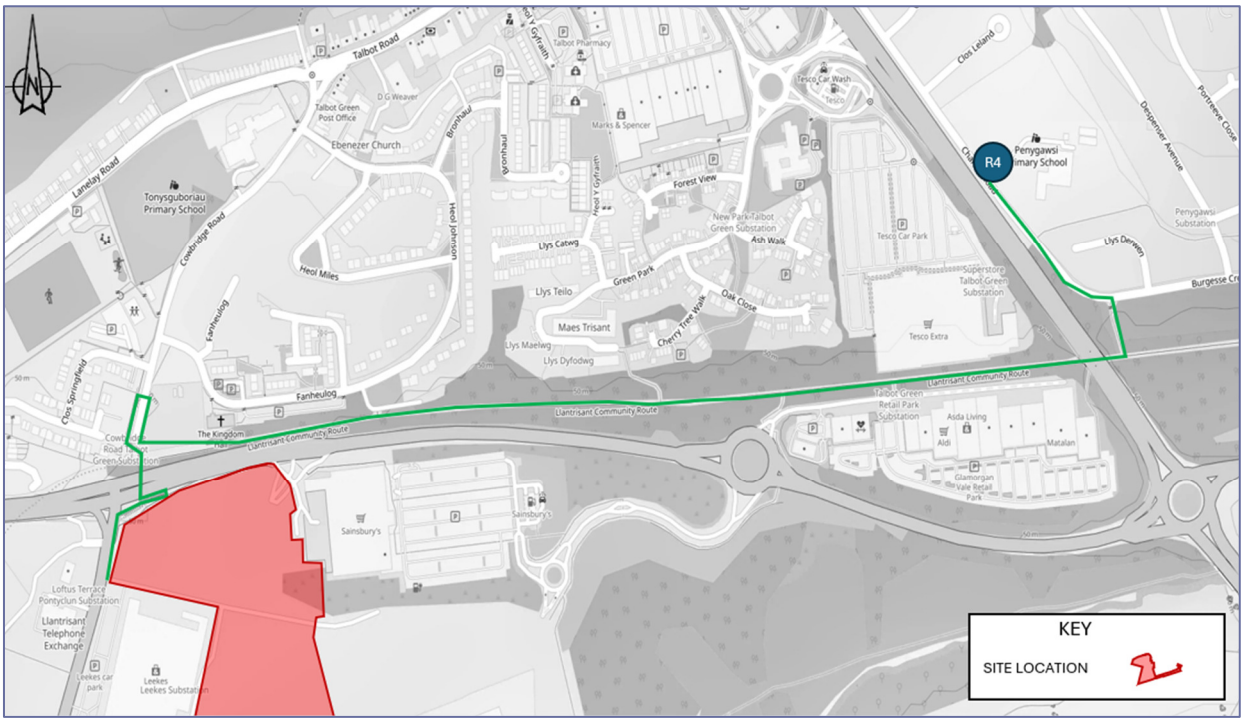
Route 4 – Site to Penygawsi Primary School

4.3.9. The route between the site and Penygawsi Primary School is shown in **Figure 4.5** and an assessment of the walking route is summarised in **Table 4.4**.

Figure 4.5: Route 4 – Site to Penygawsi Primary School



Source: OpenStreetMap with Pell Frischmann annotations

Table 4.4: Assessment of Walking Route 4

Category	Scoring (0-2)	Comments
Attractiveness		
1. Maintenance	2	The route is well maintained. Vegetation is cut back and not overgrown.
2. Fear of crime	1	No signs of vandalism along the route; however, no street lighting or CCTV is provided along sections of the route.
3. Traffic noise and pollution	2	A significant portion of the route is set away from the carriageway, reducing exposure to traffic noise and fumes. The route is generally well maintained.
4. Other	1	There are sections of the route with no street lighting.
Comfort		
5. Condition	1	Some minor surface defects and surface water ponding in the footway.
6. Footway width	2	The footways along the length of the route are generally 2m wide with some sections being 3m wide.
7. Width on staggered crossing / pedestrian islands / refuges	2	Pedestrian refuge islands are wider than the minimum of 2m and are therefore wide enough to accommodate wheelchair users.
8. Footway parking	1	Some instances of footway narrowing due to existing street furniture/verge infringement; however, this is minimal.
9. Gradient	2	The route is generally flat with the exception of the bridge crossing over the A473 which includes a ramp for cycle and wheelchair use.
10. Other	1	Barriers are provided to slow pedestrians and cyclists on approach to the carriageway between at the Cowbridge Road

		junction. No additional barriers, restrictions or obstructions; however, there are some examples of surface water ponding.
Directness		
11. Footway provision	2	Footways are provided adjacent to the carriageway.
12. Location of crossing in relation to desire lines	2	No pedestrian crossings on the route. Route is continuous for pedestrians.
13. Gaps in traffic (where no controlled crossings present of if likely to cross outside controlled crossing	2	There are no pedestrian crossings on the route, but it does include the footbridge over the A473. The route is continuous for pedestrians.
14. Impact of controlled crossing on journey times	2	Not applicable. No signal-controlled crossings are present along the route.
15. Green man time	2	Not applicable. No signal-controlled crossings on the route.
16. Other	2	Route is direct. Well signed, clear and easy to follow route.
Safety		
17. Traffic volume	2	Most of the route is set away from the carriageway completely or is adjacent to low-speed, lightly trafficked roads.
18. Traffic speed	2	Most of the route is set away from the carriageway completely or is adjacent to low-speed, lightly trafficked roads.
19. Visibility	2	The visibility along the route is good for all road users.
Coherence		
20. Dropped kerbs and tactile paving	2	No pedestrian crossings on the route. Route is continuous for pedestrians.
21. Signage	2	Route is well signed, and signs are legible.
Total	37	

4.3.10. The table above indicates that the route achieves a total score of 37 out of 40, equivalent to 92.5%, which is above the minimum threshold of 70% recommended in the guidance. This confirms that the proposed route is suitable for travel between the site and Penygawsi Primary School.

4.4. Summary

4.4.1. It is evident from the safe routes assessment carried out that the site is well situated in relation to school accessibility and that the walking routes between the site and the local schools are currently fit for purpose, subject to ongoing maintenance by RCTCBC.

5. Development Proposals

5.1. Introduction

5.1.1. The proposed development site forms the northwestern extent of the Mwyndy / Talbot Green allocation site, Local Development Plan Allocation SSA 8.

5.1.2. The proposed residential development consists of up to 180 dwellings (use class C) with a mix of housing types and tenure.

Primary Vehicular Access

- A new vehicular access from the existing service road north of the Leekes Llantrisant Department Store, which connects to Cowbridge Road via an existing priority junction.

Emergency Vehicular Access

- An emergency access connecting to the western side of the Sainsbury's delivery yard access road.

Pedestrian / Cycle Access

- Improved pedestrian provisions at the site access/Cowbridge Road junction.
- Widened footway north of the proposed access to provide a shared footway/cycleway to the bridge over the A473.
- A new 3m-wide shared-use route will be provided through the site linking Cowbridge Road to the eastern site boundary, with onward connection to Heol-y-Pant to be delivered as part of the adjacent retail development or secured via Grampian condition attached to this residential development.
- 3 x pedestrian connections to the existing footway/cycleway along the southern side of the A473, north of the site.

5.1.3. The indicative masterplan for the site, including the proposed points of access, is provided in **Appendix B**.

5.2. Vehicular Access

5.2.1. Vehicular access to the site will be provided via the service road located north of the Leekes department store, along the western boundary. This access point connects to the A4222 Cowbridge Road via an existing simple priority junction, where Cowbridge Road forms the major arm and the service road the minor arm.

5.2.2. As part of the development, the existing vehicular access will be upgraded to enhance safety. The works include improved junction visibility splays, relocation of the pedestrian crossing, and modifications to the junction radii. A 3m wide shared footway/cycleway will be provided along the northern side of the junction and into the site to support sustainable travel. The junction design incorporates an increase in the northern radii to 10m, provision of a 6m radii on the southern side and a carriageway that tapers from approximately 7.2m east of the bellmouth to 5.5m within the main body of the site, ensuring efficient vehicle movements while maintaining a residential character.

5.2.3. The relocated crossing will be an inline, uncontrolled crossing with dropped kerbs and tactile paving, positioned to reduce the current crossing distance from approximately 18m to 11m and in doing so enhancing pedestrian safety and convenience.

5.3. Site Access Visibility

5.3.1. The posted speed limit along Cowbridge Road in proximity of the proposed access is 30mph, with this resulting in junction visibility splay requirements of 2.4m x 43m in accordance with guidance provided in Manual for Streets (MfS). Whilst this is an existing junction in daily use, for completeness visibility splays of 2.4m x 43m are presented in drawing 110516-PEF-XX-XX-DR-C-000101 included in **Appendix C**.

5.4. Site Access Vehicle Tracking

5.4.1. The existing junction on Cowbridge Road historically served as the access point for the Purolite and Staedtler factories, accommodating deliveries by a range of HGVs including16.5m articulated vehicles and smaller rigid vehicles.

5.4.2. Whilst the former factory uses have not been operational for several years, the service area associated with the Garden Centre and Aquatics site north of Leekes remains in use. To assess the suitability of the current junction arrangement, a vehicle tracking exercise has been undertaken to evaluate how vehicles currently manoeuvre through the junction. This assessment focused on an 11.2m refuse collection vehicle (RCV), with the results presented in drawing 110516-PEF-XX-XX-DR-C-000102 in **Appendix D**. The tracking indicates that there is greater centreline oversweep on the access road compared to what would occur following the proposed junction upgrades to the minor arm.

Refuse collection Vehicle

5.4.3. The upgraded junction has been designed to improve access for large rigid vehicles including refuse collection vehicles (RCV). Vehicle tracking of the proposed site access arrangement using an RCV is included in drawing 110516-PEF-XX-XX-DR-C-000103 **Appendix D**.

5.4.4. The drawing indicates that when entering the site from the north, there is no centreline oversweep on Cowbridge Road and only very minor oversweep of the centreline on the access arm, leaving sufficient space for another vehicle to pass at the junction. Similarly, there is very minor lane infringement on the minor arm during entry, which is mitigated by the provision of a hatched island at the junction. This island guides vehicles exiting the site away from the potential oversweep area.

5.4.5. When exiting to the south, there is no lane oversail on either the major or minor arms of the junction. In contrast, when exiting to the north, as the refuse collection vehicle (RCV) begins its right-turn manoeuvre, the vehicle briefly infringes into Lane 1 of the major arm before correcting its alignment and fully occupying Lane 2 as intended. This manoeuvre would only be undertaken when the driver has identified a sufficient gap in oncoming traffic to progress safely without causing obstruction or hazard. Such oversweep is not uncommon for vehicles of this size and is a typical characteristic of large vehicle turning movements.

5.4.6. To further improve operational safety and reduce potential conflicts, the implementation of a yellow box junction or ‘Keep Clear’ road markings at the junction could be considered. These measures would help maintain clear space for turning movements and prevent queuing vehicles on Cowbridge Road from blocking the swept path. For context, a similar yellow box junction arrangement has already been implemented to the north to facilitate comparable manoeuvres. A yellow box is identified in our 110516-PEF-XX-XX-DR-C-000101 included in **Appendix C**.

5.4.7. The site masterplan is currently illustrative and does not represent a fixed design beyond the proposed access. As such, vehicle tracking of the internal road layout has not been undertaken at this stage. Detailed swept path analysis will be carried out during the RMA stage or discharge of conditions to ensure that the internal layout accommodates all necessary operational requirements.

5.4.8. At the RMA or discharge of conditions stage, the following principles will be applied:

- Turning Areas: Sufficient turning spaces will be provided at the ends of internal roads to allow large vehicles, including RCVs, to manoeuvre safely without excessive reversing.

- Property Access: RCVs will be able to position adjacent to properties so that residents do not exceed the maximum carry distance for presenting bins, in accordance with relevant guidance.
- Operational Safety: RCVs will be able to position such that waste collection operatives will not exceed the maximum permissible bin drag distance to the rear of the vehicle.

5.4.9. These measures will ensure that the internal layout is fully functional and compliant with operational and safety requirements.

Fire Tender

5.4.10. The upgraded site access junction on Cowbridge Road has also been designed to accommodate the swept path requirements of a fire tender, as demonstrated in the vehicle tracking drawing 110516-PEF-XX-XX-DR-C-000104 provided in **Appendix D**.

5.4.11. The drawing demonstrates that the fire tender can enter the junction from both the north and south without any centreline oversweep on either the major or minor arms. The same findings apply when the vehicle exits to the south. When exiting to the north, the manoeuvre is similar to that of the RCV - as the appliance initiates a right-turn onto the major arm, it partially oversweeps into Lane 1 during the initial phase of the turn before aligning fully within Lane 2 as intended. This is a typical characteristic of vehicles of this size and is accommodated within the junction geometry, and as with the RCV this movement would only be undertaken when the driver has identified a suitable gap in oncoming traffic to complete the turn safely without causing obstruction.

5.4.12. The proposed layout includes an emergency access to act as a contingency in the unlikely event that the primary access becomes fully blocked. The emergency access is located in the northeast corner of the site and connects to the Sainsbury's delivery yard access road. In terms of geometry, the emergency access includes a clear width of 3.7m between kerbs, in accordance with UK standards (Building Regulations Approved Document B, Section B5). The arrangement will incorporate demountable bollards to allow rapid removal in an emergency. Vehicle tracking for the proposed emergency vehicle access is provided on Drawing 110516-PEF-XX-XX-DR-C-000105 provided in **Appendix D.**

5.4.13. It can be seen from the drawing that upon reaching the Sainsbury's service yard junction, the fire tender initially travels south past the emergency access to reorientate. It performs a turning manoeuvre in proximity to the Sainsbury's delivery yard before heading north and entering the site via the emergency access. This approach ensures the fire appliance can align correctly with the access road while avoiding any potential conflict with the splitter islands at the A473/Sainsbury's junction.

5.4.14. When leaving the site, the fire tender would exit the emergency access and turns left through the A473 junction. A right-turn manoeuvre is not possible under the current junction configuration.

5.4.15. The swept path analysis completed confirms that these movements are achievable within the available highway geometry.

5.5. Vehicle Tracking Summary

5.5.1. The vehicle tracking exercises confirm that the proposed junction arrangement significantly improves manoeuvrability at the site access. While some northbound movements result in a minor degree of lane oversweep on Cowbridge Road, this is not unusual in highway design terms. Drivers of large vehicles typically wait for a suitable gap in traffic before completing such manoeuvres safely.

5.5.2. Importantly, the analysis demonstrates that with the proposed improvements in place, the extent of oversweep is considerably less than that historically required for 16.5m articulated vehicles accessing the site. The revised arrangement will also improve turning movements for vehicles currently serving the small service yard north of the Leekes department store.

5.5.3. Movements by RCVs and fire tenders will not form part of the daily traffic profile for the proposed residential development, meaning such occurrences will be infrequent. Given this low frequency,

combined with the existing highway environment and Cowbridge Road's ability to accommodate occasional oversweep safely, these manoeuvres are not considered to present any operational or safety concerns.

5.6. Pedestrian and Cycle Access

5.6.1. Pedestrian and cycle access will be provided from Cowbridge Road to the west, aligned with the primary vehicular access. In addition, a 3m-wide shared-use route is proposed along the northern side of the internal carriageway, extending eastwards through the site to the eastern boundary.

5.6.2. At the eastern boundary, the shared-use route will enable a future connection to Heol-y-Pant and nearby facilities. Continuation of this route eastwards to Heol-y-Pant, and the Sainsbury's supermarket, Starbucks and the bus stop located on the northern side of Heol-y-Pant, will be provided by the proposed retail development, or secured separately by Grampian condition if required. At the western end, the upgraded site access junction will incorporate a dropped kerb crossing with tactile paving to improve connectivity along Cowbridge Road. In addition, a 3m wide pedestrian / cycle connection will be provided between the proposed access and the A473 / Cowbridge Road signalised junction to the north, enhancing access to the footbridge over the A473.

5.6.3. Three new connections to the existing 2m wide pedestrian route along the northern edge of the development site, south of the A473, will be provided enhancing connectivity westbound towards the existing footbridge and signalised junction and eastwards towards Sainsbury's.

5.6.4. The proposed improvements to pedestrian connectivity at the site access, south of the A473 and along Cowbridge Road, together with the provision of a new 3m-wide shared-use route through the development, will significantly enhance active travel opportunities. While the continuation of this route eastwards to Heol-y-Pant will be delivered through the adjacent retail development, the internal route will ultimately form part of a wider link to the existing community route and key local destinations. These measures will improve access to local amenities and services for future residents, while strengthening connections between the site, Y Pant Comprehensive School, Pontyclun, and Talbot Green Town Centre. Collectively, these enhancements will support sustainable travel and contribute to a more integrated and accessible local transport network for the wider community.

5.6.5. It should be noted that the outline masterplan allows for future connection points from within the development to Y Pant Comprehensive School, through its southern perimeter, and into the neighbouring development parcel to the east. In relation to the former a connection point could be provided from the southwest corner near the proposed LAP. This connection would require discourse with the school and would be subject to their decisions regarding security and safeguarding. In relation to the latter, a footway stub end has been shown connecting to the development parcel to the east approximately 140m west of the Sainsbury's access / Heol-y-Pant roundabout.

5.7. Parking

5.7.1. Technical Advice Note (TAN) 18, which supplements Planning Policy Wales, provides guidance on managing transport demand through parking standards. Paragraph 4.6 states that:

"Maximum car parking standards should be used at regional and local level as a form of demand management."

5.7.2. Further guidance is provided in paragraph 4.7, which advises that when setting maximum parking standards for new development, local highway authorities should take into account:

"Alternative transport modes, economic objectives, public and shared parking arrangements."

5.7.3. Additionally, paragraph 4.13 highlights the importance of integrating parking strategies with wider transport management measures. It notes:

"Where appropriate, the local parking strategy should link parking levels on new development sites with either the existence or introduction of on-street control regimes. Maximum parking standards should not

be applied so rigidly that they become minimum standards. Maximum standards should allow developers the discretion to reduce parking levels."

5.7.4. Together, these statements reinforce the principle that parking provision should be flexible, context-sensitive, and aligned with broader sustainability and accessibility goals.

Cycle Parking

5.7.5. The *Delivering Design and Placemaking: Access, Circulation and Parking Requirements (March 2011)* Supplementary Planning Guidance adopted by Rhondda Cynon Taf County Borough Council provides cycle parking guidance for apartments but does not prescribe formal cycle parking standards for houses. However, each dwelling will be provided with the opportunity for secure cycle storage within the curtilage of the property, either through garages or garden sheds. This approach supports the principles of the Active Travel (Wales) Act 2013, encouraging residents to adopt active modes of transport and reducing reliance on private cars.

Motorcycle parking

5.7.6. The adopted SPG requires that motorcycle parking should be provided at a rate equivalent to 5% of the total car parking provision across all classes of residential development.

5.7.7. While the guidance does not prescribe specific design standards for motorcycle parking within private residential houses, it is considered appropriate for motorcycle parking to be accommodated within individual plot curtilages.

5.7.8. Accordingly, motorcycle parking for this development will be integrated into private driveways, garages, or secure garden areas, where practical. This approach ensures that provision is both secure and convenient for residents, while remaining consistent with the intent of the guidance to support a range of transport modes.

Car Parking

5.7.9. The car parking provision for the proposed development will be informed by the local authority's adopted parking standards, '*Delivering Design and Placemaking: Access, Circulation and Parking Requirements, March 2011*', which guide the appropriate level of parking based on land use, location, and accessibility.

5.7.10. These are maximum standards, allowing for the provision of fewer spaces where appropriate. Final parking numbers and their layout will be confirmed at the Reserved Matters stage or through the discharge of conditions.

5.7.11. In addition, electric vehicle (EV) charging provision will be incorporated in line with RCTCBC's Electric Vehicle Charging Strategy (2021–2030) and emerging Welsh Government guidance, whereby all new residential properties with off-street parking will be required to be "EV Ready".

6. Access Strategy and Highway Authority Position

6.1. Introduction

6.1.1. Pell Frischmann consulted with RCTCBC in order to obtain the highway authorities opinion on the proposed access strategy for the residential development with the response provided in their email dated November 2025. These comments have been considered whilst preparing the TA and when shaping the access strategy for the proposal. This section of the report provides a full response to each of the items raised by RCTCBC with explanation of how these have been addressed.

6.2. Highway Comments

6.2.1. The following includes the comments provided by RCTCB in italics with the Pell Frischmann response provided below:

Access

"The proposed access is a concern. There is significant concern of existing congestion at the Cowbridge Road A4222/A473 signalised junction which would impact access and egress from the proposed development. Any application will require full TA with scoping agenda agreed in advance and consider opening year plus future year (+10) plus committed development. There is expectation that any site access from Cowbridge Road would need to be signalised and integrated with the existing A473 traffic junction and modelled and designed accordingly. However preferable access would be via the Sainsbury access road. Any development in excess of 150 dwellings require emergency/alternative access which could be provided by the Sainsbury services yard access, with appropriate controls such as bollards or barrier."

6.2.2. The proposed access strategy has been reviewed in detail. A single point of access from Cowbridge Road remains the preferred solution for the following reasons:

- Signalisation feasibility: This TA includes a full junction capacity assessment for the A473/Cowbridge Road signalised junction and the proposed site access (see Section 7 – Junction Capacity Assessment). The results of the modelling demonstrate that the proposed priority junction on Cowbridge Road operates within capacity in both the 2025 base and 2035 future year scenarios, with development traffic included. Signalisation is not considered to be required to maintain operational performance. In addition, a signalised arrangement at the proposed access is not viable due to the proximity of the existing A473/Cowbridge Road junction and the position of the car sales site access opposite whose access would conflict with stop line positioning. Introducing signals would create operational and safety challenges.

- Alternative Access via Sainsbury's: While RCTCBC identifies this as preferable, this route is not considered to be optimal for general traffic due to flood risk and drainage issues.

- Emergency Access: An emergency access is proposed via the Sainsbury's service yard access road, with demountable bollards to ensure controlled use (see Section 5.4 – Site Access Vehicle Tracking). Vehicle tracking confirms that fire tenders can safely use this route.

Parking Requirements

"Parking requirements to be in accordance with Council's SPG; Access, Circulation & Parking (March 2011)."

