, 2, 3, 4, 5	5.97	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.97	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D2	Without Dev 2027	PM	FLAT	16:30	17:30	60	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		✓	677	100.000
2 - Ash Road North		✓	825	100.000
3 - Abenbury Way		✓	623	100.000
4 - Industrial Estate Road		✓	1007	100.000
5 - Utopia Access		✓	564	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Utopia Access
From	1 - Bryn Lane	0	8	7	576	86
	2 - Ash Road North	5	0	9	686	125
	3 - Abenbury Way	11	5	0	521	86
	4 - Industrial Estate Road	332	150	296	0	229
	5 - Utopia Access	60	29	30	445	0

Vehicle Mix

Heavy Vehicle %

	To					
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Utopia Access
From	1 - Bryn Lane	0	100	50	9	0
	2 - Ash Road North	33	0	33	1	0
	3 - Abenbury Way	25	33	0	5	0
	4 - Industrial Estate Road	22	15	8	0	13
	5 - Utopia Access	0	0	0	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Bryn Lane	0.43	4.41	0.8	A
2 - Ash Road North	0.72	11.11	2.5	B
3 - Abenbury Way	0.57	8.14	1.4	A
4 - Industrial Estate Road	0.41	2.83	0.8	A
5 - Utopia Access	0.35	3.55	0.6	A

Without Dev 2036, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - Bryn Lane - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - Abenbury Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Industrial Estate Road/Bryn Lane/Ash Road North/Abenbury Way/Utopia Access	Standard Roundabout		1, 2, 3, 4, 5	22.28	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	22.28	C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D3	Without Dev 2036	AM	FLAT	07:45	08:45	60	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		✓	360	100.000
2 - Ash Road North		✓	183	100.000
3 - Abenbury Way		✓	361	100.000
4 - Industrial Estate Road		✓	2474	100.000
5 - Utopia Access		✓	444	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Utopia Access
From	1 - Bryn Lane	0	4	6	303	47
	2 - Ash Road North	7	0	14	141	21
	3 - Abenbury Way	14	4	0	308	35
	4 - Industrial Estate Road	555	769	783	0	367
	5 - Utopia Access	58	100	74	212	0

Vehicle Mix

Heavy Vehicle %

	To					
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Utopia Access
From	1 - Bryn Lane	0	50	67	28	0
	2 - Ash Road North	50	0	33	49	0
	3 - Abenbury Way	33	0	0	30	0
	4 - Industrial Estate Road	12	4	8	0	5
	5 - Utopia Access	0	0	0	14	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Bryn Lane	0.36	7.03	0.7	A
2 - Ash Road North	0.16	5.15	0.3	A
3 - Abenbury Way	0.20	3.16	0.3	A
4 - Industrial Estate Road	0.96	30.91	20.2	D
5 - Utopia Access	0.52	9.18	1.1	A

Without Dev 2036, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - Bryn Lane - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - Abenbury Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Industrial Estate Road/Bryn Lane/Ash Road North/Abenbury Way/Utopia Access	Standard Roundabout		1, 2, 3, 4, 5	6.55	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.55	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D4	Without Dev 2036	PM	FLAT	16:30	17:30	60	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		✓	691	100.000
2 - Ash Road North		✓	853	100.000
3 - Abenbury Way		✓	644	100.000
4 - Industrial Estate Road		✓	1033	100.000
5 - Utopia Access		✓	564	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Utopia Access
From	1 - Bryn Lane	0	8	7	590	86
	2 - Ash Road North	5	0	9	714	125
	3 - Abenbury Way	11	5	0	542	86
	4 - Industrial Estate Road	339	157	308	0	229
	5 - Utopia Access	60	29	30	445	0

Vehicle Mix

Heavy Vehicle %

	To					
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Utopia Access
From	1 - Bryn Lane	0	100	50	9	0
	2 - Ash Road North	33	0	33	1	0
	3 - Abenbury Way	25	33	0	5	0
	4 - Industrial Estate Road	22	15	8	0	13
	5 - Utopia Access	0	0	0	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Bryn Lane	0.44	4.53	0.9	A
2 - Ash Road North	0.75	12.71	3.0	B
3 - Abenbury Way	0.61	9.04	1.6	A
4 - Industrial Estate Road	0.42	2.88	0.8	A
5 - Utopia Access	0.35	3.60	0.6	A

With Dev 2027, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - Bryn Lane - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - Abenbury Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Industrial Estate Road/Bryn Lane/Ash Road North/Abenbury Way/Utopia Access	Standard Roundabout		1, 2, 3, 4, 5	26.42	D

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	26.42	D

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
DS	With Dev 2027	AM	FLAT	07:45	08:45	60	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		✓	430	100.000
2 - Ash Road North		✓	179	100.000
3 - Abenbury Way		✓	354	100.000
4 - Industrial Estate Road		✓	2501	100.000
5 - Utopia Access		✓	444	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Utopia Access
From	1 - Bryn Lane	0	4	6	373	47
	2 - Ash Road North	7	0	14	137	21
	3 - Abenbury Way	14	4	0	301	35
	4 - Industrial Estate Road	641	737	756	0	367
	5 - Utopia Access	58	100	74	212	0

Vehicle Mix

Heavy Vehicle %

		To				
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Utopia Access
From	1 - Bryn Lane	0	50	67	28	0
	2 - Ash Road North	50	0	33	50	0
	3 - Abenbury Way	33	0	0	31	0
	4 - Industrial Estate Road	14	4	8	0	5
	5 - Utopia Access	0	0	0	14	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Bryn Lane	0.42	7.48	0.9	A
2 - Ash Road North	0.16	5.26	0.3	A
3 - Abenbury Way	0.20	3.24	0.3	A
4 - Industrial Estate Road	0.97	37.47	24.7	E
5 - Utopia Access	0.52	9.51	1.2	A

With Dev 2027, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - Bryn Lane - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - Abenbury Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Industrial Estate Road/Bryn Lane/Ash Road North/Abenbury Way/Utopia Access	Standard Roundabout		1, 2, 3, 4, 5	6.86	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.86	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D6	With Dev 2027	PM	FLAT	16:30	17:30	60	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		✓	795	100.000
2 - Ash Road North		✓	825	100.000
3 - Abenbury Way		✓	623	100.000
4 - Industrial Estate Road		✓	1100	100.000
5 - Utopia Access		✓	564	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Utopia Access
From	1 - Bryn Lane	0	8	7	694	86
	2 - Ash Road North	5	0	9	686	125
	3 - Abenbury Way	11	5	0	521	86
	4 - Industrial Estate Road	425	150	296	0	229
	5 - Utopia Access	60	29	30	445	0

Vehicle Mix

Heavy Vehicle %

		To				
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Utopia Access
From	1 - Bryn Lane	0	100	50	11	0
	2 - Ash Road North	33	0	33	1	0
	3 - Abenbury Way	25	33	0	5	0
	4 - Industrial Estate Road	23	15	8	0	13
	5 - Utopia Access	0	0	0	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Bryn Lane	0.51	5.13	1.1	A
2 - Ash Road North	0.76	13.67	3.1	B
3 - Abenbury Way	0.61	9.60	1.6	A
4 - Industrial Estate Road	0.45	3.05	0.9	A
5 - Utopia Access	0.36	3.74	0.6	A

With Dev 2036, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - Bryn Lane - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - Abenbury Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Industrial Estate Road/Bryn Lane/Ash Road North/Abenbury Way/Utopia Access	Standard Roundabout		1, 2, 3, 4, 5	45.96	E

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	45.96	E

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D7	With Dev 2036	AM	FLAT	07:45	08:45	60	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		✓	438	100.000
2 - Ash Road North		✓	183	100.000
3 - Abenbury Way		✓	361	100.000
4 - Industrial Estate Road		✓	2574	100.000
5 - Utopia Access		✓	444	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
	1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Utopia Access
From 1 - Bryn Lane	0	4	6	381	47
2 - Ash Road North	7	0	14	141	21
3 - Abenbury Way	14	4	0	308	35
4 - Industrial Estate Road	655	769	783	0	367
5 - Utopia Access	58	100	74	212	0

Vehicle Mix

Heavy Vehicle %

	To				
	1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Utopia Access
From 1 - Bryn Lane	0	50	67	28	0
2 - Ash Road North	50	0	33	49	0
3 - Abenbury Way	33	0	0	30	0
4 - Industrial Estate Road	13	4	8	0	5
5 - Utopia Access	0	0	0	14	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Bryn Lane	0.44	7.95	1.0	A
2 - Ash Road North	0.16	5.36	0.3	A
3 - Abenbury Way	0.21	3.27	0.3	A
4 - Industrial Estate Road	1.00	67.45	47.3	F
5 - Utopia Access	0.55	10.34	1.3	B

With Dev 2036, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - Bryn Lane - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - Abenbury Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Industrial Estate Road/Bryn Lane/Ash Road North/Abenbury Way/Utopia Access	Standard Roundabout		1, 2, 3, 4, 5	7.69	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	7.69	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D8	With Dev 2036	PM	FLAT	16:30	17:30	60	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		✓	809	100.000
2 - Ash Road North		✓	853	100.000
3 - Abenbury Way		✓	644	100.000
4 - Industrial Estate Road		✓	1126	100.000
5 - Utopia Access		✓	564	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
	1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Utopia Access
From 1 - Bryn Lane	0	8	7	708	86
2 - Ash Road North	5	0	9	714	125
3 - Abenbury Way	11	5	0	542	86
4 - Industrial Estate Road	432	157	308	0	229
5 - Utopia Access	60	29	30	445	0

Vehicle Mix

Heavy Vehicle %

	To				
	1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Utopia Access
From 1 - Bryn Lane	0	100	50	10	0
2 - Ash Road North	33	0	33	1	0
3 - Abenbury Way	25	33	0	5	0
4 - Industrial Estate Road	23	15	8	0	13
5 - Utopia Access	0	0	0	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Bryn Lane	0.52	5.30	1.2	A
2 - Ash Road North	0.79	16.16	3.8	C
3 - Abenbury Way	0.65	10.88	1.9	B
4 - Industrial Estate Road	0.46	3.11	1.0	A
5 - Utopia Access	0.37	3.80	0.6	A

With Dev 2027 Sensitivity Test, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - Bryn Lane - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - Abenbury Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Industrial Estate Road/Bryn Lane/Ash Road North/Abenbury Way/Utopia Access	Standard Roundabout		1, 2, 3, 4, 5	50.12	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	50.12	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D9	With Dev 2027 Sensitivity Test	AM	FLAT	07:45	08:45	60	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		✓	427	100.000
2 - Ash Road North		✓	179	100.000
3 - Abenbury Way		✓	354	100.000
4 - Industrial Estate Road		✓	2584	100.000
5 - Utopia Access		✓	444	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Utopia Access
From	1 - Bryn Lane	0	4	6	370	47
	2 - Ash Road North	7	0	14	137	21
	3 - Abenbury Way	14	4	0	301	35
	4 - Industrial Estate Road	724	737	756	0	367
	5 - Utopia Access	58	100	74	212	0

Vehicle Mix

Heavy Vehicle %

		To				
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Utopia Access
From	1 - Bryn Lane	0	50	67	34	0
	2 - Ash Road North	50	0	33	50	0
	3 - Abenbury Way	33	0	0	31	0
	4 - Industrial Estate Road	13	4	8	0	5
	5 - Utopia Access	0	0	0	14	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Bryn Lane	0.41	7.62	0.9	A
2 - Ash Road North	0.16	5.23	0.3	A
3 - Abenbury Way	0.20	3.24	0.3	A
4 - Industrial Estate Road	1.00	73.49	52.2	F
5 - Utopia Access	0.55	10.43	1.3	B

With Dev 2027 Sensitivity Test, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - Bryn Lane - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - Abenbury Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Industrial Estate Road/Bryn Lane/Ash Road North/Abenbury Way/Utopia Access	Standard Roundabout		1, 2, 3, 4, 5	7.46	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	7.46	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D10	With Dev 2027 Sensitivity Test	PM	FLAT	16:30	17:30	60	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		✓	854	100.000
2 - Ash Road North		✓	825	100.000
3 - Abenbury Way		✓	623	100.000
4 - Industrial Estate Road		✓	1072	100.000
5 - Utopia Access		✓	564	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Utopia Access
From	1 - Bryn Lane	0	8	7	753	86
	2 - Ash Road North	5	0	9	686	125
	3 - Abenbury Way	11	5	0	521	86
	4 - Industrial Estate Road	397	150	296	0	229
	5 - Utopia Access	60	29	30	445	0

Vehicle Mix

Heavy Vehicle %

	To					
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Utopia Access
From	1 - Bryn Lane	0	100	50	11	0
	2 - Ash Road North	33	0	33	1	0
	3 - Abenbury Way	25	33	0	5	0
	4 - Industrial Estate Road	25	15	8	0	13
	5 - Utopia Access	0	0	0	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Bryn Lane	0.55	5.57	1.3	A
2 - Ash Road North	0.78	15.44	3.5	C
3 - Abenbury Way	0.64	10.55	1.8	B
4 - Industrial Estate Road	0.44	3.00	0.9	A
5 - Utopia Access	0.36	3.68	0.6	A

With Dev 2036 Sensitivity Test, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - Bryn Lane - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - Abenbury Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Industrial Estate Road/Bryn Lane/Ash Road North/Abenbury Way/Utopia Access	Standard Roundabout		1, 2, 3, 4, 5	87.36	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	87.36	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D11	With Dev 2036 Sensitivity Test	AM	FLAT	07:45	08:45	60	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		✓	434	100.000
2 - Ash Road North		✓	183	100.000
3 - Abenbury Way		✓	361	100.000
4 - Industrial Estate Road		✓	2656	100.000
5 - Utopia Access		✓	444	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Utopia Access
From	1 - Bryn Lane	0	4	6	377	47
	2 - Ash Road North	7	0	14	141	21
	3 - Abenbury Way	14	4	0	308	35
	4 - Industrial Estate Road	737	769	783	0	367
	5 - Utopia Access	58	100	74	212	0

Vehicle Mix

Heavy Vehicle %

	To					
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Utopia Access
From	1 - Bryn Lane	0	50	67	33	0
	2 - Ash Road North	50	0	33	49	0
	3 - Abenbury Way	33	0	0	30	0
	4 - Industrial Estate Road	13	4	8	0	5
	5 - Utopia Access	0	0	0	14	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Bryn Lane	0.42	7.92	0.9	A
2 - Ash Road North	0.16	5.30	0.3	A
3 - Abenbury Way	0.21	3.26	0.3	A
4 - Industrial Estate Road	1.03	130.21	99.5	F
5 - Utopia Access	0.56	10.90	1.3	B

With Dev 2036 Sensitivity Test, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	1 - Bryn Lane - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.
Warning	Geometry	3 - Abenbury Way - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Industrial Estate Road/Bryn Lane/Ash Road North/Abenbury Way/Utopia Access	Standard Roundabout		1, 2, 3, 4, 5	8.51	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	8.51	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D12	With Dev 2036 Sensitivity Test	PM	FLAT	16:30	17:30	60	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Bryn Lane		✓	869	100.000
2 - Ash Road North		✓	853	100.000
3 - Abenbury Way		✓	644	100.000
4 - Industrial Estate Road		✓	1099	100.000
5 - Utopia Access		✓	564	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Utopia Access
From	1 - Bryn Lane	0	8	7	768	86
	2 - Ash Road North	5	0	9	714	125
	3 - Abenbury Way	11	5	0	542	86
	4 - Industrial Estate Road	405	157	308	0	229
	5 - Utopia Access	60	29	30	445	0

Vehicle Mix

Heavy Vehicle %

		To				
		1 - Bryn Lane	2 - Ash Road North	3 - Abenbury Way	4 - Industrial Estate Road	5 - Utopia Access
From	1 - Bryn Lane	0	100	50	11	0
	2 - Ash Road North	33	0	33	1	0
	3 - Abenbury Way	25	33	0	5	0
	4 - Industrial Estate Road	25	15	8	0	13
	5 - Utopia Access	0	0	0	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Bryn Lane	0.56	5.78	1.4	A
2 - Ash Road North	0.81	18.74	4.3	C
3 - Abenbury Way	0.67	12.13	2.1	B
4 - Industrial Estate Road	0.45	3.06	0.9	A
5 - Utopia Access	0.36	3.74	0.6	A

Junctions 10
ARCADY 10 - Roundabout Module
Version: 10.1.1.1905 © Copyright TRL Software Limited, 2023
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Filename: Import of 3 - Borrass-Wrexham-Industrial-Sandy-A534.j10

Path: N:\Projects 2021\P21066 - Kingmoor, Wrexham Industrial Estate\6.Technical\Models\Import to Junctions 10

Report generation date: 14/02/2024 16:20:42

- »Observed 2022, AM
- »Observed 2022, PM
- »Without Dev 2027, AM
- »Without Dev 2027, PM
- »Without Dev 2036, AM
- »Without Dev 2036, PM
- »With Dev 2027, AM
- »With Dev 2027, PM
- »With Dev 2036, AM
- »With Dev 2036, PM
- »With Dev 2027 Sensitivity Test, AM
- »With Dev 2027 Sensitivity Test, PM
- »With Dev 2036 Sensitivity Test, AM
- »With Dev 2036 Sensitivity Test, PM

File summary

File Description

Title	Borrass Hall Lane/Wrexham Road/Industrial Estate Road/Sandy Lane/A534
Location	Wrexham
Site number	
Date	13/02/2024
Version	
Status	Final
Identifier	
Client	FIREM
Jobnumber	P21066
Enumerator	GHClb.gaze
Description	Checked by D. Stoddart

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

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use simulation for HCM roundabouts	Use iterations for HCM roundabouts
5.75						0.85	36.00	20.00		

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	Observed 2022	AM	FLAT	07:45	09:15	90	15	✓
D2	Observed 2022	PM	FLAT	16:30	18:00	90	15	✓
D3	Without Dev 2027	AM	FLAT	07:45	09:15	90	15	✓
D4	Without Dev 2027	PM	FLAT	16:30	18:00	90	15	✓
D5	Without Dev 2036	AM	FLAT	07:45	09:15	90	15	✓
D6	Without Dev 2036	PM	FLAT	16:30	18:00	90	15	✓
D7	With Dev 2027	AM	FLAT	07:45	09:15	90	15	✓
D8	With Dev 2027	PM	FLAT	16:30	18:00	90	15	✓
D9	With Dev 2036	AM	FLAT	07:45	09:15	90	15	✓
D10	With Dev 2036	PM	FLAT	16:30	18:00	90	15	✓
D11	With Dev 2027 Sensitivity Test	AM	FLAT	07:45	09:15	90	15	✓
D12	With Dev 2027 Sensitivity Test	PM	FLAT	16:30	18:00	90	15	✓
D13	With Dev 2036 Sensitivity Test	AM	FLAT	07:45	09:15	90	15	✓
D14	With Dev 2036 Sensitivity Test	PM	FLAT	16:30	18:00	90	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Observed 2022, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Borras Hall Lane/Wrexham Road/Industrial Estate Road/Sandy Lane/A534	Standard Roundabout		1, 2, 3, 4, 5	6.64	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.64	A

Arms

Arms

Arm	Name	Description	No give-way line
1	Borras Hall Lane		
2	Wrexham Road		
3	Industrial Estate Road		
4	Sandy Lane		
5	A534		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1 - Borras Hall Lane	3.60	5.80	11.0	17.3	70.0	31.3		
2 - Wrexham Road	3.50	7.30	13.0	26.2	70.0	31.8		
3 - Industrial Estate Road	7.00	8.70	15.7	38.8	70.0	31.8		
4 - Sandy Lane	3.70	5.30	18.1	16.0	70.0	30.9		
5 - A534	7.80	10.10	5.0	32.0	70.0	31.3		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Borras Hall Lane	0.468	1479
2 - Wrexham Road	0.501	1664
3 - Industrial Estate Road	0.643	2547
4 - Sandy Lane	0.467	1476
5 - A534	0.663	2682

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	Observed 2022	AM	FLAT	07:45	09:15	90	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borras Hall Lane		FLAT	✓	68	100.000
2 - Wrexham Road		FLAT	✓	543	100.000
3 - Industrial Estate Road		FLAT	✓	560	100.000
4 - Sandy Lane		FLAT	✓	34	100.000
5 - A534		FLAT	✓	1942	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
	1 - Borras Hall Lane	2 - Wrexham Road	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534	
From	1 - Borras Hall Lane	0	5	57	0	6
	2 - Wrexham Road	3	0	231	3	306
	3 - Industrial Estate Road	14	121	0	0	425
	4 - Sandy Lane	4	16	3	0	11
	5 - A534	3	375	1539	25	0

Vehicle Mix

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

Heavy Vehicle %

	To					
	1 - Borras Hall Lane	2 - Wrexham Road	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534	
From	1 - Borras Hall Lane	0	0	4	0	0
	2 - Wrexham Road	0	0	7	100	8
	3 - Industrial Estate Road	0	15	0	0	33
	4 - Sandy Lane	50	63	100	0	80
	5 - A534	0	7	6	62	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Borras Hall Lane	0.13	8.47	0.2	A	68	102
2 - Wrexham Road	0.64	12.73	1.9	B	543	815
3 - Industrial Estate Road	0.24	2.60	0.4	A	560	840
4 - Sandy Lane	0.03	5.88	0.1	A	34	51
5 - A534	0.75	6.05	3.2	A	1942	2913

Observed 2022, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Borras Hall Lane/Wrexham Road/Industrial Estate Road/Sandy Lane/A534	Standard Roundabout		1, 2, 3, 4, 5	4.45	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.45	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D2	Observed 2022	PM	FLAT	16:30	18:00	90	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borras Hall Lane		FLAT	✓	18	100.000
2 - Wrexham Road		FLAT	✓	479	100.000
3 - Industrial Estate Road		FLAT	✓	1632	100.000
4 - Sandy Lane		FLAT	✓	30	100.000
5 - A534		FLAT	✓	807	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Borras Hall Lane	2 - Wrexham Road	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534
From	1 - Borras Hall Lane	0	3	8	0	7
	2 - Wrexham Road	4	0	100	1	374
	3 - Industrial Estate Road	65	228	0	9	1330
	4 - Sandy Lane	1	3	4	0	22
	5 - A534	5	298	503	1	0

Vehicle Mix

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

Heavy Vehicle %

		To				
		1 - Borras Hall Lane	2 - Wrexham Road	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534
From	1 - Borras Hall Lane	0	0	0	0	0
	2 - Wrexham Road	0	0	7	0	3
	3 - Industrial Estate Road	0	3	0	75	3
	4 - Sandy Lane	0	0	0	0	5
	5 - A534	0	2	11	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Borras Hall Lane	0.02	3.69	0.0	A	18	27
2 - Wrexham Road	0.34	4.05	0.5	A	479	719
3 - Industrial Estate Road	0.71	5.58	2.5	A	1632	2448
4 - Sandy Lane	0.06	7.33	0.1	A	30	45
5 - A534	0.33	2.31	0.5	A	807	1211

Without Dev 2027, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Borras Hall Lane/Wrexham Road/Industrial Estate Road/Sandy Lane/A534	Standard Roundabout		1, 2, 3, 4, 5	20.26	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	20.26	C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D3	Without Dev 2027	AM	FLAT	07:45	09:15	90	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borras Hall Lane		FLAT	✓	79	100.000
2 - Wrexham Road		FLAT	✓	568	100.000
3 - Industrial Estate Road		FLAT	✓	835	100.000
4 - Sandy Lane		FLAT	✓	34	100.000
5 - A534		FLAT	✓	2358	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - Borras Hall Lane	2 - Wrexham Road	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534
From	1 - Borras Hall Lane	0	5	68	0	6
	2 - Wrexham Road	3	0	252	3	310
	3 - Industrial Estate Road		140	0	0	675
	4 - Sandy Lane	4	16	3	0	11
	5 - A534	3	385	1945	25	0

Vehicle Mix

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

Heavy Vehicle %

		To				
		1 - Borras Hall Lane	2 - Wrexham Road	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534
From	1 - Borras Hall Lane	0	0	3	0	0
	2 - Wrexham Road	0	0	8	100	8
	3 - Industrial Estate Road	0	18	0	0	28
	4 - Sandy Lane	50	63	100	0	80
	5 - A534	0	7	7	62	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Borras Hall Lane	0.26	16.51	0.4	C	79	119
2 - Wrexham Road	0.89	52.59	8.0	F	568	852
3 - Industrial Estate Road	0.36	3.03	0.7	A	835	1253
4 - Sandy Lane	0.04	6.73	0.1	A	34	51
5 - A534	0.92	18.90	12.1	C	2358	3537

Without Dev 2027, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Borras Hall Lane/Wrexham Road/Industrial Estate Road/Sandy Lane/A534	Standard Roundabout		1, 2, 3, 4, 5	10.89	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	10.89	B

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D4	Without Dev 2027	PM	FLAT	16:30	18:00	90	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borras Hall Lane		FLAT	✓	25	100.000
2 - Wrexham Road		FLAT	✓	502	100.000
3 - Industrial Estate Road		FLAT	✓	2069	100.000
4 - Sandy Lane		FLAT	✓	30	100.000
5 - A534		FLAT	✓	1088	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - Borras Hall Lane	2 - Wrexham Road	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534
From	1 - Borras Hall Lane	0	3	15	0	7
	2 - Wrexham Road	4	0	115	1	382
	3 - Industrial Estate Road		246	0	9	1737
	4 - Sandy Lane	1	3	4	0	22
	5 - A534	5	302	780	1	0

Vehicle Mix

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

Heavy Vehicle %

		To				
		1 - Borras Hall Lane	2 - Wrexham Road	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534
From	1 - Borras Hall Lane	0	0	0	0	0
	2 - Wrexham Road	0	0	9	0	3
	3 - Industrial Estate Road	0	3	0	75	4
	4 - Sandy Lane	0	0	0	0	5
	5 - A534	0	2	13	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Borras Hall Lane	0.03	4.34	0.0	A	25	38
2 - Wrexham Road	0.40	4.96	0.7	A	502	753
3 - Industrial Estate Road	0.90	16.60	9.3	C	2069	3104
4 - Sandy Lane	0.09	12.38	0.1	B	30	45
5 - A534	0.44	2.88	0.9	A	1088	1632

Without Dev 2036, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Borras Hall Lane/Wrexham Road/Industrial Estate Road/Sandy Lane/A534	Standard Roundabout		1, 2, 3, 4, 5	37.82	E

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	37.82	E

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
DS	Without Dev 2036	AM	FLAT	07:45	09:15	90	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borras Hall Lane		FLAT	✓	81	100.000
2 - Wrexham Road		FLAT	✓	591	100.000
3 - Industrial Estate Road		FLAT	✓	858	100.000
4 - Sandy Lane		FLAT	✓	34	100.000
5 - A534		FLAT	✓	2432	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - Borras Hall Lane	2 - Wrexham Road	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534
From	1 - Borras Hall Lane	0	5	70	0	6
	2 - Wrexham Road	3	0	262	3	323
	3 - Industrial Estate Road	21	147	0	0	690
	4 - Sandy Lane	4	16	3	0	11
	5 - A534	3	399	2005	25	0

Vehicle Mix

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

Heavy Vehicle %

	To					
		1 - Borras Hall Lane	2 - Wrexham Road	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534
From	1 - Borras Hall Lane	0	0	3	0	0
	2 - Wrexham Road	0	0	8	100	8
	3 - Industrial Estate Road	0	18	0	0	28
	4 - Sandy Lane	50	63	100	0	80
	5 - A534	0	7	7	62	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Borras Hall Lane	0.31	20.02	0.4	C	81	122
2 - Wrexham Road	0.97	125.90	19.7	F	591	887
3 - Industrial Estate Road	0.37	3.09	0.7	A	858	1287
4 - Sandy Lane	0.04	6.85	0.1	A	34	51
5 - A534	0.95	29.69	19.3	D	2432	3648

Without Dev 2036, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Borras Hall Lane/Wrexham Road/Industrial Estate Road/Sandy Lane/A534	Standard Roundabout		1, 2, 3, 4, 5	14.90	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	14.90	B

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D6	Without Dev 2036	PM	FLAT	16:30	18:00	90	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borras Hall Lane		FLAT	✓	25	100.000
2 - Wrexham Road		FLAT	✓	519	100.000
3 - Industrial Estate Road		FLAT	✓	2131	100.000
4 - Sandy Lane		FLAT	✓	31	100.000
5 - A534		FLAT	✓	1117	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Borras Hall Lane	2 - Wrexham Road	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534
From	1 - Borras Hall Lane	0	3	15	0	7
	2 - Wrexham Road	4	0	119	1	395
	3 - Industrial Estate Road	80	254	0	9	1788
	4 - Sandy Lane	1	3	4	0	23
	5 - A534	5	313	798	1	0

Vehicle Mix

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

Heavy Vehicle %

		To				
		1 - Borras Hall Lane	2 - Wrexham Road	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534
From	1 - Borras Hall Lane	0	0	0	0	0
	2 - Wrexham Road	0	0	9	0	3
	3 - Industrial Estate Road	0	3	0	75	4
	4 - Sandy Lane	0	0	0	0	5
	5 - A534	0	2	13	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Borras Hall Lane	0.03	4.43	0.0	A	25	38
2 - Wrexham Road	0.41	5.13	0.7	A	519	779
3 - Industrial Estate Road	0.93	23.68	13.6	C	2131	3197
4 - Sandy Lane	0.10	14.03	0.1	B	31	47
5 - A534	0.46	2.95	0.9	A	1117	1676

With Dev 2027, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Borras Hall Lane/Wrexham Road/Industrial Estate Road/Sandy Lane/A534	Standard Roundabout		1, 2, 3, 4, 5	39.33	E

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	39.33	E

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D7	With Dev 2027	AM	FLAT	07:45	09:15	90	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borras Hall Lane		FLAT	✓	82	100.000
2 - Wrexham Road		FLAT	✓	577	100.000
3 - Industrial Estate Road		FLAT	✓	912	100.000
4 - Sandy Lane		FLAT	✓	34	100.000
5 - A534		FLAT	✓	2446	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - Borras Hall Lane	2 - Wrexham Road	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534
From	1 - Borras Hall Lane	0	5	71	0	6
	2 - Wrexham Road	3	0	261	3	310
	3 - Industrial Estate Road		147	0	0	743
	4 - Sandy Lane	4	16	3	0	11
	5 - A534	3	385	2033	25	0

Vehicle Mix

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

Heavy Vehicle %

	To					
		1 - Borras Hall Lane	2 - Wrexham Road	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534
From	1 - Borras Hall Lane	0	0	3	0	0
	2 - Wrexham Road	0	0	8	100	8
	3 - Industrial Estate Road	0	19	0	0	28
	4 - Sandy Lane	50	63	100	0	80
	5 - A534	0	7	7	62	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Borras Hall Lane	0.32	20.84	0.5	C	82	123
2 - Wrexham Road	0.97	127.37	19.5	F	577	866
3 - Industrial Estate Road	0.39	3.20	0.8	A	912	1368
4 - Sandy Lane	0.04	7.00	0.1	A	34	51
5 - A534	0.96	33.11	21.6	D	2446	3669

With Dev 2027, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Borras Hall Lane/Wrexham Road/Industrial Estate Road/Sandy Lane/A534	Standard Roundabout		1, 2, 3, 4, 5	20.21	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	20.21	C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D8	With Dev 2027	PM	FLAT	16:30	18:00	90	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borras Hall Lane		FLAT	✓	28	100.000
2 - Wrexham Road		FLAT	✓	507	100.000
3 - Industrial Estate Road		FLAT	✓	2188	100.000
4 - Sandy Lane		FLAT	✓	30	100.000
5 - A534		FLAT	✓	1173	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Borras Hall Lane	2 - Wrexham Road	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534
From	1 - Borras Hall Lane	0	3	18	0	7
	2 - Wrexham Road	4	0	120	1	382
	3 - Industrial Estate Road	81	254	0	9	1844
	4 - Sandy Lane	1	3	4	0	22
	5 - A534	5	302	865	1	0

Vehicle Mix

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

Heavy Vehicle %

	To					
		1 - Borras Hall Lane	2 - Wrexham Road	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534
From	1 - Borras Hall Lane	0	0	0	0	0
	2 - Wrexham Road	0	0	10	0	3
	3 - Industrial Estate Road	0	4	0	75	5
	4 - Sandy Lane	0	0	0	0	5
	5 - A534	0	2	14	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Borras Hall Lane	0.03	4.60	0.0	A	28	42
2 - Wrexham Road	0.42	5.32	0.7	A	507	761
3 - Industrial Estate Road	0.95	33.09	19.3	D	2188	3282
4 - Sandy Lane	0.11	15.14	0.1	C	30	45
5 - A534	0.48	3.12	1.0	A	1173	1760

With Dev 2036, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Borras Hall Lane/Wrexham Road/Industrial Estate Road/Sandy Lane/A534	Standard Roundabout		1, 2, 3, 4, 5	93.03	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	93.03	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D9	With Dev 2036	AM	FLAT	07:45	09:15	90	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borras Hall Lane		FLAT	✓	84	100.000
2 - Wrexham Road		FLAT	✓	600	100.000
3 - Industrial Estate Road		FLAT	✓	936	100.000
4 - Sandy Lane		FLAT	✓	34	100.000
5 - A534		FLAT	✓	2520	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Borras Hall Lane	2 - Wrexham Road	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534
From	1 - Borras Hall Lane	0	5	73	0	6
	2 - Wrexham Road	3	0	271	3	323
	3 - Industrial Estate Road	23	154	0	0	759
	4 - Sandy Lane	4	16	3	0	11
	5 - A534	3	399	2093	25	0

Vehicle Mix

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

Heavy Vehicle %

	To					
		1 - Borras Hall Lane	2 - Wrexham Road	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534
From	1 - Borras Hall Lane	0	0	3	0	0
	2 - Wrexham Road	0	0	8	100	8
	3 - Industrial Estate Road	0	19	0	0	28
	4 - Sandy Lane	50	63	100	0	80
	5 - A534	0	7	7	62	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Borras Hall Lane	0.37	25.99	0.6	D	84	126
2 - Wrexham Road	1.06	353.88	58.0	F	600	900
3 - Industrial Estate Road	0.40	3.24	0.8	A	936	1404
4 - Sandy Lane	0.04	7.08	0.1	A	34	51
5 - A534	0.99	67.67	46.0	F	2520	3780

With Dev 2036, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Borras Hall Lane/Wrexham Road/Industrial Estate Road/Sandy Lane/A534	Standard Roundabout		1, 2, 3, 4, 5	36.96	E

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	36.96	E

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D10	With Dev 2036	PM	FLAT	16:30	18:00	90	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borras Hall Lane		FLAT	✓	28	100.000
2 - Wrexham Road		FLAT	✓	524	100.000
3 - Industrial Estate Road		FLAT	✓	2249	100.000
4 - Sandy Lane		FLAT	✓	31	100.000
5 - A534		FLAT	✓	1201	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		1 - Borras Hall Lane	2 - Wrexham Road	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534
From	1 - Borras Hall Lane	0	3	18	0	7
	2 - Wrexham Road	4	0	124	1	395
	3 - Industrial Estate Road	84	262	0	9	1894
	4 - Sandy Lane	1	3	4	0	23
	5 - A534	5	313	882	1	0

Vehicle Mix

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

Heavy Vehicle %

		To				
		1 - Borras Hall Lane	2 - Wrexham Road	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534
From	1 - Borras Hall Lane	0	0	0	0	0
	2 - Wrexham Road	0	0	9	0	3
	3 - Industrial Estate Road	0	4	0	75	5
	4 - Sandy Lane	0	0	0	0	5
	5 - A534	0	2	14	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Borras Hall Lane	0.04	4.70	0.0	A	28	42
2 - Wrexham Road	0.43	5.51	0.8	A	524	786
3 - Industrial Estate Road	0.98	62.99	38.0	F	2249	3374
4 - Sandy Lane	0.13	17.41	0.1	C	31	47
5 - A534	0.49	3.20	1.1	A	1201	1802

With Dev 2027 Sensitivity Test, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Borras Hall Lane/Wrexham Road/Industrial Estate Road/Sandy Lane/A534	Standard Roundabout		1, 2, 3, 4, 5	82.16	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	82.16	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D11	With Dev 2027 Sensitivity Test	AM	FLAT	07:45	09:15	90	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borras Hall Lane		FLAT	✓	86	100.000
2 - Wrexham Road		FLAT	✓	580	100.000
3 - Industrial Estate Road		FLAT	✓	909	100.000
4 - Sandy Lane		FLAT	✓	34	100.000
5 - A534		FLAT	✓	2521	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - Borras Hall Lane	2 - Wrexham Road	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534
From	1 - Borras Hall Lane	0	5	75	0	6
	2 - Wrexham Road	3	0	264	3	310
	3 - Industrial Estate Road	21	151	0	0	737
	4 - Sandy Lane	4	16	3	0	11
	5 - A534	3	385	2108	25	0

Vehicle Mix

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

Heavy Vehicle %

		To				
		1 - Borrass Hall Lane	2 - Wrexham Road	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534
From	1 - Borrass Hall Lane	0	0	3	0	0
	2 - Wrexham Road	0	0	8	100	8
	3 - Industrial Estate Road	0	21	0	0	30
	4 - Sandy Lane	50	63	100	0	80
	5 - A534	0	7	7	62	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Borrass Hall Lane	0.38	26.24	0.6	D	86	129
2 - Wrexham Road	1.04	288.36	45.7	F	580	870
3 - Industrial Estate Road	0.39	3.23	0.8	A	909	1364
4 - Sandy Lane	0.04	6.95	0.1	A	34	51
5 - A534	0.99	66.11	44.9	F	2521	3782

With Dev 2027 Sensitivity Test, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Borrass Hall Lane/Wrexham Road/Industrial Estate Road/Sandy Lane/A534	Standard Roundabout		1, 2, 3, 4, 5	33.79	D

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	33.79	D

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D12	With Dev 2027 Sensitivity Test	PM	FLAT	16:30	18:00	90	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borrass Hall Lane		FLAT	✓	26	100.000
2 - Wrexham Road		FLAT	✓	505	100.000
3 - Industrial Estate Road		FLAT	✓	2247	100.000
4 - Sandy Lane		FLAT	✓	30	100.000
5 - A534		FLAT	✓	1149	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - Borrass Hall Lane	2 - Wrexham Road	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534
From	1 - Borrass Hall Lane	0	3	16	0	7
	2 - Wrexham Road	4	0	118	1	382
	3 - Industrial Estate Road	84	258	0	9	1896
	4 - Sandy Lane	1	3	4	0	22
	5 - A534	5	302	841	1	0

Vehicle Mix

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

Heavy Vehicle %

		To				
		1 - Borras Hall Lane	2 - Wrexham Road	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534
From	1 - Borras Hall Lane	0	0	0	0	0
	2 - Wrexham Road	0	0	10	0	3
	3 - Industrial Estate Road	0	4	0	75	5
	4 - Sandy Lane	0	0	0	0	5
	5 - A534	0	2	14	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Borras Hall Lane	0.03	4.53	0.0	A	26	39
2 - Wrexham Road	0.41	5.21	0.7	A	505	758
3 - Industrial Estate Road	0.98	56.48	33.9	F	2247	3371
4 - Sandy Lane	0.12	16.87	0.1	C	30	45
5 - A534	0.47	3.07	1.0	A	1149	1724

With Dev 2036 Sensitivity Test, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Borras Hall Lane/Wrexham Road/Industrial Estate Road/Sandy Lane/A534	Standard Roundabout		1, 2, 3, 4, 5	170.52	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	170.52	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D13	With Dev 2036 Sensitivity Test	AM	FLAT	07:45	09:15	90	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borras Hall Lane		FLAT	✓	88	100.000
2 - Wrexham Road		FLAT	✓	603	100.000
3 - Industrial Estate Road		FLAT	✓	932	100.000
4 - Sandy Lane		FLAT	✓	34	100.000
5 - A534		FLAT	✓	2595	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - Borras Hall Lane	2 - Wrexham Road	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534
From	1 - Borras Hall Lane	0	5	77	0	6
	2 - Wrexham Road	3	0	274	3	323
	3 - Industrial Estate Road	22	158	0	0	752
	4 - Sandy Lane	4	16	3	0	11
	5 - A534	3	399	2168	25	0

Vehicle Mix

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

Heavy Vehicle %

		To				
		1 - Borras Hall Lane	2 - Wrexham Road	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534
From	1 - Borras Hall Lane	0	0	3	0	0
	2 - Wrexham Road	0	0	8	100	8
	3 - Industrial Estate Road	0	21	0	0	30
	4 - Sandy Lane	50	63	100	0	80
	5 - A534	0	7	7	62	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Borras Hall Lane	0.42	30.24	0.7	D	88	132
2 - Wrexham Road	1.10	539.85	87.2	F	603	905
3 - Industrial Estate Road	0.40	3.27	0.8	A	932	1398
4 - Sandy Lane	0.04	7.02	0.1	A	34	51
5 - A534	1.02	151.66	110.9	F	2595	3893

With Dev 2036 Sensitivity Test, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Borras Hall Lane/Wrexham Road/Industrial Estate Road/Sandy Lane/A534	Standard Roundabout		1, 2, 3, 4, 5	71.85	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	71.85	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D14	With Dev 2036 Sensitivity Test	PM	FLAT	16:30	18:00	90	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borras Hall Lane		FLAT	✓	26	100.000
2 - Wrexham Road		FLAT	✓	522	100.000
3 - Industrial Estate Road		FLAT	✓	2308	100.000
4 - Sandy Lane		FLAT	✓	31	100.000
5 - A534		FLAT	✓	1178	100.000

Origin-Destination Data

Demand (PCU/hr)

		To				
		1 - Borras Hall Lane	2 - Wrexham Road	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534
From	1 - Borras Hall Lane	0	3	16	0	7
	2 - Wrexham Road	4	0	122	1	395
	3 - Industrial Estate Road		266	0	9	1946
	4 - Sandy Lane	1	3	4	0	23
	5 - A534	5	313	859	1	0

Vehicle Mix

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

Heavy Vehicle %

		To				
		1 - Borrass Hall Lane	2 - Wrexham Road	3 - Industrial Estate Road	4 - Sandy Lane	5 - A534
From	1 - Borrass Hall Lane	0	0	0	0	0
	2 - Wrexham Road	0	0	9	0	3
	3 - Industrial Estate Road	0	4	0	75	5
	4 - Sandy Lane	0	0	0	0	5
	5 - A534	0	2	14	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Borrass Hall Lane	0.03	4.62	0.0	A	26	39
2 - Wrexham Road	0.43	5.39	0.8	A	522	783
3 - Industrial Estate Road	1.01	123.41	79.3	F	2308	3462
4 - Sandy Lane	0.13	18.74	0.2	C	31	47
5 - A534	0.48	3.15	1.0	A	1178	1767

Junctions 10
ARCADY 10 - Roundabout Module
Version: 10.1.1.1905 © Copyright TRL Software Limited, 2023
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Filename: Import of 4- Services-A534-Stryt-A5156.j10

Path: N:\Projects 2021\P21066 - Kingmoor, Wrexham Industrial Estate\6.Technical\Models\Import to Junctions 10

Report generation date: 15/02/2024 08:51:28

»Observed 2022, AM
»Observed 2022, PM
»Without Dev 2027, AM
»Without Dev 2027, PM
»Without Dev 2036, AM
»Without Dev 2036, PM
»With Dev 2027, AM
»With Dev 2027, PM
»With Dev 2036, AM
»With Dev 2036, PM
»With Dev 2027 Sensitivity Test, AM
»With Dev 2027 Sensitivity Test, PM
»With Dev 2036 Sensitivity Test, AM
»With Dev 2036 Sensitivity Test, PM

File summary

File Description

Title	Services/A534/Stryt Holt/A5156
Location	Wrexham
Site number	
Date	13/02/2024
Version	
Status	Final
Identifier	
Client	FIREM
Jobnumber	P21066
Enumerator	GHClb.gaze
Description	Checked by D. Stoddart

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

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use simulation for HCM roundabouts	Use iterations for HCM roundabouts
5.75						0.85	36.00	20.00		

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	Observed 2022	AM	FLAT	07:45	09:15	90	15	✓
D2	Observed 2022	PM	FLAT	16:30	18:00	90	15	✓
D3	Without Dev 2027	AM	FLAT	07:45	09:15	90	15	✓
D4	Without Dev 2027	PM	FLAT	16:30	18:00	90	15	✓
D5	Without Dev 2036	AM	FLAT	07:45	09:15	90	15	✓
D6	Without Dev 2036	PM	FLAT	16:30	18:00	90	15	✓
D7	With Dev 2027	AM	FLAT	07:45	09:15	90	15	✓
D8	With Dev 2027	PM	FLAT	16:30	18:00	90	15	✓
D9	With Dev 2036	AM	FLAT	07:45	09:15	90	15	✓
D10	With Dev 2036	PM	FLAT	16:30	18:00	90	15	✓
D11	With Dev 2027 Sensitivity Test	AM	FLAT	07:45	09:15	90	15	✓
D12	With Dev 2027 Sensitivity Test	PM	FLAT	16:30	18:00	90	15	✓
D13	With Dev 2036 Sensitivity Test	AM	FLAT	07:45	09:15	90	15	✓
D14	With Dev 2036 Sensitivity Test	PM	FLAT	16:30	18:00	90	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Observed 2022, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Services/A534/Stryt Holt/A5156	Standard Roundabout		1, 2, 3, 4	4.99	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.99	A

Arms

Arms

Arm	Name	Description	No give-way line
1	Services Access		
2	A534		
3	Stryt Holt		
4	A5156		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1 - Services Access	3.40	5.60	6.9	20.0	89.3	25.3		
2 - A534	7.10	9.30	17.2	41.6	89.3	25.2		
3 - Stryt Holt	3.60	7.10	16.7	24.2	89.3	27.7		
4 - A5156	8.00	10.00	9.1	32.0	89.3	26.6		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Services Access	0.415	1382
2 - A534	0.613	2735
3 - Stryt Holt	0.468	1754
4 - A5156	0.629	2864

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	Observed 2022	AM	FLAT	07:45	09:15	90	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Services Access		FLAT	✓	163	100.000
2 - A534		FLAT	✓	749	100.000
3 - Stryt Holt		FLAT	✓	645	100.000
4 - A5156		FLAT	✓	1910	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Services Access	2 - A534	3 - Stryt Holt	4 - A5156
From	1 - Services Access	0	96	15	52
	2 - A534	64	0	162	523
	3 - Stryt Holt	17	310	0	318
	4 - A5156	77	1536	297	0

Vehicle Mix

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

Heavy Vehicle %

		To			
		1 - Services Access	2 - A534	3 - Stryt Holt	4 - A5156
From	1 - Services Access	0	12	0	41
	2 - A534	40	0	6	25
	3 - Stryt Holt	0	4	0	4
	4 - A5156	0	6	10	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Services Access	0.33	12.96	0.6	B	163	245
2 - A534	0.30	2.48	0.5	A	749	1124
3 - Stryt Holt	0.44	4.63	0.8	A	645	968
4 - A5156	0.73	5.42	2.9	A	1910	2865

Observed 2022, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Services/A534/Stryt Holt/A5156	Standard Roundabout		1, 2, 3, 4	4.37	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.37	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D2	Observed 2022	PM	FLAT	16:30	18:00	90	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Services Access		FLAT	✓	157	100.000
2 - A534		FLAT	✓	1733	100.000
3 - Stryt Holt		FLAT	✓	486	100.000
4 - A5156		FLAT	✓	911	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
	1 - Services Access	2 - A534	3 - Stryt Holt	4 - A5156	
From	1 - Services Access	0	63	20	74
	2 - A534	52	0	400	1281
	3 - Stryt Holt	16	215	0	255
	4 - A5156	57	529	325	0

Vehicle Mix

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

Heavy Vehicle %

	To				
	1 - Services Access	2 - A534	3 - Stryt Holt	4 - A5156	
From	1 - Services Access	0	7	12	3
	2 - A534	4	0	1	4
	3 - Stryt Holt	0	2	0	5
	4 - A5156	0	10	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Services Access	0.17	4.86	0.2	A	157	236
2 - A534	0.70	4.99	2.4	A	1733	2600
3 - Stryt Holt	0.44	6.11	0.8	A	486	729
4 - A5156	0.34	2.16	0.5	A	911	1367

Without Dev 2027, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Services/A534/Stryt Holt/A5156	Standard Roundabout		1, 2, 3, 4	8.43	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	8.43	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D3	Without Dev 2027	AM	FLAT	07:45	09:15	90	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Services Access		FLAT	✓	163	100.000
2 - A534		FLAT	✓	980	100.000
3 - Stryt Holt		FLAT	✓	678	100.000
4 - A5156		FLAT	✓	2235	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
	1 - Services Access	2 - A534	3 - Stryt Holt	4 - A5156	
From	1 - Services Access	0	96	15	52
	2 - A534	64	0	180	736
	3 - Stryt Holt	17	342	0	319
	4 - A5156	77	1860	298	0

Vehicle Mix

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

Heavy Vehicle %

	To				
From		1 - Services Access	2 - A534	3 - Stryt Holt	4 - A5156
	1 - Services Access	0	12	0	41
	2 - A534	40	0	5	25
	3 - Stryt Holt	0	4	0	4
	4 - A5156	0	7	10	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Services Access	0.47	23.56	1.1	C	163	245
2 - A534	0.39	2.86	0.8	A	980	1470
3 - Stryt Holt	0.50	5.52	1.0	A	678	1017
4 - A5156	0.86	10.66	6.5	B	2235	3353

Without Dev 2027, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Services/A534/Stryt Holt/A5156	Standard Roundabout		1, 2, 3, 4	7.35	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	7.35	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D4	Without Dev 2027	PM	FLAT	16:30	18:00	90	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Services Access		FLAT	✓	157	100.000
2 - A534		FLAT	✓	2095	100.000
3 - Stryt Holt		FLAT	✓	506	100.000
4 - A5156		FLAT	✓	1145	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Services Access	2 - A534	3 - Stryt Holt	4 - A5156
From	1 - Services Access	0	63	20	74
	2 - A534	52	0	435	1608
	3 - Stryt Holt	16	234	0	256
	4 - A5156	57	762	326	0

Vehicle Mix

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

Heavy Vehicle %

	To				
		1 - Services Access	2 - A534	3 - Stryt Holt	4 - A5156
From	1 - Services Access	0	7	12	3
	2 - A534	4	0	1	5
	3 - Stryt Holt	0	2	0	5
	4 - A5156	0	13	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Services Access	0.19	5.62	0.2	A	157	236
2 - A534	0.85	9.81	5.7	A	2095	3143
3 - Stryt Holt	0.54	8.53	1.2	A	506	759
4 - A5156	0.43	2.57	0.8	A	1145	1718

Without Dev 2036, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Services/A534/Stryt Holt/A5156	Standard Roundabout		1, 2, 3, 4	10.72	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	10.72	B

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D5	Without Dev 2036	AM	FLAT	07:45	09:15	90	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Services Access		FLAT	✓	170	100.000
2 - A534		FLAT	✓	1009	100.000
3 - Stryt Holt		FLAT	✓	705	100.000
4 - A5156		FLAT	✓	2313	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
	1 - Services Access	2 - A534	3 - Stryt Holt	4 - A5156	
From	1 - Services Access	0	99	16	55
	2 - A534	68	0	185	756
	3 - Stryt Holt	18	356	0	331
	4 - A5156	81	1921	311	0

Vehicle Mix

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

Heavy Vehicle %

	To				
From		1 - Services Access	2 - A534	3 - Stryt Holt	4 - A5156
	1 - Services Access	0	12	0	41
	2 - A534	40	0	5	25
	3 - Stryt Holt	0	4	0	4
	4 - A5156	0	7	10	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Services Access	0.55	30.97	1.4	D	170	255
2 - A534	0.40	2.94	0.8	A	1009	1514
3 - Stryt Holt	0.53	5.87	1.1	A	705	1058
4 - A5156	0.89	14.11	8.9	B	2313	3470

Without Dev 2036, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Services/A534/Stryt Holt/A5156	Standard Roundabout		1, 2, 3, 4	8.77	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	8.77	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D6	Without Dev 2036	PM	FLAT	16:30	18:00	90	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Services Access		FLAT	✓	163	100.000
2 - A534		FLAT	✓	2160	100.000
3 - Stryt Holt		FLAT	✓	524	100.000
4 - A5156		FLAT	✓	1178	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
	1 - Services Access	2 - A534	3 - Stryt Holt	4 - A5156	
From	1 - Services Access	0	65	21	77
	2 - A534	54	0	450	1656
	3 - Stryt Holt	17	242	0	265
	4 - A5156	59	781	338	0

Vehicle Mix

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

Heavy Vehicle %

	To			
	1 - Services Access	2 - A534	3 - Stryt Holt	4 - A5156
From	1 - Services Access	0	7	11
	2 - A534	4	0	1
	3 - Stryt Holt	0	2	0
	4 - A5156	0	13	3

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Services Access	0.20	5.80	0.3	A	163	245
2 - A534	0.88	12.17	7.2	B	2160	3240
3 - Stryt Holt	0.57	9.44	1.4	A	524	786
4 - A5156	0.44	2.64	0.9	A	1178	1767

With Dev 2027, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Services/A534/Stryt Holt/A5156	Standard Roundabout		1, 2, 3, 4	10.50	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	10.50	B

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D7	With Dev 2027	AM	FLAT	07:45	09:15	90	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Services Access		FLAT	✓	163	100.000
2 - A534		FLAT	✓	1049	100.000
3 - Stryt Holt		FLAT	✓	686	100.000
4 - A5156		FLAT	✓	2315	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
	1 - Services Access	2 - A534	3 - Stryt Holt	4 - A5156	
From	1 - Services Access	0	96	15	52
	2 - A534	64	0	186	799
	3 - Stryt Holt	17	350	0	319
	4 - A5156	77	1940	298	0

Vehicle Mix

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

Heavy Vehicle %

	To				
From		1 - Services Access	2 - A534	3 - Stryt Holt	4 - A5156
	1 - Services Access	0	12	0	41
	2 - A534	40	0	5	25
	3 - Stryt Holt	0	4	0	4
	4 - A5156	0	8	10	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Services Access	0.53	29.50	1.3	D	163	245
2 - A534	0.42	3.00	0.9	A	1049	1574
3 - Stryt Holt	0.52	5.84	1.1	A	686	1029
4 - A5156	0.89	13.93	8.8	B	2315	3473

With Dev 2027, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Services/A534/Stryt Holt/A5156	Standard Roundabout		1, 2, 3, 4	9.60	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	9.60	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D8	With Dev 2027	PM	FLAT	16:30	18:00	90	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Services Access		FLAT	✓	157	100.000
2 - A534		FLAT	✓	2202	100.000
3 - Stryt Holt		FLAT	✓	512	100.000
4 - A5156		FLAT	✓	1224	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Services Access	2 - A534	3 - Stryt Holt	4 - A5156
From	1 - Services Access	0	63	20	74
	2 - A534	52	0	445	1705
	3 - Stryt Holt	16	240	0	256
	4 - A5156	57	841	326	0

Vehicle Mix

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

Heavy Vehicle %

	To				
		1 - Services Access	2 - A534	3 - Stryt Holt	4 - A5156
From	1 - Services Access	0	7	12	3
	2 - A534	4	0	1	6
	3 - Stryt Holt	0	2	0	5
	4 - A5156	0	14	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Services Access	0.20	5.93	0.3	A	157	236
2 - A534	0.89	13.66	8.2	B	2202	3303
3 - Stryt Holt	0.57	9.66	1.4	A	512	768
4 - A5156	0.46	2.75	0.9	A	1224	1836

With Dev 2036, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Services/A534/Stryt Holt/A5156	Standard Roundabout		1, 2, 3, 4	14.58	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	14.58	B

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D8	With Dev 2036	AM	FLAT	07:45	09:15	90	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Services Access		FLAT	✓	170	100.000
2 - A534		FLAT	✓	1077	100.000
3 - Stryt Holt		FLAT	✓	713	100.000
4 - A5156		FLAT	✓	2393	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Services Access	2 - A534	3 - Stryt Holt	4 - A5156
From	1 - Services Access	0	99	16	55
	2 - A534	68	0	191	818
	3 - Stryt Holt	18	364	0	331
	4 - A5156	81	2001	311	0

Vehicle Mix

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

Heavy Vehicle %

	To				
From		1 - Services Access	2 - A534	3 - Stryt Holt	4 - A5156
	1 - Services Access	0	12	0	41
	2 - A534	40	0	5	25
	3 - Stryt Holt	0	4	0	4
	4 - A5156	0	8	10	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Services Access	0.63	42.01	1.9	E	170	255
2 - A534	0.43	3.08	0.9	A	1077	1616
3 - Stryt Holt	0.54	6.23	1.2	A	713	1070
4 - A5156	0.93	20.29	13.1	C	2393	3590

With Dev 2036, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Services/A534/Stryt Holt/A5156	Standard Roundabout		1, 2, 3, 4	12.37	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	12.37	B

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D10	With Dev 2036	PM	FLAT	16:30	18:00	90	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Services Access		FLAT	✓	163	100.000
2 - A534		FLAT	✓	2266	100.000
3 - Stryt Holt		FLAT	✓	530	100.000
4 - A5156		FLAT	✓	1256	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
	1 - Services Access	2 - A534	3 - Stryt Holt	4 - A5156	
From	1 - Services Access	0	65	21	77
	2 - A534	54	0	460	1752
	3 - Stryt Holt	17	248	0	265
	4 - A5156	59	859	338	0

Vehicle Mix

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

Heavy Vehicle %

	To				
	1 - Services Access	2 - A534	3 - Stryt Holt	4 - A5156	
From	1 - Services Access	0	7	11	3
	2 - A534	4	0	1	6
	3 - Stryt Holt	0	2	0	4
	4 - A5156	0	14	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Services Access	0.21	6.12	0.3	A	163	245
2 - A534	0.92	18.47	11.3	C	2266	3399
3 - Stryt Holt	0.61	10.84	1.6	B	530	795
4 - A5156	0.47	2.82	1.0	A	1256	1884

With Dev 2027 Sensitivity Test, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Services/A534/Stryt Holt/A5156	Standard Roundabout		1, 2, 3, 4	13.48	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	13.48	B

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D11	With Dev 2027 Sensitivity Test	AM	FLAT	07:45	09:15	90	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Services Access		FLAT	✓	163	100.000
2 - A534		FLAT	✓	1042	100.000
3 - Stryt Holt		FLAT	✓	695	100.000
4 - A5156		FLAT	✓	2381	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
	1 - Services Access	2 - A534	3 - Stryt Holt	4 - A5156	
From	1 - Services Access	0	96	15	52
	2 - A534	64	0	182	796
	3 - Stryt Holt	17	359	0	319
	4 - A5156	77	2006	298	0

Vehicle Mix

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

Heavy Vehicle %

	To				
From		1 - Services Access	2 - A534	3 - Stryt Holt	4 - A5156
	1 - Services Access	0	12	0	41
	2 - A534	40	0	5	27
	3 - Stryt Holt	0	4	0	4
	4 - A5156	0	8	10	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Services Access	0.59	37.51	1.7	E	163	245
2 - A534	0.41	3.02	0.9	A	1042	1563
3 - Stryt Holt	0.52	5.91	1.1	A	695	1043
4 - A5156	0.92	18.62	12.0	C	2381	3572

With Dev 2027 Sensitivity Test, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Services/A534/Stryt Holt/A5156	Standard Roundabout		1, 2, 3, 4	11.44	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	11.44	B

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D12	With Dev 2027 Sensitivity Test	PM	FLAT	16:30	18:00	90	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Services Access		FLAT	✓	157	100.000
2 - A534		FLAT	✓	2254	100.000
3 - Stryt Holt		FLAT	✓	509	100.000
4 - A5156		FLAT	✓	1203	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Services Access	2 - A534	3 - Stryt Holt	4 - A5156
From	1 - Services Access	0	63	20	74
	2 - A534	52	0	451	1751
	3 - Stryt Holt	16	237	0	256
	4 - A5156	57	820	326	0

Vehicle Mix

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

Heavy Vehicle %

	To				
		1 - Services Access	2 - A534	3 - Stryt Holt	4 - A5156
From	1 - Services Access	0	7	12	3
	2 - A534	4	0	1	6
	3 - Stryt Holt	0	2	0	5
	4 - A5156	0	15	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Services Access	0.19	5.84	0.3	A	157	236
2 - A534	0.91	16.78	10.3	C	2254	3381
3 - Stryt Holt	0.58	10.15	1.4	B	509	764
4 - A5156	0.45	2.71	0.9	A	1203	1805

With Dev 2036 Sensitivity Test, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Services/A534/Stryt Holt/A5156	Standard Roundabout		1, 2, 3, 4	21.50	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	21.50	C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D13	With Dev 2036 Sensitivity Test	AM	FLAT	07:45	09:15	90	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Services Access		FLAT	✓	170	100.000
2 - A534		FLAT	✓	1071	100.000
3 - Stryt Holt		FLAT	✓	722	100.000
4 - A5156		FLAT	✓	2460	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
	1 - Services Access	2 - A534	3 - Stryt Holt	4 - A5156	
From	1 - Services Access	0	99	16	55
	2 - A534	68	0	187	816
	3 - Stryt Holt	18	373	0	331
	4 - A5156	81	2068	311	0

Vehicle Mix

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

Heavy Vehicle %

	To				
From		1 - Services Access	2 - A534	3 - Stryt Holt	4 - A5156
	1 - Services Access	0	12	0	41
	2 - A534	40	0	5	27
	3 - Stryt Holt	0	4	0	4
	4 - A5156	0	8	10	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Services Access	0.71	60.08	2.7	F	170	255
2 - A534	0.43	3.10	0.9	A	1071	1607
3 - Stryt Holt	0.55	6.31	1.3	A	722	1083
4 - A5156	0.96	31.29	20.5	D	2460	3690

With Dev 2036 Sensitivity Test, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Services/A534/Stryt Holt/A5156	Standard Roundabout		1, 2, 3, 4	15.80	C

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	15.80	C

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D14	With Dev 2036 Sensitivity Test	PM	FLAT	16:30	18:00	90	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Services Access		FLAT	✓	163	100.000
2 - A534		FLAT	✓	2318	100.000
3 - Stryt Holt		FLAT	✓	527	100.000
4 - A5156		FLAT	✓	1236	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
	1 - Services Access	2 - A534	3 - Stryt Holt	4 - A5156	
From	1 - Services Access	0	65	21	77
	2 - A534	54	0	466	1798
	3 - Stryt Holt	17	245	0	265
	4 - A5156	59	839	338	0

Vehicle Mix

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

Heavy Vehicle %

	To				
	1 - Services Access	2 - A534	3 - Stryt Holt	4 - A5156	
From	1 - Services Access	0	7	11	3
	2 - A534	4	0	1	6
	3 - Stryt Holt	0	2	0	4
	4 - A5156	0	14	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Services Access	0.21	6.03	0.3	A	163	245
2 - A534	0.94	24.41	15.2	C	2318	3477
3 - Stryt Holt	0.62	11.46	1.7	B	527	791
4 - A5156	0.46	2.78	1.0	A	1236	1854

Junctions 10
ARCADY 10 - Roundabout Module
Version: 10.1.1.1905 © Copyright TRL Software Limited, 2023
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Filename: Import of 4- Services-A534-Stryt-A5156 - Holt Improv Scheme.j10

Path: N:\Projects 2021\P21066 - Kingmoor, Wrexham Industrial Estate\6.Technical\Models\Import to Junctions 10

Report generation date: 15/02/2024 08:49:16

»Without Dev 2027, AM
»Without Dev 2027, PM
»Without Dev 2036, AM
»Without Dev 2036, PM
»With Dev 2027, AM
»With Dev 2027, PM
»With Dev 2036, AM
»With Dev 2036, PM
»With Dev 2027 Sensitivity Test, AM
»With Dev 2027 Sensitivity Test, PM
»With Dev 2036 Sensitivity Test, AM
»With Dev 2036 Sensitivity Test, PM

File summary

File Description

Title	Services/A534/Stryt Holt/A5156
Location	Wrexham
Site number	
Date	14/02/2024
Version	
Status	Final
Identifier	
Client	FIREM
Jobnumber	P21066
Enumerator	GHC\b.gaze
Description	Checked by D. Stoddart

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

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use simulation for HCM roundabouts	Use iterations for HCM roundabouts
5.75						0.85	36.00	20.00		

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	Without Dev 2027	AM	FLAT	07:45	09:15	90	15	✓
D2	Without Dev 2027	PM	FLAT	16:30	18:00	90	15	✓
D3	Without Dev 2036	AM	FLAT	07:45	09:15	90	15	✓
D4	Without Dev 2036	PM	FLAT	16:30	18:00	90	15	✓
D5	With Dev 2027	AM	FLAT	07:45	09:15	90	15	✓
D6	With Dev 2027	PM	FLAT	16:30	18:00	90	15	✓
D7	With Dev 2036	AM	FLAT	07:45	09:15	90	15	✓
D8	With Dev 2036	PM	FLAT	16:30	18:00	90	15	✓
D9	With Dev 2027 Sensitivity Test	AM	FLAT	07:45	09:15	90	15	✓
D10	With Dev 2027 Sensitivity Test	PM	FLAT	16:30	18:00	90	15	✓
D11	With Dev 2036 Sensitivity Test	AM	FLAT	07:45	09:15	90	15	✓
D12	With Dev 2036 Sensitivity Test	PM	FLAT	16:30	18:00	90	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Without Dev 2027, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Services/A534/Holt Spine Road/Stryt Holt/A5156	Standard Roundabout		1, 2, 3, 4, 5	4.26	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.26	A

Arms

Arms

Arm	Name	Description	No give-way line
1	Services Access		
2	A534		
3	Holt Spine Road		
4	Stryt Holt		
5	A5156		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1 - Services Access	3.40	5.60	6.9	20.0	89.3	25.3		
2 - A534	12.00	13.90	17.2	41.6	89.3	25.2		
3 - Holt Spine Road	3.50	7.50	18.4	24.0	89.3	32.0		
4 - Stryt Holt	3.60	7.10	16.7	24.2	89.3	27.7		
5 - A5156	12.00	13.50	9.1	32.0	89.3	26.6		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final Intercept (PCU/hr)
1 - Services Access	0.415	1382
2 - A534	0.826	4232
3 - Holt Spine Road	0.468	1777
4 - Stryt Holt	0.468	1754
5 - A5156	0.798	4052

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	Without Dev 2027	AM	FLAT	07:45	09:15	90	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Services Access		FLAT	✓	163	100.000
2 - A534		FLAT	✓	1003	100.000
3 - Holt Spine Road		FLAT	✓	222	100.000
4 - Stryt Holt		FLAT	✓	712	100.000
5 - A5156		FLAT	✓	2261	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
	1 - Services Access	2 - A534	3 - Holt Spine Road	4 - Stryt Holt	5 - A5156	
From	1 - Services Access	0	96	0	15	52
	2 - A534	64	0	23	180	736
	3 - Holt Spine Road	0	60	0	91	71
	4 - Stryt Holt	17	342	34	0	319
	5 - A5156	77	1860	26	298	0

Vehicle Mix

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

Heavy Vehicle %

	To					
	1 - Services Access	2 - A534	3 - Holt Spine Road	4 - Stryt Holt	5 - A5156	
From	1 - Services Access	0	12	0	0	41
	2 - A534	40	0	0	5	25
	3 - Holt Spine Road	0	0	0	0	0
	4 - Stryt Holt	0	4	0	0	4
	5 - A5156	0	7	0	10	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Services Access	0.55	32.49	1.5	D	163	245
2 - A534	0.26	1.51	0.4	A	1003	1505
3 - Holt Spine Road	0.19	3.89	0.2	A	222	333
4 - Stryt Holt	0.55	6.42	1.3	A	712	1068
5 - A5156	0.62	2.80	1.8	A	2261	3392

Without Dev 2027, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Services/A534/Holt Spine Road/Stryt Holt/A5156	Standard Roundabout		1, 2, 3, 4, 5	3.63	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.63	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D2	Without Dev 2027	PM	FLAT	16:30	18:00	90	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Services Access		FLAT	✓	157	100.000
2 - A534		FLAT	✓	2148	100.000
3 - Holt Spine Road		FLAT	✓	107	100.000
4 - Stryt Holt		FLAT	✓	586	100.000
5 - A5156		FLAT	✓	1208	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
	1 - Services Access	2 - A534	3 - Holt Spine Road	4 - Stryt Holt	5 - A5156	
From	1 - Services Access	0	63	0	20	74
	2 - A534	52	0	53	435	1608
	3 - Holt Spine Road	0	29	0	44	34
	4 - Stryt Holt	16	234	80	0	256
	5 - A5156	57	762	63	326	0

Vehicle Mix

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

Heavy Vehicle %

	To					
	1 - Services Access	2 - A534	3 - Holt Spine Road	4 - Stryt Holt	5 - A5156	
From	1 - Services Access	0	7	12	12	3
	2 - A534	4	0	0	1	5
	3 - Holt Spine Road	0	0	0	0	0
	4 - Stryt Holt	0	2	0	0	5
	5 - A5156	0	13	0	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Services Access	0.21	6.28	0.3	A	157	236
2 - A534	0.57	2.32	1.4	A	2148	3222
3 - Holt Spine Road	0.18	7.30	0.2	A	107	161
4 - Stryt Holt	0.64	11.33	1.8	B	586	879
5 - A5156	0.32	1.55	0.5	A	1208	1812

Without Dev 2036, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Services/A534/Holt Spine Road/Stryt Holt/A5156	Standard Roundabout		1, 2, 3, 4, 5	5.07	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.07	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D3	Without Dev 2036	AM	FLAT	07:45	09:15	90	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Services Access		FLAT	✓	170	100.000
2 - A534		FLAT	✓	1032	100.000
3 - Holt Spine Road		FLAT	✓	222	100.000
4 - Stryt Holt		FLAT	✓	739	100.000
5 - A5156		FLAT	✓	2339	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
	1 - Services Access	2 - A534	3 - Holt Spine Road	4 - Stryt Holt	5 - A5156	
From	1 - Services Access	0	99	0	16	55
	2 - A534	68	0	23	185	756
	3 - Holt Spine Road	0	60	0	91	71
	4 - Stryt Holt	18	356	34	0	331
	5 - A5156	81	1921	26	311	0

Vehicle Mix

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

Heavy Vehicle %

	To					
	1 - Services Access	2 - A534	3 - Holt Spine Road	4 - Stryt Holt	5 - A5156	
From	1 - Services Access	0	12	0	0	41
	2 - A534	40	0	0	5	25
	3 - Holt Spine Road	0	0	0	0	0
	4 - Stryt Holt	0	4	0	0	4
	5 - A5156	0	7	0	10	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Services Access	0.66	48.40	2.2	E	170	255
2 - A534	0.27	1.54	0.4	A	1032	1548
3 - Holt Spine Road	0.20	3.98	0.2	A	222	333
4 - Stryt Holt	0.58	6.89	1.4	A	739	1109
5 - A5156	0.65	3.01	2.0	A	2339	3509