6.2.3. Parking provision will comply with RCTCBC's adopted SPG (March 2011) and TAN 18 guidance (see Section 5.5 – Parking). Maximum standards will be applied, with flexibility to reduce provision where sustainable travel options are available. EV charging readiness will be incorporated in line with Welsh Government guidance and RCTCBC's EV Strategy.

Active Travel

"The A473 and A4222 present significant barriers to active travel to and from the proposed residential development and anticipation any TA would highlight significant active travel improvements to the north and south of Talbot Green. With potential improvements to the footbridge to the west and crossing point to the east of McDonald. Internal layout to also consider direct active travel route / Shared use route from the Sainsbury unit to Cowbridge road."

6.2.4. This TA demonstrates that the development supports Active Travel objectives through measures including the provision of a new 3m-wide shared-use route extending through the site from Cowbridge Road toward the eastern boundary (see Section 5.6 – Pedestrian and Cycle Access). This internal route forms an integral part of a future connection to Heol-y-Pant and the wider Active Travel network, with the continuation eastwards to be delivered by the adjacent retail development.. We therefore do not agree that the improvements suggested by RCTCBC are necessary or required. Specifically, enhancements to the existing footbridge and provision of an upgraded crossing across the A473 in proximity of McDonald's are not justified given current infrastructure, lack of continuous pedestrian links into the Glamorgan Vale Retail Park, and the availability of alternative routes. Further details regarding these points are as follows:

- Footbridge improvements: The existing footbridge already provides ramped and stepped access, meeting inclusive design standards. The ramps allow wheelchair users, cyclists (dismounted), and those with mobility impairments to cross safely without reliance on lifts or steep gradients. The bridge is also well-integrated with the local pedestrian/cycle network, linking Cowbridge Road and the A473 corridor to the Llantrisant Community Route (see Section 3.4 – Pedestrian Accessibility and **Figure 3.4**).

  Given these provisions, further upgrades would not deliver meaningful accessibility benefits and would represent disproportionate cost relative to the marginal improvement that may be achieved. The TA demonstrates that the bridge already provides an appropriate active travel link, supporting sustainable movement between Talbot Green and surrounding areas.

- Upgraded crossing on the A473 southwest of the Glamorgan Vale Retail Park is not justified for several reasons:

  - Lack of continuous footway: Beyond the existing crossing point, the footway terminates approximately 130m short of McDonald's and the wider retail park, meaning pedestrians would still be unable to complete their journey into the retail park safely. Delivering a crossing without addressing this gap would fail to achieve the intended connectivity benefit.
  - Private land constraints: The retail park is privately owned, and it is therefore not within the gift of the applicant to deliver the missing link within its boundary. This limits the effectiveness of any crossing in improving access to McDonald's or adjacent units.
  - Existing provision: An existing crossing already provides access to the Llantrisant Community Route, which is a designated active travel corridor and offers a safer, traffic-free alternative for east–west movement and provides a route to the site via the A473 footbridge.
  - Proximity of alternative facilities: Sainsbury's, located adjacent to the site, offers a comprehensive range of retail and food services and is significantly closer than the Glamorgan Vale Retail Park. This reduces the need for residents to cross the A473 for equivalent amenities. In addition to its core supermarket offer, the store forms part of the Argos group and includes an Argos counter, providing convenient access to a wide range of household and consumer goods. Furthermore, a Starbucks coffee shop is situated within the Sainsbury's site, delivering additional food and drink options for residents. These combined facilities ensure that everyday shopping and leisure needs can be met.

6.2.5. Collectively, these factors demonstrate that the suggested crossing would be unlikely to meet the tests of necessity or proportionality under planning policy. In planning terms, interventions must be justified by a clear functional need and deliver measurable benefits relative to their cost and impact. In this case, the absence of a continuous pedestrian route beyond the crossing, combined with the availability of safe and convenient alternatives such as the Llantrisant Community Route and adjacent Sainsbury's facilities, means the crossing would not materially improve connectivity or accessibility. Furthermore, the development cannot address the missing link on private land, limiting the effectiveness of any new infrastructure.

7. Trip Analysis

7.1. Introduction

7.1.1. This section of the report provides a review of forecast traffic generated by the proposed development, assignment of this traffic onto the local highway network, as well as base traffic and background traffic growth.

7.1.2. At the request of the Local Highway Authority this report has been prepared based on a forecast year of 2035, 10 years post submission of the planning application, accounting for the fact that this report has been produced in December 2025.

7.1.3. All movement traffic surveys have been completed at the following junctions:

- Cowbridge Road / Site Access Priority Junction;
- A473 / Cowbridge Road Signal-Controlled Junction;
- A473 / Lanelay Road Roundabout;
- A473/ Glamorgan Vale Retail Park / Heol-y-Pant Roundabout; and,
- A4119 / A473 Signal-Controlled Roundabout.

7.1.4. The surveys were undertaken on Thursday 10th July 2025. The surveys were carried out by an independent traffic survey company, Nationwide Data Collection (NDC).

7.1.5. The surveys were completed between the hours of 07:00-10:00 in the AM and 16:00–19:00 in the PM. The observed peak periods recorded in the surveyed AM and PM peak hours were 07:45-08:45 and 16:45-17:45 respectively.

7.1.6. This data has been replicated in the network flow diagrams included in **Appendix E**.

7.2. Network Traffic Growth

7.2.1. In order to forecast background traffic flows (i.e. those in the absence of the proposed development) in 2035, the Department for Transport's TEMPro 8.1 application (NRTP Core Scenario and Dataset) has been interrogated to determine the level of growth forecast. The growth factors to be used have been derived for the Rhondda Cynon Taf 030 Middle Super Output Area (MSOA), selecting 'all' road types and using the Core scenario.

7.2.2. **Table 7.1** identifies the TEMPro growth factors for this period.

Table 7.1: TEMPro 2025-2035 growth factors for Rhondda Cynon Taf 030 MSOA

NTM Growth Factors					
Period	Level	Area	Local Growth Figure	Area Type	Road Type
Weekday AM Peak	W02000281	Rhondda Cynon Taf 030	1.1086	All	All
Weekday PM Peak	W02000281	Rhondda Cynon Taf 030	1.1067	All	All
Average Day	W02000281	Rhondda Cynon Taf 030	1.1089	All	All

Source: TEMPro Version 8.1

7.2.3. The 2035 forecast traffic flows for the AM and PM peak periods are shown in the network flow diagrams included in **Appendix E**.

7.3. Trip Generation

7.3.1. A trip generation assessment has been undertaken to assess the potential number of trips that could be generated by the proposed development. Trip rates have been identified using the TRICS (v8.25.6)

database, with survey sites which share similar characteristics to the proposed development in terms of land use, scale and accessibility. Multi-modal sites have been utilised.

7.3.2. The following site selection criteria has been used within TRICS to identify vehicle trip rates for the residential element of the proposals:

- Land use category 03 A: Houses privately owned;
- London, Scotland, Northern Ireland and Ireland removed;
- Number of dwellings: 50-300;
- Date range: 01/01/16 – 17/09/24
- Survey days: Monday – Friday; and,
- Selected locations: Suburban Area (PPS6 Out of Centre) and Edge of Town Centre.

7.3.3. A total of nine survey sites were identified using the above criteria. The TRICS output report identifying the daily arrival and departure profile is included at **Appendix F**.

Multi-modal trip summary

7.3.4. A multi-modal trip generation exercise has been undertaken in order to identify the mode share for the proposed residential land use as summarised in **Table 7.3**.

Table 7.2: Residential Mode Share

Mode	AM Peak 08:00-09:00			PM Peak 17:00-18:00			Daily		
	Arrival	Depart	Total	Arrival	Depart	Total	Arrival	Depart	Total
Taxis	3%	1%	1%	0%	0%	0%	1%	1%	1%
Cyclists	6%	5%	5%	3%	7%	4%	4%	4%	4%
Vehicle occupants	10%	26%	23%	9%	4%	8%	20%	20%	20%
Pedestrians	31%	21%	23%	16%	20%	17%	19%	19%	20%
Bus / Tram	2%	5%	4%	5%	3%	4%	4%	5%	4%
Rail passengers	0%	3%	2%	0%	0%	3%	2%	2%	2%
Cars	49%	41%	42%	63%	64%	63%	48%	49%	49%
Motorcycles	0%	0%	0%	0%	0%	0%	0%	0%	0%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%

Source: TRICS with Pell Frischmann Calculations
Note: Numbers may not sum due to rounding errors

7.3.5. For ease of reference the total vehicle trip rates and corresponding vehicle trip generation for the proposed development, used to inform the following junction capacity assessments, is summarised in **Table 7.3**.

Table 7.3: Vehicle Trip Generation – Houses Privately Owned (180 Dwellings)

Time period	Arrival trip rate	Departure trip rate	Total trip rate	Arrival trips	Departure trips	Total trips
Total Vehicles						
08:00-09:00	0.099	0.358	0.457	18	64	82
17:00-18:00	0.341	0.162	0.503	61	29	91
07:00-19:00	2.069	2.118	4.187	372	381	754

7.3.6. It can be seen from the table above that development is predicted to generate up to 82 two-way vehicle trips in the AM peak period and up to 91 two-way vehicle trips in the PM peak, with a total of 754 vehicle movements two-way across the daily profile.

7.4. Trip Distribution

7.4.1. The peak hour vehicle trips generated by the proposed development have been distributed across the local highway network and via key junctions in accordance with the 'WU03EW - Location of usual residence and place of work by method of travel to work' 2011 census dataset. This is considered representative, as the majority of peak hour trips generated by a residential development would be expected to comprise of journeys to and from work.

7.4.2. The Rhondda Cynon Taf 030 MSOA (W02000281), within which the site is located, was designated as the location of usual residence (origin), with all other MSOAs designated as the places of work (destinations). All MSOAs were utilised, representing 100% of the total vehicle trips for robustness.

7.4.3. The resulting distribution of trips across the study area within the vicinity of the site, is presented in **Table 7.4** and in the network flow diagrams provided at **Appendix E**.

Table 7.4: Development Trip Distribution

Route	Percentage of development traffic
Lanelay Road	5%
Rhodfa Bryn Rhydd	4%
A473 west of Lanelay Road	9%
Cowbridge Road south of the development	9%
A473 east of the A4119	18%
A4119 north of A473	34%
A4119 south of A473	52%

Figures in this table have been rounded to present whole numbers

7.4.4. The distribution of departure and arrival trips associated with the development is expected to be tidal in nature. As a result, the AM and PM peak trip distributions have been mirrored to reflect this pattern – specifically, AM departures have been matched with PM arrivals, and vice versa.

8. Junction Capacity Assessment

8.1. Introduction

8.1.1. This chapter of the TA sets out the highway impact assessment, including junction capacity assessments undertaken to assess the impact of the proposed development on the local highway network.

8.2. Modelling Methodology

8.2.1. Junction capacity assessments have been undertaken for the following junctions:

- Cowbridge Road / Site Access Priority Junction;
- A473 / Cowbridge Road Signal Controlled Junction;
- A473 / Lanelay Road Roundabout;
- A473 / Glamorgan Vale Retail Park / Heol-y-Pant Roundabout; and,
- A4119 / A473 Signal Controlled Roundabout.

8.2.2. The junction assessments have been assessed using Junctions 9 computer modelling software for priority junctions / roundabouts and LinSig V3 for signalised junctions, including the A473 / A4119 signalised roundabout, for the base and forecast year models.

8.2.3. Junction capacity assessment results are presented, for non-signalised junctions, in terms of 'Ratio of Demand Flow to Capacity' ('RFC'), expressed as a factor of 1.00; and for signal-controlled junctions, in terms of 'Degrees of Saturation' ('DoS'), expressed as a percentage (%).

8.2.4. When modelling the operation of standalone priority junctions and roundabouts, those junctions with arms which record an RFC in excess of 0.85 and below 1.00 are considered to be approaching operational capacity, and junctions with arms with an RFC in excess of 1.00 are considered to exceed operational capacity.

8.2.5. For signal-controlled junctions, a DoS of less than 90% indicates that the junction is operating within its theoretical capacity; a DoS of equal to or greater than 90% but less than 100% indicates that the junction is approaching its capacity (but remains within capacity); and a DoS of equal to or greater than 100% indicates that it has either reached or exceeded its theoretical capacity. Beyond 100% DoS, queues and delays increase disproportionately with increasing demand flow. In particular, to signals, queues would begin to not be able to discharge fully within each cycle and delays increase as a result.

8.2.6. For signal-controlled junctions, the 'Practical Reserve Capacity' (PRC) of the junction is also used to assess the impact of traffic. The PRC is calculated from the maximum degree of saturation on a lane controlled by the stage stream; and is a measure of how much additional traffic could pass through a junction controlled by the stage stream whilst maintaining a maximum Degree of Saturation (DoS) of 90% on all lanes.

8.2.7. A positive value indicates that a junction has spare capacity, whilst a negative value demonstrates that a junction is either approaching or is already experiencing capacity issues and could be subject to congestion.

8.3. Assessment Scenarios

8.3.1. Junction capacity assessments have taken account of the following scenarios, for both AM and PM peak hours:

- 2025 Surveyed Base
- 2035 Future Base including Background Traffic
- 2035 Future Base including Background Traffic and Proposed Residential Development

8.4. Traffic Impact

8.4.1. The results of the junction capacity assessments are summarised in the following section of this report. The full modelling output reports are included at **Appendix G**.

Cowbridge Road / Site Access Priority Junction

8.4.2. The Cowbridge Road / Site Access priority junction has been assessed using the PICADY module within the Junctions 9 software package. It should be noted that the results for the 2035 with Development scenario account for the proposed alterations to the junction shown in drawing 110516-PEF-XX-XX-DR-C-000101 included in **Appendix C**. A summary of the modelling results is presented in **Table 8.1**.

Table 8.1: Modelling results – Cowbridge Road / Site Access Priority Junction

Arm	Movement	AM Peak Hour		PM Peak Hour	
		Queue (PCU)	RFC	Queue (PCU)	RFC
2025 Base					
Site Access	Left	0	0	0	0.01
Site Access	Right	0	0	0	0.04
Cowbridge Rd south	Ahead / Right	0	0	0	0.00
2035 Base					
Site Access	Left	0	0	0	0.01
Site Access	Right	0	0	0.1	0.05
Cowbridge Rd south	Ahead / Right	0	0	0	0.00
2035 Base + Development					
Site Access	Left	0.0	0.02	0.0	0.02
Site Access	Right	0.4	0.31	0.2	0.17
Cowbridge Rd south	Ahead / Right	0.0	0.01	0.0	0.02

8.4.3. As shown in **Table 8.1**, the junction operates well within capacity under all scenarios tested. In the 2025 Base and 2035 Base conditions, RFC values are low, with a maximum of 0.05 on the right-turn movement from Site Access during the PM peak in 2035. Queues are minimal, with most movements recording zero and only a small queue of 0.1 PCU appearing in the future base scenario. These results indicate that the junction will function efficiently under existing and forecast background traffic conditions.

8.4.4. Under the 2035 Base with Development scenario, the highest RFC recorded is 0.31 in the AM peak and 0.17 in the PM peak on the right-turn movement from Site Access. These values are significantly below the typical design threshold of 0.85, confirming that there is reserve capacity. Queues remain short, with a maximum of 0.4 PCU in the AM peak and 0.2 PCU in the PM peak. Overall, the modelling demonstrates that the proposed access junction will experience very low queuing and delay and is suitable to accommodate the forecast traffic demand, including development traffic.

A473 / Cowbridge Road Signal Controlled Junction

8.4.5. The A473 / Cowbridge Road signalised junction has been assessed using LinSig V3 software to determine its operational performance under future traffic conditions. To account for the interaction between the site access priority junction and the signalised Cowbridge Road / A473 junction, a linked LinSig model has been developed to include both junctions in a single network. The two junctions are separated by approximately 66 m. This proximity means that queuing at the signalised junction could extend back to the proposed priority access during busy periods, influencing its operation in terms of

blocking or delay. A linked model allows these effects to be represented accurately by considering the interdependence of signal timings, traffic arrival patterns, and queue propagation between the junctions. This approach ensures that the assessment reflects realistic network conditions and provides a robust basis for evaluating capacity and performance.

8.4.6. A summary of the modelling results is presented in **Table 8.2**.

8.4.7. It should be noted that a MOVA (Microprocessor Optimised Vehicle Actuation) system is currently in place along this section of the A473 corridor. MOVA is an adaptive traffic control system which is responsive to traffic conditions and therefore often leads to increases in capacity at junctions. The effects of MOVA cannot be replicated in LinSig modelling, as the green times and cycle time can vary throughout the modelled hour. It is therefore considered likely that, in reality, the A473 / Cowbridge Road junction operates with slightly more capacity than shown in the capacity assessment results presented in **Table 8.2**.

Table 8.2: Modelling results – A473 / Cowbridge Road Signal Controlled Junction and Cowbridge Road / Site Access Priority Junction

Arm	Movement	AM Peak Hour		PM Peak Hour	
		DOS (%)	MMQ (PCUs)	DOS (%)	MMQ (PCUs)
2025 Base					
A473 / Cowbridge Road Signal Controlled Junction					
A473 West	Ahead / Right	72.2%	8.2	76.1%	7.7
A473 East	Ahead / Left	73.5%	10.4	76.9%	13.8
Cowbridge Road	Left	28.4%	3.8	32.3%	4.5
Cowbridge Road	Right	72.2%	9.0	75.2%	9.6
Cowbridge Road / Site Access Priority Junction					
Cowbridge Road north	Ahead / Left	36.7%	0.3	32.0%	0.2
Site Access	Left / Right	1.3%	0.0	3.6%	0.0
Cowbridge Road south	Ahead / Right	33.0%	0.2	32.9%	0.2
		PRC = 22.4%		**PRC = 17.1%**	
2035 Base					
A473 / Cowbridge Road Signal Controlled Junction					
A473 West	Ahead / Right	81.5%	10.2	84.3%	9.5
A473 East	Ahead / Left	78.7%	11.9	85.0%	16.2
Cowbridge Road	Left	32.1%	4.5	35.7%	5.0
Cowbridge Road	Right	80.0%	10.7	83.2%	11.6
Cowbridge Road / Site Access Priority Junction					
Cowbridge Road north	Ahead / Left	40.7%	0.3	35.4%	0.3
Site Access	Left / Right	1.4%	0.0	4.2%	0.0
Cowbridge Road south	Ahead / Right	36.6%	0.3	36.4%	0.3
		PRC = 10.4%		**PRC = 5.9%**	

2035 Base + Development					
A473 / Cowbridge Road Signal Controlled Junction					
A473 West	Ahead / Right	83.8%	11.0	87.5%	10.5
A473 East	Ahead / Left	81.6%	12.0	87.5%	16.4
Cowbridge Road	Left	32.7%	4.5	35.5%	5.0
Cowbridge Road	Right	83.0%	12.3	84.3%	12.2
Cowbridge Road / Site Access Priority Junction					
Cowbridge Road north	Ahead / Left	41.7%	0.4	38.7%	0.3
Site Access	Left / Right	23.7%	0.3	13.9%	0.1
Cowbridge Road south	Ahead / Right	36.7%	0.3	36.7%	0.3
		PRC = 7.4%		**PRC = 2.8%**	

8.4.8. As shown in **Table 8.2**, the two junctions are shown to operate within capacity under all scenarios tested.

8.4.9. In the 2025 Base condition, DoS values for the A473 / Cowbridge Road signalised junction are moderate, with the highest recorded being 76.9% on the A473 East arm during the PM peak. Queue lengths are not significant, with the maximum MMQ being 13.8 PCUs in the PM peak. The PRC for the network is 22.4% in the AM peak and 17.1% in the PM peak, confirming that the junction has spare capacity under existing conditions.

8.4.10. Under the 2035 Base scenario, DoS values increase slightly but remain below the typical design threshold of 90%, with the highest recorded being 85.0% on the A473 East arm in the PM peak. The PRC reduces to 10.4% in the AM peak and 5.9% in the PM peak, indicating that while capacity is reduced compared to 2025, the junction continues to operate efficiently under forecast background traffic conditions.

8.4.11. In the 2035 Base + Development scenario, the highest DoS recorded is 87.5% on both the A473 West and East arms during the PM peak. These values remain below the typical design threshold, confirming that the junction can accommodate development traffic without exceeding capacity. The PRC is 7.1% in the AM peak and 2.8% in the PM peak, demonstrating that while reserve capacity is reduced, the junction will continue to function with acceptable levels of queuing and delay.

8.4.12. Whilst the combined modelling of the signalised Cowbridge Road / A473 junction and the proposed site access demonstrates that both will operate within capacity their close proximity (approximately 66m) indicates some queuing on the Cowbridge Road approach to the A473 could occur during busy periods.

8.4.13. To mitigate potential for blocking of vehicles exiting the development access road measures to create controlled breaks in queuing could be implemented. Options include introducing a yellow box junction or ‘Keep Clear’ road markings at the site access, similar to those used at the Railway Terrace/Cowbridge Road junction. These interventions would help maintain access by ensuring gaps in traffic flow, reducing the risk of blocking and improving operational safety. A yellow box arrangement has been identified in our proposed access drawing 110516-PEF-XX-XX-DR-C-000101 included in **Appendix C**.

A473 / Lanelay Road Roundabout

8.4.14. The A473 / Lanelay Road roundabout has been assessed using the ARCADY module within the Junctions 9 software package. A summary of the modelling results is presented in **Table 8.3**.

Table 8.3: Modelling results - A473 / Lanelay Road Roundabout

Arm	AM Peak Hour		PM Peak Hour	
	Queue (PCU)	RFC	Queue (PCU)	RFC
2025 Base				
A473 East	0.8	0.43	1.1	0.53
A473 West	0.7	0.39	0.6	0.37
Rhodfa Bryn Rhydd	0.2	0.20	0.1	0.08
Lanelay Road	0.5	0.31	0.7	0.40
2035 Base				
A473 East	1.0	0.48	1.5	0.59
A473 West	0.8	0.44	0.7	0.41
Rhodfa Bryn Rhydd	0.3	0.24	0.1	0.10
Lanelay Road	0.6	0.35	0.9	0.46
2035 Base + Development				
A473 East	1.0	0.49	1.5	0.60
A473 West	0.8	0.44	0.7	0.42
Rhodfa Bryn Rhydd	0.3	0.24	0.1	0.10
Lanelay Road	0.6	0.35	0.9	0.46

8.4.15. As shown in **Table 8.3**, the roundabout operates within capacity under all scenarios tested. In the 2025 Base and 2035 Base conditions, RFC values remain low, with a maximum of 0.48 in the AM peak and 0.59 in the PM peak. Queues are short, with the highest being 1.5 PCUs in the AM peak and 1.5 PCUs in the PM peak. These results confirm that the roundabout will function efficiently under existing and forecast background traffic conditions.

8.4.16. Under the 2035 Base with Development scenario, the highest RFC recorded is 0.49 in the AM peak and 0.60 in the PM peak, both on the A473 East arm. These values are significantly below the typical design threshold of 0.85, confirming that there is reserve capacity in the junction. Queues remain short, with a maximum of 1.5 PCUs in both peak periods. Overall, the modelling demonstrates that the roundabout will experience low queuing and delay and will be able to accommodate the forecast traffic demand, including development traffic.

A473 / Glamorgan Vale Retail Park / Heol-y-Pant Roundabout

8.4.17. The A473 / Glamorgan Vale Retail Park / Heol-y-Pant roundabout has been assessed using the ARCADY module within the Junctions 9 software package. A summary of the modelling results is presented in **Table 8.4**.

Table 8.4: Modelling results - A473 / Glamorgan Vale Retail Park / Heol-y-Pant Roundabout

Arm	AM Peak Hour		PM Peak Hour	
	Queue (PCU)	RFC	Queue (PCU)	RFC
2025 Base				
A473 East	1.1	0.51	1.9	0.65
Heol-y-Pant	0.1	0.07	0.2	0.20
A473 West	1.0	0.48	1.1	0.52
Retail Park Access	0.1	0.13	0.7	0.41

2035 Base				
A473 East	1.4	0.57	2.7	0.73
Heol-y-Pant	0.1	0.08	0.3	0.23
A473 West	1.3	0.54	1.4	0.58
Retail Park Access	0.2	0.15	0.9	0.48
2035 Base + Development				
A473 East	1.4	0.57	3.2	0.76
Heol-y-Pant	0.1	0.08	0.3	0.24
A473 West	1.4	0.57	1.5	0.60
Retail Park Access	0.2	0.15	0.9	0.48

8.4.18. As shown in **Table 8.4** the roundabout operates within capacity under all scenarios tested. In the 2025 Base and 2035 Base conditions, RFC values are low, with a maximum of 0.51 in the AM peak and 0.65 in the PM peak for the A473 East arm in 2025, and 0.57 in the AM peak and 0.73 in the PM peak for the same arm in 2035. Queues are short, with the highest recorded being 2.7 PCUs in the PM peak under 2035 Base conditions. These results confirm that the roundabout will function efficiently under existing and forecast background traffic conditions.

8.4.19. Under the 2035 Base + Development scenario, the highest RFC recorded is 0.57 in the AM peak and 0.76 in the PM peak, both on the A473 East arm. These values are below the typical design threshold of 0.85, confirming that there is reserve capacity in the junction. Queues remain short, with a maximum of 3.2 PCUs on the A473 East arm in the PM peak. Overall, the modelling demonstrates that the roundabout will experience low queuing and delay and will be able to accommodate the forecast traffic demand, including development traffic.

A4119 / A473 Signalised Roundabout

8.4.20. The signalised roundabout west of the development site has been modelled using the LinSig V3 software package. A summary of the modelling results for each of the assessment scenarios is presented in **Table 8.5**.

8.4.21. It should be noted that a MOVA (Microprocessor Optimised Vehicle Actuation) system is also currently in place along this section of the A4119 corridor. MOVA is an adaptive traffic control system which is responsive to traffic conditions and therefore often leads to increases in capacity at junctions. The effects of MOVA cannot be replicated in LinSig modelling, as the green times and cycle time can vary throughout the modelled hour. It is therefore considered likely that, in reality, the roundabout operates with slightly more capacity than shown in the capacity assessment results presented below.

Table 8.5: Modelling results – A4119 / A473 Signalised Roundabout

Arm	Movement	AM Peak Hour		PM Peak Hour	
		DOS (%)	MMQ (PCUs)	DOS (%)	MMQ (PCUs)
2025 Base					
A4119 North	Left / Ahead	68.1%	9.6	94.4%	18.6
A4119 North	Ahead	67.0%	9.6	94.6%	18.7
A473 East	Left	72.2%	14.0	57.0%	8.4
A473 East	Ahead	20.1%	2.6	59.7%	8.4
A473 East	Ahead	66.6%	11.6	50.2%	6.8
A4119 South	Left / Ahead	57.9%	8.7	63.9%	9.5
A4119 South	Ahead	54.4%	7.7	66.9%	9.7
A473 West	Left	36.8%	3.8	58.8%	7.2
A473 West	Ahead	58.0%	6.3	61.7%	7.3
A473 West	Ahead	59.4%	6.3	45.4%	4.9
		PRC 21.7%		**PRC = -5.1%**	

2035 Base					
A4119 North	Left / Ahead	86.1%	13.1	111.4%	62.5
A4119 North	Ahead	86.1%	13.1	111.6%	62.6
A473 East	Left	86.4%	18.6	84.1%	12.5
A473 East	Ahead	78.2%	10.7	82.9%	11.2
A473 East	Ahead	78.0%	10.7	82.9%	11.2
A4119 South	Left / Ahead	70.3%	11.7	80.2%	14.5
A4119 South	Ahead	70.9%	11.7	83.1%	15.0
A473 West	Left	52.2%	4.9	52.4%	7.3
A473 West	Ahead	78.5%	8.0	66.9%	6.8
A473 West	Ahead	78.5%	8.0	66.9%	6.8
		PRC = 4.2%		**PRC = -24.0%**	
2035 Base + Development					
A4119 North	Left / Ahead	86.1%	13.1	111.6%	63.3
A4119 North	Ahead	86.1%	13.1	111.4%	61.9
A473 East	Left	86.4%	18.6	84.1%	12.5
A473 East	Ahead	78.4%	10.8	84.0%	11.5
A473 East	Ahead	78.4%	10.8	84.2%	11.6
A4119 South	Left / Ahead	70.5%	11.7	80.7%	14.6
A4119 South	Ahead	70.9%	11.7	83.1%	15.0
A473 West	Left	55.8%	5.0	52.6%	7.3
A473 West	Ahead	88.5%	10.0	68.7%	7.0
A473 West	Ahead	88.5%	10.2	68.7%	7.0
		PRC = 1.6%		**PRC = -24.0%**	

8.4.22. It can be seen from **Table 8.5** that the A4119 / A473 Signal Controlled Roundabout currently operates within capacity in the AM peak and approaching capacity on the A4119 North arm in the PM peak with a DoS of 94.6%. In the 2035 Base scenario, the roundabout remains within capacity in the AM peak, but the A4119 North arm is shown to operate over capacity in the PM peak with a DoS of 111.6%.

8.4.23. Under the 2035 Base + Development scenario, the roundabout remains within capacity in the AM peak, with the highest DoS being 88.5% on the A473 West arm. In the PM peak the A4119 North arm is shown to operate over capacity in the PM peak with a DoS of 111.6%. This is the same as the 2035 Base scenario results, demonstrating that the impact of the proposed development traffic on the roundabout is negligible.

8.5. Summary

8.5.1. Overall, the results of the capacity assessment undertaken identify that traffic associated with the proposed development would not have a significant impact on the operation of the local highway network.

8.5.2. The findings of this assessment have highlighted that the proposed site access junction will operate within capacity. Due to the proximity of this junction to the signalised Cowbridge Road / A473 junction queuing on the Cowbridge Road approach to the A473 may occur during busy periods.

8.5.3. To mitigate against blocking of the junction a yellow box junction or ‘Keep Clear’ road markings can be introduced, the latter consistent to the arrangement used at the Railway Terrace / Cowbridge Road junction. These interventions would help maintain access by ensuring gaps in traffic flow, reducing the risk of blocking and improving operational safety. A yellow box is proposed as part of the site access alterations

9. Summary and Conclusion

9.1. Summary

9.1.1. Pell Frischmann has been commissioned by Talbot Green Developments Ltd (the Client) to provide transport planning and highways advice in support of a proposed residential development on land at Talbot Green, south of the A473 in Rhondda Cynon Taf.

9.1.2. This Transport Assessment has reviewed the proposed residential development, comprising up to 180 dwellings, in the context of local and national transport policy, site accessibility, and operational considerations.

9.1.3. The site is located within the SSA 8 allocation and benefits from good connectivity to the local highway network, including Cowbridge Road and the A473 corridor, and proximity to the A4119 and M4 motorway. Sustainable travel opportunities are available via nearby bus stops, Pontyclun Railway Station, and the Llantrisant Community Route, which provides high-quality active travel links to Talbot Green and surrounding areas. Walking and cycling catchments demonstrate that key local amenities, schools, and employment areas are accessible within recommended distances, supporting modal shift objectives.

9.1.4. Vehicular access to the development will be provided via the existing service road north of the Leekes department store, connecting to Cowbridge Road. This junction will be upgraded to meet Manual for Streets visibility requirements and to provide a safe and efficient arrangement for residential traffic. The design incorporates improved junction geometry, enhanced visibility splays, and a relocated pedestrian crossing to reduce crossing distance and improve safety. A secondary emergency access will be delivered via the Sainsbury's delivery yard access road, ensuring resilience in accordance with Building Regulations and local authority guidance.

9.1.5. Pedestrian and cycle connectivity will be enhanced through the provision of a 3m-wide shared-use route running through the site from Cowbridge Road toward the eastern boundary. This route will form part of a future connection to Heol-y-Pant and the wider Active Travel network, with its continuation to be delivered by the adjacent retail development or secured separately by Grampian condition if required. Additional improvements include new pedestrian links toward the A473 footbridge and upgraded crossing facilities at the site access, creating a continuous and accessible active travel network.

9.1.6. Swept path analysis confirms that the proposed access arrangements accommodate both a refuse collection vehicle (RCV) and a fire tender. Parking provision will comply with RCTCBC's maximum standards, with allowance for EV charging infrastructure and secure cycle storage within individual plots. Motorcycle parking will be integrated into private curtilages where practical.

9.1.7. Trip generation forecasts indicate that the development is expected to generate approximately 82 two-way vehicle trips in the AM peak hour and 91 two-way trips in the PM peak hour, with a total of 754 daily two-way vehicle movements. Mode share analysis demonstrates a strong potential for walking and cycling, supported by the site's location and proposed infrastructure enhancements.

9.1.8. Junction Capacity Assessment has been completed for the existing network of four junctions on the A473 to the north of the development site, in addition to the proposed site access junction on Cowbridge Road, for a forecast year of 2035. This accounting for background traffic growth associated with local committed developments.

9.1.9. The results of the capacity assessment undertaken confirm that traffic associated with the proposed development would have a minimal impact on the operation of the network of junctions on the A473 to the north of the development site. It is evident that traffic associated with local committed developments have a much greater impact on the operation of the junctions than the proposed development.

9.1.10. Whilst the combined modelling of the signalised Cowbridge Road / A473 junction and the proposed site access demonstrates that both will operate within capacity, their close proximity indicates some queuing on the Cowbridge Road approach to the A473 could occur during busy periods.

9.1.11. To mitigate potential for blocking of vehicles exiting the development access road measures to create controlled breaks in queuing could be implemented. Options include introducing a yellow box junction or 'Keep Clear' road markings at the site access, similar to those used at the Railway Terrace/Cowbridge Road junction. These interventions would help maintain access by ensuring gaps in traffic flow, reducing the risk of blocking and improving operational safety. A yellow box is proposed as part of the site access alterations

9.2. Conclusion

9.2.1. The proposed residential development is considered acceptable in transport and highway terms. The scheme aligns with national and local policy objectives by promoting sustainable travel and active modes, supported by good existing walking, cycling, and public transport connectivity. The proposed access arrangements have been designed to provide safe and efficient operation, with vehicle tracking confirming suitability for both refuse collection and emergency vehicles. Parking provision, including electric vehicle charging readiness and secure cycle storage, will comply with local standards and encourage modal shift.

9.2.2. Trip generation forecasts indicate that the development can be accommodated without significant adverse impact on the local highway network, with junction modelling confirming this position. Overall, the development is capable of being delivered in a manner that supports sustainable transport objectives and maintains highway safety and efficiency.

Appendix A – 2024 Pre Application Advice

RHONDDA CYNON TAF

Mr P Waldren
Carney Sweeney
Brunel House
2 Fitzalan Road
Cardiff
CF24 0EB

Fy Nghyf/My Ref:	Gofynnwch am/Please ask for:	Dyddiad/Date:
24/5037/41	Matthew Farley 01443 281130	08/08/2024

DATBLYGIAD ARFAETHEDIG/ PROPOSAL :	Development of circa 250 residential dwellings (class C3) and circa 4340sqm retail floorspace.
LLEOLIAD /LOCATION:	Talbot Green Town Centre

I refer to your correspondence received 24/05/2024 concerning the above and your request for pre-application advice. I would firstly apologise for the delay in response.

Having considered the nature of the submission I would respond as follows:

Local Context and Constraints

The application site forms approximately 8ha of previously developed land south of the A473 at Talbot Green, between the Glamorgan Vale Retail Park roundabout and the junction with the A4222 (Cowbridge Road). Much of the land was previously occupied by the former Purolite (west) and Staedtler (north) factories which have long been demolished in preparation for redevelopment. The site is therefore largely comprised of hard surfaces and bare ground, although there is some vegetation regrowth throughout these areas. It is noted however that the eastern extent of the site, the area beyond the access off the A473, comprises undeveloped open fields.

Whilst one large development site, the plot is roughly split into two sections, a larger southern element and a smaller north-western element. An access road would cut through the centre of the plot separating the two distinct areas.

Materion Ffyniant a Datblygu/ Prosperity and Development
Llawr 2 / Floor 2, 2 Llys Cadwyn, Pontypridd, CF37 4TH

Dylid cyfeirio pob gohebiaeth at/All correspondence should be addressed to
Cymorth i Fusnesau, Tŷ Eláí, Ystad Ddiwydiannol Dinas Isaf, Trewiliam, Tonypandy, CF40 1NY
Business Support Unit, Ty Elai, Dinas Isaf Industrial Estate, Williamstown, Tonypandy, CF40 1NY

Simon Gale
Cyfarwyddwr Materion Ffyniant a Datblygu | Director of Prosperity and Development

The larger, southern element of the site is bounded to the north by the recent Sainsburys development and the A473, to the south by Y Pant Comprehensive School, and to the west by the Leekes department store site. Open fields are located to the east and south-east of this area. The smaller, north-western element of the site is located between the A473 (north), the A4222 (west), the Leekes department store site (south), and the Sainsburys supermarket site (east).

Primary access is gained off the A473 at the Glamorgan Vale Retail Park roundabout. There is also a secondary access off the A4222 via a private road directly north of the adjacent Leekes store.

The majority of the site is located within settlement limits, forming part of the wider Mwyndy / Talbot Green allocation for a new town centre (mixed employment / residential) under Policy SSA8 of the Local Development Plan. However, the eastern extent beyond the Sainsburys access road, while within the allocation, is outside of any settlement boundary and in the open countryside.

The wider area is mixed in terms of land uses. North of the A473 lies the main settlement of Talbot Green with this immediate part of the town forming a largely residential area comprised of varying house types. The immediate area south of the A473 comprises a mix of commercial uses with retail, office and B1/B2/B8 employment uses evident, as well as the neighbouring comprehensive school.

With regard constraints, much of the eastern extent of the site is located within the Pant Marsh Site of Importance for Nature Conservation (SINC); the site is an area of potentially contaminated land from previous industrial use; is in an area where there is a high risk from historic underground coal mining; Tree Preservation Order areas are located adjacent to the site access off the A473; the eastern extent of the site, including the access off the A473, is located within a C2 flood zone; and areas of the site are within mineral safeguarding zones.

The site is not subject to any other material constraints.

Please note: This information is based on our current records and is, as far as possible, accurate. Nevertheless, we reserve the right to advise you of any additional constraints that may be identified at the time of any future planning application.

Relevant Planning History

As you will be aware the site is subject of a long planning history, much of which relates to the previous land uses and development of the adjacent Sainsburys supermarket. Only the planning history considered relevant to this proposed development is set out below:

11/1330/13 – Outline application for development of new town centre comprising: a 10,801sqm gross food store (Class A1); 8 pump petrol filling station; 35,522 sqm gross

retail floor space (Class A1); 600sqm gross cafe space (Class A1); 1,000sqm financial / professional service space (Class A2); 2,390sqm gross food and drink space (Class A3); 1,400sqm gross office space (Class B1); 750sqm gross Class D1 space; 8 screen cinema; 80 bed hotel; 64 dwellings (Class C2/C3); multi storey and surface level car parking; associated access infrastructure, re-profiling of land, landscaping and flood alleviation works.
Decision: Granted, 24/12/14

Relevant Planning Policies

In addition to national guidance contained within Future Wales: The National Plan 2040, Planning Policy Wales and the associated Technical Advice Notes, and the Well-being of Future Generations (Wales) Act, any future planning application would also be considered against the policies set out within the adopted Rhondda Cynon Taf Local Development Plan (LDP) and associated Supplementary Planning Guidance (SPG) documents.

The current LDP's lifespan was 2011 to 2021. It has been reviewed and is in the process of being replaced. The Planning (Wales) Act 2015 introduced provisions specifying the period to which a plan has effect and providing that it shall cease to be the LDP at the end of the specified period. These provisions were commenced on 04 January 2016 but do not have retrospective effect. Therefore, the provisions do not apply to LDPs adopted prior to this date and plans adopted before 04 January 2016 will remain the LDP for determining planning applications until replaced by a further LDP. This was clarified in guidance published by the Minister on 24 September 2020. Subsequently, the existing Plan would remain the development plan for consideration when determining any future planning application, unless a replacement is adopted in the interim.

The LDP policies relevant to this case are:

Core Policies

Policy CS2 – sets out criteria for new development in the Southern Strategy Area.
Policy CS3 – sets out the Plan's strategic sites, advising that Mwyndy / Talbot Green has been allocated for mixed residential, employment, retail, and leisure development.
Policy CS4 – sets out the general housing requirements for the plan period, advising that the allocation at Mwyndy / Talbot Green is 500 units.
Policy CS5 – sets out the affordable housing requirements for the plan period in conjunction with the allocations at Policy CS4.
Policy CS6 – sets out the employment requirements for the plan period, advising that the allocation at Mwyndy / Talbot Green is 15ha for B1 use.
Policy CS7 – sets out the retail requirements for the plan period, advising that the allocation at Mwyndy / Talbot Green is 23,400m2.
Policy CS10 – sets out criteria for the protection of mineral resources.

Area Wide Policies

Policy AW1 – sets out criteria for new housing proposals.
Policy AW2 – supports development in sustainable locations which includes sites that are within the defined settlement boundaries, are accessible by a range of sustainable transport modes, have good access to key services and facilities, and would not unacceptably conflict with surrounding uses.
Policy AW4 – details the criteria for planning obligations including Section 106 Agreements (S106) and the Community Infrastructure Levy (CIL).
Policy AW5 – sets out criteria for new development in relation to amenity and accessibility.
Policy AW6 – requires development to involve a high quality design and to make a positive contribution to placemaking, including landscaping.
Policy AW8 – sets out criteria for the protection and enhancement of the natural environment.
Policy AW10 – does not permit proposals where they would cause or result in a risk of unacceptable harm to health and/or local amenity.
Policy AW14 – safeguards minerals from development that would sterilise them or would hinder their extraction, advising that Pant Marsh, Talbot Green is in an area of sand and gravel resource.

Southern Strategy Area Policies

Policy SSA3 – sets out criteria for residential and commercial development within the Principle Town of Llantrisant / Talbot Green.
Policy SSA8 – sets out criteria and prescriptions for development at the Mwyndy / Talbot Green allocation (Policy CS3) – 500 dwellings, 15ha employment floor space, 23,400m2 retail floor space, 10,000m2 leisure floor space, a primary school, library / community facility and informal amenity space in a landscape setting.
Policy SSA11 – requires housing developments in the Southern Strategy Area to have a net residential density of at least 35 dwellings per hectare, subject to certain exceptions.
Policy SSA12 – seeks a provision of at least 20% affordable housing on sites of 5 residential units or more in the Southern Strategy Area.
Policy SSA13 – identifies the criteria for assessment of housing development proposals within settlement boundaries in the Southern Strategy Area.
Policy SSA16 – identifies the retail hierarchy for the Southern Strategy Area with Llantrisant (including Talbot Green) being classed as a Principle Town.
Policy SSA17 – states that new and improved retail facilities and other appropriate uses will be permitted in Principle Town centres, subject to certain criteria.

Supplementary Planning Guidance

- Design and Placemaking
- Design in Town Centres
- A Design Guide for Householder Development

- Affordable Housing
- Nature Conservation
- Planning Obligations
- Access, Circulation and Parking
- Shopfront Design
- Development of Flats
- Employment Skills

Analysis of Proposal

The proposal would see a mixed use development of circa 250 dwellings (mix of 2 to 4 bedroom dwellings and a 36 unit apartment block); 2 Class A1 retail units, each with floor areas of circa 2067m2; and a Class A3 drive-through unit with a floor area of circa 205m2. Associated access, parking and landscaping etc. would be sited throughout.

The key considerations in the determination of any subsequent planning application would be whether the principle of the proposed development is acceptable in the first instance, and if so, whether the site is capable of accommodating the proposed development without resulting in a detrimental impact upon the character and appearance of the area; the amenities of the closest neighbouring properties; pedestrian and highway safety in the vicinity of the site; ecology on and around the site; and flood risk / drainage. Based on the information submitted, in these respects I would comment as follows:

Principle of Development

The Llantrisant / Talbot Green area forms one the County Borough's Principle Towns, which within the LDP has been acknowledged as a focal settlement that can accommodate significant future growth (as set out in detail within the strategic site allocations at Policies CS3, CS4, CS6 and CS7).

Policy SSA8 specifies the allocation at Mwyndy / Talbot Green, setting out a large scale, mixed use, new town centre development comprising residential, employment, leisure and community facilities. This proposed development site forms a considerable element of the wider allocation, the 'Cowbridge Road' element.

The Cowbridge Road element of the wider Mwyndy / Talbot Green allocation is identified within Policy SSA8 for 100 dwellings, 23,200m2 retail floorspace, and a mix of other public facilities / infrastructure. However, it is noted that this area of the allocation not only contains this proposed development site but also the recently developed, adjacent Sainsburys site and the neighbouring Leekes site, both under separate ownership.