Without Dev 2036, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Services/A534/Holt Spine Road/Stryt Holt/A5156	Standard Roundabout		1, 2, 3, 4, 5	3.95	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.95	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D4	Without Dev 2036	PM	FLAT	16:30	18:00	90	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Services Access		FLAT	✓	163	100.000
2 - A534		FLAT	✓	2213	100.000
3 - Holt Spine Road		FLAT	✓	107	100.000
4 - Stryt Holt		FLAT	✓	604	100.000
5 - A5156		FLAT	✓	1241	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
	1 - Services Access	2 - A534	3 - Holt Spine Road	4 - Stryt Holt	5 - A5156
From					
1 - Services Access	0	65	0	21	77
2 - A534	54	0	53	450	1656
3 - Holt Spine Road	0	29	0	44	34
4 - Stryt Holt	17	242	80	0	265
5 - A5156	59	781	63	338	0

Vehicle Mix

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

Heavy Vehicle %

	To				
	1 - Services Access	2 - A534	3 - Holt Spine Road	4 - Stryt Holt	5 - A5156
From					
1 - Services Access	0	7	11	11	3
2 - A534	4	0	0	1	5
3 - Holt Spine Road	0	0	0	0	0
4 - Stryt Holt	0	2	0	0	4
5 - A5156	0	13	0	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Services Access	0.22	6.51	0.3	A	163	245
2 - A534	0.59	2.43	1.5	A	2213	3320
3 - Holt Spine Road	0.19	7.91	0.2	A	107	161
4 - Stryt Holt	0.68	13.03	2.2	B	604	906
5 - A5156	0.33	1.58	0.5	A	1241	1862

With Dev 2027, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Services/A534/Holt Spine Road/Stryt Holt/A5156	Standard Roundabout		1, 2, 3, 4, 5	4.84	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.84	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D5	With Dev 2027	AM	FLAT	07:45	09:15	90	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Services Access		FLAT	✓	163	100.000
2 - A534		FLAT	✓	1072	100.000
3 - Holt Spine Road		FLAT	✓	222	100.000
4 - Stryt Holt		FLAT	✓	720	100.000
5 - A5156		FLAT	✓	2341	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
	1 - Services Access	2 - A534	3 - Holt Spine Road	4 - Stryt Holt	5 - A5156	
From	1 - Services Access	0	96	0	15	52
	2 - A534	64	0	23	186	799
	3 - Holt Spine Road	0	60	0	91	71
	4 - Stryt Holt	17	350	34	0	319
	5 - A5156	77	1940	26	298	0

Vehicle Mix

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

Heavy Vehicle %

	To					
	1 - Services Access	2 - A534	3 - Holt Spine Road	4 - Stryt Holt	5 - A5156	
From	1 - Services Access	0	12	0	0	41
	2 - A534	40	0	0	5	25
	3 - Holt Spine Road	0	0	0	0	0
	4 - Stryt Holt	0	4	0	0	4
	5 - A5156	0	8	0	10	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Services Access	0.63	44.92	2.0	E	163	245
2 - A534	0.28	1.56	0.5	A	1072	1608
3 - Holt Spine Road	0.20	4.03	0.2	A	222	333
4 - Stryt Holt	0.57	6.86	1.4	A	720	1080
5 - A5156	0.64	3.00	2.0	A	2341	3512

With Dev 2027, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Services/A534/Holt Spine Road/Stryt Holt/A5156	Standard Roundabout		1, 2, 3, 4, 5	4.00	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.00	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D6	With Dev 2027	PM	FLAT	16:30	18:00	90	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Services Access		FLAT	✓	157	100.000
2 - A534		FLAT	✓	2255	100.000
3 - Holt Spine Road		FLAT	✓	107	100.000
4 - Stryt Holt		FLAT	✓	592	100.000
5 - A5156		FLAT	✓	1287	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
	1 - Services Access	2 - A534	3 - Holt Spine Road	4 - Stryt Holt	5 - A5156	
From	1 - Services Access	0	63	0	20	74
	2 - A534	52	0	53	445	1705
	3 - Holt Spine Road	0	29	0	44	34
	4 - Stryt Holt	16	240	80	0	256
	5 - A5156	57	841	63	326	0

Vehicle Mix

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

Heavy Vehicle %

	To					
	1 - Services Access	2 - A534	3 - Holt Spine Road	4 - Stryt Holt	5 - A5156	
From	1 - Services Access	0	7	12	12	3
	2 - A534	4	0	0	1	6
	3 - Holt Spine Road	0	0	0	0	0
	4 - Stryt Holt	0	2	0	0	5
	5 - A5156	0	14	0	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Services Access	0.22	6.67	0.3	A	157	236
2 - A534	0.60	2.49	1.6	A	2255	3383
3 - Holt Spine Road	0.19	8.13	0.2	A	107	161
4 - Stryt Holt	0.68	13.44	2.2	B	592	888
5 - A5156	0.35	1.62	0.6	A	1287	1931

With Dev 2036, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Services/A534/Holt Spine Road/Stryt Holt/A5156	Standard Roundabout		1, 2, 3, 4, 5	6.40	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	6.40	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D7	With Dev 2036	AM	FLAT	07:45	09:15	90	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Services Access		FLAT	✓	170	100.000
2 - A534		FLAT	✓	1100	100.000
3 - Holt Spine Road		FLAT	✓	222	100.000
4 - Stryt Holt		FLAT	✓	747	100.000
5 - A5156		FLAT	✓	2419	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
	1 - Services Access	2 - A534	3 - Holt Spine Road	4 - Stryt Holt	5 - A5156	
From	1 - Services Access	0	99	0	16	55
	2 - A534	68	0	23	191	818
	3 - Holt Spine Road	0	60	0	91	71
	4 - Stryt Holt	18	364	34	0	331
	5 - A5156	81	2001	26	311	0

Vehicle Mix

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

Heavy Vehicle %

	To					
	1 - Services Access	2 - A534	3 - Holt Spine Road	4 - Stryt Holt	5 - A5156	
From	1 - Services Access	0	12	0	0	41
	2 - A534	40	0	0	5	25
	3 - Holt Spine Road	0	0	0	0	0
	4 - Stryt Holt	0	4	0	0	4
	5 - A5156	0	8	0	10	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Services Access	0.77	81.34	3.7	F	170	255
2 - A534	0.28	1.58	0.5	A	1100	1650
3 - Holt Spine Road	0.20	4.13	0.3	A	222	333
4 - Stryt Holt	0.60	7.39	1.5	A	747	1121
5 - A5156	0.67	3.24	2.2	A	2419	3629

With Dev 2036, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Services/A534/Holt Spine Road/Stryt Holt/A5156	Standard Roundabout		1, 2, 3, 4, 5	4.43	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.43	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D8	With Dev 2036	PM	FLAT	16:30	18:00	90	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Services Access		FLAT	✓	163	100.000
2 - A534		FLAT	✓	2319	100.000
3 - Holt Spine Road		FLAT	✓	107	100.000
4 - Stryt Holt		FLAT	✓	610	100.000
5 - A5156		FLAT	✓	1319	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
	1 - Services Access	2 - A534	3 - Holt Spine Road	4 - Stryt Holt	5 - A5156	
From	1 - Services Access	0	65	0	21	77
	2 - A534	54	0	53	460	1752
	3 - Holt Spine Road	0	29	0	44	34
	4 - Stryt Holt	17	248	80	0	265
	5 - A5156	59	859	63	338	0

Vehicle Mix

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

Heavy Vehicle %

	To					
	1 - Services Access	2 - A534	3 - Holt Spine Road	4 - Stryt Holt	5 - A5156	
From	1 - Services Access	0	7	11	11	3
	2 - A534	4	0	0	1	6
	3 - Holt Spine Road	0	0	0	0	0
	4 - Stryt Holt	0	2	0	0	4
	5 - A5156	0	14	0	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Services Access	0.23	6.92	0.3	A	163	245
2 - A534	0.62	2.63	1.7	A	2319	3479
3 - Holt Spine Road	0.21	8.88	0.3	A	107	161
4 - Stryt Holt	0.72	15.86	2.7	C	610	915
5 - A5156	0.36	1.65	0.6	A	1319	1979

With Dev 2027 Sensitivity Test, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Services/A534/Holt Spine Road/Stryt Holt/A5156	Standard Roundabout		1, 2, 3, 4, 5	5.69	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.69	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D8	With Dev 2027 Sensitivity Test	AM	FLAT	07:45	09:15	90	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Services Access		FLAT	✓	163	100.000
2 - A534		FLAT	✓	1065	100.000
3 - Holt Spine Road		FLAT	✓	222	100.000
4 - Stryt Holt		FLAT	✓	729	100.000
5 - A5156		FLAT	✓	2407	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
	1 - Services Access	2 - A534	3 - Holt Spine Road	4 - Stryt Holt	5 - A5156	
From	1 - Services Access	0	96	0	15	52
	2 - A534	64	0	23	182	796
	3 - Holt Spine Road	0	60	0	91	71
	4 - Stryt Holt	17	359	34	0	319
	5 - A5156	77	2006	26	298	0

Vehicle Mix

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

Heavy Vehicle %

	To					
	1 - Services Access	2 - A534	3 - Holt Spine Road	4 - Stryt Holt	5 - A5156	
From	1 - Services Access	0	12	0	0	41
	2 - A534	40	0	0	5	27
	3 - Holt Spine Road	0	0	0	0	0
	4 - Stryt Holt	0	4	0	0	4
	5 - A5156	0	8	0	10	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Services Access	0.72	66.33	2.9	F	163	245
2 - A534	0.27	1.57	0.5	A	1065	1598
3 - Holt Spine Road	0.20	4.01	0.2	A	222	333
4 - Stryt Holt	0.58	6.95	1.4	A	729	1094
5 - A5156	0.66	3.19	2.1	A	2407	3611

With Dev 2027 Sensitivity Test, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Services/A534/Holt Spine Road/Stryt Holt/A5156	Standard Roundabout		1, 2, 3, 4, 5	4.17	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.17	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D10	With Dev 2027 Sensitivity Test	PM	FLAT	16:30	18:00	90	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Services Access		FLAT	✓	157	100.000
2 - A534		FLAT	✓	2307	100.000
3 - Holt Spine Road		FLAT	✓	107	100.000
4 - Stryt Holt		FLAT	✓	589	100.000
5 - A5156		FLAT	✓	1266	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
	1 - Services Access	2 - A534	3 - Holt Spine Road	4 - Stryt Holt	5 - A5156	
From	1 - Services Access	0	63	0	20	74
	2 - A534	52	0	53	451	1751
	3 - Holt Spine Road	0	29	0	44	34
	4 - Stryt Holt	16	237	80	0	256
	5 - A5156	57	820	63	326	0

Vehicle Mix

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

Heavy Vehicle %

	To					
	1 - Services Access	2 - A534	3 - Holt Spine Road	4 - Stryt Holt	5 - A5156	
From	1 - Services Access	0	7	12	12	3
	2 - A534	4	0	0	1	6
	3 - Holt Spine Road	0	0	0	0	0
	4 - Stryt Holt	0	2	0	0	5
	5 - A5156	0	15	0	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Services Access	0.21	6.56	0.3	A	157	236
2 - A534	0.61	2.59	1.7	A	2307	3461
3 - Holt Spine Road	0.20	8.60	0.3	A	107	161
4 - Stryt Holt	0.70	14.41	2.3	B	589	884
5 - A5156	0.34	1.61	0.6	A	1266	1899

With Dev 2036 Sensitivity Test, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Services/A534/Holt Spine Road/Stryt Holt/A5156	Standard Roundabout		1, 2, 3, 4, 5	9.91	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	9.91	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D11	With Dev 2036 Sensitivity Test	AM	FLAT	07:45	09:15	90	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Services Access		FLAT	✓	170	100.000
2 - A534		FLAT	✓	1094	100.000
3 - Holt Spine Road		FLAT	✓	222	100.000
4 - Stryt Holt		FLAT	✓	756	100.000
5 - A5156		FLAT	✓	2486	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
	1 - Services Access	2 - A534	3 - Holt Spine Road	4 - Stryt Holt	5 - A5156	
From	1 - Services Access	0	99	0	16	55
	2 - A534	68	0	23	187	816
	3 - Holt Spine Road	0	60	0	91	71
	4 - Stryt Holt	18	373	34	0	331
	5 - A5156	81	2068	26	311	0

Vehicle Mix

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

Heavy Vehicle %

	To					
	1 - Services Access	2 - A534	3 - Holt Spine Road	4 - Stryt Holt	5 - A5156	
From	1 - Services Access	0	12	0	0	41
	2 - A534	40	0	0	5	27
	3 - Holt Spine Road	0	0	0	0	0
	4 - Stryt Holt	0	4	0	0	4
	5 - A5156	0	8	0	10	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Services Access	0.90	176.06	7.8	F	170	255
2 - A534	0.28	1.59	0.5	A	1094	1641
3 - Holt Spine Road	0.20	4.11	0.3	A	222	333
4 - Stryt Holt	0.60	7.50	1.6	A	756	1134
5 - A5156	0.69	3.45	2.4	A	2486	3729

With Dev 2036 Sensitivity Test, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Services/A534/Holt Spine Road/Stryt Holt/A5156	Standard Roundabout		1, 2, 3, 4, 5	4.66	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.66	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D12	With Dev 2036 Sensitivity Test	PM	FLAT	16:30	18:00	90	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Services Access		FLAT	✓	163	100.000
2 - A534		FLAT	✓	2371	100.000
3 - Holt Spine Road		FLAT	✓	107	100.000
4 - Stryt Holt		FLAT	✓	607	100.000
5 - A5156		FLAT	✓	1299	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
	1 - Services Access	2 - A534	3 - Holt Spine Road	4 - Stryt Holt	5 - A5156	
From	1 - Services Access	0	65	0	21	77
	2 - A534	54	0	53	466	1798
	3 - Holt Spine Road	0	29	0	44	34
	4 - Stryt Holt	17	245	80	0	265
	5 - A5156	59	839	63	338	0

Vehicle Mix

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

Heavy Vehicle %

	To					
	1 - Services Access	2 - A534	3 - Holt Spine Road	4 - Stryt Holt	5 - A5156	
From	1 - Services Access	0	7	11	11	3
	2 - A534	4	0	0	1	6
	3 - Holt Spine Road	0	0	0	0	0
	4 - Stryt Holt	0	2	0	0	4
	5 - A5156	0	14	0	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Services Access	0.23	6.80	0.3	A	163	245
2 - A534	0.63	2.73	1.8	A	2371	3557
3 - Holt Spine Road	0.22	9.45	0.3	A	107	161
4 - Stryt Holt	0.74	17.23	2.9	C	607	911
5 - A5156	0.35	1.64	0.6	A	1299	1949

Junctions 10
ARCADY 10 - Roundabout Module
Version: 10.1.1.1905 © Copyright TRL Software Limited, 2023
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Filename: Import of 5 - A5156-Borras-Borras Park.j10

Path: N:\Projects 2021\P21066 - Kingmoor, Wrexham Industrial Estate\6.Technical\Models\Import to Junctions 10

Report generation date: 14/02/2024 16:34:38

»Observed 2022, AM
»Observed 2022, PM
»Without Dev 2027, AM
»Without Dev 2027, PM
»Without Dev 2036, AM
»Without Dev 2036, PM
»With Dev 2027, AM
»With Dev 2027, PM
»With Dev 2036, AM
»With Dev 2036, PM
»With Dev 2027 Sensitivity Test, AM
»With Dev 2027 Sensitivity Test, PM
»With Dev 2036 Sensitivity Test, AM
»With Dev 2036 Sensitivity Test, PM

File summary

File Description

Title	A5156/Borras Road/Borras Park Road
Location	Wrexham
Site number	
Date	13/02/2024
Version	
Status	Final
Identifier	
Client	FIREM
Jobnumber	P21066
Enumerator	GHClb.gaze
Description	Checked by D. Stoddart

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

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use simulation for HCM roundabouts	Use iterations for HCM roundabouts
5.75						0.85	36.00	20.00		

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	Observed 2022	AM	FLAT	07:45	09:15	90	15	✓
D2	Observed 2022	PM	FLAT	16:30	18:00	90	15	✓
D3	Without Dev 2027	AM	FLAT	07:45	09:15	90	15	✓
D4	Without Dev 2027	PM	FLAT	16:30	18:00	90	15	✓
D5	Without Dev 2036	AM	FLAT	07:45	09:15	90	15	✓
D6	Without Dev 2036	PM	FLAT	16:30	18:00	90	15	✓
D7	With Dev 2027	AM	FLAT	07:45	09:15	90	15	✓
D8	With Dev 2027	PM	FLAT	16:30	18:00	90	15	✓
D9	With Dev 2036	AM	FLAT	07:45	09:15	90	15	✓
D10	With Dev 2036	PM	FLAT	16:30	18:00	90	15	✓
D11	With Dev 2027 Sensitivity Test	AM	FLAT	07:45	09:15	90	15	✓
D12	With Dev 2027 Sensitivity Test	PM	FLAT	16:30	18:00	90	15	✓
D13	With Dev 2036 Sensitivity Test	AM	FLAT	07:45	09:15	90	15	✓
D14	With Dev 2036 Sensitivity Test	PM	FLAT	16:30	18:00	90	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Observed 2022, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A5156/Borras Road/Borras Park Road	Standard Roundabout		1, 2, 3, 4	9.59	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	9.59	A

Arms

Arms

Arm	Name	Description	No give-way line
1	Borras Road		
2	A5156 (Eastern Arm)		
3	Borras Park Road		
4	A5156 (Western Arm)		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1 - Borras Road	3.50	5.30	6.4	23.5	50.0	41.2		
2 - A5156 (Eastern Arm)	7.80	8.40	1.5	47.6	50.0	41.3		
3 - Borras Park Road	2.70	5.90	6.1	27.3	50.0	40.9		
4 - A5156 (Western Arm)	7.80	8.40	3.8	25.3	50.0	40.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Borras Road	0.525	1305
2 - A5156 (Eastern Arm)	0.741	2417
3 - Borras Park Road	0.498	1151
4 - A5156 (Western Arm)	0.738	2423

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	Observed 2022	AM	FLAT	07:45	09:15	90	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borras Road		FLAT	✓	35	100.000
2 - A5156 (Eastern Arm)		FLAT	✓	892	100.000
3 - Borras Park Road		FLAT	✓	305	100.000
4 - A5156 (Western Arm)		FLAT	✓	2028	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
	1 - Borras Road	2 - A5156 (Eastern Arm)	3 - Borras Park Road	4 - A5156 (Western Arm)	
From	1 - Borras Road	0	9	22	4
	2 - A5156 (Eastern Arm)	8	0	22	862
	3 - Borras Park Road	12	94	0	199
	4 - A5156 (Western Arm)	22	1830	176	0

Vehicle Mix

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

Heavy Vehicle %

	To				
	1 - Borras Road	2 - A5156 (Eastern Arm)	3 - Borras Park Road	4 - A5156 (Western Arm)	
From	1 - Borras Road	0	33	5	0
	2 - A5156 (Eastern Arm)	0	0	0	18
	3 - Borras Park Road	0	1	0	1
	4 - A5156 (Western Arm)	11	7	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Borras Road	0.17	23.64	0.2	C	35	53
2 - A5156 (Eastern Arm)	0.39	3.06	0.8	A	892	1338
3 - Borras Park Road	0.43	8.84	0.7	A	305	458
4 - A5156 (Western Arm)	0.87	12.33	6.9	B	2028	3042

Observed 2022, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A5156/Borras Road/Borras Park Road	Standard Roundabout		1, 2, 3, 4	5.53	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.53	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D2	Observed 2022	PM	FLAT	16:30	18:00	90	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borras Road		FLAT	✓	35	100.000
2 - A5156 (Eastern Arm)		FLAT	✓	1610	100.000
3 - Borras Park Road		FLAT	✓	176	100.000
4 - A5156 (Western Arm)		FLAT	✓	1126	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
	1 - Borras Road	2 - A5156 (Eastern Arm)	3 - Borras Park Road	4 - A5156 (Western Arm)	
From	1 - Borras Road	0	2	33	0
	2 - A5156 (Eastern Arm)	9	0	86	1515
	3 - Borras Park Road	17	33	0	126
	4 - A5156 (Western Arm)	20	886	220	0

Vehicle Mix

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

Heavy Vehicle %

	To			
From	1 - Borras Road	2 - A5156 (Eastern Arm)	3 - Borras Park Road	4 - A5156 (Western Arm)
	0	0	0	3
	0	0	0	4
	0	0	0	1
	12	7	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Borras Road	0.05	5.35	0.1	A	35	53
2 - A5156 (Eastern Arm)	0.72	6.05	2.7	A	1610	2415
3 - Borras Park Road	0.45	16.71	0.8	C	176	264
4 - A5156 (Western Arm)	0.47	3.05	1.0	A	1126	1689

Without Dev 2027, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A5156/Borras Road/Borras Park Road	Standard Roundabout		1, 2, 3, 4	94.15	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	94.15	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D3	Without Dev 2027	AM	FLAT	07:45	09:15	90	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borras Road		FLAT	✓	35	100.000
2 - A5156 (Eastern Arm)		FLAT	✓	1181	100.000
3 - Borras Park Road		FLAT	✓	312	100.000
4 - A5156 (Western Arm)		FLAT	✓	2374	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	1 - Borras Road	2 - A5156 (Eastern Arm)	3 - Borras Park Road	4 - A5156 (Western Arm)
From				
1 - Borras Road	0	9	22	4
2 - A5156 (Eastern Arm)	8	0	24	1149
3 - Borras Park Road	12	100	0	200
4 - A5156 (Western Arm)	22	2175	177	0

Vehicle Mix

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

Heavy Vehicle %

	To			
	1 - Borras Road	2 - A5156 (Eastern Arm)	3 - Borras Park Road	4 - A5156 (Western Arm)
From				
1 - Borras Road	0	33	5	0
2 - A5156 (Eastern Arm)	0	0	0	18
3 - Borras Park Road	0	1	0	1
4 - A5156 (Western Arm)	11	8	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Borras Road	0.81	354.88	3.0	F	35	53
2 - A5156 (Eastern Arm)	0.52	3.87	1.3	A	1181	1772
3 - Borras Park Road	0.54	13.91	1.2	B	312	468
4 - A5156 (Western Arm)	1.02	145.76	97.1	F	2374	3561

Without Dev 2027, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A5156/Borras Road/Borras Park Road	Standard Roundabout		1, 2, 3, 4	14.41	B

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	14.41	B

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D4	Without Dev 2027	PM	FLAT	16:30	18:00	90	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borras Road		FLAT	✓	35	100.000
2 - A5156 (Eastern Arm)		FLAT	✓	1973	100.000
3 - Borras Park Road		FLAT	✓	179	100.000
4 - A5156 (Western Arm)		FLAT	✓	1423	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	1 - Borras Road	2 - A5156 (Eastern Arm)	3 - Borras Park Road	4 - A5156 (Western Arm)
From	1 - Borras Road	0	2	33
	2 - A5156 (Eastern Arm)	9	0	92
	3 - Borras Park Road	17	35	0
	4 - A5156 (Western Arm)	20	1182	221

Vehicle Mix

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

Heavy Vehicle %

	To			
	1 - Borras Road	2 - A5156 (Eastern Arm)	3 - Borras Park Road	4 - A5156 (Western Arm)
From	1 - Borras Road	0	0	0
	2 - A5156 (Eastern Arm)	0	0	0
	3 - Borras Park Road	0	0	0
	4 - A5156 (Western Arm)	12	9	1

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Borras Road	0.06	6.98	0.1	A	35	53
2 - A5156 (Eastern Arm)	0.89	14.73	7.9	B	1973	2960
3 - Borras Park Road	0.83	94.63	4.5	F	179	269
4 - A5156 (Western Arm)	0.60	4.06	1.6	A	1423	2135

Without Dev 2036, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A5156/Borras Road/Borras Park Road	Standard Roundabout		1, 2, 3, 4	184.37	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	184.37	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D5	Without Dev 2036	AM	FLAT	07:45	09:15	90	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borras Road		FLAT	✓	36	100.000
2 - A5156 (Eastern Arm)		FLAT	✓	1213	100.000
3 - Borras Park Road		FLAT	✓	325	100.000
4 - A5156 (Western Arm)		FLAT	✓	2453	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	1 - Borras Road	2 - A5156 (Eastern Arm)	3 - Borras Park Road	4 - A5156 (Western Arm)
From	1 - Borras Road	9	23	4
	2 - A5156 (Eastern Arm)	0	25	1180
	3 - Borras Park Road	13	104	208
	4 - A5156 (Western Arm)	23	2246	184

Vehicle Mix

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

Heavy Vehicle %

	To			
	1 - Borras Road	2 - A5156 (Eastern Arm)	3 - Borras Park Road	4 - A5156 (Western Arm)
From	1 - Borras Road	33	5	0
	2 - A5156 (Eastern Arm)	0	0	17
	3 - Borras Park Road	0	1	1
	4 - A5156 (Western Arm)	10	8	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Borras Road	0.91	530.67	4.7	F	36	54
2 - A5156 (Eastern Arm)	0.53	3.99	1.3	A	1213	1820
3 - Borras Park Road	0.58	15.59	1.4	C	325	488
4 - A5156 (Western Arm)	1.05	290.84	201.1	F	2453	3680

Without Dev 2036, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A5156/Borras Road/Borras Park Road	Standard Roundabout		1, 2, 3, 4	27.50	D

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	27.50	D

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D6	Without Dev 2036	PM	FLAT	16:30	18:00	90	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borras Road		FLAT	✓	36	100.000
2 - A5156 (Eastern Arm)		FLAT	✓	2035	100.000
3 - Borras Park Road		FLAT	✓	185	100.000
4 - A5156 (Western Arm)		FLAT	✓	1463	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	1 - Borras Road	2 - A5156 (Eastern Arm)	3 - Borras Park Road	4 - A5156 (Western Arm)
From	1 - Borras Road	0	2	34
	2 - A5156 (Eastern Arm)	9	0	96
	3 - Borras Park Road	18	36	0
	4 - A5156 (Western Arm)	21	1213	229

Vehicle Mix

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

Heavy Vehicle %

	To			
	1 - Borras Road	2 - A5156 (Eastern Arm)	3 - Borras Park Road	4 - A5156 (Western Arm)
From	1 - Borras Road	0	0	3
	2 - A5156 (Eastern Arm)	0	0	5
	3 - Borras Park Road	0	0	1
	4 - A5156 (Western Arm)	11	9	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Borras Road	0.07	7.29	0.1	A	36	54
2 - A5156 (Eastern Arm)	0.92	19.94	11.0	C	2035	3053
3 - Borras Park Road	0.99	298.67	14.5	F	185	278
4 - A5156 (Western Arm)	0.62	4.24	1.7	A	1463	2195

With Dev 2027, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A5156/Borras Road/Borras Park Road	Standard Roundabout		1, 2, 3, 4	179.75	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	179.75	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D7	With Dev 2027	AM	FLAT	07:45	09:15	90	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borras Road		FLAT	✓	35	100.000
2 - A5156 (Eastern Arm)		FLAT	✓	1244	100.000
3 - Borras Park Road		FLAT	✓	313	100.000
4 - A5156 (Western Arm)		FLAT	✓	2453	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	1 - Borras Road	2 - A5156 (Eastern Arm)	3 - Borras Park Road	4 - A5156 (Western Arm)
From				
1 - Borras Road	0	9	22	4
2 - A5156 (Eastern Arm)	8	0	25	1211
3 - Borras Park Road	12	101	0	200
4 - A5156 (Western Arm)	22	2254	177	0

Vehicle Mix

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

Heavy Vehicle %

	To			
	1 - Borras Road	2 - A5156 (Eastern Arm)	3 - Borras Park Road	4 - A5156 (Western Arm)
From				
1 - Borras Road	0	33	5	0
2 - A5156 (Eastern Arm)	0	0	0	18
3 - Borras Park Road	0	1	0	1
4 - A5156 (Western Arm)	11	9	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Borras Road	0.90	509.48	4.3	F	35	53
2 - A5156 (Eastern Arm)	0.55	4.11	1.4	A	1244	1866
3 - Borras Park Road	0.58	15.83	1.4	C	313	470
4 - A5156 (Western Arm)	1.05	285.03	197.2	F	2453	3680

With Dev 2027, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A5156/Borras Road/Borras Park Road	Standard Roundabout		1, 2, 3, 4	39.33	E

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	39.33	E

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D8	With Dev 2027	PM	FLAT	16:30	18:00	90	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borras Road		FLAT	✓	35	100.000
2 - A5156 (Eastern Arm)		FLAT	✓	2069	100.000
3 - Borras Park Road		FLAT	✓	180	100.000
4 - A5156 (Western Arm)		FLAT	✓	1501	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	1 - Borras Road	2 - A5156 (Eastern Arm)	3 - Borras Park Road	4 - A5156 (Western Arm)
From	1 - Borras Road	0	2	33
	2 - A5156 (Eastern Arm)	9	0	94
	3 - Borras Park Road	17	36	0
	4 - A5156 (Western Arm)	20	1260	221

Vehicle Mix

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

Heavy Vehicle %

	To			
	1 - Borras Road	2 - A5156 (Eastern Arm)	3 - Borras Park Road	4 - A5156 (Western Arm)
From	1 - Borras Road	0	0	0
	2 - A5156 (Eastern Arm)	0	0	0
	3 - Borras Park Road	0	0	0
	4 - A5156 (Western Arm)	12	10	1

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Borras Road	0.07	7.57	0.1	A	35	53
2 - A5156 (Eastern Arm)	0.93	23.26	13.0	C	2069	3104
3 - Borras Park Road	1.07	520.97	24.5	F	180	270
4 - A5156 (Western Arm)	0.63	4.46	1.9	A	1501	2252

With Dev 2036, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A5156/Borras Road/Borras Park Road	Standard Roundabout		1, 2, 3, 4	280.81	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	280.81	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D9	With Dev 2036	AM	FLAT	07:45	09:15	90	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borras Road		FLAT	✓	36	100.000
2 - A5156 (Eastern Arm)		FLAT	✓	1275	100.000
3 - Borras Park Road		FLAT	✓	326	100.000
4 - A5156 (Western Arm)		FLAT	✓	2532	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	1 - Borras Road	2 - A5156 (Eastern Arm)	3 - Borras Park Road	4 - A5156 (Western Arm)
From	1 - Borras Road	9	23	4
	2 - A5156 (Eastern Arm)	0	26	1241
	3 - Borras Park Road	105	0	208
	4 - A5156 (Western Arm)	2325	184	0

Vehicle Mix

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

Heavy Vehicle %

	To			
	1 - Borras Road	2 - A5156 (Eastern Arm)	3 - Borras Park Road	4 - A5156 (Western Arm)
From	1 - Borras Road	33	5	0
	2 - A5156 (Eastern Arm)	0	0	18
	3 - Borras Park Road	1	0	1
	4 - A5156 (Western Arm)	10	8	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Borras Road	0.94	599.08	5.3	F	36	54
2 - A5156 (Eastern Arm)	0.56	4.24	1.5	A	1275	1913
3 - Borras Park Road	0.62	18.01	1.6	C	326	489
4 - A5156 (Western Arm)	1.09	449.39	314.0	F	2532	3798

With Dev 2036, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A5156/Borras Road/Borras Park Road	Standard Roundabout		1, 2, 3, 4	96.45	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	96.45	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D10	With Dev 2036	PM	FLAT	16:30	18:00	90	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borras Road		FLAT	✓	36	100.000
2 - A5156 (Eastern Arm)		FLAT	✓	2131	100.000
3 - Borras Park Road		FLAT	✓	186	100.000
4 - A5156 (Western Arm)		FLAT	✓	1540	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	1 - Borras Road	2 - A5156 (Eastern Arm)	3 - Borras Park Road	4 - A5156 (Western Arm)
From	1 - Borras Road	0	2	34
	2 - A5156 (Eastern Arm)	9	0	98
	3 - Borras Park Road	18	37	0
	4 - A5156 (Western Arm)	21	1290	229

Vehicle Mix

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

Heavy Vehicle %

	To			
	1 - Borras Road	2 - A5156 (Eastern Arm)	3 - Borras Park Road	4 - A5156 (Western Arm)
From	1 - Borras Road	0	0	0
	2 - A5156 (Eastern Arm)	0	0	0
	3 - Borras Park Road	0	0	0
	4 - A5156 (Western Arm)	11	10	1

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Borras Road	0.07	7.88	0.1	A	36	54
2 - A5156 (Eastern Arm)	0.96	37.54	21.3	E	2131	3197
3 - Borras Park Road	1.32	1548.84	64.8	F	186	279
4 - A5156 (Western Arm)	0.65	4.63	2.0	A	1540	2310

With Dev 2027 Sensitivity Test, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A5156/Borras Road/Borras Park Road	Standard Roundabout		1, 2, 3, 4	262.47	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	262.47	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D11	With Dev 2027 Sensitivity Test	AM	FLAT	07:45	09:15	90	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borras Road		FLAT	✓	35	100.000
2 - A5156 (Eastern Arm)		FLAT	✓	1241	100.000
3 - Borras Park Road		FLAT	✓	315	100.000
4 - A5156 (Western Arm)		FLAT	✓	2518	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	1 - Borras Road	2 - A5156 (Eastern Arm)	3 - Borras Park Road	4 - A5156 (Western Arm)
From	1 - Borras Road	9	22	4
	2 - A5156 (Eastern Arm)	0	24	1209
	3 - Borras Park Road	103	0	200
	4 - A5156 (Western Arm)	2319	177	0

Vehicle Mix

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

Heavy Vehicle %

	To			
	1 - Borras Road	2 - A5156 (Eastern Arm)	3 - Borras Park Road	4 - A5156 (Western Arm)
From	1 - Borras Road	33	5	0
	2 - A5156 (Eastern Arm)	0	0	19
	3 - Borras Park Road	1	0	1
	4 - A5156 (Western Arm)	11	9	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Borras Road	0.92	575.45	4.9	F	35	53
2 - A5156 (Eastern Arm)	0.55	4.12	1.4	A	1241	1862
3 - Borras Park Road	0.58	15.90	1.4	C	315	473
4 - A5156 (Western Arm)	1.08	416.29	290.8	F	2518	3777

With Dev 2027 Sensitivity Test, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A5156/Borras Road/Borras Park Road	Standard Roundabout		1, 2, 3, 4	73.22	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	73.22	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D12	With Dev 2027 Sensitivity Test	PM	FLAT	16:30	18:00	90	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borras Road		FLAT	✓	35	100.000
2 - A5156 (Eastern Arm)		FLAT	✓	2115	100.000
3 - Borras Park Road		FLAT	✓	180	100.000
4 - A5156 (Western Arm)		FLAT	✓	1480	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Borras Road	2 - A5156 (Eastern Arm)	3 - Borras Park Road	4 - A5156 (Western Arm)
From	1 - Borras Road	0	2	33	0
	2 - A5156 (Eastern Arm)	9	0	95	2011
	3 - Borras Park Road	17	36	0	127
	4 - A5156 (Western Arm)	20	1239	221	0

Vehicle Mix

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

Heavy Vehicle %

	To				
From		1 - Borras Road	2 - A5156 (Eastern Arm)	3 - Borras Park Road	4 - A5156 (Western Arm)
	1 - Borras Road	0	0	0	3
	2 - A5156 (Eastern Arm)	0	0	0	6
	3 - Borras Park Road	0	0	0	1
	4 - A5156 (Western Arm)	12	10	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Borras Road	0.07	7.37	0.1	A	35	53
2 - A5156 (Eastern Arm)	0.95	31.48	17.8	D	2115	3173
3 - Borras Park Road	1.23	1142.99	49.4	F	180	270
4 - A5156 (Western Arm)	0.62	4.33	1.8	A	1480	2220

With Dev 2036 Sensitivity Test, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A5156/Borras Road/Borras Park Road	Standard Roundabout		1, 2, 3, 4	366.46	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	366.46	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D13	With Dev 2036 Sensitivity Test	AM	FLAT	07:45	09:15	90	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borras Road		FLAT	✓	36	100.000
2 - A5156 (Eastern Arm)		FLAT	✓	1273	100.000
3 - Borras Park Road		FLAT	✓	328	100.000
4 - A5156 (Western Arm)		FLAT	✓	2596	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	1 - Borras Road	2 - A5156 (Eastern Arm)	3 - Borras Park Road	4 - A5156 (Western Arm)
From	1 - Borras Road	9	23	4
	2 - A5156 (Eastern Arm)	0	25	1240
	3 - Borras Park Road	107	0	208
	4 - A5156 (Western Arm)	2389	184	0

Vehicle Mix

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

Heavy Vehicle %

	To			
	1 - Borras Road	2 - A5156 (Eastern Arm)	3 - Borras Park Road	4 - A5156 (Western Arm)
From	1 - Borras Road	33	5	0
	2 - A5156 (Eastern Arm)	0	0	19
	3 - Borras Park Road	1	0	1
	4 - A5156 (Western Arm)	10	9	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Borras Road	0.95	646.76	5.7	F	36	54
2 - A5156 (Eastern Arm)	0.56	4.25	1.5	A	1273	1910
3 - Borras Park Road	0.62	18.15	1.6	C	328	492
4 - A5156 (Western Arm)	1.11	584.20	409.4	F	2596	3894

With Dev 2036 Sensitivity Test, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A5156/Borras Road/Borras Park Road	Standard Roundabout		1, 2, 3, 4	153.21	F

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	153.21	F

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D14	With Dev 2036 Sensitivity Test	PM	FLAT	16:30	18:00	90	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Borras Road		FLAT	✓	36	100.000
2 - A5156 (Eastern Arm)		FLAT	✓	2177	100.000
3 - Borras Park Road		FLAT	✓	186	100.000
4 - A5156 (Western Arm)		FLAT	✓	1520	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	1 - Borras Road	2 - A5156 (Eastern Arm)	3 - Borras Park Road	4 - A5156 (Western Arm)
From	1 - Borras Road	0	2	34
	2 - A5156 (Eastern Arm)	9	0	99
	3 - Borras Park Road	18	37	0
	4 - A5156 (Western Arm)	21	1270	229

Vehicle Mix

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

Heavy Vehicle %

	To			
	1 - Borras Road	2 - A5156 (Eastern Arm)	3 - Borras Park Road	4 - A5156 (Western Arm)
From	1 - Borras Road	0	0	0
	2 - A5156 (Eastern Arm)	0	0	0
	3 - Borras Park Road	0	0	0
	4 - A5156 (Western Arm)	11	10	1

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Borras Road	0.07	7.67	0.1	A	36	54
2 - A5156 (Eastern Arm)	0.98	58.17	33.9	F	2177	3266
3 - Borras Park Road	1.55	2509.01	90.8	F	186	279
4 - A5156 (Western Arm)	0.64	4.50	1.9	A	1520	2280

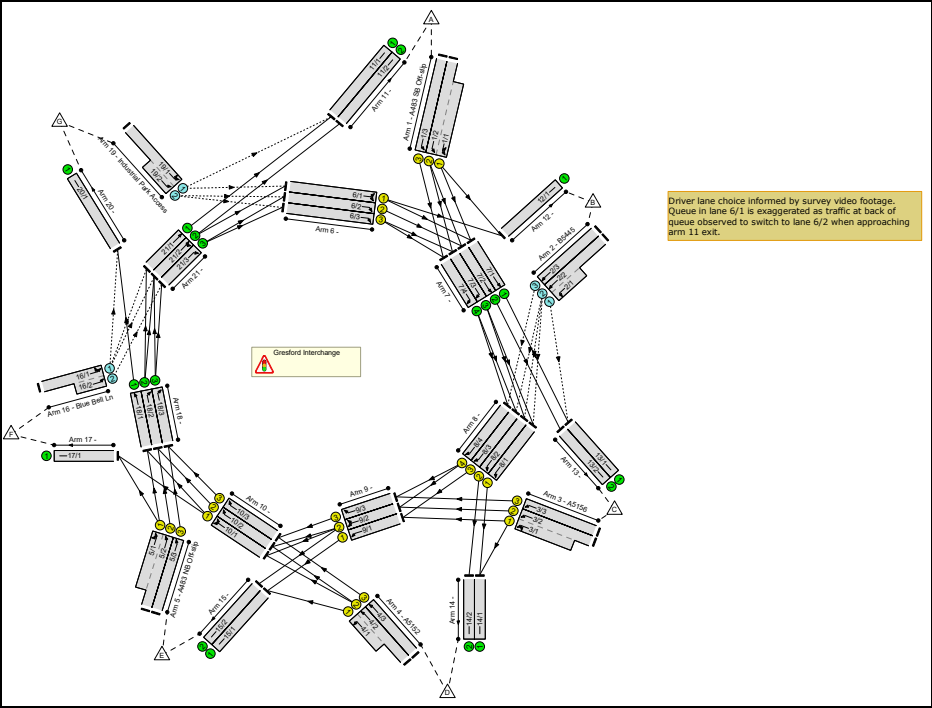
Full Input Data And Results

Full Input Data And Results

User and Project Details

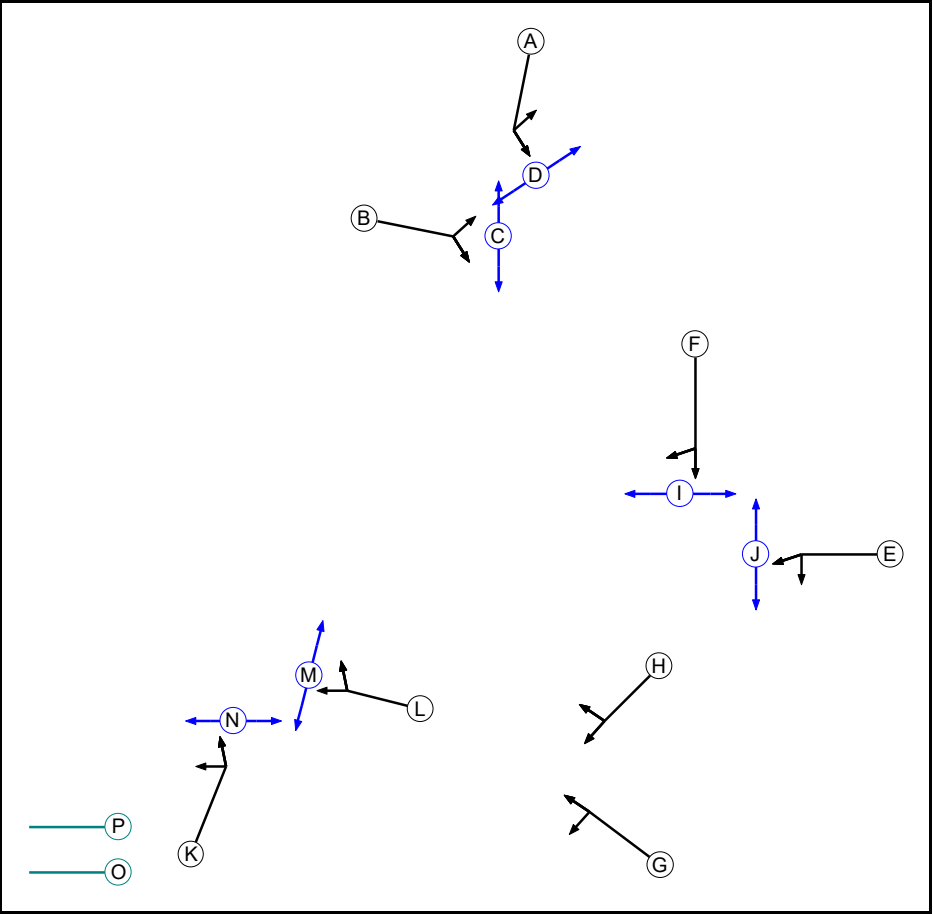
Project:	Kingmoor Park
Title:	Gresford Interchange
Location:	
Client:	FIREM
Model Purpose:	Capacity Assessment
Model Assumptions:	Controller specs and recorded cycletimes used
Flow Details:	Observed flows Tue 28th June 2022
Additional detail:	
File name:	Gresford Interchange - Post Submission.lsg3x
Author:	David Stoddart
Company:	Prime Transport Planning
Address:	Liverpool

Network Layout Diagram



Full Input Data And Results

Phase Diagram



Full Input Data And Results

Phase Input Data

Phase Name	Phase Type	Stage Stream	Assoc. Phase	Street Min	Cont Min
A	Traffic	1		7	7
B	Traffic	1		7	7
C	Pedestrian	1		6	6
D	Pedestrian	1		7	7
E	Traffic	2		7	7
F	Traffic	2		7	7
G	Traffic	2		7	7
H	Traffic	2		7	0
I	Pedestrian	2		7	7
J	Pedestrian	2		6	6
K	Traffic	3		7	7
L	Traffic	3		7	7
M	Pedestrian	3		6	6
N	Pedestrian	3		6	6
O	Dummy			10	10
P	Dummy			0	0

Full Input Data And Results

Phase Intergreens Matrix

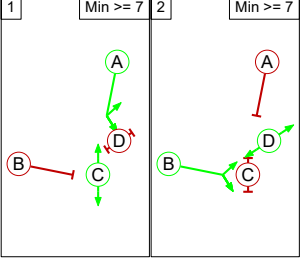
		Starting Phase															
		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Terminating Phase	A		5	-	5	-	-	-	-	-	-	-	-	-	-	-	-
	B	5		5	-	-	-	-	-	-	-	-	-	-	-	-	-
	C	-	0		-	-	-	-	-	-	-	-	-	-	-	-	-
	D	0	-	-		-	-	-	-	-	-	-	-	-	-	-	-
	E	-	-	-	-		6	-	-	-	5	-	-	-	-	-	-
	F	-	-	-	-	6		-	-	5	-	-	-	-	-	-	-
	G	-	-	-	-	-			5	-	-	-	-	-	-	-	-
	H	-	-	-	-	-	5			-	-	-	-	-	-	-	-
	I	-	-	-	-	-	0	-			-	-	-	-	-	-	-
	J	-	-	-	-	0	-	-	-			-	-	-	-	-	-
	K	-	-	-	-	-	-	-	-	-			5	-	5	-	-
	L	-	-	-	-	-	-	-	-	-	5			5	-	-	-
	M	-	-	-	-	-	-	-	-	-	-	0			-	-	-
	N	-	-	-	-	-	-	-	-	-	0	-	-			-	-
	O	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-
	P	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Phases in Stage

Stream	Stage No.	Phases in Stage
1	1	A C
1	2	B D
2	1	E H I
2	2	F H J
2	3	G J
3	1	K M
3	2	L N

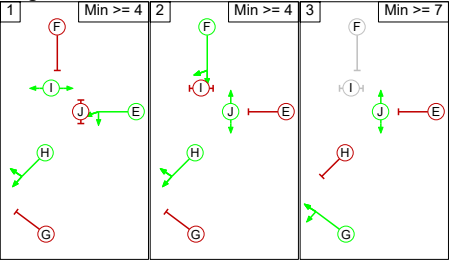
Stage Diagram

Stage Stream: 1

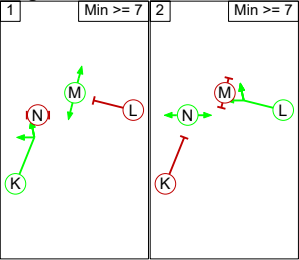


Full Input Data And Results

Stage Stream: 2



Stage Stream: 3



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
1	3	H	Losing	7	7
2	3	H	Losing	7	7

Stage Stream: 3

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
	1	5
	2	5

Full Input Data And Results

Stage Stream: 2

	To Stage		
From Stage	1	2	3
	1	6	12
	2	6	12
	3	5	5

Stage Stream: 3

	To Stage	
From Stage	1	2
	1	5
	2	5

Full Input Data And Results
Give-Way Lane Input Data

Junction: Gresford Interchange											
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)
2/1 (B5445)	13/1 (Left)	1000	0	7/1	0.33	All	-	-	-	-	-
				7/2	0.33	All					
				7/3	0.33	All					
				7/4	0.33	All					
2/2 (B5445)	8/1 (Ahead)	1000	0	7/1	0.33	All	-	-	-	-	-
				7/2	0.33	All					
				7/3	0.33	All					
				7/4	0.33	All					
	8/2 (Ahead)	1000	0	7/1	0.33	All					
				7/2	0.33	All					
				7/3	0.33	All					
				7/4	0.33	All					
2/3 (B5445)	8/3 (Ahead)	1000	0	7/1	0.33	All	-	-	-	-	-
				7/2	0.33	All					
				7/3	0.33	All					
				7/4	0.33	All					
16/1 (Blue Bell Ln)	20/1 (Left)	1000	0	7/1	0.33	All	-	-	-	-	-
				7/2	0.33	All					
				7/3	0.33	All					
				7/4	0.33	All					

Full Input Data And Results

16/2 (Blue Bell Ln) 19/1 (Industrial Park Access) 19/2 (Industrial Park Access)	21/1 (Ahead)	1000	0	18/1	0.33	All	-	-	-	-	-
				18/2	0.33	All					
				18/3	0.33	All					
	21/2 (Ahead)	1000	0	18/1	0.33	All					
				18/2	0.33	All					
				18/3	0.33	All					
	21/3 (Ahead)	1000	0	18/1	0.33	All					
				18/2	0.33	All					
				18/3	0.33	All					
	6/1 (Ahead)	1000	0	21/1	0.33	All					
				21/2	0.33	All					
				21/3	0.33	All					
	11/1 (Left)	1000	0	21/1	0.33	All					
				21/2	0.33	All					
				21/3	0.33	All					
19/2 (Industrial Park Access)	6/2 (Ahead)	1000	0	21/1	0.33	All	-	-	-	-	-
				21/2	0.33	All					
				21/3	0.33	All					
	6/3 (Ahead)	1000	0	21/1	0.33	All					
				21/2	0.33	All					
				21/3	0.33	All					

Full Input Data And Results

Lane Input Data

Junction: Gresford Interchange												
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1 (A483 SB Off-slip)	U	A	2	3	11.1	User	1900	-	-	-	-	-
1/2 (A483 SB Off-slip)	U	A	2	3	60.0	User	1900	-	-	-	-	-
1/3 (A483 SB Off-slip)	U	A	2	3	60.0	User	1900	-	-	-	-	-
2/1 (B5445)	O		2	3	5.2	Inf	-	-	-	-	-	-
2/2 (B5445)	O		2	3	60.0	Inf	-	-	-	-	-	-
2/3 (B5445)	O		2	3	60.0	Inf	-	-	-	-	-	-
3/1 (A5156)	U	E	2	3	17.4	User	1900	-	-	-	-	-
3/2 (A5156)	U	E	2	3	60.0	User	1900	-	-	-	-	-
3/3 (A5156)	U	E	2	3	60.0	User	1900	-	-	-	-	-
4/1 (A5152)	U	G	2	3	5.6	User	1900	-	-	-	-	-
4/2 (A5152)	U	G	2	3	60.0	User	1900	-	-	-	-	-
4/3 (A5152)	U	G	2	3	60.0	User	1900	-	-	-	-	-
5/1 (A483 NB Off-slip)	U	K	2	3	9.7	User	1900	-	-	-	-	-
5/2 (A483 NB Off-slip)	U	K	2	3	60.0	User	1900	-	-	-	-	-
5/3 (A483 NB Off-slip)	U	K	2	3	60.0	User	1900	-	-	-	-	-
6/1	U	B	2	3	60.0	User	1900	-	-	-	-	-
6/2	U	B	2	3	60.0	User	1900	-	-	-	-	-
6/3	U	B	2	3	60.0	User	1900	-	-	-	-	-
7/1	U		2	3	60.0	Inf	-	-	-	-	-	-
7/2	U		2	3	60.0	Inf	-	-	-	-	-	-
7/3	U		2	3	60.0	Inf	-	-	-	-	-	-
7/4	U		2	3	60.0	Inf	-	-	-	-	-	-
8/1	U	F	2	3	60.0	User	1900	-	-	-	-	-
8/2	U	F	2	3	60.0	User	1900	-	-	-	-	-
8/3	U	F	2	3	60.0	User	1900	-	-	-	-	-

Full Input Data And Results

8/4	U	F	2	3	60.0	User	1900	-	-	-	-	-
9/1	U	H	2	3	60.0	User	1900	-	-	-	-	-
9/2	U	H	2	3	60.0	User	1900	-	-	-	-	-
9/3	U	H	2	3	60.0	User	1900	-	-	-	-	-
10/1	U	L	2	3	60.0	User	1900	-	-	-	-	-
10/2	U	L	2	3	60.0	User	1900	-	-	-	-	-
10/3	U	L	2	3	60.0	User	1900	-	-	-	-	-
11/1	U		2	3	60.0	Inf	-	-	-	-	-	-
11/2	U		2	3	60.0	Inf	-	-	-	-	-	-
12/1	U		2	3	60.0	Inf	-	-	-	-	-	-
13/1	U		2	3	60.0	Inf	-	-	-	-	-	-
13/2	U		2	3	60.0	Inf	-	-	-	-	-	-
14/1	U		2	3	60.0	Inf	-	-	-	-	-	-
14/2	U		2	3	60.0	Inf	-	-	-	-	-	-
15/1	U		2	3	60.0	Inf	-	-	-	-	-	-
15/2	U		2	3	60.0	Inf	-	-	-	-	-	-
16/1 (Blue Bell Ln)	O		2	3	60.0	Inf	-	-	-	-	-	-
16/2 (Blue Bell Ln)	O		2	3	4.3	Inf	-	-	-	-	-	-
17/1	U		2	3	60.0	Inf	-	-	-	-	-	-
18/1	U		2	3	60.0	Inf	-	-	-	-	-	-
18/2	U		2	3	60.0	Inf	-	-	-	-	-	-
18/3	U		2	3	60.0	Inf	-	-	-	-	-	-
19/1 (Industrial Park Access)	O		2	3	60.0	Inf	-	-	-	-	-	-
19/2 (Industrial Park Access)	O		2	3	4.9	Inf	-	-	-	-	-	-
20/1	U		2	3	60.0	Inf	-	-	-	-	-	-
21/1	U		2	3	60.0	Inf	-	-	-	-	-	-
21/2	U		2	3	60.0	Inf	-	-	-	-	-	-
21/3	U		2	3	60.0	Inf	-	-	-	-	-	-

Full Input Data And Results

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: 'AM Obs'	07:45	08:45	01:00	
2: 'PM Obs'	16:30	17:30	01:00	
3: 'AM Without 2027'	07:45	08:45	01:00	
4: 'PM Without 2027'	16:30	17:30	01:00	
5: 'AM Without 2036'	07:45	08:45	01:00	
6: 'PM Without 2036'	16:30	17:30	01:00	
7: 'AM With Dev 2027'	07:45	08:45	01:00	
8: 'PM With Dev 2027'	16:30	17:30	01:00	
9: 'AM With Dev 2036'	07:45	08:45	01:00	
10: 'PM With Dev 2036'	16:30	17:30	01:00	
11: 'AM With Dev 2027 ST'	07:45	08:45	01:00	
12: 'PM With Dev 2027 ST'	16:30	17:30	01:00	
13: 'AM With Dev 2036 ST'	07:45	08:45	01:00	
14: 'PM With Dev 2036 ST'	16:30	17:30	01:00	

Scenario 1: 'AM Obs' (FG1: 'AM Obs', Plan 1: 'Staging Plan No. 1')

Traffic Flows, Desired

Desired Flow :

	Destination								
		A	B	C	D	E	F	G	Tot.
Origin	A	0	6	758	176	0	133	21	1094
	B	144	0	155	53	125	26	4	507
	C	449	114	0	36	359	84	20	1062
	D	161	61	265	0	162	34	3	686
	E	0	123	686	172	0	118	16	1115
	F	67	20	113	24	87	0	8	319
	G	10	0	11	0	2	0	0	23
	Tot.	831	324	1988	461	735	395	72	4806

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 1: AM Obs
Junction: Gresford Interchange	
1/1 (short)	470
1/2 (with short)	940(In) 470(Out)
1/3	154
2/1 (short)	155
2/2 (with short)	331(In) 176(Out)
2/3	176
3/1 (short)	354
3/2 (with short)	708(In) 354(Out)
3/3	354
4/1 (short)	162
4/2 (with short)	423(In) 261(Out)
4/3	263
5/1 (short)	134
5/2 (with short)	625(In) 491(Out)
5/3	490
6/1	977
6/2	416
6/3	285
7/1	1123
7/2	710
7/3	372
7/4	243
8/1	212
8/2	213
8/3	167
8/4	375
9/1	485
9/2	681
9/3	402
10/1	325
10/2	529
10/3	665
11/1	234
11/2	597
12/1	324

Full Input Data And Results

13/1	1278
13/2	710
14/1	248
14/2	213
15/1	647
15/2	88
16/1 (with short)	319(In) 159(Out)
16/2 (short)	160
17/1	395
18/1	64
18/2	1020
18/3	1155
19/1 (with short)	23(In) 12(Out)
19/2 (short)	11
20/1	72
21/1	224
21/2	1572
21/3	690

Full Input Data And Results

Lane Saturation Flows

Junction: Gresford Interchange								
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 SB Off-slip Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
1/2 (A483 SB Off-slip Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
1/3 (A483 SB Off-slip Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
2/1 (B5445 Lane 1)	Infinite Saturation Flow						Inf	Inf
2/2 (B5445 Lane 2)	Infinite Saturation Flow						Inf	Inf
2/3 (B5445 Lane 3)	Infinite Saturation Flow						Inf	Inf
3/1 (A5156 Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
3/2 (A5156 Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
3/3 (A5156 Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
4/1 (A5152 Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
4/2 (A5152 Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
4/3 (A5152 Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
5/1 (A483 NB Off-slip Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
5/2 (A483 NB Off-slip Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
5/3 (A483 NB Off-slip Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
6/1	This lane uses a directly entered Saturation Flow						1900	1900
6/2	This lane uses a directly entered Saturation Flow						1900	1900
6/3	This lane uses a directly entered Saturation Flow						1900	1900
7/1	Infinite Saturation Flow						Inf	Inf
7/2	Infinite Saturation Flow						Inf	Inf
7/3	Infinite Saturation Flow						Inf	Inf
7/4	Infinite Saturation Flow						Inf	Inf
8/1	This lane uses a directly entered Saturation Flow						1900	1900
8/2	This lane uses a directly entered Saturation Flow						1900	1900
8/3	This lane uses a directly entered Saturation Flow						1900	1900
8/4	This lane uses a directly entered Saturation Flow						1900	1900
9/1	This lane uses a directly entered Saturation Flow						1900	1900
9/2	This lane uses a directly entered Saturation Flow						1900	1900

Full Input Data And Results

9/3	This lane uses a directly entered Saturation Flow	1900	1900
10/1	This lane uses a directly entered Saturation Flow	1900	1900
10/2	This lane uses a directly entered Saturation Flow	1900	1900
10/3	This lane uses a directly entered Saturation Flow	1900	1900
11/1	Infinite Saturation Flow	Inf	Inf
11/2	Infinite Saturation Flow	Inf	Inf
12/1	Infinite Saturation Flow	Inf	Inf
13/1	Infinite Saturation Flow	Inf	Inf
13/2	Infinite Saturation Flow	Inf	Inf
14/1	Infinite Saturation Flow	Inf	Inf
14/2	Infinite Saturation Flow	Inf	Inf
15/1	Infinite Saturation Flow	Inf	Inf
15/2	Infinite Saturation Flow	Inf	Inf
16/1 (Blue Bell Ln Lane 1)	Infinite Saturation Flow	Inf	Inf
16/2 (Blue Bell Ln Lane 2)	Infinite Saturation Flow	Inf	Inf
17/1	Infinite Saturation Flow	Inf	Inf
18/1	Infinite Saturation Flow	Inf	Inf
18/2	Infinite Saturation Flow	Inf	Inf
18/3	Infinite Saturation Flow	Inf	Inf
19/1 (Industrial Park Access Lane 1)	Infinite Saturation Flow	Inf	Inf
19/2 (Industrial Park Access Lane 2)	Infinite Saturation Flow	Inf	Inf
20/1	Infinite Saturation Flow	Inf	Inf
21/1	Infinite Saturation Flow	Inf	Inf
21/2	Infinite Saturation Flow	Inf	Inf
21/3	Infinite Saturation Flow	Inf	Inf

Scenario 2: 'PM Obs' (FG2: 'PM Obs', Plan 1: 'Staging Plan No. 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination								
		A	B	C	D	E	F	G	Tot.
	A	0	9	432	218	0	70	10	739
	B	74	0	96	97	72	27	1	367
	C	568	251	0	67	564	182	11	1643
	D	163	80	182	0	143	58	2	628
	E	0	139	353	196	0	91	8	787
	F	67	30	82	47	41	0	10	277
	G	18	9	17	20	16	7	0	87
	Tot.	890	518	1162	645	836	435	42	4528

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 2: PM Obs
Junction: Gresford Interchange	
1/1 (short)	329
1/2 (with short)	659(In) 330(Out)
1/3	80
2/1 (short)	96
2/2 (with short)	232(In) 136(Out)
2/3	135
3/1 (short)	548
3/2 (with short)	1096(In) 548(Out)
3/3	547
4/1 (short)	143
4/2 (with short)	385(In) 242(Out)
4/3	243
5/1 (short)	99
5/2 (with short)	443(In) 344(Out)
5/3	344
6/1	920
6/2	223
6/3	327
7/1	731
7/2	335
7/3	481
7/4	144
8/1	288
8/2	290
8/3	67
8/4	251
9/1	548
9/2	774
9/3	572
10/1	368
10/2	503
10/3	815
11/1	231
11/2	659
12/1	518

13/1	827
13/2	335
14/1	355
14/2	290
15/1	691
15/2	145
16/1 (with short)	277(In) 139(Out)
16/2 (short)	138
17/1	435
18/1	32
18/2	847
18/3	1159
19/1 (with short)	87(In) 43(Out)
19/2 (short)	44
20/1	42
21/1	213
21/2	1554
21/3	506

Lane Saturation Flows

[illegible]

Full Input Data And Results

9/3	This lane uses a directly entered Saturation Flow	1900	1900
10/1	This lane uses a directly entered Saturation Flow	1900	1900
10/2	This lane uses a directly entered Saturation Flow	1900	1900
10/3	This lane uses a directly entered Saturation Flow	1900	1900
11/1	Infinite Saturation Flow	Inf	Inf
11/2	Infinite Saturation Flow	Inf	Inf
12/1	Infinite Saturation Flow	Inf	Inf
13/1	Infinite Saturation Flow	Inf	Inf
13/2	Infinite Saturation Flow	Inf	Inf
14/1	Infinite Saturation Flow	Inf	Inf
14/2	Infinite Saturation Flow	Inf	Inf
15/1	Infinite Saturation Flow	Inf	Inf
15/2	Infinite Saturation Flow	Inf	Inf
16/1 (Blue Bell Ln Lane 1)	Infinite Saturation Flow	Inf	Inf
16/2 (Blue Bell Ln Lane 2)	Infinite Saturation Flow	Inf	Inf
17/1	Infinite Saturation Flow	Inf	Inf
18/1	Infinite Saturation Flow	Inf	Inf
18/2	Infinite Saturation Flow	Inf	Inf
18/3	Infinite Saturation Flow	Inf	Inf
19/1 (Industrial Park Access Lane 1)	Infinite Saturation Flow	Inf	Inf
19/2 (Industrial Park Access Lane 2)	Infinite Saturation Flow	Inf	Inf
20/1	Infinite Saturation Flow	Inf	Inf
21/1	Infinite Saturation Flow	Inf	Inf
21/2	Infinite Saturation Flow	Inf	Inf
21/3	Infinite Saturation Flow	Inf	Inf

Scenario 3: 'AM Without 2027' (FG3: 'AM Without 2027', Plan 1: 'Staging Plan No. 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination								
		A	B	C	D	E	F	G	Tot.
	A	0	6	862	177	0	135	21	1201
	B	145	0	158	53	126	26	4	512
	C	537	124	0	36	513	113	22	1345
	D	162	61	270	0	163	34	3	693
	E	0	124	880	173	0	119	16	1312
	F	69	21	156	25	90	0	8	369
	G	10	0	12	0	2	0	0	24
	Tot.	923	336	2338	464	894	427	74	5456

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 3: AM Without 2027
Junction: Gresford Interchange	
1/1 (short)	522
1/2 (with short)	1045(In) 523(Out)
1/3	156
2/1 (short)	158
2/2 (with short)	335(In) 177(Out)
2/3	177
3/1 (short)	448
3/2 (with short)	896(In) 448(Out)
3/3	449
4/1 (short)	163
4/2 (with short)	428(In) 265(Out)
4/3	265
5/1 (short)	135
5/2 (with short)	724(In) 589(Out)
5/3	588
6/1	1114
6/2	534
6/3	290
7/1	1300
7/2	880
7/3	375
7/4	248
8/1	213
8/2	215
8/3	170
8/4	379
9/1	582
9/2	779
9/3	497
10/1	358
10/2	537
10/3	762
11/1	240
11/2	683

12/1	336
13/1	1458
13/2	880
14/1	249
14/2	215
15/1	745
15/2	149
16/1 (with short)	369(In) 184(Out)
16/2 (short)	185
17/1	427
18/1	66
18/2	1126
18/3	1350
19/1 (with short)	24(In) 12(Out)
19/2 (short)	12
20/1	74
21/1	230
21/2	1795
21/3	812

Lane Saturation Flows

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 SB Off-slip Lane 1)							1900	1900
1/2 (A483 SB Off-slip Lane 2)							1900	1900
1/3 (A483 SB Off-slip Lane 3)							1900	1900
2/1 (B5445 Lane 1)			Infinite Saturation Flow				Inf	Inf
2/2 (B5445 Lane 2)			Infinite Saturation Flow				Inf	Inf
2/3 (B5445 Lane 3)			Infinite Saturation Flow				Inf	Inf
3/1 (A5156 Lane 1)			This lane uses a directly entered Saturation Flow				1900	1900
3/2 (A5156 Lane 2)			This lane uses a directly entered Saturation Flow				1900	1900
3/3 (A5156 Lane 3)			This lane uses a directly entered Saturation Flow				1900	1900
4/1 (A5152 Lane 1)			This lane uses a directly entered Saturation Flow				1900	1900
4/2 (A5152 Lane 2)			This lane uses a directly entered Saturation Flow				1900	1900
4/3 (A5152 Lane 3)			This lane uses a directly entered Saturation Flow				1900	1900
5/1 (A483 NB Off-slip Lane 1)			This lane uses a directly entered Saturation Flow				1900	1900
5/2 (A483 NB Off-slip Lane 2)			This lane uses a directly entered Saturation Flow				1900	1900
5/3 (A483 NB Off-slip Lane 3)			This lane uses a directly entered Saturation Flow				1900	1900
6/1			This lane uses a directly entered Saturation Flow				1900	1900
6/2			This lane uses a directly entered Saturation Flow				1900	1900
6/3			This lane uses a directly entered Saturation Flow				1900	1900
7/1			Infinite Saturation Flow				Inf	Inf
7/2			Infinite Saturation Flow				Inf	Inf
7/3			Infinite Saturation Flow				Inf	Inf
7/4			Infinite Saturation Flow				Inf	Inf
8/1			This lane uses a directly entered Saturation Flow				1900	1900
8/2			This lane uses a directly entered Saturation Flow				1900	1900
8/3			This lane uses a directly entered Saturation Flow				1900	1900
8/4			This lane uses a directly entered Saturation Flow				1900	1900
9/1			This lane uses a directly entered Saturation Flow				1900	1900
9/2			This lane uses a directly entered Saturation Flow				1900	1900

Full Input Data And Results

9/3	This lane uses a directly entered Saturation Flow	1900	1900
10/1	This lane uses a directly entered Saturation Flow	1900	1900
10/2	This lane uses a directly entered Saturation Flow	1900	1900
10/3	This lane uses a directly entered Saturation Flow	1900	1900
11/1	Infinite Saturation Flow	Inf	Inf
11/2	Infinite Saturation Flow	Inf	Inf
12/1	Infinite Saturation Flow	Inf	Inf
13/1	Infinite Saturation Flow	Inf	Inf
13/2	Infinite Saturation Flow	Inf	Inf
14/1	Infinite Saturation Flow	Inf	Inf
14/2	Infinite Saturation Flow	Inf	Inf
15/1	Infinite Saturation Flow	Inf	Inf
15/2	Infinite Saturation Flow	Inf	Inf
16/1 (Blue Bell Ln Lane 1)	Infinite Saturation Flow	Inf	Inf
16/2 (Blue Bell Ln Lane 2)	Infinite Saturation Flow	Inf	Inf
17/1	Infinite Saturation Flow	Inf	Inf
18/1	Infinite Saturation Flow	Inf	Inf
18/2	Infinite Saturation Flow	Inf	Inf
18/3	Infinite Saturation Flow	Inf	Inf
19/1 (Industrial Park Access Lane 1)	Infinite Saturation Flow	Inf	Inf
19/2 (Industrial Park Access Lane 2)	Infinite Saturation Flow	Inf	Inf
20/1	Infinite Saturation Flow	Inf	Inf
21/1	Infinite Saturation Flow	Inf	Inf
21/2	Infinite Saturation Flow	Inf	Inf
21/3	Infinite Saturation Flow	Inf	Inf

Scenario 4: 'PM Without 2027' (FG4: 'PM Without 2027', Plan 1: 'Staging Plan No. 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination								
		A	B	C	D	E	F	G	Tot.
	A	0	9	534	219	0	71	10	843
	B	74	0	102	97	72	27	1	373
	C	667	258	0	67	765	228	11	1996
	D	164	80	194	0	144	58	2	642
	E	0	140	502	197	0	92	8	939
	F	68	30	109	47	41	0	10	305
	G	18	9	17	20	16	7	0	87
	Tot.	991	526	1458	647	1038	483	42	5185

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 4: PM Without 2027
Junction: Gresford Interchange	
1/1 (short)	381
1/2 (with short)	762(In) 381(Out)
1/3	81
2/1 (short)	102
2/2 (with short)	238(In) 136(Out)
2/3	135
3/1 (short)	665
3/2 (with short)	1332(In) 667(Out)
3/3	664
4/1 (short)	144
4/2 (with short)	393(In) 249(Out)
4/3	249
5/1 (short)	100
5/2 (with short)	519(In) 419(Out)
5/3	420
6/1	1030
6/2	309
6/3	328
7/1	885
7/2	471
7/3	483
7/4	145
8/1	289
8/2	291
8/3	67
8/4	252
9/1	665
9/2	894
9/3	689
10/1	415
10/2	499
10/3	938
11/1	232
11/2	759
12/1	526

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13/1	987
13/2	471
14/1	356
14/2	291
15/1	809
15/2	229
16/1 (with short)	305(In) 153(Out)
16/2 (short)	152
17/1	483
18/1	32
18/2	918
18/3	1358
19/1 (with short)	87(In) 43(Out)
19/2 (short)	44
20/1	42
21/1	214
21/2	1764
21/3	593

Full Input Data And Results

Lane Saturation Flows

Junction: Gresford Interchange								
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 SB Off-slip Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
1/2 (A483 SB Off-slip Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
1/3 (A483 SB Off-slip Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
2/1 (B5445 Lane 1)	Infinite Saturation Flow						Inf	Inf
2/2 (B5445 Lane 2)	Infinite Saturation Flow						Inf	Inf
2/3 (B5445 Lane 3)	Infinite Saturation Flow						Inf	Inf
3/1 (A5156 Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
3/2 (A5156 Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
3/3 (A5156 Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
4/1 (A5152 Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
4/2 (A5152 Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
4/3 (A5152 Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
5/1 (A483 NB Off-slip Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
5/2 (A483 NB Off-slip Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
5/3 (A483 NB Off-slip Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
6/1	This lane uses a directly entered Saturation Flow						1900	1900
6/2	This lane uses a directly entered Saturation Flow						1900	1900
6/3	This lane uses a directly entered Saturation Flow						1900	1900
7/1	Infinite Saturation Flow						Inf	Inf
7/2	Infinite Saturation Flow						Inf	Inf
7/3	Infinite Saturation Flow						Inf	Inf
7/4	Infinite Saturation Flow						Inf	Inf
8/1	This lane uses a directly entered Saturation Flow						1900	1900
8/2	This lane uses a directly entered Saturation Flow						1900	1900
8/3	This lane uses a directly entered Saturation Flow						1900	1900
8/4	This lane uses a directly entered Saturation Flow						1900	1900
9/1	This lane uses a directly entered Saturation Flow						1900	1900
9/2	This lane uses a directly entered Saturation Flow						1900	1900