Most of the proposed development site is located within settlement limits and is prescribed for retail use within the allocation. The eastern extent of the site however, beyond the access road off the A473, is outside of any settlement boundary and is in

the open countryside. This eastern area of the site is prescribed for public open space and is also a designated SINC.

Given the current LDP allocation the large majority of the proposed development site can inherently be considered a sustainable location and an area suitable for appropriate future development. It has good access to public transport links / public facilities and located between the long-established, existing settlements of Talbot Green and Pontyclun, has easy access to various commercial services.

It is also noted that the site is level throughout, largely free of constraints, and is under the ownership of a single landowner. It can therefore be considered that the proposed development could be brought forward in a timely manner.

The principle of developing the site for mixed residential / commercial use could therefore generally be considered compliant with the key sustainability and placemaking aims of LDP Policies CS2, AW1, AW2 and SSA3.

With regard the mix of development proposed and compliance with the allocation (Policies CS3, CS4, CS6, CS7 and SSA8), it is acknowledged that a long time has passed and that circumstances have changed at the allocation since the adoption of the LDP. The Sainsburys site has been developed separately and the Leekes site is unlikely to come forward for redevelopment, leaving this area of the allocation 'stranded' in-between. It is therefore accepted that what may have been envisaged during the preparation of the LDP is no longer possible and some deviation from the original ideologies will have to be accepted if development of as much of the allocation as possible is to be brought forward.

This scheme proposes circa 250 dwellings, far exceeding the policy guidance, and circa 4339m2 retail floorspace, significantly under the policy guidance, albeit it is acknowledged that the total figure of retail floorspace at this element of the allocation would also include the Sainsbury supermarket store. However, given the change in circumstances at the wider allocation and current market conditions, it is considered the proposed deviation from the policy suggestions could generally be supported, subject to appropriate justification being provided with any future planning application.

Specifically, with regard the residential element of the pre-application submission, the indicative layout submitted appears to demonstrate a reasonable density of dwellings, in compliance with Policy SS11 and comparable to many other modern housing developments within the County Borough. As such, there are no general concerns with the number of residential units proposed or the indicative arrangement. However, a full assessment of the proposed layout would have to be undertaken at any future application stage when full details are provided.

Furthermore, there is a shortage of available, deliverable and viable large-scale residential sites in RCT at this current time and it is considered that this site offers potential to deliver sustainably located homes for residents that would include a much-

needed, significant affordable housing contribution in the area; a contribution that would be expected to be in-line with the 20% requirement of Policy SSA12. There is consequently no in principle concern that much of the site would be developed for housing rather than retail as the Policies suggest.

Notwithstanding above, there is concern with the eastern, retail aspect of the proposed scheme. As noted above, this area of the proposed development site is located outside of settlement limits and in an area prescribed for public open space. It is also within a designated SINC and C2 flood zone. It is therefore unlikely that any development would be supported in this area in principle (as set out in detail below).

The applicant is consequently advised that the eastern element of the proposed devolvement site should be removed from any future scheme; but that development of the remainder of the site within settlement limits solely for residential use could be considered acceptable, subject to appropriate justification.

Visual Impact and Layout

The site forms a considerable area of previously developed land between the existing settlements of Talbot Green and Pontyclun. It is allocated for mixed use redevelopment and therefore the inevitable, significant change in character and appearance has long been accepted.

It is considered that redevelopment of the site would form a fitting infill between the existing settlements and whilst a stark change to the current undeveloped nature of the site, a vast improvement to its previous visual appearance when occupied by large factory units.

In respect of neighbouring views, being separated from the nearest residential properties to the north by the adjacent highway and sited at a slightly lower ground level, it is not considered that an appropriately designed development at the site would adversely impact upon views from the closest residential properties.

While indicative only, the residential element of the layout plan submitted appears to demonstrate an appropriate arrangement, comparable to many other modern housing developments within the County Borough. As such, there are no general concerns with the visual impact of this aspect of the scheme if a similar proposal was brought forward. However, a full assessment of the proposed site layout would have to be undertaken at any future application stage when full details are provided.

Notwithstanding the above, there is concern with the proposal to develop the eastern extent of the site, the area east of the site access off the A473. It is considered that any development here would result in a significant detrimental impact to the character and appearance of this open, semi-rural area, which is also prescribed for public open space and would be expected to be set out as such in any future development scheme.

The applicant is therefore advised that this element of the site should be excluded from any physical development within any future scheme.

Amenity

There are no residential dwellings in the immediate vicinity of the site. The closest neighbouring residential properties are located north of the A473 and west of the A4222, both over 50m away. It is therefore considered that an appropriately designed development scheme at the site would unlikely result in any physical detriment to the closest residents. Furthermore, given the separation distances there would be no loss of outlook from the closest residential properties, and with the busy road in-between and neighbouring, existing commercial uses nearby, there would be no further undue noise and disturbance.

Notwithstanding the above, the application site is bounded by a variety of industrial / commercial uses to the south, east and west and busy roads to the north and west. There is consequently potential for the existing uses to have a detrimental impact upon the amenities of future residents at the site. Any future scheme will consequently have to consider these issues and demonstrate that appropriate noise / air quality mitigation measures have been included, if necessary.

Finally, it is not envisaged a scheme of the nature proposed would negatively impact upon the amenities or operation of the neighbouring commercial uses south of the A473.

Ecology

The Council's Ecologist commented that, while appropriate biodiversity mitigation / enhancement measures could likely be implemented across most of the site to mitigate the proposed development there, there are major ecological concerns associated with the proposed development of the area of the site east of the access off the A473.

The area of land east of the site access is within the Pant Marsh SINC, which is subject to a 25 year Section 106 (S106) Habitat Management Plan related to the adjacent Sainsbury's development, and which is part of a Living Landscape Site managed by the Council through that S106 for that 25 year period.

That area of the site is extremely wet SINC habitat and inside the flood bund arrangements set up by Natural Resources Wales to make Pant Marsh a flood attenuation area protecting the neighbouring Y Pant Comprehensive School and Ynysddu residential estate. Pant Marsh floods regularly, with at least 2 or 3 significant events each winter. Any development east of the site access would be in that flood area and would result in a major detrimental ecological impact.

Therefore, any development extending into this area would be totally unacceptable in biodiversity terms and any proposal to do so would result in an outright ecological objection (likely supported by NRW although their views would have to be sought separately).

There are also some ecological concerns with the proposal for solely residential development west of the site access. It is considered that this type of development could result in potential for a significantly greater urbanising impact on the adjacent Pant Marsh SINC than a less dense, mixed use development. As such, comprehensive ecology surveys will be required and detailed mitigation / enhancement measures, likely controlled by a S106.

The Applicant is also advised that there is SINC habitat still extant within the area west of the site access road which is not being shown as being retained within the indicative layout. If any removal of SINC is proposed here then robust justification would be required otherwise an ecological objection would be raised. However, it is advised that no development works should be undertaken in this area.

There is also an issue of stored SINC soils on this development site which were stripped and stockpiled from the clearance of the adjacent Sainsbury's site, and which were supposed to be re-used as part of ecological mitigation for that development. Those soils presumably still exist and there will need be an indication of how those will be re-used as ecological mitigation.

Finally, any future planning application would have to be supported by a robust suite of revised and updated ecological assessments of the site.

Highway Safety

Following consideration of the submission the Highways and Transportation section commented that there is a lack of information for a full highway safety assessment to be undertaken, however, the following advice is offered:

- A Transport Assessment (TA) will be required to assess the impact on the existing highway network in the vicinity of the site.

- A Travel Plan indicating incentives to reduce single occupancy trips and promote sustainable modes of transport will be required.

- A Safe Routes in Communities Assessment would have to be carried out in accordance with the relevant Local Authority Road Safety Officers' Association guidelines and the Learner Travel and Active Travel (Wales) Guidance.

- There is potential for a controlled crossing facility along the A473 near the existing community route and un-controlled crossing at Glamorgan Vale Retail

Park roundabout. The requirement for such facilities shall be modelled as part of the TA and the impact on the existing highway network taken into account.

- Links to Cowbridge Road, Talbot Green town centre, the Cefn y Hendy housing development and existing cycle infrastructure will be required to promote sustainable modes of transport, with less reliance placed on the private motor vehicle.

- Continuation of the 3m wide community route / shared use path would have to be provided from the Sainsburys car park through the proposed housing development linking to Cowbridge Road and potentially to Y Pant Comprehensive School to promote sustainable modes of transport and to comply with the guidance above for new developments.

- The proposed retail units would have to be served off a single point of vehicular access and separated from the residential use in the interests of highway and pedestrian safety. There is potential to provide separate access off the existing Glamorgan Vale Retail Park roundabout for the proposed retail uses.

- Amendments to the existing access off the A473 could be introduced to remove the dedicated right hand turn lane / traffic signals taking into account the revised site layout proposed.

- The proposed development is in excess of 150 dwellings and consequently a dedicated, secondary emergency vehicular access point will be required.

- Off-street car parking provision must comply with the Council's adopted SPG: Access, Circulation and Parking Requirements.

Flood Risk and Drainage

The Flood Risk Management section commented that the Applicant will be required to submit a separate application to the Sustainable Drainage Systems (SuDS) Approval Body (SAB) and is also required to comply with Part H of the current Building Regulations.

Also, Natural Resources Wales Surface Water Flood Risk maps have been used to review the site's surface water flood risk, as per Paragraph 8 of Tan 15. The review concluded that there are areas of high, medium and low surface water flood risk identified throughout the site associated with surface water accumulation and unnamed ordinary watercourse networks, but particularly the conveyance route located within the south-east area of the site.

Consequently, regardless of construction area, the applicant will need to provide further information to the Lead Local Flood Authority identifying how surface water will be managed and disposed of at the site and to demonstrate compliance with the

requirements of Section 8.3 of TAN 15. This information may include a drainage strategy with associated calculations demonstrating the pre and post surface water discharge rates from the site and a general arrangement of the catchment and proposed drainage system.

It is understood that flood defences may have been installed on site to overcome any flood risk concerns. However, the Development Advice Map currently sets out that the eastern extent of the site, including the access off the A473, is located within a C2 flood zone where highly vulnerable development is not permitted.

While there are no immediate concerns with the less vulnerable retail devolvement proposed in this area, subject to an appropriate Flood Consequence Assessment, there is some concern with the residential access being located within a C2 flood zone. The Applicant is advised that other residential schemes with similar circumstances have recently been dismissed at appeal. Therefore, careful consideration of this issue and early discussion with NRW is advised.

Other Issues

Public Health

Public Health and Protection (PHP) have advised that the site is subject to contaminated land due to previous industrial activities. As such, any future application would be expected to be supported by appropriate site investigations.

It was noted that over the years there have been several phases of intrusive investigation undertaken on this site and the results used to inform a recent human health and controlled waters risk assessment. It is possible that the scope of the previous investigations might have been limited due to the presence of buildings or floor slabs in parts of the site which fall within the scope of the current proposal.

The previous intrusive investigations revealed that groundwater beneath the site had been impacted by the chlorinated solvents used within Purolite's manufacturing processes. These chemicals posed an unacceptable risk to human health and the environment and a remedial strategy was identified to mitigate these risks. Targeted remediation was undertaken to reduce the contaminant load within the groundwater and groundwater monitoring was undertaken to provide evidence of compliance with agreed target levels. It is not clear whether this exercise was successful in reducing risks to human health as the validation sampling potentially did not extend to soils or soil vapours within the unsaturated zone. PHP therefore considers that these could still represent a source of contamination for several human health exposure pathways, including indoor air inhalation.

As the original human health risk assessment was reported several years ago, PHP subsequently consider that any future application to develop the site would need to be supported by up-to-date surveys encompassing the following elements:

- A thorough desktop study.
- A conceptual site model.
- The results of recent intrusive investigations targeting all relevant potential contaminants in different phases within the saturated and unsaturated zone.
- A comprehensive risk assessment and a detailed remediation and validation strategy.

PHP notes that previous investigations did not include perfluoroalkyl and polyfluoroalkyl substances and would expect evidence that this group of newly emerging contaminants of concern have been fully considered at the appropriate stage of the investigations and are progressed to the risk assessment / remediation phases as necessary.

Historic Coal Mining Activities

Elements of the application site fall within a Development High Risk Area in respect of historic underground coal mining. As such, any future application would have to be supported by an appropriate Coal Mining Risk Assessment report. Associated intrusive site investigations may also be required.

Environmental Impact Assessment

The proposed development would fall within the scope of Part 10(b), Schedule 2 of the Town and Country Planning (Environmental Impact Assessment) (Wales) Regulations 2017.

At this early stage, and based on the limited information provided, it is not envisaged the proposed development would be of a scale that would require Environmental Impact Assessment. However, a separate process exists to formally 'screen' proposals under the Regulations and the Applicant is advised to consider this process if / when any final scheme is conceived.

Community Infrastructure Levy (CIL) Liability and Planning Obligations

The Community Infrastructure Levy (CIL) was introduced in Rhondda Cynon Taf from 31 December 2014.

The scheme proposes development of a kind that is liable for a charge under the CIL Regulations 2010 (as amended). The site lies within Zone 3 of Rhondda Cynon Taf's Residential Charging Zones where there is a liability of £85/sqm (plus indexation) for residential development. However, social housing relief may be claimed on the social housing element of the development.

The scheme also proposes Class A1 retail development over 100sqm floor space, where there is a liability of £100/sqm (plus indexation).

Any other obligations would be expected to comply with the prescriptions set out in the Planning Obligations and Employment Skills SPGs.

Pre-Application Consultation and Supporting Information

The Applicant is advised that any future planning application for the proposed development would be classified as 'major development' and would consequently require the formal Pre-Application Consultation process to be undertaken prior to submission.

With regard any supporting information, at this stage it is considered the supporting information set out on page 8 of the pre-application submission would be sufficient to support any future application. However, further information may be required once formal consultation is undertaken at full application stage.

Please note: It would be helpful to ensure that any supporting information does not contain signatures or personal, non-business related contact details. Such details must be redacted by the LPA before publishing and this process will result in a delay of validation.

Summary

Despite deviation from the prescriptions of the allocation, the development of much of the site for residential use could be considered acceptable in principle, subject to compliance with the relevant material planning considerations. However, development of the area of the site east of the access off the A473 would not be supported and the Applicant is advised to remove this area from any future scheme, other than for use as biodiversity mitigation / public open space.

Required Supporting Documentation

We would encourage you to submit your application electronically via Welsh Government's online portal.

It is also recommended to applicants that detailed information is submitted at application stage to ensure that, in the event of planning permission being granted, 'pre-commencement' conditions can be minimised. You are therefore encouraged to ensure that your initial submission incorporates as much information as possible (for example materials, boundary treatments, ecology mitigation, drainage details, Construction Management Plan, Travel Plan, etc.), and addresses all matters raised in the advice given above.

Detailed guidance on the use of the national standard application form for planning permission and other associated consenting regime; and the information which must accompany a planning application so that the Local Planning Authority can determine the validity of the application, can be found as follows:

"Guidance on the use of the standard application form ('1app') and validation of applications":
http://gov.wales/topics/planning/policy/guidanceandleaflets/1appguidance/?lang=en

The Town and Country Planning (Development Procedure) (Wales) Order 2012:
http://www.legislation.gov.uk/wsi/2012/801/contents/made

How we will deal with your planning application

Once your application has been received it will be allocated a reference number and case officer. We will check the application to make sure it complies with the statutory requirements and we will contact you by phone or email to advise you of any discrepancies. We will also work with you to address any outstanding concerns, including amendments required to make your proposal acceptable.

Once we are happy with the validity of your application, we will formally consult neighbours and relevant consultees. Provided there are no significant matters of concern resulting from such consultations, we will seek to determine your application as swiftly as possible after the expiry of the statutory publicity period, and aim to do so within the 8 week statutory period.

While officers endeavour to ensure you are aware of the progress of your application, we would encourage you to contact the case officer or our Planning Process team to discuss any matters further.

Building Control

The Planning and Building Control teams work closely to assist developers in improving the quality of their development and ensuring compliance with all appropriate conditions and regulations. In particular, Building Control provides a competitive and highly professional service and seeks to actively engage with developers at the earliest stage of their project. You are therefore encouraged to contact the Building Control team on (01443) 281156 or by emailing buildingcontrol@rctcbc.gov.uk.

Request for further advice

Following receipt of this initial advice, should you wish to discuss your scheme prior to a formal submission, please contact the case officer on the direct number or email given above. Further charges may apply.

Yr eiddoch yn gywir / Yours sincerely,

Matthew Farley
Team Leader Planning Applications

Please Note: The advice given in this response represents an informal opinion provided in accordance with the Council's Planning Pre-Application Service. It is emphasised that while this pre-application advice will be carefully considered in reaching a decision or recommendation on any future planning application, the final decision on any future planning application can only be taken after consultation has been undertaken with members of the public, statutory consultees, and any other interested party. It does not therefore prejudice any decision which the LPA may make should any future planning application be submitted.

Appendix B – Illustrative Masterplan

1 **Illustrative Masterplan**
1 : 1250

P01 S0 28/01/26 SS ISSUED FOR PAC
Rev. Status Date Check Description

HolderMathias architects

T +44 (0) 20 7287 0735
www.holdermathias.com
London Cardiff Munich

Project
Land off A473
Talbot Green
Talbot Green Developments Ltd

Title
Illustrative Masterplan

Job No	Scale at A1	Classification	Status	Revision
4599	1 : 1250	PM_40_40_34	S0	P01

Project Code - Originator - Functional Breakdown - Spatial Breakdown - Form - Discipline - Number
TLBG-HMA-ZZ-00-D-A-00020

N

10 0 10 20 30 40 50
SCALE 1:1250 m

Appendix C – Site Access Arrangements

NOTES:

1. DO NOT SCALE FROM THIS DRAWING, WORK TO FIGURED DIMENSIONS ONLY.
2. DIMENSIONS ARE IN METRES UNLESS STATED OTHERWISE.
3. DRAWING IS BASED ON A COMBINATION OF OS MAPPING AND TOPOGRAPHICAL SURVEY PROVIDED BY OTHERS AND PELL FRISCHMANN ARE NOT LIABLE FOR ANY INACCURACIES.

KEY:

- SITE RED LINE BOUNDARY
- HIGHWAY BOUNDARY
- PROPOSED KERBS
- PROPOSED ROAD MARKINGS
- 2.4m x 43m JUNCTION VISIBILITY SPLAY FOR 30mph SPEED LIMIT BASED ON MfS2

REV	DESCRIPTION	DRN	CHK	APP	DATE
P01	FIRST ISSUE	PW	LC	LC	01.12.25

Pell Frischmann

BURRATOR HOUSE, PENINSULA PARK, RYDON LANE, EXETER EX2 7NT
Telephone +44 (0)1392 444 345
Email: pfexeter@pellfrischmann.com

Client

TALBOT GREEN DEVELOPMENTS LTD

Project

TALBOT GREEN TOWN CENTRE

Drawing Title

PROPOSED SITE ACCESS ARRANGEMENTS

	Name	Date
Drawn	PW	DEC 25
Designed	PW	DEC 25
Checked	LC	DEC 25
Approved	LC	DEC 25

Scale: 1:500 @ A1

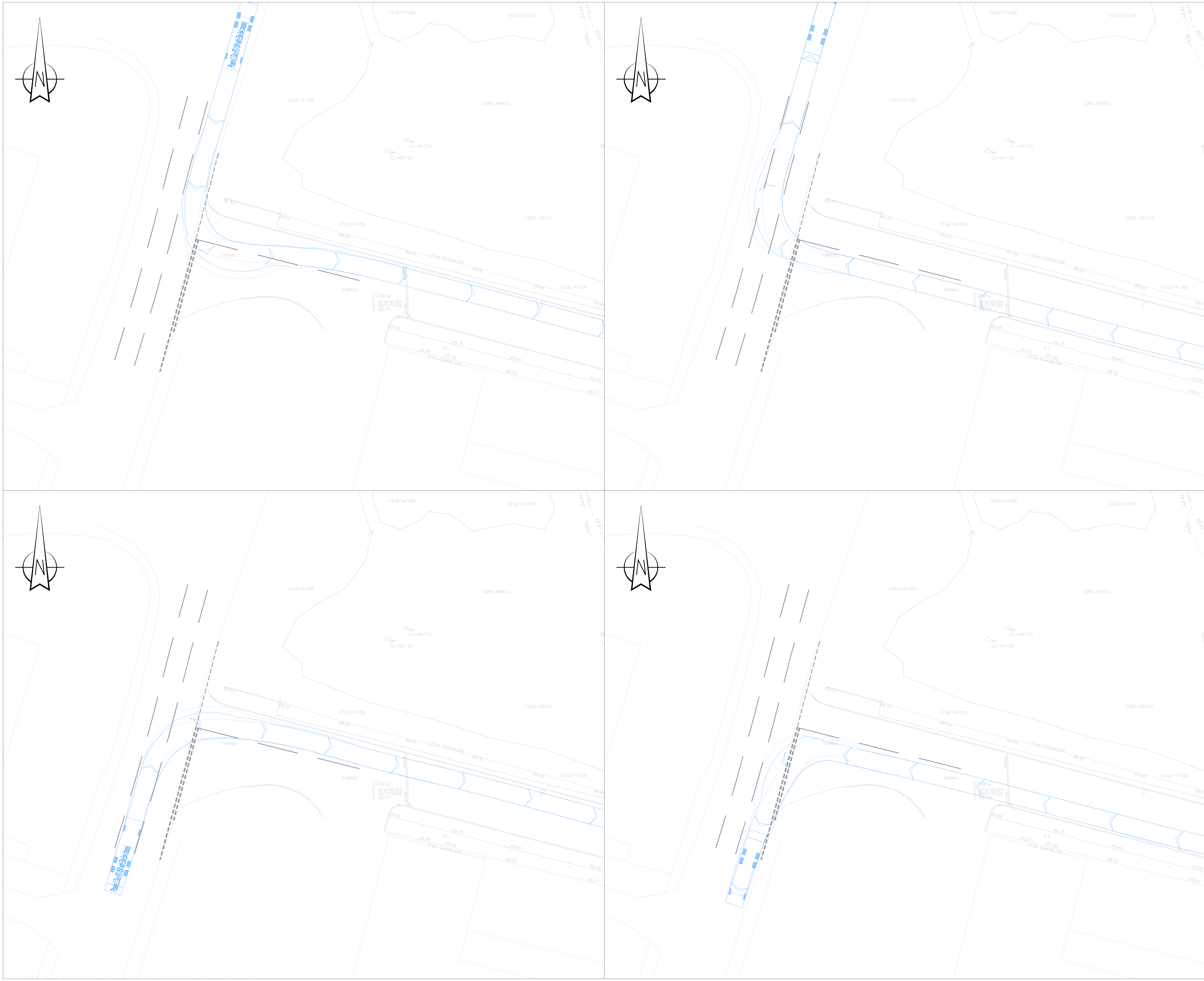
Status Code: S2

Drawing Status: FOR INFORMATION

Project No.: 110516-PEF-XX-XX-DR-C-000101

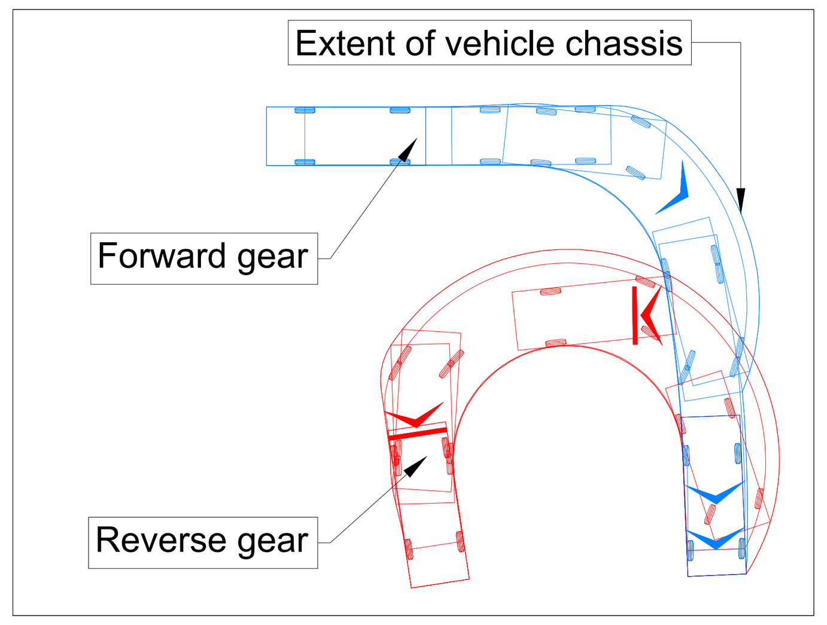
Revision: P01

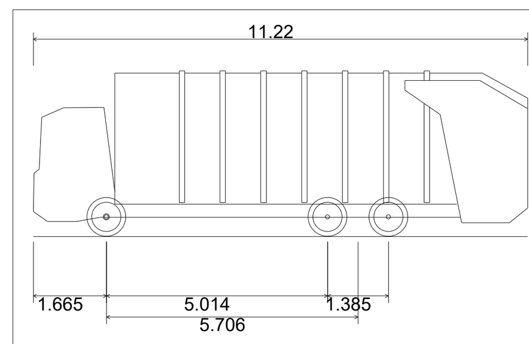
Appendix D – Swept Path Analysis



NOTES:

1. DO NOT SCALE FROM THIS DRAWING, WORK TO FIGURED DIMENSIONS ONLY.
2. DIMENSIONS ARE IN METRES UNLESS STATED OTHERWISE.
3. DRAWING IS BASED ON A COMBINATION OF OS MAPPING AND TOPOGRAPHICAL SURVEY PROVIDED BY OTHERS AND PELL FRISCHMANN ARE NOT LIABLE FOR ANY INACCURACIES.





Phoenix 2 Duo Recycler (P2-15W with Elite 6x4 chassis)

Overall Length	11.220m
Overall Width	2.530m
Overall Body Height	3.756m
Min Body Ground Clearance	0.309m
Track Width	2.530m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	11.550m

REV	DESCRIPTION	DRN	CHK	APP	DATE
P01	FIRST ISSUE	PW	LC	LC	01.12.25

Pell Frischmann

BURRATOR HOUSE, PENINSULA PARK, RYDON LANE, EXETER EX2 7NT
Telephone +44 (0)1392 444 345
Email: pfexeter@pellfrischmann.com

Client

TALBOT GREEN DEVELOPMENTS LTD

Project

TALBOT GREEN TOWN CENTRE

Drawing Title

SWEPT PATH ANALYSIS
REFUSE VEHICLE
EXISTING ACCESS

	Name	Date
Drawn	PW	DEC 25
Designed	PW	DEC 25
Checked	LC	DEC 25
Approved	LC	DEC 25

Scale: 1:500 @ A1

Status Code: S2

Drawing Status: FOR INFORMATION

Project No.: 110516-PEF-XX-XX-DR-C-000102

Revision: P01

NOTES:

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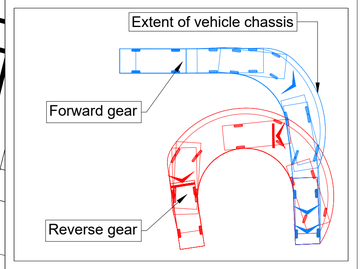
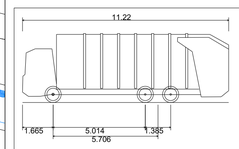
KEY:

- SITE RED LINE BOUNDARY
- PROPOSED KERBS
- PROPOSED ROAD MARKINGS





Phoenix 2 Duo Recycler (P2-15W with Elite 6x4 chassis)

Overall Length	11.220m
Overall Width	2.530m
Overall Body Height	3.756m
Min Body Ground Clearance	0.309m
Track Width	2.530m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	11.550m

REV	DESCRIPTION	DRN	CHK	APP	DATE
P01	FIRST ISSUE	PW	LC	LC	01.12.25

Pell Frischmann

BURRATOR HOUSE, PENINSULA PARK, RYDON LANE, EXETER EX2 7NT
Telephone +44 (0)1392 444 345
Email: pfexeter@pellfrischmann.com

Client

TALBOT GREEN DEVELOPMENTS LTD

Project

TALBOT GREEN TOWN CENTRE

Drawing Title

SWEPT PATH ANALYSIS
REFUSE VEHICLE
PROPOSED ACCESS

	Name	Date
Drawn	PW	DEC 25
Designed	PW	DEC 25
Checked	LC	DEC 25
Approved	LC	DEC 25

Scale: 1:500 @ A1

Status Code: S2

Drawing Status: FOR INFORMATION

Project No.: 110516-PEF-XX-XX-DR-C-000103

Revision: P01

J:\110516_LDEV_Talbot Green Town Centre\01 - WIP\Design\50 Drawings\51 CAD\110516-PEF-XX-XX-DR-C-000103.dwg Plotted on 01/12/25 at 14:45 by PWeatherhead

NOTES:

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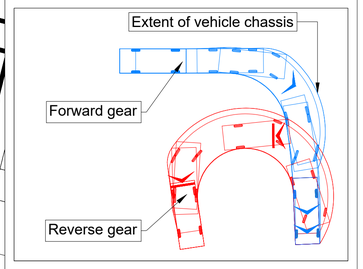
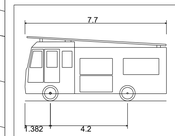
KEY:

- SITE RED LINE BOUNDARY
- PROPOSED KERBS
- PROPOSED ROAD MARKINGS





Dennis Sabre Fire Tender (LWB)	
Overall Length	7.700m
Overall Width	2.430m
Overall Body Height	3.512m
Min Body Ground Clearance	0.397m
Track Width	2.380m
Lock to lock time	5.00s
Kerb to Kerb Turning Radius	7.400m

REV	DESCRIPTION	DRN	CHK	APP	DATE
P01	FIRST ISSUE	PW	LC	LC	01.12.25

Pell Frischmann

BURRATOR HOUSE, PENINSULA PARK, RYDON LANE, EXETER EX2 7NT
Telephone +44 (0)1392 444 345
Email: pfexeter@pellfrischmann.com

Client

TALBOT GREEN DEVELOPMENTS LTD

Project

TALBOT GREEN TOWN CENTRE

Drawing Title

SWEPT PATH ANALYSIS
FIRE TENDER
PROPOSED ACCESS

	Name	Date
Drawn	PW	DEC25
Designed	PW	DEC 25
Checked	LC	DEC 25
Approved	LC	DEC 25

Scale: 1:250 @ A1

Status Code: S2

Drawing Status: FOR INFORMATION

Project No.: 110516-PEF-XX-XX-DR-C-000104

Revision: P01

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NOTES:

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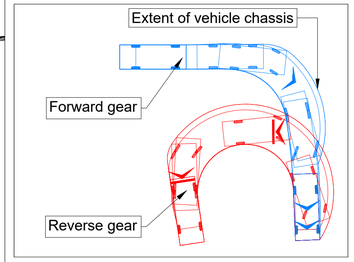
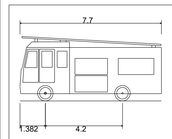
KEY:

- SITE RED LINE BOUNDARY
- PROPOSED KERBS
- PROPOSED ROAD MARKINGS





Dennis Sabre Fire Tender (LWB)	
Overall Length	7.700m
Overall Width	2.430m
Overall Body Height	3.512m
Min Body Ground Clearance	0.397m
Track Width	2.380m
Lock to lock time	5.00s
Kerb to Kerb Turning Radius	7.400m

REV	DESCRIPTION	DRN	CHK	APP	DATE
P01	FIRST ISSUE	PW	LC	LC	01.12.25

Pell Frischmann

BURRATOR HOUSE, PENINSULA PARK, RYDON LANE, EXETER EX2 7NT
Telephone +44 (0)1392 444 345
Email: pfexeter@pellfrischmann.com

Client

TALBOT GREEN DEVELOPMENTS LTD

Project

TALBOT GREEN TOWN CENTRE

Drawing Title

SWEPT PATH ANALYSIS
FIRE TENDER
PROPOSED EMERGENCY ACCESS

	Name	Date
Drawn	PW	DEC 25
Designed	PW	DEC 25
Checked	LC	DEC 25
Approved	LC	DEC 25

Scale: 1:250 @ A1

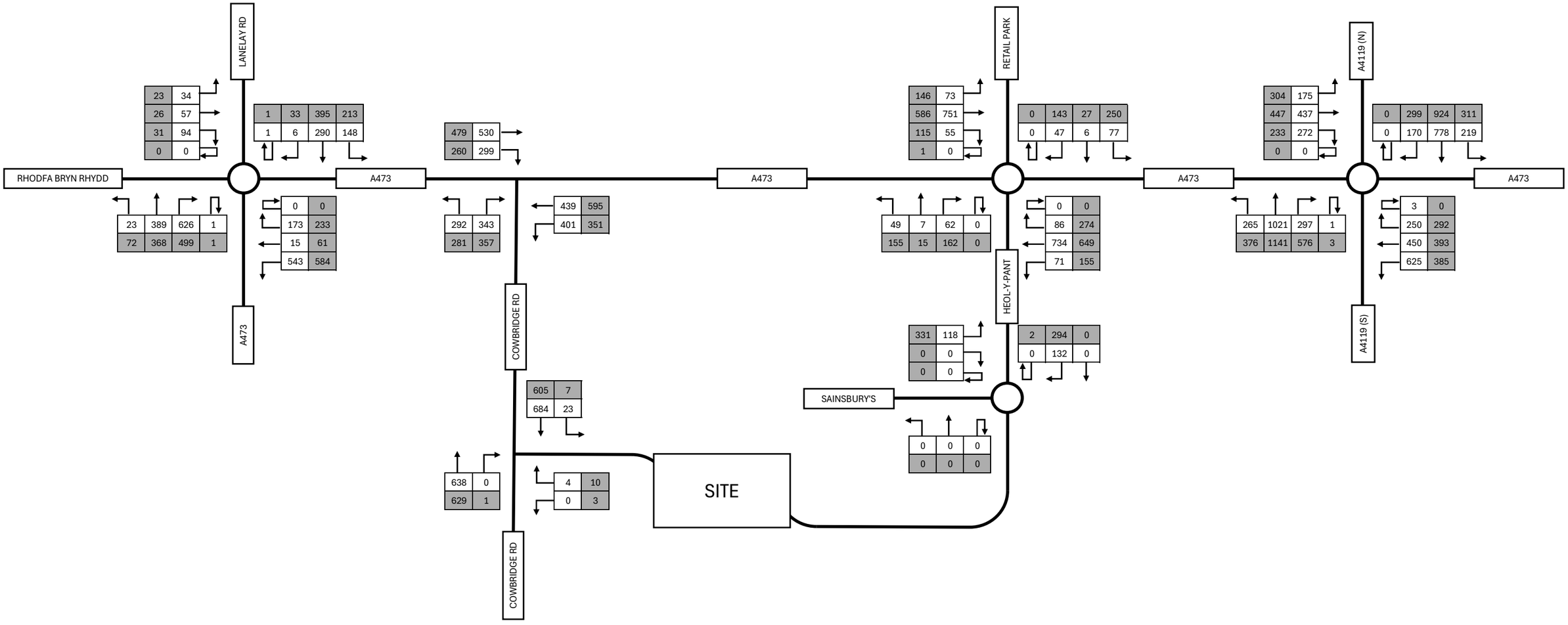
Status Code: S2

Drawing Status: FOR INFORMATION

Project No.: 110516-PEF-XX-XX-DR-C-000105

Revision: P01

Appendix E – Network Flow Diagrams



KEY

500 = AM PCUs

500 = PM PCUs

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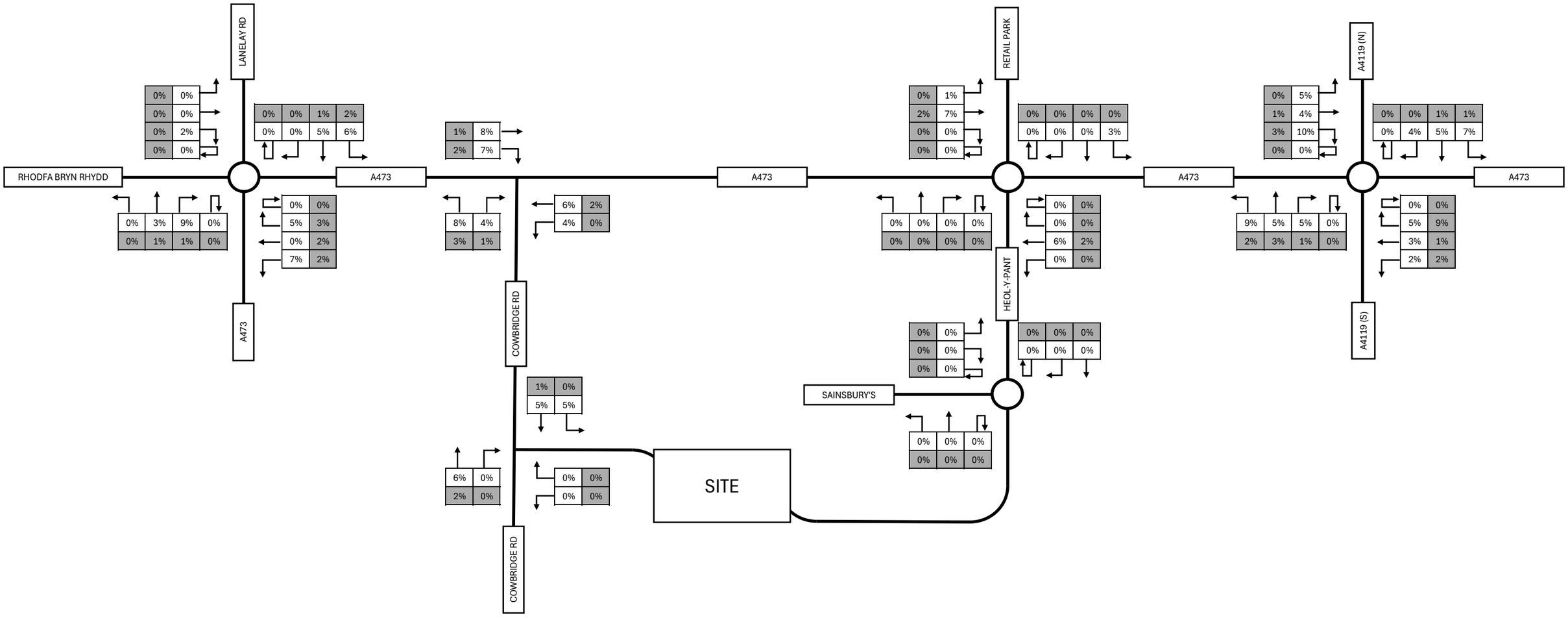
TALBOT GREEN TOWN CENTRE

FIGURE 6.1

2025 SURVEY FLOWS



KEY

5% = AM HGV%

5% = PM HGV%

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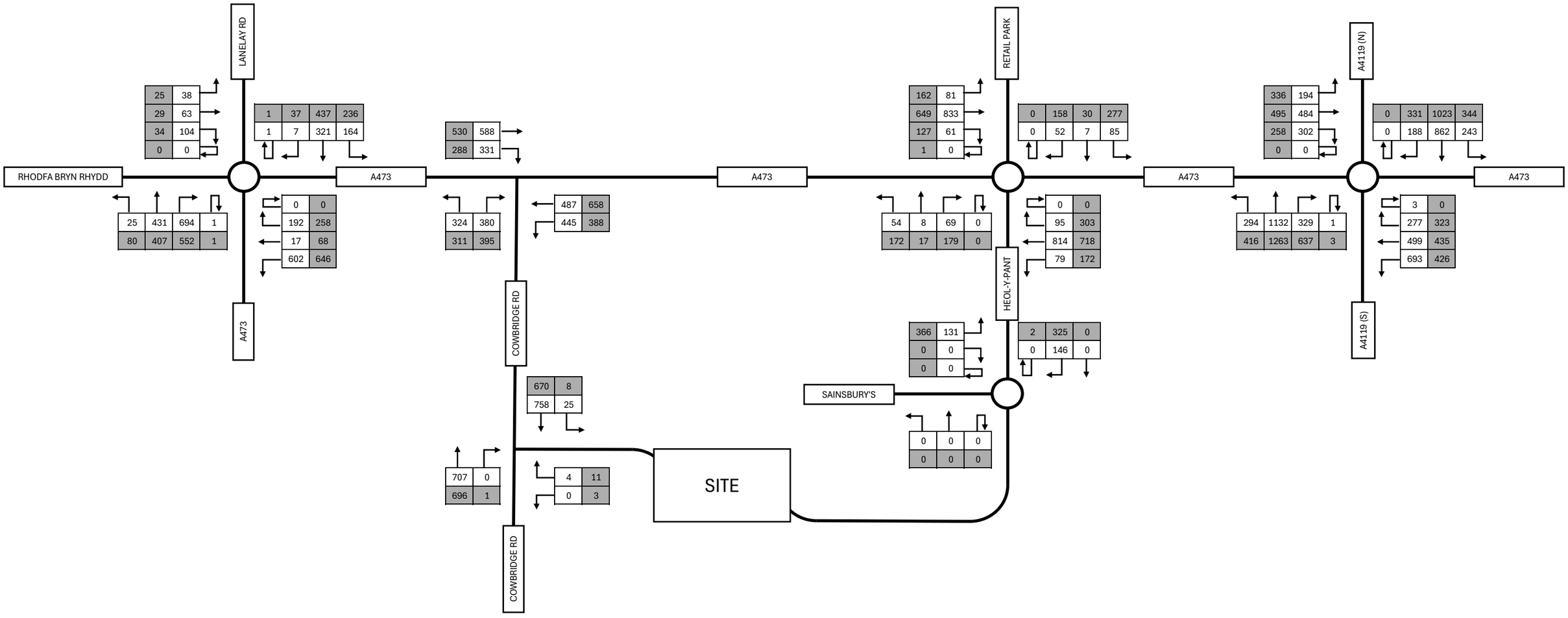
TALBOT GREEN TOWN CENTRE	
FIGURE 6.2	
2025 SURVEY HGV%	



KEY

500	=	AM PCUs
500	=	PM PCUs

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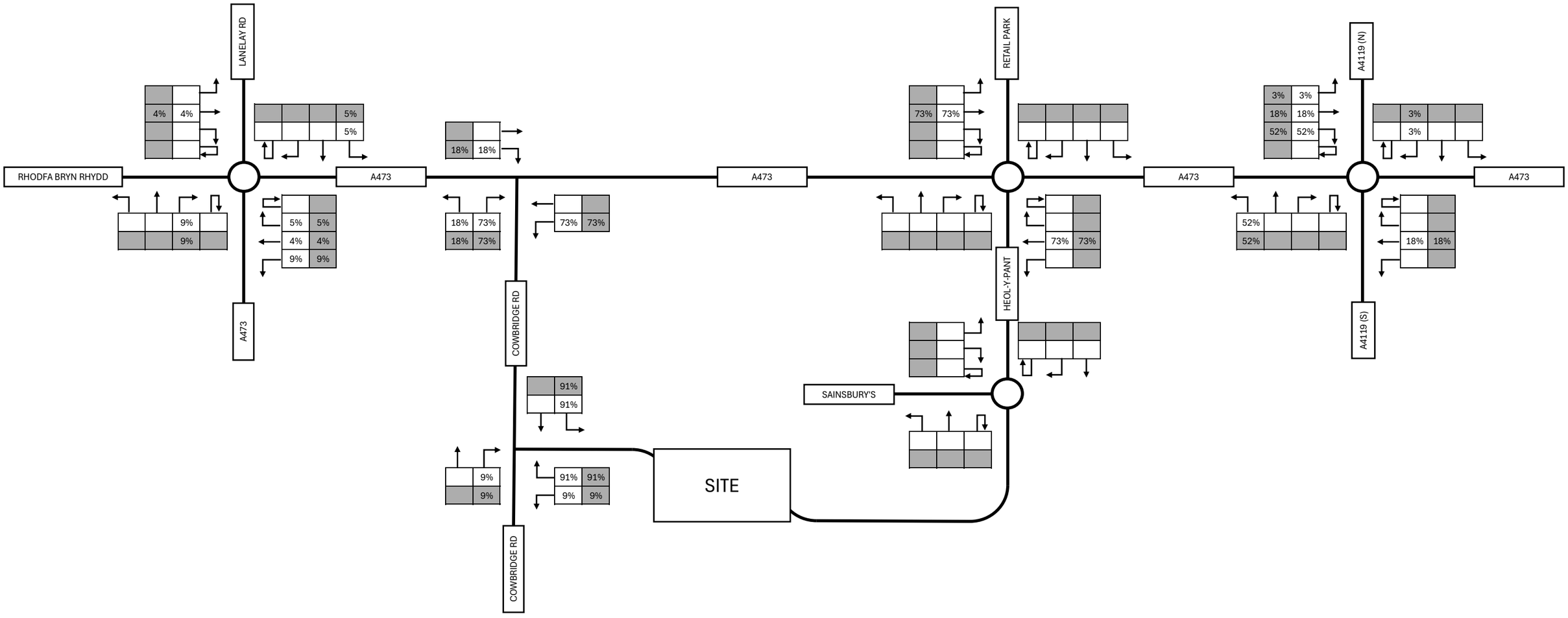
TALBOT GREEN TOWN CENTRE

FIGURE 6.3

2035 BASE TRAFFIC FLOWS



KEY

5%	=	AM
5%	=	PM

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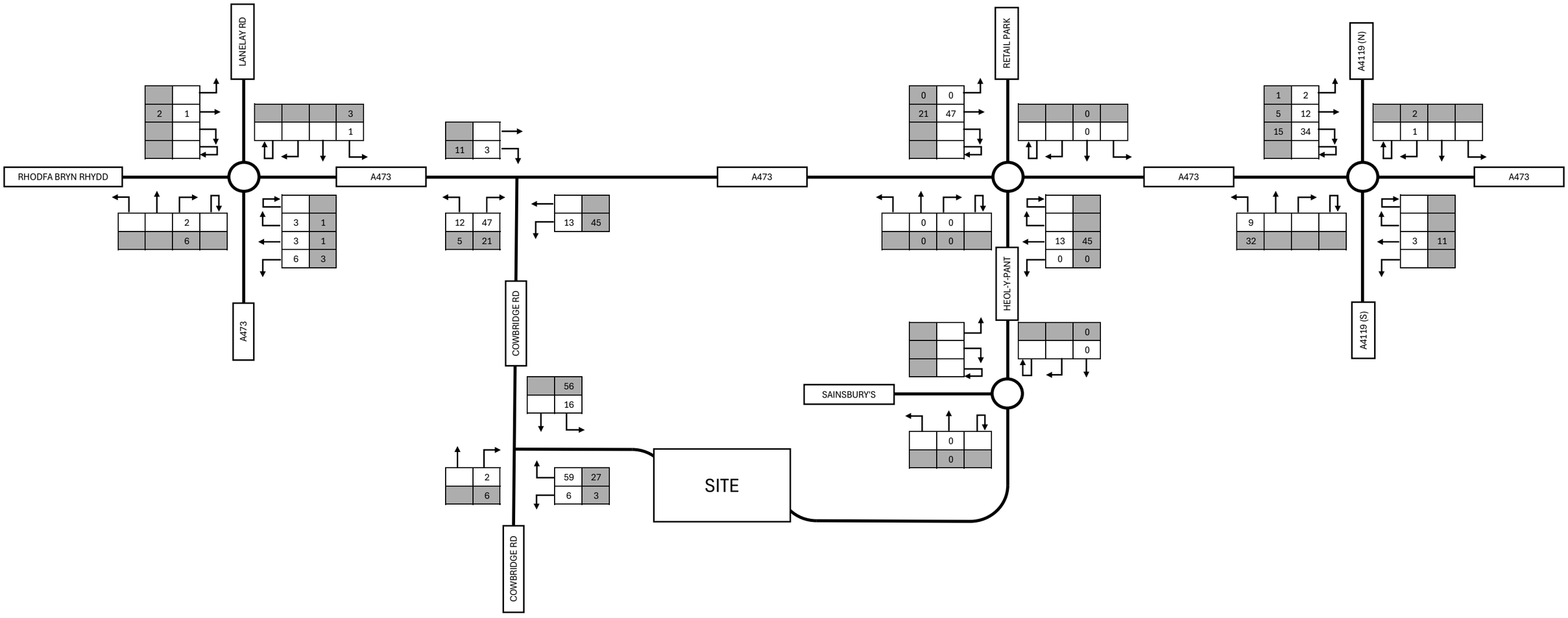
TALBOT GREEN TOWN CENTRE	
FIGURE 6.4	
PROPOSED DEVELOPMENT TRAFFIC DISTRIBUTION	



KEY

500	=	AM PCUs
500	=	PM PCUs

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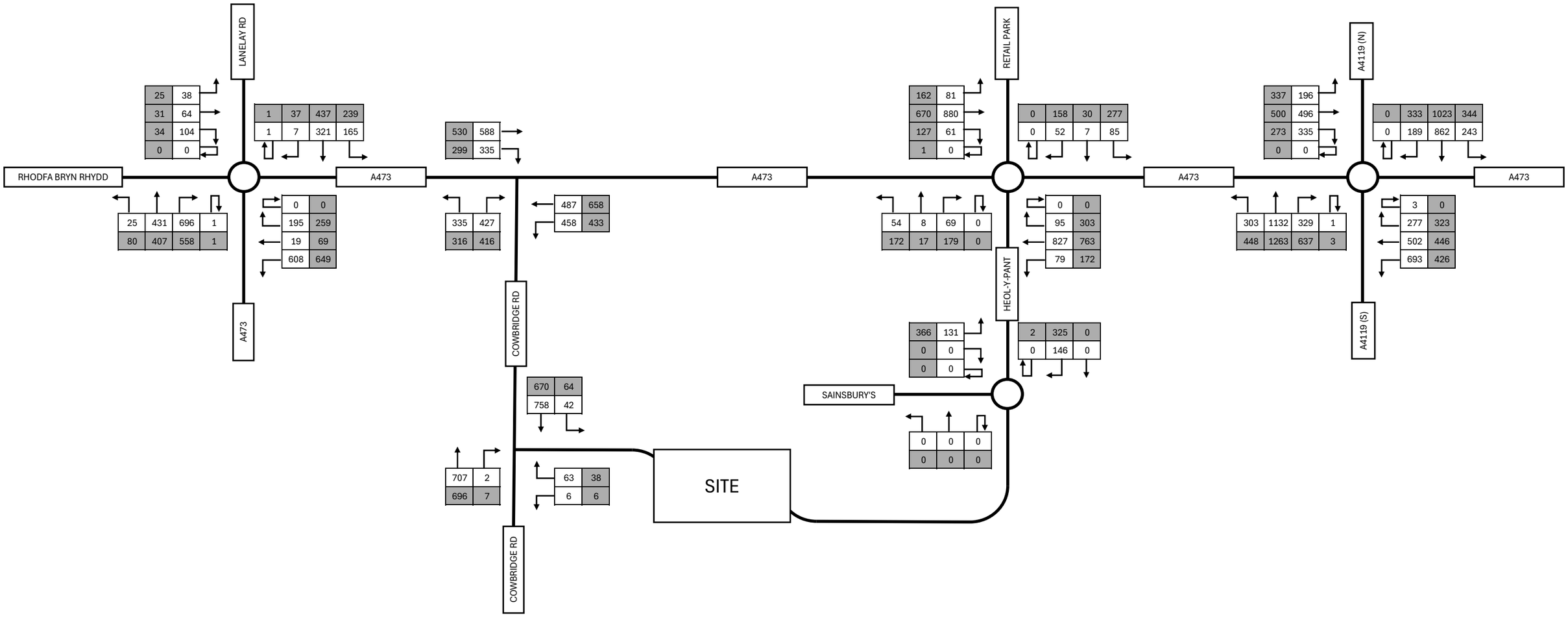
TALBOT GREEN TOWN CENTRE

FIGURE 6.5

PROPOSED DEVELOPMENT TRAFFIC FLOWS



KEY

500	=	AM PCUs
500	=	PM PCUs

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Exeter EX2 7NT
Tel: 01392 444 345
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TALBOT GREEN TOWN CENTRE

FIGURE 6.6

2035 BASE WITH PROPOSED DEVELOPMENT TRAFFIC FLOWS

Appendix F – TRICS Data

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use: 03 - RESIDENTIAL

Category: A - HOUSES PRIVATELY OWNED

Total Vehicles

Selected regions and areas:

02	**SOUTH EAST**		
	ES	EAST SUSSEX	1 day
	HC	HAMPSHIRE	1 day
	HF	HERTFORDSHIRE	1 day
	KC	KENT	1 day
04	**EAST ANGLIA**		
	NF	NORFOLK	1 day
	SF	SUFFOLK	1 day
06	**WEST MIDLANDS**		
	WM	WEST MIDLANDS	1 day
09	**NORTH**		
	DH	DURHAM	1 day
	FU	WESTMORLAND & FURNESS	1 day

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:	DWELLS
Actual Range:	0.9 to 6.66 (units:DWELLS)
Range Selected by User:	50 to 300 (units:DWELLS)
Parking Spaces Range:	6 - 2604

Public Transport Provision:

Selection by:	All Surveys Included
Date Range:	01/01/16 to 17/09/24

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:

Friday	1 days
Monday	2 days
Thursday	2 days
Tuesday	4 days

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

Selected survey types:

Manual count	9
Direction ATC Count	0

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

Selected Locations:

Edge of Town Centre	3 days
Suburban Area (PPS6 Out of Centre)	6 days

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:

No Sub Category	1 days
Residential Zone	8 days

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

Inclusion of Servicing Vehicle Counts:

Servicing vehicles Excluded	6 days
Servicing vehicles Included	3 days

Secondary Filtering Selection:

Use Class:

C3	9 surveys

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

Population within 500m Range:

733 - 6900

Population within 1 mile:

10,001 to 15,000	2 surveys
15,001 to 20,000	3 surveys
25,001 to 50,000	2 surveys
5,001 to 10,000	2 surveys

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

Population within 5 miles:

125,001 to 250,000	2 surveys
25,001 to 50,000	1 surveys
250,001 to 500,000	1 surveys
5,001 to 25,000	1 surveys
50,001 to 75,000	1 surveys
75,001 to 100,000	3 surveys

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

Car ownership within 5 miles:

0.6 to 1.0	3 surveys
1.1 to 1.5	6 surveys

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.

Petrol filling station:

This data displays the number of surveys within the selected set that include petrol filling station activity, and the number of surveys that do not.

Travel Plan:

No	5 surveys
Yes	4 surveys

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	9 surveys

This data displays the number of surveys within the selected set that include petrol filling station activity, and the number of surveys that do not.

COVID-19 Restrictions:

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

This data displays the number of surveys within the selected set that include petrol filling station activity, and the number of surveys that do not.

1	**DH-03-A-01**	**SEMI DETACHED**	**DURHAM**

GREENFIELDS ROAD
BISHOP AUCKLAND
Suburban Area (PPS6 Out of Centre)
Residential Zone
Site area: 0.9 hect
Survey date: Tuesday 28/03/2017 Survey Type: Manual

2	**ES-03-A-17**	**MIXED HOUSES & FLATS**	**EAST SUSSEX**

RAILWAY ROAD
NEWHAVEN
Edge of Town Centre
No Sub Category
Site area: 2.83 hect
Survey date: Friday 28/06/2024 Survey Type: Manual

3	**FU-03-A-02**	**DETACHED/TERRACED HOUSING**	**WESTMORLAND & FURNESS**

MACADAM WAY
PENRITH
Edge of Town Centre
Residential Zone
Site area: 1.51 hect
Survey date: Tuesday 21/06/2016 Survey Type: Manual

4	**HC-03-A-23**	**HOUSES & FLATS**	**HAMPSHIRE**

CANADA WAY
LIPHOOK
Suburban Area (PPS6 Out of Centre)
Residential Zone
Site area: 1.4 hect
Survey date: Tuesday 19/11/2019 Survey Type: Manual

5	**HF-03-A-07**	**MIXED HOUSES & BUNGALOWS**	**HERTFORDSHIRE**

BAKER STREET
POTTERS BAR
Suburban Area (PPS6 Out of Centre)
Residential Zone
Site area: 6.32 hect
Survey date: Monday 25/03/2024 Survey Type: Manual

6	**KC-03-A-03**	**MIXED HOUSES & FLATS**	**KENT**

HYTHE ROAD
ASHFORD
WILLESBOROUGH
Suburban Area (PPS6 Out of Centre)
Residential Zone
Site area: 1.38 hect
Survey date: Thursday 14/07/2016 Survey Type: Manual

7	**NF-03-A-52**	**MIXED HOUSES**	**NORFOLK**

LYNNSPORT WAY
KING'S LYNN
Suburban Area (PPS6 Out of Centre)
Residential Zone
Site area: 5.31 hect
Survey date: Tuesday 07/11/2023 Survey Type: Manual

8	**SF-03-A-09**	**MIXED HOUSES & FLATS**	**SUFFOLK**

FOXHALL ROAD
IPSWICH
Suburban Area (PPS6 Out of Centre)
Residential Zone

Site area: 6.66 hect
Survey date: Thursday 24/06/2021 Survey Type: Manual

9 **WM-03-A-05** **TERRACED & DETACHED** **WEST MIDLANDS**
COUNDON ROAD
COVENTRY
Edge of Town Centre
Residential Zone
Site area: 2 hect
Survey date: Monday 21/11/2016 Survey Type: Manual

DESELECTED SURVEYS

Site Ref	Survey Date	Reason for Deselection
AN-03-A-10	07-06-2024	Not representative
ES-03-A-16	14-03-2023	Removed: Site re-surveyed by ES-03-A-17
HC-03-A-18	29-11-2016	Removed: Site re-surveyed by HC-03-A-19
HC-03-A-19	27-11-2017	Removed: Site re-surveyed by HC-03-A-20
HC-03-A-20	20-11-2018	Removed: Site re-surveyed by HC-03-A-23
IM-03-A-04	20-05-2024	Not representative
MG-03-A-02	12-10-2021	Not representative
SF-03-A-07	09-05-2019	Removed: Site re-surveyed by SF-03-A-09
SU-03-A-01	13-06-2024	Not representative

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

Total Vehicles

Calculation factor: 1 DWELLS

**BOLD print indicates peak (busiest) period*

Time Range	No. Days	Ave. DWELLS	Arrivals	Departures	Totals
00:00-01:00					
01:00-02:00					
02:00-03:00					
03:00-04:00					
04:00-05:00					
05:00-06:00					
06:00-07:00					
07:00-08:00	**9**	**94**	**0.064**	**0.265**	**0.329**
08:00-09:00	**9**	**94**	**0.099**	**0.358**	**0.457**
09:00-10:00	**9**	**94**	**0.143**	**0.167**	**0.310**
10:00-11:00	**9**	**94**	**0.125**	**0.154**	**0.279**
11:00-12:00	**9**	**94**	**0.137**	**0.116**	**0.253**
12:00-13:00	**9**	**94**	**0.130**	**0.152**	**0.282**
13:00-14:00	**9**	**94**	**0.166**	**0.160**	**0.326**
14:00-15:00	**9**	**94**	**0.123**	**0.172**	**0.295**
15:00-16:00	**9**	**94**	**0.221**	**0.160**	**0.381**
16:00-17:00	**9**	**94**	**0.275**	**0.132**	**0.407**
17:00-18:00	**9**	**94**	**0.341**	**0.162**	**0.503**
18:00-19:00	**9**	**94**	**0.245**	**0.120**	**0.365**
19:00-20:00					
20:00-21:00					
21:00-22:00					
22:00-23:00					
23:00-00:00					
Total Rates:			**2.069**	**2.118**	**4.187**

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

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

Parameter Summary:

Trip rate parameter range selected:	50 - 300 (units: DWELLS)
Survey date date range:	21/06/2016 - 28/06/2024
Number of weekdays (Monday-Friday):	9
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	9
Surveys manually removed from selection:	0

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

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

Total People

Calculation factor: 1 DWELLS

**BOLD print indicates peak (busiest) period*

Time Range	No. Days	Ave. DWELLS	Arrivals	Departures	Totals
00:00-01:00					
01:00-02:00					
02:00-03:00					
03:00-04:00					
04:00-05:00					
05:00-06:00					
06:00-07:00					
07:00-08:00	**9**	**94**	**0.096**	**0.476**	**0.572**
08:00-09:00	**9**	**94**	**0.182**	**0.864**	**1.046**
09:00-10:00	**9**	**94**	**0.246**	**0.301**	**0.547**
10:00-11:00	**9**	**94**	**0.215**	**0.285**	**0.500**
11:00-12:00	**9**	**94**	**0.244**	**0.211**	**0.455**
12:00-13:00	**9**	**94**	**0.244**	**0.265**	**0.509**
13:00-14:00	**9**	**94**	**0.305**	**0.270**	**0.575**
14:00-15:00	**9**	**94**	**0.246**	**0.327**	**0.573**
15:00-16:00	**9**	**94**	**0.617**	**0.311**	**0.928**
16:00-17:00	**9**	**94**	**0.593**	**0.267**	**0.860**
17:00-18:00	**9**	**94**	**0.613**	**0.292**	**0.905**
18:00-19:00	**9**	**94**	**0.428**	**0.209**	**0.637**
19:00-20:00					
20:00-21:00					
21:00-22:00					
22:00-23:00					
23:00-00:00					
Total Rates:			**4.029**	**4.078**	**8.107**

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

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

Parameter Summary:

Trip rate parameter range selected:	50 - 300 (units: DWELLS)
Survey date date range:	21/06/2016 - 28/06/2024
Number of weekdays (Monday-Friday):	9
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	9
Surveys manually removed from selection:	0

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

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

Cyclists

Calculation factor: 1 DWELLS

**BOLD print indicates peak (busiest) period*

Time Range	No. Days	Ave. DWELLS	Arrivals	Departures	Totals
00:00-01:00					
01:00-02:00					
02:00-03:00					
03:00-04:00					
04:00-05:00					
05:00-06:00					
06:00-07:00					
07:00-08:00	**9**	**94**	**0.002**	**0.017**	**0.019**
08:00-09:00	**9**	**94**	**0.011**	**0.042**	**0.053**
09:00-10:00	**9**	**94**	**0.008**	**0.007**	**0.015**
10:00-11:00	**9**	**94**	**0.007**	**0.009**	**0.016**
11:00-12:00	**9**	**94**	**0.012**	**0.004**	**0.016**
12:00-13:00	**9**	**94**	**0.006**	**0.007**	**0.013**
13:00-14:00	**9**	**94**	**0.009**	**0.002**	**0.011**
14:00-15:00	**9**	**94**	**0.007**	**0.018**	**0.025**
15:00-16:00	**9**	**94**	**0.044**	**0.022**	**0.066**
16:00-17:00	**9**	**94**	**0.042**	**0.022**	**0.064**
17:00-18:00	**9**	**94**	**0.017**	**0.018**	**0.035**
18:00-19:00	**9**	**94**	**0.009**	**0.009**	**0.018**
19:00-20:00					
20:00-21:00					
21:00-22:00					
22:00-23:00					
23:00-00:00					
Total Rates:			**0.174**	**0.177**	**0.351**

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

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

Parameter Summary:

Trip rate parameter range selected:	50 - 300 (units: DWELLS)
Survey date date range:	21/06/2016 - 28/06/2024
Number of weekdays (Monday-Friday):	8
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	9
Surveys manually removed from selection:	0

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

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

PSVs

Calculation factor: 1 DWELLS

**BOLD print indicates peak (busiest) period*

Time Range	No. Days	Ave. DWELLS	Arrivals	Departures	Totals
00:00-01:00					
01:00-02:00					
02:00-03:00					
03:00-04:00					
04:00-05:00					
05:00-06:00					
06:00-07:00					
07:00-08:00	**9**	**94**	**0.000**	**0.000**	**0.000**
08:00-09:00	**9**	**94**	**0.000**	**0.000**	**0.000**
09:00-10:00	**9**	**94**	**0.002**	**0.002**	**0.004**
10:00-11:00	**9**	**94**	**0.002**	**0.002**	**0.004**
11:00-12:00	**9**	**94**	**0.002**	**0.002**	**0.004**
12:00-13:00	**9**	**94**	**0.002**	**0.002**	**0.004**
13:00-14:00	**9**	**94**	**0.002**	**0.002**	**0.004**
14:00-15:00	**9**	**94**	**0.002**	**0.002**	**0.004**
15:00-16:00	**9**	**94**	**0.000**	**0.000**	**0.000**
16:00-17:00	**9**	**94**	**0.002**	**0.002**	**0.004**
17:00-18:00	**9**	**94**	**0.001**	**0.001**	**0.002**
18:00-19:00	**9**	**94**	**0.001**	**0.001**	**0.002**
19:00-20:00					
20:00-21:00					
21:00-22:00					
22:00-23:00					
23:00-00:00					
Total Rates:			**0.016**	**0.016**	**0.032**

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

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

Parameter Summary:

Trip rate parameter range selected:	50 - 300 (units: DWELLS)
Survey date date range:	21/11/2016 - 07/11/2023
Number of weekdays (Monday-Friday):	2
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	9
Surveys manually removed from selection:	0

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

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

OGVs

Calculation factor: 1 DWELLS

**BOLD print indicates peak (busiest) period*

Time Range	No. Days	Ave. DWELLS	Arrivals	Departures	Totals
00:00-01:00					
01:00-02:00					
02:00-03:00					
03:00-04:00					
04:00-05:00					
05:00-06:00					
06:00-07:00					
07:00-08:00	**9**	**94**	**0.001**	**0.001**	**0.002**
08:00-09:00	**9**	**94**	**0.002**	**0.001**	**0.003**
09:00-10:00	**9**	**94**	**0.005**	**0.004**	**0.009**
10:00-11:00	**9**	**94**	**0.001**	**0.004**	**0.005**
11:00-12:00	**9**	**94**	**0.002**	**0.000**	**0.002**
12:00-13:00	**9**	**94**	**0.000**	**0.001**	**0.001**
13:00-14:00	**9**	**94**	**0.001**	**0.000**	**0.001**
14:00-15:00	**9**	**94**	**0.002**	**0.002**	**0.004**
15:00-16:00	**9**	**94**	**0.001**	**0.002**	**0.003**
16:00-17:00	**9**	**94**	**0.000**	**0.001**	**0.001**
17:00-18:00	**9**	**94**	**0.000**	**0.000**	**0.000**
18:00-19:00	**9**	**94**	**0.000**	**0.000**	**0.000**
19:00-20:00					
20:00-21:00					
21:00-22:00					
22:00-23:00					
23:00-00:00					
Total Rates:			**0.015**	**0.016**	**0.031**

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

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

Parameter Summary:

Trip rate parameter range selected:	50 - 300 (units: DWELLS)
Survey date date range:	21/06/2016 - 28/06/2024
Number of weekdays (Monday-Friday):	8
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	9
Surveys manually removed from selection:	0