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9/3	This lane uses a directly entered Saturation Flow	1900	1900
10/1	This lane uses a directly entered Saturation Flow	1900	1900
10/2	This lane uses a directly entered Saturation Flow	1900	1900
10/3	This lane uses a directly entered Saturation Flow	1900	1900
11/1	Infinite Saturation Flow	Inf	Inf
11/2	Infinite Saturation Flow	Inf	Inf
12/1	Infinite Saturation Flow	Inf	Inf
13/1	Infinite Saturation Flow	Inf	Inf
13/2	Infinite Saturation Flow	Inf	Inf
14/1	Infinite Saturation Flow	Inf	Inf
14/2	Infinite Saturation Flow	Inf	Inf
15/1	Infinite Saturation Flow	Inf	Inf
15/2	Infinite Saturation Flow	Inf	Inf
16/1 (Blue Bell Ln Lane 1)	Infinite Saturation Flow	Inf	Inf
16/2 (Blue Bell Ln Lane 2)	Infinite Saturation Flow	Inf	Inf
17/1	Infinite Saturation Flow	Inf	Inf
18/1	Infinite Saturation Flow	Inf	Inf
18/2	Infinite Saturation Flow	Inf	Inf
18/3	Infinite Saturation Flow	Inf	Inf
19/1 (Industrial Park Access Lane 1)	Infinite Saturation Flow	Inf	Inf
19/2 (Industrial Park Access Lane 2)	Infinite Saturation Flow	Inf	Inf
20/1	Infinite Saturation Flow	Inf	Inf
21/1	Infinite Saturation Flow	Inf	Inf
21/2	Infinite Saturation Flow	Inf	Inf
21/3	Infinite Saturation Flow	Inf	Inf

Scenario 5: 'AM Without 2036' (FG5: 'AM Without 2036', Plan 1: 'Staging Plan No. 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination								
		A	B	C	D	E	F	G	Tot.
	A	0	6	891	184	0	139	22	1242
	B	150	0	164	55	131	27	4	531
	C	553	129	0	37	527	116	23	1385
	D	168	63	280	0	169	35	3	718
	E	0	128	906	179	0	123	17	1353
	F	71	22	160	26	93	0	8	380
	G	10	0	12	0	2	0	0	24
Tot.		952	348	2413	481	922	440	77	5633

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 5: AM Without 2036
Junction: Gresford Interchange	
1/1 (short)	540
1/2 (with short)	1081(In) 541(Out)
1/3	161
2/1 (short)	164
2/2 (with short)	347(In) 183(Out)
2/3	184
3/1 (short)	462
3/2 (with short)	924(In) 462(Out)
3/3	461
4/1 (short)	169
4/2 (with short)	443(In) 274(Out)
4/3	275
5/1 (short)	140
5/2 (with short)	746(In) 606(Out)
5/3	607
6/1	1150
6/2	550
6/3	300
7/1	1342
7/2	907
7/3	389
7/4	256
8/1	221
8/2	223
8/3	175
8/4	393
9/1	600
9/2	805
9/3	511
10/1	369
10/2	557
10/3	786
11/1	248
11/2	704

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12/1	348
13/1	1506
13/2	907
14/1	258
14/2	223
15/1	769
15/2	153
16/1 (with short)	380(In) 190(Out)
16/2 (short)	190
17/1	440
18/1	69
18/2	1163
18/3	1393
19/1 (with short)	24(In) 12(Out)
19/2 (short)	12
20/1	77
21/1	238
21/2	1852
21/3	838

Full Input Data And Results

Lane Saturation Flows

Junction: Gresford Interchange								
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 SB Off-slip Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
1/2 (A483 SB Off-slip Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
1/3 (A483 SB Off-slip Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
2/1 (B5445 Lane 1)	Infinite Saturation Flow						Inf	Inf
2/2 (B5445 Lane 2)	Infinite Saturation Flow						Inf	Inf
2/3 (B5445 Lane 3)	Infinite Saturation Flow						Inf	Inf
3/1 (A5156 Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
3/2 (A5156 Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
3/3 (A5156 Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
4/1 (A5152 Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
4/2 (A5152 Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
4/3 (A5152 Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
5/1 (A483 NB Off-slip Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
5/2 (A483 NB Off-slip Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
5/3 (A483 NB Off-slip Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
6/1	This lane uses a directly entered Saturation Flow						1900	1900
6/2	This lane uses a directly entered Saturation Flow						1900	1900
6/3	This lane uses a directly entered Saturation Flow						1900	1900
7/1	Infinite Saturation Flow						Inf	Inf
7/2	Infinite Saturation Flow						Inf	Inf
7/3	Infinite Saturation Flow						Inf	Inf
7/4	Infinite Saturation Flow						Inf	Inf
8/1	This lane uses a directly entered Saturation Flow						1900	1900
8/2	This lane uses a directly entered Saturation Flow						1900	1900
8/3	This lane uses a directly entered Saturation Flow						1900	1900
8/4	This lane uses a directly entered Saturation Flow						1900	1900
9/1	This lane uses a directly entered Saturation Flow						1900	1900
9/2	This lane uses a directly entered Saturation Flow						1900	1900

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9/3	This lane uses a directly entered Saturation Flow	1900	1900
10/1	This lane uses a directly entered Saturation Flow	1900	1900
10/2	This lane uses a directly entered Saturation Flow	1900	1900
10/3	This lane uses a directly entered Saturation Flow	1900	1900
11/1	Infinite Saturation Flow	Inf	Inf
11/2	Infinite Saturation Flow	Inf	Inf
12/1	Infinite Saturation Flow	Inf	Inf
13/1	Infinite Saturation Flow	Inf	Inf
13/2	Infinite Saturation Flow	Inf	Inf
14/1	Infinite Saturation Flow	Inf	Inf
14/2	Infinite Saturation Flow	Inf	Inf
15/1	Infinite Saturation Flow	Inf	Inf
15/2	Infinite Saturation Flow	Inf	Inf
16/1 (Blue Bell Ln Lane 1)	Infinite Saturation Flow	Inf	Inf
16/2 (Blue Bell Ln Lane 2)	Infinite Saturation Flow	Inf	Inf
17/1	Infinite Saturation Flow	Inf	Inf
18/1	Infinite Saturation Flow	Inf	Inf
18/2	Infinite Saturation Flow	Inf	Inf
18/3	Infinite Saturation Flow	Inf	Inf
19/1 (Industrial Park Access Lane 1)	Infinite Saturation Flow	Inf	Inf
19/2 (Industrial Park Access Lane 2)	Infinite Saturation Flow	Inf	Inf
20/1	Infinite Saturation Flow	Inf	Inf
21/1	Infinite Saturation Flow	Inf	Inf
21/2	Infinite Saturation Flow	Inf	Inf
21/3	Infinite Saturation Flow	Inf	Inf

Scenario 6: 'PM Without 2036' (FG6: 'PM Without 2036', Plan 1: 'Staging Plan No. 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination								
		A	B	C	D	E	F	G	Tot.
	A	0	9	549	227	0	74	10	869
	B	77	0	106	101	75	28	1	388
	C	689	268	0	70	788	235	11	2061
	D	170	83	200	0	149	61	2	665
	E	0	145	516	204	0	95	8	968
	F	71	31	112	49	43	0	10	316
	G	19	9	18	21	17	7	0	91
	Tot.	1026	545	1501	672	1072	500	42	5358

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 6: PM Without 2036
Junction: Gresford Interchange	
1/1 (short)	393
1/2 (with short)	785(In) 392(Out)
1/3	84
2/1 (short)	106
2/2 (with short)	247(In) 141(Out)
2/3	141
3/1 (short)	687
3/2 (with short)	1375(In) 688(Out)
3/3	686
4/1 (short)	149
4/2 (with short)	408(In) 259(Out)
4/3	257
5/1 (short)	103
5/2 (with short)	536(In) 433(Out)
5/3	432
6/1	1065
6/2	317
6/3	341
7/1	913
7/2	482
7/3	501
7/4	151
8/1	299
8/2	303
8/3	69
8/4	263
9/1	686
9/2	925
9/3	712
10/1	429
10/2	518
10/3	969
11/1	241
11/2	785
12/1	545

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13/1	1019
13/2	482
14/1	369
14/2	303
15/1	835
15/2	237
16/1 (with short)	316(In) 158(Out)
16/2 (short)	158
17/1	500
18/1	32
18/2	951
18/3	1401
19/1 (with short)	91(In) 45(Out)
19/2 (short)	46
20/1	42
21/1	222
21/2	1824
21/3	612

Full Input Data And Results

Lane Saturation Flows

Junction: Gresford Interchange								
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 SB Off-slip Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
1/2 (A483 SB Off-slip Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
1/3 (A483 SB Off-slip Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
2/1 (B5445 Lane 1)	Infinite Saturation Flow						Inf	Inf
2/2 (B5445 Lane 2)	Infinite Saturation Flow						Inf	Inf
2/3 (B5445 Lane 3)	Infinite Saturation Flow						Inf	Inf
3/1 (A5156 Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
3/2 (A5156 Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
3/3 (A5156 Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
4/1 (A5152 Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
4/2 (A5152 Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
4/3 (A5152 Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
5/1 (A483 NB Off-slip Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
5/2 (A483 NB Off-slip Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
5/3 (A483 NB Off-slip Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
6/1	This lane uses a directly entered Saturation Flow						1900	1900
6/2	This lane uses a directly entered Saturation Flow						1900	1900
6/3	This lane uses a directly entered Saturation Flow						1900	1900
7/1	Infinite Saturation Flow						Inf	Inf
7/2	Infinite Saturation Flow						Inf	Inf
7/3	Infinite Saturation Flow						Inf	Inf
7/4	Infinite Saturation Flow						Inf	Inf
8/1	This lane uses a directly entered Saturation Flow						1900	1900
8/2	This lane uses a directly entered Saturation Flow						1900	1900
8/3	This lane uses a directly entered Saturation Flow						1900	1900
8/4	This lane uses a directly entered Saturation Flow						1900	1900
9/1	This lane uses a directly entered Saturation Flow						1900	1900
9/2	This lane uses a directly entered Saturation Flow						1900	1900

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9/3	This lane uses a directly entered Saturation Flow	1900	1900
10/1	This lane uses a directly entered Saturation Flow	1900	1900
10/2	This lane uses a directly entered Saturation Flow	1900	1900
10/3	This lane uses a directly entered Saturation Flow	1900	1900
11/1	Infinite Saturation Flow	Inf	Inf
11/2	Infinite Saturation Flow	Inf	Inf
12/1	Infinite Saturation Flow	Inf	Inf
13/1	Infinite Saturation Flow	Inf	Inf
13/2	Infinite Saturation Flow	Inf	Inf
14/1	Infinite Saturation Flow	Inf	Inf
14/2	Infinite Saturation Flow	Inf	Inf
15/1	Infinite Saturation Flow	Inf	Inf
15/2	Infinite Saturation Flow	Inf	Inf
16/1 (Blue Bell Ln Lane 1)	Infinite Saturation Flow	Inf	Inf
16/2 (Blue Bell Ln Lane 2)	Infinite Saturation Flow	Inf	Inf
17/1	Infinite Saturation Flow	Inf	Inf
18/1	Infinite Saturation Flow	Inf	Inf
18/2	Infinite Saturation Flow	Inf	Inf
18/3	Infinite Saturation Flow	Inf	Inf
19/1 (Industrial Park Access Lane 1)	Infinite Saturation Flow	Inf	Inf
19/2 (Industrial Park Access Lane 2)	Infinite Saturation Flow	Inf	Inf
20/1	Infinite Saturation Flow	Inf	Inf
21/1	Infinite Saturation Flow	Inf	Inf
21/2	Infinite Saturation Flow	Inf	Inf
21/3	Infinite Saturation Flow	Inf	Inf

Scenario 7: 'AM With Dev 2027' (FG7: 'AM With Dev 2027', Plan 1: 'Staging Plan No. 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination								
		A	B	C	D	E	F	G	Tot.
	A	0	6	891	177	0	135	21	1230
	B	145	0	158	53	126	26	4	512
	C	558	124	0	36	547	120	22	1407
	D	162	61	270	0	163	34	3	693
	E	0	124	920	173	0	119	16	1352
	F	69	21	166	25	90	0	8	379
	G	10	0	12	0	2	0	0	24
	Tot.	944	336	2417	464	928	434	74	5597

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 7: AM With Dev 2027
Junction: Gresford Interchange	
1/1 (short)	537
1/2 (with short)	1074(In) 537(Out)
1/3	156
2/1 (short)	158
2/2 (with short)	335(In) 177(Out)
2/3	177
3/1 (short)	469
3/2 (with short)	938(In) 469(Out)
3/3	469
4/1 (short)	163
4/2 (with short)	428(In) 265(Out)
4/3	265
5/1 (short)	135
5/2 (with short)	743(In) 608(Out)
5/3	609
6/1	1139
6/2	559
6/3	290
7/1	1340
7/2	919
7/3	375
7/4	248
8/1	212
8/2	216
8/3	170
8/4	379
9/1	603
9/2	800
9/3	517
10/1	365
10/2	538
10/3	782
11/1	241
11/2	703

12/1	336
13/1	1498
13/2	919
14/1	248
14/2	216
15/1	766
15/2	162
16/1 (with short)	379(In) 189(Out)
16/2 (short)	190
17/1	434
18/1	66
18/2	1146
18/3	1391
19/1 (with short)	24(In) 12(Out)
19/2 (short)	12
20/1	74
21/1	231
21/2	1840
21/3	837

Lane Saturation Flows

Junction: Gresford Interchange								
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 SB Off-slip Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
1/2 (A483 SB Off-slip Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
1/3 (A483 SB Off-slip Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
2/1 (B5445 Lane 1)	Infinite Saturation Flow						Inf	Inf
2/2 (B5445 Lane 2)	Infinite Saturation Flow						Inf	Inf
2/3 (B5445 Lane 3)	Infinite Saturation Flow						Inf	Inf
3/1 (A5156 Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
3/2 (A5156 Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
3/3 (A5156 Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
4/1 (A5152 Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
4/2 (A5152 Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
4/3 (A5152 Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
5/1 (A483 NB Off-slip Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
5/2 (A483 NB Off-slip Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
5/3 (A483 NB Off-slip Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
6/1	This lane uses a directly entered Saturation Flow						1900	1900
6/2	This lane uses a directly entered Saturation Flow						1900	1900
6/3	This lane uses a directly entered Saturation Flow						1900	1900
7/1	Infinite Saturation Flow						Inf	Inf
7/2	Infinite Saturation Flow						Inf	Inf
7/3	Infinite Saturation Flow						Inf	Inf
7/4	Infinite Saturation Flow						Inf	Inf
8/1	This lane uses a directly entered Saturation Flow						1900	1900
8/2	This lane uses a directly entered Saturation Flow						1900	1900
8/3	This lane uses a directly entered Saturation Flow						1900	1900
8/4	This lane uses a directly entered Saturation Flow						1900	1900
9/1	This lane uses a directly entered Saturation Flow						1900	1900
9/2	This lane uses a directly entered Saturation Flow						1900	1900

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9/3	This lane uses a directly entered Saturation Flow	1900	1900
10/1	This lane uses a directly entered Saturation Flow	1900	1900
10/2	This lane uses a directly entered Saturation Flow	1900	1900
10/3	This lane uses a directly entered Saturation Flow	1900	1900
11/1	Infinite Saturation Flow	Inf	Inf
11/2	Infinite Saturation Flow	Inf	Inf
12/1	Infinite Saturation Flow	Inf	Inf
13/1	Infinite Saturation Flow	Inf	Inf
13/2	Infinite Saturation Flow	Inf	Inf
14/1	Infinite Saturation Flow	Inf	Inf
14/2	Infinite Saturation Flow	Inf	Inf
15/1	Infinite Saturation Flow	Inf	Inf
15/2	Infinite Saturation Flow	Inf	Inf
16/1 (Blue Bell Ln Lane 1)	Infinite Saturation Flow	Inf	Inf
16/2 (Blue Bell Ln Lane 2)	Infinite Saturation Flow	Inf	Inf
17/1	Infinite Saturation Flow	Inf	Inf
18/1	Infinite Saturation Flow	Inf	Inf
18/2	Infinite Saturation Flow	Inf	Inf
18/3	Infinite Saturation Flow	Inf	Inf
19/1 (Industrial Park Access Lane 1)	Infinite Saturation Flow	Inf	Inf
19/2 (Industrial Park Access Lane 2)	Infinite Saturation Flow	Inf	Inf
20/1	Infinite Saturation Flow	Inf	Inf
21/1	Infinite Saturation Flow	Inf	Inf
21/2	Infinite Saturation Flow	Inf	Inf
21/3	Infinite Saturation Flow	Inf	Inf

Scenario 8: 'PM With Dev 2027' (FG8: 'PM With Dev 2027', Plan 1: 'Staging Plan No. 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination								
		A	B	C	D	E	F	G	Tot.
	A	0	9	563	219	0	71	10	872
	B	74	0	102	97	72	27	1	373
	C	701	258	0	67	813	241	11	2091
	D	164	80	194	0	144	58	2	642
	E	0	140	542	197	0	92	8	979
	F	68	30	117	47	41	0	10	313
	G	18	9	17	20	16	7	0	87
	Tot.	1025	526	1535	647	1086	496	42	5357

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 8: PM With Dev 2027
Junction: Gresford Interchange	
1/1 (short)	396
1/2 (with short)	791(In) 395(Out)
1/3	81
2/1 (short)	102
2/2 (with short)	238(In) 136(Out)
2/3	135
3/1 (short)	697
3/2 (with short)	1395(In) 698(Out)
3/3	696
4/1 (short)	144
4/2 (with short)	393(In) 249(Out)
4/3	249
5/1 (short)	100
5/2 (with short)	539(In) 439(Out)
5/3	440
6/1	1055
6/2	332
6/3	328
7/1	925
7/2	508
7/3	483
7/4	145
8/1	288
8/2	292
8/3	67
8/4	252
9/1	697
9/2	925
9/3	721
10/1	428
10/2	501
10/3	970
11/1	234
11/2	791

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12/1	526
13/1	1027
13/2	508
14/1	355
14/2	292
15/1	841
15/2	245
16/1 (with short)	313(In) 157(Out)
16/2 (short)	156
17/1	496
18/1	32
18/2	940
18/3	1410
19/1 (with short)	87(In) 43(Out)
19/2 (short)	44
20/1	42
21/1	216
21/2	1821
21/3	616

Full Input Data And Results

Lane Saturation Flows

Junction: Gresford Interchange								
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 SB Off-slip Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
1/2 (A483 SB Off-slip Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
1/3 (A483 SB Off-slip Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
2/1 (B5445 Lane 1)	Infinite Saturation Flow						Inf	Inf
2/2 (B5445 Lane 2)	Infinite Saturation Flow						Inf	Inf
2/3 (B5445 Lane 3)	Infinite Saturation Flow						Inf	Inf
3/1 (A5156 Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
3/2 (A5156 Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
3/3 (A5156 Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
4/1 (A5152 Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
4/2 (A5152 Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
4/3 (A5152 Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
5/1 (A483 NB Off-slip Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
5/2 (A483 NB Off-slip Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
5/3 (A483 NB Off-slip Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
6/1	This lane uses a directly entered Saturation Flow						1900	1900
6/2	This lane uses a directly entered Saturation Flow						1900	1900
6/3	This lane uses a directly entered Saturation Flow						1900	1900
7/1	Infinite Saturation Flow						Inf	Inf
7/2	Infinite Saturation Flow						Inf	Inf
7/3	Infinite Saturation Flow						Inf	Inf
7/4	Infinite Saturation Flow						Inf	Inf
8/1	This lane uses a directly entered Saturation Flow						1900	1900
8/2	This lane uses a directly entered Saturation Flow						1900	1900
8/3	This lane uses a directly entered Saturation Flow						1900	1900
8/4	This lane uses a directly entered Saturation Flow						1900	1900
9/1	This lane uses a directly entered Saturation Flow						1900	1900
9/2	This lane uses a directly entered Saturation Flow						1900	1900

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9/3	This lane uses a directly entered Saturation Flow	1900	1900
10/1	This lane uses a directly entered Saturation Flow	1900	1900
10/2	This lane uses a directly entered Saturation Flow	1900	1900
10/3	This lane uses a directly entered Saturation Flow	1900	1900
11/1	Infinite Saturation Flow	Inf	Inf
11/2	Infinite Saturation Flow	Inf	Inf
12/1	Infinite Saturation Flow	Inf	Inf
13/1	Infinite Saturation Flow	Inf	Inf
13/2	Infinite Saturation Flow	Inf	Inf
14/1	Infinite Saturation Flow	Inf	Inf
14/2	Infinite Saturation Flow	Inf	Inf
15/1	Infinite Saturation Flow	Inf	Inf
15/2	Infinite Saturation Flow	Inf	Inf
16/1 (Blue Bell Ln Lane 1)	Infinite Saturation Flow	Inf	Inf
16/2 (Blue Bell Ln Lane 2)	Infinite Saturation Flow	Inf	Inf
17/1	Infinite Saturation Flow	Inf	Inf
18/1	Infinite Saturation Flow	Inf	Inf
18/2	Infinite Saturation Flow	Inf	Inf
18/3	Infinite Saturation Flow	Inf	Inf
19/1 (Industrial Park Access Lane 1)	Infinite Saturation Flow	Inf	Inf
19/2 (Industrial Park Access Lane 2)	Infinite Saturation Flow	Inf	Inf
20/1	Infinite Saturation Flow	Inf	Inf
21/1	Infinite Saturation Flow	Inf	Inf
21/2	Infinite Saturation Flow	Inf	Inf
21/3	Infinite Saturation Flow	Inf	Inf

Scenario 9: 'AM With Dev 2036' (FG9: 'AM With Dev 2036', Plan 1: 'Staging Plan No. 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination								
		A	B	C	D	E	F	G	Tot.
	A	0	6	920	184	0	139	22	1271
	B	150	0	164	55	131	27	4	531
	C	574	129	0	37	560	123	23	1446
	D	168	63	280	0	169	35	3	718
	E	0	128	946	179	0	123	17	1393
	F	71	22	170	26	93	0	8	390
	G	10	0	12	0	2	0	0	24
	Tot.	973	348	2492	481	955	447	77	5773

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 9: AM With Dev 2036
Junction: Gresford Interchange	
1/1 (short)	555
1/2 (with short)	1110(In) 555(Out)
1/3	161
2/1 (short)	164
2/2 (with short)	347(In) 183(Out)
2/3	184
3/1 (short)	482
3/2 (with short)	963(In) 481(Out)
3/3	483
4/1 (short)	169
4/2 (with short)	443(In) 274(Out)
4/3	275
5/1 (short)	140
5/2 (with short)	767(In) 627(Out)
5/3	626
6/1	1176
6/2	574
6/3	300
7/1	1383
7/2	945
7/3	389
7/4	256
8/1	221
8/2	223
8/3	175
8/4	393
9/1	620
9/2	824
9/3	533
10/1	376
10/2	556
10/3	808
11/1	248
11/2	725

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12/1	348
13/1	1547
13/2	945
14/1	258
14/2	223
15/1	789
15/2	166
16/1 (with short)	390(In) 195(Out)
16/2 (short)	195
17/1	447
18/1	69
18/2	1183
18/3	1434
19/1 (with short)	24(In) 12(Out)
19/2 (short)	12
20/1	77
21/1	238
21/2	1899
21/3	862

Full Input Data And Results

Lane Saturation Flows

Junction: Gresford Interchange								
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 SB Off-slip Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
1/2 (A483 SB Off-slip Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
1/3 (A483 SB Off-slip Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
2/1 (B5445 Lane 1)	Infinite Saturation Flow						Inf	Inf
2/2 (B5445 Lane 2)	Infinite Saturation Flow						Inf	Inf
2/3 (B5445 Lane 3)	Infinite Saturation Flow						Inf	Inf
3/1 (A5156 Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
3/2 (A5156 Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
3/3 (A5156 Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
4/1 (A5152 Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
4/2 (A5152 Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
4/3 (A5152 Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
5/1 (A483 NB Off-slip Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
5/2 (A483 NB Off-slip Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
5/3 (A483 NB Off-slip Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
6/1	This lane uses a directly entered Saturation Flow						1900	1900
6/2	This lane uses a directly entered Saturation Flow						1900	1900
6/3	This lane uses a directly entered Saturation Flow						1900	1900
7/1	Infinite Saturation Flow						Inf	Inf
7/2	Infinite Saturation Flow						Inf	Inf
7/3	Infinite Saturation Flow						Inf	Inf
7/4	Infinite Saturation Flow						Inf	Inf
8/1	This lane uses a directly entered Saturation Flow						1900	1900
8/2	This lane uses a directly entered Saturation Flow						1900	1900
8/3	This lane uses a directly entered Saturation Flow						1900	1900
8/4	This lane uses a directly entered Saturation Flow						1900	1900
9/1	This lane uses a directly entered Saturation Flow						1900	1900
9/2	This lane uses a directly entered Saturation Flow						1900	1900

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9/3	This lane uses a directly entered Saturation Flow	1900	1900
10/1	This lane uses a directly entered Saturation Flow	1900	1900
10/2	This lane uses a directly entered Saturation Flow	1900	1900
10/3	This lane uses a directly entered Saturation Flow	1900	1900
11/1	Infinite Saturation Flow	Inf	Inf
11/2	Infinite Saturation Flow	Inf	Inf
12/1	Infinite Saturation Flow	Inf	Inf
13/1	Infinite Saturation Flow	Inf	Inf
13/2	Infinite Saturation Flow	Inf	Inf
14/1	Infinite Saturation Flow	Inf	Inf
14/2	Infinite Saturation Flow	Inf	Inf
15/1	Infinite Saturation Flow	Inf	Inf
15/2	Infinite Saturation Flow	Inf	Inf
16/1 (Blue Bell Ln Lane 1)	Infinite Saturation Flow	Inf	Inf
16/2 (Blue Bell Ln Lane 2)	Infinite Saturation Flow	Inf	Inf
17/1	Infinite Saturation Flow	Inf	Inf
18/1	Infinite Saturation Flow	Inf	Inf
18/2	Infinite Saturation Flow	Inf	Inf
18/3	Infinite Saturation Flow	Inf	Inf
19/1 (Industrial Park Access Lane 1)	Infinite Saturation Flow	Inf	Inf
19/2 (Industrial Park Access Lane 2)	Infinite Saturation Flow	Inf	Inf
20/1	Infinite Saturation Flow	Inf	Inf
21/1	Infinite Saturation Flow	Inf	Inf
21/2	Infinite Saturation Flow	Inf	Inf
21/3	Infinite Saturation Flow	Inf	Inf

Scenario 10: 'PM With Dev 2036' (FG10: 'PM With Dev 2036', Plan 1: 'Staging Plan No. 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination								
		A	B	C	D	E	F	G	Tot.
	A	0	9	579	227	0	74	10	899
	B	77	0	106	101	75	28	1	388
	C	722	268	0	70	836	248	11	2155
	D	170	83	200	0	149	61	2	665
	E	0	145	556	204	0	95	8	1008
	F	71	31	120	49	43	0	10	324
	G	19	9	18	21	17	7	0	91
	Tot.	1059	545	1579	672	1120	513	42	5530

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 10: PM With Dev 2036
Junction: Gresford Interchange	
1/1 (short)	407
1/2 (with short)	815(In) 408(Out)
1/3	84
2/1 (short)	106
2/2 (with short)	247(In) 141(Out)
2/3	141
3/1 (short)	718
3/2 (with short)	1436(In) 718(Out)
3/3	719
4/1 (short)	149
4/2 (with short)	408(In) 259(Out)
4/3	257
5/1 (short)	103
5/2 (with short)	556(In) 453(Out)
5/3	452
6/1	1090
6/2	340
6/3	341
7/1	952
7/2	521
7/3	501
7/4	151
8/1	299
8/2	303
8/3	69
8/4	263
9/1	717
9/2	955
9/3	745
10/1	442
10/2	518
10/3	1002
11/1	242
11/2	817

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12/1	545
13/1	1058
13/2	521
14/1	369
14/2	303
15/1	866
15/2	254
16/1 (with short)	324(In) 162(Out)
16/2 (short)	162
17/1	513
18/1	32
18/2	971
18/3	1454
19/1 (with short)	91(In) 45(Out)
19/2 (short)	46
20/1	42
21/1	223
21/2	1881
21/3	635

Full Input Data And Results

Lane Saturation Flows

Junction: Gresford Interchange								
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 SB Off-slip Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
1/2 (A483 SB Off-slip Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
1/3 (A483 SB Off-slip Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
2/1 (B5445 Lane 1)	Infinite Saturation Flow						Inf	Inf
2/2 (B5445 Lane 2)	Infinite Saturation Flow						Inf	Inf
2/3 (B5445 Lane 3)	Infinite Saturation Flow						Inf	Inf
3/1 (A5156 Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
3/2 (A5156 Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
3/3 (A5156 Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
4/1 (A5152 Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
4/2 (A5152 Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
4/3 (A5152 Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
5/1 (A483 NB Off-slip Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
5/2 (A483 NB Off-slip Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
5/3 (A483 NB Off-slip Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
6/1	This lane uses a directly entered Saturation Flow						1900	1900
6/2	This lane uses a directly entered Saturation Flow						1900	1900
6/3	This lane uses a directly entered Saturation Flow						1900	1900
7/1	Infinite Saturation Flow						Inf	Inf
7/2	Infinite Saturation Flow						Inf	Inf
7/3	Infinite Saturation Flow						Inf	Inf
7/4	Infinite Saturation Flow						Inf	Inf
8/1	This lane uses a directly entered Saturation Flow						1900	1900
8/2	This lane uses a directly entered Saturation Flow						1900	1900
8/3	This lane uses a directly entered Saturation Flow						1900	1900
8/4	This lane uses a directly entered Saturation Flow						1900	1900
9/1	This lane uses a directly entered Saturation Flow						1900	1900
9/2	This lane uses a directly entered Saturation Flow						1900	1900

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9/3	This lane uses a directly entered Saturation Flow	1900	1900
10/1	This lane uses a directly entered Saturation Flow	1900	1900
10/2	This lane uses a directly entered Saturation Flow	1900	1900
10/3	This lane uses a directly entered Saturation Flow	1900	1900
11/1	Infinite Saturation Flow	Inf	Inf
11/2	Infinite Saturation Flow	Inf	Inf
12/1	Infinite Saturation Flow	Inf	Inf
13/1	Infinite Saturation Flow	Inf	Inf
13/2	Infinite Saturation Flow	Inf	Inf
14/1	Infinite Saturation Flow	Inf	Inf
14/2	Infinite Saturation Flow	Inf	Inf
15/1	Infinite Saturation Flow	Inf	Inf
15/2	Infinite Saturation Flow	Inf	Inf
16/1 (Blue Bell Ln Lane 1)	Infinite Saturation Flow	Inf	Inf
16/2 (Blue Bell Ln Lane 2)	Infinite Saturation Flow	Inf	Inf
17/1	Infinite Saturation Flow	Inf	Inf
18/1	Infinite Saturation Flow	Inf	Inf
18/2	Infinite Saturation Flow	Inf	Inf
18/3	Infinite Saturation Flow	Inf	Inf
19/1 (Industrial Park Access Lane 1)	Infinite Saturation Flow	Inf	Inf
19/2 (Industrial Park Access Lane 2)	Infinite Saturation Flow	Inf	Inf
20/1	Infinite Saturation Flow	Inf	Inf
21/1	Infinite Saturation Flow	Inf	Inf
21/2	Infinite Saturation Flow	Inf	Inf
21/3	Infinite Saturation Flow	Inf	Inf

Scenario 11: 'AM With Dev 2027 ST' (FG11: 'AM With Dev 2027 ST', Plan 1: 'Staging Plan No. 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination								
		A	B	C	D	E	F	G	Tot.
	A	0	6	910	177	0	135	21	1249
	B	145	0	158	53	126	26	4	512
	C	564	124	0	36	544	115	22	1405
	D	162	61	270	0	163	34	3	693
	E	0	124	955	173	0	119	16	1387
	F	69	21	176	25	90	0	8	389
	G	10	0	12	0	2	0	0	24
Tot.		950	336	2481	464	925	429	74	5659

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 11: AM With Dev 2027 ST
Junction: Gresford Interchange	
1/1 (short)	546
1/2 (with short)	1093(In) 547(Out)
1/3	156
2/1 (short)	158
2/2 (with short)	335(In) 177(Out)
2/3	177
3/1 (short)	468
3/2 (with short)	937(In) 469(Out)
3/3	468
4/1 (short)	163
4/2 (with short)	428(In) 265(Out)
4/3	265
5/1 (short)	135
5/2 (with short)	761(In) 626(Out)
5/3	626
6/1	1162
6/2	581
6/3	290
7/1	1372
7/2	951
7/3	375
7/4	248
8/1	212
8/2	216
8/3	170
8/4	379
9/1	602
9/2	800
9/3	516
10/1	360
10/2	545
10/3	781
11/1	244
11/2	706

Full Input Data And Results

12/1	336
13/1	1530
13/2	951
14/1	248
14/2	216
15/1	765
15/2	160
16/1 (with short)	389(In) 194(Out)
16/2 (short)	195
17/1	429
18/1	66
18/2	1171
18/3	1407
19/1 (with short)	24(In) 12(Out)
19/2 (short)	12
20/1	74
21/1	234
21/2	1866
21/3	859

Full Input Data And Results

Lane Saturation Flows

Junction: Gresford Interchange								
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 SB Off-slip Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
1/2 (A483 SB Off-slip Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
1/3 (A483 SB Off-slip Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
2/1 (B5445 Lane 1)	Infinite Saturation Flow						Inf	Inf
2/2 (B5445 Lane 2)	Infinite Saturation Flow						Inf	Inf
2/3 (B5445 Lane 3)	Infinite Saturation Flow						Inf	Inf
3/1 (A5156 Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
3/2 (A5156 Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
3/3 (A5156 Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
4/1 (A5152 Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
4/2 (A5152 Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
4/3 (A5152 Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
5/1 (A483 NB Off-slip Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
5/2 (A483 NB Off-slip Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
5/3 (A483 NB Off-slip Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
6/1	This lane uses a directly entered Saturation Flow						1900	1900
6/2	This lane uses a directly entered Saturation Flow						1900	1900
6/3	This lane uses a directly entered Saturation Flow						1900	1900
7/1	Infinite Saturation Flow						Inf	Inf
7/2	Infinite Saturation Flow						Inf	Inf
7/3	Infinite Saturation Flow						Inf	Inf
7/4	Infinite Saturation Flow						Inf	Inf
8/1	This lane uses a directly entered Saturation Flow						1900	1900
8/2	This lane uses a directly entered Saturation Flow						1900	1900
8/3	This lane uses a directly entered Saturation Flow						1900	1900
8/4	This lane uses a directly entered Saturation Flow						1900	1900
9/1	This lane uses a directly entered Saturation Flow						1900	1900
9/2	This lane uses a directly entered Saturation Flow						1900	1900

Full Input Data And Results

9/3	This lane uses a directly entered Saturation Flow	1900	1900
10/1	This lane uses a directly entered Saturation Flow	1900	1900
10/2	This lane uses a directly entered Saturation Flow	1900	1900
10/3	This lane uses a directly entered Saturation Flow	1900	1900
11/1	Infinite Saturation Flow	Inf	Inf
11/2	Infinite Saturation Flow	Inf	Inf
12/1	Infinite Saturation Flow	Inf	Inf
13/1	Infinite Saturation Flow	Inf	Inf
13/2	Infinite Saturation Flow	Inf	Inf
14/1	Infinite Saturation Flow	Inf	Inf
14/2	Infinite Saturation Flow	Inf	Inf
15/1	Infinite Saturation Flow	Inf	Inf
15/2	Infinite Saturation Flow	Inf	Inf
16/1 (Blue Bell Ln Lane 1)	Infinite Saturation Flow	Inf	Inf
16/2 (Blue Bell Ln Lane 2)	Infinite Saturation Flow	Inf	Inf
17/1	Infinite Saturation Flow	Inf	Inf
18/1	Infinite Saturation Flow	Inf	Inf
18/2	Infinite Saturation Flow	Inf	Inf
18/3	Infinite Saturation Flow	Inf	Inf
19/1 (Industrial Park Access Lane 1)	Infinite Saturation Flow	Inf	Inf
19/2 (Industrial Park Access Lane 2)	Infinite Saturation Flow	Inf	Inf
20/1	Infinite Saturation Flow	Inf	Inf
21/1	Infinite Saturation Flow	Inf	Inf
21/2	Infinite Saturation Flow	Inf	Inf
21/3	Infinite Saturation Flow	Inf	Inf

Scenario 12: 'PM With Dev 2027 ST' (FG12: 'PM With Dev 2027 ST', Plan 1: 'Staging Plan No. 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination								
		A	B	C	D	E	F	G	Tot.
	A	0	9	559	219	0	71	10	868
	B	74	0	102	97	72	27	1	373
	C	717	258	0	67	838	248	11	2139
	D	164	80	194	0	144	58	2	642
	E	0	140	529	197	0	92	8	966
	F	68	30	113	47	41	0	10	309
	G	18	9	17	20	16	7	0	87
	Tot.	1041	526	1514	647	1111	503	42	5384

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 12: PM With Dev 2027 ST
Junction: Gresford Interchange	
1/1 (short)	393
1/2 (with short)	787(In) 394(Out)
1/3	81
2/1 (short)	102
2/2 (with short)	238(In) 136(Out)
2/3	135
3/1 (short)	713
3/2 (with short)	1426(In) 713(Out)
3/3	713
4/1 (short)	144
4/2 (with short)	393(In) 249(Out)
4/3	249
5/1 (short)	100
5/2 (with short)	533(In) 433(Out)
5/3	433
6/1	1046
6/2	324
6/3	328
7/1	913
7/2	499
7/3	483
7/4	145
8/1	288
8/2	292
8/3	67
8/4	252
9/1	713
9/2	940
9/3	738
10/1	435
10/2	500
10/3	987
11/1	234
11/2	807

Full Input Data And Results

12/1	526
13/1	1015
13/2	499
14/1	355
14/2	292
15/1	857
15/2	254
16/1 (with short)	309(In) 155(Out)
16/2 (short)	154
17/1	503
18/1	32
18/2	933
18/3	1420
19/1 (with short)	87(In) 43(Out)
19/2 (short)	44
20/1	42
21/1	216
21/2	1828
21/3	608

Full Input Data And Results

Lane Saturation Flows

Junction: Gresford Interchange								
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 SB Off-slip Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
1/2 (A483 SB Off-slip Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
1/3 (A483 SB Off-slip Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
2/1 (B5445 Lane 1)	Infinite Saturation Flow						Inf	Inf
2/2 (B5445 Lane 2)	Infinite Saturation Flow						Inf	Inf
2/3 (B5445 Lane 3)	Infinite Saturation Flow						Inf	Inf
3/1 (A5156 Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
3/2 (A5156 Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
3/3 (A5156 Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
4/1 (A5152 Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
4/2 (A5152 Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
4/3 (A5152 Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
5/1 (A483 NB Off-slip Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
5/2 (A483 NB Off-slip Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
5/3 (A483 NB Off-slip Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
6/1	This lane uses a directly entered Saturation Flow						1900	1900
6/2	This lane uses a directly entered Saturation Flow						1900	1900
6/3	This lane uses a directly entered Saturation Flow						1900	1900
7/1	Infinite Saturation Flow						Inf	Inf
7/2	Infinite Saturation Flow						Inf	Inf
7/3	Infinite Saturation Flow						Inf	Inf
7/4	Infinite Saturation Flow						Inf	Inf
8/1	This lane uses a directly entered Saturation Flow						1900	1900
8/2	This lane uses a directly entered Saturation Flow						1900	1900
8/3	This lane uses a directly entered Saturation Flow						1900	1900
8/4	This lane uses a directly entered Saturation Flow						1900	1900
9/1	This lane uses a directly entered Saturation Flow						1900	1900
9/2	This lane uses a directly entered Saturation Flow						1900	1900

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9/3	This lane uses a directly entered Saturation Flow	1900	1900
10/1	This lane uses a directly entered Saturation Flow	1900	1900
10/2	This lane uses a directly entered Saturation Flow	1900	1900
10/3	This lane uses a directly entered Saturation Flow	1900	1900
11/1	Infinite Saturation Flow	Inf	Inf
11/2	Infinite Saturation Flow	Inf	Inf
12/1	Infinite Saturation Flow	Inf	Inf
13/1	Infinite Saturation Flow	Inf	Inf
13/2	Infinite Saturation Flow	Inf	Inf
14/1	Infinite Saturation Flow	Inf	Inf
14/2	Infinite Saturation Flow	Inf	Inf
15/1	Infinite Saturation Flow	Inf	Inf
15/2	Infinite Saturation Flow	Inf	Inf
16/1 (Blue Bell Ln Lane 1)	Infinite Saturation Flow	Inf	Inf
16/2 (Blue Bell Ln Lane 2)	Infinite Saturation Flow	Inf	Inf
17/1	Infinite Saturation Flow	Inf	Inf
18/1	Infinite Saturation Flow	Inf	Inf
18/2	Infinite Saturation Flow	Inf	Inf
18/3	Infinite Saturation Flow	Inf	Inf
19/1 (Industrial Park Access Lane 1)	Infinite Saturation Flow	Inf	Inf
19/2 (Industrial Park Access Lane 2)	Infinite Saturation Flow	Inf	Inf
20/1	Infinite Saturation Flow	Inf	Inf
21/1	Infinite Saturation Flow	Inf	Inf
21/2	Infinite Saturation Flow	Inf	Inf
21/3	Infinite Saturation Flow	Inf	Inf

Scenario 13: 'AM With Dev 2036 ST' (FG13: 'AM With Dev 2036 ST', Plan 1: 'Staging Plan No. 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination								
		A	B	C	D	E	F	G	Tot.
	A	0	6	939	184	0	139	22	1290
	B	150	0	164	55	131	27	4	531
	C	580	129	0	37	558	118	23	1445
	D	168	63	280	0	169	35	3	718
	E	0	128	982	179	0	123	17	1429
	F	71	22	180	26	93	0	8	400
	G	10	0	12	0	2	0	0	24
	Tot.	979	348	2557	481	953	442	77	5837

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 13: AM With Dev 2036 ST
Junction: Gresford Interchange	
1/1 (short)	564
1/2 (with short)	1129(In) 565(Out)
1/3	161
2/1 (short)	164
2/2 (with short)	347(In) 183(Out)
2/3	184
3/1 (short)	482
3/2 (with short)	963(In) 481(Out)
3/3	482
4/1 (short)	169
4/2 (with short)	443(In) 274(Out)
4/3	275
5/1 (short)	140
5/2 (with short)	784(In) 644(Out)
5/3	645
6/1	1199
6/2	597
6/3	300
7/1	1415
7/2	978
7/3	389
7/4	256
8/1	221
8/2	223
8/3	175
8/4	393
9/1	620
9/2	824
9/3	532
10/1	371
10/2	563
10/3	807
11/1	251
11/2	728

12/1	348
13/1	1579
13/2	978
14/1	258
14/2	223
15/1	789
15/2	164
16/1 (with short)	400(In) 200(Out)
16/2 (short)	200
17/1	442
18/1	69
18/2	1207
18/3	1452
19/1 (with short)	24(In) 12(Out)
19/2 (short)	12
20/1	77
21/1	241
21/2	1925
21/3	885

Lane Saturation Flows

Junction: Gresford Interchange								
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 SB Off-slip Lane 1)							1900	1900
1/2 (A483 SB Off-slip Lane 2)							1900	1900
1/3 (A483 SB Off-slip Lane 3)							1900	1900
2/1 (B5445 Lane 1)			Infinite Saturation Flow				Inf	Inf
2/2 (B5445 Lane 2)			Infinite Saturation Flow				Inf	Inf
2/3 (B5445 Lane 3)			Infinite Saturation Flow				Inf	Inf
3/1 (A5156 Lane 1)			This lane uses a directly entered Saturation Flow				1900	1900
3/2 (A5156 Lane 2)			This lane uses a directly entered Saturation Flow				1900	1900
3/3 (A5156 Lane 3)			This lane uses a directly entered Saturation Flow				1900	1900
4/1 (A5152 Lane 1)			This lane uses a directly entered Saturation Flow				1900	1900
4/2 (A5152 Lane 2)			This lane uses a directly entered Saturation Flow				1900	1900
4/3 (A5152 Lane 3)			This lane uses a directly entered Saturation Flow				1900	1900
5/1 (A483 NB Off-slip Lane 1)			This lane uses a directly entered Saturation Flow				1900	1900
5/2 (A483 NB Off-slip Lane 2)			This lane uses a directly entered Saturation Flow				1900	1900
5/3 (A483 NB Off-slip Lane 3)			This lane uses a directly entered Saturation Flow				1900	1900
6/1			This lane uses a directly entered Saturation Flow				1900	1900
6/2			This lane uses a directly entered Saturation Flow				1900	1900
6/3			This lane uses a directly entered Saturation Flow				1900	1900
7/1			Infinite Saturation Flow				Inf	Inf
7/2			Infinite Saturation Flow				Inf	Inf
7/3			Infinite Saturation Flow				Inf	Inf
7/4			Infinite Saturation Flow				Inf	Inf
8/1			This lane uses a directly entered Saturation Flow				1900	1900
8/2			This lane uses a directly entered Saturation Flow				1900	1900
8/3			This lane uses a directly entered Saturation Flow				1900	1900
8/4			This lane uses a directly entered Saturation Flow				1900	1900
9/1			This lane uses a directly entered Saturation Flow				1900	1900
9/2			This lane uses a directly entered Saturation Flow				1900	1900

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9/3	This lane uses a directly entered Saturation Flow	1900	1900
10/1	This lane uses a directly entered Saturation Flow	1900	1900
10/2	This lane uses a directly entered Saturation Flow	1900	1900
10/3	This lane uses a directly entered Saturation Flow	1900	1900
11/1	Infinite Saturation Flow	Inf	Inf
11/2	Infinite Saturation Flow	Inf	Inf
12/1	Infinite Saturation Flow	Inf	Inf
13/1	Infinite Saturation Flow	Inf	Inf
13/2	Infinite Saturation Flow	Inf	Inf
14/1	Infinite Saturation Flow	Inf	Inf
14/2	Infinite Saturation Flow	Inf	Inf
15/1	Infinite Saturation Flow	Inf	Inf
15/2	Infinite Saturation Flow	Inf	Inf
16/1 (Blue Bell Ln Lane 1)	Infinite Saturation Flow	Inf	Inf
16/2 (Blue Bell Ln Lane 2)	Infinite Saturation Flow	Inf	Inf
17/1	Infinite Saturation Flow	Inf	Inf
18/1	Infinite Saturation Flow	Inf	Inf
18/2	Infinite Saturation Flow	Inf	Inf
18/3	Infinite Saturation Flow	Inf	Inf
19/1 (Industrial Park Access Lane 1)	Infinite Saturation Flow	Inf	Inf
19/2 (Industrial Park Access Lane 2)	Infinite Saturation Flow	Inf	Inf
20/1	Infinite Saturation Flow	Inf	Inf
21/1	Infinite Saturation Flow	Inf	Inf
21/2	Infinite Saturation Flow	Inf	Inf
21/3	Infinite Saturation Flow	Inf	Inf

Scenario 14: 'PM With Dev 2036 ST' (FG14: 'PM With Dev 2036 ST', Plan 1: 'Staging Plan No. 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination								
		A	B	C	D	E	F	G	Tot.
	A	0	9	575	227	0	74	10	895
	B	77	0	106	101	75	28	1	388
	C	738	268	0	70	860	255	11	2202
	D	170	83	200	0	149	61	2	665
	E	0	145	544	204	0	95	8	996
	F	71	31	116	49	43	0	10	320
	G	19	9	18	21	17	7	0	91
	Tot.	1075	545	1559	672	1144	520	42	5557

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 14: PM With Dev 2036 ST
Junction: Gresford Interchange	
1/1 (short)	405
1/2 (with short)	811(In) 406(Out)
1/3	84
2/1 (short)	106
2/2 (with short)	247(In) 141(Out)
2/3	141
3/1 (short)	734
3/2 (with short)	1468(In) 734(Out)
3/3	734
4/1 (short)	149
4/2 (with short)	408(In) 259(Out)
4/3	257
5/1 (short)	103
5/2 (with short)	550(In) 447(Out)
5/3	446
6/1	1082
6/2	332
6/3	341
7/1	942
7/2	511
7/3	501
7/4	151
8/1	299
8/2	303
8/3	69
8/4	263
9/1	733
9/2	971
9/3	760
10/1	449
10/2	519
10/3	1017
11/1	243
11/2	832

Full Input Data And Results

12/1	545
13/1	1048
13/2	511
14/1	369
14/2	303
15/1	882
15/2	262
16/1 (with short)	320(In) 160(Out)
16/2 (short)	160
17/1	520
18/1	32
18/2	966
18/3	1463
19/1 (with short)	91(In) 45(Out)
19/2 (short)	46
20/1	42
21/1	224
21/2	1888
21/3	627

Full Input Data And Results

Lane Saturation Flows

Junction: Gresford Interchange								
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 SB Off-slip Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
1/2 (A483 SB Off-slip Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
1/3 (A483 SB Off-slip Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
2/1 (B5445 Lane 1)	Infinite Saturation Flow						Inf	Inf
2/2 (B5445 Lane 2)	Infinite Saturation Flow						Inf	Inf
2/3 (B5445 Lane 3)	Infinite Saturation Flow						Inf	Inf
3/1 (A5156 Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
3/2 (A5156 Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
3/3 (A5156 Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
4/1 (A5152 Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
4/2 (A5152 Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
4/3 (A5152 Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
5/1 (A483 NB Off-slip Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
5/2 (A483 NB Off-slip Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
5/3 (A483 NB Off-slip Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
6/1	This lane uses a directly entered Saturation Flow						1900	1900
6/2	This lane uses a directly entered Saturation Flow						1900	1900
6/3	This lane uses a directly entered Saturation Flow						1900	1900
7/1	Infinite Saturation Flow						Inf	Inf
7/2	Infinite Saturation Flow						Inf	Inf
7/3	Infinite Saturation Flow						Inf	Inf
7/4	Infinite Saturation Flow						Inf	Inf
8/1	This lane uses a directly entered Saturation Flow						1900	1900
8/2	This lane uses a directly entered Saturation Flow						1900	1900
8/3	This lane uses a directly entered Saturation Flow						1900	1900
8/4	This lane uses a directly entered Saturation Flow						1900	1900
9/1	This lane uses a directly entered Saturation Flow						1900	1900
9/2	This lane uses a directly entered Saturation Flow						1900	1900

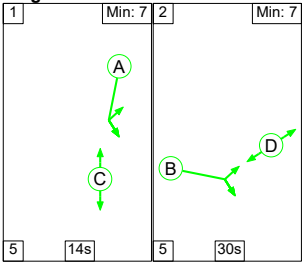
Full Input Data And Results

9/3	This lane uses a directly entered Saturation Flow	1900	1900
10/1	This lane uses a directly entered Saturation Flow	1900	1900
10/2	This lane uses a directly entered Saturation Flow	1900	1900
10/3	This lane uses a directly entered Saturation Flow	1900	1900
11/1	Infinite Saturation Flow	Inf	Inf
11/2	Infinite Saturation Flow	Inf	Inf
12/1	Infinite Saturation Flow	Inf	Inf
13/1	Infinite Saturation Flow	Inf	Inf
13/2	Infinite Saturation Flow	Inf	Inf
14/1	Infinite Saturation Flow	Inf	Inf
14/2	Infinite Saturation Flow	Inf	Inf
15/1	Infinite Saturation Flow	Inf	Inf
15/2	Infinite Saturation Flow	Inf	Inf
16/1 (Blue Bell Ln Lane 1)	Infinite Saturation Flow	Inf	Inf
16/2 (Blue Bell Ln Lane 2)	Infinite Saturation Flow	Inf	Inf
17/1	Infinite Saturation Flow	Inf	Inf
18/1	Infinite Saturation Flow	Inf	Inf
18/2	Infinite Saturation Flow	Inf	Inf
18/3	Infinite Saturation Flow	Inf	Inf
19/1 (Industrial Park Access Lane 1)	Infinite Saturation Flow	Inf	Inf
19/2 (Industrial Park Access Lane 2)	Infinite Saturation Flow	Inf	Inf
20/1	Infinite Saturation Flow	Inf	Inf
21/1	Infinite Saturation Flow	Inf	Inf
21/2	Infinite Saturation Flow	Inf	Inf
21/3	Infinite Saturation Flow	Inf	Inf

Scenario 1: 'AM Obs' (FG1: 'AM Obs', Plan 1: 'Staging Plan No. 1')

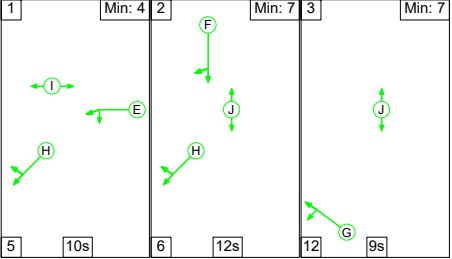
Stage Sequence Diagram

Stage Stream: 1

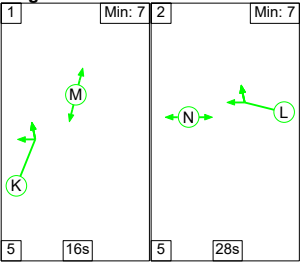


Full Input Data And Results

Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	14	30
Change Point	0	19

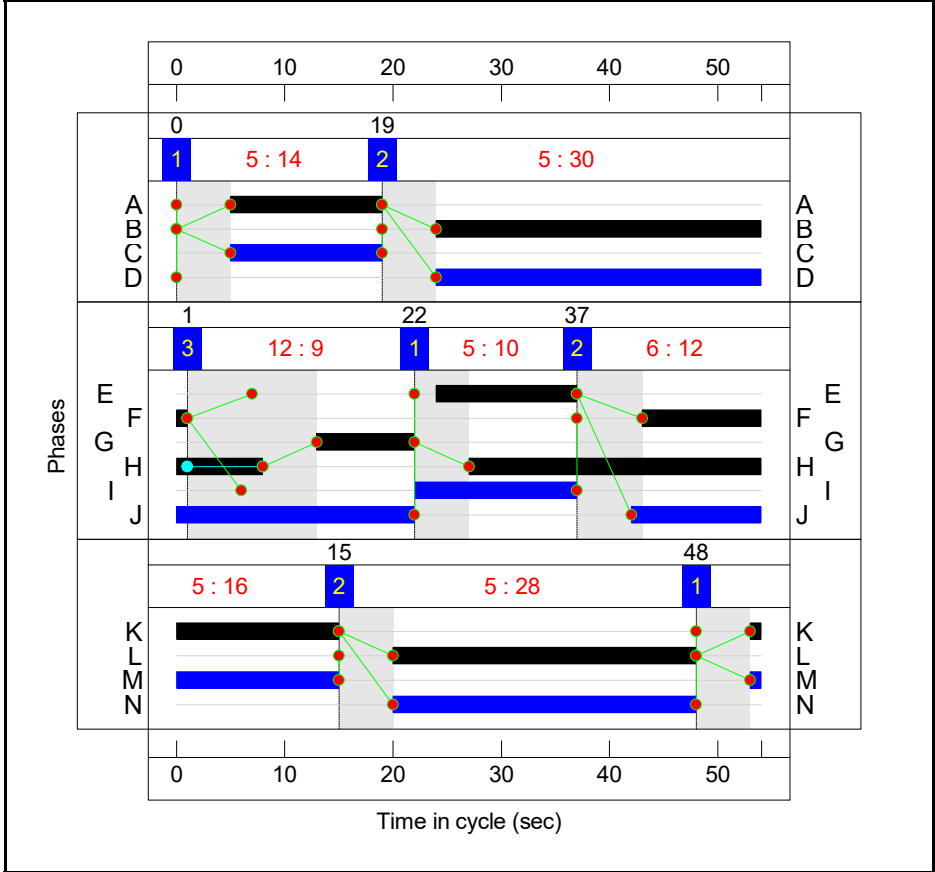
Stage Stream: 2

Stage	1	2	3
Duration	10	12	9
Change Point	22	37	1

Stage Stream: 3

Stage	1	2
Duration	16	28
Change Point	48	15

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: Gresford Interchange	-	-	N/A	-	-		-	-	-	-	-	-	89.6%
Gresford Interchange	-	-	N/A	-	-		-	-	-	-	-	-	89.6%
1/2+1/1	A483 SB Off-slip Left U-Turn	U	1	N/A	A		1	14	-	940	1900:1900	528+528	89.1 : 89.1%
1/3	A483 SB Off-slip Left	U	1	N/A	A		1	14	-	154	1900	528	29.2%
2/2+2/1	B5445 Ahead Left	O	N/A	N/A	-		-	-	-	331	Inf : Inf	284+284	61.9 : 54.5%
2/3	B5445 Ahead	O	N/A	N/A	-		-	-	-	176	Inf	284	61.9%
3/2+3/1	A5156 Ahead Left	U	2	N/A	E		1	13	-	708	1900:1900	493+493	71.9 : 71.9%
3/3	A5156 Ahead	U	2	N/A	E		1	13	-	354	1900	493	71.9%
4/2+4/1	A5152 Ahead Left	U	2	N/A	G		1	9	-	423	1900:1900	352+218	74.2 : 74.2%
4/3	A5152 Ahead	U	2	N/A	G		1	9	-	263	1900	352	74.7%
5/2+5/1	A483 NB Off-slip Left Ahead	U	3	N/A	K		1	16	-	625	1900:1900	598+163	82.1 : 82.1%
5/3	A483 NB Off-slip Ahead	U	3	N/A	K		1	16	-	490	1900	598	81.9%
6/1	Right Left	U	1	N/A	B		1	30	-	977	1900	1091	89.6%
6/2	Right	U	1	N/A	B		1	30	-	416	1900	1091	38.1%
6/3	Right	U	1	N/A	B		1	30	-	285	1900	1091	26.1%
7/1	Ahead	U	N/A	N/A	-		-	-	-	1123	Inf	Inf	0.0%
7/2	Ahead	U	N/A	N/A	-		-	-	-	710	Inf	Inf	0.0%
7/3	Right	U	N/A	N/A	-		-	-	-	372	Inf	Inf	0.0%
7/4	Right	U	N/A	N/A	-		-	-	-	243	Inf	Inf	0.0%
8/1	Ahead	U	2	N/A	F		1	12	-	212	1900	457	46.3%
8/2	Ahead	U	2	N/A	F		1	12	-	213	1900	457	46.6%

Full Input Data And Results

8/3	Ahead	U	2	N/A	F		1	12	-	167	1900	457	36.5%
8/4	Ahead	U	2	N/A	F		1	12	-	375	1900	457	82.0%
9/1	Ahead	U	2	N/A	H		1	35	-	485	1900	1267	38.3%
9/2	Right Ahead	U	2	N/A	H		1	35	-	681	1900	1267	53.8%
9/3	Right	U	2	N/A	H		1	35	-	402	1900	1267	31.7%
10/1	Ahead Right	U	3	N/A	L		1	28	-	325	1900	1020	31.9%
10/2	Right	U	3	N/A	L		1	28	-	529	1900	1020	51.8%
10/3	Right	U	3	N/A	L		1	28	-	665	1900	1020	65.2%
11/1		U	N/A	N/A	-		-	-	-	234	Inf	Inf	0.0%
11/2		U	N/A	N/A	-		-	-	-	597	Inf	Inf	0.0%
12/1		U	N/A	N/A	-		-	-	-	324	Inf	Inf	0.0%
13/1		U	N/A	N/A	-		-	-	-	1278	Inf	Inf	0.0%
13/2		U	N/A	N/A	-		-	-	-	710	Inf	Inf	0.0%
14/1		U	N/A	N/A	-		-	-	-	246	Inf	Inf	0.0%
14/2		U	N/A	N/A	-		-	-	-	213	Inf	Inf	0.0%
15/1		U	N/A	N/A	-		-	-	-	647	Inf	Inf	0.0%
15/2		U	N/A	N/A	-		-	-	-	88	Inf	Inf	0.0%
16/1+16/2	Blue Bell Ln Left Ahead	O	N/A	N/A	-		-	-	-	319	Inf : Inf	316+316	50.3 : 50.6%
17/1		U	N/A	N/A	-		-	-	-	395	Inf	Inf	0.0%
18/1	Ahead	U	N/A	N/A	-		-	-	-	64	Inf	Inf	0.0%
18/2	Right	U	N/A	N/A	-		-	-	-	1020	Inf	Inf	0.0%
18/3	Right	U	N/A	N/A	-		-	-	-	1155	Inf	Inf	0.0%
19/1+19/2	Industrial Park Access Ahead Left	O	N/A	N/A	-		-	-	-	23	Inf : Inf	214+214	5.6 : 5.1%
20/1		U	N/A	N/A	-		-	-	-	72	Inf	Inf	0.0%
21/1	Ahead	U	N/A	N/A	-		-	-	-	224	Inf	Inf	0.0%
21/2	Right Ahead	U	N/A	N/A	-		-	-	-	1572	Inf	Inf	0.0%
21/3	Right	U	N/A	N/A	-		-	-	-	890	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: Gresford Interchange	-	-	1522	0	0	30.0	26.4	0.0	56.5	-	-	-	-
Gresford Interchange	-	-	1522	0	0	30.0	26.4	0.0	56.5	-	-	-	-
1/2+1/1	940	940	-	-	-	4.9	3.8	-	8.7	33.3	6.7	3.8	10.5
1/3	154	154	-	-	-	0.7	0.2	-	0.9	20.2	1.8	0.2	2.0
2/2+2/1	331	331	662	0	0	0.4	0.7	-	1.1	11.5	1.1	0.7	1.8
2/3	176	176	176	0	0	0.2	0.8	-	1.0	20.5	1.1	0.8	1.9
3/2+3/1	708	708	-	-	-	3.6	1.3	-	4.8	24.6	4.8	1.3	6.1
3/3	354	354	-	-	-	1.8	1.3	-	3.0	31.0	4.8	1.3	6.1
4/2+4/1	423	423	-	-	-	2.4	1.4	-	3.8	32.3	3.7	1.4	5.1
4/3	263	263	-	-	-	1.5	1.4	-	3.0	40.4	3.7	1.4	5.2
5/2+5/1	625	625	-	-	-	2.8	2.2	-	5.1	29.1	6.7	2.2	8.9
5/3	490	490	-	-	-	2.3	2.2	-	4.5	33.1	6.7	2.2	8.8
6/1	977	977	-	-	-	2.1	4.0	-	6.1	22.4	12.4	4.0	16.4
6/2	416	416	-	-	-	0.3	0.3	-	0.6	5.3	2.8	0.3	3.1
6/3	285	285	-	-	-	0.3	0.2	-	0.4	5.5	1.8	0.2	2.0
7/1	1123	1123	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	710	710	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/3	372	372	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/4	243	243	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	212	212	-	-	-	0.8	0.4	-	1.2	20.6	2.8	0.4	3.3
8/2	213	213	-	-	-	0.8	0.4	-	1.2	20.7	2.8	0.4	3.3
8/3	167	167	-	-	-	0.7	0.3	-	1.0	21.8	1.9	0.3	2.2
8/4	375	375	-	-	-	2.3	2.2	-	4.5	42.8	5.3	2.2	7.5
9/1	485	485	-	-	-	0.0	0.3	-	0.3	2.3	0.0	0.3	0.3
9/2	681	681	-	-	-	0.0	0.6	-	0.6	3.1	0.0	0.6	0.6

Full Input Data And Results

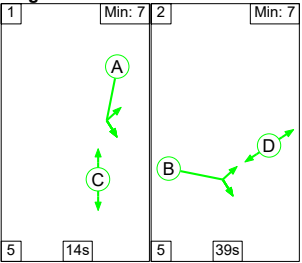
9/3	402	402	-	-	-	0.0	0.2	-	0.2	2.1	0.0	0.2	0.2
10/1	325	325	-	-	-	0.8	0.2	-	1.1	11.8	3.3	0.2	3.5
10/2	529	529	-	-	-	0.6	0.5	-	1.1	7.8	3.7	0.5	4.3
10/3	665	665	-	-	-	0.5	0.9	-	1.4	7.7	2.2	0.9	3.1
11/1	234	234	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/2	597	597	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	324	324	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	1278	1278	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/2	710	710	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/1	248	248	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/2	213	213	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
15/1	647	647	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
15/2	88	88	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
16/1+16/2	319	319	638	0	0	0.3	0.5	-	0.8	8.6	0.7	0.5	1.2
17/1	395	395	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/1	64	64	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/2	1020	1020	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/3	1155	1155	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
19/1+19/2	23	23	46	0	0	0.0	0.0	-	0.0	5.9	0.0	0.0	0.1
20/1	72	72	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
21/1	224	224	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
21/2	1572	1572	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
21/3	690	690	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 Stream: 1 PRC for Signalled Lanes (%): 0.5 C1 Stream: 2 PRC for Signalled Lanes (%): 9.8 C1 Stream: 3 PRC for Signalled Lanes (%): 9.6 PRC Over All Lanes (%): 0.5 Total Delay for Signalled Lanes (pcuHr): 16.70 Total Delay for Signalled Lanes (pcuHr): 23.89 Total Delay for Signalled Lanes (pcuHr): 13.20 Total Delay Over All Lanes (pcuHr): 56.46 Cycle Time (s): 54 Cycle Time (s): 54 Cycle Time (s): 54													

Full Input Data And Results

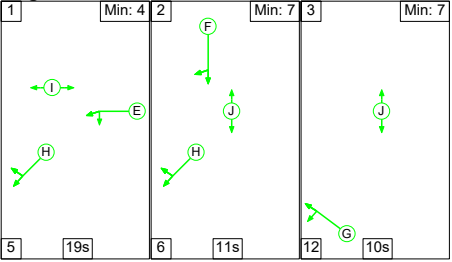
Scenario 2: 'PM Obs' (FG2: 'PM Obs', Plan 1: 'Staging Plan No. 1')

Stage Sequence Diagram

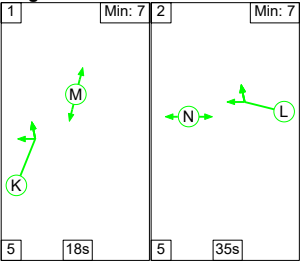
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	14	39
Change Point	0	19

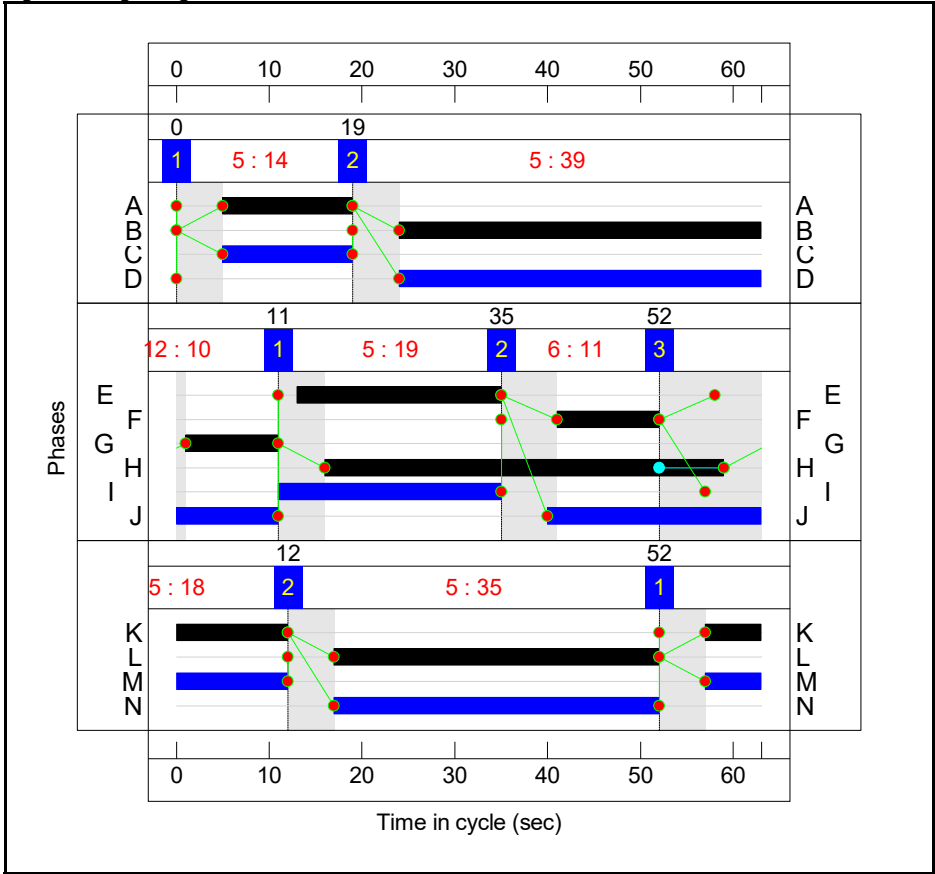
Stage Stream: 2

Stage	1	2	3
Duration	19	11	10
Change Point	11	35	52

Full Input Data And Results
Stage Stream: 3

Stage	1	2
Duration	18	35
Change Point	52	12

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: Gresford Interchange	-	-	N/A	-	-	-	-	-	-	-	-	-	80.1%
Gresford Interchange	-	-	N/A	-	-	-	-	-	-	-	-	-	80.1%
1/2+1/1	A483 SB Off-slip Left U-Turn	U	1	N/A	A	-	1	14	-	659	1900:1900	452+452	72.9 : 72.7%
1/3	A483 SB Off-slip Left	U	1	N/A	A	-	1	14	-	80	1900	452	17.7%
2/2+2/1	B5445 Ahead Left	O	N/A	N/A	-	-	-	-	-	232	Inf : Inf	482+341	28.2 : 28.2%
2/3	B5445 Ahead	O	N/A	N/A	-	-	-	-	-	135	Inf	482	28.0%
3/2+3/1	A5156 Ahead Left	U	2	N/A	E	-	1	22	-	1096	1900:1900	694+694	79.0 : 79.0%
3/3	A5156 Ahead	U	2	N/A	E	-	1	22	-	547	1900	694	78.9%
4/2+4/1	A5152 Ahead Left	U	2	N/A	G	-	1	10	-	385	1900:1900	332+196	72.9 : 72.9%
4/3	A5152 Ahead	U	2	N/A	G	-	1	10	-	243	1900	332	73.2%
5/2+5/1	A483 NB Off-slip Left Ahead	U	3	N/A	K	-	1	18	-	443	1900:1900	573+165	60.0 : 60.0%
5/3	A483 NB Off-slip Ahead	U	3	N/A	K	-	1	18	-	344	1900	573	60.0%
6/1	Right Left	U	1	N/A	B	-	1	39	-	920	1900	1206	76.3%
6/2	Right	U	1	N/A	B	-	1	39	-	223	1900	1206	18.5%
6/3	Right	U	1	N/A	B	-	1	39	-	327	1900	1206	27.1%
7/1	Ahead	U	N/A	N/A	-	-	-	-	-	731	Inf	Inf	0.0%
7/2	Ahead	U	N/A	N/A	-	-	-	-	-	335	Inf	Inf	0.0%
7/3	Right	U	N/A	N/A	-	-	-	-	-	481	Inf	Inf	0.0%
7/4	Right	U	N/A	N/A	-	-	-	-	-	144	Inf	Inf	0.0%
8/1	Ahead	U	2	N/A	F	-	1	11	-	288	1900	362	79.6%
8/2	Ahead	U	2	N/A	F	-	1	11	-	290	1900	362	80.1%

Full Input Data And Results

8/3	Ahead	U	2	N/A	F		1	11	-	67	1900	362	18.5%
8/4	Ahead	U	2	N/A	F		1	11	-	251	1900	362	69.4%
9/1	Ahead	U	2	N/A	H		1	43	-	548	1900	1327	41.3%
9/2	Right Ahead	U	2	N/A	H		1	43	-	774	1900	1327	58.3%
9/3	Right	U	2	N/A	H		1	43	-	572	1900	1327	43.1%
10/1	Ahead Right	U	3	N/A	L		1	35	-	368	1900	1086	33.9%
10/2	Right	U	3	N/A	L		1	35	-	503	1900	1086	46.3%
10/3	Right	U	3	N/A	L		1	35	-	815	1900	1086	75.1%
11/1		U	N/A	N/A	-		-	-	-	231	Inf	Inf	0.0%
11/2		U	N/A	N/A	-		-	-	-	659	Inf	Inf	0.0%
12/1		U	N/A	N/A	-		-	-	-	518	Inf	Inf	0.0%
13/1		U	N/A	N/A	-		-	-	-	827	Inf	Inf	0.0%
13/2		U	N/A	N/A	-		-	-	-	335	Inf	Inf	0.0%
14/1		U	N/A	N/A	-		-	-	-	355	Inf	Inf	0.0%
14/2		U	N/A	N/A	-		-	-	-	290	Inf	Inf	0.0%
15/1		U	N/A	N/A	-		-	-	-	691	Inf	Inf	0.0%
15/2		U	N/A	N/A	-		-	-	-	145	Inf	Inf	0.0%
16/1+16/2	Blue Bell Ln Left Ahead	O	N/A	N/A	-		-	-	-	277	Inf : Inf	360+360	38.6 : 38.3%
17/1		U	N/A	N/A	-		-	-	-	435	Inf	Inf	0.0%
18/1	Ahead	U	N/A	N/A	-		-	-	-	32	Inf	Inf	0.0%
18/2	Right	U	N/A	N/A	-		-	-	-	847	Inf	Inf	0.0%
18/3	Right	U	N/A	N/A	-		-	-	-	1159	Inf	Inf	0.0%
19/1+19/2	Industrial Park Access Ahead Left	O	N/A	N/A	-		-	-	-	87	Inf : Inf	268+268	16.1 : 16.4%
20/1		U	N/A	N/A	-		-	-	-	42	Inf	Inf	0.0%
21/1	Ahead	U	N/A	N/A	-		-	-	-	213	Inf	Inf	0.0%
21/2	Right Ahead	U	N/A	N/A	-		-	-	-	1554	Inf	Inf	0.0%
21/3	Right	U	N/A	N/A	-		-	-	-	506	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: Gresford Interchange	-	-	1327	0	0	30.2	20.5	0.0	50.7	-	-	-	-
Gresford Interchange	-	-	1327	0	0	30.2	20.5	0.0	50.7	-	-	-	-
1/2+1/1	659	659	-	-	-	4.1	1.3	-	5.4	29.4	5.3	1.3	6.6
1/3	80	80	-	-	-	0.4	0.1	-	0.5	23.9	1.1	0.1	1.2
2/2+2/1	232	232	464	0	0	0.1	0.2	-	0.3	4.6	0.5	0.2	0.7
2/3	135	135	135	0	0	0.1	0.2	-	0.3	6.8	0.5	0.2	0.7
3/2+3/1	1096	1096	-	-	-	5.4	1.9	-	7.3	24.0	8.5	1.9	10.4
3/3	547	547	-	-	-	2.7	1.8	-	4.5	29.8	8.5	1.8	10.3
4/2+4/1	385	385	-	-	-	2.6	1.3	-	3.9	36.5	4.0	1.3	5.3
4/3	243	243	-	-	-	1.7	1.3	-	3.0	44.3	4.0	1.3	5.3
5/2+5/1	443	443	-	-	-	2.2	0.7	-	3.0	24.3	5.1	0.7	5.8
5/3	344	344	-	-	-	1.8	0.7	-	2.5	26.6	5.1	0.7	5.8
6/1	920	920	-	-	-	1.8	1.6	-	3.3	13.1	10.6	1.6	12.2
6/2	223	223	-	-	-	0.2	0.1	-	0.3	4.9	1.7	0.1	1.8
6/3	327	327	-	-	-	0.5	0.2	-	0.7	7.6	4.2	0.2	4.4
7/1	731	731	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	335	335	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/3	481	481	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/4	144	144	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	288	288	-	-	-	1.3	1.9	-	3.1	39.0	4.9	1.9	6.8
8/2	290	290	-	-	-	1.3	1.9	-	3.2	39.7	4.9	1.9	6.9
8/3	67	67	-	-	-	0.3	0.1	-	0.5	24.7	0.9	0.1	1.0
8/4	251	251	-	-	-	1.6	1.1	-	2.7	38.7	4.1	1.1	5.2
9/1	548	548	-	-	-	0.0	0.4	-	0.4	2.3	0.0	0.4	0.4
9/2	774	774	-	-	-	0.0	0.7	-	0.7	3.3	0.0	0.7	0.7

Full Input Data And Results

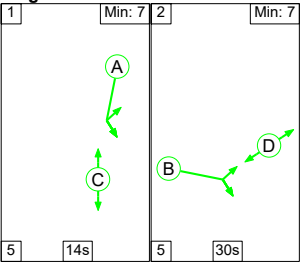
9/3	572	572	-	-	-	0.0	0.4	-	0.4	2.4	0.0	0.4	0.4
10/1	368	368	-	-	-	0.8	0.3	-	1.1	10.3	3.1	0.3	3.3
10/2	503	503	-	-	-	0.6	0.4	-	1.0	7.5	4.0	0.4	4.4
10/3	815	815	-	-	-	0.6	1.5	-	2.1	9.3	4.9	1.5	6.4
11/1	231	231	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/2	659	659	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	518	518	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	827	827	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/2	335	335	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/1	355	355	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/2	290	290	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
15/1	691	691	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
15/2	145	145	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
16/1+16/2	277	277	554	0	0	0.1	0.3	-	0.5	5.9	1.0	0.3	1.3
17/1	435	435	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/1	32	32	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/2	847	847	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/3	1159	1159	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
19/1+19/2	87	87	174	0	0	0.0	0.1	-	0.1	5.0	0.1	0.1	0.2
20/1	42	42	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
21/1	213	213	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
21/2	1554	1554	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
21/3	506	506	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 Stream: 1 PRC for Signalised Lanes (%): 18.0 C1 Stream: 2 PRC for Signalised Lanes (%): 12.3 C1 Stream: 3 PRC for Signalised Lanes (%): 19.9 PRC Over All Lanes (%): 12.3 Total Delay for Signalised Lanes (pcuHr): 10.24 Total Delay for Signalised Lanes (pcuHr): 29.63 Total Delay for Signalised Lanes (pcuHr): 9.73 Total Delay Over All Lanes (pcuHr): 50.72 Cycle Time (s): 63 Cycle Time (s): 63 Cycle Time (s): 63													

Full Input Data And Results

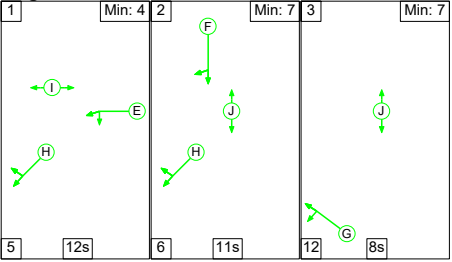
Scenario 3: 'AM Without 2027' (FG3: 'AM Without 2027', Plan 1: 'Staging Plan No. 1')

Stage Sequence Diagram

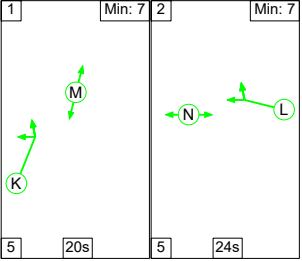
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	14	30
Change Point	0	19

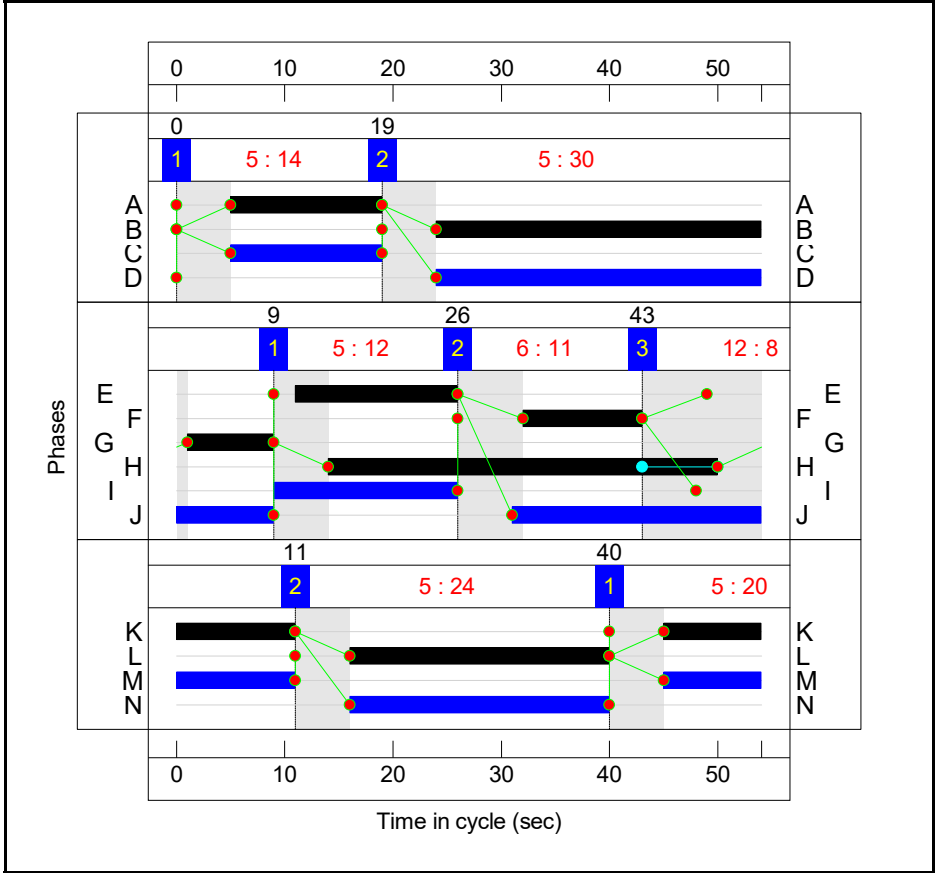
Stage Stream: 2

Stage	1	2	3
Duration	12	11	8
Change Point	9	26	43

Full Input Data And Results
Stage Stream: 3

Stage	1	2
Duration	20	24
Change Point	40	11

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: Gresford Interchange	-	-	N/A	-	-	-	-	-	-	-	-	-	102.1%
Gresford Interchange	-	-	N/A	-	-	-	-	-	-	-	-	-	102.1%
1/2+1/1	A483 SB Off-slip Left U-Turn	U	1	N/A	A	-	1	14	-	1045	1900:1900	528+528	99.1 : 98.9%
1/3	A483 SB Off-slip Left	U	1	N/A	A	-	1	14	-	156	1900	528	29.6%
2/2+2/1	B5445 Ahead Left	O	N/A	N/A	-	-	-	-	-	335	Inf : Inf	229+229	77.3 : 69.0%
2/3	B5445 Ahead	O	N/A	N/A	-	-	-	-	-	177	Inf	229	77.3%
3/2+3/1	A5156 Ahead Left	U	2	N/A	E	-	1	15	-	896	1900:1900	563+563	79.6 : 79.6%
3/3	A5156 Ahead	U	2	N/A	E	-	1	15	-	449	1900	563	79.8%
4/2+4/1	A5152 Ahead Left	U	2	N/A	G	-	1	8	-	428	1900:1900	317+195	83.7 : 83.7%
4/3	A5152 Ahead	U	2	N/A	G	-	1	8	-	265	1900	317	83.7%
5/2+5/1	A483 NB Off-slip Left Ahead	U	3	N/A	K	-	1	20	-	724	1900:1900	739+169	79.7 : 79.7%
5/3	A483 NB Off-slip Ahead	U	3	N/A	K	-	1	20	-	588	1900	739	79.6%
6/1	Right Left	U	1	N/A	B	-	1	30	-	1114	1900	1091	102.1%
6/2	Right	U	1	N/A	B	-	1	30	-	534	1900	1091	49.0%
6/3	Right	U	1	N/A	B	-	1	30	-	290	1900	1091	26.6%
7/1	Ahead	U	N/A	N/A	-	-	-	-	-	1300	Inf	Inf	0.0%
7/2	Ahead	U	N/A	N/A	-	-	-	-	-	880	Inf	Inf	0.0%
7/3	Right	U	N/A	N/A	-	-	-	-	-	375	Inf	Inf	0.0%
7/4	Right	U	N/A	N/A	-	-	-	-	-	248	Inf	Inf	0.0%
8/1	Ahead	U	2	N/A	F	-	1	11	-	213	1900	422	50.4%
8/2	Ahead	U	2	N/A	F	-	1	11	-	215	1900	422	50.9%

Full Input Data And Results

8/3	Ahead	U	2	N/A	F		1	11	-	170	1900	422	40.3%
8/4	Ahead	U	2	N/A	F		1	11	-	379	1900	422	89.8%
9/1	Ahead	U	2	N/A	H		1	36	-	582	1900	1302	44.7%
9/2	Right Ahead	U	2	N/A	H		1	36	-	779	1900	1302	59.8%
9/3	Right	U	2	N/A	H		1	36	-	497	1900	1302	38.2%
10/1	Ahead Right	U	3	N/A	L		1	24	-	358	1900	880	40.7%
10/2	Right	U	3	N/A	L		1	24	-	537	1900	880	61.0%
10/3	Right	U	3	N/A	L		1	24	-	762	1900	880	86.6%
11/1		U	N/A	N/A	-		-	-	-	240	Inf	Inf	0.0%
11/2		U	N/A	N/A	-		-	-	-	683	Inf	Inf	0.0%
12/1		U	N/A	N/A	-		-	-	-	336	Inf	Inf	0.0%
13/1		U	N/A	N/A	-		-	-	-	1458	Inf	Inf	0.0%
13/2		U	N/A	N/A	-		-	-	-	880	Inf	Inf	0.0%
14/1		U	N/A	N/A	-		-	-	-	249	Inf	Inf	0.0%
14/2		U	N/A	N/A	-		-	-	-	215	Inf	Inf	0.0%
15/1		U	N/A	N/A	-		-	-	-	745	Inf	Inf	0.0%
15/2		U	N/A	N/A	-		-	-	-	149	Inf	Inf	0.0%
16/1+16/2	Blue Bell Ln Left Ahead	O	N/A	N/A	-		-	-	-	369	Inf : Inf	242+242	76.0 : 76.4%
17/1		U	N/A	N/A	-		-	-	-	427	Inf	Inf	0.0%
18/1	Ahead	U	N/A	N/A	-		-	-	-	66	Inf	Inf	0.0%
18/2	Right	U	N/A	N/A	-		-	-	-	1126	Inf	Inf	0.0%
18/3	Right	U	N/A	N/A	-		-	-	-	1350	Inf	Inf	0.0%
19/1+19/2	Industrial Park Access Ahead Left	O	N/A	N/A	-		-	-	-	24	Inf : Inf	124+124	9.7 : 9.7%
20/1		U	N/A	N/A	-		-	-	-	74	Inf	Inf	0.0%
21/1	Ahead	U	N/A	N/A	-		-	-	-	230	Inf	Inf	0.0%
21/2	Right Ahead	U	N/A	N/A	-		-	-	-	1795	Inf	Inf	0.0%
21/3	Right	U	N/A	N/A	-		-	-	-	812	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: Gresford Interchange	-	-	1633	0	0	37.0	65.8	0.0	102.9	-	-	-	-
Gresford Interchange	-	-	1633	0	0	37.0	65.8	0.0	102.9	-	-	-	-
1/2+1/1	1045	1045	-	-	-	5.6	13.7	-	19.4	66.8	7.7	13.7	21.4
1/3	156	156	-	-	-	0.7	0.2	-	0.9	20.2	1.8	0.2	2.0
2/2+2/1	335	335	670	0	0	0.6	1.3	-	2.0	21.3	2.4	1.3	3.7
2/3	177	177	177	0	0	0.4	1.6	-	2.0	40.3	2.4	1.6	4.0
3/2+3/1	896	896	-	-	-	4.4	1.9	-	6.3	25.2	6.1	1.9	8.0
3/3	449	449	-	-	-	2.2	1.9	-	4.1	32.8	6.1	1.9	8.0
4/2+4/1	428	428	-	-	-	2.5	2.4	-	5.0	41.7	3.8	2.4	6.3
4/3	265	265	-	-	-	1.6	2.4	-	4.0	53.7	3.8	2.4	6.2
5/2+5/1	724	724	-	-	-	2.8	1.9	-	4.7	23.5	7.7	1.9	9.6
5/3	588	588	-	-	-	2.4	1.9	-	4.3	26.2	7.7	1.9	9.6
6/1	1114	1091	-	-	-	4.2	23.5	-	27.7	89.6	17.1	23.5	40.5
6/2	534	534	-	-	-	1.0	0.5	-	1.5	10.0	6.2	0.5	6.7
6/3	290	290	-	-	-	0.5	0.2	-	0.7	8.9	3.2	0.2	3.4
7/1	1284	1284	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	880	880	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/3	375	375	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/4	248	248	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	213	213	-	-	-	0.6	0.5	-	1.1	19.4	2.0	0.5	2.5
8/2	215	215	-	-	-	0.6	0.5	-	1.2	19.5	2.0	0.5	2.6
8/3	170	170	-	-	-	0.8	0.3	-	1.2	24.6	1.9	0.3	2.3
8/4	379	379	-	-	-	2.0	3.7	-	5.7	54.4	5.6	3.7	9.4
9/1	582	582	-	-	-	0.0	0.4	-	0.4	2.5	0.0	0.4	0.4
9/2	779	779	-	-	-	0.0	0.7	-	0.8	3.5	0.1	0.7	0.8

Full Input Data And Results

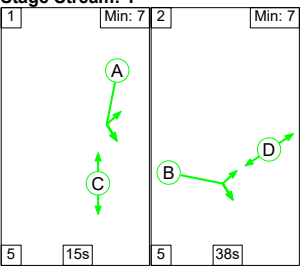
9/3	497	497	-	-	-	0.0	0.3	-	0.3	2.3	0.0	0.3	0.3
10/1	358	358	-	-	-	1.1	0.3	-	1.5	14.8	3.5	0.3	3.8
10/2	537	537	-	-	-	1.1	0.8	-	1.9	12.6	5.3	0.8	6.1
10/3	762	762	-	-	-	1.0	3.1	-	4.0	19.0	7.4	3.1	10.5
11/1	240	240	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/2	683	683	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	329	329	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	1442	1442	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/2	880	880	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/1	249	249	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/2	215	215	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
15/1	745	745	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
15/2	149	149	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
16/1+16/2	369	369	738	0	0	0.7	1.6	-	2.3	22.2	1.3	1.6	2.8
17/1	427	427	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/1	66	66	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/2	1126	1126	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/3	1350	1350	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
19/1+19/2	24	24	48	0	0	0.0	0.1	-	0.1	10.9	0.0	0.1	0.1
20/1	74	74	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
21/1	230	230	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
21/2	1795	1795	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
21/3	812	812	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
			C1 Stream: 1 PRC for Signalised Lanes (%):	-13.5	Total Delay for Signalised Lanes (pcuHr):			50.19	Cycle Time (s):			54	
			C1 Stream: 2 PRC for Signalised Lanes (%):	0.3	Total Delay for Signalised Lanes (pcuHr):			29.96	Cycle Time (s):			54	
			C1 Stream: 3 PRC for Signalised Lanes (%):	3.9	Total Delay for Signalised Lanes (pcuHr):			16.40	Cycle Time (s):			54	
			PRC Over All Lanes (%):		-13.5	Total Delay Over All Lanes (pcuHr):			102.85				

Full Input Data And Results

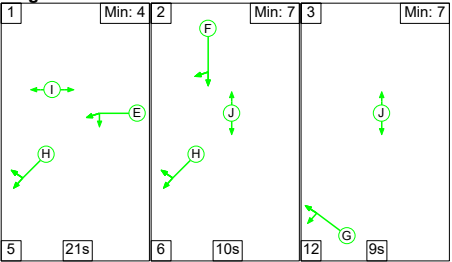
Scenario 4: 'PM Without 2027' (FG4: 'PM Without 2027', Plan 1: 'Staging Plan No. 1')

Stage Sequence Diagram

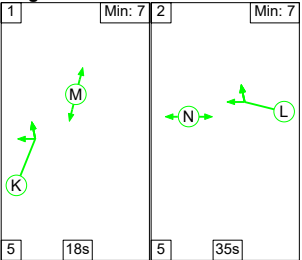
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	15	38
Change Point	0	20

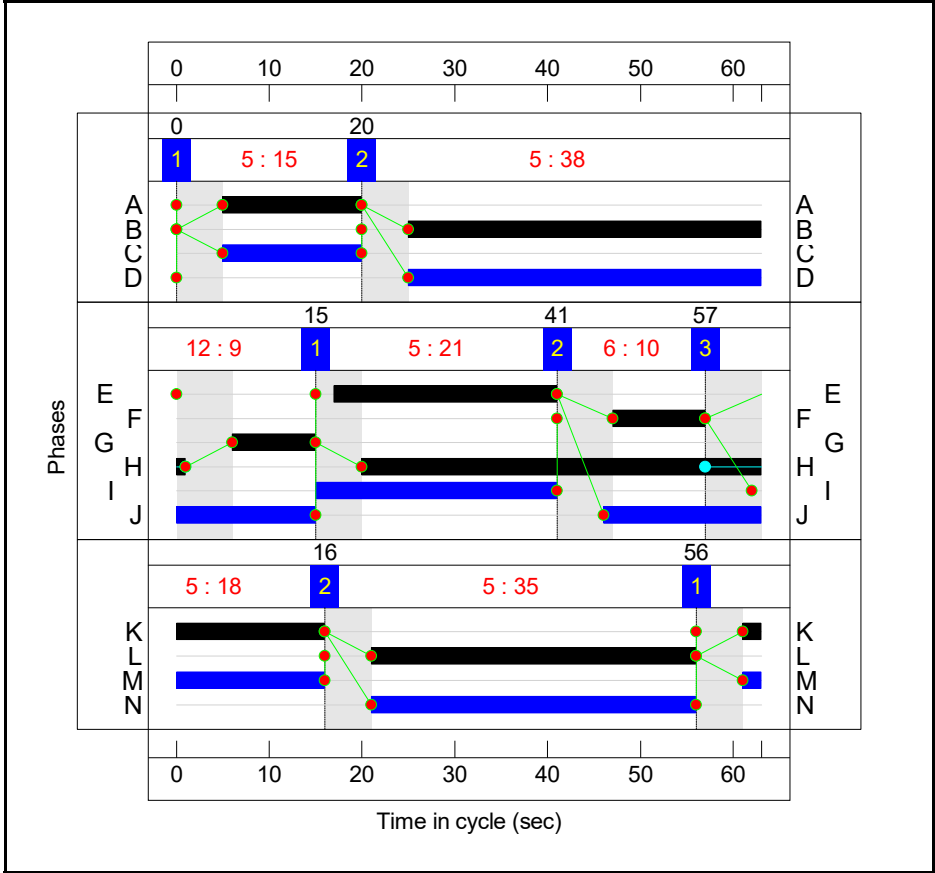
Stage Stream: 2

Stage	1	2	3
Duration	21	10	9
Change Point	15	41	57

Full Input Data And Results
Stage Stream: 3

Stage	1	2
Duration	18	35
Change Point	56	16

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: Gresford Interchange	-	-	N/A	-	-		-	-	-	-	-	-	88.5%
Gresford Interchange	-	-	N/A	-	-		-	-	-	-	-	-	88.5%
1/2+1/1	A483 SB Off-slip Left U-Turn	U	1	N/A	A		1	15	-	762	1900:1900	483+483	79.0 : 79.0%
1/3	A483 SB Off-slip Left	U	1	N/A	A		1	15	-	81	1900	483	16.8%
2/2+2/1	B5445 Ahead Left	O	N/A	N/A	-		-	-	-	238	Inf : Inf	396+322	34.3 : 31.7%
2/3	B5445 Ahead	O	N/A	N/A	-		-	-	-	135	Inf	396	34.1%
3/2+3/1	A5156 Ahead Left	U	2	N/A	E		1	24	-	1332	1900:1900	754+754	88.5 : 88.2%
3/3	A5156 Ahead	U	2	N/A	E		1	24	-	664	1900	754	88.1%
4/2+4/1	A5152 Ahead Left	U	2	N/A	G		1	9	-	393	1900:1900	302+174	82.6 : 82.6%
4/3	A5152 Ahead	U	2	N/A	G		1	9	-	249	1900	302	82.6%
5/2+5/1	A483 NB Off-slip Left Ahead	U	3	N/A	K		1	18	-	519	1900:1900	573+137	73.1 : 73.1%
5/3	A483 NB Off-slip Ahead	U	3	N/A	K		1	18	-	420	1900	573	73.3%
6/1	Right Left	U	1	N/A	B		1	38	-	1030	1900	1176	87.6%
6/2	Right	U	1	N/A	B		1	38	-	309	1900	1176	26.3%
6/3	Right	U	1	N/A	B		1	38	-	328	1900	1176	27.9%
7/1	Ahead	U	N/A	N/A	-		-	-	-	885	Inf	Inf	0.0%
7/2	Ahead	U	N/A	N/A	-		-	-	-	471	Inf	Inf	0.0%
7/3	Right	U	N/A	N/A	-		-	-	-	483	Inf	Inf	0.0%
7/4	Right	U	N/A	N/A	-		-	-	-	145	Inf	Inf	0.0%
8/1	Ahead	U	2	N/A	F		1	10	-	289	1900	332	87.1%
8/2	Ahead	U	2	N/A	F		1	10	-	291	1900	332	87.7%

Full Input Data And Results

8/3	Ahead	U	2	N/A	F		1	10	-	67	1900	332	20.2%
8/4	Ahead	U	2	N/A	F		1	10	-	252	1900	332	76.0%
9/1	Ahead	U	2	N/A	H		1	44	-	665	1900	1357	49.0%
9/2	Right Ahead	U	2	N/A	H		1	44	-	894	1900	1357	65.9%
9/3	Right	U	2	N/A	H		1	44	-	689	1900	1357	50.8%
10/1	Ahead Right	U	3	N/A	L		1	35	-	415	1900	1086	38.2%
10/2	Right	U	3	N/A	L		1	35	-	499	1900	1086	46.0%
10/3	Right	U	3	N/A	L		1	35	-	938	1900	1086	86.4%
11/1		U	N/A	N/A	-		-	-	-	232	Inf	Inf	0.0%
11/2		U	N/A	N/A	-		-	-	-	759	Inf	Inf	0.0%
12/1		U	N/A	N/A	-		-	-	-	526	Inf	Inf	0.0%
13/1		U	N/A	N/A	-		-	-	-	987	Inf	Inf	0.0%
13/2		U	N/A	N/A	-		-	-	-	471	Inf	Inf	0.0%
14/1		U	N/A	N/A	-		-	-	-	356	Inf	Inf	0.0%
14/2		U	N/A	N/A	-		-	-	-	291	Inf	Inf	0.0%
15/1		U	N/A	N/A	-		-	-	-	809	Inf	Inf	0.0%
15/2		U	N/A	N/A	-		-	-	-	229	Inf	Inf	0.0%
16/1+16/2	Blue Bell Ln Left Ahead	O	N/A	N/A	-		-	-	-	305	Inf : Inf	284+284	53.8 : 53.5%
17/1		U	N/A	N/A	-		-	-	-	483	Inf	Inf	0.0%
18/1	Ahead	U	N/A	N/A	-		-	-	-	32	Inf	Inf	0.0%
18/2	Right	U	N/A	N/A	-		-	-	-	918	Inf	Inf	0.0%
18/3	Right	U	N/A	N/A	-		-	-	-	1358	Inf	Inf	0.0%
19/1+19/2	Industrial Park Access Ahead Left	O	N/A	N/A	-		-	-	-	87	Inf : Inf	182+182	23.6 : 24.2%
20/1		U	N/A	N/A	-		-	-	-	42	Inf	Inf	0.0%
21/1	Ahead	U	N/A	N/A	-		-	-	-	214	Inf	Inf	0.0%
21/2	Right Ahead	U	N/A	N/A	-		-	-	-	1764	Inf	Inf	0.0%
21/3	Right	U	N/A	N/A	-		-	-	-	593	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: Gresford Interchange	-	-	1395	0	0	35.2	34.6	0.0	69.8	-	-	-	-
Gresford Interchange	-	-	1395	0	0	35.2	34.6	0.0	69.8	-	-	-	-
1/2+1/1	762	762	-	-	-	4.6	1.8	-	6.5	30.6	6.1	1.8	8.0
1/3	81	81	-	-	-	0.4	0.1	-	0.5	22.8	1.1	0.1	1.2
2/2+2/1	238	238	476	0	0	0.1	0.2	-	0.4	5.6	0.6	0.2	0.8
2/3	135	135	135	0	0	0.1	0.3	-	0.3	8.8	0.6	0.3	0.8
3/2+3/1	1332	1332	-	-	-	6.5	3.6	-	10.2	27.5	10.7	3.6	14.4
3/3	664	664	-	-	-	3.3	3.4	-	6.7	36.2	10.7	3.4	14.1
4/2+4/1	393	393	-	-	-	2.7	2.2	-	5.0	45.7	4.2	2.2	6.4
4/3	249	249	-	-	-	1.8	2.2	-	4.0	57.3	4.2	2.2	6.3
5/2+5/1	519	519	-	-	-	2.7	1.3	-	4.1	28.4	6.5	1.3	7.9
5/3	420	420	-	-	-	2.3	1.3	-	3.7	31.3	6.5	1.3	7.9
6/1	1030	1030	-	-	-	2.5	3.4	-	5.9	20.7	15.5	3.4	18.8
6/2	309	309	-	-	-	0.2	0.2	-	0.4	4.5	2.3	0.2	2.4
6/3	328	328	-	-	-	0.3	0.2	-	0.5	5.9	3.3	0.2	3.5
7/1	885	885	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	471	471	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/3	483	483	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/4	145	145	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	289	289	-	-	-	1.5	3.0	-	4.5	56.1	5.0	3.0	8.0
8/2	291	291	-	-	-	1.5	3.1	-	4.6	57.5	5.0	3.1	8.1
8/3	67	67	-	-	-	0.3	0.1	-	0.5	25.3	0.9	0.1	1.1
8/4	252	252	-	-	-	1.7	1.5	-	3.3	46.7	4.3	1.5	5.8
9/1	665	665	-	-	-	0.0	0.5	-	0.5	2.6	0.0	0.5	0.5
9/2	894	894	-	-	-	0.0	1.0	-	1.0	3.9	0.0	1.0	1.0

Full Input Data And Results

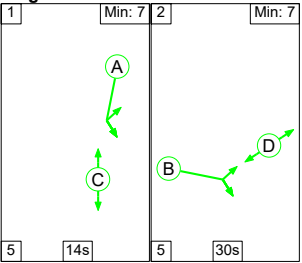
9/3	689	689	-	-	-	0.0	0.5	-	0.5	2.7	0.0	0.5	0.5
10/1	415	415	-	-	-	0.8	0.3	-	1.1	9.5	3.2	0.3	3.5
10/2	499	499	-	-	-	0.6	0.4	-	1.0	7.4	4.2	0.4	4.7
10/3	938	938	-	-	-	0.7	3.0	-	3.7	14.2	5.5	3.0	8.5
11/1	232	232	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/2	759	759	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	526	526	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	987	987	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/2	471	471	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/1	356	356	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/2	291	291	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
15/1	809	809	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
15/2	229	229	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
16/1+16/2	305	305	610	0	0	0.3	0.6	-	0.9	10.2	1.3	0.6	1.9
17/1	483	483	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/1	32	32	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/2	918	918	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/3	1358	1358	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
19/1+19/2	87	87	174	0	0	0.0	0.2	-	0.2	8.2	0.1	0.2	0.3
20/1	42	42	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
21/1	214	214	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
21/2	1764	1764	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
21/3	593	593	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 Stream: 1 PRC for Signalled Lanes (%): 2.8 C1 Stream: 2 PRC for Signalled Lanes (%): 1.7 C1 Stream: 3 PRC for Signalled Lanes (%): 4.2 PRC Over All Lanes (%): 1.7 Total Delay for Signalled Lanes (pcuHr): 13.83 Total Delay for Signalled Lanes (pcuHr): 40.85 Total Delay for Signalled Lanes (pcuHr): 13.57 Total Delay Over All Lanes (pcuHr): 68.81 Cycle Time (s): 63 Cycle Time (s): 63 Cycle Time (s): 63													

Full Input Data And Results

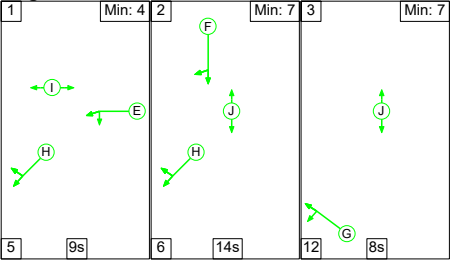
Scenario 5: 'AM Without 2036' (FG5: 'AM Without 2036', Plan 1: 'Staging Plan No. 1')

Stage Sequence Diagram

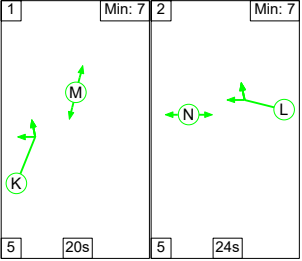
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	14	30
Change Point	0	19

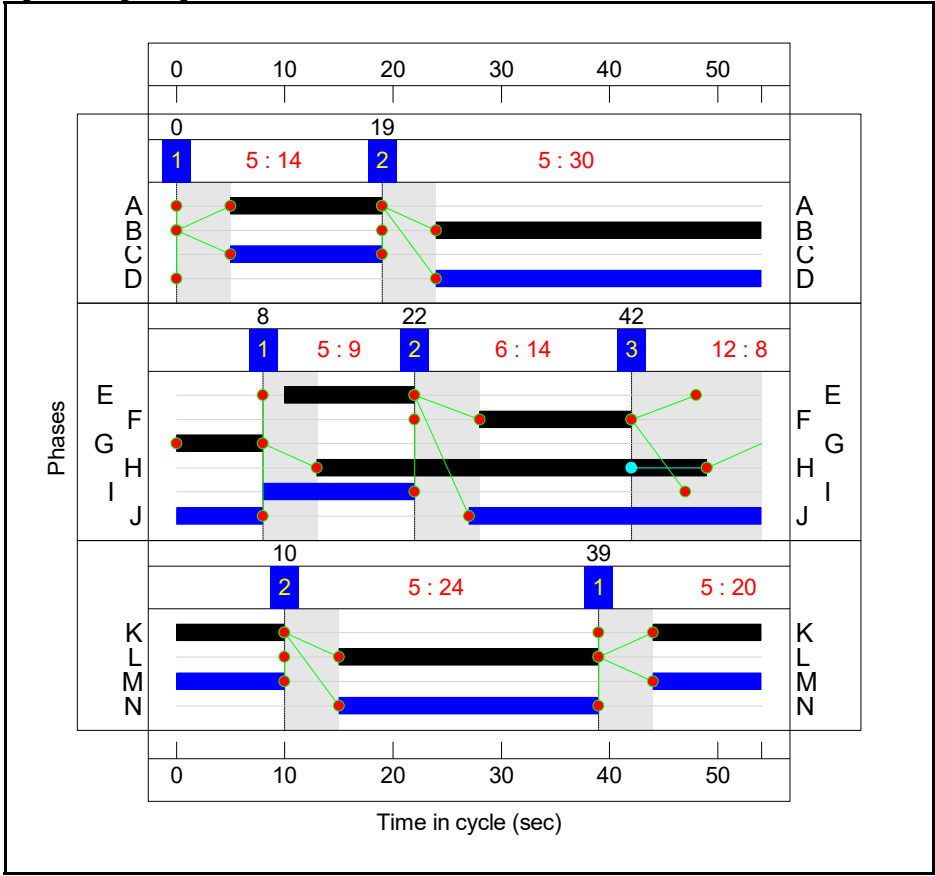
Stage Stream: 2

Stage	1	2	3
Duration	9	14	8
Change Point	8	22	42

Full Input Data And Results
Stage Stream: 3

Stage	1	2
Duration	20	24
Change Point	39	10

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: Gresford Interchange	-	-	N/A	-	-		-	-	-	-	-	-	105.3%
Gresford Interchange	-	-	N/A	-	-		-	-	-	-	-	-	105.3%
1/2+1/1	A483 SB Off-slip Left U-Turn	U	1	N/A	A		1	14	-	1081	1900:1900	528+528	102.5 : 102.3%
1/3	A483 SB Off-slip Left	U	1	N/A	A		1	14	-	161	1900	528	30.5%
2/2+2/1	B5445 Ahead Left	O	N/A	N/A	-		-	-	-	347	Inf : Inf	220+220	83.3 : 74.7%
2/3	B5445 Ahead	O	N/A	N/A	-		-	-	-	184	Inf	220	83.8%
3/2+3/1	A5156 Ahead Left	U	2	N/A	E		1	12	-	924	1900:1900	457+457	101.0 : 101.0%
3/3	A5156 Ahead	U	2	N/A	E		1	12	-	461	1900	457	100.8%
4/2+4/1	A5152 Ahead Left	U	2	N/A	G		1	8	-	443	1900:1900	317+195	86.5 : 86.5%
4/3	A5152 Ahead	U	2	N/A	G		1	8	-	275	1900	317	86.8%
5/2+5/1	A483 NB Off-slip Left Ahead	U	3	N/A	K		1	20	-	746	1900:1900	739+171	82.0 : 82.0%
5/3	A483 NB Off-slip Ahead	U	3	N/A	K		1	20	-	607	1900	739	82.2%
6/1	Right Left	U	1	N/A	B		1	30	-	1150	1900	1091	105.3%
6/2	Right	U	1	N/A	B		1	30	-	550	1900	1091	50.4%
6/3	Right	U	1	N/A	B		1	30	-	300	1900	1091	27.5%
7/1	Ahead	U	N/A	N/A	-		-	-	-	1342	Inf	Inf	0.0%
7/2	Ahead	U	N/A	N/A	-		-	-	-	907	Inf	Inf	0.0%
7/3	Right	U	N/A	N/A	-		-	-	-	389	Inf	Inf	0.0%
7/4	Right	U	N/A	N/A	-		-	-	-	256	Inf	Inf	0.0%
8/1	Ahead	U	2	N/A	F		1	14	-	221	1900	528	41.4%
8/2	Ahead	U	2	N/A	F		1	14	-	223	1900	528	41.8%

Full Input Data And Results

8/3	Ahead	U	2	N/A	F		1	14	-	175	1900	528	33.2%
8/4	Ahead	U	2	N/A	F		1	14	-	393	1900	528	74.5%
9/1	Ahead	U	2	N/A	H		1	36	-	600	1900	1302	45.8%
9/2	Right Ahead	U	2	N/A	H		1	36	-	805	1900	1302	61.5%
9/3	Right	U	2	N/A	H		1	36	-	511	1900	1302	39.0%
10/1	Ahead Right	U	3	N/A	L		1	24	-	369	1900	880	41.8%
10/2	Right	U	3	N/A	L		1	24	-	557	1900	880	63.1%
10/3	Right	U	3	N/A	L		1	24	-	786	1900	880	88.9%
11/1		U	N/A	N/A	-		-	-	-	248	Inf	Inf	0.0%
11/2		U	N/A	N/A	-		-	-	-	704	Inf	Inf	0.0%
12/1		U	N/A	N/A	-		-	-	-	348	Inf	Inf	0.0%
13/1		U	N/A	N/A	-		-	-	-	1506	Inf	Inf	0.0%
13/2		U	N/A	N/A	-		-	-	-	907	Inf	Inf	0.0%
14/1		U	N/A	N/A	-		-	-	-	258	Inf	Inf	0.0%
14/2		U	N/A	N/A	-		-	-	-	223	Inf	Inf	0.0%
15/1		U	N/A	N/A	-		-	-	-	769	Inf	Inf	0.0%
15/2		U	N/A	N/A	-		-	-	-	153	Inf	Inf	0.0%
16/1+16/2	Blue Bell Ln Left Ahead	O	N/A	N/A	-		-	-	-	380	Inf : Inf	222+222	85.5 : 85.5%
17/1		U	N/A	N/A	-		-	-	-	440	Inf	Inf	0.0%
18/1	Ahead	U	N/A	N/A	-		-	-	-	69	Inf	Inf	0.0%
18/2	Right	U	N/A	N/A	-		-	-	-	1163	Inf	Inf	0.0%
18/3	Right	U	N/A	N/A	-		-	-	-	1393	Inf	Inf	0.0%
19/1+19/2	Industrial Park Access Ahead Left	O	N/A	N/A	-		-	-	-	24	Inf : Inf	102+102	11.8 : 11.8%
20/1		U	N/A	N/A	-		-	-	-	77	Inf	Inf	0.0%
21/1	Ahead	U	N/A	N/A	-		-	-	-	238	Inf	Inf	0.0%
21/2	Right Ahead	U	N/A	N/A	-		-	-	-	1852	Inf	Inf	0.0%
21/3	Right	U	N/A	N/A	-		-	-	-	838	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: Gresford Interchange	-	-	1686	0	0	41.8	117.2	0.0	159.0	-	-	-	-
Gresford Interchange	-	-	1686	0	0	41.8	117.2	0.0	159.0	-	-	-	-
1/2+1/1	1081	1056	-	-	-	6.5	24.0	-	30.5	101.6	8.3	24.0	32.3
1/3	161	161	-	-	-	0.7	0.2	-	0.9	20.3	1.9	0.2	2.1
2/2+2/1	347	347	694	0	0	0.8	1.8	-	2.6	27.0	2.5	1.8	4.4
2/3	184	184	184	0	0	0.5	2.3	-	2.8	53.8	2.6	2.3	4.8
3/2+3/1	924	915	-	-	-	5.5	17.7	-	23.2	90.2	7.0	17.7	24.7
3/3	461	457	-	-	-	2.7	11.7	-	14.4	112.3	7.0	11.7	18.6
4/2+4/1	443	443	-	-	-	2.6	3.0	-	5.6	45.5	4.0	3.0	6.9
4/3	275	275	-	-	-	1.7	2.9	-	4.6	59.9	4.0	2.9	6.9
5/2+5/1	746	746	-	-	-	2.9	2.2	-	5.1	24.8	8.1	2.2	10.3
5/3	607	607	-	-	-	2.5	2.2	-	4.7	28.0	8.1	2.2	10.3
6/1	1149	1091	-	-	-	5.6	36.9	-	42.5	133.2	18.4	36.9	55.3
6/2	550	550	-	-	-	1.1	0.5	-	1.6	10.7	6.5	0.5	7.0
6/3	300	300	-	-	-	0.6	0.2	-	0.8	9.5	3.4	0.2	3.6
7/1	1287	1287	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	898	898	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/3	385	385	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/4	256	256	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	219	219	-	-	-	0.6	0.4	-	1.0	15.7	1.9	0.4	2.3
8/2	221	221	-	-	-	0.6	0.4	-	1.0	15.8	2.0	0.4	2.3
8/3	175	175	-	-	-	0.7	0.2	-	1.0	20.4	1.7	0.2	1.9
8/4	393	393	-	-	-	1.7	1.4	-	3.1	28.6	5.6	1.4	7.0
9/1	596	596	-	-	-	0.0	0.4	-	0.4	2.6	0.0	0.4	0.4
9/2	800	800	-	-	-	0.0	0.8	-	0.8	3.6	0.0	0.8	0.8

Full Input Data And Results

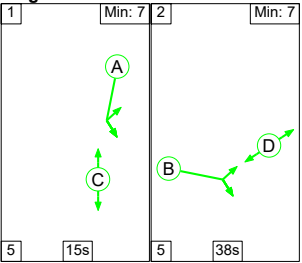
9/3	507	507	-	-	-	0.0	0.3	-	0.3	2.3	0.0	0.3	0.3	
10/1	368	368	-	-	-	1.3	0.4	-	1.7	16.3	3.6	0.4	3.9	
10/2	555	555	-	-	-	1.2	0.8	-	2.1	13.4	5.4	0.8	6.3	
10/3	782	782	-	-	-	1.0	3.7	-	4.8	21.9	10.1	3.7	13.8	
11/1	247	247	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
11/2	700	700	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
12/1	331	331	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
13/1	1451	1451	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
13/2	898	898	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
14/1	255	255	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
14/2	221	221	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
15/1	765	765	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
15/2	152	152	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
16/1+16/2	380	380	760	0	0	0.8	2.7	-	3.5	33.6	1.4	2.7	4.1	
17/1	439	439	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
18/1	69	69	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
18/2	1161	1161	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
18/3	1389	1389	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
19/1+19/2	24	24	48	0	0	0.0	0.1	-	0.1	13.5	0.1	0.1	0.1	
20/1	77	77	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
21/1	237	237	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
21/2	1847	1847	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
21/3	838	838	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
			C1	Stream: 1 PRC for Signalised Lanes (%):		-17.0	Total Delay for Signalised Lanes (pcuHr):			76.37	Cycle Time (s):			54
			C1	Stream: 2 PRC for Signalised Lanes (%):		-12.2	Total Delay for Signalised Lanes (pcuHr):			55.29	Cycle Time (s):			54
			C1	Stream: 3 PRC for Signalised Lanes (%):		1.2	Total Delay for Signalised Lanes (pcuHr):			18.35	Cycle Time (s):			54
			PRC Over All Lanes (%):				-17.0	Total Delay Over All Lanes (pcuHr):			159.00			

Full Input Data And Results

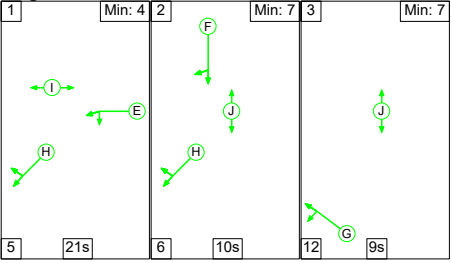
Scenario 6: 'PM Without 2036' (FG6: 'PM Without 2036', Plan 1: 'Staging Plan No. 1')

Stage Sequence Diagram

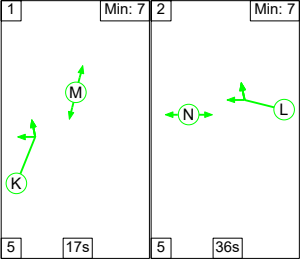
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	15	38
Change Point	0	20

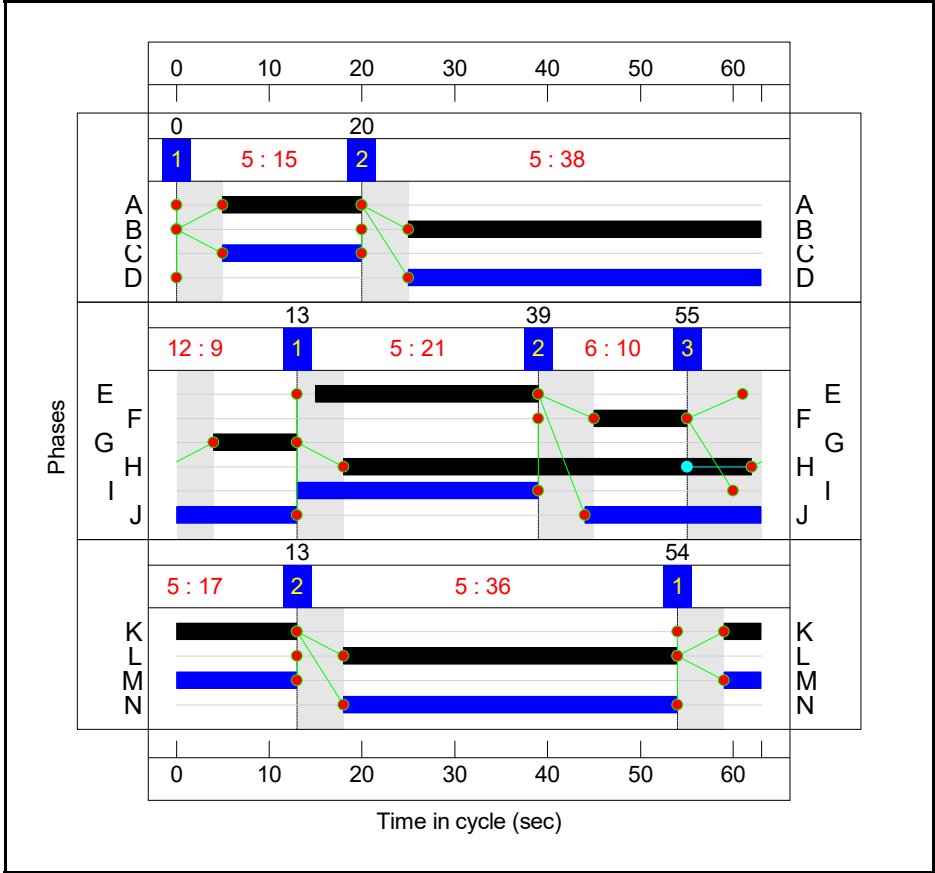
Stage Stream: 2

Stage	1	2	3
Duration	21	10	9
Change Point	13	39	55

Full Input Data And Results
Stage Stream: 3

Stage	1	2
Duration	17	36
Change Point	54	13

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: Gresford Interchange	-	-	N/A	-	-	-	-	-	-	-	-	-	91.3%
Gresford Interchange	-	-	N/A	-	-	-	-	-	-	-	-	-	91.3%
1/2+1/1	A483 SB Off-slip Left U-Turn	U	1	N/A	A	-	1	15	-	785	1900:1900	483+483	81.2 : 81.4%
1/3	A483 SB Off-slip Left	U	1	N/A	A	-	1	15	-	84	1900	483	17.4%
2/2+2/1	B5445 Ahead Left	O	N/A	N/A	-	-	-	-	-	247	Inf : Inf	383+321	36.8 : 33.0%
2/3	B5445 Ahead	O	N/A	N/A	-	-	-	-	-	141	Inf	383	36.8%
3/2+3/1	A5156 Ahead Left	U	2	N/A	E	-	1	24	-	1375	1900:1900	754+754	91.3 : 91.1%
3/3	A5156 Ahead	U	2	N/A	E	-	1	24	-	686	1900	754	91.0%
4/2+4/1	A5152 Ahead Left	U	2	N/A	G	-	1	9	-	408	1900:1900	302+174	85.9 : 85.9%
4/3	A5152 Ahead	U	2	N/A	G	-	1	9	-	257	1900	302	85.2%
5/2+5/1	A483 NB Off-slip Left Ahead	U	3	N/A	K	-	1	17	-	536	1900:1900	543+129	79.8 : 79.8%
5/3	A483 NB Off-slip Ahead	U	3	N/A	K	-	1	17	-	432	1900	543	79.6%
6/1	Right Left	U	1	N/A	B	-	1	38	-	1065	1900	1176	90.5%
6/2	Right	U	1	N/A	B	-	1	38	-	317	1900	1176	27.0%
6/3	Right	U	1	N/A	B	-	1	38	-	341	1900	1176	29.0%
7/1	Ahead	U	N/A	N/A	-	-	-	-	-	913	Inf	Inf	0.0%
7/2	Ahead	U	N/A	N/A	-	-	-	-	-	482	Inf	Inf	0.0%
7/3	Right	U	N/A	N/A	-	-	-	-	-	501	Inf	Inf	0.0%
7/4	Right	U	N/A	N/A	-	-	-	-	-	151	Inf	Inf	0.0%
8/1	Ahead	U	2	N/A	F	-	1	10	-	299	1900	332	90.1%
8/2	Ahead	U	2	N/A	F	-	1	10	-	303	1900	332	91.3%

Full Input Data And Results

8/3	Ahead	U	2	N/A	F		1	10	-	69	1900	332	20.8%
8/4	Ahead	U	2	N/A	F		1	10	-	263	1900	332	79.3%
9/1	Ahead	U	2	N/A	H		1	44	-	686	1900	1357	50.5%
9/2	Right Ahead	U	2	N/A	H		1	44	-	925	1900	1357	68.2%
9/3	Right	U	2	N/A	H		1	44	-	712	1900	1357	52.5%
10/1	Ahead Right	U	3	N/A	L		1	36	-	429	1900	1116	38.4%
10/2	Right	U	3	N/A	L		1	36	-	518	1900	1116	46.4%
10/3	Right	U	3	N/A	L		1	36	-	969	1900	1116	86.8%
11/1		U	N/A	N/A	-		-	-	-	241	Inf	Inf	0.0%
11/2		U	N/A	N/A	-		-	-	-	785	Inf	Inf	0.0%
12/1		U	N/A	N/A	-		-	-	-	545	Inf	Inf	0.0%
13/1		U	N/A	N/A	-		-	-	-	1019	Inf	Inf	0.0%
13/2		U	N/A	N/A	-		-	-	-	482	Inf	Inf	0.0%
14/1		U	N/A	N/A	-		-	-	-	369	Inf	Inf	0.0%
14/2		U	N/A	N/A	-		-	-	-	303	Inf	Inf	0.0%
15/1		U	N/A	N/A	-		-	-	-	835	Inf	Inf	0.0%
15/2		U	N/A	N/A	-		-	-	-	237	Inf	Inf	0.0%
16/1+16/2	Blue Bell Ln Left Ahead	O	N/A	N/A	-		-	-	-	316	Inf : Inf	263+263	60.0 : 60.0%
17/1		U	N/A	N/A	-		-	-	-	500	Inf	Inf	0.0%
18/1	Ahead	U	N/A	N/A	-		-	-	-	32	Inf	Inf	0.0%
18/2	Right	U	N/A	N/A	-		-	-	-	951	Inf	Inf	0.0%
18/3	Right	U	N/A	N/A	-		-	-	-	1401	Inf	Inf	0.0%
19/1+19/2	Industrial Park Access Ahead Left	O	N/A	N/A	-		-	-	-	91	Inf : Inf	158+158	28.5 : 29.1%
20/1		U	N/A	N/A	-		-	-	-	42	Inf	Inf	0.0%
21/1	Ahead	U	N/A	N/A	-		-	-	-	222	Inf	Inf	0.0%
21/2	Right Ahead	U	N/A	N/A	-		-	-	-	1824	Inf	Inf	0.0%
21/3	Right	U	N/A	N/A	-		-	-	-	612	Inf	Inf	0.0%

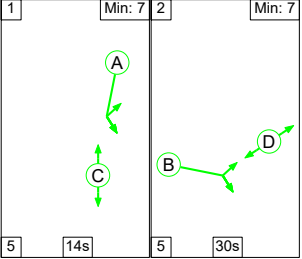
Full Input Data And Results

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: Gresford Interchange	-	-	1449	0	0	37.0	42.8	0.0	79.9	-	-	-	-
Gresford Interchange	-	-	1449	0	0	37.0	42.8	0.0	79.9	-	-	-	-
1/2+1/1	785	785	-	-	-	4.8	2.1	-	6.9	31.9	6.4	2.1	8.6
1/3	84	84	-	-	-	0.4	0.1	-	0.5	22.9	1.1	0.1	1.2
2/2+2/1	247	247	494	0	0	0.2	0.3	-	0.4	6.3	0.6	0.3	0.9
2/3	141	141	141	0	0	0.1	0.3	-	0.4	9.9	0.6	0.3	0.9
3/2+3/1	1375	1375	-	-	-	6.9	4.8	-	11.7	30.6	11.3	4.8	16.1
3/3	686	686	-	-	-	3.4	4.5	-	7.9	41.3	11.2	4.5	15.7
4/2+4/1	408	408	-	-	-	2.9	2.8	-	5.7	50.0	4.4	2.8	7.2
4/3	257	257	-	-	-	1.8	2.6	-	4.4	62.0	4.4	2.6	6.9
5/2+5/1	536	536	-	-	-	3.0	1.9	-	4.9	33.0	7.0	1.9	8.9
5/3	432	432	-	-	-	2.5	1.9	-	4.4	36.5	7.0	1.9	8.8
6/1	1065	1065	-	-	-	2.9	4.4	-	7.3	24.8	17.0	4.4	21.4
6/2	317	317	-	-	-	0.3	0.2	-	0.4	5.0	2.7	0.2	2.9
6/3	341	341	-	-	-	0.4	0.2	-	0.6	6.6	3.9	0.2	4.1
7/1	913	913	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	482	482	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/3	501	501	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/4	151	151	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	299	299	-	-	-	1.5	3.7	-	5.2	62.9	5.2	3.7	8.9
8/2	303	303	-	-	-	1.5	4.1	-	5.6	66.9	5.2	4.1	9.3
8/3	69	69	-	-	-	0.4	0.1	-	0.5	26.0	0.9	0.1	1.1
8/4	263	263	-	-	-	1.8	1.8	-	3.6	49.4	4.4	1.8	6.2
9/1	686	686	-	-	-	0.0	0.5	-	0.5	2.7	0.0	0.5	0.5
9/2	925	925	-	-	-	0.0	1.1	-	1.1	4.2	0.0	1.1	1.1

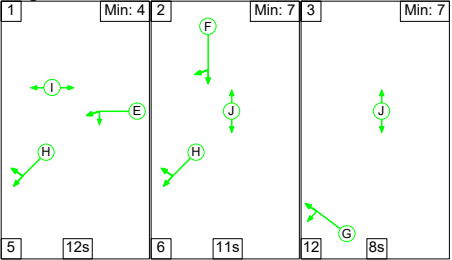
Full Input Data And Results

9/3	712	712	-	-	-	0.0	0.6	-	0.6	2.8	0.0	0.6	0.6
10/1	429	429	-	-	-	0.8	0.3	-	1.1	9.1	3.3	0.3	3.6
10/2	518	518	-	-	-	0.6	0.4	-	1.0	6.9	4.4	0.4	4.8
10/3	969	969	-	-	-	0.6	3.2	-	3.8	14.0	5.4	3.2	8.6
11/1	241	241	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/2	785	785	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	545	545	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	1019	1019	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/2	482	482	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/1	369	369	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/2	303	303	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
15/1	835	835	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
15/2	237	237	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
16/1+16/2	316	316	632	0	0	0.3	0.7	-	1.0	11.7	1.4	0.7	2.2
17/1	500	500	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/1	32	32	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/2	951	951	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/3	1401	1401	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
19/1+19/2	91	91	182	0	0	0.0	0.2	-	0.2	9.8	0.2	0.2	0.4
20/1	42	42	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
21/1	222	222	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
21/2	1824	1824	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
21/3	612	612	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 Stream: 1 PRC for Signalled Lanes (%): -0.6 C1 Stream: 2 PRC for Signalled Lanes (%): -1.5 C1 Stream: 3 PRC for Signalled Lanes (%): 3.6 PRC Over All Lanes (%): -1.5 Total Delay for Signalled Lanes (pcuHr): 15.88 Total Delay for Signalled Lanes (pcuHr): 46.75 Total Delay for Signalled Lanes (pcuHr): 15.14 Total Delay Over All Lanes (pcuHr): 79.86 Cycle Time (s): 63 Cycle Time (s): 63 Cycle Time (s): 63													

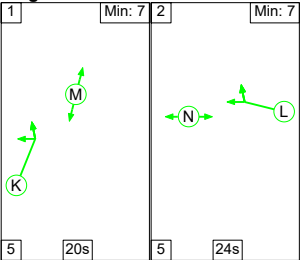
Full Input Data And Results
Scenario 7: 'AM With Dev 2027' (FG7: 'AM With Dev 2027', Plan 1: 'Staging Plan No. 1')
Stage Sequence Diagram
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	14	30
Change Point	0	19

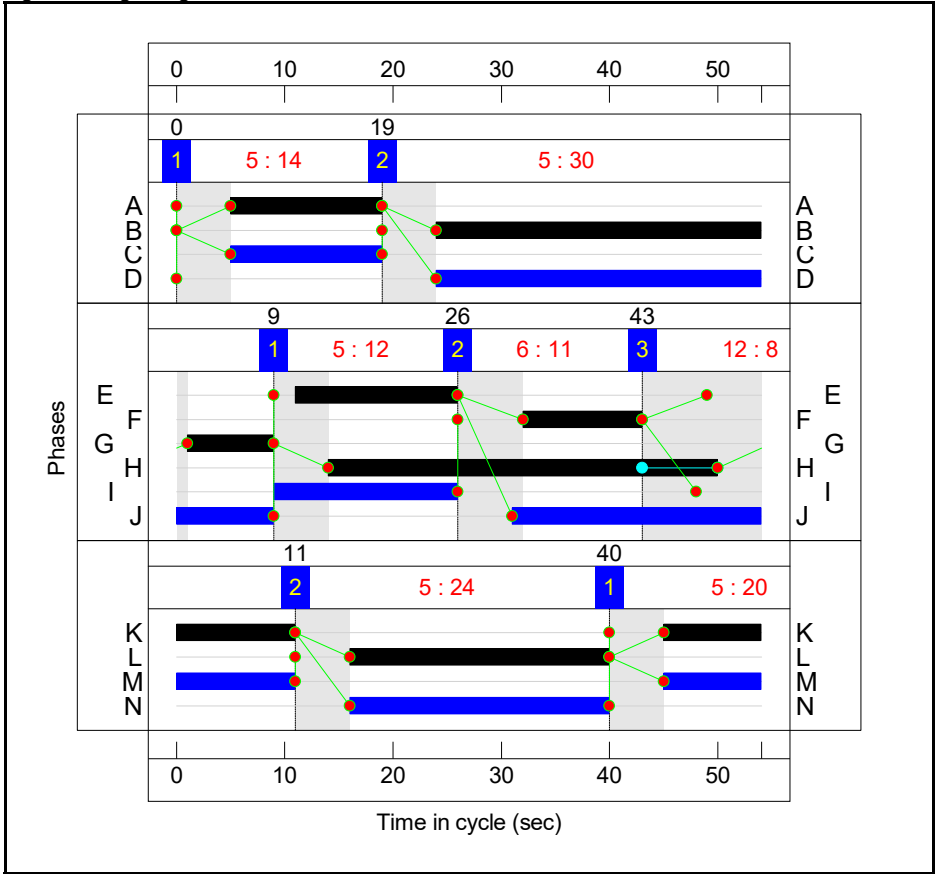
Stage Stream: 2

Stage	1	2	3
Duration	12	11	8
Change Point	9	26	43

Full Input Data And Results
Stage Stream: 3

Stage	1	2
Duration	20	24
Change Point	40	11

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: Gresford Interchange	-	-	N/A	-	-		-	-	-	-	-	-	104.4%
Gresford Interchange	-	-	N/A	-	-		-	-	-	-	-	-	104.4%
1/2+1/1	A483 SB Off-slip Left U-Turn	U	1	N/A	A		1	14	-	1074	1900:1900	528+528	101.7 : 101.7%
1/3	A483 SB Off-slip Left	U	1	N/A	A		1	14	-	156	1900	528	29.6%
2/2+2/1	B5445 Ahead Left	O	N/A	N/A	-		-	-	-	335	Inf : Inf	215+215	82.4 : 73.6%
2/3	B5445 Ahead	O	N/A	N/A	-		-	-	-	177	Inf	215	82.4%
3/2+3/1	A5156 Ahead Left	U	2	N/A	E		1	15	-	938	1900:1900	563+563	83.3 : 83.3%
3/3	A5156 Ahead	U	2	N/A	E		1	15	-	469	1900	563	83.3%
4/2+4/1	A5152 Ahead Left	U	2	N/A	G		1	8	-	428	1900:1900	317+195	83.7 : 83.7%
4/3	A5152 Ahead	U	2	N/A	G		1	8	-	265	1900	317	83.7%
5/2+5/1	A483 NB Off-slip Left Ahead	U	3	N/A	K		1	20	-	743	1900:1900	739+164	82.3 : 82.3%
5/3	A483 NB Off-slip Ahead	U	3	N/A	K		1	20	-	609	1900	739	82.4%
6/1	Right Left	U	1	N/A	B		1	30	-	1139	1900	1091	104.4%
6/2	Right	U	1	N/A	B		1	30	-	559	1900	1091	51.2%
6/3	Right	U	1	N/A	B		1	30	-	290	1900	1091	26.6%
7/1	Ahead	U	N/A	N/A	-		-	-	-	1340	Inf	Inf	0.0%
7/2	Ahead	U	N/A	N/A	-		-	-	-	919	Inf	Inf	0.0%
7/3	Right	U	N/A	N/A	-		-	-	-	375	Inf	Inf	0.0%
7/4	Right	U	N/A	N/A	-		-	-	-	248	Inf	Inf	0.0%
8/1	Ahead	U	2	N/A	F		1	11	-	212	1900	422	49.9%
8/2	Ahead	U	2	N/A	F		1	11	-	216	1900	422	50.8%

Full Input Data And Results

8/3	Ahead	U	2	N/A	F		1	11	-	170	1900	422	40.3%
8/4	Ahead	U	2	N/A	F		1	11	-	379	1900	422	89.8%
9/1	Ahead	U	2	N/A	H		1	36	-	603	1900	1302	46.3%
9/2	Right Ahead	U	2	N/A	H		1	36	-	800	1900	1302	61.5%
9/3	Right	U	2	N/A	H		1	36	-	517	1900	1302	39.7%
10/1	Ahead Right	U	3	N/A	L		1	24	-	365	1900	880	41.5%
10/2	Right	U	3	N/A	L		1	24	-	538	1900	880	61.2%
10/3	Right	U	3	N/A	L		1	24	-	782	1900	880	88.9%
11/1		U	N/A	N/A	-		-	-	-	241	Inf	Inf	0.0%
11/2		U	N/A	N/A	-		-	-	-	703	Inf	Inf	0.0%
12/1		U	N/A	N/A	-		-	-	-	336	Inf	Inf	0.0%
13/1		U	N/A	N/A	-		-	-	-	1498	Inf	Inf	0.0%
13/2		U	N/A	N/A	-		-	-	-	919	Inf	Inf	0.0%
14/1		U	N/A	N/A	-		-	-	-	248	Inf	Inf	0.0%
14/2		U	N/A	N/A	-		-	-	-	216	Inf	Inf	0.0%
15/1		U	N/A	N/A	-		-	-	-	766	Inf	Inf	0.0%
15/2		U	N/A	N/A	-		-	-	-	162	Inf	Inf	0.0%
16/1+16/2	Blue Bell Ln Left Ahead	O	N/A	N/A	-		-	-	-	379	Inf : Inf	226+226	83.7 : 84.2%
17/1		U	N/A	N/A	-		-	-	-	434	Inf	Inf	0.0%
18/1	Ahead	U	N/A	N/A	-		-	-	-	66	Inf	Inf	0.0%
18/2	Right	U	N/A	N/A	-		-	-	-	1146	Inf	Inf	0.0%
18/3	Right	U	N/A	N/A	-		-	-	-	1391	Inf	Inf	0.0%
19/1+19/2	Industrial Park Access Ahead Left	O	N/A	N/A	-		-	-	-	24	Inf : Inf	105+105	11.4 : 11.4%
20/1		U	N/A	N/A	-		-	-	-	74	Inf	Inf	0.0%
21/1	Ahead	U	N/A	N/A	-		-	-	-	231	Inf	Inf	0.0%
21/2	Right Ahead	U	N/A	N/A	-		-	-	-	1840	Inf	Inf	0.0%
21/3	Right	U	N/A	N/A	-		-	-	-	837	Inf	Inf	0.0%

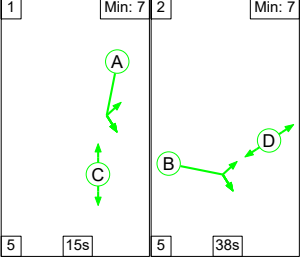
Full Input Data And Results

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: Gresford Interchange	-	-	1653	0	0	39.6	87.3	0.0	126.9	-	-	-	-
1/2+1/1	1074	1056	-	-	-	6.3	21.6	-	27.9	93.6	8.2	21.6	29.8
1/3	156	156	-	-	-	0.7	0.2	-	0.9	20.2	1.8	0.2	2.0
2/2+2/1	335	335	670	0	0	0.7	1.7	-	2.5	26.4	2.5	1.7	4.2
2/3	177	177	177	0	0	0.4	2.1	-	2.5	51.7	2.5	2.1	4.6
3/2+3/1	938	938	-	-	-	4.6	2.4	-	7.1	27.1	6.5	2.4	8.9
3/3	469	469	-	-	-	2.3	2.4	-	4.7	36.0	6.5	2.4	8.9
4/2+4/1	428	428	-	-	-	2.5	2.4	-	5.0	41.7	3.8	2.4	6.3
4/3	265	265	-	-	-	1.6	2.4	-	4.0	53.7	3.8	2.4	6.2
5/2+5/1	743	743	-	-	-	2.9	2.3	-	5.2	25.1	8.1	2.3	10.4
5/3	609	609	-	-	-	2.5	2.3	-	4.8	28.2	8.1	2.3	10.4
6/1	1139	1091	-	-	-	5.2	32.8	-	38.0	120.0	17.9	32.8	50.7
6/2	559	559	-	-	-	1.1	0.5	-	1.6	10.3	6.6	0.5	7.1
6/3	290	290	-	-	-	0.5	0.2	-	0.7	8.7	3.0	0.2	3.2
7/1	1296	1296	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	913	913	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/3	372	372	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/4	248	248	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	210	210	-	-	-	0.6	0.5	-	1.1	19.3	2.0	0.5	2.5
8/2	214	214	-	-	-	0.6	0.5	-	1.2	19.5	2.1	0.5	2.6
8/3	170	170	-	-	-	0.8	0.3	-	1.2	24.6	1.9	0.3	2.3
8/4	379	379	-	-	-	2.0	3.7	-	5.7	54.5	5.6	3.7	9.4
9/1	603	603	-	-	-	0.0	0.4	-	0.4	2.6	0.0	0.4	0.4
9/2	800	800	-	-	-	0.0	0.8	-	0.8	3.7	0.1	0.8	0.9