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

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

Taxis

Calculation factor: 1 DWELLS

**BOLD print indicates peak (busiest) period*

Time Range	No. Days	Ave. DWELLS	Arrivals	Departures	Totals
00:00-01:00					
01:00-02:00					
02:00-03:00					
03:00-04:00					
04:00-05:00					
05:00-06:00					
06:00-07:00					
07:00-08:00	**9**	**94**	**0.002**	**0.002**	**0.004**
08:00-09:00	**9**	**94**	**0.005**	**0.005**	**0.010**
09:00-10:00	**9**	**94**	**0.004**	**0.002**	**0.006**
10:00-11:00	**9**	**94**	**0.005**	**0.005**	**0.010**
11:00-12:00	**9**	**94**	**0.001**	**0.002**	**0.003**
12:00-13:00	**9**	**94**	**0.001**	**0.001**	**0.002**
13:00-14:00	**9**	**94**	**0.009**	**0.007**	**0.016**
14:00-15:00	**9**	**94**	**0.000**	**0.002**	**0.002**
15:00-16:00	**9**	**94**	**0.006**	**0.006**	**0.012**
16:00-17:00	**9**	**94**	**0.005**	**0.005**	**0.010**
17:00-18:00	**9**	**94**	**0.001**	**0.001**	**0.002**
18:00-19:00	**9**	**94**	**0.005**	**0.005**	**0.010**
19:00-20:00					
20:00-21:00					
21:00-22:00					
22:00-23:00					
23:00-00:00					
Total Rates:			**0.044**	**0.043**	**0.087**

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

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

Parameter Summary:

Trip rate parameter range selected:	50 - 300 (units: DWELLS)
Survey date date range:	21/06/2016 - 28/06/2024
Number of weekdays (Monday-Friday):	8
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	9
Surveys manually removed from selection:	0

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

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

Cars

Calculation factor: 1 DWELLS

**BOLD print indicates peak (busiest) period*

Time Range	No. Days	Ave. DWELLS	Arrivals	Departures	Totals
00:00-01:00					
01:00-02:00					
02:00-03:00					
03:00-04:00					
04:00-05:00					
05:00-06:00					
06:00-07:00					
07:00-08:00	**9**	**94**	**0.048**	**0.233**	**0.281**
08:00-09:00	**9**	**94**	**0.080**	**0.329**	**0.409**
09:00-10:00	**9**	**94**	**0.114**	**0.146**	**0.260**
10:00-11:00	**9**	**94**	**0.096**	**0.124**	**0.220**
11:00-12:00	**9**	**94**	**0.110**	**0.090**	**0.200**
12:00-13:00	**9**	**94**	**0.114**	**0.130**	**0.244**
13:00-14:00	**9**	**94**	**0.136**	**0.133**	**0.269**
14:00-15:00	**9**	**94**	**0.105**	**0.150**	**0.255**
15:00-16:00	**9**	**94**	**0.195**	**0.132**	**0.327**
16:00-17:00	**9**	**94**	**0.244**	**0.114**	**0.358**
17:00-18:00	**9**	**94**	**0.310**	**0.140**	**0.450**
18:00-19:00	**9**	**94**	**0.223**	**0.103**	**0.326**
19:00-20:00					
20:00-21:00					
21:00-22:00					
22:00-23:00					
23:00-00:00					
Total Rates:			**1.775**	**1.824**	**3.599**

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

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

Parameter Summary:

Trip rate parameter range selected:	50 - 300 (units: DWELLS)
Survey date date range:	21/06/2016 - 28/06/2024
Number of weekdays (Monday-Friday):	9
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	9
Surveys manually removed from selection:	0

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

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

LGVs

Calculation factor: 1 DWELLS

**BOLD print indicates peak (busiest) period*

Time Range	No. Days	Ave. DWELLS	Arrivals	Departures	Totals
00:00-01:00					
01:00-02:00					
02:00-03:00					
03:00-04:00					
04:00-05:00					
05:00-06:00					
06:00-07:00					
07:00-08:00	**9**	**94**	**0.012**	**0.027**	**0.039**
08:00-09:00	**9**	**94**	**0.012**	**0.022**	**0.034**
09:00-10:00	**9**	**94**	**0.014**	**0.011**	**0.025**
10:00-11:00	**9**	**94**	**0.021**	**0.018**	**0.039**
11:00-12:00	**9**	**94**	**0.019**	**0.020**	**0.039**
12:00-13:00	**9**	**94**	**0.012**	**0.017**	**0.029**
13:00-14:00	**9**	**94**	**0.015**	**0.015**	**0.030**
14:00-15:00	**9**	**94**	**0.012**	**0.014**	**0.026**
15:00-16:00	**9**	**94**	**0.018**	**0.017**	**0.035**
16:00-17:00	**9**	**94**	**0.019**	**0.007**	**0.026**
17:00-18:00	**9**	**94**	**0.027**	**0.018**	**0.045**
18:00-19:00	**9**	**94**	**0.014**	**0.009**	**0.023**
19:00-20:00					
20:00-21:00					
21:00-22:00					
22:00-23:00					
23:00-00:00					
Total Rates:			**0.195**	**0.195**	**0.390**

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

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

Parameter Summary:

Trip rate parameter range selected:	50 - 300 (units: DWELLS)
Survey date date range:	21/06/2016 - 28/06/2024
Number of weekdays (Monday-Friday):	9
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	9
Surveys manually removed from selection:	0

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

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

Motorcycles

Calculation factor: 1 DWELLS

**BOLD print indicates peak (busiest) period*

Time Range	No. Days	Ave. DWELLS	Arrivals	Departures	Totals
00:00-01:00					
01:00-02:00					
02:00-03:00					
03:00-04:00					
04:00-05:00					
05:00-06:00					
06:00-07:00					
07:00-08:00	**9**	**94**	**0.000**	**0.001**	**0.001**
08:00-09:00	**9**	**94**	**0.000**	**0.001**	**0.001**
09:00-10:00	**9**	**94**	**0.004**	**0.002**	**0.006**
10:00-11:00	**9**	**94**	**0.000**	**0.002**	**0.002**
11:00-12:00	**9**	**94**	**0.002**	**0.001**	**0.003**
12:00-13:00	**9**	**94**	**0.000**	**0.001**	**0.001**
13:00-14:00	**9**	**94**	**0.002**	**0.002**	**0.004**
14:00-15:00	**9**	**94**	**0.001**	**0.001**	**0.002**
15:00-16:00	**9**	**94**	**0.001**	**0.004**	**0.005**
16:00-17:00	**9**	**94**	**0.005**	**0.002**	**0.007**
17:00-18:00	**9**	**94**	**0.001**	**0.001**	**0.002**
18:00-19:00	**9**	**94**	**0.002**	**0.002**	**0.004**
19:00-20:00					
20:00-21:00					
21:00-22:00					
22:00-23:00					
23:00-00:00					
Total Rates:			**0.018**	**0.020**	**0.038**

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

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

Parameter Summary:

Trip rate parameter range selected:	50 - 300 (units: DWELLS)
Survey date date range:	21/06/2016 - 28/06/2024
Number of weekdays (Monday-Friday):	8
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	9
Surveys manually removed from selection:	0

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

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

Vehicle Occupants

Calculation factor: 1 DWELLS

**BOLD print indicates peak (busiest) period*

Time Range	No. Days	Ave. DWELLS	Arrivals	Departures	Totals
00:00-01:00					
01:00-02:00					
02:00-03:00					
03:00-04:00					
04:00-05:00					
05:00-06:00					
06:00-07:00					
07:00-08:00	**9**	**94**	**0.075**	**0.354**	**0.429**
08:00-09:00	**9**	**94**	**0.110**	**0.573**	**0.683**
09:00-10:00	**9**	**94**	**0.179**	**0.206**	**0.385**
10:00-11:00	**9**	**94**	**0.158**	**0.200**	**0.358**
11:00-12:00	**9**	**94**	**0.165**	**0.147**	**0.312**
12:00-13:00	**9**	**94**	**0.169**	**0.195**	**0.364**
13:00-14:00	**9**	**94**	**0.215**	**0.196**	**0.411**
14:00-15:00	**9**	**94**	**0.159**	**0.229**	**0.388**
15:00-16:00	**9**	**94**	**0.355**	**0.192**	**0.547**
16:00-17:00	**9**	**94**	**0.387**	**0.169**	**0.556**
17:00-18:00	**9**	**94**	**0.462**	**0.217**	**0.679**
18:00-19:00	**9**	**94**	**0.330**	**0.165**	**0.495**
19:00-20:00					
20:00-21:00					
21:00-22:00					
22:00-23:00					
23:00-00:00					
Total Rates:			**2.764**	**2.843**	**5.607**

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

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

Parameter Summary:

Trip rate parameter range selected:	50 - 300 (units: DWELLS)
Survey date date range:	21/06/2016 - 28/06/2024
Number of weekdays (Monday-Friday):	9
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	9
Surveys manually removed from selection:	0

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

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

Pedestrians

Calculation factor: 1 DWELLS

**BOLD print indicates peak (busiest) period*

Time Range	No. Days	Ave. DWELLS	Arrivals	Departures	Totals
00:00-01:00					
01:00-02:00					
02:00-03:00					
03:00-04:00					
04:00-05:00					
05:00-06:00					
06:00-07:00					
07:00-08:00	**9**	**94**	**0.017**	**0.054**	**0.071**
08:00-09:00	**9**	**94**	**0.058**	**0.180**	**0.238**
09:00-10:00	**9**	**94**	**0.051**	**0.053**	**0.104**
10:00-11:00	**9**	**94**	**0.029**	**0.058**	**0.087**
11:00-12:00	**9**	**94**	**0.054**	**0.045**	**0.099**
12:00-13:00	**9**	**94**	**0.053**	**0.050**	**0.103**
13:00-14:00	**9**	**94**	**0.060**	**0.057**	**0.117**
14:00-15:00	**9**	**94**	**0.066**	**0.061**	**0.127**
15:00-16:00	**9**	**94**	**0.189**	**0.081**	**0.270**
16:00-17:00	**9**	**94**	**0.121**	**0.066**	**0.187**
17:00-18:00	**9**	**94**	**0.084**	**0.050**	**0.134**
18:00-19:00	**9**	**94**	**0.045**	**0.028**	**0.073**
19:00-20:00					
20:00-21:00					
21:00-22:00					
22:00-23:00					
23:00-00:00					
Total Rates:			**0.827**	**0.783**	**1.610**

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

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

Parameter Summary:

Trip rate parameter range selected:	50 - 300 (units: DWELLS)
Survey date date range:	21/06/2016 - 28/06/2024
Number of weekdays (Monday-Friday):	9
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	9
Surveys manually removed from selection:	0

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

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

Public Transport Users

Calculation factor: 1 DWELLS

**BOLD print indicates peak (busiest) period*

Time Range	No. Days	Ave. DWELLS	Arrivals	Departures	Totals
00:00-01:00					
01:00-02:00					
02:00-03:00					
03:00-04:00					
04:00-05:00					
05:00-06:00					
06:00-07:00					
07:00-08:00	**9**	**94**	**0.001**	**0.052**	**0.053**
08:00-09:00	**9**	**94**	**0.004**	**0.065**	**0.069**
09:00-10:00	**9**	**94**	**0.008**	**0.034**	**0.042**
10:00-11:00	**9**	**94**	**0.020**	**0.018**	**0.038**
11:00-12:00	**9**	**94**	**0.013**	**0.015**	**0.028**
12:00-13:00	**9**	**94**	**0.017**	**0.014**	**0.031**
13:00-14:00	**9**	**94**	**0.019**	**0.015**	**0.034**
14:00-15:00	**9**	**94**	**0.014**	**0.019**	**0.033**
15:00-16:00	**9**	**94**	**0.028**	**0.015**	**0.043**
16:00-17:00	**9**	**94**	**0.042**	**0.006**	**0.048**
17:00-18:00	**9**	**94**	**0.048**	**0.008**	**0.056**
18:00-19:00	**9**	**94**	**0.041**	**0.005**	**0.046**
19:00-20:00					
20:00-21:00					
21:00-22:00					
22:00-23:00					
23:00-00:00					
Total Rates:			**0.255**	**0.266**	**0.521**

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

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

Parameter Summary:

Trip rate parameter range selected:	50 - 300 (units: DWELLS)
Survey date date range:	21/06/2016 - 28/06/2024
Number of weekdays (Monday-Friday):	9
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	9
Surveys manually removed from selection:	0

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

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

Bus/Tram Passengers

Calculation factor: 1 DWELLS

**BOLD print indicates peak (busiest) period*

Time Range	No. Days	Ave. DWELLS	Arrivals	Departures	Totals
00:00-01:00					
01:00-02:00					
02:00-03:00					
03:00-04:00					
04:00-05:00					
05:00-06:00					
06:00-07:00					
07:00-08:00	**9**	**94**	**0.000**	**0.024**	**0.024**
08:00-09:00	**9**	**94**	**0.004**	**0.039**	**0.043**
09:00-10:00	**9**	**94**	**0.007**	**0.027**	**0.034**
10:00-11:00	**9**	**94**	**0.018**	**0.015**	**0.033**
11:00-12:00	**9**	**94**	**0.013**	**0.013**	**0.026**
12:00-13:00	**9**	**94**	**0.014**	**0.014**	**0.028**
13:00-14:00	**9**	**94**	**0.014**	**0.013**	**0.027**
14:00-15:00	**9**	**94**	**0.013**	**0.018**	**0.031**
15:00-16:00	**9**	**94**	**0.025**	**0.014**	**0.039**
16:00-17:00	**9**	**94**	**0.028**	**0.004**	**0.032**
17:00-18:00	**9**	**94**	**0.025**	**0.008**	**0.033**
18:00-19:00	**9**	**94**	**0.017**	**0.002**	**0.019**
19:00-20:00					
20:00-21:00					
21:00-22:00					
22:00-23:00					
23:00-00:00					
Total Rates:			**0.178**	**0.191**	**0.369**

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

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

Parameter Summary:

Trip rate parameter range selected:	50 - 300 (units: DWELLS)
Survey date date range:	21/06/2016 - 28/06/2024
Number of weekdays (Monday-Friday):	9
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	9
Surveys manually removed from selection:	0

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

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

Coach Passengers

Calculation factor: 1 DWELLS

**BOLD print indicates peak (busiest) period*

Time Range	No. Days	Ave. DWELLS	Arrivals	Departures	Totals
00:00-01:00					
01:00-02:00					
02:00-03:00					
03:00-04:00					
04:00-05:00					
05:00-06:00					
06:00-07:00					
07:00-08:00	**9**	**94**	**0.000**	**0.000**	**0.000**
08:00-09:00	**9**	**94**	**0.000**	**0.000**	**0.000**
09:00-10:00	**9**	**94**	**0.000**	**0.000**	**0.000**
10:00-11:00	**9**	**94**	**0.000**	**0.000**	**0.000**
11:00-12:00	**9**	**94**	**0.000**	**0.000**	**0.000**
12:00-13:00	**9**	**94**	**0.000**	**0.000**	**0.000**
13:00-14:00	**9**	**94**	**0.000**	**0.000**	**0.000**
14:00-15:00	**9**	**94**	**0.000**	**0.000**	**0.000**
15:00-16:00	**9**	**94**	**0.000**	**0.000**	**0.000**
16:00-17:00	**9**	**94**	**0.000**	**0.000**	**0.000**
17:00-18:00	**9**	**94**	**0.000**	**0.000**	**0.000**
18:00-19:00	**9**	**94**	**0.000**	**0.000**	**0.000**
19:00-20:00					
20:00-21:00					
21:00-22:00					
22:00-23:00					
23:00-00:00					
Total Rates:			**0.000**	**0.000**	**0.000**

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

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

Parameter Summary:

Trip rate parameter range selected:	50 - 300 (units: DWELLS)
Survey date date range:	N/A - N/A
Number of weekdays (Monday-Friday):	0
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	9
Surveys manually removed from selection:	0

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

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

Total Rail Passengers

Calculation factor: 1 DWELLS

**BOLD print indicates peak (busiest) period*

Time Range	No. Days	Ave. DWELLS	Arrivals	Departures	Totals
00:00-01:00					
01:00-02:00					
02:00-03:00					
03:00-04:00					
04:00-05:00					
05:00-06:00					
06:00-07:00					
07:00-08:00	**9**	**94**	**0.001**	**0.028**	**0.029**
08:00-09:00	**9**	**94**	**0.000**	**0.026**	**0.026**
09:00-10:00	**9**	**94**	**0.001**	**0.007**	**0.008**
10:00-11:00	**9**	**94**	**0.002**	**0.002**	**0.004**
11:00-12:00	**9**	**94**	**0.000**	**0.002**	**0.002**
12:00-13:00	**9**	**94**	**0.002**	**0.000**	**0.002**
13:00-14:00	**9**	**94**	**0.005**	**0.002**	**0.007**
14:00-15:00	**9**	**94**	**0.001**	**0.001**	**0.002**
15:00-16:00	**9**	**94**	**0.004**	**0.001**	**0.005**
16:00-17:00	**9**	**94**	**0.014**	**0.002**	**0.016**
17:00-18:00	**9**	**94**	**0.024**	**0.000**	**0.024**
18:00-19:00	**9**	**94**	**0.025**	**0.002**	**0.027**
19:00-20:00					
20:00-21:00					
21:00-22:00					
22:00-23:00					
23:00-00:00					
Total Rates:			**0.079**	**0.073**	**0.152**

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

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

Parameter Summary:

Trip rate parameter range selected:	50 - 300 (units: DWELLS)
Survey date date range:	21/06/2016 - 28/06/2024
Number of weekdays (Monday-Friday):	6
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	9
Surveys manually removed from selection:	0

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

Appendix G – Junction Modelling Outputs

Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9.5.1.7462

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

Filename: Cowbridge Rd_Site Access.j9
Path: J:\110516_LDEV_Talbot Green Town Centre\01 - WIP\Design\30 Technical\31 Modelling\Single Access Modelling
Report generation date: 24/11/2025 15:45:44

Summary of junction performance

	AM				PM			
	Q (PCU)	Delay (s)	RFC	LOS	Q (PCU)	Delay (s)	RFC	LOS
	2025 Base							
Stream B-C	0.0	0.00	0.00	A	0.0	8.33	0.01	A
Stream B-A	0.0	0.00	0.00	A	0.0	13.64	0.04	B
Stream C-AB	0.0	0.00	0.00	A	0.0	7.31	0.00	A
	2035 Base							
Stream B-C	0.0	0.00	0.00	A	0.0	8.73	0.01	A
Stream B-A	0.0	0.00	0.00	A	0.1	15.43	0.05	C
Stream C-AB	0.0	0.00	0.00	A	0.0	7.60	0.00	A

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

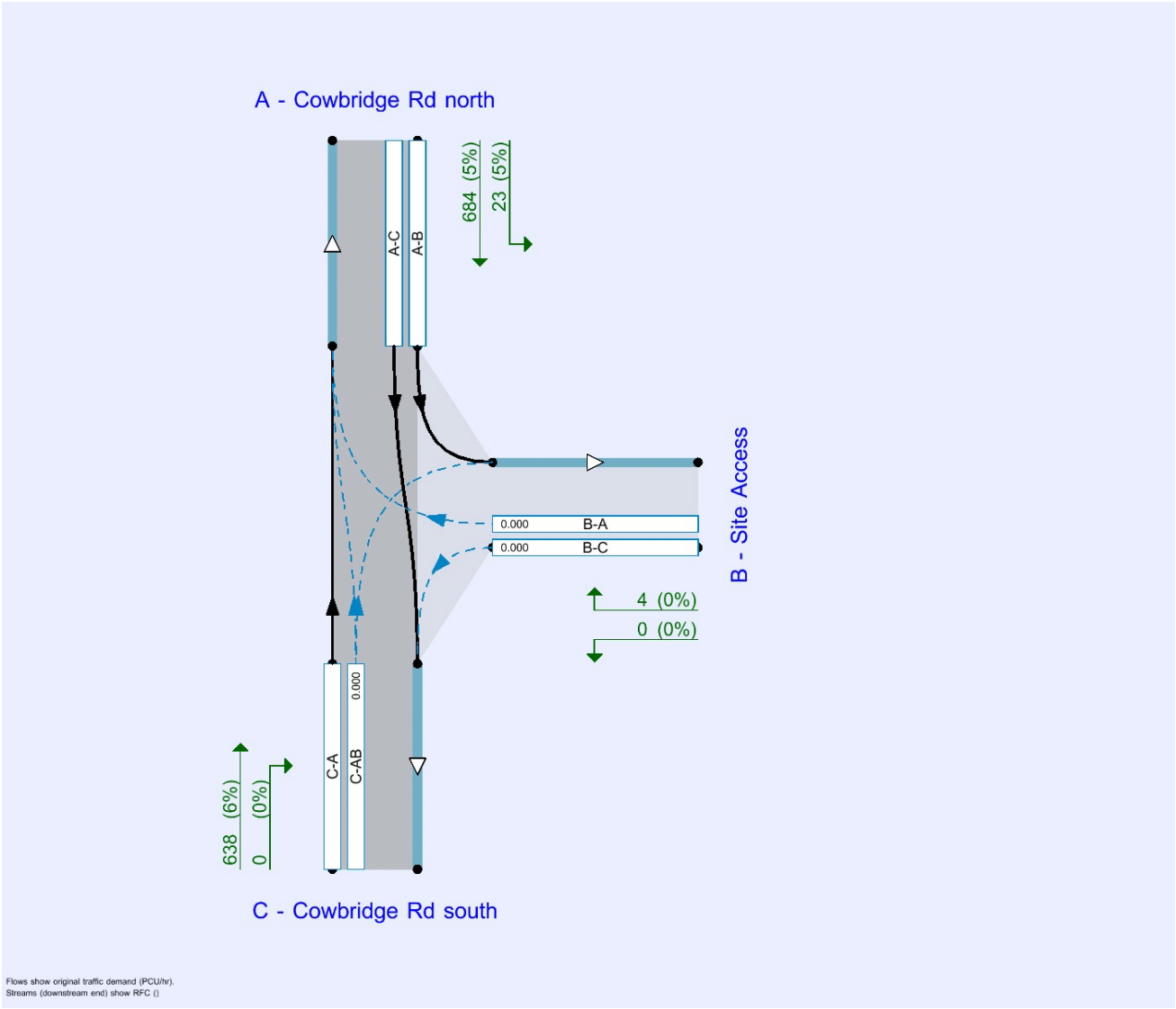
File summary

File Description

Title	Cowbridge Rd / Site Access
Location	Talbot Green
Site number	
Date	18/08/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	PFGROUP\ateague
Description	

Units

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



The junction diagram reflects the last run of Junctions.