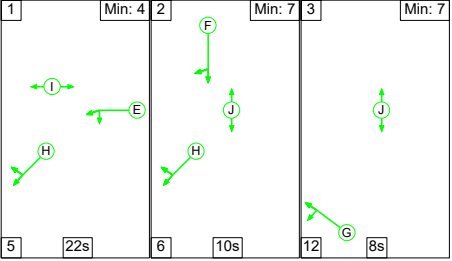
Full Input Data And Results

9/3	517	517	-	-	-	0.0	0.3	-	0.3	2.3	0.0	0.3	0.3
10/1	365	365	-	-	-	1.1	0.4	-	1.5	14.8	3.5	0.4	3.8
10/2	538	538	-	-	-	1.1	0.8	-	1.9	12.8	5.3	0.8	6.1
10/3	782	782	-	-	-	1.0	3.7	-	4.7	21.7	8.5	3.7	12.2
11/1	241	241	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/2	703	703	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	323	323	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	1454	1454	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/2	913	913	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/1	246	246	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/2	214	214	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
15/1	766	766	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
15/2	162	162	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
16/1+16/2	379	379	758	0	0	0.8	2.5	-	3.3	30.9	1.4	2.5	3.8
17/1	434	434	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/1	66	66	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/2	1146	1146	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/3	1391	1391	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
19/1+19/2	24	24	48	0	0	0.0	0.1	-	0.1	12.9	0.1	0.1	0.1
20/1	74	74	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
21/1	231	231	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
21/2	1840	1840	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
21/3	837	837	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 Stream: 1 PRC for Signalised Lanes (%): -16.0 Total Delay for Signalised Lanes (pcuHr): 69.07 Cycle Time (s): 54 C1 Stream: 2 PRC for Signalised Lanes (%): 0.3 Total Delay for Signalised Lanes (pcuHr): 31.43 Cycle Time (s): 54 C1 Stream: 3 PRC for Signalised Lanes (%): 1.2 Total Delay for Signalised Lanes (pcuHr): 18.07 Cycle Time (s): 54 PRC Over All Lanes (%): -16.0 Total Delay Over All Lanes (pcuHr): 126.90													

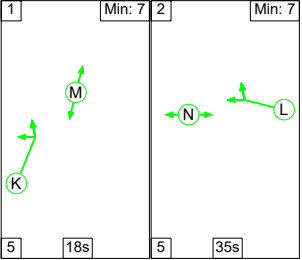
Full Input Data And Results
Scenario 8: 'PM With Dev 2027' (FG8: 'PM With Dev 2027', Plan 1: 'Staging Plan No. 1')
Stage Sequence Diagram
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	15	38
Change Point	0	20

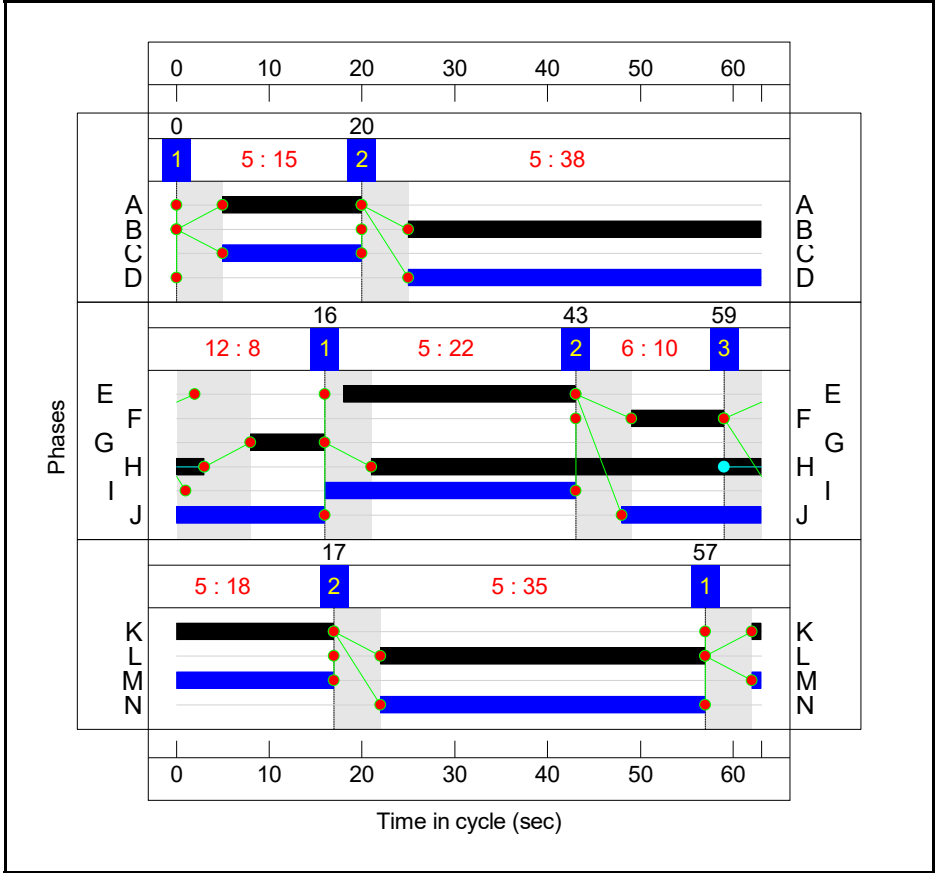
Stage Stream: 2

Stage	1	2	3
Duration	22	10	8
Change Point	16	43	59

Full Input Data And Results
Stage Stream: 3

Stage	1	2
Duration	18	35
Change Point	57	17

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: Gresford Interchange	-	-	N/A	-	-	-	-	-	-	-	-	-	91.7%
Gresford Interchange	-	-	N/A	-	-	-	-	-	-	-	-	-	91.7%
1/2+1/1	A483 SB Off-slip Left U-Turn	U	1	N/A	A	-	1	15	-	791	1900:1900	483+483	81.9 : 82.1%
1/3	A483 SB Off-slip Left	U	1	N/A	A	-	1	15	-	81	1900	483	16.8%
2/2+2/1	B5445 Ahead Left	O	N/A	N/A	-	-	-	-	-	238	Inf : Inf	372+316	36.5 : 32.3%
2/3	B5445 Ahead	O	N/A	N/A	-	-	-	-	-	135	Inf	372	36.2%
3/2+3/1	A5156 Ahead Left	U	2	N/A	E	-	1	25	-	1395	1900:1900	784+784	89.0 : 88.9%
3/3	A5156 Ahead	U	2	N/A	E	-	1	25	-	696	1900	784	88.8%
4/2+4/1	A5152 Ahead Left	U	2	N/A	G	-	1	8	-	393	1900:1900	271+157	91.7 : 91.7%
4/3	A5152 Ahead	U	2	N/A	G	-	1	8	-	249	1900	271	91.7%
5/2+5/1	A483 NB Off-slip Left Ahead	U	3	N/A	K	-	1	18	-	539	1900:1900	573+131	76.6 : 76.6%
5/3	A483 NB Off-slip Ahead	U	3	N/A	K	-	1	18	-	440	1900	573	76.8%
6/1	Right Left	U	1	N/A	B	-	1	38	-	1055	1900	1176	89.7%
6/2	Right	U	1	N/A	B	-	1	38	-	332	1900	1176	28.2%
6/3	Right	U	1	N/A	B	-	1	38	-	328	1900	1176	27.9%
7/1	Ahead	U	N/A	N/A	-	-	-	-	-	925	Inf	Inf	0.0%
7/2	Ahead	U	N/A	N/A	-	-	-	-	-	508	Inf	Inf	0.0%
7/3	Right	U	N/A	N/A	-	-	-	-	-	483	Inf	Inf	0.0%
7/4	Right	U	N/A	N/A	-	-	-	-	-	145	Inf	Inf	0.0%
8/1	Ahead	U	2	N/A	F	-	1	10	-	288	1900	332	86.8%
8/2	Ahead	U	2	N/A	F	-	1	10	-	292	1900	332	88.0%

Full Input Data And Results

8/3	Ahead	U	2	N/A	F		1	10	-	67	1900	332	20.2%
8/4	Ahead	U	2	N/A	F		1	10	-	252	1900	332	76.0%
9/1	Ahead	U	2	N/A	H		1	45	-	697	1900	1387	50.2%
9/2	Right Ahead	U	2	N/A	H		1	45	-	925	1900	1387	66.7%
9/3	Right	U	2	N/A	H		1	45	-	721	1900	1387	52.0%
10/1	Ahead Right	U	3	N/A	L		1	35	-	428	1900	1086	39.4%
10/2	Right	U	3	N/A	L		1	35	-	501	1900	1086	46.1%
10/3	Right	U	3	N/A	L		1	35	-	970	1900	1086	89.3%
11/1		U	N/A	N/A	-		-	-	-	234	Inf	Inf	0.0%
11/2		U	N/A	N/A	-		-	-	-	791	Inf	Inf	0.0%
12/1		U	N/A	N/A	-		-	-	-	526	Inf	Inf	0.0%
13/1		U	N/A	N/A	-		-	-	-	1027	Inf	Inf	0.0%
13/2		U	N/A	N/A	-		-	-	-	508	Inf	Inf	0.0%
14/1		U	N/A	N/A	-		-	-	-	355	Inf	Inf	0.0%
14/2		U	N/A	N/A	-		-	-	-	292	Inf	Inf	0.0%
15/1		U	N/A	N/A	-		-	-	-	841	Inf	Inf	0.0%
15/2		U	N/A	N/A	-		-	-	-	245	Inf	Inf	0.0%
16/1+16/2	Blue Bell Ln Left Ahead	O	N/A	N/A	-		-	-	-	313	Inf : Inf	263+263	59.6 : 59.3%
17/1		U	N/A	N/A	-		-	-	-	496	Inf	Inf	0.0%
18/1	Ahead	U	N/A	N/A	-		-	-	-	32	Inf	Inf	0.0%
18/2	Right	U	N/A	N/A	-		-	-	-	940	Inf	Inf	0.0%
18/3	Right	U	N/A	N/A	-		-	-	-	1410	Inf	Inf	0.0%
19/1+19/2	Industrial Park Access Ahead Left	O	N/A	N/A	-		-	-	-	87	Inf : Inf	159+159	27.0 : 27.7%
20/1		U	N/A	N/A	-		-	-	-	42	Inf	Inf	0.0%
21/1	Ahead	U	N/A	N/A	-		-	-	-	216	Inf	Inf	0.0%
21/2	Right Ahead	U	N/A	N/A	-		-	-	-	1821	Inf	Inf	0.0%
21/3	Right	U	N/A	N/A	-		-	-	-	616	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: Gresford Interchange	-	-	1411	0	0	36.4	41.9	0.0	78.3	-	-	-	-
Gresford Interchange	-	-	1411	0	0	36.4	41.9	0.0	78.3	-	-	-	-
1/2+1/1	791	791	-	-	-	4.9	2.2	-	7.1	32.2	6.5	2.2	8.7
1/3	81	81	-	-	-	0.4	0.1	-	0.5	22.8	1.1	0.1	1.2
2/2+2/1	238	238	476	0	0	0.1	0.3	-	0.4	5.9	0.6	0.3	0.9
2/3	135	135	135	0	0	0.1	0.3	-	0.4	9.6	0.6	0.3	0.9
3/2+3/1	1395	1395	-	-	-	6.7	3.9	-	10.5	27.1	11.2	3.9	15.1
3/3	696	696	-	-	-	3.3	3.6	-	7.0	36.0	11.2	3.6	14.9
4/2+4/1	393	393	-	-	-	2.8	4.4	-	7.3	66.7	4.3	4.4	8.7
4/3	249	249	-	-	-	1.8	4.1	-	5.9	85.5	4.3	4.1	8.4
5/2+5/1	539	539	-	-	-	2.9	1.6	-	4.5	30.0	7.0	1.6	8.6
5/3	440	440	-	-	-	2.4	1.6	-	4.1	33.2	7.0	1.6	8.6
6/1	1055	1055	-	-	-	2.6	4.1	-	6.7	22.9	16.5	4.1	20.5
6/2	332	332	-	-	-	0.2	0.2	-	0.4	4.3	2.2	0.2	2.4
6/3	328	328	-	-	-	0.3	0.2	-	0.5	5.5	2.9	0.2	3.1
7/1	925	925	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	508	508	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/3	483	483	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/4	145	145	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	288	288	-	-	-	1.6	2.9	-	4.5	56.5	5.0	2.9	7.9
8/2	292	292	-	-	-	1.6	3.2	-	4.8	59.3	5.0	3.2	8.2
8/3	67	67	-	-	-	0.3	0.1	-	0.5	25.2	1.0	0.1	1.1
8/4	252	252	-	-	-	1.8	1.5	-	3.3	47.2	4.3	1.5	5.8
9/1	697	697	-	-	-	0.0	0.5	-	0.5	2.6	0.0	0.5	0.5
9/2	925	925	-	-	-	0.0	1.0	-	1.0	3.9	0.0	1.0	1.0

Full Input Data And Results

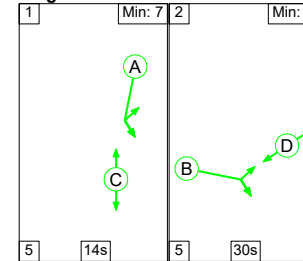
9/3	721	721	-	-	-	0.0	0.5	-	0.5	2.7	0.0	0.5	0.5
10/1	428	428	-	-	-	0.8	0.3	-	1.1	9.3	3.2	0.3	3.6
10/2	501	501	-	-	-	0.6	0.4	-	1.0	7.1	4.3	0.4	4.7
10/3	970	970	-	-	-	0.7	3.9	-	4.6	17.0	5.9	3.9	9.8
11/1	234	234	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/2	791	791	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	526	526	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	1027	1027	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/2	508	508	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/1	355	355	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/2	292	292	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
15/1	841	841	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
15/2	245	245	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
16/1+16/2	313	313	626	0	0	0.4	0.7	-	1.1	12.5	1.4	0.7	2.1
17/1	496	496	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/1	32	32	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/2	940	940	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/3	1410	1410	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
19/1+19/2	87	87	174	0	0	0.0	0.2	-	0.2	9.7	0.2	0.2	0.3
20/1	42	42	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
21/1	216	216	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
21/2	1821	1821	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
21/3	616	616	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 Stream: 1 PRC for Signalled Lanes (%):						0.3	Total Delay for Signalled Lanes (pcuHr):			15.22	Cycle Time (s): 63		
C1 Stream: 2 PRC for Signalled Lanes (%):						-1.9	Total Delay for Signalled Lanes (pcuHr):			45.83	Cycle Time (s): 63		
C1 Stream: 3 PRC for Signalled Lanes (%):						0.7	Total Delay for Signalled Lanes (pcuHr):			15.23	Cycle Time (s): 63		
PRC Over All Lanes (%):						-1.9	Total Delay Over All Lanes (pcuHr):			76.34			

Full Input Data And Results

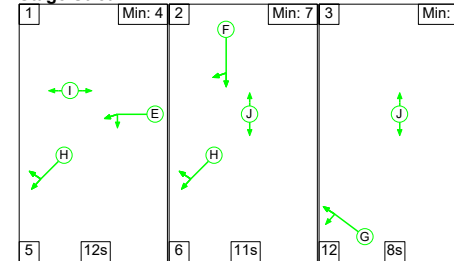
Scenario 9: 'AM With Dev 2036' (FG9: 'AM With Dev 2036', Plan 1: 'Staging Plan No. 1')

Stage Sequence Diagram

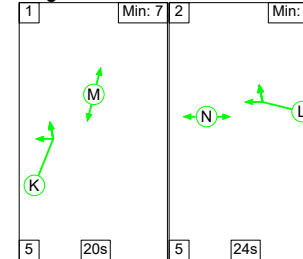
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	14	30
Change Point	0	19

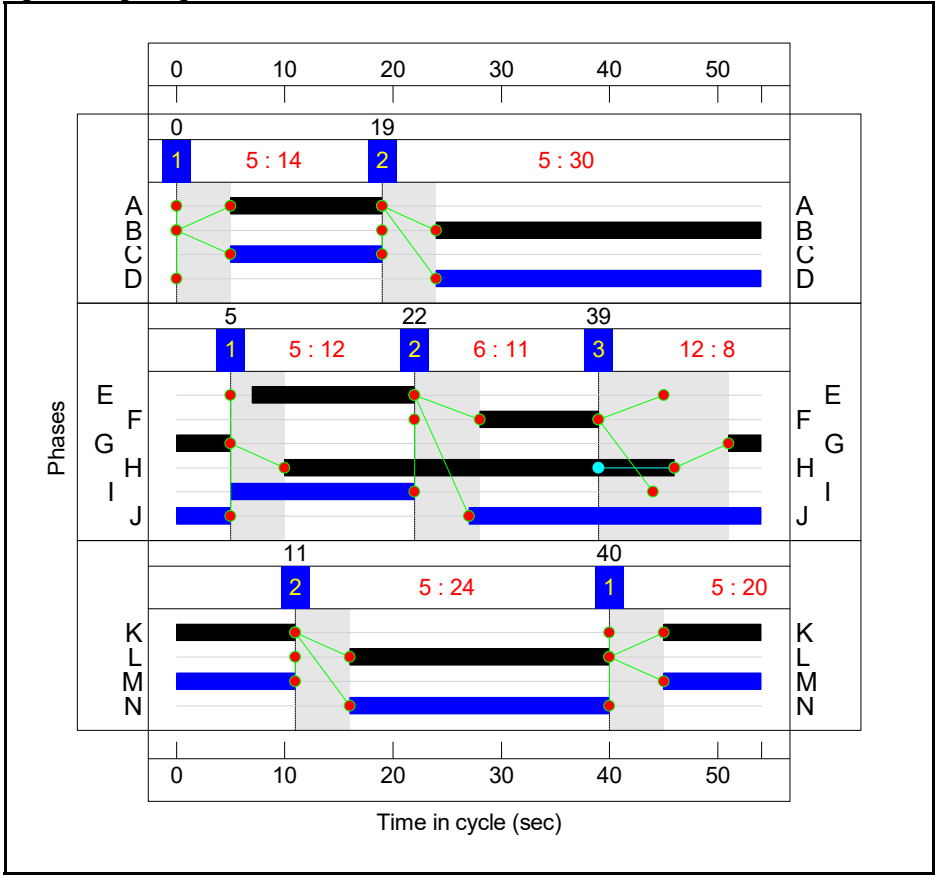
Stage Stream: 2

Stage	1	2	3
Duration	12	11	8
Change Point	5	22	39

Full Input Data And Results
Stage Stream: 3

Stage	1	2
Duration	20	24
Change Point	40	11

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: Gresford Interchange	-	-	N/A	-	-		-	-	-	-	-	-	107.8%
Gresford Interchange	-	-	N/A	-	-		-	-	-	-	-	-	107.8%
1/2+1/1	A483 SB Off-slip Left U-Turn	U	1	N/A	A		1	14	-	1110	1900:1900	528+528	105.2 : 105.2%
1/3	A483 SB Off-slip Left	U	1	N/A	A		1	14	-	161	1900	528	30.5%
2/2+2/1	B5445 Ahead Left	O	N/A	N/A	-		-	-	-	347	Inf : Inf	208+208	87.9 : 78.8%
2/3	B5445 Ahead	O	N/A	N/A	-		-	-	-	184	Inf	208	88.4%
3/2+3/1	A5156 Ahead Left	U	2	N/A	E		1	15	-	963	1900:1900	563+563	85.4 : 85.6%
3/3	A5156 Ahead	U	2	N/A	E		1	15	-	483	1900	563	85.8%
4/2+4/1	A5152 Ahead Left	U	2	N/A	G		1	8	-	443	1900:1900	317+195	86.5 : 86.5%
4/3	A5152 Ahead	U	2	N/A	G		1	8	-	275	1900	317	86.8%
5/2+5/1	A483 NB Off-slip Left Ahead	U	3	N/A	K		1	20	-	767	1900:1900	739+165	84.9 : 84.9%
5/3	A483 NB Off-slip Ahead	U	3	N/A	K		1	20	-	626	1900	739	84.7%
6/1	Right Left	U	1	N/A	B		1	30	-	1176	1900	1091	107.8%
6/2	Right	U	1	N/A	B		1	30	-	574	1900	1091	52.6%
6/3	Right	U	1	N/A	B		1	30	-	300	1900	1091	27.5%
7/1	Ahead	U	N/A	N/A	-		-	-	-	1383	Inf	Inf	0.0%
7/2	Ahead	U	N/A	N/A	-		-	-	-	945	Inf	Inf	0.0%
7/3	Right	U	N/A	N/A	-		-	-	-	389	Inf	Inf	0.0%
7/4	Right	U	N/A	N/A	-		-	-	-	256	Inf	Inf	0.0%
8/1	Ahead	U	2	N/A	F		1	11	-	221	1900	422	51.3%
8/2	Ahead	U	2	N/A	F		1	11	-	223	1900	422	51.7%

Full Input Data And Results

8/3	Ahead	U	2	N/A	F		1	11	-	175	1900	422	41.4%
8/4	Ahead	U	2	N/A	F		1	11	-	393	1900	422	93.1%
9/1	Ahead	U	2	N/A	H		1	36	-	620	1900	1302	47.6%
9/2	Right Ahead	U	2	N/A	H		1	36	-	824	1900	1302	63.3%
9/3	Right	U	2	N/A	H		1	36	-	533	1900	1302	40.9%
10/1	Ahead Right	U	3	N/A	L		1	24	-	376	1900	880	42.7%
10/2	Right	U	3	N/A	L		1	24	-	556	1900	880	63.2%
10/3	Right	U	3	N/A	L		1	24	-	808	1900	880	91.9%
11/1		U	N/A	N/A	-		-	-	-	248	Inf	Inf	0.0%
11/2		U	N/A	N/A	-		-	-	-	725	Inf	Inf	0.0%
12/1		U	N/A	N/A	-		-	-	-	348	Inf	Inf	0.0%
13/1		U	N/A	N/A	-		-	-	-	1547	Inf	Inf	0.0%
13/2		U	N/A	N/A	-		-	-	-	945	Inf	Inf	0.0%
14/1		U	N/A	N/A	-		-	-	-	258	Inf	Inf	0.0%
14/2		U	N/A	N/A	-		-	-	-	223	Inf	Inf	0.0%
15/1		U	N/A	N/A	-		-	-	-	789	Inf	Inf	0.0%
15/2		U	N/A	N/A	-		-	-	-	166	Inf	Inf	0.0%
16/1+16/2	Blue Bell Ln Left Ahead	O	N/A	N/A	-		-	-	-	390	Inf : Inf	215+215	90.7 : 90.7%
17/1		U	N/A	N/A	-		-	-	-	447	Inf	Inf	0.0%
18/1	Ahead	U	N/A	N/A	-		-	-	-	69	Inf	Inf	0.0%
18/2	Right	U	N/A	N/A	-		-	-	-	1183	Inf	Inf	0.0%
18/3	Right	U	N/A	N/A	-		-	-	-	1434	Inf	Inf	0.0%
19/1+19/2	Industrial Park Access Ahead Left	O	N/A	N/A	-		-	-	-	24	Inf : Inf	91+91	13.1 : 13.1%
20/1		U	N/A	N/A	-		-	-	-	77	Inf	Inf	0.0%
21/1	Ahead	U	N/A	N/A	-		-	-	-	238	Inf	Inf	0.0%
21/2	Right Ahead	U	N/A	N/A	-		-	-	-	1899	Inf	Inf	0.0%
21/3	Right	U	N/A	N/A	-		-	-	-	862	Inf	Inf	0.0%

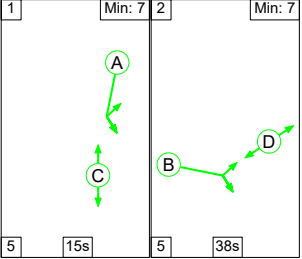
Full Input Data And Results

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: Gresford Interchange	-	-	1706	0	0	44.7	125.4	0.0	170.1	-	-	-	-
1/2+1/1	1110	1056	-	-	-	7.4	35.1	-	42.6	138.0	8.7	35.1	43.9
1/3	161	161	-	-	-	0.7	0.2	-	0.9	20.3	1.9	0.2	2.1
2/2+2/1	347	347	694	0	0	0.9	2.3	-	3.2	33.1	2.6	2.3	4.9
2/3	184	184	184	0	0	0.5	3.0	-	3.5	69.1	2.6	3.0	5.6
3/2+3/1	963	963	-	-	-	4.8	2.9	-	7.6	28.6	6.7	2.9	9.5
3/3	483	483	-	-	-	2.4	2.8	-	5.2	39.0	6.7	2.8	9.5
4/2+4/1	443	443	-	-	-	2.6	3.0	-	5.6	45.5	4.0	3.0	6.9
4/3	275	275	-	-	-	1.7	2.9	-	4.6	59.9	4.0	2.9	6.9
5/2+5/1	767	767	-	-	-	3.0	2.7	-	5.7	27.0	8.5	2.7	11.2
5/3	626	626	-	-	-	2.6	2.6	-	5.3	30.3	8.5	2.6	11.2
6/1	1176	1091	-	-	-	6.5	48.7	-	55.1	168.8	19.6	48.7	68.2
6/2	574	574	-	-	-	1.1	0.6	-	1.7	10.4	6.9	0.6	7.4
6/3	300	300	-	-	-	0.5	0.2	-	0.7	8.8	3.3	0.2	3.4
7/1	1290	1290	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	927	927	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/3	380	380	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/4	256	256	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	216	216	-	-	-	1.0	0.5	-	1.5	25.1	2.5	0.5	3.0
8/2	218	218	-	-	-	1.0	0.5	-	1.5	25.3	2.5	0.5	3.0
8/3	175	175	-	-	-	0.8	0.4	-	1.2	24.0	1.8	0.4	2.2
8/4	393	393	-	-	-	1.8	5.0	-	6.8	62.2	5.8	5.0	10.8
9/1	620	620	-	-	-	0.0	0.5	-	0.5	2.7	0.0	0.5	0.5
9/2	824	824	-	-	-	0.0	0.9	-	0.9	3.9	0.1	0.9	0.9

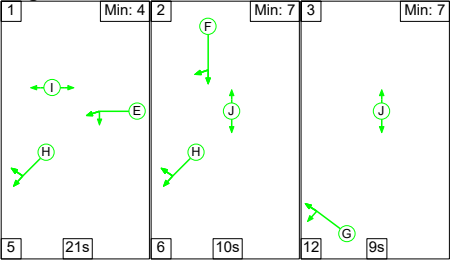
Full Input Data And Results

9/3	533	533	-	-	-	0.0	0.3	-	0.3	2.4	0.0	0.3	0.4
10/1	376	376	-	-	-	1.3	0.4	-	1.7	16.2	3.7	0.4	4.1
10/2	556	556	-	-	-	1.4	0.9	-	2.3	14.7	6.4	0.9	7.2
10/3	808	808	-	-	-	1.6	5.0	-	6.6	29.2	11.9	5.0	16.8
11/1	248	248	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/2	725	725	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	328	328	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	1454	1454	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/2	927	927	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/1	253	253	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/2	218	218	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
15/1	789	789	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
15/2	166	166	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
16/1+16/2	390	390	780	0	0	0.9	4.0	-	4.9	45.7	1.5	4.0	5.5
17/1	447	447	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/1	69	69	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/2	1183	1183	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/3	1434	1434	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
19/1+19/2	24	24	48	0	0	0.0	0.1	-	0.1	16.0	0.1	0.1	0.1
20/1	77	77	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
21/1	238	238	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
21/2	1899	1899	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
21/3	862	862	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 Stream: 1 PRC for Signalised Lanes (%): -19.8 C1 Stream: 2 PRC for Signalised Lanes (%): -3.4 C1 Stream: 3 PRC for Signalised Lanes (%): -2.1 PRC Over All Lanes (%): -19.8 Total Delay for Signalised Lanes (pcuHr): 101.01 Total Delay for Signalised Lanes (pcuHr): 35.74 Total Delay for Signalised Lanes (pcuHr): 21.54 Total Delay Over All Lanes (pcuHr): 170.07 Cycle Time (s): 54 Cycle Time (s): 54 Cycle Time (s): 54													

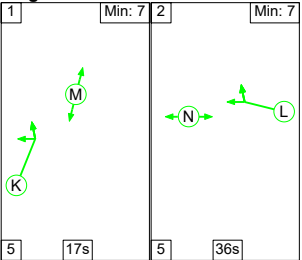
Full Input Data And Results
Scenario 10: 'PM With Dev 2036' (FG10: 'PM With Dev 2036', Plan 1: 'Staging Plan No. 1')
Stage Sequence Diagram
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	15	38
Change Point	0	20

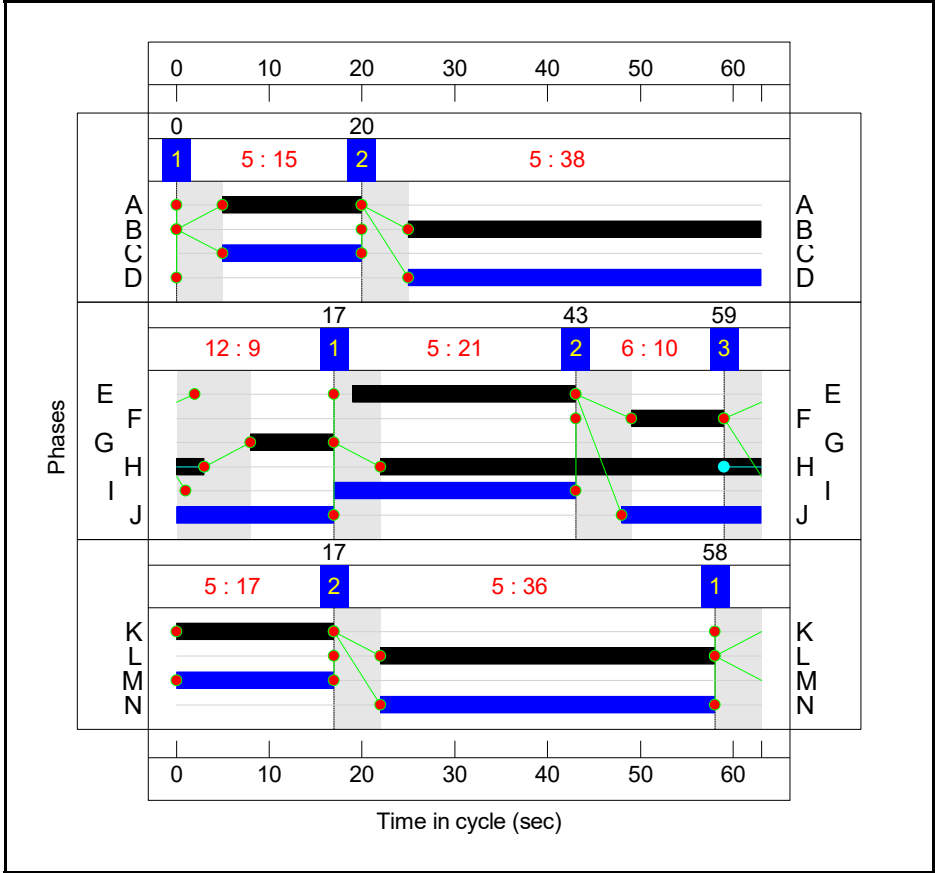
Stage Stream: 2

Stage	1	2	3
Duration	21	10	9
Change Point	17	43	59

Full Input Data And Results
Stage Stream: 3

Stage	1	2
Duration	17	36
Change Point	58	17

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: Gresford Interchange	-	-	N/A	-	-	-	-	-	-	-	-	-	95.4%
Gresford Interchange	-	-	N/A	-	-	-	-	-	-	-	-	-	95.4%
1/2+1/1	A483 SB Off-slip Left U-Turn	U	1	N/A	A	-	1	15	-	815	1900:1900	483+483	84.6 : 84.3%
1/3	A483 SB Off-slip Left	U	1	N/A	A	-	1	15	-	84	1900	483	17.4%
2/2+2/1	B5445 Ahead Left	O	N/A	N/A	-	-	-	-	-	247	Inf : Inf	353+313	40.0 : 33.8%
2/3	B5445 Ahead	O	N/A	N/A	-	-	-	-	-	141	Inf	353	40.0%
3/2+3/1	A5156 Ahead Left	U	2	N/A	E	-	1	24	-	1436	1900:1900	754+754	95.2 : 95.2%
3/3	A5156 Ahead	U	2	N/A	E	-	1	24	-	719	1900	754	95.4%
4/2+4/1	A5152 Ahead Left	U	2	N/A	G	-	1	9	-	408	1900:1900	302+174	85.9 : 85.9%
4/3	A5152 Ahead	U	2	N/A	G	-	1	9	-	257	1900	302	85.2%
5/2+5/1	A483 NB Off-slip Left Ahead	U	3	N/A	K	-	1	17	-	556	1900:1900	543+123	83.4 : 83.4%
5/3	A483 NB Off-slip Ahead	U	3	N/A	K	-	1	17	-	452	1900	543	83.3%
6/1	Right Left	U	1	N/A	B	-	1	38	-	1090	1900	1176	92.7%
6/2	Right	U	1	N/A	B	-	1	38	-	340	1900	1176	28.9%
6/3	Right	U	1	N/A	B	-	1	38	-	341	1900	1176	29.0%
7/1	Ahead	U	N/A	N/A	-	-	-	-	-	952	Inf	Inf	0.0%
7/2	Ahead	U	N/A	N/A	-	-	-	-	-	521	Inf	Inf	0.0%
7/3	Right	U	N/A	N/A	-	-	-	-	-	501	Inf	Inf	0.0%
7/4	Right	U	N/A	N/A	-	-	-	-	-	151	Inf	Inf	0.0%
8/1	Ahead	U	2	N/A	F	-	1	10	-	299	1900	332	90.1%
8/2	Ahead	U	2	N/A	F	-	1	10	-	303	1900	332	91.3%

Full Input Data And Results

8/3	Ahead	U	2	N/A	F		1	10	-	69	1900	332	20.8%
8/4	Ahead	U	2	N/A	F		1	10	-	263	1900	332	79.3%
9/1	Ahead	U	2	N/A	H		1	44	-	717	1900	1357	52.8%
9/2	Right Ahead	U	2	N/A	H		1	44	-	955	1900	1357	70.4%
9/3	Right	U	2	N/A	H		1	44	-	745	1900	1357	54.9%
10/1	Ahead Right	U	3	N/A	L		1	36	-	442	1900	1116	39.6%
10/2	Right	U	3	N/A	L		1	36	-	518	1900	1116	46.4%
10/3	Right	U	3	N/A	L		1	36	-	1002	1900	1116	89.8%
11/1		U	N/A	N/A	-		-	-	-	242	Inf	Inf	0.0%
11/2		U	N/A	N/A	-		-	-	-	817	Inf	Inf	0.0%
12/1		U	N/A	N/A	-		-	-	-	545	Inf	Inf	0.0%
13/1		U	N/A	N/A	-		-	-	-	1058	Inf	Inf	0.0%
13/2		U	N/A	N/A	-		-	-	-	521	Inf	Inf	0.0%
14/1		U	N/A	N/A	-		-	-	-	369	Inf	Inf	0.0%
14/2		U	N/A	N/A	-		-	-	-	303	Inf	Inf	0.0%
15/1		U	N/A	N/A	-		-	-	-	866	Inf	Inf	0.0%
15/2		U	N/A	N/A	-		-	-	-	254	Inf	Inf	0.0%
16/1+16/2	Blue Bell Ln Left Ahead	O	N/A	N/A	-		-	-	-	324	Inf : Inf	244+244	66.5 : 66.5%
17/1		U	N/A	N/A	-		-	-	-	513	Inf	Inf	0.0%
18/1	Ahead	U	N/A	N/A	-		-	-	-	32	Inf	Inf	0.0%
18/2	Right	U	N/A	N/A	-		-	-	-	971	Inf	Inf	0.0%
18/3	Right	U	N/A	N/A	-		-	-	-	1454	Inf	Inf	0.0%
19/1+19/2	Industrial Park Access Ahead Left	O	N/A	N/A	-		-	-	-	91	Inf : Inf	136+136	33.2 : 33.9%
20/1		U	N/A	N/A	-		-	-	-	42	Inf	Inf	0.0%
21/1	Ahead	U	N/A	N/A	-		-	-	-	223	Inf	Inf	0.0%
21/2	Right Ahead	U	N/A	N/A	-		-	-	-	1881	Inf	Inf	0.0%
21/3	Right	U	N/A	N/A	-		-	-	-	635	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: Gresford Interchange	-	-	1465	0	0	38.6	53.1	0.0	91.7	-	-	-	-
Gresford Interchange	-	-	1465	0	0	38.6	53.1	0.0	91.7	-	-	-	-
1/2+1/1	815	815	-	-	-	5.1	2.6	-	7.7	33.9	6.7	2.6	9.3
1/3	84	84	-	-	-	0.4	0.1	-	0.5	22.9	1.1	0.1	1.2
2/2+2/1	247	247	494	0	0	0.1	0.3	-	0.4	6.2	0.6	0.3	0.9
2/3	141	141	141	0	0	0.1	0.3	-	0.4	10.5	0.6	0.3	1.0
3/2+3/1	1436	1436	-	-	-	7.3	8.1	-	15.5	38.8	12.2	8.1	20.3
3/3	719	719	-	-	-	3.7	7.3	-	10.9	54.8	12.2	7.3	19.4
4/2+4/1	408	408	-	-	-	2.9	2.8	-	5.7	50.0	4.4	2.8	7.2
4/3	257	257	-	-	-	1.8	2.6	-	4.4	62.0	4.4	2.6	6.9
5/2+5/1	556	556	-	-	-	3.1	2.4	-	5.6	36.0	7.4	2.4	9.8
5/3	452	452	-	-	-	2.6	2.4	-	5.0	39.9	7.4	2.4	9.8
6/1	1090	1090	-	-	-	2.8	5.6	-	8.4	27.7	17.6	5.6	23.2
6/2	340	340	-	-	-	0.2	0.2	-	0.4	3.9	1.8	0.2	2.0
6/3	341	341	-	-	-	0.3	0.2	-	0.5	5.1	2.7	0.2	2.9
7/1	952	952	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	521	521	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/3	501	501	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/4	151	151	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	299	299	-	-	-	1.7	3.7	-	5.4	65.1	5.2	3.7	8.9
8/2	303	303	-	-	-	1.7	4.1	-	5.8	69.1	5.2	4.1	9.3
8/3	69	69	-	-	-	0.4	0.1	-	0.5	25.7	1.0	0.1	1.1
8/4	263	263	-	-	-	1.9	1.8	-	3.7	50.6	4.5	1.8	6.3
9/1	717	717	-	-	-	0.0	0.6	-	0.6	2.8	0.0	0.6	0.6
9/2	955	955	-	-	-	0.0	1.2	-	1.2	4.5	0.0	1.2	1.2

Full Input Data And Results

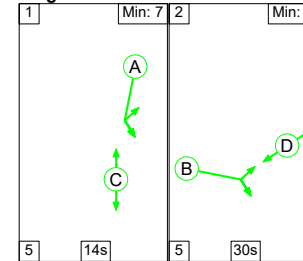
9/3	745	745	-	-	-	0.0	0.6	-	0.6	2.9	0.0	0.6	0.6
10/1	442	442	-	-	-	0.8	0.3	-	1.1	9.2	3.3	0.3	3.7
10/2	518	518	-	-	-	0.6	0.4	-	1.0	7.1	4.4	0.4	4.8
10/3	1002	1002	-	-	-	0.7	4.1	-	4.8	17.1	5.5	4.1	9.6
11/1	242	242	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/2	817	817	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	545	545	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	1058	1058	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/2	521	521	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/1	369	369	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/2	303	303	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
15/1	866	866	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
15/2	254	254	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
16/1+16/2	324	324	648	0	0	0.3	1.0	-	1.3	14.7	1.5	1.0	2.5
17/1	513	513	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/1	32	32	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/2	971	971	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/3	1454	1454	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
19/1+19/2	91	91	182	0	0	0.1	0.3	-	0.3	12.0	0.2	0.3	0.4
20/1	42	42	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
21/1	223	223	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
21/2	1881	1881	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
21/3	635	635	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 Stream: 1 PRC for Signalised Lanes (%):						-3.0	Total Delay for Signalised Lanes (pcuHr):			17.46	Cycle Time (s): 63		
C1 Stream: 2 PRC for Signalised Lanes (%):						-6.0	Total Delay for Signalised Lanes (pcuHr):			54.30	Cycle Time (s): 63		
C1 Stream: 3 PRC for Signalised Lanes (%):						0.2	Total Delay for Signalised Lanes (pcuHr):			17.48	Cycle Time (s): 63		
PRC Over All Lanes (%):						-6.0	Total Delay Over All Lanes (pcuHr):			91.70			

Full Input Data And Results

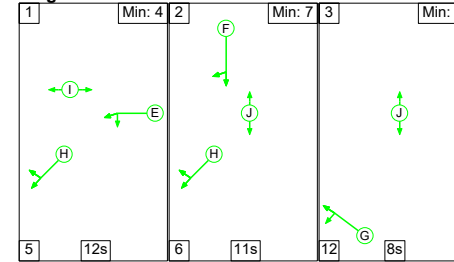
Scenario 11: 'AM With Dev 2027 ST' (FG11: 'AM With Dev 2027 ST', Plan 1: 'Staging Plan No. 1')

Stage Sequence Diagram

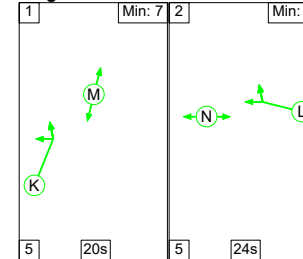
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	14	30
Change Point	0	19

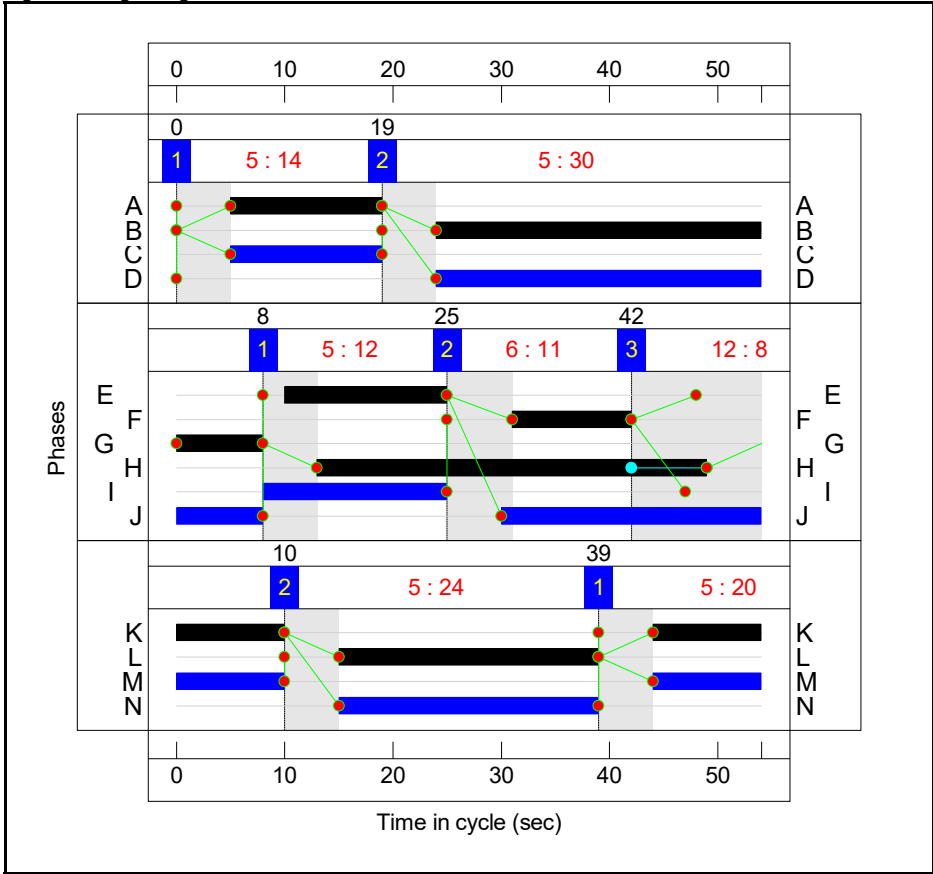
Stage Stream: 2

Stage	1	2	3
Duration	12	11	8
Change Point	8	25	42

Full Input Data And Results
Stage Stream: 3

Stage	1	2
Duration	20	24
Change Point	39	10

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: Gresford Interchange	-	-	N/A	-	-		-	-	-	-	-	-	106.5%
Gresford Interchange	-	-	N/A	-	-		-	-	-	-	-	-	106.5%
1/2+1/1	A483 SB Off-slip Left U-Turn	U	1	N/A	A		1	14	-	1093	1900:1900	528+528	103.6 : 103.6%
1/3	A483 SB Off-slip Left	U	1	N/A	A		1	14	-	156	1900	528	29.6%
2/2+2/1	B5445 Ahead Left	O	N/A	N/A	-		-	-	-	335	Inf : Inf	209+209	84.7 : 75.6%
2/3	B5445 Ahead	O	N/A	N/A	-		-	-	-	177	Inf	209	84.7%
3/2+3/1	A5156 Ahead Left	U	2	N/A	E		1	15	-	937	1900:1900	563+563	83.3 : 83.1%
3/3	A5156 Ahead	U	2	N/A	E		1	15	-	468	1900	563	83.1%
4/2+4/1	A5152 Ahead Left	U	2	N/A	G		1	8	-	428	1900:1900	317+195	83.7 : 83.7%
4/3	A5152 Ahead	U	2	N/A	G		1	8	-	265	1900	317	83.7%
5/2+5/1	A483 NB Off-slip Left Ahead	U	3	N/A	K		1	20	-	761	1900:1900	739+159	84.7 : 84.7%
5/3	A483 NB Off-slip Ahead	U	3	N/A	K		1	20	-	626	1900	739	84.7%
6/1	Right Left	U	1	N/A	B		1	30	-	1162	1900	1091	106.5%
6/2	Right	U	1	N/A	B		1	30	-	581	1900	1091	53.3%
6/3	Right	U	1	N/A	B		1	30	-	290	1900	1091	26.6%
7/1	Ahead	U	N/A	N/A	-		-	-	-	1372	Inf	Inf	0.0%
7/2	Ahead	U	N/A	N/A	-		-	-	-	951	Inf	Inf	0.0%
7/3	Right	U	N/A	N/A	-		-	-	-	375	Inf	Inf	0.0%
7/4	Right	U	N/A	N/A	-		-	-	-	248	Inf	Inf	0.0%
8/1	Ahead	U	2	N/A	F		1	11	-	212	1900	422	49.5%
8/2	Ahead	U	2	N/A	F		1	11	-	216	1900	422	50.4%

Full Input Data And Results

8/3	Ahead	U	2	N/A	F		1	11	-	170	1900	422	40.3%
8/4	Ahead	U	2	N/A	F		1	11	-	379	1900	422	89.8%
9/1	Ahead	U	2	N/A	H		1	36	-	602	1900	1302	46.2%
9/2	Right Ahead	U	2	N/A	H		1	36	-	800	1900	1302	61.5%
9/3	Right	U	2	N/A	H		1	36	-	516	1900	1302	39.8%
10/1	Ahead Right	U	3	N/A	L		1	24	-	360	1900	880	40.9%
10/2	Right	U	3	N/A	L		1	24	-	545	1900	880	62.0%
10/3	Right	U	3	N/A	L		1	24	-	781	1900	880	88.8%
11/1		U	N/A	N/A	-		-	-	-	244	Inf	Inf	0.0%
11/2		U	N/A	N/A	-		-	-	-	706	Inf	Inf	0.0%
12/1		U	N/A	N/A	-		-	-	-	336	Inf	Inf	0.0%
13/1		U	N/A	N/A	-		-	-	-	1530	Inf	Inf	0.0%
13/2		U	N/A	N/A	-		-	-	-	951	Inf	Inf	0.0%
14/1		U	N/A	N/A	-		-	-	-	248	Inf	Inf	0.0%
14/2		U	N/A	N/A	-		-	-	-	216	Inf	Inf	0.0%
15/1		U	N/A	N/A	-		-	-	-	765	Inf	Inf	0.0%
15/2		U	N/A	N/A	-		-	-	-	160	Inf	Inf	0.0%
16/1+16/2	Blue Bell Ln Left Ahead	O	N/A	N/A	-		-	-	-	389	Inf : Inf	215+215	90.0 : 90.5%
17/1		U	N/A	N/A	-		-	-	-	429	Inf	Inf	0.0%
18/1	Ahead	U	N/A	N/A	-		-	-	-	66	Inf	Inf	0.0%
18/2	Right	U	N/A	N/A	-		-	-	-	1171	Inf	Inf	0.0%
18/3	Right	U	N/A	N/A	-		-	-	-	1407	Inf	Inf	0.0%
19/1+19/2	Industrial Park Access Ahead Left	O	N/A	N/A	-		-	-	-	24	Inf : Inf	93+93	12.8 : 12.8%
20/1		U	N/A	N/A	-		-	-	-	74	Inf	Inf	0.0%
21/1	Ahead	U	N/A	N/A	-		-	-	-	234	Inf	Inf	0.0%
21/2	Right Ahead	U	N/A	N/A	-		-	-	-	1866	Inf	Inf	0.0%
21/3	Right	U	N/A	N/A	-		-	-	-	859	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: Gresford Interchange	-	-	1673	0	0	41.7	106.4	0.0	148.1	-	-	-	-
Gresford Interchange	-	-	1673	0	0	41.7	106.4	0.0	148.1	-	-	-	-
1/2+1/1	1093	1056	-	-	-	6.9	28.4	-	35.3	116.1	8.5	28.4	36.9
1/3	156	156	-	-	-	0.7	0.2	-	0.9	20.2	1.8	0.2	2.0
2/2+2/1	335	335	670	0	0	0.8	1.9	-	2.7	29.1	2.5	1.9	4.4
2/3	177	177	177	0	0	0.5	2.4	-	2.8	58.0	2.5	2.4	4.9
3/2+3/1	937	937	-	-	-	4.6	2.4	-	7.0	27.0	6.5	2.4	8.9
3/3	468	468	-	-	-	2.3	2.3	-	4.7	35.8	6.5	2.3	8.8
4/2+4/1	428	428	-	-	-	2.5	2.4	-	5.0	41.7	3.8	2.4	6.3
4/3	265	265	-	-	-	1.6	2.4	-	4.0	53.7	3.8	2.4	6.2
5/2+5/1	761	761	-	-	-	3.0	2.7	-	5.7	26.9	8.5	2.7	11.2
5/3	626	626	-	-	-	2.6	2.6	-	5.3	30.3	8.5	2.6	11.2
6/1	1162	1091	-	-	-	6.1	42.5	-	48.6	150.5	19.0	42.5	61.5
6/2	581	581	-	-	-	1.2	0.6	-	1.8	11.2	7.1	0.6	7.7
6/3	290	290	-	-	-	0.6	0.2	-	0.7	9.2	3.2	0.2	3.4
7/1	1301	1301	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	938	938	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/3	369	369	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/4	248	248	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	209	209	-	-	-	0.7	0.5	-	1.2	19.9	2.0	0.5	2.5
8/2	213	213	-	-	-	0.7	0.5	-	1.2	20.1	2.0	0.5	2.5
8/3	170	170	-	-	-	0.8	0.3	-	1.1	24.1	1.8	0.3	2.1
8/4	379	379	-	-	-	1.9	3.7	-	5.6	53.6	5.6	3.7	9.3
9/1	602	602	-	-	-	0.0	0.4	-	0.4	2.6	0.0	0.4	0.4
9/2	800	800	-	-	-	0.0	0.8	-	0.8	3.7	0.1	0.8	0.9

Full Input Data And Results

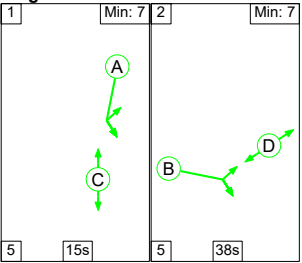
9/3	516	516	-	-	-	0.0	0.3	-	0.3	2.3	0.0	0.3	0.3	
10/1	360	360	-	-	-	1.1	0.3	-	1.5	14.8	3.5	0.3	3.8	
10/2	545	545	-	-	-	1.1	0.8	-	1.9	12.8	5.3	0.8	6.1	
10/3	781	781	-	-	-	1.0	3.7	-	4.7	21.5	8.5	3.7	12.1	
11/1	244	244	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
11/2	706	706	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
12/1	317	317	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
13/1	1459	1459	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
13/2	938	938	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
14/1	245	245	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
14/2	213	213	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
15/1	765	765	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
15/2	160	160	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
16/1+16/2	389	389	778	0	0	0.9	3.9	-	4.8	44.2	1.5	3.9	5.4	
17/1	429	429	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
18/1	66	66	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
18/2	1171	1171	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
18/3	1407	1407	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
19/1+19/2	24	24	48	0	0	0.0	0.1	-	0.1	15.0	0.1	0.1	0.1	
20/1	74	74	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
21/1	234	234	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
21/2	1866	1866	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
21/3	859	859	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
			C1	Stream: 1 PRC for Signalled Lanes (%):		-18.4	Total Delay for Signalled Lanes (pcuHr):			87.28	Cycle Time (s):			54
			C1	Stream: 2 PRC for Signalled Lanes (%):		0.3	Total Delay for Signalled Lanes (pcuHr):			31.30	Cycle Time (s):			54
			C1	Stream: 3 PRC for Signalled Lanes (%):		1.4	Total Delay for Signalled Lanes (pcuHr):			19.05	Cycle Time (s):			54
			PRC Over All Lanes (%):				-18.4	Total Delay Over All Lanes (pcuHr):			148.06			

Full Input Data And Results

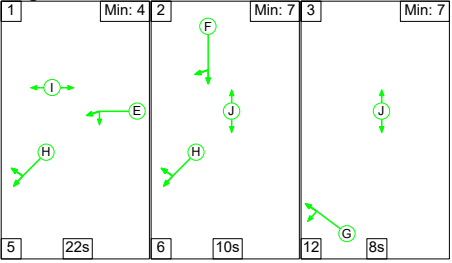
Scenario 12: 'PM With Dev 2027 ST' (FG12: 'PM With Dev 2027 ST', Plan 1: 'Staging Plan No. 1')

Stage Sequence Diagram

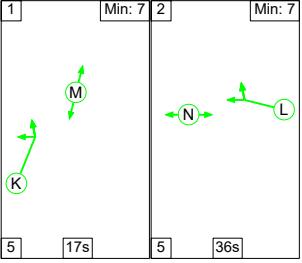
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	15	38
Change Point	0	20

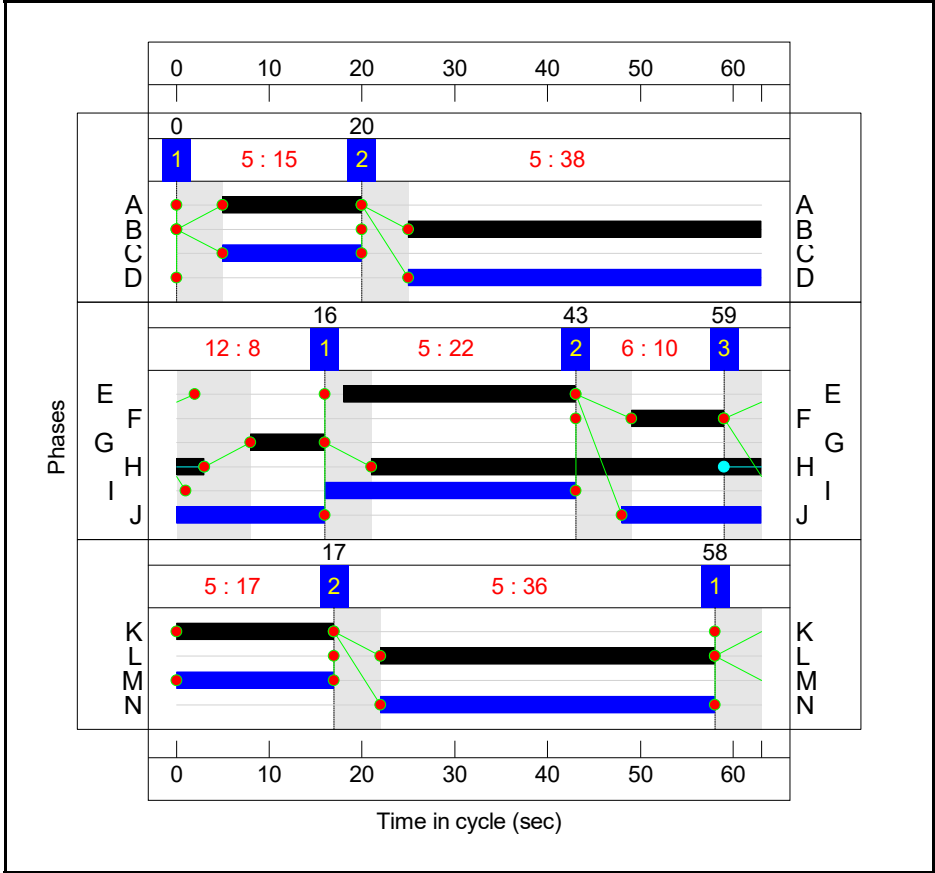
Stage Stream: 2

Stage	1	2	3
Duration	22	10	8
Change Point	16	43	59

Full Input Data And Results
Stage Stream: 3

Stage	1	2
Duration	17	36
Change Point	58	17

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: Gresford Interchange	-	-	N/A	-	-	-	-	-	-	-	-	-	91.7%
Gresford Interchange	-	-	N/A	-	-	-	-	-	-	-	-	-	91.7%
1/2+1/1	A483 SB Off-slip Left U-Turn	U	1	N/A	A	-	1	15	-	787	1900:1900	483+483	81.7 : 81.4%
1/3	A483 SB Off-slip Left	U	1	N/A	A	-	1	15	-	81	1900	483	16.8%
2/2+2/1	B5445 Ahead Left	O	N/A	N/A	-	-	-	-	-	238	Inf : Inf	376+317	36.2 : 32.2%
2/3	B5445 Ahead	O	N/A	N/A	-	-	-	-	-	135	Inf	376	35.9%
3/2+3/1	A5156 Ahead Left	U	2	N/A	E	-	1	25	-	1426	1900:1900	784+784	90.9 : 90.9%
3/3	A5156 Ahead	U	2	N/A	E	-	1	25	-	713	1900	784	90.9%
4/2+4/1	A5152 Ahead Left	U	2	N/A	G	-	1	8	-	393	1900:1900	271+157	91.7 : 91.7%
4/3	A5152 Ahead	U	2	N/A	G	-	1	8	-	249	1900	271	91.7%
5/2+5/1	A483 NB Off-slip Left Ahead	U	3	N/A	K	-	1	17	-	533	1900:1900	543+125	79.8 : 79.8%
5/3	A483 NB Off-slip Ahead	U	3	N/A	K	-	1	17	-	433	1900	543	79.8%
6/1	Right Left	U	1	N/A	B	-	1	38	-	1046	1900	1176	88.9%
6/2	Right	U	1	N/A	B	-	1	38	-	324	1900	1176	27.5%
6/3	Right	U	1	N/A	B	-	1	38	-	328	1900	1176	27.9%
7/1	Ahead	U	N/A	N/A	-	-	-	-	-	913	Inf	Inf	0.0%
7/2	Ahead	U	N/A	N/A	-	-	-	-	-	499	Inf	Inf	0.0%
7/3	Right	U	N/A	N/A	-	-	-	-	-	483	Inf	Inf	0.0%
7/4	Right	U	N/A	N/A	-	-	-	-	-	145	Inf	Inf	0.0%
8/1	Ahead	U	2	N/A	F	-	1	10	-	288	1900	332	86.8%
8/2	Ahead	U	2	N/A	F	-	1	10	-	292	1900	332	88.0%

Full Input Data And Results

8/3	Ahead	U	2	N/A	F		1	10	-	67	1900	332	20.2%
8/4	Ahead	U	2	N/A	F		1	10	-	252	1900	332	76.0%
9/1	Ahead	U	2	N/A	H		1	45	-	713	1900	1387	51.4%
9/2	Right Ahead	U	2	N/A	H		1	45	-	940	1900	1387	67.8%
9/3	Right	U	2	N/A	H		1	45	-	738	1900	1387	53.2%
10/1	Ahead Right	U	3	N/A	L		1	36	-	435	1900	1116	39.0%
10/2	Right	U	3	N/A	L		1	36	-	500	1900	1116	44.8%
10/3	Right	U	3	N/A	L		1	36	-	987	1900	1116	88.5%
11/1		U	N/A	N/A	-		-	-	-	234	Inf	Inf	0.0%
11/2		U	N/A	N/A	-		-	-	-	807	Inf	Inf	0.0%
12/1		U	N/A	N/A	-		-	-	-	526	Inf	Inf	0.0%
13/1		U	N/A	N/A	-		-	-	-	1015	Inf	Inf	0.0%
13/2		U	N/A	N/A	-		-	-	-	499	Inf	Inf	0.0%
14/1		U	N/A	N/A	-		-	-	-	355	Inf	Inf	0.0%
14/2		U	N/A	N/A	-		-	-	-	292	Inf	Inf	0.0%
15/1		U	N/A	N/A	-		-	-	-	857	Inf	Inf	0.0%
15/2		U	N/A	N/A	-		-	-	-	254	Inf	Inf	0.0%
16/1+16/2	Blue Bell Ln Left Ahead	O	N/A	N/A	-		-	-	-	309	Inf : Inf	262+262	59.2 : 58.8%
17/1		U	N/A	N/A	-		-	-	-	503	Inf	Inf	0.0%
18/1	Ahead	U	N/A	N/A	-		-	-	-	32	Inf	Inf	0.0%
18/2	Right	U	N/A	N/A	-		-	-	-	933	Inf	Inf	0.0%
18/3	Right	U	N/A	N/A	-		-	-	-	1420	Inf	Inf	0.0%
19/1+19/2	Industrial Park Access Ahead Left	O	N/A	N/A	-		-	-	-	87	Inf : Inf	159+159	27.0 : 27.7%
20/1		U	N/A	N/A	-		-	-	-	42	Inf	Inf	0.0%
21/1	Ahead	U	N/A	N/A	-		-	-	-	216	Inf	Inf	0.0%
21/2	Right Ahead	U	N/A	N/A	-		-	-	-	1828	Inf	Inf	0.0%
21/3	Right	U	N/A	N/A	-		-	-	-	808	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: Gresford Interchange	-	-	1403	0	0	36.5	43.6	0.0	80.1	-	-	-	-
Gresford Interchange	-	-	1403	0	0	36.5	43.6	0.0	80.1	-	-	-	-
1/2+1/1	787	787	-	-	-	4.8	2.2	-	7.0	32.0	6.5	2.2	8.6
1/3	81	81	-	-	-	0.4	0.1	-	0.5	22.8	1.1	0.1	1.2
2/2+2/1	238	238	476	0	0	0.1	0.3	-	0.4	5.7	0.6	0.3	0.9
2/3	135	135	135	0	0	0.1	0.3	-	0.3	9.3	0.6	0.3	0.8
3/2+3/1	1426	1426	-	-	-	6.9	4.7	-	11.6	29.3	11.7	4.7	16.4
3/3	713	713	-	-	-	3.4	4.5	-	7.9	39.9	11.7	4.5	16.1
4/2+4/1	393	393	-	-	-	2.8	4.4	-	7.3	66.7	4.3	4.4	8.7
4/3	249	249	-	-	-	1.8	4.1	-	5.9	85.5	4.3	4.1	8.4
5/2+5/1	533	533	-	-	-	3.0	1.9	-	4.9	33.0	7.0	1.9	8.9
5/3	433	433	-	-	-	2.5	1.9	-	4.4	36.7	7.0	1.9	8.9
6/1	1046	1046	-	-	-	2.5	3.8	-	6.3	21.6	16.0	3.8	19.8
6/2	324	324	-	-	-	0.2	0.2	-	0.4	4.0	1.8	0.2	2.0
6/3	328	328	-	-	-	0.3	0.2	-	0.5	5.2	2.7	0.2	2.9
7/1	913	913	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	499	499	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/3	483	483	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/4	145	145	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	288	288	-	-	-	1.6	2.9	-	4.5	56.6	5.0	2.9	7.9
8/2	292	292	-	-	-	1.6	3.2	-	4.8	59.4	5.0	3.2	8.2
8/3	67	67	-	-	-	0.3	0.1	-	0.5	25.5	1.0	0.1	1.1
8/4	252	252	-	-	-	1.8	1.5	-	3.3	47.4	4.3	1.5	5.8
9/1	713	713	-	-	-	0.0	0.5	-	0.5	2.7	0.0	0.5	0.5
9/2	940	940	-	-	-	0.0	1.0	-	1.1	4.0	0.0	1.0	1.1

Full Input Data And Results

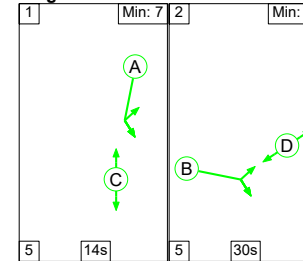
9/3	738	738	-	-	-	0.0	0.6	-	0.6	2.8	0.0	0.6	0.6	
10/1	435	435	-	-	-	0.8	0.3	-	1.1	8.9	3.2	0.3	3.5	
10/2	500	500	-	-	-	0.5	0.4	-	0.9	6.8	4.1	0.4	4.5	
10/3	987	987	-	-	-	0.6	3.6	-	4.2	15.4	5.5	3.6	9.1	
11/1	234	234	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
11/2	807	807	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
12/1	526	526	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
13/1	1015	1015	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
13/2	499	499	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
14/1	355	355	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
14/2	292	292	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
15/1	857	857	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
15/2	254	254	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
16/1+16/2	309	309	618	0	0	0.3	0.7	-	1.0	12.0	1.4	0.7	2.1	
17/1	503	503	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
18/1	32	32	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
18/2	933	933	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
18/3	1420	1420	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
19/1+19/2	87	87	174	0	0	0.0	0.2	-	0.2	9.6	0.2	0.2	0.3	
20/1	42	42	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
21/1	216	216	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
21/2	1828	1828	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
21/3	608	608	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
C1 Stream: 1 PRC for Signalised Lanes (%):						1.2	Total Delay for Signalised Lanes (pcuHr):			14.62	Cycle Time (s):			63
C1 Stream: 2 PRC for Signalised Lanes (%):						-1.9	Total Delay for Signalised Lanes (pcuHr):			47.98	Cycle Time (s):			63
C1 Stream: 3 PRC for Signalised Lanes (%):						1.8	Total Delay for Signalised Lanes (pcuHr):			15.54	Cycle Time (s):			63
PRC Over All Lanes (%):						-1.9	Total Delay Over All Lanes (pcuHr):			80.12				

Full Input Data And Results

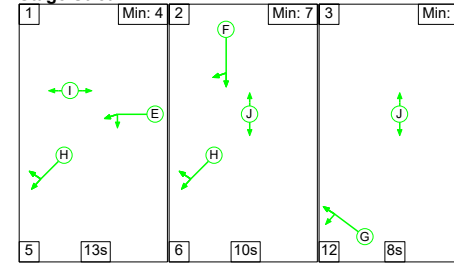
Scenario 13: 'AM With Dev 2036 ST' (FG13: 'AM With Dev 2036 ST', Plan 1: 'Staging Plan No. 1')

Stage Sequence Diagram

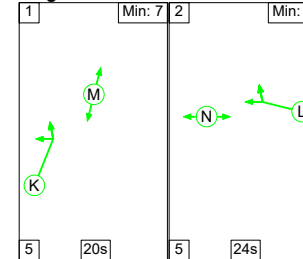
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	14	30
Change Point	0	19

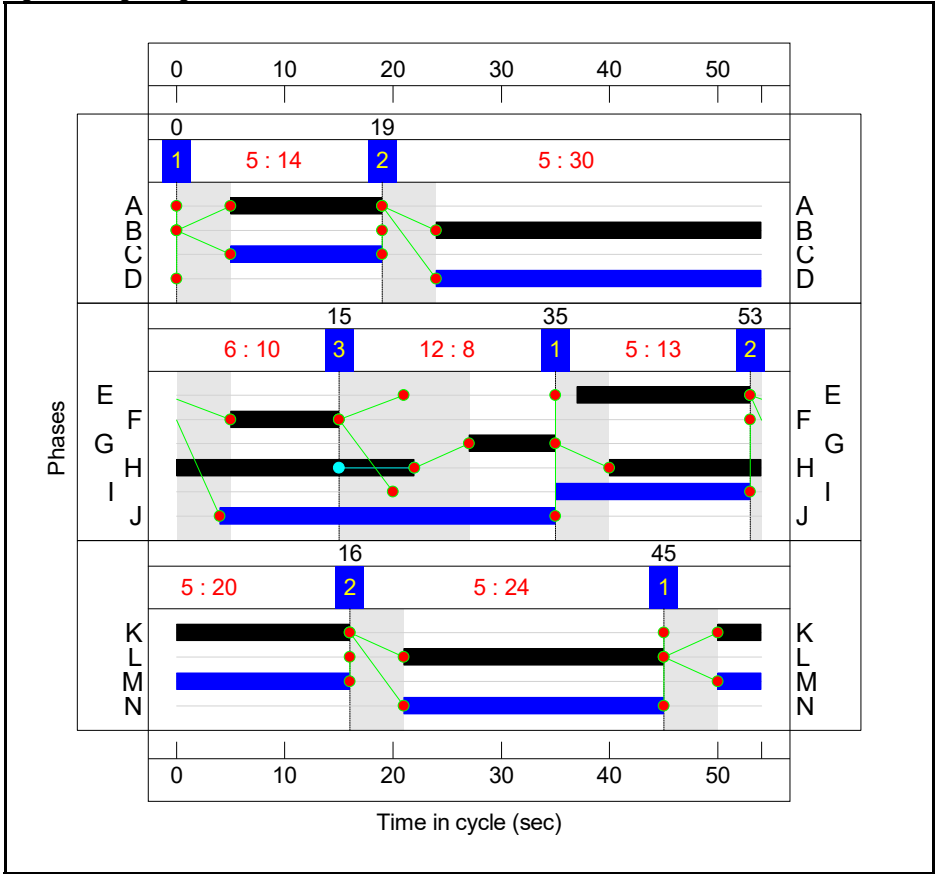
Stage Stream: 2

Stage	1	2	3
Duration	13	10	8
Change Point	35	53	15

Full Input Data And Results
Stage Stream: 3

Stage	1	2
Duration	20	24
Change Point	45	16

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: Gresford Interchange	-	-	N/A	-	-	-	-	-	-	-	-	-	109.5%
Gresford Interchange	-	-	N/A	-	-	-	-	-	-	-	-	-	109.5%
1/2+1/1	A483 SB Off-slip Left U-Turn	U	1	N/A	A	-	1	14	-	1129	1900:1900	528+528	107.1 : 106.9%
1/3	A483 SB Off-slip Left	U	1	N/A	A	-	1	14	-	161	1900	528	30.5%
2/2+2/1	B5445 Ahead Left	O	N/A	N/A	-	-	-	-	-	347	Inf : Inf	194+194	94.3 : 84.5%
2/3	B5445 Ahead	O	N/A	N/A	-	-	-	-	-	184	Inf	194	94.8%
3/2+3/1	A5156 Ahead Left	U	2	N/A	E	-	1	16	-	963	1900:1900	598+598	80.4 : 80.6%
3/3	A5156 Ahead	U	2	N/A	E	-	1	16	-	482	1900	598	80.6%
4/2+4/1	A5152 Ahead Left	U	2	N/A	G	-	1	8	-	443	1900:1900	317+195	86.5 : 86.5%
4/3	A5152 Ahead	U	2	N/A	G	-	1	8	-	275	1900	317	86.8%
5/2+5/1	A483 NB Off-slip Left Ahead	U	3	N/A	K	-	1	20	-	784	1900:1900	739+161	87.2 : 87.2%
5/3	A483 NB Off-slip Ahead	U	3	N/A	K	-	1	20	-	645	1900	739	87.3%
6/1	Right Left	U	1	N/A	B	-	1	30	-	1199	1900	1091	109.5%
6/2	Right	U	1	N/A	B	-	1	30	-	597	1900	1091	54.4%
6/3	Right	U	1	N/A	B	-	1	30	-	300	1900	1091	27.1%
7/1	Ahead	U	N/A	N/A	-	-	-	-	-	1415	Inf	Inf	0.0%
7/2	Ahead	U	N/A	N/A	-	-	-	-	-	978	Inf	Inf	0.0%
7/3	Right	U	N/A	N/A	-	-	-	-	-	389	Inf	Inf	0.0%
7/4	Right	U	N/A	N/A	-	-	-	-	-	256	Inf	Inf	0.0%
8/1	Ahead	U	2	N/A	F	-	1	10	-	221	1900	387	55.4%
8/2	Ahead	U	2	N/A	F	-	1	10	-	223	1900	387	55.9%

Full Input Data And Results

8/3	Ahead	U	2	N/A	F		1	10	-	175	1900	387	44.7%
8/4	Ahead	U	2	N/A	F		1	10	-	393	1900	387	101.1%
9/1	Ahead	U	2	N/A	H		1	36	-	620	1900	1302	47.5%
9/2	Right Ahead	U	2	N/A	H		1	36	-	824	1900	1302	62.9%
9/3	Right	U	2	N/A	H		1	36	-	532	1900	1302	40.8%
10/1	Ahead Right	U	3	N/A	L		1	24	-	371	1900	880	41.9%
10/2	Right	U	3	N/A	L		1	24	-	563	1900	880	63.9%
10/3	Right	U	3	N/A	L		1	24	-	807	1900	880	91.7%
11/1		U	N/A	N/A	-		-	-	-	251	Inf	Inf	0.0%
11/2		U	N/A	N/A	-		-	-	-	728	Inf	Inf	0.0%
12/1		U	N/A	N/A	-		-	-	-	348	Inf	Inf	0.0%
13/1		U	N/A	N/A	-		-	-	-	1579	Inf	Inf	0.0%
13/2		U	N/A	N/A	-		-	-	-	978	Inf	Inf	0.0%
14/1		U	N/A	N/A	-		-	-	-	258	Inf	Inf	0.0%
14/2		U	N/A	N/A	-		-	-	-	223	Inf	Inf	0.0%
15/1		U	N/A	N/A	-		-	-	-	789	Inf	Inf	0.0%
15/2		U	N/A	N/A	-		-	-	-	164	Inf	Inf	0.0%
16/1+16/2	Blue Bell Ln Left Ahead	O	N/A	N/A	-		-	-	-	400	Inf : Inf	192+192	104.1 : 104.1%
17/1		U	N/A	N/A	-		-	-	-	442	Inf	Inf	0.0%
18/1	Ahead	U	N/A	N/A	-		-	-	-	69	Inf	Inf	0.0%
18/2	Right	U	N/A	N/A	-		-	-	-	1207	Inf	Inf	0.0%
18/3	Right	U	N/A	N/A	-		-	-	-	1452	Inf	Inf	0.0%
19/1+19/2	Industrial Park Access Ahead Left	O	N/A	N/A	-		-	-	-	24	Inf : Inf	74+74	16.1 : 16.1%
20/1		U	N/A	N/A	-		-	-	-	77	Inf	Inf	0.0%
21/1	Ahead	U	N/A	N/A	-		-	-	-	241	Inf	Inf	0.0%
21/2	Right Ahead	U	N/A	N/A	-		-	-	-	1925	Inf	Inf	0.0%
21/3	Right	U	N/A	N/A	-		-	-	-	885	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: Gresford Interchange	-	-	1695	0	0	50.1	161.1	0.0	211.2	-	-	-	-
1/2+1/1	1129	1056	-	-	-	8.0	43.2	-	51.3	163.5	9.0	43.2	52.3
1/3	161	161	-	-	-	0.7	0.2	-	0.9	20.3	1.9	0.2	2.1
2/2+2/1	347	347	694	0	0	1.0	3.6	-	4.6	47.3	2.7	3.6	6.3
2/3	184	184	184	0	0	0.6	4.7	-	5.3	103.5	2.7	4.7	7.4
3/2+3/1	963	963	-	-	-	4.5	2.0	-	6.6	24.6	6.6	2.0	8.6
3/3	482	482	-	-	-	2.3	2.0	-	4.3	32.0	6.6	2.0	8.6
4/2+4/1	443	443	-	-	-	2.6	3.0	-	5.6	45.5	4.0	3.0	6.9
4/3	275	275	-	-	-	1.7	2.9	-	4.6	59.9	4.0	2.9	6.9
5/2+5/1	784	784	-	-	-	3.2	3.2	-	6.4	29.2	8.8	3.2	12.0
5/3	645	645	-	-	-	2.7	3.2	-	5.9	33.2	8.8	3.2	12.0
6/1	1194	1091	-	-	-	7.6	57.0	-	64.6	194.7	20.6	57.0	77.6
6/2	594	594	-	-	-	1.1	0.6	-	1.7	10.5	7.7	0.6	8.3
6/3	295	295	-	-	-	0.3	0.2	-	0.5	5.6	2.2	0.2	2.4
7/1	1291	1291	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	950	950	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/3	376	376	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/4	252	252	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	214	214	-	-	-	1.4	0.6	-	2.1	34.6	3.1	0.6	3.7
8/2	216	216	-	-	-	1.5	0.6	-	2.1	34.7	3.1	0.6	3.7
8/3	173	173	-	-	-	0.6	0.4	-	1.0	21.2	1.8	0.4	2.2
8/4	391	387	-	-	-	2.8	11.0	-	13.8	126.9	5.9	11.0	17.0
9/1	618	618	-	-	-	0.0	0.5	-	0.5	2.7	0.0	0.5	0.5
9/2	819	819	-	-	-	0.0	0.8	-	0.9	3.9	0.1	0.8	1.0

Full Input Data And Results

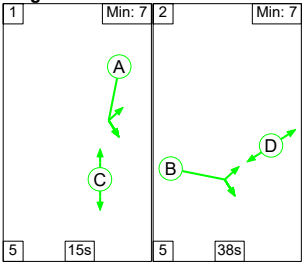
9/3	531	531	-	-	-	0.0	0.3	-	0.4	2.4	0.0	0.3	0.4
10/1	368	368	-	-	-	0.9	0.4	-	1.3	12.3	4.5	0.4	4.9
10/2	562	562	-	-	-	1.5	0.9	-	2.4	15.3	4.9	0.9	5.8
10/3	806	806	-	-	-	3.6	4.9	-	8.5	37.9	9.6	4.9	14.4
11/1	249	249	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/2	726	726	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	328	328	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	1455	1455	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/2	950	950	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/1	251	251	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/2	216	216	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
15/1	787	787	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
15/2	162	162	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
16/1+16/2	400	384	769	0	0	1.4	14.7	-	16.1	144.6	8.7	14.7	23.3
17/1	440	440	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/1	69	69	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/2	1206	1206	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/3	1451	1451	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
19/1+19/2	24	24	48	0	0	0.0	0.1	-	0.1	18.5	0.1	0.1	0.2
20/1	76	76	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
21/1	239	239	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
21/2	1918	1918	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
21/3	877	877	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 Stream: 1 PRC for Signalised Lanes (%): -21.7 C1 Stream: 2 PRC for Signalised Lanes (%): -12.3 C1 Stream: 3 PRC for Signalised Lanes (%): -1.9 PRC Over All Lanes (%): -21.7 Total Delay for Signalised Lanes (pcuHr): 118.99 Total Delay for Signalised Lanes (pcuHr): 41.67 Total Delay for Signalised Lanes (pcuHr): 24.46 Total Delay Over All Lanes (pcuHr): 211.15 Cycle Time (s): 54 Cycle Time (s): 54 Cycle Time (s): 54													

Full Input Data And Results

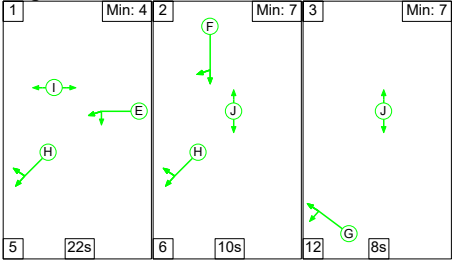
Scenario 14: 'PM With Dev 2036 ST' (FG14: 'PM With Dev 2036 ST', Plan 1: 'Staging Plan No. 1')

Stage Sequence Diagram

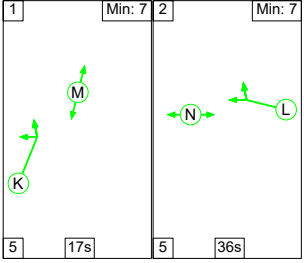
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	15	38
Change Point	0	20

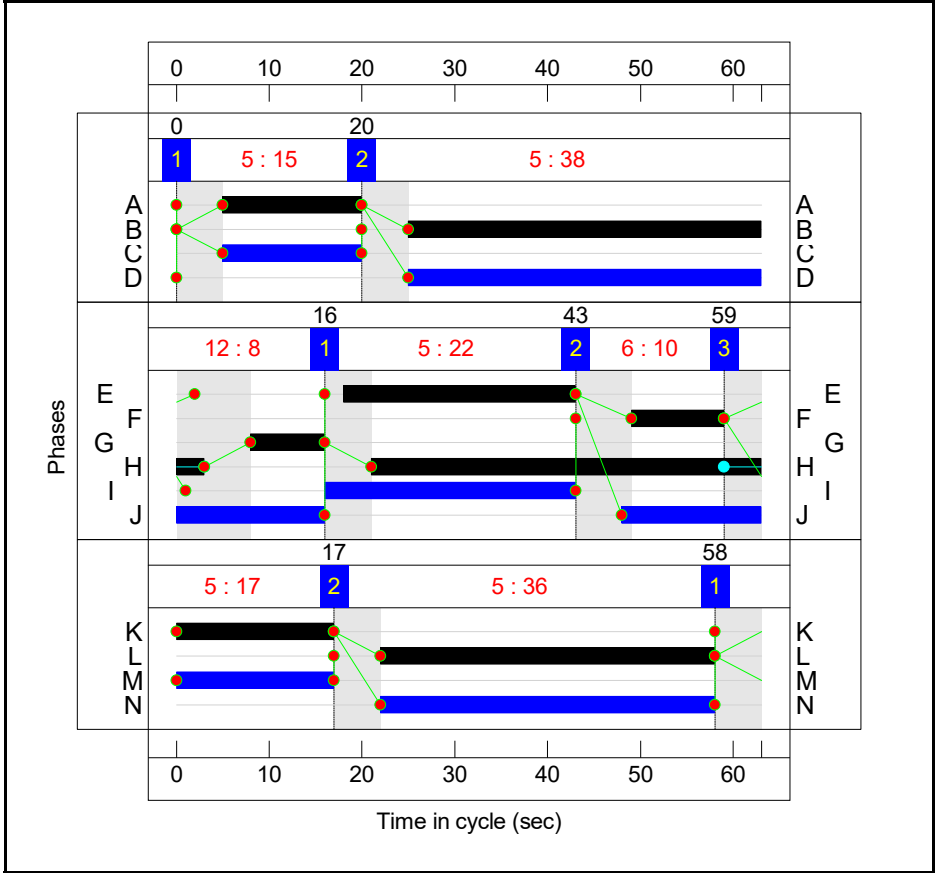
Stage Stream: 2

Stage	1	2	3
Duration	22	10	8
Change Point	16	43	59

Full Input Data And Results
Stage Stream: 3

Stage	1	2
Duration	17	36
Change Point	58	17

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: Gresford Interchange	-	-	N/A	-	-		-	-	-	-	-	-	95.4%
Gresford Interchange	-	-	N/A	-	-		-	-	-	-	-	-	95.4%
1/2+1/1	A483 SB Off-slip Left U-Turn	U	1	N/A	A		1	15	-	811	1900:1900	483+483	84.1 : 83.9%
1/3	A483 SB Off-slip Left	U	1	N/A	A		1	15	-	84	1900	483	17.4%
2/2+2/1	B5445 Ahead Left	O	N/A	N/A	-		-	-	-	247	Inf : Inf	359+315	39.3 : 33.7%
2/3	B5445 Ahead	O	N/A	N/A	-		-	-	-	141	Inf	359	39.3%
3/2+3/1	A5156 Ahead Left	U	2	N/A	E		1	25	-	1468	1900:1900	784+784	93.6 : 93.6%
3/3	A5156 Ahead	U	2	N/A	E		1	25	-	734	1900	784	93.6%
4/2+4/1	A5152 Ahead Left	U	2	N/A	G		1	8	-	408	1900:1900	271+156	95.4 : 95.4%
4/3	A5152 Ahead	U	2	N/A	G		1	8	-	257	1900	271	94.7%
5/2+5/1	A483 NB Off-slip Left Ahead	U	3	N/A	K		1	17	-	550	1900:1900	543+125	82.3 : 82.3%
5/3	A483 NB Off-slip Ahead	U	3	N/A	K		1	17	-	446	1900	543	82.2%
6/1	Right Left	U	1	N/A	B		1	38	-	1082	1900	1176	92.0%
6/2	Right	U	1	N/A	B		1	38	-	332	1900	1176	28.2%
6/3	Right	U	1	N/A	B		1	38	-	341	1900	1176	29.0%
7/1	Ahead	U	N/A	N/A	-		-	-	-	942	Inf	Inf	0.0%
7/2	Ahead	U	N/A	N/A	-		-	-	-	511	Inf	Inf	0.0%
7/3	Right	U	N/A	N/A	-		-	-	-	501	Inf	Inf	0.0%
7/4	Right	U	N/A	N/A	-		-	-	-	151	Inf	Inf	0.0%
8/1	Ahead	U	2	N/A	F		1	10	-	299	1900	332	90.1%
8/2	Ahead	U	2	N/A	F		1	10	-	303	1900	332	91.3%

Full Input Data And Results

8/3	Ahead	U	2	N/A	F		1	10	-	69	1900	332	20.8%
8/4	Ahead	U	2	N/A	F		1	10	-	263	1900	332	79.3%
9/1	Ahead	U	2	N/A	H		1	45	-	733	1900	1387	52.8%
9/2	Right Ahead	U	2	N/A	H		1	45	-	971	1900	1387	70.0%
9/3	Right	U	2	N/A	H		1	45	-	760	1900	1387	54.8%
10/1	Ahead Right	U	3	N/A	L		1	36	-	449	1900	1116	40.2%
10/2	Right	U	3	N/A	L		1	36	-	519	1900	1116	46.5%
10/3	Right	U	3	N/A	L		1	36	-	1017	1900	1116	91.1%
11/1		U	N/A	N/A	-		-	-	-	243	Inf	Inf	0.0%
11/2		U	N/A	N/A	-		-	-	-	832	Inf	Inf	0.0%
12/1		U	N/A	N/A	-		-	-	-	545	Inf	Inf	0.0%
13/1		U	N/A	N/A	-		-	-	-	1048	Inf	Inf	0.0%
13/2		U	N/A	N/A	-		-	-	-	511	Inf	Inf	0.0%
14/1		U	N/A	N/A	-		-	-	-	369	Inf	Inf	0.0%
14/2		U	N/A	N/A	-		-	-	-	303	Inf	Inf	0.0%
15/1		U	N/A	N/A	-		-	-	-	882	Inf	Inf	0.0%
15/2		U	N/A	N/A	-		-	-	-	262	Inf	Inf	0.0%
16/1+16/2	Blue Bell Ln Left Ahead	O	N/A	N/A	-		-	-	-	320	Inf : Inf	241+241	66.3 : 66.3%
17/1		U	N/A	N/A	-		-	-	-	520	Inf	Inf	0.0%
18/1	Ahead	U	N/A	N/A	-		-	-	-	32	Inf	Inf	0.0%
18/2	Right	U	N/A	N/A	-		-	-	-	966	Inf	Inf	0.0%
18/3	Right	U	N/A	N/A	-		-	-	-	1463	Inf	Inf	0.0%
19/1+19/2	Industrial Park Access Ahead Left	O	N/A	N/A	-		-	-	-	91	Inf : Inf	135+135	33.5 : 34.2%
20/1		U	N/A	N/A	-		-	-	-	42	Inf	Inf	0.0%
21/1	Ahead	U	N/A	N/A	-		-	-	-	224	Inf	Inf	0.0%
21/2	Right Ahead	U	N/A	N/A	-		-	-	-	1888	Inf	Inf	0.0%
21/3	Right	U	N/A	N/A	-		-	-	-	627	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: Gresford Interchange	-	-	1457	0	0	38.4	56.0	0.0	94.4	-	-	-	-
Gresford Interchange	-	-	1457	0	0	38.4	56.0	0.0	94.4	-	-	-	-
1/2+1/1	811	811	-	-	-	5.0	2.5	-	7.6	33.6	6.7	2.5	9.2
1/3	84	84	-	-	-	0.4	0.1	-	0.5	22.9	1.1	0.1	1.2
2/2+2/1	247	247	494	0	0	0.1	0.3	-	0.4	6.2	0.6	0.3	0.9
2/3	141	141	141	0	0	0.1	0.3	-	0.4	10.3	0.6	0.3	0.9
3/2+3/1	1468	1468	-	-	-	7.2	6.5	-	13.7	33.6	12.2	6.5	18.7
3/3	734	734	-	-	-	3.6	5.9	-	9.5	46.8	12.2	5.9	18.2
4/2+4/1	408	408	-	-	-	3.0	6.3	-	9.3	82.0	4.5	6.3	10.8
4/3	257	257	-	-	-	1.9	5.2	-	7.1	99.4	4.4	5.2	9.6
5/2+5/1	550	550	-	-	-	3.1	2.2	-	5.3	35.0	7.2	2.2	9.4
5/3	446	446	-	-	-	2.6	2.2	-	4.8	38.8	7.2	2.2	9.4
6/1	1082	1082	-	-	-	2.7	5.2	-	7.9	26.3	17.5	5.2	22.6
6/2	332	332	-	-	-	0.2	0.2	-	0.4	4.0	1.8	0.2	2.0
6/3	341	341	-	-	-	0.3	0.2	-	0.5	5.4	2.9	0.2	3.1
7/1	942	942	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	511	511	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/3	501	501	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/4	151	151	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	299	299	-	-	-	1.7	3.7	-	5.4	64.9	5.2	3.7	8.9
8/2	303	303	-	-	-	1.7	4.1	-	5.8	68.9	5.2	4.1	9.3
8/3	69	69	-	-	-	0.3	0.1	-	0.5	25.0	1.0	0.1	1.1
8/4	263	263	-	-	-	1.9	1.8	-	3.7	50.4	4.5	1.8	6.3
9/1	733	733	-	-	-	0.0	0.6	-	0.6	2.8	0.0	0.6	0.6
9/2	971	971	-	-	-	0.0	1.2	-	1.2	4.3	0.0	1.2	1.2

Full Input Data And Results

9/3	760	760	-	-	-	0.0	0.6	-	0.6	2.9	0.0	0.6	0.6
10/1	449	449	-	-	-	0.8	0.3	-	1.1	9.0	3.3	0.3	3.7
10/2	519	519	-	-	-	0.6	0.4	-	1.0	7.0	4.4	0.4	4.8
10/3	1017	1017	-	-	-	0.7	4.7	-	5.3	18.9	6.4	4.7	11.1
11/1	243	243	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/2	832	832	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	545	545	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	1048	1048	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/2	511	511	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/1	369	369	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/2	303	303	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
15/1	882	882	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
15/2	262	262	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
16/1+16/2	320	320	640	0	0	0.5	1.0	-	1.4	16.1	1.6	1.0	2.5
17/1	520	520	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/1	32	32	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/2	966	966	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/3	1463	1463	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
19/1+19/2	91	91	182	0	0	0.1	0.3	-	0.3	12.4	0.2	0.3	0.5
20/1	42	42	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
21/1	224	224	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
21/2	1888	1888	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
21/3	627	627	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 Stream: 1 PRC for Signalled Lanes (%):					-2.2	Total Delay for Signalled Lanes (pcuHr):				16.89	Cycle Time (s): 63		
C1 Stream: 2 PRC for Signalled Lanes (%):					-6.0	Total Delay for Signalled Lanes (pcuHr):				57.32	Cycle Time (s): 63		
C1 Stream: 3 PRC for Signalled Lanes (%):					-1.3	Total Delay for Signalled Lanes (pcuHr):				17.62	Cycle Time (s): 63		
PRC Over All Lanes (%):					-6.0	Total Delay Over All Lanes (pcuHr):				94.39			

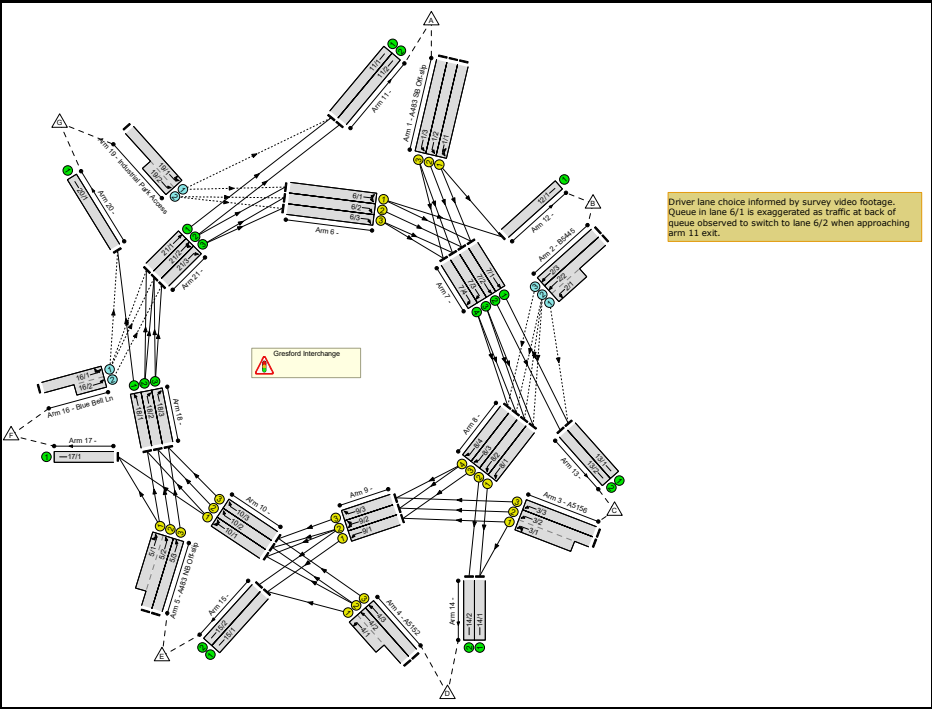
Full Input Data And Results

Full Input Data And Results

User and Project Details

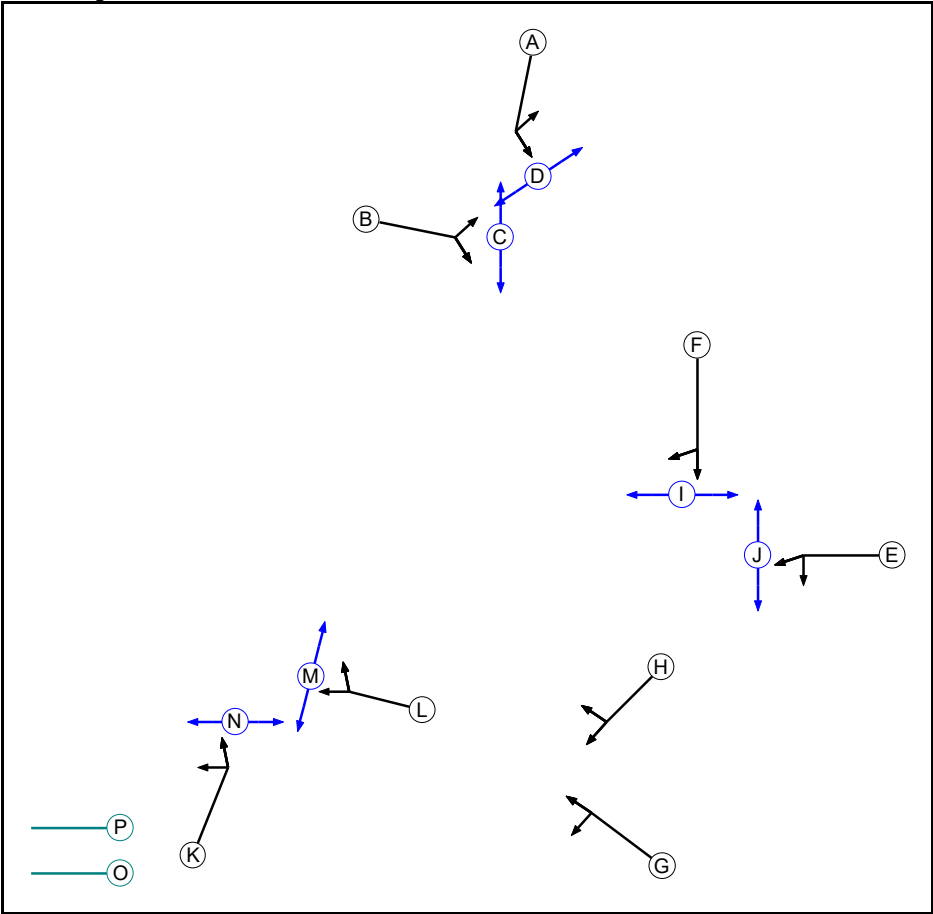
Project:	Kingmoor Park
Title:	Gresford Interchange
Location:	
Client:	FIREM
Model Purpose:	Capacity Assessment
Model Assumptions:	Controller specs and recorded cyletimes used
Flow Details:	Observed flows Tue 28th June 2022
Additional detail:	
File name:	Gresford Interchange - Post Submission Mit.lsg3x
Author:	David Stoddart
Company:	Prime Transport Planning
Address:	Liverpool

Network Layout Diagram



Full Input Data And Results

Phase Diagram



Full Input Data And Results

Phase Input Data

Phase Name	Phase Type	Stage Stream	Assoc. Phase	Street Min	Cont Min
A	Traffic	1		7	7
B	Traffic	1		7	7
C	Pedestrian	1		6	6
D	Pedestrian	1		7	7
E	Traffic	2		7	7
F	Traffic	2		7	7
G	Traffic	2		7	7
H	Traffic	2		7	0
I	Pedestrian	2		7	7
J	Pedestrian	2		6	6
K	Traffic	3		7	7
L	Traffic	3		7	7
M	Pedestrian	3		6	6
N	Pedestrian	3		6	6
O	Dummy			10	10
P	Dummy			0	0

Full Input Data And Results

Phase Intergreens Matrix

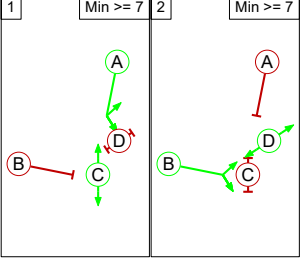
		Starting Phase															
		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Terminating Phase	A		5	-	5	-	-	-	-	-	-	-	-	-	-	-	-
	B	5		5	-	-	-	-	-	-	-	-	-	-	-	-	-
	C	-	0		-	-	-	-	-	-	-	-	-	-	-	-	-
	D	0	-			-	-	-	-	-	-	-	-	-	-	-	-
	E	-	-	-			6	-	-	-	5	-	-	-	-	-	-
	F	-	-	-	-	6		-	-	5	-	-	-	-	-	-	-
	G	-	-	-	-	-			5	-	-	-	-	-	-	-	-
	H	-	-	-	-	-	-	5		-	-	-	-	-	-	-	-
	I	-	-	-	-	-	0	-			-	-	-	-	-	-	-
	J	-	-	-	-	0	-	-	-			-	-	-	-	-	-
	K	-	-	-	-	-	-	-	-	-			5	-	5	-	-
	L	-	-	-	-	-	-	-	-	-	-		5	5	-	-	-
	M	-	-	-	-	-	-	-	-	-	-	-		0	-	-	-
	N	-	-	-	-	-	-	-	-	-	-	-	0	-		-	-
	O	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-
	P	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Phases in Stage

Stream	Stage No.	Phases in Stage
1	1	A C
1	2	B D
2	1	E H I
2	2	F H J
2	3	G J
3	1	K M
3	2	L N

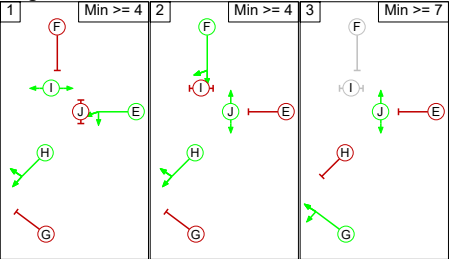
Stage Diagram

Stage Stream: 1

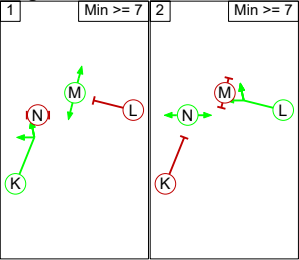


Full Input Data And Results

Stage Stream: 2



Stage Stream: 3



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
1	3	H	Losing	7	7
2	3	H	Losing	7	7

Stage Stream: 3

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

Prohibited Stage Change

Stage Stream: 1

From Stage	To Stage	
	1	2
	1	5
	2	5

Full Input Data And Results

Stage Stream: 2

From Stage	To Stage		
	1	2	3
	1	6	12
	2	6	12
	3	5	5

Stage Stream: 3

From Stage	To Stage	
	1	2
	1	5
	2	5

Full Input Data And Results
Give-Way Lane Input Data

Junction: Gresford Interchange											
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)
2/1 (B5445)	13/1 (Left)	1000	0	7/1	0.33	All	-	-	-	-	-
				7/2	0.33	All					
				7/3	0.33	All					
				7/4	0.33	All					
2/2 (B5445)	8/1 (Ahead)	1000	0	7/1	0.33	All	-	-	-	-	-
				7/2	0.33	All					
				7/3	0.33	All					
				7/4	0.33	All					
	8/2 (Ahead)	1000	0	7/1	0.33	All					
				7/2	0.33	All					
				7/3	0.33	All					
				7/4	0.33	All					
2/3 (B5445)	8/3 (Ahead)	1000	0	7/1	0.33	All	-	-	-	-	-
				7/2	0.33	All					
				7/3	0.33	All					
				7/4	0.33	All					
16/1 (Blue Bell Ln)	20/1 (Left)	1000	0	7/1	0.33	All	-	-	-	-	-
				7/2	0.33	All					
				7/3	0.33	All					
				7/4	0.33	All					

Full Input Data And Results

16/2 (Blue Bell Ln) 19/1 (Industrial Park Access) 19/2 (Industrial Park Access)	21/1 (Ahead)	1000	0	18/1	0.33	All	-	-	-	-	-
				18/2	0.33	All					
				18/3	0.33	All					
	21/2 (Ahead)	1000	0	18/1	0.33	All					
				18/2	0.33	All					
				18/3	0.33	All					
	21/3 (Ahead)	1000	0	18/1	0.33	All					
				18/2	0.33	All					
				18/3	0.33	All					
	6/1 (Ahead)	1000	0	21/1	0.33	All					
				21/2	0.33	All					
				21/3	0.33	All					
	11/1 (Left)	1000	0	21/1	0.33	All					
				21/2	0.33	All					
				21/3	0.33	All					
19/2 (Industrial Park Access)	6/2 (Ahead)	1000	0	21/1	0.33	All	-	-	-	-	-
				21/2	0.33	All					
				21/3	0.33	All					
	6/3 (Ahead)	1000	0	21/1	0.33	All					
				21/2	0.33	All					
				21/3	0.33	All					

Full Input Data And Results

Lane Input Data

Junction: Gresford Interchange												
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1 (A483 SB Off-slip)	U	A	2	3	60.0	User	1900	-	-	-	-	-
1/2 (A483 SB Off-slip)	U	A	2	3	60.0	User	1900	-	-	-	-	-
1/3 (A483 SB Off-slip)	U	A	2	3	60.0	User	1900	-	-	-	-	-
2/1 (B5445)	O		2	3	5.2	Inf	-	-	-	-	-	-
2/2 (B5445)	O		2	3	60.0	Inf	-	-	-	-	-	-
2/3 (B5445)	O		2	3	60.0	Inf	-	-	-	-	-	-
3/1 (A5156)	U	E	2	3	17.4	User	1900	-	-	-	-	-
3/2 (A5156)	U	E	2	3	60.0	User	1900	-	-	-	-	-
3/3 (A5156)	U	E	2	3	60.0	User	1900	-	-	-	-	-
4/1 (A5152)	U	G	2	3	5.6	User	1900	-	-	-	-	-
4/2 (A5152)	U	G	2	3	60.0	User	1900	-	-	-	-	-
4/3 (A5152)	U	G	2	3	60.0	User	1900	-	-	-	-	-
5/1 (A483 NB Off-slip)	U	K	2	3	9.7	User	1900	-	-	-	-	-
5/2 (A483 NB Off-slip)	U	K	2	3	60.0	User	1900	-	-	-	-	-
5/3 (A483 NB Off-slip)	U	K	2	3	60.0	User	1900	-	-	-	-	-
6/1	U	B	2	3	60.0	User	1900	-	-	-	-	-
6/2	U	B	2	3	60.0	User	1900	-	-	-	-	-
6/3	U	B	2	3	60.0	User	1900	-	-	-	-	-
7/1	U		2	3	60.0	Inf	-	-	-	-	-	-
7/2	U		2	3	60.0	Inf	-	-	-	-	-	-
7/3	U		2	3	60.0	Inf	-	-	-	-	-	-
7/4	U		2	3	60.0	Inf	-	-	-	-	-	-
8/1	U	F	2	3	60.0	User	1900	-	-	-	-	-
8/2	U	F	2	3	60.0	User	1900	-	-	-	-	-
8/3	U	F	2	3	60.0	User	1900	-	-	-	-	-

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8/4	U	F	2	3	60.0	User	1900	-	-	-	-	-
9/1	U	H	2	3	60.0	User	1900	-	-	-	-	-
9/2	U	H	2	3	60.0	User	1900	-	-	-	-	-
9/3	U	H	2	3	60.0	User	1900	-	-	-	-	-
10/1	U	L	2	3	60.0	User	1900	-	-	-	-	-
10/2	U	L	2	3	60.0	User	1900	-	-	-	-	-
10/3	U	L	2	3	60.0	User	1900	-	-	-	-	-
11/1	U		2	3	60.0	Inf	-	-	-	-	-	-
11/2	U		2	3	60.0	Inf	-	-	-	-	-	-
12/1	U		2	3	60.0	Inf	-	-	-	-	-	-
13/1	U		2	3	60.0	Inf	-	-	-	-	-	-
13/2	U		2	3	60.0	Inf	-	-	-	-	-	-
14/1	U		2	3	60.0	Inf	-	-	-	-	-	-
14/2	U		2	3	60.0	Inf	-	-	-	-	-	-
15/1	U		2	3	60.0	Inf	-	-	-	-	-	-
15/2	U		2	3	60.0	Inf	-	-	-	-	-	-
16/1 (Blue Bell Ln)	O		2	3	60.0	Inf	-	-	-	-	-	-
16/2 (Blue Bell Ln)	O		2	3	4.3	Inf	-	-	-	-	-	-
17/1	U		2	3	60.0	Inf	-	-	-	-	-	-
18/1	U		2	3	60.0	Inf	-	-	-	-	-	-
18/2	U		2	3	60.0	Inf	-	-	-	-	-	-
18/3	U		2	3	60.0	Inf	-	-	-	-	-	-
19/1 (Industrial Park Access)	O		2	3	60.0	Inf	-	-	-	-	-	-
19/2 (Industrial Park Access)	O		2	3	4.9	Inf	-	-	-	-	-	-
20/1	U		2	3	60.0	Inf	-	-	-	-	-	-
21/1	U		2	3	60.0	Inf	-	-	-	-	-	-
21/2	U		2	3	60.0	Inf	-	-	-	-	-	-
21/3	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: 'AM Obs'	07:45	08:45	01:00	
2: 'PM Obs'	16:30	17:30	01:00	
3: 'AM Without 2027'	07:45	08:45	01:00	
4: 'PM Without 2027'	16:30	17:30	01:00	
5: 'AM Without 2036'	07:45	08:45	01:00	
6: 'PM Without 2036'	16:30	17:30	01:00	
7: 'AM With Dev 2027'	07:45	08:45	01:00	
8: 'PM With Dev 2027'	16:30	17:30	01:00	
9: 'AM With Dev 2036'	07:45	08:45	01:00	
10: 'PM With Dev 2036'	16:30	17:30	01:00	
11: 'AM With Dev 2027 ST'	07:45	08:45	01:00	
12: 'PM With Dev 2027 ST'	16:30	17:30	01:00	
13: 'AM With Dev 2036 ST'	07:45	08:45	01:00	
14: 'PM With Dev 2036 ST'	16:30	17:30	01:00	

Scenario 1: 'AM With Dev 2027' (FG7: 'AM With Dev 2027', Plan 1: 'Staging Plan No. 1')

Traffic Flows, Desired

Desired Flow :

	Destination								
		A	B	C	D	E	F	G	Tot.
Origin	A	0	6	891	177	0	135	21	1230
	B	145	0	158	53	126	26	4	512
	C	558	124	0	36	547	120	22	1407
	D	162	61	270	0	163	34	3	693
	E	0	124	920	173	0	119	16	1352
	F	69	21	166	25	90	0	8	379
	G	10	0	12	0	2	0	0	24
	Tot.	944	336	2417	464	928	434	74	5597

Traffic Lane Flows

Lane	Scenario 1: AM With Dev 2027
Junction: Gresford Interchange	
1/1	448
1/2	449
1/3	333
2/1 (short)	158
2/2 (with short)	335(In) 177(Out)
2/3	177
3/1 (short)	469
3/2 (with short)	938(In) 469(Out)
3/3	469
4/1 (short)	163
4/2 (with short)	428(In) 265(Out)
4/3	265
5/1 (short)	135
5/2 (with short)	743(In) 608(Out)
5/3	609
6/1	1139
6/2	559
6/3	290
7/1	1251
7/2	1008
7/3	375
7/4	248
8/1	212
8/2	216
8/3	170
8/4	379
9/1	603
9/2	800
9/3	517
10/1	365
10/2	538
10/3	782
11/1	241
11/2	703
12/1	336

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13/1	1409
13/2	1008
14/1	248
14/2	216
15/1	766
15/2	162
16/1 (with short)	379(In) 189(Out)
16/2 (short)	190
17/1	434
18/1	66
18/2	1146
18/3	1391
19/1 (with short)	24(In) 12(Out)
19/2 (short)	12
20/1	74
21/1	231
21/2	1840
21/3	837

Full Input Data And Results

Lane Saturation Flows

Junction: Gresford Interchange								
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 SB Off-slip Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
1/2 (A483 SB Off-slip Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
1/3 (A483 SB Off-slip Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
2/1 (B5445 Lane 1)	Infinite Saturation Flow						Inf	Inf
2/2 (B5445 Lane 2)	Infinite Saturation Flow						Inf	Inf
2/3 (B5445 Lane 3)	Infinite Saturation Flow						Inf	Inf
3/1 (A5156 Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
3/2 (A5156 Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
3/3 (A5156 Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
4/1 (A5152 Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
4/2 (A5152 Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
4/3 (A5152 Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
5/1 (A483 NB Off-slip Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
5/2 (A483 NB Off-slip Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
5/3 (A483 NB Off-slip Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
6/1	This lane uses a directly entered Saturation Flow						1900	1900
6/2	This lane uses a directly entered Saturation Flow						1900	1900
6/3	This lane uses a directly entered Saturation Flow						1900	1900
7/1	Infinite Saturation Flow						Inf	Inf
7/2	Infinite Saturation Flow						Inf	Inf
7/3	Infinite Saturation Flow						Inf	Inf
7/4	Infinite Saturation Flow						Inf	Inf
8/1	This lane uses a directly entered Saturation Flow						1900	1900
8/2	This lane uses a directly entered Saturation Flow						1900	1900
8/3	This lane uses a directly entered Saturation Flow						1900	1900
8/4	This lane uses a directly entered Saturation Flow						1900	1900
9/1	This lane uses a directly entered Saturation Flow						1900	1900
9/2	This lane uses a directly entered Saturation Flow						1900	1900

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9/3	This lane uses a directly entered Saturation Flow	1900	1900
10/1	This lane uses a directly entered Saturation Flow	1900	1900
10/2	This lane uses a directly entered Saturation Flow	1900	1900
10/3	This lane uses a directly entered Saturation Flow	1900	1900
11/1	Infinite Saturation Flow	Inf	Inf
11/2	Infinite Saturation Flow	Inf	Inf
12/1	Infinite Saturation Flow	Inf	Inf
13/1	Infinite Saturation Flow	Inf	Inf
13/2	Infinite Saturation Flow	Inf	Inf
14/1	Infinite Saturation Flow	Inf	Inf
14/2	Infinite Saturation Flow	Inf	Inf
15/1	Infinite Saturation Flow	Inf	Inf
15/2	Infinite Saturation Flow	Inf	Inf
16/1 (Blue Bell Ln Lane 1)	Infinite Saturation Flow	Inf	Inf
16/2 (Blue Bell Ln Lane 2)	Infinite Saturation Flow	Inf	Inf
17/1	Infinite Saturation Flow	Inf	Inf
18/1	Infinite Saturation Flow	Inf	Inf
18/2	Infinite Saturation Flow	Inf	Inf
18/3	Infinite Saturation Flow	Inf	Inf
19/1 (Industrial Park Access Lane 1)	Infinite Saturation Flow	Inf	Inf
19/2 (Industrial Park Access Lane 2)	Infinite Saturation Flow	Inf	Inf
20/1	Infinite Saturation Flow	Inf	Inf
21/1	Infinite Saturation Flow	Inf	Inf
21/2	Infinite Saturation Flow	Inf	Inf
21/3	Infinite Saturation Flow	Inf	Inf

Scenario 2: 'PM With Dev 2027' (FG8: 'PM With Dev 2027', Plan 1: 'Staging Plan No. 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination								
		A	B	C	D	E	F	G	Tot.
	A	0	9	563	219	0	71	10	872
	B	74	0	102	97	72	27	1	373
	C	701	258	0	67	813	241	11	2091
	D	164	80	194	0	144	58	2	642
	E	0	140	542	197	0	92	8	979
	F	68	30	117	47	41	0	10	313
	G	18	9	17	20	16	7	0	87
	Tot.	1025	526	1535	647	1086	496	42	5357

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 2: PM With Dev 2027
Junction: Gresford Interchange	
1/1	286
1/2	286
1/3	300
2/1 (short)	102
2/2 (with short)	238(In) 136(Out)
2/3	135
3/1 (short)	697
3/2 (with short)	1395(In) 698(Out)
3/3	696
4/1 (short)	144
4/2 (with short)	393(In) 249(Out)
4/3	249
5/1 (short)	100
5/2 (with short)	539(In) 439(Out)
5/3	440
6/1	1055
6/2	332
6/3	328
7/1	815
7/2	618
7/3	483
7/4	145
8/1	288
8/2	292
8/3	67
8/4	252
9/1	697
9/2	925
9/3	721
10/1	428
10/2	501
10/3	970
11/1	234
11/2	791
12/1	526

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13/1	917
13/2	618
14/1	355
14/2	292
15/1	841
15/2	245
16/1 (with short)	313(In) 157(Out)
16/2 (short)	156
17/1	496
18/1	32
18/2	940
18/3	1410
19/1 (with short)	87(In) 43(Out)
19/2 (short)	44
20/1	42
21/1	216
21/2	1821
21/3	616

Full Input Data And Results

Lane Saturation Flows

Junction: Gresford Interchange								
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 SB Off-slip Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
1/2 (A483 SB Off-slip Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
1/3 (A483 SB Off-slip Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
2/1 (B5445 Lane 1)	Infinite Saturation Flow						Inf	Inf
2/2 (B5445 Lane 2)	Infinite Saturation Flow						Inf	Inf
2/3 (B5445 Lane 3)	Infinite Saturation Flow						Inf	Inf
3/1 (A5156 Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
3/2 (A5156 Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
3/3 (A5156 Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
4/1 (A5152 Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
4/2 (A5152 Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
4/3 (A5152 Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
5/1 (A483 NB Off-slip Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
5/2 (A483 NB Off-slip Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
5/3 (A483 NB Off-slip Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
6/1	This lane uses a directly entered Saturation Flow						1900	1900
6/2	This lane uses a directly entered Saturation Flow						1900	1900
6/3	This lane uses a directly entered Saturation Flow						1900	1900
7/1	Infinite Saturation Flow						Inf	Inf
7/2	Infinite Saturation Flow						Inf	Inf
7/3	Infinite Saturation Flow						Inf	Inf
7/4	Infinite Saturation Flow						Inf	Inf
8/1	This lane uses a directly entered Saturation Flow						1900	1900
8/2	This lane uses a directly entered Saturation Flow						1900	1900
8/3	This lane uses a directly entered Saturation Flow						1900	1900
8/4	This lane uses a directly entered Saturation Flow						1900	1900
9/1	This lane uses a directly entered Saturation Flow						1900	1900
9/2	This lane uses a directly entered Saturation Flow						1900	1900

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9/3	This lane uses a directly entered Saturation Flow	1900	1900
10/1	This lane uses a directly entered Saturation Flow	1900	1900
10/2	This lane uses a directly entered Saturation Flow	1900	1900
10/3	This lane uses a directly entered Saturation Flow	1900	1900
11/1	Infinite Saturation Flow	Inf	Inf
11/2	Infinite Saturation Flow	Inf	Inf
12/1	Infinite Saturation Flow	Inf	Inf
13/1	Infinite Saturation Flow	Inf	Inf
13/2	Infinite Saturation Flow	Inf	Inf
14/1	Infinite Saturation Flow	Inf	Inf
14/2	Infinite Saturation Flow	Inf	Inf
15/1	Infinite Saturation Flow	Inf	Inf
15/2	Infinite Saturation Flow	Inf	Inf
16/1 (Blue Bell Ln Lane 1)	Infinite Saturation Flow	Inf	Inf
16/2 (Blue Bell Ln Lane 2)	Infinite Saturation Flow	Inf	Inf
17/1	Infinite Saturation Flow	Inf	Inf
18/1	Infinite Saturation Flow	Inf	Inf
18/2	Infinite Saturation Flow	Inf	Inf
18/3	Infinite Saturation Flow	Inf	Inf
19/1 (Industrial Park Access Lane 1)	Infinite Saturation Flow	Inf	Inf
19/2 (Industrial Park Access Lane 2)	Infinite Saturation Flow	Inf	Inf
20/1	Infinite Saturation Flow	Inf	Inf
21/1	Infinite Saturation Flow	Inf	Inf
21/2	Infinite Saturation Flow	Inf	Inf
21/3	Infinite Saturation Flow	Inf	Inf

Scenario 3: 'AM With Dev 2036' (FG9: 'AM With Dev 2036', Plan 1: 'Staging Plan No. 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination								
		A	B	C	D	E	F	G	Tot.
	A	0	6	920	184	0	139	22	1271
	B	150	0	164	55	131	27	4	531
	C	574	129	0	37	560	123	23	1446
	D	168	63	280	0	169	35	3	718
	E	0	128	946	179	0	123	17	1393
	F	71	22	170	26	93	0	8	390
	G	10	0	12	0	2	0	0	24
	Tot.	973	348	2492	481	955	447	77	5773

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 3: AM With Dev 2036
Junction: Gresford Interchange	
1/1	463
1/2	463
1/3	345
2/1 (short)	164
2/2 (with short)	347(In) 183(Out)
2/3	184
3/1 (short)	482
3/2 (with short)	963(In) 481(Out)
3/3	483
4/1 (short)	169
4/2 (with short)	443(In) 274(Out)
4/3	275
5/1 (short)	140
5/2 (with short)	767(In) 627(Out)
5/3	626
6/1	1176
6/2	574
6/3	300
7/1	1291
7/2	1037
7/3	389
7/4	256
8/1	221
8/2	223
8/3	175
8/4	393
9/1	620
9/2	824
9/3	533
10/1	376
10/2	556
10/3	808
11/1	248
11/2	725
12/1	348

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13/1	1455
13/2	1037
14/1	258
14/2	223
15/1	789
15/2	166
16/1 (with short)	390(In) 195(Out)
16/2 (short)	195
17/1	447
18/1	69
18/2	1183
18/3	1434
19/1 (with short)	24(In) 12(Out)
19/2 (short)	12
20/1	77
21/1	238
21/2	1899
21/3	862

Full Input Data And Results

Lane Saturation Flows

Junction: Gresford Interchange								
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 SB Off-slip Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
1/2 (A483 SB Off-slip Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
1/3 (A483 SB Off-slip Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
2/1 (B5445 Lane 1)	Infinite Saturation Flow						Inf	Inf
2/2 (B5445 Lane 2)	Infinite Saturation Flow						Inf	Inf
2/3 (B5445 Lane 3)	Infinite Saturation Flow						Inf	Inf
3/1 (A5156 Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
3/2 (A5156 Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
3/3 (A5156 Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
4/1 (A5152 Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
4/2 (A5152 Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
4/3 (A5152 Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
5/1 (A483 NB Off-slip Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
5/2 (A483 NB Off-slip Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
5/3 (A483 NB Off-slip Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
6/1	This lane uses a directly entered Saturation Flow						1900	1900
6/2	This lane uses a directly entered Saturation Flow						1900	1900
6/3	This lane uses a directly entered Saturation Flow						1900	1900
7/1	Infinite Saturation Flow						Inf	Inf
7/2	Infinite Saturation Flow						Inf	Inf
7/3	Infinite Saturation Flow						Inf	Inf
7/4	Infinite Saturation Flow						Inf	Inf
8/1	This lane uses a directly entered Saturation Flow						1900	1900
8/2	This lane uses a directly entered Saturation Flow						1900	1900
8/3	This lane uses a directly entered Saturation Flow						1900	1900
8/4	This lane uses a directly entered Saturation Flow						1900	1900
9/1	This lane uses a directly entered Saturation Flow						1900	1900
9/2	This lane uses a directly entered Saturation Flow						1900	1900

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9/3	This lane uses a directly entered Saturation Flow	1900	1900
10/1	This lane uses a directly entered Saturation Flow	1900	1900
10/2	This lane uses a directly entered Saturation Flow	1900	1900
10/3	This lane uses a directly entered Saturation Flow	1900	1900
11/1	Infinite Saturation Flow	Inf	Inf
11/2	Infinite Saturation Flow	Inf	Inf
12/1	Infinite Saturation Flow	Inf	Inf
13/1	Infinite Saturation Flow	Inf	Inf
13/2	Infinite Saturation Flow	Inf	Inf
14/1	Infinite Saturation Flow	Inf	Inf
14/2	Infinite Saturation Flow	Inf	Inf
15/1	Infinite Saturation Flow	Inf	Inf
15/2	Infinite Saturation Flow	Inf	Inf
16/1 (Blue Bell Ln Lane 1)	Infinite Saturation Flow	Inf	Inf
16/2 (Blue Bell Ln Lane 2)	Infinite Saturation Flow	Inf	Inf
17/1	Infinite Saturation Flow	Inf	Inf
18/1	Infinite Saturation Flow	Inf	Inf
18/2	Infinite Saturation Flow	Inf	Inf
18/3	Infinite Saturation Flow	Inf	Inf
19/1 (Industrial Park Access Lane 1)	Infinite Saturation Flow	Inf	Inf
19/2 (Industrial Park Access Lane 2)	Infinite Saturation Flow	Inf	Inf
20/1	Infinite Saturation Flow	Inf	Inf
21/1	Infinite Saturation Flow	Inf	Inf
21/2	Infinite Saturation Flow	Inf	Inf
21/3	Infinite Saturation Flow	Inf	Inf

Scenario 4: 'PM With Dev 2036' (FG10: 'PM With Dev 2036', Plan 1: 'Staging Plan No. 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination								
		A	B	C	D	E	F	G	Tot.
	A	0	9	579	227	0	74	10	899
	B	77	0	106	101	75	28	1	388
	C	722	268	0	70	836	248	11	2155
	D	170	83	200	0	149	61	2	665
	E	0	145	556	204	0	95	8	1008
	F	71	31	120	49	43	0	10	324
	G	19	9	18	21	17	7	0	91
	Tot.	1059	545	1579	672	1120	513	42	5530

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 4: PM With Dev 2036
Junction: Gresford Interchange	
1/1	294
1/2	294
1/3	311
2/1 (short)	106
2/2 (with short)	247(In) 141(Out)
2/3	141
3/1 (short)	718
3/2 (with short)	1436(In) 718(Out)
3/3	719
4/1 (short)	149
4/2 (with short)	408(In) 259(Out)
4/3	257
5/1 (short)	103
5/2 (with short)	556(In) 453(Out)
5/3	452
6/1	1090
6/2	340
6/3	341
7/1	839
7/2	634
7/3	501
7/4	151
8/1	299
8/2	303
8/3	69
8/4	263
9/1	717
9/2	955
9/3	745
10/1	442
10/2	518
10/3	1002
11/1	242
11/2	817
12/1	545

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13/1	945
13/2	634
14/1	369
14/2	303
15/1	866
15/2	254
16/1 (with short)	324(In) 162(Out)
16/2 (short)	162
17/1	513
18/1	32
18/2	971
18/3	1454
19/1 (with short)	91(In) 45(Out)
19/2 (short)	46
20/1	42
21/1	223
21/2	1881
21/3	635

Full Input Data And Results

Lane Saturation Flows

Junction: Gresford Interchange								
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 SB Off-slip Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
1/2 (A483 SB Off-slip Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
1/3 (A483 SB Off-slip Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
2/1 (B5445 Lane 1)	Infinite Saturation Flow						Inf	Inf
2/2 (B5445 Lane 2)	Infinite Saturation Flow						Inf	Inf
2/3 (B5445 Lane 3)	Infinite Saturation Flow						Inf	Inf
3/1 (A5156 Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
3/2 (A5156 Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
3/3 (A5156 Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
4/1 (A5152 Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
4/2 (A5152 Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
4/3 (A5152 Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
5/1 (A483 NB Off-slip Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
5/2 (A483 NB Off-slip Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
5/3 (A483 NB Off-slip Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
6/1	This lane uses a directly entered Saturation Flow						1900	1900
6/2	This lane uses a directly entered Saturation Flow						1900	1900
6/3	This lane uses a directly entered Saturation Flow						1900	1900
7/1	Infinite Saturation Flow						Inf	Inf
7/2	Infinite Saturation Flow						Inf	Inf
7/3	Infinite Saturation Flow						Inf	Inf
7/4	Infinite Saturation Flow						Inf	Inf
8/1	This lane uses a directly entered Saturation Flow						1900	1900
8/2	This lane uses a directly entered Saturation Flow						1900	1900
8/3	This lane uses a directly entered Saturation Flow						1900	1900
8/4	This lane uses a directly entered Saturation Flow						1900	1900
9/1	This lane uses a directly entered Saturation Flow						1900	1900
9/2	This lane uses a directly entered Saturation Flow						1900	1900

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9/3	This lane uses a directly entered Saturation Flow	1900	1900
10/1	This lane uses a directly entered Saturation Flow	1900	1900
10/2	This lane uses a directly entered Saturation Flow	1900	1900
10/3	This lane uses a directly entered Saturation Flow	1900	1900
11/1	Infinite Saturation Flow	Inf	Inf
11/2	Infinite Saturation Flow	Inf	Inf
12/1	Infinite Saturation Flow	Inf	Inf
13/1	Infinite Saturation Flow	Inf	Inf
13/2	Infinite Saturation Flow	Inf	Inf
14/1	Infinite Saturation Flow	Inf	Inf
14/2	Infinite Saturation Flow	Inf	Inf
15/1	Infinite Saturation Flow	Inf	Inf
15/2	Infinite Saturation Flow	Inf	Inf
16/1 (Blue Bell Ln Lane 1)	Infinite Saturation Flow	Inf	Inf
16/2 (Blue Bell Ln Lane 2)	Infinite Saturation Flow	Inf	Inf
17/1	Infinite Saturation Flow	Inf	Inf
18/1	Infinite Saturation Flow	Inf	Inf
18/2	Infinite Saturation Flow	Inf	Inf
18/3	Infinite Saturation Flow	Inf	Inf
19/1 (Industrial Park Access Lane 1)	Infinite Saturation Flow	Inf	Inf
19/2 (Industrial Park Access Lane 2)	Infinite Saturation Flow	Inf	Inf
20/1	Infinite Saturation Flow	Inf	Inf
21/1	Infinite Saturation Flow	Inf	Inf
21/2	Infinite Saturation Flow	Inf	Inf
21/3	Infinite Saturation Flow	Inf	Inf

Scenario 5: 'AM With Dev 2027 ST' (FG11: 'AM With Dev 2027 ST', Plan 1: 'Staging Plan No. 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination								
		A	B	C	D	E	F	G	Tot.
	A	0	6	910	177	0	135	21	1249
	B	145	0	158	53	126	26	4	512
	C	564	124	0	36	544	115	22	1405
	D	162	61	270	0	163	34	3	693
	E	0	124	955	173	0	119	16	1387
	F	69	21	176	25	90	0	8	389
	G	10	0	12	0	2	0	0	24
	Tot.	950	336	2481	464	925	429	74	5659

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 5: AM With Dev 2027 ST
Junction: Gresford Interchange	
1/1	458
1/2	458
1/3	333
2/1 (short)	158
2/2 (with short)	335(In) 177(Out)
2/3	177
3/1 (short)	468
3/2 (with short)	937(In) 469(Out)
3/3	468
4/1 (short)	163
4/2 (with short)	428(In) 265(Out)
4/3	265
5/1 (short)	135
5/2 (with short)	761(In) 626(Out)
5/3	626
6/1	1162
6/2	581
6/3	290
7/1	1284
7/2	1039
7/3	375
7/4	248
8/1	212
8/2	216
8/3	170
8/4	379
9/1	602
9/2	800
9/3	516
10/1	360
10/2	545
10/3	781
11/1	244
11/2	706
12/1	336

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13/1	1442
13/2	1039
14/1	248
14/2	216
15/1	765
15/2	160
16/1 (with short)	389(In) 194(Out)
16/2 (short)	195
17/1	429
18/1	66
18/2	1171
18/3	1407
19/1 (with short)	24(In) 12(Out)
19/2 (short)	12
20/1	74
21/1	234
21/2	1866
21/3	859

Full Input Data And Results

Lane Saturation Flows

Junction: Gresford Interchange								
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 SB Off-slip Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
1/2 (A483 SB Off-slip Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
1/3 (A483 SB Off-slip Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
2/1 (B5445 Lane 1)	Infinite Saturation Flow						Inf	Inf
2/2 (B5445 Lane 2)	Infinite Saturation Flow						Inf	Inf
2/3 (B5445 Lane 3)	Infinite Saturation Flow						Inf	Inf
3/1 (A5156 Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
3/2 (A5156 Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
3/3 (A5156 Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
4/1 (A5152 Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
4/2 (A5152 Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
4/3 (A5152 Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
5/1 (A483 NB Off-slip Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
5/2 (A483 NB Off-slip Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
5/3 (A483 NB Off-slip Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
6/1	This lane uses a directly entered Saturation Flow						1900	1900
6/2	This lane uses a directly entered Saturation Flow						1900	1900
6/3	This lane uses a directly entered Saturation Flow						1900	1900
7/1	Infinite Saturation Flow						Inf	Inf
7/2	Infinite Saturation Flow						Inf	Inf
7/3	Infinite Saturation Flow						Inf	Inf
7/4	Infinite Saturation Flow						Inf	Inf
8/1	This lane uses a directly entered Saturation Flow						1900	1900
8/2	This lane uses a directly entered Saturation Flow						1900	1900
8/3	This lane uses a directly entered Saturation Flow						1900	1900
8/4	This lane uses a directly entered Saturation Flow						1900	1900
9/1	This lane uses a directly entered Saturation Flow						1900	1900
9/2	This lane uses a directly entered Saturation Flow						1900	1900

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9/3	This lane uses a directly entered Saturation Flow	1900	1900
10/1	This lane uses a directly entered Saturation Flow	1900	1900
10/2	This lane uses a directly entered Saturation Flow	1900	1900
10/3	This lane uses a directly entered Saturation Flow	1900	1900
11/1	Infinite Saturation Flow	Inf	Inf
11/2	Infinite Saturation Flow	Inf	Inf
12/1	Infinite Saturation Flow	Inf	Inf
13/1	Infinite Saturation Flow	Inf	Inf
13/2	Infinite Saturation Flow	Inf	Inf
14/1	Infinite Saturation Flow	Inf	Inf
14/2	Infinite Saturation Flow	Inf	Inf
15/1	Infinite Saturation Flow	Inf	Inf
15/2	Infinite Saturation Flow	Inf	Inf
16/1 (Blue Bell Ln Lane 1)	Infinite Saturation Flow	Inf	Inf
16/2 (Blue Bell Ln Lane 2)	Infinite Saturation Flow	Inf	Inf
17/1	Infinite Saturation Flow	Inf	Inf
18/1	Infinite Saturation Flow	Inf	Inf
18/2	Infinite Saturation Flow	Inf	Inf
18/3	Infinite Saturation Flow	Inf	Inf
19/1 (Industrial Park Access Lane 1)	Infinite Saturation Flow	Inf	Inf
19/2 (Industrial Park Access Lane 2)	Infinite Saturation Flow	Inf	Inf
20/1	Infinite Saturation Flow	Inf	Inf
21/1	Infinite Saturation Flow	Inf	Inf
21/2	Infinite Saturation Flow	Inf	Inf
21/3	Infinite Saturation Flow	Inf	Inf

Scenario 6: 'PM With Dev 2027 ST' (FG12: 'PM With Dev 2027 ST', Plan 1: 'Staging Plan No. 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination								
		A	B	C	D	E	F	G	Tot.
	A	0	9	559	219	0	71	10	868
	B	74	0	102	97	72	27	1	373
	C	717	258	0	67	838	248	11	2139
	D	164	80	194	0	144	58	2	642
	E	0	140	529	197	0	92	8	966
	F	68	30	113	47	41	0	10	309
	G	18	9	17	20	16	7	0	87
	Tot.	1041	526	1514	647	1111	503	42	5384

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 6: PM With Dev 2027 ST
Junction: Gresford Interchange	
1/1	284
1/2	284
1/3	300
2/1 (short)	102
2/2 (with short)	238(In) 136(Out)
2/3	135
3/1 (short)	713
3/2 (with short)	1426(In) 713(Out)
3/3	713
4/1 (short)	144
4/2 (with short)	393(In) 249(Out)
4/3	249
5/1 (short)	100
5/2 (with short)	533(In) 433(Out)
5/3	433
6/1	1046
6/2	324
6/3	328
7/1	804
7/2	608
7/3	483
7/4	145
8/1	288
8/2	292
8/3	67
8/4	252
9/1	713
9/2	940
9/3	738
10/1	435
10/2	500
10/3	987
11/1	234
11/2	807
12/1	526

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13/1	906
13/2	608
14/1	355
14/2	292
15/1	857
15/2	254
16/1 (with short)	309(In) 155(Out)
16/2 (short)	154
17/1	503
18/1	32
18/2	933
18/3	1420
19/1 (with short)	87(In) 43(Out)
19/2 (short)	44
20/1	42
21/1	216
21/2	1828
21/3	608

Full Input Data And Results

Lane Saturation Flows

Junction: Gresford Interchange								
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 SB Off-slip Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
1/2 (A483 SB Off-slip Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
1/3 (A483 SB Off-slip Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
2/1 (B5445 Lane 1)	Infinite Saturation Flow						Inf	Inf
2/2 (B5445 Lane 2)	Infinite Saturation Flow						Inf	Inf
2/3 (B5445 Lane 3)	Infinite Saturation Flow						Inf	Inf
3/1 (A5156 Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
3/2 (A5156 Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
3/3 (A5156 Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
4/1 (A5152 Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
4/2 (A5152 Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
4/3 (A5152 Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
5/1 (A483 NB Off-slip Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
5/2 (A483 NB Off-slip Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
5/3 (A483 NB Off-slip Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
6/1	This lane uses a directly entered Saturation Flow						1900	1900
6/2	This lane uses a directly entered Saturation Flow						1900	1900
6/3	This lane uses a directly entered Saturation Flow						1900	1900
7/1	Infinite Saturation Flow						Inf	Inf
7/2	Infinite Saturation Flow						Inf	Inf
7/3	Infinite Saturation Flow						Inf	Inf
7/4	Infinite Saturation Flow						Inf	Inf
8/1	This lane uses a directly entered Saturation Flow						1900	1900
8/2	This lane uses a directly entered Saturation Flow						1900	1900
8/3	This lane uses a directly entered Saturation Flow						1900	1900
8/4	This lane uses a directly entered Saturation Flow						1900	1900
9/1	This lane uses a directly entered Saturation Flow						1900	1900
9/2	This lane uses a directly entered Saturation Flow						1900	1900

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9/3	This lane uses a directly entered Saturation Flow	1900	1900
10/1	This lane uses a directly entered Saturation Flow	1900	1900
10/2	This lane uses a directly entered Saturation Flow	1900	1900
10/3	This lane uses a directly entered Saturation Flow	1900	1900
11/1	Infinite Saturation Flow	Inf	Inf
11/2	Infinite Saturation Flow	Inf	Inf
12/1	Infinite Saturation Flow	Inf	Inf
13/1	Infinite Saturation Flow	Inf	Inf
13/2	Infinite Saturation Flow	Inf	Inf
14/1	Infinite Saturation Flow	Inf	Inf
14/2	Infinite Saturation Flow	Inf	Inf
15/1	Infinite Saturation Flow	Inf	Inf
15/2	Infinite Saturation Flow	Inf	Inf
16/1 (Blue Bell Ln Lane 1)	Infinite Saturation Flow	Inf	Inf
16/2 (Blue Bell Ln Lane 2)	Infinite Saturation Flow	Inf	Inf
17/1	Infinite Saturation Flow	Inf	Inf
18/1	Infinite Saturation Flow	Inf	Inf
18/2	Infinite Saturation Flow	Inf	Inf
18/3	Infinite Saturation Flow	Inf	Inf
19/1 (Industrial Park Access Lane 1)	Infinite Saturation Flow	Inf	Inf
19/2 (Industrial Park Access Lane 2)	Infinite Saturation Flow	Inf	Inf
20/1	Infinite Saturation Flow	Inf	Inf
21/1	Infinite Saturation Flow	Inf	Inf
21/2	Infinite Saturation Flow	Inf	Inf
21/3	Infinite Saturation Flow	Inf	Inf

Scenario 7: 'AM With Dev 2036 ST' (FG13: 'AM With Dev 2036 ST', Plan 1: 'Staging Plan No. 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination								
		A	B	C	D	E	F	G	Tot.
	A	0	6	939	184	0	139	22	1290
	B	150	0	164	55	131	27	4	531
	C	580	129	0	37	558	118	23	1445
	D	168	63	280	0	169	35	3	718
	E	0	128	982	179	0	123	17	1429
	F	71	22	180	26	93	0	8	400
	G	10	0	12	0	2	0	0	24
	Tot.	979	348	2557	481	953	442	77	5837

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 7: AM With Dev 2036 ST
Junction: Gresford Interchange	
1/1	472
1/2	473
1/3	345
2/1 (short)	164
2/2 (with short)	347(In) 183(Out)
2/3	184
3/1 (short)	482
3/2 (with short)	963(In) 481(Out)
3/3	482
4/1 (short)	169
4/2 (with short)	443(In) 274(Out)
4/3	275
5/1 (short)	140
5/2 (with short)	784(In) 644(Out)
5/3	645
6/1	1199
6/2	597
6/3	300
7/1	1323
7/2	1070
7/3	389
7/4	256
8/1	221
8/2	223
8/3	175
8/4	393
9/1	620
9/2	824
9/3	532
10/1	371
10/2	563
10/3	807
11/1	251
11/2	728
12/1	348

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13/1	1487
13/2	1070
14/1	258
14/2	223
15/1	789
15/2	164
16/1 (with short)	400(In) 200(Out)
16/2 (short)	200
17/1	442
18/1	69
18/2	1207
18/3	1452
19/1 (with short)	24(In) 12(Out)
19/2 (short)	12
20/1	77
21/1	241
21/2	1925
21/3	885

Full Input Data And Results

Lane Saturation Flows

Junction: Gresford Interchange								
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 SB Off-slip Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
1/2 (A483 SB Off-slip Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
1/3 (A483 SB Off-slip Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
2/1 (B5445 Lane 1)	Infinite Saturation Flow						Inf	Inf
2/2 (B5445 Lane 2)	Infinite Saturation Flow						Inf	Inf
2/3 (B5445 Lane 3)	Infinite Saturation Flow						Inf	Inf
3/1 (A5156 Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
3/2 (A5156 Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
3/3 (A5156 Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
4/1 (A5152 Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
4/2 (A5152 Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
4/3 (A5152 Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
5/1 (A483 NB Off-slip Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
5/2 (A483 NB Off-slip Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
5/3 (A483 NB Off-slip Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
6/1	This lane uses a directly entered Saturation Flow						1900	1900
6/2	This lane uses a directly entered Saturation Flow						1900	1900
6/3	This lane uses a directly entered Saturation Flow						1900	1900
7/1	Infinite Saturation Flow						Inf	Inf
7/2	Infinite Saturation Flow						Inf	Inf
7/3	Infinite Saturation Flow						Inf	Inf
7/4	Infinite Saturation Flow						Inf	Inf
8/1	This lane uses a directly entered Saturation Flow						1900	1900
8/2	This lane uses a directly entered Saturation Flow						1900	1900
8/3	This lane uses a directly entered Saturation Flow						1900	1900
8/4	This lane uses a directly entered Saturation Flow						1900	1900
9/1	This lane uses a directly entered Saturation Flow						1900	1900
9/2	This lane uses a directly entered Saturation Flow						1900	1900

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9/3	This lane uses a directly entered Saturation Flow	1900	1900
10/1	This lane uses a directly entered Saturation Flow	1900	1900
10/2	This lane uses a directly entered Saturation Flow	1900	1900
10/3	This lane uses a directly entered Saturation Flow	1900	1900
11/1	Infinite Saturation Flow	Inf	Inf
11/2	Infinite Saturation Flow	Inf	Inf
12/1	Infinite Saturation Flow	Inf	Inf
13/1	Infinite Saturation Flow	Inf	Inf
13/2	Infinite Saturation Flow	Inf	Inf
14/1	Infinite Saturation Flow	Inf	Inf
14/2	Infinite Saturation Flow	Inf	Inf
15/1	Infinite Saturation Flow	Inf	Inf
15/2	Infinite Saturation Flow	Inf	Inf
16/1 (Blue Bell Ln Lane 1)	Infinite Saturation Flow	Inf	Inf
16/2 (Blue Bell Ln Lane 2)	Infinite Saturation Flow	Inf	Inf
17/1	Infinite Saturation Flow	Inf	Inf
18/1	Infinite Saturation Flow	Inf	Inf
18/2	Infinite Saturation Flow	Inf	Inf
18/3	Infinite Saturation Flow	Inf	Inf
19/1 (Industrial Park Access Lane 1)	Infinite Saturation Flow	Inf	Inf
19/2 (Industrial Park Access Lane 2)	Infinite Saturation Flow	Inf	Inf
20/1	Infinite Saturation Flow	Inf	Inf
21/1	Infinite Saturation Flow	Inf	Inf
21/2	Infinite Saturation Flow	Inf	Inf
21/3	Infinite Saturation Flow	Inf	Inf

Scenario 8: 'PM With Dev 2036 ST' (FG14: 'PM With Dev 2036 ST', Plan 1: 'Staging Plan No. 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination								
		A	B	C	D	E	F	G	Tot.
	A	0	9	575	227	0	74	10	895
	B	77	0	106	101	75	28	1	388
	C	738	268	0	70	860	255	11	2202
	D	170	83	200	0	149	61	2	665
	E	0	145	544	204	0	95	8	996
	F	71	31	116	49	43	0	10	320
	G	19	9	18	21	17	7	0	91
	Tot.	1075	545	1559	672	1144	520	42	5557

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 8: PM With Dev 2036 ST
Junction: Gresford Interchange	
1/1	292
1/2	292
1/3	311
2/1 (short)	106
2/2 (with short)	247(In) 141(Out)
2/3	141
3/1 (short)	734
3/2 (with short)	1468(In) 734(Out)
3/3	734
4/1 (short)	149
4/2 (with short)	408(In) 259(Out)
4/3	257
5/1 (short)	103
5/2 (with short)	550(In) 447(Out)
5/3	446
6/1	1082
6/2	332
6/3	341
7/1	829
7/2	624
7/3	501
7/4	151
8/1	299
8/2	303
8/3	69
8/4	263
9/1	733
9/2	971
9/3	760
10/1	449
10/2	519
10/3	1017
11/1	243
11/2	832
12/1	545

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13/1	935
13/2	624
14/1	369
14/2	303
15/1	882
15/2	262
16/1 (with short)	320(In) 160(Out)
16/2 (short)	160
17/1	520
18/1	32
18/2	966
18/3	1463
19/1 (with short)	91(In) 45(Out)
19/2 (short)	46
20/1	42
21/1	224
21/2	1888
21/3	627

Full Input Data And Results

Lane Saturation Flows

Junction: Gresford Interchange								
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 SB Off-slip Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
1/2 (A483 SB Off-slip Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
1/3 (A483 SB Off-slip Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
2/1 (B5445 Lane 1)	Infinite Saturation Flow						Inf	Inf
2/2 (B5445 Lane 2)	Infinite Saturation Flow						Inf	Inf
2/3 (B5445 Lane 3)	Infinite Saturation Flow						Inf	Inf
3/1 (A5156 Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
3/2 (A5156 Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
3/3 (A5156 Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
4/1 (A5152 Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
4/2 (A5152 Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
4/3 (A5152 Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
5/1 (A483 NB Off-slip Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
5/2 (A483 NB Off-slip Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
5/3 (A483 NB Off-slip Lane 3)	This lane uses a directly entered Saturation Flow						1900	1900
6/1	This lane uses a directly entered Saturation Flow						1900	1900
6/2	This lane uses a directly entered Saturation Flow						1900	1900
6/3	This lane uses a directly entered Saturation Flow						1900	1900
7/1	Infinite Saturation Flow						Inf	Inf
7/2	Infinite Saturation Flow						Inf	Inf
7/3	Infinite Saturation Flow						Inf	Inf
7/4	Infinite Saturation Flow						Inf	Inf
8/1	This lane uses a directly entered Saturation Flow						1900	1900
8/2	This lane uses a directly entered Saturation Flow						1900	1900
8/3	This lane uses a directly entered Saturation Flow						1900	1900
8/4	This lane uses a directly entered Saturation Flow						1900	1900
9/1	This lane uses a directly entered Saturation Flow						1900	1900
9/2	This lane uses a directly entered Saturation Flow						1900	1900

9/3	This lane uses a directly entered Saturation Flow	1900	1900
10/1	This lane uses a directly entered Saturation Flow	1900	1900
10/2	This lane uses a directly entered Saturation Flow	1900	1900
10/3	This lane uses a directly entered Saturation Flow	1900	1900
11/1	Infinite Saturation Flow	Inf	Inf
11/2	Infinite Saturation Flow	Inf	Inf
12/1	Infinite Saturation Flow	Inf	Inf
13/1	Infinite Saturation Flow	Inf	Inf
13/2	Infinite Saturation Flow	Inf	Inf
14/1	Infinite Saturation Flow	Inf	Inf
14/2	Infinite Saturation Flow	Inf	Inf
15/1	Infinite Saturation Flow	Inf	Inf
15/2	Infinite Saturation Flow	Inf	Inf
16/1 (Blue Bell Ln Lane 1)	Infinite Saturation Flow	Inf	Inf
16/2 (Blue Bell Ln Lane 2)	Infinite Saturation Flow	Inf	Inf
17/1	Infinite Saturation Flow	Inf	Inf
18/1	Infinite Saturation Flow	Inf	Inf
18/2	Infinite Saturation Flow	Inf	Inf
18/3	Infinite Saturation Flow	Inf	Inf
19/1 (Industrial Park Access Lane 1)	Infinite Saturation Flow	Inf	Inf
19/2 (Industrial Park Access Lane 2)	Infinite Saturation Flow	Inf	Inf
20/1	Infinite Saturation Flow	Inf	Inf
21/1	Infinite Saturation Flow	Inf	Inf
21/2	Infinite Saturation Flow	Inf	Inf
21/3	Infinite Saturation Flow	Inf	Inf

Stage Sequence Diagram

Stage Stream: 2

1	Min: 4	2	Min: 7	3	Min:
5	21s	6	18s	12	13s

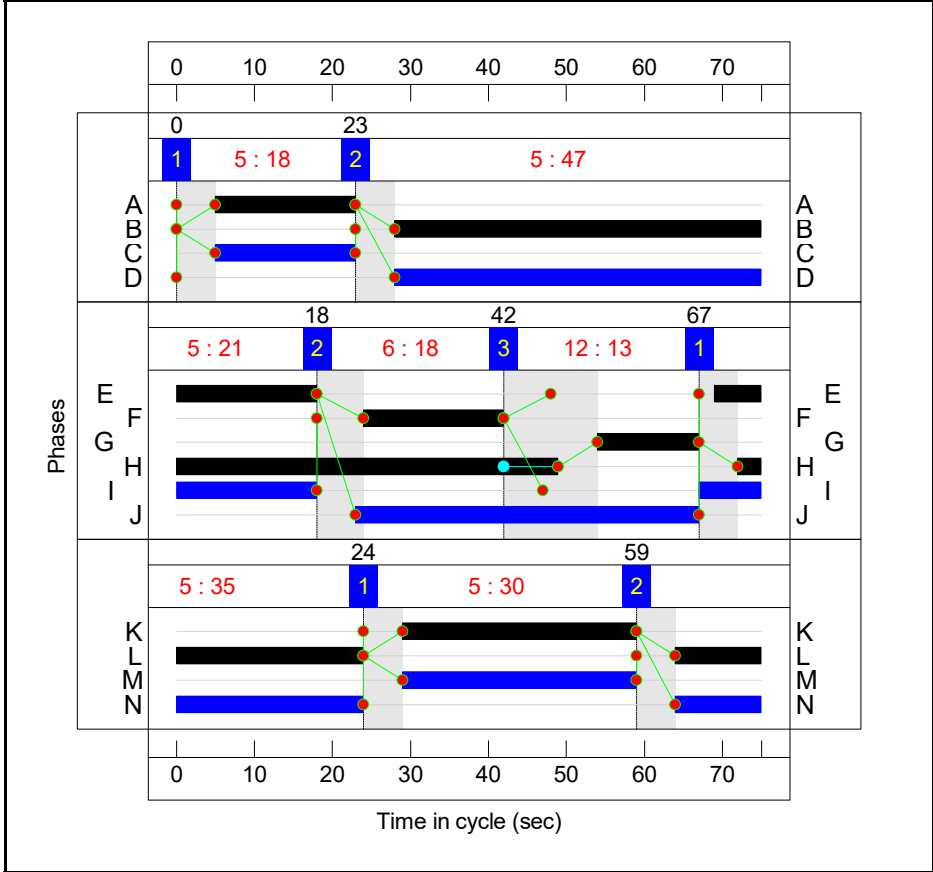
Stage Stream: 1

Stage	1	2
Duration	18	47
Change Point	0	23

Stage	1	2	3
Duration	21	18	13
Change Point	67	18	42

Stage	1	2
Duration	30	35
Change Point	24	59

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: Gresford Interchange	-	-	N/A	-	-		-	-	-	-	-	-	93.7%
Gresford Interchange	-	-	N/A	-	-		-	-	-	-	-	-	93.7%
1/1	A483 SB Off-slip Left U-Turn	U	1	N/A	A		1	18	-	448	1900	481	93.1%
1/2	A483 SB Off-slip Left	U	1	N/A	A		1	18	-	449	1900	481	93.3%
1/3	A483 SB Off-slip Left	U	1	N/A	A		1	18	-	333	1900	481	69.2%
2/2+2/1	B5445 Ahead Left	O	N/A	N/A	-		-	-	-	335	Inf : Inf	215+215	82.5 : 73.6%
2/3	B5445 Ahead	O	N/A	N/A	-		-	-	-	177	Inf	215	82.5%
3/2+3/1	A5156 Ahead Left	U	2	N/A	E		1	24	-	938	1900:1900	633+633	74.1 : 74.1%
3/3	A5156 Ahead	U	2	N/A	E		1	24	-	469	1900	633	74.1%
4/2+4/1	A5152 Ahead Left	U	2	N/A	G		1	13	-	428	1900:1900	340+209	78.0 : 78.0%
4/3	A5152 Ahead	U	2	N/A	G		1	13	-	265	1900	355	74.7%
5/2+5/1	A483 NB Off-slip Left Ahead	U	3	N/A	K		1	30	-	743	1900:1900	742+165	81.9 : 81.9%
5/3	A483 NB Off-slip Ahead	U	3	N/A	K		1	30	-	609	1900	785	77.5%
6/1	Right Left	U	1	N/A	B		1	47	-	1139	1900	1216	93.7%
6/2	Right	U	1	N/A	B		1	47	-	559	1900	1216	46.0%
6/3	Right	U	1	N/A	B		1	47	-	290	1900	1216	23.8%
7/1	Ahead	U	N/A	N/A	-		-	-	-	1251	Inf	Inf	0.0%
7/2	Ahead	U	N/A	N/A	-		-	-	-	1008	Inf	Inf	0.0%
7/3	Right	U	N/A	N/A	-		-	-	-	375	Inf	Inf	0.0%
7/4	Right	U	N/A	N/A	-		-	-	-	248	Inf	Inf	0.0%

Full Input Data And Results

8/1	Ahead	U	2	N/A	F		1	18	-	212	1900	481	44.0%
8/2	Ahead	U	2	N/A	F		1	18	-	216	1900	481	44.9%
8/3	Ahead	U	2	N/A	F		1	18	-	170	1900	481	35.3%
8/4	Ahead	U	2	N/A	F		1	18	-	379	1900	481	78.7%
9/1	Ahead	U	2	N/A	H		1	52	-	603	1900	1343	44.9%
9/2	Right Ahead	U	2	N/A	H		1	52	-	800	1900	1343	59.6%
9/3	Right	U	2	N/A	H		1	52	-	517	1900	1343	38.5%
10/1	Ahead Right	U	3	N/A	L		1	35	-	365	1900	912	40.0%
10/2	Right	U	3	N/A	L		1	35	-	538	1900	912	59.0%
10/3	Right	U	3	N/A	L		1	35	-	782	1900	912	85.7%
11/1		U	N/A	N/A	-		-	-	-	241	Inf	Inf	0.0%
11/2		U	N/A	N/A	-		-	-	-	703	Inf	Inf	0.0%
12/1		U	N/A	N/A	-		-	-	-	336	Inf	Inf	0.0%
13/1		U	N/A	N/A	-		-	-	-	1409	Inf	Inf	0.0%
13/2		U	N/A	N/A	-		-	-	-	1008	Inf	Inf	0.0%
14/1		U	N/A	N/A	-		-	-	-	248	Inf	Inf	0.0%
14/2		U	N/A	N/A	-		-	-	-	216	Inf	Inf	0.0%
15/1		U	N/A	N/A	-		-	-	-	766	Inf	Inf	0.0%
15/2		U	N/A	N/A	-		-	-	-	162	Inf	Inf	0.0%
16/1+16/2	Blue Bell Ln Left Ahead	O	N/A	N/A	-		-	-	-	379	Inf : Inf	238+238	79.5 : 79.9%
17/1		U	N/A	N/A	-		-	-	-	434	Inf	Inf	0.0%
18/1	Ahead	U	N/A	N/A	-		-	-	-	66	Inf	Inf	0.0%
18/2	Right	U	N/A	N/A	-		-	-	-	1146	Inf	Inf	0.0%
18/3	Right	U	N/A	N/A	-		-	-	-	1391	Inf	Inf	0.0%
19/1+19/2	Industrial Park Access Ahead Left	O	N/A	N/A	-		-	-	-	24	Inf : Inf	115+115	10.4 : 10.4%
20/1		U	N/A	N/A	-		-	-	-	74	Inf	Inf	0.0%
21/1	Ahead	U	N/A	N/A	-		-	-	-	231	Inf	Inf	0.0%
21/2	Right Ahead	U	N/A	N/A	-		-	-	-	1840	Inf	Inf	0.0%

Full Input Data And Results

21/3	Right	U	N/A	N/A	-		-	-	-	837	Inf	Inf	0.0%
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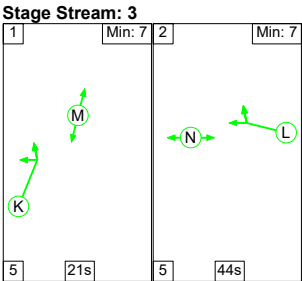
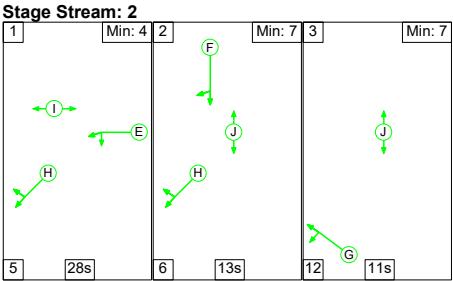
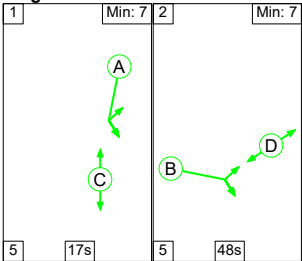
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Overstat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Overstat Queue (pcu)	Mean Max Queue (pcu)
Network: Gresford Interchange	-	-	1653	0	0	45.3	42.3	0.0	87.6	-	-	-	-
Gresford Interchange	-	-	1653	0	0	45.3	42.3	0.0	87.6	-	-	-	-
1/1	448	448	-	-	-	3.4	5.1	-	8.5	68.6	9.1	5.1	14.2
1/2	449	449	-	-	-	3.4	5.2	-	8.7	69.4	9.1	5.2	14.3
1/3	333	333	-	-	-	2.3	1.1	-	3.5	37.3	6.2	1.1	7.3
2/2+2/1	335	335	670	0	0	0.8	1.7	-	2.5	27.0	3.2	1.7	4.9
2/3	177	177	177	0	0	0.5	2.1	-	2.6	52.6	3.2	2.1	5.3
3/2+3/1	938	938	-	-	-	5.8	1.4	-	7.2	27.6	8.6	1.4	10.0
3/3	469	469	-	-	-	2.9	1.4	-	4.3	32.9	8.6	1.4	10.0
4/2+4/1	428	428	-	-	-	3.4	1.7	-	5.1	42.7	5.2	1.7	6.9
4/3	265	265	-	-	-	2.1	1.4	-	3.6	48.3	5.2	1.4	6.6
5/2+5/1	743	743	-	-	-	3.7	2.2	-	5.9	28.8	11.1	2.2	13.4
5/3	609	609	-	-	-	3.2	1.7	-	4.9	29.0	10.8	1.7	12.5
6/1	1139	1139	-	-	-	2.4	6.3	-	8.8	27.7	11.4	6.3	17.7
6/2	559	559	-	-	-	0.8	0.4	-	1.2	7.7	3.8	0.4	4.2
6/3	290	290	-	-	-	0.4	0.2	-	0.6	7.0	1.7	0.2	1.8
7/1	1251	1251	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	1008	1008	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/3	375	375	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/4	248	248	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	212	212	-	-	-	1.0	0.4	-	1.4	23.7	3.8	0.4	4.2
8/2	216	216	-	-	-	1.0	0.4	-	1.4	23.9	3.9	0.4	4.3
8/3	170	170	-	-	-	1.2	0.3	-	1.5	31.5	2.5	0.3	2.8
8/4	379	379	-	-	-	2.0	1.8	-	3.8	36.3	6.6	1.8	8.4
9/1	603	603	-	-	-	0.0	0.4	-	0.4	2.5	0.0	0.4	0.4

Full Input Data And Results

[illegible]

Full Input Data And Results
Scenario 2: 'PM With Dev 2027' (FG8: 'PM With Dev 2027', Plan 1: 'Staging Plan No. 1')
Stage Sequence Diagram
Stage Stream: 1



Stage Timings
Stage Stream: 1

Stage	1	2
Duration	17	48
Change Point	0	22

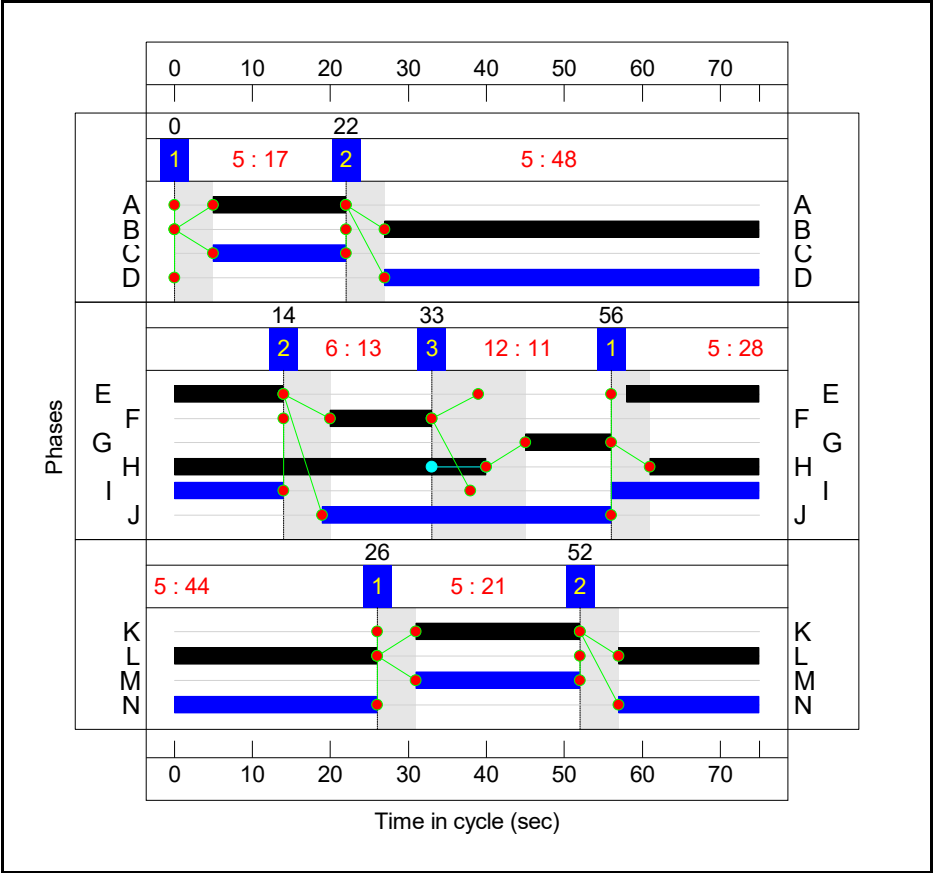
Stage Stream: 2

Stage	1	2	3
Duration	28	13	11
Change Point	56	14	33

Full Input Data And Results
Stage Stream: 3

Stage	1	2
Duration	21	44
Change Point	26	52

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: Gresford Interchange	-	-	N/A	-	-		-	-	-	-	-	-	86.1%
Gresford Interchange	-	-	N/A	-	-		-	-	-	-	-	-	86.1%
1/1	A483 SB Off-slip Left U-Turn	U	1	N/A	A		1	17	-	286	1900	456	62.7%
1/2	A483 SB Off-slip Left	U	1	N/A	A		1	17	-	286	1900	456	62.7%
1/3	A483 SB Off-slip Left	U	1	N/A	A		1	17	-	300	1900	456	65.8%
2/2+2/1	B5445 Ahead Left	O	N/A	N/A	-		-	-	-	238	Inf : Inf	411+309	33.1 : 33.1%
2/3	B5445 Ahead	O	N/A	N/A	-		-	-	-	135	Inf	411	32.8%
3/2+3/1	A5156 Ahead Left	U	2	N/A	E		1	31	-	1395	1900:1900	811+811	86.1 : 86.0%
3/3	A5156 Ahead	U	2	N/A	E		1	31	-	696	1900	811	85.9%
4/2+4/1	A5152 Ahead Left	U	2	N/A	G		1	11	-	393	1900:1900	304+176	81.9 : 81.9%
4/3	A5152 Ahead	U	2	N/A	G		1	11	-	249	1900	304	81.9%
5/2+5/1	A483 NB Off-slip Left Ahead	U	3	N/A	K		1	21	-	539	1900:1900	555+126	79.1 : 79.1%
5/3	A483 NB Off-slip Ahead	U	3	N/A	K		1	21	-	440	1900	557	78.9%
6/1	Right Left	U	1	N/A	B		1	48	-	1055	1900	1241	85.0%
6/2	Right	U	1	N/A	B		1	48	-	332	1900	1241	26.7%
6/3	Right	U	1	N/A	B		1	48	-	328	1900	1241	26.4%
7/1	Ahead	U	N/A	N/A	-		-	-	-	815	Inf	Inf	0.0%
7/2	Ahead	U	N/A	N/A	-		-	-	-	618	Inf	Inf	0.0%
7/3	Right	U	N/A	N/A	-		-	-	-	483	Inf	Inf	0.0%
7/4	Right	U	N/A	N/A	-		-	-	-	145	Inf	Inf	0.0%

Full Input Data And Results

8/1	Ahead	U	2	N/A	F		1	13	-	288	1900	355	81.2%
8/2	Ahead	U	2	N/A	F		1	13	-	292	1900	355	82.3%
8/3	Ahead	U	2	N/A	F		1	13	-	67	1900	355	18.9%
8/4	Ahead	U	2	N/A	F		1	13	-	252	1900	355	71.1%
9/1	Ahead	U	2	N/A	H		1	54	-	697	1900	1393	50.0%
9/2	Right Ahead	U	2	N/A	H		1	54	-	925	1900	1393	66.4%
9/3	Right	U	2	N/A	H		1	54	-	721	1900	1393	51.7%
10/1	Ahead Right	U	3	N/A	L		1	44	-	428	1900	1140	37.5%
10/2	Right	U	3	N/A	L		1	44	-	501	1900	1140	43.9%
10/3	Right	U	3	N/A	L		1	44	-	970	1900	1140	85.1%
11/1		U	N/A	N/A	-		-	-	-	234	Inf	Inf	0.0%
11/2		U	N/A	N/A	-		-	-	-	791	Inf	Inf	0.0%
12/1		U	N/A	N/A	-		-	-	-	526	Inf	Inf	0.0%
13/1		U	N/A	N/A	-		-	-	-	917	Inf	Inf	0.0%
13/2		U	N/A	N/A	-		-	-	-	618	Inf	Inf	0.0%
14/1		U	N/A	N/A	-		-	-	-	355	Inf	Inf	0.0%
14/2		U	N/A	N/A	-		-	-	-	292	Inf	Inf	0.0%
15/1		U	N/A	N/A	-		-	-	-	841	Inf	Inf	0.0%
15/2		U	N/A	N/A	-		-	-	-	245	Inf	Inf	0.0%
16/1+16/2	Blue Bell Ln Left Ahead	O	N/A	N/A	-		-	-	-	313	Inf : Inf	271+271	58.0 : 57.7%
17/1		U	N/A	N/A	-		-	-	-	496	Inf	Inf	0.0%
18/1	Ahead	U	N/A	N/A	-		-	-	-	32	Inf	Inf	0.0%
18/2	Right	U	N/A	N/A	-		-	-	-	940	Inf	Inf	0.0%
18/3	Right	U	N/A	N/A	-		-	-	-	1410	Inf	Inf	0.0%
19/1+19/2	Industrial Park Access Ahead Left	O	N/A	N/A	-		-	-	-	87	Inf : Inf	167+167	25.8 : 26.4%
20/1		U	N/A	N/A	-		-	-	-	42	Inf	Inf	0.0%
21/1	Ahead	U	N/A	N/A	-		-	-	-	216	Inf	Inf	0.0%
21/2	Right Ahead	U	N/A	N/A	-		-	-	-	1821	Inf	Inf	0.0%

Full Input Data And Results

21/3	Right	U	N/A	N/A	-		-	-	-	616	Inf	Inf	0.0%
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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: Gresford Interchange	-	-	1411	0	0	40.3	31.9	0.0	72.2	-	-	-	-
Gresford Interchange	-	-	1411	0	0	40.3	31.9	0.0	72.2	-	-	-	-
1/1	286	286	-	-	-	2.0	0.8	-	2.9	36.0	5.3	0.8	6.2
1/2	286	286	-	-	-	2.0	0.8	-	2.9	36.0	5.3	0.8	6.2
1/3	300	300	-	-	-	2.1	0.9	-	3.1	37.1	5.6	0.9	6.5
2/2+2/1	238	238	476	0	0	0.1	0.2	-	0.3	5.3	0.5	0.2	0.8
2/3	135	135	135	0	0	0.1	0.2	-	0.3	8.2	0.5	0.2	0.8
3/2+3/1	1395	1395	-	-	-	7.5	3.0	-	10.5	27.2	13.0	3.0	16.0
3/3	696	696	-	-	-	3.8	2.9	-	6.7	34.4	13.0	2.9	15.8
4/2+4/1	393	393	-	-	-	3.3	2.2	-	5.4	49.5	5.0	2.2	7.1
4/3	249	249	-	-	-	2.1	2.1	-	4.2	60.9	5.0	2.1	7.1
5/2+5/1	539	539	-	-	-	3.5	1.8	-	5.4	35.8	8.3	1.8	10.1
5/3	440	440	-	-	-	3.0	1.8	-	4.8	39.3	8.3	1.8	10.1
6/1	1055	1055	-	-	-	2.2	2.7	-	5.0	17.0	11.2	2.7	13.9
6/2	332	332	-	-	-	0.5	0.2	-	0.7	7.2	2.2	0.2	2.4
6/3	328	328	-	-	-	0.2	0.2	-	0.4	4.6	1.3	0.2	1.5
7/1	815	815	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	618	618	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/3	483	483	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/4	145	145	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	288	288	-	-	-	1.7	2.0	-	3.7	46.1	5.6	2.0	7.7
8/2	292	292	-	-	-	1.7	2.2	-	3.9	47.7	5.8	2.2	8.0
8/3	67	67	-	-	-	0.6	0.1	-	0.7	38.7	1.2	0.1	1.4
8/4	252	252	-	-	-	1.6	1.2	-	2.8	40.1	4.5	1.2	5.7
9/1	697	697	-	-	-	0.0	0.5	-	0.5	2.6	0.0	0.5	0.5

Full Input Data And Results

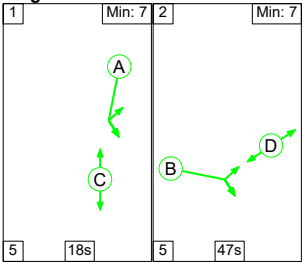
9/2	925	925	-	-	-	0.0	1.0	-	1.0	3.9	0.0	1.0	1.0
9/3	721	721	-	-	-	0.0	0.5	-	0.5	2.7	0.0	0.5	0.5
10/1	428	428	-	-	-	0.7	0.3	-	1.0	8.8	3.8	0.3	4.1
10/2	501	501	-	-	-	0.5	0.4	-	0.9	6.6	4.9	0.4	5.3
10/3	970	970	-	-	-	0.6	2.8	-	3.4	12.6	6.1	2.8	8.8
11/1	234	234	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/2	791	791	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	526	526	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	917	917	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/2	618	618	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/1	355	355	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/2	292	292	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
15/1	841	841	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
15/2	245	245	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
16/1+16/2	313	313	626	0	0	0.3	0.7	-	1.0	11.0	0.9	0.7	1.6
17/1	496	496	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/1	32	32	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/2	940	940	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/3	1410	1410	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
19/1+19/2	87	87	174	0	0	0.1	0.2	-	0.2	9.4	0.2	0.2	0.4
20/1	42	42	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
21/1	216	216	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
21/2	1821	1821	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
21/3	616	616	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1			Stream: 1 PRC for Signalised Lanes (%):			5.9	Total Delay for Signalised Lanes (pcuHr):			14.87	Cycle Time (s): 75		
C1			Stream: 2 PRC for Signalised Lanes (%):			4.5	Total Delay for Signalised Lanes (pcuHr):			39.93	Cycle Time (s): 75		
C1			Stream: 3 PRC for Signalised Lanes (%):			5.8	Total Delay for Signalised Lanes (pcuHr):			15.52	Cycle Time (s): 75		
			PRC Over All Lanes (%):			4.5	Total Delay Over All Lanes (pcuHr):			72.16			

Full Input Data And Results

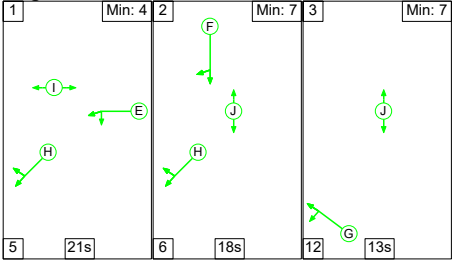
Scenario 3: 'AM With Dev 2036' (FG9: 'AM With Dev 2036', Plan 1: 'Staging Plan No. 1')

Stage Sequence Diagram

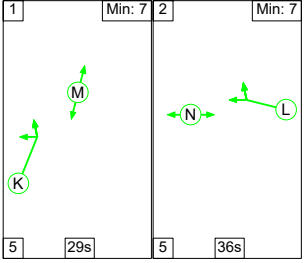
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	18	47
Change Point	0	23

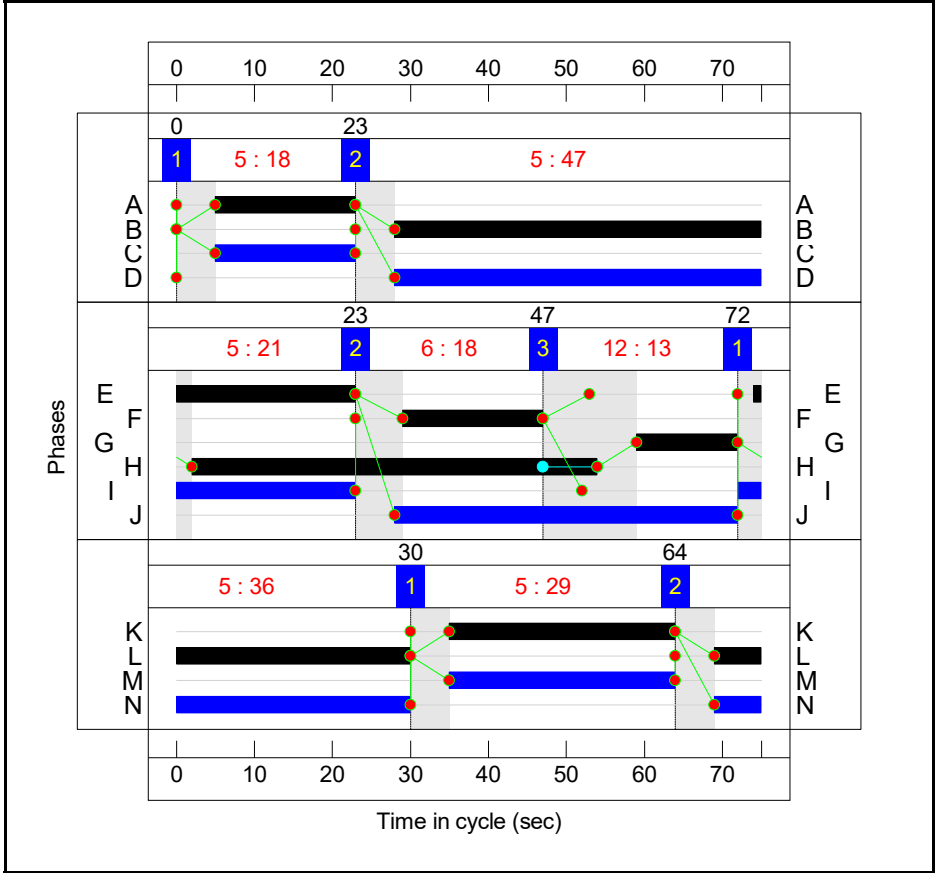
Stage Stream: 2

Stage	1	2	3
Duration	21	18	13
Change Point	72	23	47

Full Input Data And Results
Stage Stream: 3

Stage	1	2
Duration	29	36
Change Point	30	64

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: Gresford Interchange	-	-	N/A	-	-		-	-	-	-	-	-	96.7%
Gresford Interchange	-	-	N/A	-	-		-	-	-	-	-	-	96.7%
1/1	A483 SB Off-slip Left U-Turn	U	1	N/A	A		1	18	-	463	1900	481	96.2%
1/2	A483 SB Off-slip Left	U	1	N/A	A		1	18	-	463	1900	481	96.2%
1/3	A483 SB Off-slip Left	U	1	N/A	A		1	18	-	345	1900	481	71.7%
2/2+2/1	B5445 Ahead Left	O	N/A	N/A	-		-	-	-	347	Inf : Inf	212+212	86.4 : 77.4%
2/3	B5445 Ahead	O	N/A	N/A	-		-	-	-	184	Inf	212	86.9%
3/2+3/1	A5156 Ahead Left	U	2	N/A	E		1	24	-	963	1900:1900	633+633	75.9 : 76.1%
3/3	A5156 Ahead	U	2	N/A	E		1	24	-	483	1900	633	76.3%
4/2+4/1	A5152 Ahead Left	U	2	N/A	G		1	13	-	443	1900:1900	340+209	80.7 : 80.7%
4/3	A5152 Ahead	U	2	N/A	G		1	13	-	275	1900	355	77.5%
5/2+5/1	A483 NB Off-slip Left Ahead	U	3	N/A	K		1	29	-	767	1900:1900	721+161	86.9 : 86.9%
5/3	A483 NB Off-slip Ahead	U	3	N/A	K		1	29	-	626	1900	760	82.4%
6/1	Right Left	U	1	N/A	B		1	47	-	1176	1900	1216	96.7%
6/2	Right	U	1	N/A	B		1	47	-	574	1900	1216	47.2%
6/3	Right	U	1	N/A	B		1	47	-	300	1900	1216	24.7%
7/1	Ahead	U	N/A	N/A	-		-	-	-	1291	Inf	Inf	0.0%
7/2	Ahead	U	N/A	N/A	-		-	-	-	1037	Inf	Inf	0.0%
7/3	Right	U	N/A	N/A	-		-	-	-	389	Inf	Inf	0.0%
7/4	Right	U	N/A	N/A	-		-	-	-	256	Inf	Inf	0.0%

Full Input Data And Results

8/1	Ahead	U	2	N/A	F		1	18	-	221	1900	481	45.9%
8/2	Ahead	U	2	N/A	F		1	18	-	223	1900	481	46.3%
8/3	Ahead	U	2	N/A	F		1	18	-	175	1900	481	36.4%
8/4	Ahead	U	2	N/A	F		1	18	-	393	1900	481	81.6%
9/1	Ahead	U	2	N/A	H		1	52	-	620	1900	1343	46.2%
9/2	Right Ahead	U	2	N/A	H		1	52	-	824	1900	1343	61.4%
9/3	Right	U	2	N/A	H		1	52	-	533	1900	1343	39.7%
10/1	Ahead Right	U	3	N/A	L		1	36	-	376	1900	937	40.1%
10/2	Right	U	3	N/A	L		1	36	-	556	1900	937	59.3%
10/3	Right	U	3	N/A	L		1	36	-	808	1900	937	86.2%
11/1		U	N/A	N/A	-		-	-	-	248	Inf	Inf	0.0%
11/2		U	N/A	N/A	-		-	-	-	725	Inf	Inf	0.0%
12/1		U	N/A	N/A	-		-	-	-	348	Inf	Inf	0.0%
13/1		U	N/A	N/A	-		-	-	-	1455	Inf	Inf	0.0%
13/2		U	N/A	N/A	-		-	-	-	1037	Inf	Inf	0.0%
14/1		U	N/A	N/A	-		-	-	-	258	Inf	Inf	0.0%
14/2		U	N/A	N/A	-		-	-	-	223	Inf	Inf	0.0%
15/1		U	N/A	N/A	-		-	-	-	789	Inf	Inf	0.0%
15/2		U	N/A	N/A	-		-	-	-	166	Inf	Inf	0.0%
16/1+16/2	Blue Bell Ln Left Ahead	O	N/A	N/A	-		-	-	-	390	Inf : Inf	216+216	90.3 : 90.3%
17/1		U	N/A	N/A	-		-	-	-	447	Inf	Inf	0.0%
18/1	Ahead	U	N/A	N/A	-		-	-	-	69	Inf	Inf	0.0%
18/2	Right	U	N/A	N/A	-		-	-	-	1183	Inf	Inf	0.0%
18/3	Right	U	N/A	N/A	-		-	-	-	1434	Inf	Inf	0.0%
19/1+19/2	Industrial Park Access Ahead Left	O	N/A	N/A	-		-	-	-	24	Inf : Inf	92+92	13.0 : 13.0%
20/1		U	N/A	N/A	-		-	-	-	77	Inf	Inf	0.0%
21/1	Ahead	U	N/A	N/A	-		-	-	-	238	Inf	Inf	0.0%
21/2	Right Ahead	U	N/A	N/A	-		-	-	-	1899	Inf	Inf	0.0%

Full Input Data And Results

21/3	Right	U	N/A	N/A	-		-	-	-	862	Inf	Inf	0.0%
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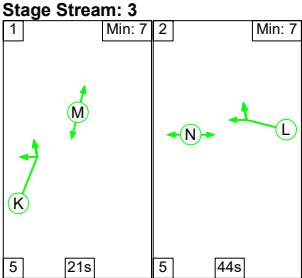
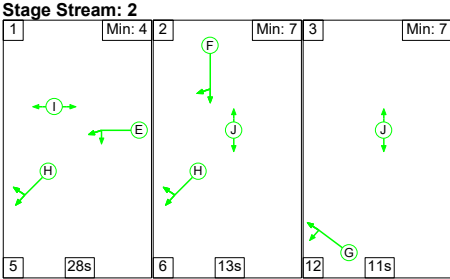
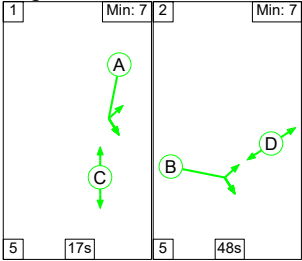
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcu/hr)	Rand + Oversat Delay (pcu/hr)	Storage Area Uniform Delay (pcu/hr)	Total Delay (pcu/hr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Gresford Interchange	-	-	1706	0	0	49.6	55.9	0.0	105.5	-	-	-	-
Gresford Interchange	-	-	1706	0	0	49.6	55.9	0.0	105.5	-	-	-	-
1/1	463	463	-	-	-	3.6	7.1	-	10.7	82.9	9.5	7.1	16.6
1/2	463	463	-	-	-	3.6	7.1	-	10.7	82.9	9.5	7.1	16.6
1/3	345	345	-	-	-	2.4	1.2	-	3.7	38.5	6.5	1.2	7.8
2/2+2/1	347	347	694	0	0	0.9	2.1	-	3.1	31.7	3.3	2.1	5.5
2/3	184	184	184	0	0	0.5	2.8	-	3.3	64.5	3.4	2.8	6.1
3/2+3/1	963	963	-	-	-	6.0	1.6	-	7.5	28.2	8.8	1.6	10.4
3/3	483	483	-	-	-	3.0	1.6	-	4.6	34.1	9.0	1.6	10.6
4/2+4/1	443	443	-	-	-	3.5	2.0	-	5.5	44.7	5.4	2.0	7.4
4/3	275	275	-	-	-	2.2	1.7	-	3.9	50.7	5.4	1.7	7.1
5/2+5/1	767	767	-	-	-	4.1	3.2	-	7.3	34.0	12.3	3.2	15.4
5/3	626	626	-	-	-	3.5	2.3	-	5.8	33.1	11.7	2.3	13.9
6/1	1176	1176	-	-	-	3.7	9.8	-	13.6	41.5	15.0	9.8	24.9
6/2	574	574	-	-	-	1.2	0.4	-	1.6	10.1	5.2	0.4	5.6
6/3	300	300	-	-	-	0.6	0.2	-	0.7	8.9	2.2	0.2	2.4
7/1	1291	1291	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	1037	1037	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/3	389	389	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/4	256	256	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	221	221	-	-	-	1.0	0.4	-	1.5	23.6	3.8	0.4	4.2
8/2	223	223	-	-	-	1.0	0.4	-	1.5	23.8	3.8	0.4	4.3
8/3	175	175	-	-	-	1.3	0.3	-	1.6	33.0	2.5	0.3	2.8
8/4	393	393	-	-	-	2.5	2.1	-	4.6	42.5	8.0	2.1	10.1
9/1	620	620	-	-	-	0.0	0.4	-	0.4	2.5	0.0	0.4	0.4

Full Input Data And Results

9/2	824	824	-	-	-	0.0	0.8	-	0.8	3.5	0.0	0.8	0.8
9/3	533	533	-	-	-	0.0	0.3	-	0.3	2.2	0.0	0.3	0.3
10/1	376	376	-	-	-	1.4	0.3	-	1.7	16.3	5.2	0.3	5.5
10/2	556	556	-	-	-	1.3	0.7	-	2.0	13.1	7.6	0.7	8.3
10/3	808	808	-	-	-	1.4	3.0	-	4.4	19.4	8.1	3.0	11.1
11/1	248	248	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/2	725	725	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	348	348	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	1455	1455	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/2	1037	1037	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/1	258	258	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/2	223	223	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
15/1	789	789	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
15/2	166	166	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
16/1+16/2	390	390	780	0	0	0.9	3.9	-	4.8	44.4	2.1	3.9	6.0
17/1	447	447	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/1	69	69	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/2	1183	1183	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/3	1434	1434	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
19/1+19/2	24	24	48	0	0	0.0	0.1	-	0.1	15.4	0.1	0.1	0.1
20/1	77	77	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
21/1	238	238	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
21/2	1899	1899	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
21/3	862	862	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
	C1 Stream: 1 PRC for Signalled Lanes (%): -7.5					Total Delay for Signalled Lanes (pcu/hr): 40.94					Cycle Time (s): 75		
	C1 Stream: 2 PRC for Signalled Lanes (%): 10.2					Total Delay for Signalled Lanes (pcu/hr): 32.22					Cycle Time (s): 75		
	C1 Stream: 3 PRC for Signalled Lanes (%): 3.5					Total Delay for Signalled Lanes (pcu/hr): 21.08					Cycle Time (s): 75		
	PRC Over All Lanes (%): -7.5					Total Delay Over All Lanes (pcu/hr): 105.50							

Full Input Data And Results
Scenario 4: 'PM With Dev 2036' (FG10: 'PM With Dev 2036', Plan 1: 'Staging Plan No. 1')
Stage Sequence Diagram
Stage Stream: 1



Stage Timings
Stage Stream: 1

Stage	1	2
Duration	17	48
Change Point	0	22

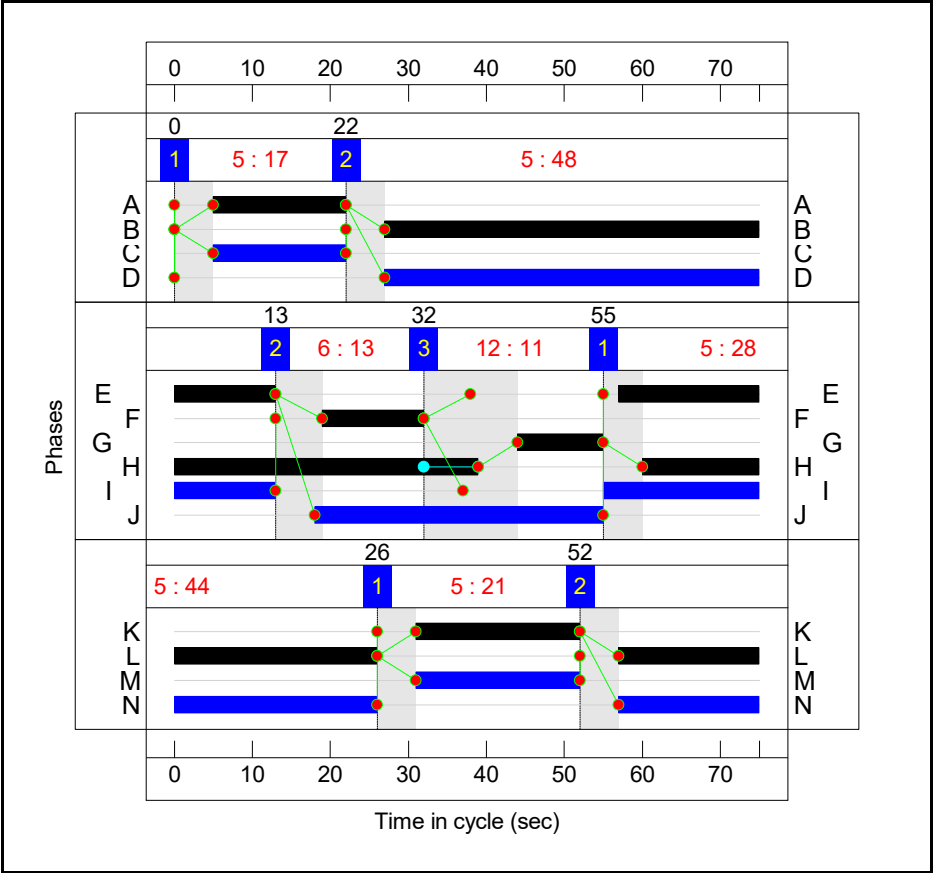
Stage Stream: 2

Stage	1	2	3
Duration	28	13	11
Change Point	55	13	32

Full Input Data And Results
Stage Stream: 3

Stage	1	2
Duration	21	44
Change Point	26	52

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: Gresford Interchange	-	-	N/A	-	-		-	-	-	-	-	-	88.7%
Gresford Interchange	-	-	N/A	-	-		-	-	-	-	-	-	88.7%
1/1	A483 SB Off-slip Left U-Turn	U	1	N/A	A		1	17	-	294	1900	456	64.5%
1/2	A483 SB Off-slip Left	U	1	N/A	A		1	17	-	294	1900	456	64.5%
1/3	A483 SB Off-slip Left	U	1	N/A	A		1	17	-	311	1900	456	68.2%
2/2+2/1	B5445 Ahead Left	O	N/A	N/A	-		-	-	-	247	Inf : Inf	396+298	35.6 : 35.6%
2/3	B5445 Ahead	O	N/A	N/A	-		-	-	-	141	Inf	396	35.6%
3/2+3/1	A5156 Ahead Left	U	2	N/A	E		1	31	-	1436	1900:1900	811+811	88.6 : 88.6%
3/3	A5156 Ahead	U	2	N/A	E		1	31	-	719	1900	811	88.7%
4/2+4/1	A5152 Ahead Left	U	2	N/A	G		1	11	-	408	1900:1900	304+175	85.2 : 85.2%
4/3	A5152 Ahead	U	2	N/A	G		1	11	-	257	1900	304	84.5%
5/2+5/1	A483 NB Off-slip Left Ahead	U	3	N/A	K		1	21	-	556	1900:1900	555+126	81.6 : 81.6%
5/3	A483 NB Off-slip Ahead	U	3	N/A	K		1	21	-	452	1900	557	81.1%
6/1	Right Left	U	1	N/A	B		1	48	-	1090	1900	1241	87.8%
6/2	Right	U	1	N/A	B		1	48	-	340	1900	1241	27.4%
6/3	Right	U	1	N/A	B		1	48	-	341	1900	1241	27.5%
7/1	Ahead	U	N/A	N/A	-		-	-	-	839	Inf	Inf	0.0%
7/2	Ahead	U	N/A	N/A	-		-	-	-	634	Inf	Inf	0.0%
7/3	Right	U	N/A	N/A	-		-	-	-	501	Inf	Inf	0.0%
7/4	Right	U	N/A	N/A	-		-	-	-	151	Inf	Inf	0.0%

Full Input Data And Results

8/1	Ahead	U	2	N/A	F		1	13	-	299	1900	355	84.3%
8/2	Ahead	U	2	N/A	F		1	13	-	303	1900	355	85.4%
8/3	Ahead	U	2	N/A	F		1	13	-	69	1900	355	19.5%
8/4	Ahead	U	2	N/A	F		1	13	-	263	1900	355	74.2%
9/1	Ahead	U	2	N/A	H		1	54	-	717	1900	1393	51.5%
9/2	Right Ahead	U	2	N/A	H		1	54	-	955	1900	1393	68.5%
9/3	Right	U	2	N/A	H		1	54	-	745	1900	1393	53.5%
10/1	Ahead Right	U	3	N/A	L		1	44	-	442	1900	1140	38.8%
10/2	Right	U	3	N/A	L		1	44	-	518	1900	1140	45.4%
10/3	Right	U	3	N/A	L		1	44	-	1002	1900	1140	87.9%
11/1		U	N/A	N/A	-		-	-	-	242	Inf	Inf	0.0%
11/2		U	N/A	N/A	-		-	-	-	817	Inf	Inf	0.0%
12/1		U	N/A	N/A	-		-	-	-	545	Inf	Inf	0.0%
13/1		U	N/A	N/A	-		-	-	-	945	Inf	Inf	0.0%
13/2		U	N/A	N/A	-		-	-	-	634	Inf	Inf	0.0%
14/1		U	N/A	N/A	-		-	-	-	369	Inf	Inf	0.0%
14/2		U	N/A	N/A	-		-	-	-	303	Inf	Inf	0.0%
15/1		U	N/A	N/A	-		-	-	-	866	Inf	Inf	0.0%
15/2		U	N/A	N/A	-		-	-	-	254	Inf	Inf	0.0%
16/1+16/2	Blue Bell Ln Left Ahead	O	N/A	N/A	-		-	-	-	324	Inf : Inf	249+249	65.0 : 65.0%
17/1		U	N/A	N/A	-		-	-	-	513	Inf	Inf	0.0%
18/1	Ahead	U	N/A	N/A	-		-	-	-	32	Inf	Inf	0.0%
18/2	Right	U	N/A	N/A	-		-	-	-	971	Inf	Inf	0.0%
18/3	Right	U	N/A	N/A	-		-	-	-	1454	Inf	Inf	0.0%
19/1+19/2	Industrial Park Access Ahead Left	O	N/A	N/A	-		-	-	-	91	Inf : Inf	142+142	31.7 : 32.4%
20/1		U	N/A	N/A	-		-	-	-	42	Inf	Inf	0.0%
21/1	Ahead	U	N/A	N/A	-		-	-	-	223	Inf	Inf	0.0%
21/2	Right Ahead	U	N/A	N/A	-		-	-	-	1881	Inf	Inf	0.0%

Full Input Data And Results

21/3	Right	U	N/A	N/A	-		-	-	-	635	Inf	Inf	0.0%
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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: Gresford Interchange	-	-	1465	0	0	42.3	38.1	0.0	80.4	-	-	-	-
Gresford Interchange	-	-	1465	0	0	42.3	38.1	0.0	80.4	-	-	-	-
1/1	294	294	-	-	-	2.1	0.9	-	3.0	36.6	5.5	0.9	6.4
1/2	294	294	-	-	-	2.1	0.9	-	3.0	36.6	5.5	0.9	6.4
1/3	311	311	-	-	-	2.2	1.1	-	3.3	38.1	5.9	1.1	6.9
2/2+2/1	247	247	494	0	0	0.1	0.3	-	0.4	5.8	0.6	0.3	0.9
2/3	141	141	141	0	0	0.1	0.3	-	0.4	9.0	0.6	0.3	0.9
3/2+3/1	1436	1436	-	-	-	7.9	3.7	-	11.6	29.2	13.8	3.7	17.5
3/3	719	719	-	-	-	4.0	3.6	-	7.6	38.0	13.8	3.6	17.4
4/2+4/1	408	408	-	-	-	3.4	2.7	-	6.1	53.6	5.2	2.7	7.9
4/3	257	257	-	-	-	2.2	2.5	-	4.7	65.3	5.1	2.5	7.6
5/2+5/1	556	556	-	-	-	3.7	2.1	-	5.8	37.6	8.7	2.1	10.8
5/3	452	452	-	-	-	3.1	2.1	-	5.2	41.0	8.7	2.1	10.7
6/1	1090	1090	-	-	-	2.4	3.4	-	5.9	19.3	11.8	3.4	15.2
6/2	340	340	-	-	-	0.5	0.2	-	0.7	7.4	2.3	0.2	2.5
6/3	341	341	-	-	-	0.3	0.2	-	0.4	4.7	1.4	0.2	1.6
7/1	839	839	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	634	634	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/3	501	501	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/4	151	151	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	299	299	-	-	-	1.7	2.5	-	4.2	50.6	5.9	2.5	8.4
8/2	303	303	-	-	-	1.8	2.7	-	4.4	52.7	6.0	2.7	8.6
8/3	69	69	-	-	-	0.6	0.1	-	0.8	39.5	1.3	0.1	1.4
8/4	263	263	-	-	-	1.8	1.4	-	3.2	43.1	4.8	1.4	6.2
9/1	717	717	-	-	-	0.0	0.5	-	0.5	2.7	0.0	0.5	0.5

Full Input Data And Results

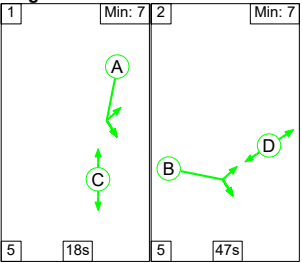
9/2	955	955	-	-	-	0.0	1.1	-	1.1	4.1	0.0	1.1	1.1
9/3	745	745	-	-	-	0.0	0.6	-	0.6	2.8	0.0	0.6	0.6
10/1	442	442	-	-	-	0.8	0.3	-	1.1	8.9	3.9	0.3	4.2
10/2	518	518	-	-	-	0.6	0.4	-	1.0	7.0	5.1	0.4	5.5
10/3	1002	1002	-	-	-	0.7	3.5	-	4.1	14.8	6.3	3.5	9.8
11/1	242	242	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/2	817	817	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	545	545	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	945	945	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/2	634	634	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/1	369	369	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/2	303	303	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
15/1	866	866	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
15/2	254	254	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
16/1+16/2	324	324	648	0	0	0.3	0.9	-	1.2	13.9	0.9	0.9	1.9
17/1	513	513	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/1	32	32	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/2	971	971	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/3	1454	1454	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
19/1+19/2	91	91	182	0	0	0.1	0.2	-	0.3	11.7	0.2	0.2	0.5
20/1	42	42	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
21/1	223	223	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
21/2	1881	1881	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
21/3	635	635	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1			Stream: 1 PRC for Signalled Lanes (%)		2.5	Total Delay for Signalled Lanes (pcuHr):				16.28	Cycle Time (s):		75
C1			Stream: 2 PRC for Signalled Lanes (%)		1.5	Total Delay for Signalled Lanes (pcuHr):				44.69	Cycle Time (s):		75
C1			Stream: 3 PRC for Signalled Lanes (%)		2.4	Total Delay for Signalled Lanes (pcuHr):				17.17	Cycle Time (s):		75
			PRC Over All Lanes (%)		1.5	Total Delay Over All Lanes (pcuHr):				80.44			

Full Input Data And Results

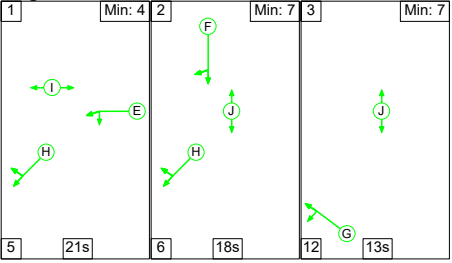
Scenario 5: 'AM With Dev 2027 ST' (FG11: 'AM With Dev 2027 ST', Plan 1: 'Staging Plan No. 1')

Stage Sequence Diagram

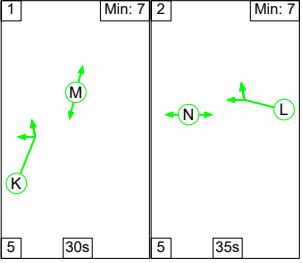
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	18	47
Change Point	0	23

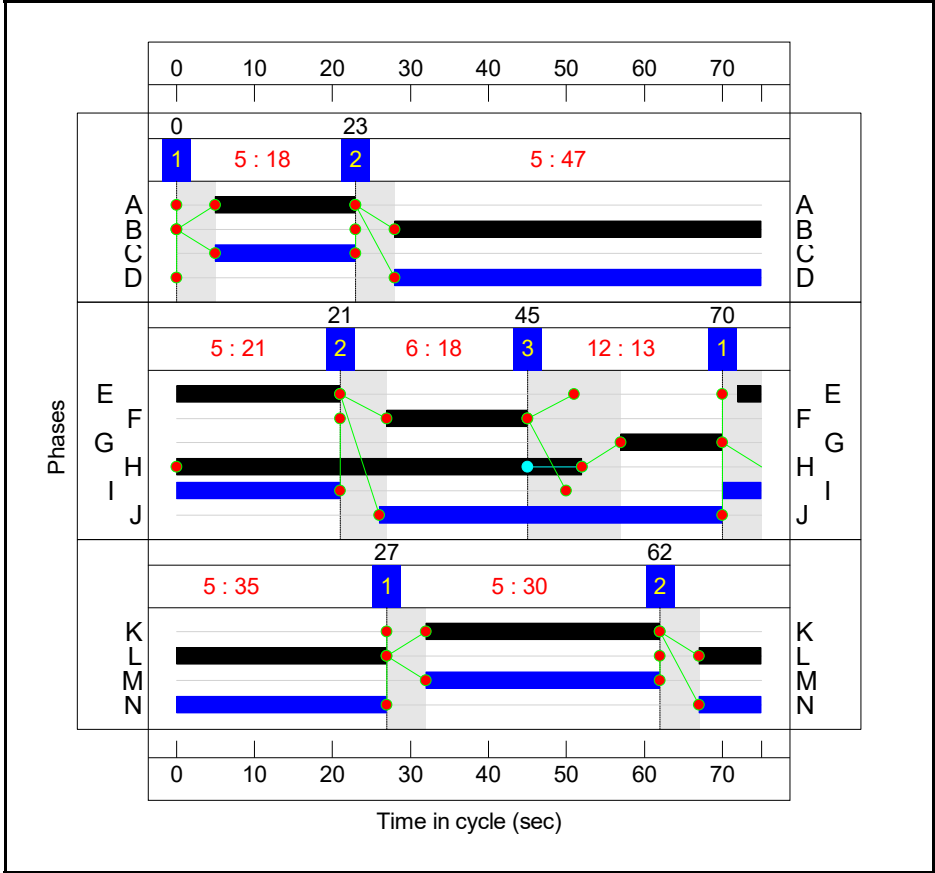
Stage Stream: 2

Stage	1	2	3
Duration	21	18	13
Change Point	70	21	45

Full Input Data And Results
Stage Stream: 3

Stage	1	2
Duration	30	35
Change Point	27	62

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: Gresford Interchange	-	-	N/A	-	-	-	-	-	-	-	-	-	95.6%
Gresford Interchange	-	-	N/A	-	-	-	-	-	-	-	-	-	95.6%
1/1	A483 SB Off-slip Left U-Turn	U	1	N/A	A	-	1	18	-	458	1900	481	95.2%
1/2	A483 SB Off-slip Left	U	1	N/A	A	-	1	18	-	458	1900	481	95.2%
1/3	A483 SB Off-slip Left	U	1	N/A	A	-	1	18	-	333	1900	481	69.2%
2/2+2/1	B5445 Ahead Left	O	N/A	N/A	-	-	-	-	-	335	Inf : Inf	208+208	85.1 : 75.9%
2/3	B5445 Ahead	O	N/A	N/A	-	-	-	-	-	177	Inf	208	85.1%
3/2+3/1	A5156 Ahead Left	U	2	N/A	E	-	1	24	-	937	1900:1900	633+633	74.1 : 73.9%
3/3	A5156 Ahead	U	2	N/A	E	-	1	24	-	468	1900	633	73.9%
4/2+4/1	A5152 Ahead Left	U	2	N/A	G	-	1	13	-	428	1900:1900	340+209	78.0 : 78.0%
4/3	A5152 Ahead	U	2	N/A	G	-	1	13	-	265	1900	355	74.7%
5/2+5/1	A483 NB Off-slip Left Ahead	U	3	N/A	K	-	1	30	-	761	1900:1900	744+160	84.2 : 84.2%
5/3	A483 NB Off-slip Ahead	U	3	N/A	K	-	1	30	-	626	1900	785	79.7%
6/1	Right Left	U	1	N/A	B	-	1	47	-	1162	1900	1216	95.6%
6/2	Right	U	1	N/A	B	-	1	47	-	581	1900	1216	47.8%
6/3	Right	U	1	N/A	B	-	1	47	-	290	1900	1216	23.8%
7/1	Ahead	U	N/A	N/A	-	-	-	-	-	1284	Inf	Inf	0.0%
7/2	Ahead	U	N/A	N/A	-	-	-	-	-	1039	Inf	Inf	0.0%
7/3	Right	U	N/A	N/A	-	-	-	-	-	375	Inf	Inf	0.0%
7/4	Right	U	N/A	N/A	-	-	-	-	-	248	Inf	Inf	0.0%

Full Input Data And Results

8/1	Ahead	U	2	N/A	F		1	18	-	212	1900	481	44.0%
8/2	Ahead	U	2	N/A	F		1	18	-	216	1900	481	44.9%
8/3	Ahead	U	2	N/A	F		1	18	-	170	1900	481	35.3%
8/4	Ahead	U	2	N/A	F		1	18	-	379	1900	481	78.7%
9/1	Ahead	U	2	N/A	H		1	52	-	602	1900	1343	44.8%
9/2	Right Ahead	U	2	N/A	H		1	52	-	800	1900	1343	59.6%
9/3	Right	U	2	N/A	H		1	52	-	516	1900	1343	38.4%
10/1	Ahead Right	U	3	N/A	L		1	35	-	360	1900	912	39.5%
10/2	Right	U	3	N/A	L		1	35	-	545	1900	912	59.8%
10/3	Right	U	3	N/A	L		1	35	-	781	1900	912	85.6%
11/1		U	N/A	N/A	-		-	-	-	244	Inf	Inf	0.0%
11/2		U	N/A	N/A	-		-	-	-	706	Inf	Inf	0.0%
12/1		U	N/A	N/A	-		-	-	-	336	Inf	Inf	0.0%
13/1		U	N/A	N/A	-		-	-	-	1442	Inf	Inf	0.0%
13/2		U	N/A	N/A	-		-	-	-	1039	Inf	Inf	0.0%
14/1		U	N/A	N/A	-		-	-	-	248	Inf	Inf	0.0%
14/2		U	N/A	N/A	-		-	-	-	216	Inf	Inf	0.0%
15/1		U	N/A	N/A	-		-	-	-	765	Inf	Inf	0.0%
15/2		U	N/A	N/A	-		-	-	-	160	Inf	Inf	0.0%
16/1+16/2	Blue Bell Ln Left Ahead	O	N/A	N/A	-		-	-	-	389	Inf : Inf	227+227	85.3 : 85.8%
17/1		U	N/A	N/A	-		-	-	-	429	Inf	Inf	0.0%
18/1	Ahead	U	N/A	N/A	-		-	-	-	66	Inf	Inf	0.0%
18/2	Right	U	N/A	N/A	-		-	-	-	1171	Inf	Inf	0.0%
18/3	Right	U	N/A	N/A	-		-	-	-	1407	Inf	Inf	0.0%
19/1+19/2	Industrial Park Access Ahead Left	O	N/A	N/A	-		-	-	-	24	Inf : Inf	102+102	11.8 : 11.8%
20/1		U	N/A	N/A	-		-	-	-	74	Inf	Inf	0.0%
21/1	Ahead	U	N/A	N/A	-		-	-	-	234	Inf	Inf	0.0%
21/2	Right Ahead	U	N/A	N/A	-		-	-	-	1866	Inf	Inf	0.0%

Full Input Data And Results

21/3	Right	U	N/A	N/A	-		-	-	-	859	Inf	Inf	0.0%
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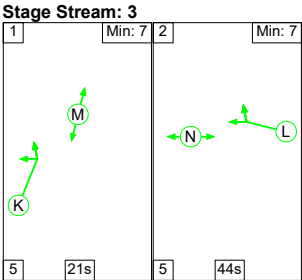
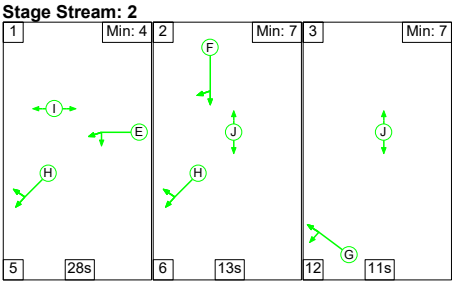
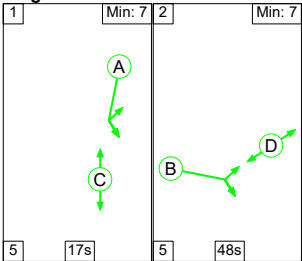
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcu/hr)	Rand + Oversat Delay (pcu/hr)	Storage Area Uniform Delay (pcu/hr)	Total Delay (pcu/hr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Gresford Interchange	-	-	1673	0	0	47.1	48.6	0.0	95.7	-	-	-	-
Gresford Interchange	-	-	1673	0	0	47.1	48.6	0.0	95.7	-	-	-	-
1/1	458	458	-	-	-	3.5	6.4	-	9.9	77.5	9.3	6.4	15.6
1/2	458	458	-	-	-	3.5	6.4	-	9.9	77.5	9.3	6.4	15.6
1/3	333	333	-	-	-	2.3	1.1	-	3.5	37.3	6.2	1.1	7.3
2/2+2/1	335	335	670	0	0	0.9	2.0	-	2.9	31.0	3.2	2.0	5.2
2/3	177	177	177	0	0	0.5	2.5	-	3.0	60.9	3.2	2.5	5.7
3/2+3/1	937	937	-	-	-	5.8	1.4	-	7.2	27.5	8.6	1.4	10.0
3/3	468	468	-	-	-	2.9	1.4	-	4.3	32.8	8.6	1.4	10.0
4/2+4/1	428	428	-	-	-	3.4	1.7	-	5.1	42.7	5.2	1.7	6.9
4/3	265	265	-	-	-	2.1	1.4	-	3.6	48.3	5.2	1.4	6.6
5/2+5/1	761	761	-	-	-	3.9	2.6	-	6.5	30.5	11.8	2.6	14.4
5/3	626	626	-	-	-	3.3	1.9	-	5.3	30.3	11.3	1.9	13.2
6/1	1162	1162	-	-	-	3.0	8.2	-	11.2	34.8	13.0	8.2	21.2
6/2	581	581	-	-	-	1.0	0.5	-	1.4	8.8	4.5	0.5	5.0
6/3	290	290	-	-	-	0.5	0.2	-	0.7	8.2	1.9	0.2	2.1
7/1	1284	1284	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	1039	1039	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/3	375	375	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/4	248	248	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	212	212	-	-	-	1.0	0.4	-	1.4	23.7	3.8	0.4	4.2
8/2	216	216	-	-	-	1.0	0.4	-	1.4	24.0	3.8	0.4	4.2
8/3	170	170	-	-	-	1.2	0.3	-	1.5	32.0	2.4	0.3	2.7
8/4	379	379	-	-	-	2.2	1.8	-	4.0	38.2	7.4	1.8	9.2
9/1	602	602	-	-	-	0.0	0.4	-	0.4	2.5	0.0	0.4	0.4

Full Input Data And Results

9/2		800	800	-	-	-	0.0	0.7	-	0.7	3.3	0.0	0.7	0.8
9/3		516	516	-	-	-	0.0	0.3	-	0.3	2.2	0.0	0.3	0.3
10/1		360	360	-	-	-	1.4	0.3	-	1.7	17.0	5.1	0.3	5.4
10/2		545	545	-	-	-	1.3	0.7	-	2.1	13.7	7.5	0.7	8.3
10/3		781	781	-	-	-	1.5	2.9	-	4.3	19.9	8.0	2.9	10.9
11/1		244	244	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/2		706	706	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1		336	336	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1		1442	1442	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/2		1039	1039	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/1		248	248	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/2		216	216	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
15/1		765	765	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
15/2		160	160	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
16/1+16/2		389	389	778	0	0	0.8	2.7	-	3.6	32.9	2.0	2.7	4.7
17/1		429	429	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/1		66	66	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/2		1171	1171	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/3		1407	1407	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
19/1+19/2		24	24	48	0	0	0.0	0.1	-	0.1	13.8	0.1	0.1	0.1
20/1		74	74	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
21/1		234	234	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
21/2		1866	1866	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
21/3		859	859	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
	C1	Stream: 1 PRC for Signalled Lanes (%)				-6.2	Total Delay for Signalled Lanes (pcuHr)			36.47	Cycle Time (s): 75			
	C1	Stream: 2 PRC for Signalled Lanes (%)				14.3	Total Delay for Signalled Lanes (pcuHr)			29.90	Cycle Time (s): 75			
	C1	Stream: 3 PRC for Signalled Lanes (%)				5.1	Total Delay for Signalled Lanes (pcuHr)			19.81	Cycle Time (s): 75			
		PRC Over All Lanes (%)				-6.2	Total Delay Over All Lanes (pcuHr)			95.70				

Full Input Data And Results
Scenario 6: 'PM With Dev 2027 ST' (FG12: 'PM With Dev 2027 ST', Plan 1: 'Staging Plan No. 1')
Stage Sequence Diagram
Stage Stream: 1



Stage Timings
Stage Stream: 1

Stage	1	2
Duration	17	48
Change Point	0	22

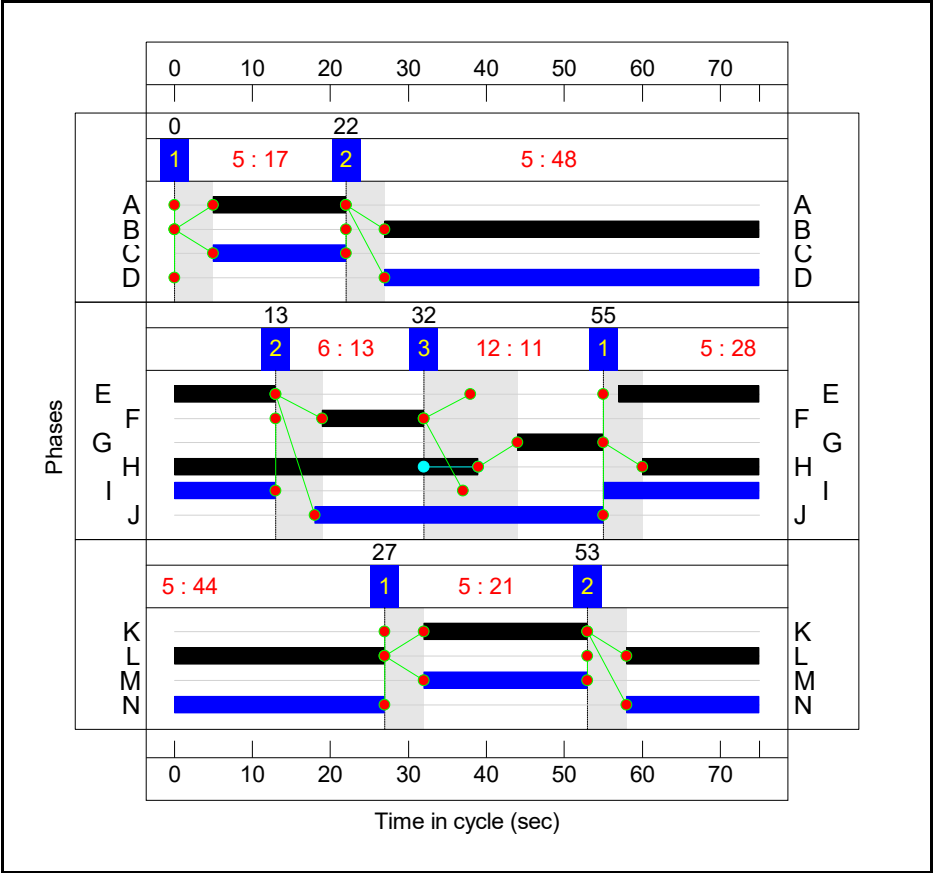
Stage Stream: 2

Stage	1	2	3
Duration	28	13	11
Change Point	55	13	32

Full Input Data And Results
Stage Stream: 3

Stage	1	2
Duration	21	44
Change Point	27	53

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: Gresford Interchange	-	-	N/A	-	-		-	-	-	-	-	-	88.0%
Gresford Interchange	-	-	N/A	-	-		-	-	-	-	-	-	88.0%
1/1	A483 SB Off-slip Left U-Turn	U	1	N/A	A		1	17	-	284	1900	456	62.3%
1/2	A483 SB Off-slip Left	U	1	N/A	A		1	17	-	284	1900	456	62.3%
1/3	A483 SB Off-slip Left	U	1	N/A	A		1	17	-	300	1900	456	65.8%
2/2+2/1	B5445 Ahead Left	O	N/A	N/A	-		-	-	-	238	Inf : Inf	419+314	32.5 : 32.5%
2/3	B5445 Ahead	O	N/A	N/A	-		-	-	-	135	Inf	419	32.2%
3/2+3/1	A5156 Ahead Left	U	2	N/A	E		1	31	-	1426	1900:1900	811+811	88.0 : 88.0%
3/3	A5156 Ahead	U	2	N/A	E		1	31	-	713	1900	811	88.0%
4/2+4/1	A5152 Ahead Left	U	2	N/A	G		1	11	-	393	1900:1900	304+176	81.9 : 81.9%
4/3	A5152 Ahead	U	2	N/A	G		1	11	-	249	1900	304	81.9%
5/2+5/1	A483 NB Off-slip Left Ahead	U	3	N/A	K		1	21	-	533	1900:1900	555+128	78.0 : 78.0%
5/3	A483 NB Off-slip Ahead	U	3	N/A	K		1	21	-	433	1900	557	77.7%
6/1	Right Left	U	1	N/A	B		1	48	-	1046	1900	1241	84.3%
6/2	Right	U	1	N/A	B		1	48	-	324	1900	1241	26.1%
6/3	Right	U	1	N/A	B		1	48	-	328	1900	1241	26.4%
7/1	Ahead	U	N/A	N/A	-		-	-	-	804	Inf	Inf	0.0%
7/2	Ahead	U	N/A	N/A	-		-	-	-	608	Inf	Inf	0.0%
7/3	Right	U	N/A	N/A	-		-	-	-	483	Inf	Inf	0.0%
7/4	Right	U	N/A	N/A	-		-	-	-	145	Inf	Inf	0.0%

Full Input Data And Results

8/1	Ahead	U	2	N/A	F		1	13	-	288	1900	355	81.2%
8/2	Ahead	U	2	N/A	F		1	13	-	292	1900	355	82.3%
8/3	Ahead	U	2	N/A	F		1	13	-	67	1900	355	18.9%
8/4	Ahead	U	2	N/A	F		1	13	-	252	1900	355	71.1%
9/1	Ahead	U	2	N/A	H		1	54	-	713	1900	1393	51.2%
9/2	Right Ahead	U	2	N/A	H		1	54	-	940	1900	1393	67.5%
9/3	Right	U	2	N/A	H		1	54	-	738	1900	1393	53.0%
10/1	Ahead Right	U	3	N/A	L		1	44	-	435	1900	1140	38.2%
10/2	Right	U	3	N/A	L		1	44	-	500	1900	1140	43.9%
10/3	Right	U	3	N/A	L		1	44	-	987	1900	1140	86.6%
11/1		U	N/A	N/A	-		-	-	-	234	Inf	Inf	0.0%
11/2		U	N/A	N/A	-		-	-	-	807	Inf	Inf	0.0%
12/1		U	N/A	N/A	-		-	-	-	526	Inf	Inf	0.0%
13/1		U	N/A	N/A	-		-	-	-	906	Inf	Inf	0.0%
13/2		U	N/A	N/A	-		-	-	-	608	Inf	Inf	0.0%
14/1		U	N/A	N/A	-		-	-	-	355	Inf	Inf	0.0%
14/2		U	N/A	N/A	-		-	-	-	292	Inf	Inf	0.0%
15/1		U	N/A	N/A	-		-	-	-	857	Inf	Inf	0.0%
15/2		U	N/A	N/A	-		-	-	-	254	Inf	Inf	0.0%
16/1+16/2	Blue Bell Ln Left Ahead	O	N/A	N/A	-		-	-	-	309	Inf : Inf	268+268	57.8 : 57.5%
17/1		U	N/A	N/A	-		-	-	-	503	Inf	Inf	0.0%
18/1	Ahead	U	N/A	N/A	-		-	-	-	32	Inf	Inf	0.0%
18/2	Right	U	N/A	N/A	-		-	-	-	933	Inf	Inf	0.0%
18/3	Right	U	N/A	N/A	-		-	-	-	1420	Inf	Inf	0.0%
19/1+19/2	Industrial Park Access Ahead Left	O	N/A	N/A	-		-	-	-	87	Inf : Inf	165+165	26.0 : 26.6%
20/1		U	N/A	N/A	-		-	-	-	42	Inf	Inf	0.0%
21/1	Ahead	U	N/A	N/A	-		-	-	-	216	Inf	Inf	0.0%
21/2	Right Ahead	U	N/A	N/A	-		-	-	-	1828	Inf	Inf	0.0%

Full Input Data And Results

21/3	Right	U	N/A	N/A	-		-	-	-	608	Inf	Inf	0.0%
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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: Gresford Interchange	-	-	1403	0	0	40.7	33.0	0.0	73.6	-	-	-	-
Gresford Interchange	-	-	1403	0	0	40.7	33.0	0.0	73.6	-	-	-	-
1/1	284	284	-	-	-	2.0	0.8	-	2.8	35.8	5.3	0.8	6.1
1/2	284	284	-	-	-	2.0	0.8	-	2.8	35.8	5.3	0.8	6.1
1/3	300	300	-	-	-	2.1	0.9	-	3.1	37.1	5.6	0.9	6.5
2/2+2/1	238	238	476	0	0	0.1	0.2	-	0.3	5.1	0.5	0.2	0.8
2/3	135	135	135	0	0	0.1	0.2	-	0.3	7.9	0.5	0.2	0.8
3/2+3/1	1426	1426	-	-	-	7.8	3.5	-	11.3	28.6	13.5	3.5	17.0
3/3	713	713	-	-	-	3.9	3.4	-	7.3	37.0	13.5	3.4	16.9
4/2+4/1	393	393	-	-	-	3.3	2.2	-	5.4	49.5	5.0	2.2	7.1
4/3	249	249	-	-	-	2.1	2.1	-	4.2	60.9	5.0	2.1	7.1
5/2+5/1	533	533	-	-	-	3.5	1.7	-	5.2	35.1	8.2	1.7	9.9
5/3	433	433	-	-	-	2.9	1.7	-	4.6	38.4	8.2	1.7	9.9
6/1	1046	1046	-	-	-	2.3	2.6	-	4.9	16.7	11.3	2.6	13.9
6/2	324	324	-	-	-	0.5	0.2	-	0.7	7.4	2.3	0.2	2.4
6/3	328	328	-	-	-	0.3	0.2	-	0.4	4.7	1.3	0.2	1.5
7/1	804	804	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	608	608	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/3	483	483	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/4	145	145	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	288	288	-	-	-	1.6	2.0	-	3.7	45.9	5.6	2.0	7.6
8/2	292	292	-	-	-	1.7	2.2	-	3.8	47.4	5.7	2.2	7.8
8/3	67	67	-	-	-	0.6	0.1	-	0.7	38.9	1.3	0.1	1.4
8/4	252	252	-	-	-	1.6	1.2	-	2.8	40.5	4.5	1.2	5.7
9/1	713	713	-	-	-	0.0	0.5	-	0.5	2.7	0.0	0.5	0.5

Full Input Data And Results

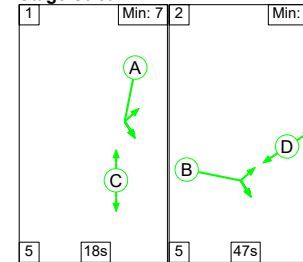
9/2	940	940	-	-	-	0.0	1.0	-	1.0	4.0	0.0	1.0	1.1
9/3	738	738	-	-	-	0.0	0.6	-	0.6	2.7	0.0	0.6	0.6
10/1	435	435	-	-	-	0.8	0.3	-	1.1	9.0	3.7	0.3	4.1
10/2	500	500	-	-	-	0.6	0.4	-	1.0	7.0	5.0	0.4	5.3
10/3	987	987	-	-	-	0.6	3.1	-	3.7	13.6	6.0	3.1	9.1
11/1	234	234	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/2	807	807	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	526	526	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	906	906	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/2	608	608	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/1	355	355	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/2	292	292	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
15/1	857	857	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
15/2	254	254	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
16/1+16/2	309	309	618	0	0	0.3	0.7	-	0.9	11.0	0.9	0.7	1.5
17/1	503	503	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/1	32	32	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/2	933	933	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/3	1420	1420	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
19/1+19/2	87	87	174	0	0	0.1	0.2	-	0.2	9.5	0.2	0.2	0.4
20/1	42	42	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
21/1	216	216	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
21/2	1828	1828	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
21/3	608	608	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 Stream: 1 PRC for Signalised Lanes (%):						6.8	Total Delay for Signalised Lanes (pcuHr):			14.70	Cycle Time (s): 75		
C1 Stream: 2 PRC for Signalised Lanes (%):						2.3	Total Delay for Signalised Lanes (pcuHr):			41.48	Cycle Time (s): 75		
C1 Stream: 3 PRC for Signalised Lanes (%):						4.0	Total Delay for Signalised Lanes (pcuHr):			15.81	Cycle Time (s): 75		
PRC Over All Lanes (%):						2.3	Total Delay Over All Lanes (pcuHr):			73.61			

Full Input Data And Results

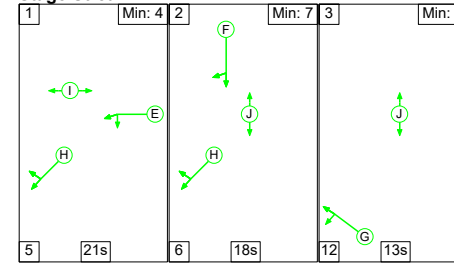
Scenario 7: 'AM With Dev 2036 ST' (FG13: 'AM With Dev 2036 ST', Plan 1: 'Staging Plan No. 1')

Stage Sequence Diagram

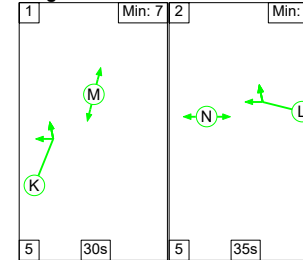
Stage Stream: 1



Stage Stream: 2



Stage Stream: 3



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	18	47
Change Point	15	38

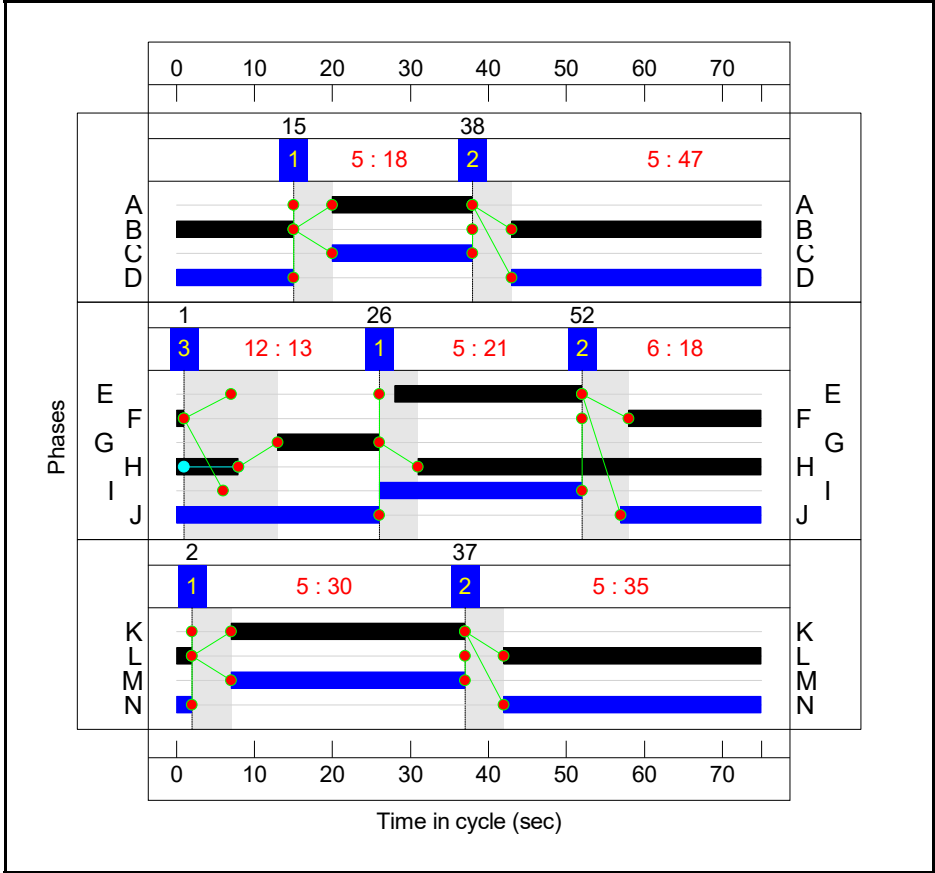
Stage Stream: 2

Stage	1	2	3
Duration	21	18	13
Change Point	26	52	1

Full Input Data And Results
Stage Stream: 3

Stage	1	2
Duration	30	35
Change Point	2	37

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: Gresford Interchange	-	-	N/A	-	-		-	-	-	-	-	-	98.6%
Gresford Interchange	-	-	N/A	-	-		-	-	-	-	-	-	98.6%
1/1	A483 SB Off-slip Left U-Turn	U	1	N/A	A		1	18	-	472	1900	481	98.1%
1/2	A483 SB Off-slip Left	U	1	N/A	A		1	18	-	473	1900	481	98.3%
1/3	A483 SB Off-slip Left	U	1	N/A	A		1	18	-	345	1900	481	71.7%
2/2+2/1	B5445 Ahead Left	O	N/A	N/A	-		-	-	-	347	Inf : Inf	237+237	77.1 : 69.1%
2/3	B5445 Ahead	O	N/A	N/A	-		-	-	-	184	Inf	237	77.6%
3/2+3/1	A5156 Ahead Left	U	2	N/A	E		1	24	-	963	1900:1900	633+633	75.9 : 76.1%
3/3	A5156 Ahead	U	2	N/A	E		1	24	-	482	1900	633	76.1%
4/2+4/1	A5152 Ahead Left	U	2	N/A	G		1	13	-	443	1900:1900	340+209	80.7 : 80.7%
4/3	A5152 Ahead	U	2	N/A	G		1	13	-	275	1900	355	77.5%
5/2+5/1	A483 NB Off-slip Left Ahead	U	3	N/A	K		1	30	-	784	1900:1900	743+162	86.6 : 86.6%
5/3	A483 NB Off-slip Ahead	U	3	N/A	K		1	30	-	645	1900	785	82.1%
6/1	Right Left	U	1	N/A	B		1	47	-	1199	1900	1216	98.6%
6/2	Right	U	1	N/A	B		1	47	-	597	1900	1216	49.1%
6/3	Right	U	1	N/A	B		1	47	-	300	1900	1216	24.7%
7/1	Ahead	U	N/A	N/A	-		-	-	-	1323	Inf	Inf	0.0%
7/2	Ahead	U	N/A	N/A	-		-	-	-	1070	Inf	Inf	0.0%
7/3	Right	U	N/A	N/A	-		-	-	-	389	Inf	Inf	0.0%
7/4	Right	U	N/A	N/A	-		-	-	-	256	Inf	Inf	0.0%

Full Input Data And Results

8/1	Ahead	U	2	N/A	F		1	18	-	221	1900	481	45.9%
8/2	Ahead	U	2	N/A	F		1	18	-	223	1900	481	46.3%
8/3	Ahead	U	2	N/A	F		1	18	-	175	1900	481	36.4%
8/4	Ahead	U	2	N/A	F		1	18	-	393	1900	481	81.6%
9/1	Ahead	U	2	N/A	H		1	52	-	620	1900	1343	46.2%
9/2	Right Ahead	U	2	N/A	H		1	52	-	824	1900	1343	61.4%
9/3	Right	U	2	N/A	H		1	52	-	532	1900	1343	39.6%
10/1	Ahead Right	U	3	N/A	L		1	35	-	371	1900	912	40.7%
10/2	Right	U	3	N/A	L		1	35	-	563	1900	912	61.7%
10/3	Right	U	3	N/A	L		1	35	-	807	1900	912	88.5%
11/1		U	N/A	N/A	-		-	-	-	251	Inf	Inf	0.0%
11/2		U	N/A	N/A	-		-	-	-	728	Inf	Inf	0.0%
12/1		U	N/A	N/A	-		-	-	-	348	Inf	Inf	0.0%
13/1		U	N/A	N/A	-		-	-	-	1487	Inf	Inf	0.0%
13/2		U	N/A	N/A	-		-	-	-	1070	Inf	Inf	0.0%
14/1		U	N/A	N/A	-		-	-	-	258	Inf	Inf	0.0%
14/2		U	N/A	N/A	-		-	-	-	223	Inf	Inf	0.0%
15/1		U	N/A	N/A	-		-	-	-	789	Inf	Inf	0.0%
15/2		U	N/A	N/A	-		-	-	-	164	Inf	Inf	0.0%
16/1+16/2	Blue Bell Ln Left Ahead	O	N/A	N/A	-		-	-	-	400	Inf : Inf	222+222	90.2 : 90.2%
17/1		U	N/A	N/A	-		-	-	-	442	Inf	Inf	0.0%
18/1	Ahead	U	N/A	N/A	-		-	-	-	69	Inf	Inf	0.0%
18/2	Right	U	N/A	N/A	-		-	-	-	1207	Inf	Inf	0.0%
18/3	Right	U	N/A	N/A	-		-	-	-	1452	Inf	Inf	0.0%
19/1+19/2	Industrial Park Access Ahead Left	O	N/A	N/A	-		-	-	-	24	Inf : Inf	93+93	12.9 : 12.9%
20/1		U	N/A	N/A	-		-	-	-	77	Inf	Inf	0.0%
21/1	Ahead	U	N/A	N/A	-		-	-	-	241	Inf	Inf	0.0%
21/2	Right Ahead	U	N/A	N/A	-		-	-	-	1925	Inf	Inf	0.0%

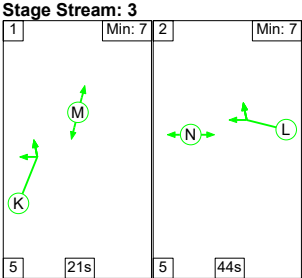
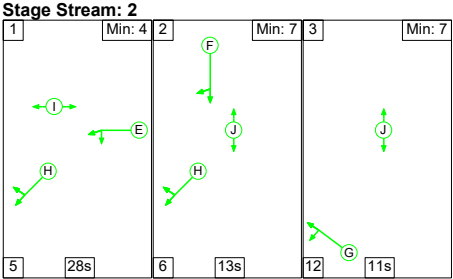
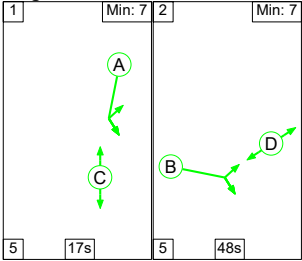
Full Input Data And Results

21/3	Right	U	N/A	N/A	-		-	-	-	885	Inf	Inf	0.0%
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Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcu/Hr)	Rand + Oversat Delay (pcu/Hr)	Storage Area Uniform Delay (pcu/Hr)	Total Delay (pcu/Hr)	Av. Delay Per PCU (s/PCU)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Gresford Interchange	-	-	1726	0	0	55.3	61.8	0.0	117.2	-	-	-	-
Gresford Interchange	-	-	1726	0	0	55.3	61.8	0.0	117.2	-	-	-	-
1/1	472	472	-	-	-	3.6	8.8	-	12.4	94.8	9.7	8.8	18.5
1/2	473	473	-	-	-	3.7	9.0	-	12.6	96.3	9.7	9.0	18.7
1/3	345	345	-	-	-	2.4	1.2	-	3.7	38.5	6.5	1.2	7.8
2/2+2/1	347	347	694	0	0	1.2	1.3	-	2.6	26.6	3.4	1.3	4.7
2/3	184	184	184	0	0	0.7	1.6	-	2.3	45.7	3.4	1.6	5.1
3/2+3/1	963	963	-	-	-	6.0	1.6	-	7.5	28.2	8.8	1.6	10.4
3/3	482	482	-	-	-	3.0	1.6	-	4.6	34.0	8.8	1.6	10.4
4/2+4/1	443	443	-	-	-	3.5	2.0	-	5.5	44.7	5.4	2.0	7.4
4/3	275	275	-	-	-	2.2	1.7	-	3.9	50.7	5.4	1.7	7.1
5/2+5/1	784	784	-	-	-	4.1	3.1	-	7.1	32.8	12.3	3.1	15.4
5/3	645	645	-	-	-	3.5	2.2	-	5.7	32.0	11.8	2.2	14.1
6/1	1199	1199	-	-	-	4.6	13.6	-	18.2	54.7	24.8	13.6	38.4
6/2	597	597	-	-	-	1.4	0.5	-	1.8	11.1	9.7	0.5	10.2
6/3	300	300	-	-	-	0.6	0.2	-	0.8	9.4	4.0	0.2	4.2
7/1	1323	1323	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	1070	1070	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/3	389	389	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/4	256	256	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	221	221	-	-	-	0.9	0.4	-	1.3	21.6	4.0	0.4	4.5
8/2	223	223	-	-	-	0.9	0.4	-	1.3	21.7	4.1	0.4	4.5
8/3	175	175	-	-	-	1.4	0.3	-	1.6	33.7	3.3	0.3	3.5
8/4	393	393	-	-	-	3.3	2.1	-	5.4	49.8	8.0	2.1	10.1
9/1	620	620	-	-	-	0.0	0.4	-	0.4	2.5	0.0	0.4	0.4

Input Data File	824	824	-	-	-	0.0	0.8	-	0.8	3.5	0.0	0.8	0.8
9/3	532	532	-	-	-	0.0	0.3	-	0.3	2.2	0.0	0.3	0.3
10/1	371	371	-	-	-	2.0	0.3	-	2.3	22.3	5.5	0.3	5.8
10/2	563	563	-	-	-	2.0	0.8	-	2.8	18.1	9.8	0.8	10.6
10/3	807	807	-	-	-	3.1	3.6	-	6.7	29.7	16.3	3.6	19.9
11/1	251	251	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/2	728	728	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	348	348	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	1487	1487	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/2	1070	1070	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/1	258	258	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/2	223	223	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
15/1	789	789	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
15/2	164	164	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
16/1+16/2	400	400	800	0	0	1.2	3.9	-	5.1	46.3	2.1	3.9	6.0
17/1	442	442	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/1	69	69	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/2	1207	1207	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/3	1452	1452	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
19/1+19/2	24	24	48	0	0	0.0	0.1	-	0.1	17.1	0.1	0.1	0.1
20/1	77	77	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
21/1	241	241	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
21/2	1925	1925	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
21/3	885	885	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 C1 C1	Stream: 1 PRC for Signalled Lanes (%): Stream: 2 PRC for Signalled Lanes (%): Stream: 3 PRC for Signalled Lanes (%): PRC Over All Lanes (%)				-9.6 10.2 1.7 -9.6	Total Delay for Signalled Lanes (pcuHr): Total Delay for Signalled Lanes (pcuHr): Total Delay for Signalled Lanes (pcuHr): Total Delay Over All Lanes(pcuHr)	49.60 32.76 24.65 117.18	Cycle Time (s): Cycle Time (s): Cycle Time (s):	75 75 75				

Full Input Data And Results
Scenario 8: 'PM With Dev 2036 ST' (FG14: 'PM With Dev 2036 ST', Plan 1: 'Staging Plan No. 1')
Stage Sequence Diagram
Stage Stream: 1



Stage Timings
Stage Stream: 1

Stage	1	2
Duration	17	48
Change Point	0	22

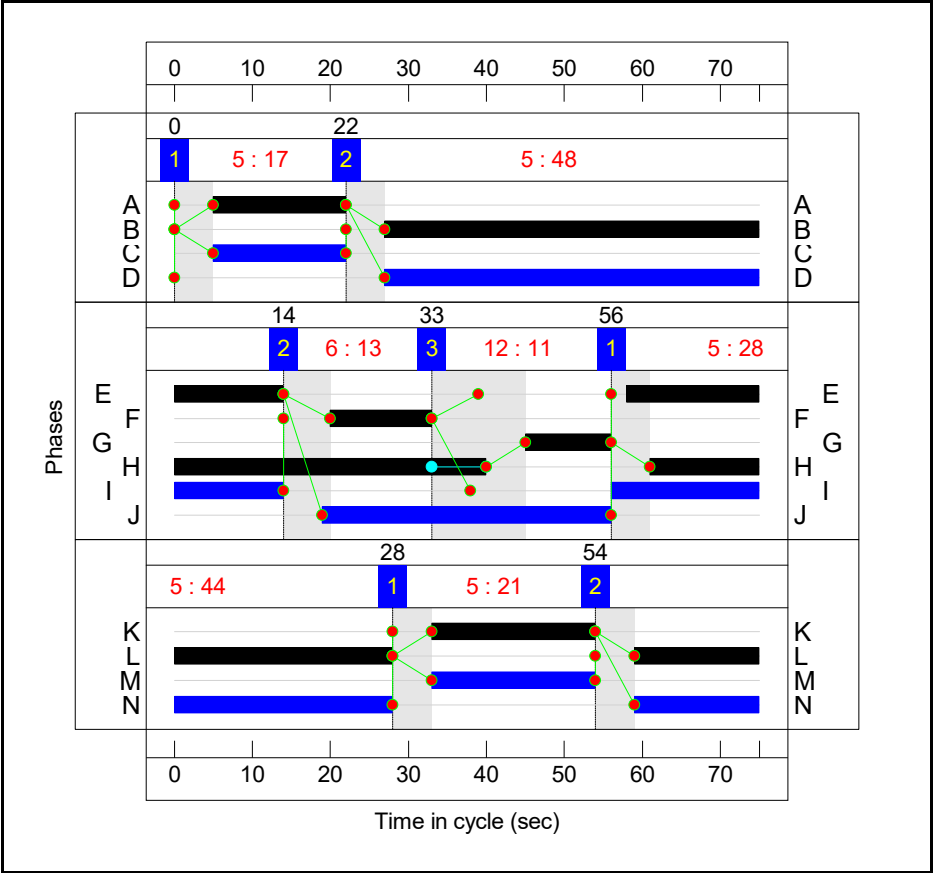
Stage Stream: 2

Stage	1	2	3
Duration	28	13	11
Change Point	56	14	33

Full Input Data And Results
Stage Stream: 3

Stage	1	2
Duration	21	44
Change Point	28	54

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: Gresford Interchange	-	-	N/A	-	-		-	-	-	-	-	-	90.5%
Gresford Interchange	-	-	N/A	-	-		-	-	-	-	-	-	90.5%
1/1	A483 SB Off-slip Left U-Turn	U	1	N/A	A		1	17	-	292	1900	456	64.0%
1/2	A483 SB Off-slip Left	U	1	N/A	A		1	17	-	292	1900	456	64.0%
1/3	A483 SB Off-slip Left	U	1	N/A	A		1	17	-	311	1900	456	68.2%
2/2+2/1	B5445 Ahead Left	O	N/A	N/A	-		-	-	-	247	Inf : Inf	404+304	34.9 : 34.9%
2/3	B5445 Ahead	O	N/A	N/A	-		-	-	-	141	Inf	404	34.9%
3/2+3/1	A5156 Ahead Left	U	2	N/A	E		1	31	-	1468	1900:1900	811+811	90.5 : 90.5%
3/3	A5156 Ahead	U	2	N/A	E		1	31	-	734	1900	811	90.5%
4/2+4/1	A5152 Ahead Left	U	2	N/A	G		1	11	-	408	1900:1900	304+175	85.2 : 85.2%
4/3	A5152 Ahead	U	2	N/A	G		1	11	-	257	1900	304	84.5%
5/2+5/1	A483 NB Off-slip Left Ahead	U	3	N/A	K		1	21	-	550	1900:1900	555+128	80.5 : 80.5%
5/3	A483 NB Off-slip Ahead	U	3	N/A	K		1	21	-	446	1900	557	80.0%
6/1	Right Left	U	1	N/A	B		1	48	-	1082	1900	1241	87.2%
6/2	Right	U	1	N/A	B		1	48	-	332	1900	1241	26.7%
6/3	Right	U	1	N/A	B		1	48	-	341	1900	1241	27.5%
7/1	Ahead	U	N/A	N/A	-		-	-	-	829	Inf	Inf	0.0%
7/2	Ahead	U	N/A	N/A	-		-	-	-	624	Inf	Inf	0.0%
7/3	Right	U	N/A	N/A	-		-	-	-	501	Inf	Inf	0.0%
7/4	Right	U	N/A	N/A	-		-	-	-	151	Inf	Inf	0.0%

Full Input Data And Results

8/1	Ahead	U	2	N/A	F		1	13	-	299	1900	355	84.3%
8/2	Ahead	U	2	N/A	F		1	13	-	303	1900	355	85.4%
8/3	Ahead	U	2	N/A	F		1	13	-	69	1900	355	19.5%
8/4	Ahead	U	2	N/A	F		1	13	-	263	1900	355	74.2%
9/1	Ahead	U	2	N/A	H		1	54	-	733	1900	1393	52.6%
9/2	Right Ahead	U	2	N/A	H		1	54	-	971	1900	1393	69.7%
9/3	Right	U	2	N/A	H		1	54	-	760	1900	1393	54.5%
10/1	Ahead Right	U	3	N/A	L		1	44	-	449	1900	1140	39.4%
10/2	Right	U	3	N/A	L		1	44	-	519	1900	1140	45.5%
10/3	Right	U	3	N/A	L		1	44	-	1017	1900	1140	89.2%
11/1		U	N/A	N/A	-		-	-	-	243	Inf	Inf	0.0%
11/2		U	N/A	N/A	-		-	-	-	832	Inf	Inf	0.0%
12/1		U	N/A	N/A	-		-	-	-	545	Inf	Inf	0.0%
13/1		U	N/A	N/A	-		-	-	-	935	Inf	Inf	0.0%
13/2		U	N/A	N/A	-		-	-	-	624	Inf	Inf	0.0%
14/1		U	N/A	N/A	-		-	-	-	369	Inf	Inf	0.0%
14/2		U	N/A	N/A	-		-	-	-	303	Inf	Inf	0.0%
15/1		U	N/A	N/A	-		-	-	-	882	Inf	Inf	0.0%
15/2		U	N/A	N/A	-		-	-	-	262	Inf	Inf	0.0%
16/1+16/2	Blue Bell Ln Left Ahead	O	N/A	N/A	-		-	-	-	320	Inf : Inf	246+246	64.9 : 64.9%
17/1		U	N/A	N/A	-		-	-	-	520	Inf	Inf	0.0%
18/1	Ahead	U	N/A	N/A	-		-	-	-	32	Inf	Inf	0.0%
18/2	Right	U	N/A	N/A	-		-	-	-	966	Inf	Inf	0.0%
18/3	Right	U	N/A	N/A	-		-	-	-	1463	Inf	Inf	0.0%
19/1+19/2	Industrial Park Access Ahead Left	O	N/A	N/A	-		-	-	-	91	Inf : Inf	141+141	32.0 : 32.7%
20/1		U	N/A	N/A	-		-	-	-	42	Inf	Inf	0.0%
21/1	Ahead	U	N/A	N/A	-		-	-	-	224	Inf	Inf	0.0%
21/2	Right Ahead	U	N/A	N/A	-		-	-	-	1888	Inf	Inf	0.0%

Full Input Data And Results

21/3	Right	U	N/A	N/A	-		-	-	-	627	Inf	Inf	0.0%
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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: Gresford Interchange	-	-	1457	0	0	42.7	39.6	0.0	82.4	-	-	-	-
Gresford Interchange	-	-	1457	0	0	42.7	39.6	0.0	82.4	-	-	-	-
1/1	292	292	-	-	-	2.1	0.9	-	3.0	36.5	5.4	0.9	6.3
1/2	292	292	-	-	-	2.1	0.9	-	3.0	36.5	5.4	0.9	6.3
1/3	311	311	-	-	-	2.2	1.1	-	3.3	38.1	5.9	1.1	6.9
2/2+2/1	247	247	494	0	0	0.1	0.3	-	0.4	5.7	0.6	0.3	0.9
2/3	141	141	141	0	0	0.1	0.3	-	0.3	8.7	0.6	0.3	0.9
3/2+3/1	1468	1468	-	-	-	8.2	4.5	-	12.7	31.2	14.3	4.5	18.8
3/3	734	734	-	-	-	4.1	4.3	-	8.4	41.2	14.3	4.3	18.6
4/2+4/1	408	408	-	-	-	3.4	2.7	-	6.1	53.6	5.2	2.7	7.9
4/3	257	257	-	-	-	2.2	2.5	-	4.7	65.3	5.1	2.5	7.6
5/2+5/1	550	550	-	-	-	3.6	2.0	-	5.6	36.8	8.6	2.0	10.6
5/3	446	446	-	-	-	3.0	1.9	-	5.0	40.1	8.5	1.9	10.5
6/1	1082	1082	-	-	-	2.4	3.3	-	5.7	18.8	12.0	3.3	15.2
6/2	332	332	-	-	-	0.5	0.2	-	0.7	7.5	2.4	0.2	2.6
6/3	341	341	-	-	-	0.3	0.2	-	0.5	5.3	1.5	0.2	1.7
7/1	829	829	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	624	624	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/3	501	501	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/4	151	151	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	299	299	-	-	-	1.7	2.5	-	4.2	50.5	5.9	2.5	8.4
8/2	303	303	-	-	-	1.8	2.7	-	4.4	52.6	6.0	2.7	8.7
8/3	69	69	-	-	-	0.6	0.1	-	0.8	39.7	1.3	0.1	1.4
8/4	263	263	-	-	-	1.7	1.4	-	3.1	42.7	4.8	1.4	6.2
9/1	733	733	-	-	-	0.0	0.6	-	0.6	2.7	0.0	0.6	0.6

Full Input Data And Results

9/2	971	971	-	-	-	0.0	1.1	-	1.2	4.3	0.0	1.1	1.2
9/3	760	760	-	-	-	0.0	0.6	-	0.6	2.8	0.0	0.6	0.6
10/1	449	449	-	-	-	0.8	0.3	-	1.1	9.1	3.9	0.3	4.2
10/2	519	519	-	-	-	0.6	0.4	-	1.0	7.2	5.2	0.4	5.6
10/3	1017	1017	-	-	-	0.7	3.9	-	4.6	16.2	6.4	3.9	10.3
11/1	243	243	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
11/2	832	832	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
12/1	545	545	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/1	935	935	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/2	624	624	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/1	369	369	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
14/2	303	303	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
15/1	882	882	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
15/2	262	262	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
16/1+16/2	320	320	640	0	0	0.4	0.9	-	1.3	14.4	1.8	0.9	2.7
17/1	520	520	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/1	32	32	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/2	966	966	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
18/3	1463	1463	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
19/1+19/2	91	91	182	0	0	0.1	0.2	-	0.3	11.8	0.2	0.2	0.5
20/1	42	42	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
21/1	224	224	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
21/2	1888	1888	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
21/3	627	627	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 Stream: 1 PRC for Signalled Lanes (%): 3.3						Total Delay for Signalled Lanes (pcuHr): 16.07			Cycle Time (s): 75				
C1 Stream: 2 PRC for Signalled Lanes (%): -0.6						Total Delay for Signalled Lanes (pcuHr): 46.66			Cycle Time (s): 75				
C1 Stream: 3 PRC for Signalled Lanes (%): 0.9						Total Delay for Signalled Lanes (pcuHr): 17.33			Cycle Time (s): 75				
PRC Over All Lanes (%): -0.6						Total Delay Over All Lanes (pcuHr): 82.36							

Junctions 10
PICADY 10 - Priority Intersection Module
Version: 10.1.1.1905 © Copyright TRL Software Limited, 2023
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Filename: Import of 8 - Bryn-Oak.j10

Path: N:\Projects 2021\P21066 - Kingmoor, Wrexham Industrial Estate\6.Technical\Models\Import to Junctions 10

Report generation date: 14/02/2024 16:14:45

»Observed 2022, AM
»Observed 2022, PM
»Without Dev 2027, AM
»Without Dev 2027, PM
»Without Dev 2036, AM
»Without Dev 2036, PM
»With Dev 2027, AM
»With Dev 2027, PM
»With Dev 2036, AM
»With Dev 2036, PM
»With Dev 2027 Sensitivity Test, AM
»With Dev 2027 Sensitivity Test, PM
»With Dev 2036 Sensitivity Test, AM
»With Dev 2036 Sensitivity Test, PM

File summary

File Description

Title	Bryn Lane/Oak Road
Location	Wrexham
Site number	
Date	13/02/2024
Version	
Status	Final
Identifier	
Client	FIREM
Jobnumber	P21066
Enumerator	GHClb.gaze
Description	Checked by D. Stoddart

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

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use simulation for HCM roundabouts	Use iterations for HCM roundabouts
5.75						0.85	36.00	20.00		

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Observed 2022	AM	ONE HOUR	07:15	08:45	15	✓
D2	Observed 2022	PM	ONE HOUR	16:00	17:30	15	✓
D3	Without Dev 2027	AM	ONE HOUR	07:15	08:45	15	✓
D4	Without Dev 2027	PM	ONE HOUR	16:00	17:30	15	✓
D5	Without Dev 2036	AM	ONE HOUR	07:15	08:45	15	✓
D6	Without Dev 2036	PM	ONE HOUR	16:00	17:30	15	✓
D7	With Dev 2027	AM	ONE HOUR	07:15	08:45	15	✓
D8	With Dev 2027	PM	ONE HOUR	16:00	17:30	15	✓
D9	With Dev 2036	AM	ONE HOUR	07:15	08:45	15	✓
D10	With Dev 2036	PM	ONE HOUR	16:00	17:30	15	✓
D11	With Dev 2027 Sensitivity Test	AM	ONE HOUR	07:15	08:45	15	✓
D12	With Dev 2027 Sensitivity Test	PM	ONE HOUR	16:00	17:30	15	✓
D13	With Dev 2036 Sensitivity Test	AM	ONE HOUR	07:15	08:45	15	✓
D14	With Dev 2036 Sensitivity Test	PM	ONE HOUR	16:00	17:30	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Observed 2022, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - Bryn Lane - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Bryn Lane/Oak Road	T-Junction	Two-way	Two-way	Two-way		3.98	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.98	A

Arms

Arms

Arm	Name	Description	Arm type
A	Oak Road (Western Arm)		Major
B	Bryn Lane		Minor
C	Oak Road (Eastern Arm)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Width for right-turn storage (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - Oak Road (Eastern Arm)	7.00		✓	3.50	150.0	✓	8.00

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 - Bryn Lane	One lane plus flare	10.00	9.60	5.80	3.60	3.20	✓	2.00	40	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	559	0.097	0.246	0.155	0.352
B-C	713	0.105	0.264	-	-
C-B	754	0.280	0.280	-	-

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

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	Observed 2022	AM	ONE HOUR	07:15	08:45	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Oak Road (Western Arm)		ONE HOUR	✓	148	100.000
B - Bryn Lane		ONE HOUR	✓	145	100.000
C - Oak Road (Eastern Arm)		ONE HOUR	✓	90	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Oak Road (Western Arm)	B - Bryn Lane	C - Oak Road (Eastern Arm)
From	A - Oak Road (Western Arm)	0	88	60
	B - Bryn Lane	72	0	73
	C - Oak Road (Eastern Arm)	40	50	0

Vehicle Mix

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

Heavy Vehicle %

	To			
		A - Oak Road (Western Arm)	B - Bryn Lane	C - Oak Road (Eastern Arm)
From	A - Oak Road (Western Arm)	0	19	10
	B - Bryn Lane	22	0	4
	C - Oak Road (Eastern Arm)	9	12	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.12	6.51	0.1	A	67	100
B-A	0.16	10.28	0.2	B	66	99
C-AB	0.08	6.16	0.1	A	46	69
C-A					37	55
AB					81	121
AC					55	83

Observed 2022, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - Bryn Lane - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Bryn Lane/Oak Road	T-Junction	Two-way	Two-way	Two-way		3.68	A

Junction Network

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	Observed 2022	PM	ONE HOUR	16:00	17:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Oak Road (Western Arm)		ONE HOUR	✓	173	100.000
B - Bryn Lane		ONE HOUR	✓	138	100.000
C - Oak Road (Eastern Arm)		ONE HOUR	✓	127	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To			
		A - Oak Road (Western Arm)	B - Bryn Lane	C - Oak Road (Eastern Arm)
	A - Oak Road (Western Arm)	0	128	45
	B - Bryn Lane	78	0	60
	C - Oak Road (Eastern Arm)	54	73	0

Vehicle Mix

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

Heavy Vehicle %

From	To			
		A - Oak Road (Western Arm)	B - Bryn Lane	C - Oak Road (Eastern Arm)
	A - Oak Road (Western Arm)	0	8	14
	B - Bryn Lane	16	0	5
	C - Oak Road (Eastern Arm)	6	4	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.10	6.58	0.1	A	55	83
B-A	0.17	9.96	0.2	A	72	107
C-AB	0.11	6.05	0.1	A	67	100
C-A					50	74
A-B					117	176
A-C					41	62

Without Dev 2027, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - Bryn Lane - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Bryn Lane/Oak Road	T-Junction	Two-way	Two-way	Two-way		4.22	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.22	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	Without Dev 2027	AM	ONE HOUR	07:15	08:45	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Oak Road (Western Arm)		ONE HOUR	✓	190	100.000
B - Bryn Lane		ONE HOUR	✓	179	100.000
C - Oak Road (Eastern Arm)		ONE HOUR	✓	121	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To			
		A - Oak Road (Western Arm)	B - Bryn Lane	C - Oak Road (Eastern Arm)
	A - Oak Road (Western Arm)	0	130	60
	B - Bryn Lane	85	0	94
	C - Oak Road (Eastern Arm)	40	81	0

Vehicle Mix

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

Heavy Vehicle %

From	To			
		A - Oak Road (Western Arm)	B - Bryn Lane	C - Oak Road (Eastern Arm)
	A - Oak Road (Western Arm)	0	12	10
	B - Bryn Lane	18	0	3
	C - Oak Road (Eastern Arm)	9	7	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.16	6.78	0.2	A	86	129
B-A	0.19	10.82	0.3	B	78	117
C-AB	0.13	6.34	0.2	A	74	111
C-A					37	55
A-B					119	179
A-C					55	83

Without Dev 2027, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - Bryn Lane - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Bryn Lane/Oak Road	T-Junction	Two-way	Two-way	Two-way		4.39	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.39	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	Without Dev 2027	PM	ONE HOUR	16:00	17:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Oak Road (Western Arm)		ONE HOUR	✓	196	100.000
B - Bryn Lane		ONE HOUR	✓	210	100.000
C - Oak Road (Eastern Arm)		ONE HOUR	✓	143	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Oak Road (Western Arm)	B - Bryn Lane	C - Oak Road (Eastern Arm)
From				
	A - Oak Road (Western Arm)	0	151	45
	B - Bryn Lane	115	0	95
	C - Oak Road (Eastern Arm)	62	81	0

Vehicle Mix

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

Heavy Vehicle %

	To			
		A - Oak Road (Western Arm)	B - Bryn Lane	C - Oak Road (Eastern Arm)
From				
	A - Oak Road (Western Arm)	0	7	14
	B - Bryn Lane	10	0	3
	C - Oak Road (Eastern Arm)	5	4	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.17	7.13	0.2	A	87	131
B-A	0.26	10.73	0.4	B	106	158
C-AB	0.13	6.19	0.2	A	74	111
C-A					57	85
A-B					139	208
A-C					41	62

Without Dev 2036, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - Bryn Lane - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Bryn Lane/Oak Road	T-Junction	Two-way	Two-way	Two-way		4.24	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.24	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
DS	Without Dev 2036	AM	ONE HOUR	07:15	08:45	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Oak Road (Western Arm)		ONE HOUR	✓	197	100.000
B - Bryn Lane		ONE HOUR	✓	184	100.000
C - Oak Road (Eastern Arm)		ONE HOUR	✓	124	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To			
		A - Oak Road (Western Arm)	B - Bryn Lane	C - Oak Road (Eastern Arm)
	A - Oak Road (Western Arm)	0	135	62
	B - Bryn Lane	87	0	97
	C - Oak Road (Eastern Arm)	41	83	0

Vehicle Mix

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

Heavy Vehicle %

From	To			
		A - Oak Road (Western Arm)	B - Bryn Lane	C - Oak Road (Eastern Arm)
	A - Oak Road (Western Arm)	0	12	9
	B - Bryn Lane	17	0	3
	C - Oak Road (Eastern Arm)	8	7	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.16	6.83	0.2	A	89	134
B-A	0.20	10.89	0.3	B	80	120
C-AB	0.13	6.37	0.2	A	76	114
C-A					38	56
A-B					124	186
A-C					57	85

Without Dev 2036, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - Bryn Lane - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Bryn Lane/Oak Road	T-Junction	Two-way	Two-way	Two-way		4.42	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.42	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	Without Dev 2036	PM	ONE HOUR	16:00	17:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Oak Road (Western Arm)		ONE HOUR	✓	201	100.000
B - Bryn Lane		ONE HOUR	✓	214	100.000
C - Oak Road (Eastern Arm)		ONE HOUR	✓	148	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To			
		A - Oak Road (Western Arm)	B - Bryn Lane	C - Oak Road (Eastern Arm)
	A - Oak Road (Western Arm)	0	155	46
	B - Bryn Lane	117	0	97
	C - Oak Road (Eastern Arm)	64	84	0

Vehicle Mix

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

Heavy Vehicle %

From	To			
		A - Oak Road (Western Arm)	B - Bryn Lane	C - Oak Road (Eastern Arm)
	A - Oak Road (Western Arm)	0	6	13
	B - Bryn Lane	10	0	3
	C - Oak Road (Eastern Arm)	5	4	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.17	7.17	0.2	A	89	134
B-A	0.26	10.84	0.4	B	107	161
C-AB	0.13	6.23	0.2	A	77	116
C-A					59	88
A-B					142	213
A-C					42	63

With Dev 2027, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - Bryn Lane - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Bryn Lane/Oak Road	T-Junction	Two-way	Two-way	Two-way		4.30	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.30	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	With Dev 2027	AM	ONE HOUR	07:15	08:45	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Oak Road (Western Arm)		ONE HOUR	✓	199	100.000
B - Bryn Lane		ONE HOUR	✓	188	100.000
C - Oak Road (Eastern Arm)		ONE HOUR	✓	125	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To			
		A - Oak Road (Western Arm)	B - Bryn Lane	C - Oak Road (Eastern Arm)
	A - Oak Road (Western Arm)	0	139	60
	B - Bryn Lane	91	0	97
	C - Oak Road (Eastern Arm)	40	85	0

Vehicle Mix

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

Heavy Vehicle %

From	To			
		A - Oak Road (Western Arm)	B - Bryn Lane	C - Oak Road (Eastern Arm)
	A - Oak Road (Western Arm)	0	11	10
	B - Bryn Lane	16	0	3
	C - Oak Road (Eastern Arm)	9	6	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.17	6.88	0.2	A	89	134
B-A	0.21	10.89	0.3	B	84	125
C-AB	0.14	6.39	0.2	A	78	117
C-A					37	55
A-B					128	191
A-C					55	83

With Dev 2027, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - Bryn Lane - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Bryn Lane/Oak Road	T-Junction	Two-way	Two-way	Two-way		4.63	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.63	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	With Dev 2027	PM	ONE HOUR	16:00	17:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Oak Road (Western Arm)		ONE HOUR	✓	203	100.000
B - Bryn Lane		ONE HOUR	✓	228	100.000
C - Oak Road (Eastern Arm)		ONE HOUR	✓	147	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To			
		A - Oak Road (Western Arm)	B - Bryn Lane	C - Oak Road (Eastern Arm)
	A - Oak Road (Western Arm)	0	158	45
	B - Bryn Lane	127	0	101
	C - Oak Road (Eastern Arm)	62	85	0

Vehicle Mix

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

Heavy Vehicle %

From	To			
		A - Oak Road (Western Arm)	B - Bryn Lane	C - Oak Road (Eastern Arm)
	A - Oak Road (Western Arm)	0	6	14
	B - Bryn Lane	9	0	3
	C - Oak Road (Eastern Arm)	5	4	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.18	7.31	0.2	A	93	139
B-A	0.28	11.07	0.4	B	117	175
C-AB	0.14	6.24	0.2	A	78	117
C-A					57	85
A-B					145	217
A-C					41	62

With Dev 2036, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - Bryn Lane - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Bryn Lane/Oak Road	T-Junction	Two-way	Two-way	Two-way		4.32	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.32	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D9	With Dev 2036	AM	ONE HOUR	07:15	08:45	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Oak Road (Western Arm)		ONE HOUR	✓	206	100.000
B - Bryn Lane		ONE HOUR	✓	193	100.000
C - Oak Road (Eastern Arm)		ONE HOUR	✓	128	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To			
		A - Oak Road (Western Arm)	B - Bryn Lane	C - Oak Road (Eastern Arm)
	A - Oak Road (Western Arm)	0	144	62
	B - Bryn Lane	93	0	100
	C - Oak Road (Eastern Arm)	41	87	0

Vehicle Mix

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

Heavy Vehicle %

From	To			
		A - Oak Road (Western Arm)	B - Bryn Lane	C - Oak Road (Eastern Arm)
	A - Oak Road (Western Arm)	0	11	9
	B - Bryn Lane	16	0	3
	C - Oak Road (Eastern Arm)	8	6	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.17	6.94	0.2	A	92	138
B-A	0.21	10.99	0.3	B	85	128
C-AB	0.14	6.43	0.2	A	80	120
C-A					38	56
A-B					132	198
A-C					57	85

With Dev 2036, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - Bryn Lane - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Bryn Lane/Oak Road	T-Junction	Two-way	Two-way	Two-way		4.66	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.66	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D10	With Dev 2036	PM	ONE HOUR	16:00	17:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Oak Road (Western Arm)		ONE HOUR	✓	208	100.000
B - Bryn Lane		ONE HOUR	✓	232	100.000
C - Oak Road (Eastern Arm)		ONE HOUR	✓	152	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To			
		A - Oak Road (Western Arm)	B - Bryn Lane	C - Oak Road (Eastern Arm)
	A - Oak Road (Western Arm)	0	162	46
	B - Bryn Lane	129	0	103
	C - Oak Road (Eastern Arm)	64	88	0

Vehicle Mix

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

Heavy Vehicle %

From	To			
		A - Oak Road (Western Arm)	B - Bryn Lane	C - Oak Road (Eastern Arm)
	A - Oak Road (Western Arm)	0	6	13
	B - Bryn Lane	9	0	3
	C - Oak Road (Eastern Arm)	5	4	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.18	7.36	0.2	A	95	142
B-A	0.29	11.20	0.4	B	118	178
C-AB	0.14	6.28	0.2	A	81	121
C-A					59	88
A-B					149	223
A-C					42	63

With Dev 2027 Sensitivity Test, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - Bryn Lane - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Bryn Lane/Oak Road	T-Junction	Two-way	Two-way	Two-way		4.20	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.20	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D11	With Dev 2027 Sensitivity Test	AM	ONE HOUR	07:15	08:45	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Oak Road (Western Arm)		ONE HOUR	✓	209	100.000
B - Bryn Lane		ONE HOUR	✓	182	100.000
C - Oak Road (Eastern Arm)		ONE HOUR	✓	130	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To			
	A - Oak Road (Western Arm)	B - Bryn Lane	C - Oak Road (Eastern Arm)	
A - Oak Road (Western Arm)	0	149	60	
B - Bryn Lane	87	0	95	
C - Oak Road (Eastern Arm)	40	90	0	

Vehicle Mix

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

Heavy Vehicle %

From	To			
	A - Oak Road (Western Arm)	B - Bryn Lane	C - Oak Road (Eastern Arm)	
A - Oak Road (Western Arm)	0	10	10	
B - Bryn Lane	17	0	3	
C - Oak Road (Eastern Arm)	9	6	0	

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.16	6.83	0.2	A	87	131
B-A	0.20	10.98	0.3	B	80	120
C-AB	0.14	6.46	0.2	A	83	124
C-A					37	55
A-B					137	205
A-C					55	83

With Dev 2027 Sensitivity Test, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - Bryn Lane - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Bryn Lane/Oak Road	T-Junction	Two-way	Two-way	Two-way		4.77	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.77	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D12	With Dev 2027 Sensitivity Test	PM	ONE HOUR	16:00	17:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Oak Road (Western Arm)		ONE HOUR	✓	200	100.000
B - Bryn Lane		ONE HOUR	✓	237	100.000
C - Oak Road (Eastern Arm)		ONE HOUR	✓	144	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To			
	A - Oak Road (Western Arm)	B - Bryn Lane	C - Oak Road (Eastern Arm)	
A - Oak Road (Western Arm)	0	155	45	
B - Bryn Lane	134	0	103	
C - Oak Road (Eastern Arm)	62	82	0	

Vehicle Mix

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

Heavy Vehicle %

From	To			
	A - Oak Road (Western Arm)	B - Bryn Lane	C - Oak Road (Eastern Arm)	
A - Oak Road (Western Arm)	0	6	14	
B - Bryn Lane	8	0	3	
C - Oak Road (Eastern Arm)	5	4	0	

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.18	7.39	0.2	A	95	142
B-A	0.30	11.19	0.5	B	123	184
C-AB	0.13	6.21	0.2	A	75	113
C-A					57	85
A-B					142	213
A-C					41	62

With Dev 2036 Sensitivity Test, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - Bryn Lane - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Bryn Lane/Oak Road	T-Junction	Two-way	Two-way	Two-way		4.21	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.21	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D13	With Dev 2036 Sensitivity Test	AM	ONE HOUR	07:15	08:45	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Oak Road (Western Arm)		ONE HOUR	✓	216	100.000
B - Bryn Lane		ONE HOUR	✓	187	100.000
C - Oak Road (Eastern Arm)		ONE HOUR	✓	133	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To			
		A - Oak Road (Western Arm)	B - Bryn Lane	C - Oak Road (Eastern Arm)
	A - Oak Road (Western Arm)	0	154	62
	B - Bryn Lane	89	0	98
	C - Oak Road (Eastern Arm)	41	92	0

Vehicle Mix

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

Heavy Vehicle %

From	To			
		A - Oak Road (Western Arm)	B - Bryn Lane	C - Oak Road (Eastern Arm)
	A - Oak Road (Western Arm)	0	11	9
	B - Bryn Lane	17	0	3
	C - Oak Road (Eastern Arm)	8	6	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.17	6.89	0.2	A	90	135
B-A	0.20	11.06	0.3	B	82	123
C-AB	0.15	6.50	0.2	A	84	127
C-A					38	56
A-B					141	212
A-C					57	85

With Dev 2036 Sensitivity Test, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - Bryn Lane - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Bryn Lane/Oak Road	T-Junction	Two-way	Two-way	Two-way		4.80	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.80	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D14	With Dev 2036 Sensitivity Test	PM	ONE HOUR	16:00	17:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Oak Road (Western Arm)		ONE HOUR	✓	205	100.000
B - Bryn Lane		ONE HOUR	✓	241	100.000
C - Oak Road (Eastern Arm)		ONE HOUR	✓	149	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To			
	A - Oak Road (Western Arm)	B - Bryn Lane	C - Oak Road (Eastern Arm)	
A - Oak Road (Western Arm)	0	159	46	
B - Bryn Lane	136	0	105	
C - Oak Road (Eastern Arm)	64	85	0	

Vehicle Mix

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

Heavy Vehicle %

From	To			
	A - Oak Road (Western Arm)	B - Bryn Lane	C - Oak Road (Eastern Arm)	
A - Oak Road (Western Arm)	0	6	13	
B - Bryn Lane	8	0	3	
C - Oak Road (Eastern Arm)	5	4	0	

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.19	7.45	0.2	A	96	145
B-A	0.30	11.33	0.5	B	125	187
C-AB	0.14	6.25	0.2	A	78	117
C-A					59	88
A-B					146	219
A-C					42	63

Junctions 10	
PICADY 10 - Priority Intersection Module	
Version: 10.1.1.1905 © Copyright TRL Software Limited, 2023	
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Filename: Import of VG Access Road-Proposed Site Access.j10

Path: N:\Projects 2021\P21066 - Kingmoor, Wrexham Industrial Estate\6.Technical\Models\Import to Junctions 10

Report generation date: 14/02/2024 16:14:01

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 »With Dev 2036, PM
 »With Dev 2027 Sensitivity Test, AM
 »With Dev 2027 Sensitivity Test, PM
 »With Dev 2036 Sensitivity Test, AM
 »With Dev 2036 Sensitivity Test, PM

File summary

File Description

Title	The Very Group Access Road/Proposed Site Access
Location	Wrexham
Site number	
Date	13/02/2024
Version	
Status	Final
Identifier	
Client	FI Real Estate Management
Jobnumber	P21066
Enumerator	GHClb.gaze
Description	Checked by D. Stoddart

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

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use simulation for HCM roundabouts	Use iterations for HCM roundabouts
5.75						0.85	36.00	20.00		

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	With Dev 2027	AM	ONE HOUR	07:15	08:45	15	✓
D2	With Dev 2027	PM	ONE HOUR	16:00	17:30	15	✓
D3	With Dev 2036	AM	ONE HOUR	07:15	08:45	15	✓
D4	With Dev 2036	PM	ONE HOUR	16:00	17:30	15	✓
D5	With Dev 2027 Sensitivity Test	AM	ONE HOUR	07:15	08:45	15	✓
D6	With Dev 2027 Sensitivity Test	PM	ONE HOUR	16:00	17:30	15	✓
D7	With Dev 2036 Sensitivity Test	AM	ONE HOUR	07:15	08:45	15	✓
D8	With Dev 2036 Sensitivity Test	PM	ONE HOUR	16:00	17:30	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

With Dev 2027, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	The Very Group Access Road/Proposed Site Access	T-Junction	Two-way	Two-way	Two-way		2.29	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.29	A

Arms

Arms

Arm	Name	Description	Arm type
A	The Very Group Access Road (Western Arm)		Major
B	Proposed Site Access		Minor
C	The Very Group Access Road (Eastern Arm)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - The Very Group Access Road (Eastern Arm)	7.50			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	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - Proposed Site Access	One lane	3.60	20	20

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	524	0.089	0.225	0.142	0.322
B-C	675	0.097	0.244	-	-
C-B	603	0.218	0.218	-	-

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

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	With Dev 2027	AM	ONE HOUR	07:15	08:45	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - The Very Group Access Road (Western Arm)		ONE HOUR	✓	267	100.000
B - Proposed Site Access		ONE HOUR	✓	88	100.000
C - The Very Group Access Road (Eastern Arm)		ONE HOUR	✓	120	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
From	Arm	A - The Very Group Access Road (Western Arm)	B - Proposed Site Access	C - The Very Group Access Road (Eastern Arm)
	A - The Very Group Access Road (Western Arm)	0	115	152
	B - Proposed Site Access	88	0	0
	C - The Very Group Access Road (Eastern Arm)	120	0	0

Vehicle Mix

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

Heavy Vehicle %

		To		
From	Arm	A - The Very Group Access Road (Western Arm)	B - Proposed Site Access	C - The Very Group Access Road (Eastern Arm)
	A - The Very Group Access Road (Western Arm)	0	18	23
	B - Proposed Site Access	23	0	4
	C - The Very Group Access Road (Eastern Arm)	30	10	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.21	12.34	0.3	B	81	121
C-AB	0.00	0.00	0.0	A	0	0
C-A					110	165
A-B					106	158
AC					139	209

With Dev 2027, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	The Very Group Access Road/Proposed Site Access	T-Junction	Two-way	Two-way	Two-way		3.38	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.38	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
DZ	With Dev 2027	PM	ONE HOUR	16:00	17:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - The Very Group Access Road (Western Arm)		ONE HOUR	✓	231	100.000
B - Proposed Site Access		ONE HOUR	✓	138	100.000
C - The Very Group Access Road (Eastern Arm)		ONE HOUR	✓	189	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To			
		A - The Very Group Access Road (Western Arm)	B - Proposed Site Access	C - The Very Group Access Road (Eastern Arm)
A - The Very Group Access Road (Western Arm)		0	105	126
B - Proposed Site Access		138	0	0
C - The Very Group Access Road (Eastern Arm)		189	0	0

Vehicle Mix

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

Heavy Vehicle %

From	To			
		A - The Very Group Access Road (Western Arm)	B - Proposed Site Access	C - The Very Group Access Road (Eastern Arm)
A - The Very Group Access Road (Western Arm)		0	23	28
B - Proposed Site Access		14	0	5
C - The Very Group Access Road (Eastern Arm)		16	4	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.34	13.65	0.6	B	127	190
C-AB	0.00	0.00	0.0	A	0	0
C-A					173	260
A-B					96	145
A-C					116	173

With Dev 2036, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	The Very Group Access Road/Proposed Site Access	T-Junction	Two-way	Two-way	Two-way		2.29	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.29	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	With Dev 2036	AM	ONE HOUR	07:15	08:45	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - The Very Group Access Road (Western Arm)		ONE HOUR	✓	267	100.000
B - Proposed Site Access		ONE HOUR	✓	88	100.000
C - The Very Group Access Road (Eastern Arm)		ONE HOUR	✓	120	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To			
		A - The Very Group Access Road (Western Arm)	B - Proposed Site Access	C - The Very Group Access Road (Eastern Arm)
	A - The Very Group Access Road (Western Arm)	0	115	152
	B - Proposed Site Access	88	0	0
	C - The Very Group Access Road (Eastern Arm)	120	0	0

Vehicle Mix

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

Heavy Vehicle %

From	To			
		A - The Very Group Access Road (Western Arm)	B - Proposed Site Access	C - The Very Group Access Road (Eastern Arm)
	A - The Very Group Access Road (Western Arm)	0	18	23
	B - Proposed Site Access	23	0	4
	C - The Very Group Access Road (Eastern Arm)	30	10	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.21	12.34	0.3	B	81	121
C-AB	0.00	0.00	0.0	A	0	0
C-A					110	165
A-B					106	158
A-C					139	209

With Dev 2036, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	The Very Group Access Road/Proposed Site Access	T-Junction	Two-way	Two-way	Two-way		3.38	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.38	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	With Dev 2036	PM	ONE HOUR	16:00	17:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - The Very Group Access Road (Western Arm)		ONE HOUR	✓	231	100.000
B - Proposed Site Access		ONE HOUR	✓	138	100.000
C - The Very Group Access Road (Eastern Arm)		ONE HOUR	✓	189	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To			
		A - The Very Group Access Road (Western Arm)	B - Proposed Site Access	C - The Very Group Access Road (Eastern Arm)
	A - The Very Group Access Road (Western Arm)	0	105	126
	B - Proposed Site Access	138	0	0
	C - The Very Group Access Road (Eastern Arm)	189	0	0

Vehicle Mix

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

Heavy Vehicle %

From	To			
		A - The Very Group Access Road (Western Arm)	B - Proposed Site Access	C - The Very Group Access Road (Eastern Arm)
	A - The Very Group Access Road (Western Arm)	0	23	28
	B - Proposed Site Access	14	0	4
	C - The Very Group Access Road (Eastern Arm)	16	4	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.34	13.65	0.6	B	127	190
C-AB	0.00	0.00	0.0	A	0	0
C-A					173	260
A-B					96	145
A-C					116	173

With Dev 2027 Sensitivity Test, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	The Very Group Access Road/Proposed Site Access	T-Junction	Two-way	Two-way	Two-way		2.06	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.06	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
DS	With Dev 2027 Sensitivity Test	AM	ONE HOUR	07:15	08:45	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - The Very Group Access Road (Western Arm)		ONE HOUR	✓	366	100.000
B - Proposed Site Access		ONE HOUR	✓	88	100.000
C - The Very Group Access Road (Eastern Arm)		ONE HOUR	✓	109	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To			
		A - The Very Group Access Road (Western Arm)	B - Proposed Site Access	C - The Very Group Access Road (Eastern Arm)
A - The Very Group Access Road (Western Arm)		0	115	251
B - Proposed Site Access		88	0	0
C - The Very Group Access Road (Eastern Arm)		109	0	0

Vehicle Mix

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

Heavy Vehicle %

From	To			
		A - The Very Group Access Road (Western Arm)	B - Proposed Site Access	C - The Very Group Access Road (Eastern Arm)
A - The Very Group Access Road (Western Arm)		0	18	16
B - Proposed Site Access		23	0	4
C - The Very Group Access Road (Eastern Arm)		59	10	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.22	13.18	0.4	B	81	121
C-AB	0.00	0.00	0.0	A	0	0
C-A					100	150
A-B					106	158
A-C					230	345

With Dev 2027 Sensitivity Test, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	The Very Group Access Road/Proposed Site Access	T-Junction	Two-way	Two-way	Two-way		3.20	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.20	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	With Dev 2027 Sensitivity Test	PM	ONE HOUR	16:00	17:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - The Very Group Access Road (Western Arm)		ONE HOUR	✓	197	100.000
B - Proposed Site Access		ONE HOUR	✓	138	100.000
C - The Very Group Access Road (Eastern Arm)		ONE HOUR	✓	259	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To			
	A - The Very Group Access Road (Western Arm)	B - Proposed Site Access	C - The Very Group Access Road (Eastern Arm)	
A - The Very Group Access Road (Western Arm)	0	105	92	
B - Proposed Site Access	138	0	0	
C - The Very Group Access Road (Eastern Arm)	259	0	0	

Vehicle Mix

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

Heavy Vehicle %

From	To			
	A - The Very Group Access Road (Western Arm)	B - Proposed Site Access	C - The Very Group Access Road (Eastern Arm)	
A - The Very Group Access Road (Western Arm)	0	23	43	
B - Proposed Site Access	14	0	5	
C - The Very Group Access Road (Eastern Arm)	15	4	0	

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.34	13.77	0.6	B	127	190
C-AB	0.00	0.00	0.0	A	0	0
C-A					238	356
A-B					96	145
A-C					84	127

With Dev 2036 Sensitivity Test, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	The Very Group Access Road/Proposed Site Access	T-Junction	Two-way	Two-way	Two-way		2.06	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.06	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	With Dev 2036 Sensitivity Test	AM	ONE HOUR	07:15	08:45	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - The Very Group Access Road (Western Arm)		ONE HOUR	✓	366	100.000
B - Proposed Site Access		ONE HOUR	✓	88	100.000
C - The Very Group Access Road (Eastern Arm)		ONE HOUR	✓	109	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To			
		A - The Very Group Access Road (Western Arm)	B - Proposed Site Access	C - The Very Group Access Road (Eastern Arm)
A - The Very Group Access Road (Western Arm)		0	115	251
B - Proposed Site Access		88	0	0
C - The Very Group Access Road (Eastern Arm)		109	0	0

Vehicle Mix

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

Heavy Vehicle %

From	To			
		A - The Very Group Access Road (Western Arm)	B - Proposed Site Access	C - The Very Group Access Road (Eastern Arm)
A - The Very Group Access Road (Western Arm)		0	18	16
B - Proposed Site Access		23	0	4
C - The Very Group Access Road (Eastern Arm)		59	10	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.22	13.18	0.4	B	81	121
C-AB	0.00	0.00	0.0	A	0	0
C-A					100	150
A-B					106	158
A-C					230	345

With Dev 2036 Sensitivity Test, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	The Very Group Access Road/Proposed Site Access	T-Junction	Two-way	Two-way	Two-way		3.20	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.20	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	With Dev 2036 Sensitivity Test	PM	ONE HOUR	16:00	17:30	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - The Very Group Access Road (Western Arm)		ONE HOUR	✓	197	100.000
B - Proposed Site Access		ONE HOUR	✓	138	100.000
C - The Very Group Access Road (Eastern Arm)		ONE HOUR	✓	259	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To			
		A - The Very Group Access Road (Western Arm)	B - Proposed Site Access	C - The Very Group Access Road (Eastern Arm)
	A - The Very Group Access Road (Western Arm)	0	105	92
	B - Proposed Site Access	138	0	0
	C - The Very Group Access Road (Eastern Arm)	259	0	0

Vehicle Mix

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

Heavy Vehicle %

From	To			
		A - The Very Group Access Road (Western Arm)	B - Proposed Site Access	C - The Very Group Access Road (Eastern Arm)
	A - The Very Group Access Road (Western Arm)	0	23	43
	B - Proposed Site Access	14	0	4
	C - The Very Group Access Road (Eastern Arm)	15	4	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.34	13.77	0.6	B	127	190
C-AB	0.00	0.00	0.0	A	0	0
C-A					238	356
A-B					96	145
A-C					84	127