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2025 Base	AM	ONE HOUR	07:30	09:00	15	✓
D2	2025 Base	PM	ONE HOUR	16:30	18:00	15	✓
D3	2035 Base	AM	ONE HOUR	07:30	09:00	15	✓
D4	2035 Base	PM	ONE HOUR	16:30	18:00	15	✓

Analysis Set Details

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

2025 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Cowbridge Rd / Site Access	T-Junction	Two-way		0.00	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Cowbridge Rd north		Major
B	Site Access		Minor
C	Cowbridge Rd south		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Width for right turn (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - Cowbridge Rd south	6.00		✓	3.00	70.0	✓	18.00

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 - Site Access	One lane plus flare	10.00	8.30	5.60	4.70	4.50		3.00	30	19

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	512	0.093	0.236	0.148	0.337
B-C	656	0.100	0.254	-	-
C-B	668	0.259	0.259	-	-

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

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2025 Base	AM	ONE HOUR	07:30	09:00	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.30

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Cowbridge Rd north		ONE HOUR	✓	707	100.000
B - Site Access		ONE HOUR	✓	4	100.000
C - Cowbridge Rd south		ONE HOUR	✓	638	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Cowbridge Rd north	B - Site Access	C - Cowbridge Rd south
From	A - Cowbridge Rd north	0	23	684
	B - Site Access	4	0	0
	C - Cowbridge Rd south	638	0	0

Vehicle Mix

HV %s

		To		
		A - Cowbridge Rd north	B - Site Access	C - Cowbridge Rd south
From	A - Cowbridge Rd north	0	5	5
	B - Site Access	0	0	0
	C - Cowbridge Rd south	6	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.00	0.00	0.0	A	0	0
B-A	0.00	0.00	0.0	A	0	0
C-AB	0.00	0.00	0.0	A	0	0
C-A					585	878
A-B					21	32
A-C					628	941

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0	523	0.000	0	0.0	0.0	0.000	A
B-A	0	0	318	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	1102	0.000	0	0.0	0.0	0.000	A
C-A	480	120			480				
A-B	17	4			17				
A-C	515	129			515				

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0	497	0.000	0	0.0	0.0	0.000	A
B-A	0	0	280	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	1046	0.000	0	0.0	0.0	0.000	A
C-A	574	143			574				
A-B	21	5			21				
A-C	615	154			615				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0	462	0.000	0	0.0	0.0	0.000	A
B-A	0	0	228	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	969	0.000	0	0.0	0.0	0.000	A
C-A	702	176			702				
A-B	25	6			25				
A-C	753	188			753				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0	462	0.000	0	0.0	0.0	0.000	A
B-A	0	0	228	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	969	0.000	0	0.0	0.0	0.000	A
C-A	702	176			702				
A-B	25	6			25				
A-C	753	188			753				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0	497	0.000	0	0.0	0.0	0.000	A
B-A	0	0	280	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	1046	0.000	0	0.0	0.0	0.000	A
C-A	574	143			574				
A-B	21	5			21				
A-C	615	154			615				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0	523	0.000	0	0.0	0.0	0.000	A
B-A	0	0	318	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	1102	0.000	0	0.0	0.0	0.000	A
C-A	480	120			480				
A-B	17	4			17				
A-C	515	129			515				

2025 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Cowbridge Rd / Site Access	T-Junction	Two-way		0.13	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2025 Base	PM	ONE HOUR	16:30	18:00	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.30

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Cowbridge Rd north		ONE HOUR	✓	612	100.000
B - Site Access		ONE HOUR	✓	13	100.000
C - Cowbridge Rd south		ONE HOUR	✓	630	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Cowbridge Rd north	B - Site Access	C - Cowbridge Rd south
From	A - Cowbridge Rd north	0	7	605
	B - Site Access	10	0	3
	C - Cowbridge Rd south	629	1	0

Vehicle Mix

HV %s

		To		
		A - Cowbridge Rd north	B - Site Access	C - Cowbridge Rd south
From	A - Cowbridge Rd north	0	0	1
	B - Site Access	0	0	0
	C - Cowbridge Rd south	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.01	8.33	0.0	A	3	4
B-A	0.04	13.64	0.0	B	9	14
C-AB	0.00	7.31	0.0	A	0.92	1
C-A					577	866
A-B					6	10
A-C					555	833

Main Results for each time segment

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	2	0.56	486	0.005	2	0.0	0.0	7.437	A
B-A	8	2	365	0.021	7	0.0	0.0	10.065	B
C-AB	0.75	0.19	549	0.001	0.75	0.0	0.0	6.568	A
C-A	474	118			474				
A-B	5	1			5				
A-C	455	114			455				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	3	0.67	465	0.006	3	0.0	0.0	7.786	A
B-A	9	2	327	0.027	9	0.0	0.0	11.312	B
C-AB	0.90	0.22	526	0.002	0.90	0.0	0.0	6.860	A
C-A	565	141			565				
A-B	6	2			6				
A-C	544	136			544				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	3	0.83	436	0.008	3	0.0	0.0	8.328	A
B-A	11	3	275	0.040	11	0.0	0.0	13.636	B
C-AB	1	0.28	494	0.002	1	0.0	0.0	7.308	A
C-A	693	173			693				
A-B	8	2			8				
A-C	666	167			666				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	3	0.83	435	0.008	3	0.0	0.0	8.330	A
B-A	11	3	275	0.040	11	0.0	0.0	13.641	B
C-AB	1	0.28	494	0.002	1	0.0	0.0	7.308	A
C-A	693	173			693				
A-B	8	2			8				
A-C	666	167			666				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	3	0.67	465	0.006	3	0.0	0.0	7.789	A
B-A	9	2	327	0.027	9	0.0	0.0	11.313	B
C-AB	0.90	0.22	526	0.002	0.90	0.0	0.0	6.860	A
C-A	565	141			565				
A-B	6	2			6				
A-C	544	136			544				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	2	0.56	486	0.005	2	0.0	0.0	7.440	A
B-A	8	2	365	0.021	8	0.0	0.0	10.070	B
C-AB	0.75	0.19	549	0.001	0.75	0.0	0.0	6.568	A
C-A	474	118			474				
A-B	5	1			5				
A-C	455	114			455				

2035 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Cowbridge Rd / Site Access	T-Junction	Two-way		0.00	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2035 Base	AM	ONE HOUR	07:30	09:00	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.30

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Cowbridge Rd north		ONE HOUR	✓	783	100.000
B - Site Access		ONE HOUR	✓	4	100.000
C - Cowbridge Rd south		ONE HOUR	✓	707	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Cowbridge Rd north	B - Site Access	C - Cowbridge Rd south
From	A - Cowbridge Rd north	0	25	758
	B - Site Access	4	0	0
	C - Cowbridge Rd south	707	0	0

Vehicle Mix

HV %s

		To		
		A - Cowbridge Rd north	B - Site Access	C - Cowbridge Rd south
From	A - Cowbridge Rd north	0	5	5
	B - Site Access	0	0	0
	C - Cowbridge Rd south	6	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.00	0.00	0.0	A	0	0
B-A	0.00	0.00	0.0	A	0	0
C-AB	0.00	0.00	0.0	A	0	0
C-A					649	973
A-B					23	34
A-C					696	1043

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0	509	0.000	0	0.0	0.0	0.000	A
B-A	0	0	297	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	1071	0.000	0	0.0	0.0	0.000	A
C-A	532	133			532				
A-B	19	5			19				
A-C	571	143			571				

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0	480	0.000	0	0.0	0.0	0.000	A
B-A	0	0	255	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	1010	0.000	0	0.0	0.0	0.000	A
C-A	636	159			636				
A-B	22	6			22				
A-C	681	170			681				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0	441	0.000	0	0.0	0.0	0.000	A
B-A	0	0	197	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	924	0.000	0	0.0	0.0	0.000	A
C-A	778	195			778				
A-B	28	7			28				
A-C	835	209			835				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0	441	0.000	0	0.0	0.0	0.000	A
B-A	0	0	197	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	924	0.000	0	0.0	0.0	0.000	A
C-A	778	195			778				
A-B	28	7			28				
A-C	835	209			835				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0	480	0.000	0	0.0	0.0	0.000	A
B-A	0	0	255	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	1010	0.000	0	0.0	0.0	0.000	A
C-A	636	159			636				
A-B	22	6			22				
A-C	681	170			681				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	0	0	509	0.000	0	0.0	0.0	0.000	A
B-A	0	0	297	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	1071	0.000	0	0.0	0.0	0.000	A
C-A	532	133			532				
A-B	19	5			19				
A-C	571	143			571				

2035 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Cowbridge Rd / Site Access	T-Junction	Two-way		0.15	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2035 Base	PM	ONE HOUR	16:30	18:00	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.30

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Cowbridge Rd north		ONE HOUR	✓	678	100.000
B - Site Access		ONE HOUR	✓	14	100.000
C - Cowbridge Rd south		ONE HOUR	✓	697	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Cowbridge Rd north	B - Site Access	C - Cowbridge Rd south
From	A - Cowbridge Rd north	0	8	670
	B - Site Access	11	0	3
	C - Cowbridge Rd south	696	1	0

Vehicle Mix

HV %s

		To		
		A - Cowbridge Rd north	B - Site Access	C - Cowbridge Rd south
From	A - Cowbridge Rd north	0	0	1
	B - Site Access	0	0	0
	C - Cowbridge Rd south	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.01	8.73	0.0	A	3	4
B-A	0.05	15.43	0.1	C	10	15
C-AB	0.00	7.60	0.0	A	0.92	1
C-A					639	958
A-B					7	11
A-C					615	922

Main Results for each time segment

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	2	0.56	472	0.005	2	0.0	0.0	7.661	A
B-A	8	2	346	0.024	8	0.0	0.0	10.665	B
C-AB	0.75	0.19	536	0.001	0.75	0.0	0.0	6.726	A
C-A	524	131			524				
A-B	6	2			6				
A-C	504	126			504				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	3	0.67	449	0.006	3	0.0	0.0	8.072	A
B-A	10	2	304	0.033	10	0.0	0.0	12.254	B
C-AB	0.90	0.22	510	0.002	0.90	0.0	0.0	7.066	A
C-A	626	156			626				
A-B	7	2			7				
A-C	602	151			602				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	3	0.83	416	0.008	3	0.0	0.0	8.724	A
B-A	12	3	245	0.049	12	0.0	0.1	15.423	C
C-AB	1	0.28	475	0.002	1	0.0	0.0	7.598	A
C-A	766	192			766				
A-B	9	2			9				
A-C	738	184			738				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	3	0.83	416	0.008	3	0.0	0.0	8.726	A
B-A	12	3	245	0.049	12	0.1	0.1	15.430	C
C-AB	1	0.28	475	0.002	1	0.0	0.0	7.598	A
C-A	766	192			766				
A-B	9	2			9				
A-C	738	184			738				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	3	0.67	448	0.006	3	0.0	0.0	8.076	A
B-A	10	2	304	0.033	10	0.1	0.0	12.261	B
C-AB	0.90	0.22	510	0.002	0.90	0.0	0.0	7.069	A
C-A	626	156			626				
A-B	7	2			7				
A-C	602	151			602				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	2	0.56	472	0.005	2	0.0	0.0	7.664	A
B-A	8	2	346	0.024	8	0.0	0.0	10.671	B
C-AB	0.75	0.19	536	0.001	0.75	0.0	0.0	6.726	A
C-A	524	131			524				
A-B	6	2			6				
A-C	504	126			504				

Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9.5.1.7462

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

Filename: Cowbridge Rd_Site Access Proposed.j9
Path: J:\110516_LDEV_Talbot Green Town Centre\01 - WIP\Design\30 Technical\31 Modelling\Single Access Modelling
Report generation date: 24/11/2025 15:11:11

Summary of junction performance

	AM				PM			
	Q (PCU)	Delay (s)	RFC	LOS	Q (PCU)	Delay (s)	RFC	LOS
	2035 Base + Dev							
Stream B-C	0.0	10.28	0.02	B	0.0	9.31	0.02	A
Stream B-A	0.4	23.49	0.31	C	0.2	17.73	0.17	C
Stream C-AB	0.0	8.22	0.01	A	0.0	7.98	0.02	A

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

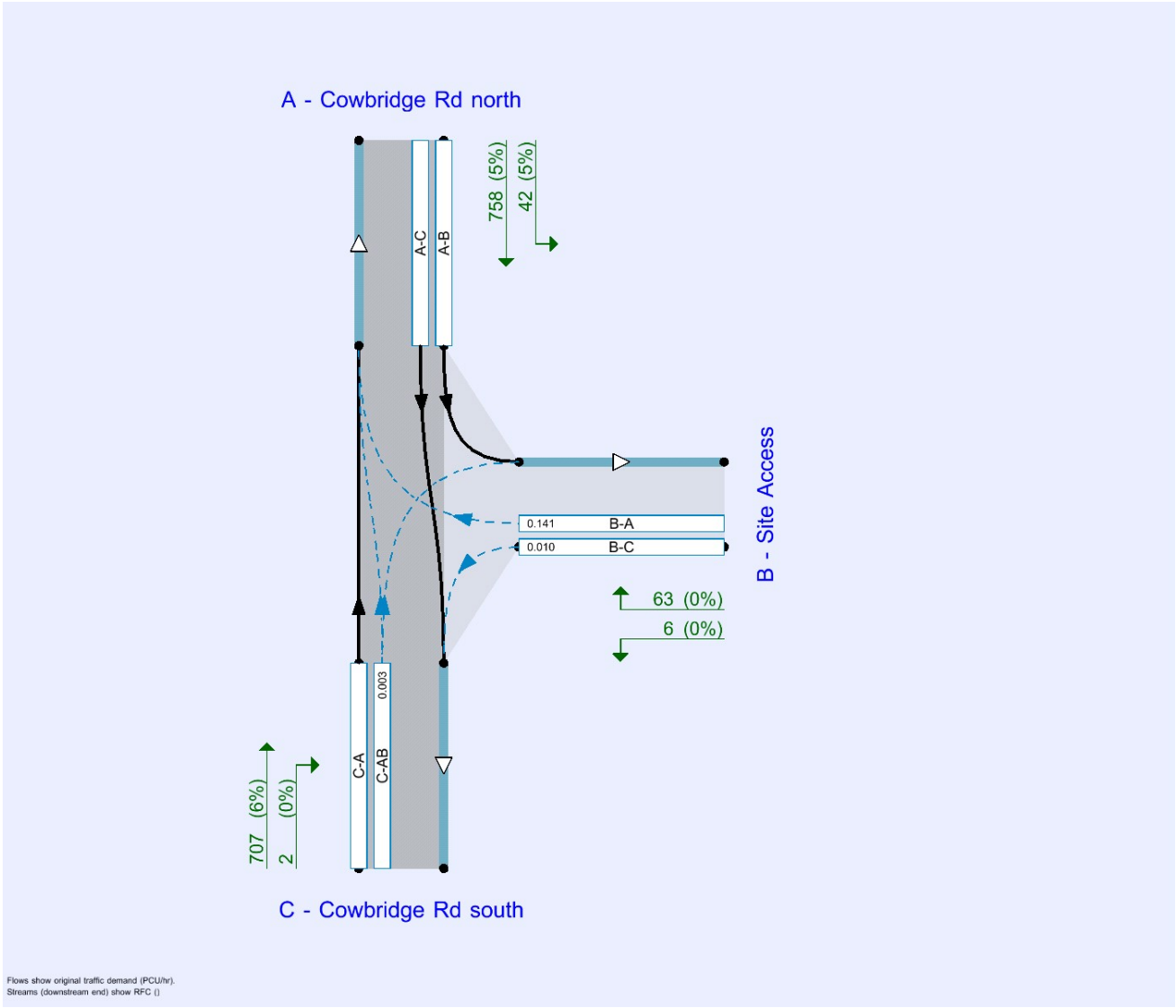
File summary

File Description

Title	Cowbridge Rd / Site Access Proposed
Location	Talbot Green
Site number	
Date	18/08/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	PFGROUP\ateague
Description	

Units

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



The junction diagram reflects the last run of Junctions.

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2035 Base + Dev	AM	ONE HOUR	07:30	09:00	15	✓
D2	2035 Base + Dev	PM	ONE HOUR	16:30	18:00	15	✓

Analysis Set Details

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

2035 Base + Dev, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Cowbridge Rd / Site Access Proposed	T-Junction	Two-way		0.99	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Cowbridge Rd north		Major
B	Site Access		Minor
C	Cowbridge Rd south		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Width for right turn (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - Cowbridge Rd south	6.00		✓	3.00	70.0	✓	18.00

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 - Site Access	One lane plus flare	10.00	7.10	6.00	5.00	4.30		3.00	30	19

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	585	0.107	0.269	0.169	0.385
B-C	581	0.089	0.225	-	-
C-B	668	0.259	0.259	-	-

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

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2035 Base + Dev	AM	ONE HOUR	07:30	09:00	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.30

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Cowbridge Rd north		ONE HOUR	✓	800	100.000
B - Site Access		ONE HOUR	✓	69	100.000
C - Cowbridge Rd south		ONE HOUR	✓	709	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Cowbridge Rd north	B - Site Access	C - Cowbridge Rd south
From	A - Cowbridge Rd north	0	42	758
	B - Site Access	63	0	6
	C - Cowbridge Rd south	707	2	0

Vehicle Mix

HV %s

		To		
		A - Cowbridge Rd north	B - Site Access	C - Cowbridge Rd south
From	A - Cowbridge Rd north	0	5	5
	B - Site Access	0	0	0
	C - Cowbridge Rd south	6	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.02	10.28	0.0	B	6	8
B-A	0.31	23.49	0.4	C	58	87
C-AB	0.01	8.22	0.0	A	2	3
C-A					649	973
A-B					39	58
A-C					696	1043

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	5	1	434	0.010	4	0.0	0.0	8.387	A
B-A	47	12	337	0.141	47	0.0	0.2	12.375	B
C-AB	2	0.38	512	0.003	1	0.0	0.0	7.049	A
C-A	532	133			532				
A-B	32	8			32				
A-C	571	143			571				

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	5	1	403	0.013	5	0.0	0.0	9.055	A
B-A	57	14	289	0.196	56	0.2	0.2	15.455	C
C-AB	2	0.45	482	0.004	2	0.0	0.0	7.497	A
C-A	636	159			636				
A-B	38	9			38				
A-C	681	170			681				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	7	2	357	0.019	7	0.0	0.0	10.272	B
B-A	69	17	223	0.312	69	0.2	0.4	23.266	C
C-AB	2	0.55	440	0.005	2	0.0	0.0	8.222	A
C-A	778	195			778				
A-B	46	12			46				
A-C	835	209			835				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	7	2	357	0.019	7	0.0	0.0	10.285	B
B-A	69	17	223	0.312	69	0.4	0.4	23.490	C
C-AB	2	0.55	440	0.005	2	0.0	0.0	8.222	A
C-A	778	195			778				
A-B	46	12			46				
A-C	835	209			835				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	5	1	402	0.013	5	0.0	0.0	9.067	A
B-A	57	14	289	0.196	57	0.4	0.2	15.597	C
C-AB	2	0.45	482	0.004	2	0.0	0.0	7.498	A
C-A	636	159			636				
A-B	38	9			38				
A-C	681	170			681				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	5	1	433	0.010	5	0.0	0.0	8.395	A
B-A	47	12	337	0.141	48	0.2	0.2	12.456	B
C-AB	2	0.38	512	0.003	2	0.0	0.0	7.049	A
C-A	532	133			532				
A-B	32	8			32				
A-C	571	143			571				

2035 Base + Dev, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Cowbridge Rd / Site Access Proposed	T-Junction	Two-way		0.53	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2035 Base + Dev	PM	ONE HOUR	16:30	18:00	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.30

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
A - Cowbridge Rd north		ONE HOUR	✓	734	100.000
B - Site Access		ONE HOUR	✓	44	100.000
C - Cowbridge Rd south		ONE HOUR	✓	703	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Cowbridge Rd north	B - Site Access	C - Cowbridge Rd south
From	A - Cowbridge Rd north	0	64	670
	B - Site Access	38	0	6
	C - Cowbridge Rd south	696	7	0

Vehicle Mix

HV %s

		To		
		A - Cowbridge Rd north	B - Site Access	C - Cowbridge Rd south
From	A - Cowbridge Rd north	0	0	1
	B - Site Access	0	0	0
	C - Cowbridge Rd south	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.02	9.31	0.0	A	6	8
B-A	0.17	17.73	0.2	C	35	52
C-AB	0.02	7.98	0.0	A	6	10
C-A					639	958
A-B					59	88
A-C					615	922

Main Results for each time segment

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	5	1	457	0.010	4	0.0	0.0	7.962	A
B-A	29	7	352	0.081	28	0.0	0.1	11.123	B
C-AB	5	1	525	0.010	5	0.0	0.0	6.926	A
C-A	524	131			524				
A-B	48	12			48				
A-C	504	126			504				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	5	1	431	0.013	5	0.0	0.0	8.466	A
B-A	34	9	307	0.111	34	0.1	0.1	13.189	B
C-AB	6	2	497	0.013	6	0.0	0.0	7.332	A
C-A	626	156			626				
A-B	58	14			58				
A-C	602	151			602				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	7	2	393	0.017	7	0.0	0.0	9.306	A
B-A	42	10	245	0.171	42	0.1	0.2	17.675	C
C-AB	8	2	459	0.017	8	0.0	0.0	7.979	A
C-A	766	192			766				
A-B	70	18			70				
A-C	738	184			738				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	7	2	393	0.017	7	0.0	0.0	9.310	A
B-A	42	10	245	0.171	42	0.2	0.2	17.726	C
C-AB	8	2	459	0.017	8	0.0	0.0	7.979	A
C-A	766	192			766				
A-B	70	18			70				
A-C	738	184			738				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	5	1	430	0.013	5	0.0	0.0	8.471	A
B-A	34	9	307	0.111	34	0.2	0.1	13.233	B
C-AB	6	2	497	0.013	6	0.0	0.0	7.335	A
C-A	626	156			626				
A-B	58	14			58				
A-C	602	151			602				

17:45 - 18:00

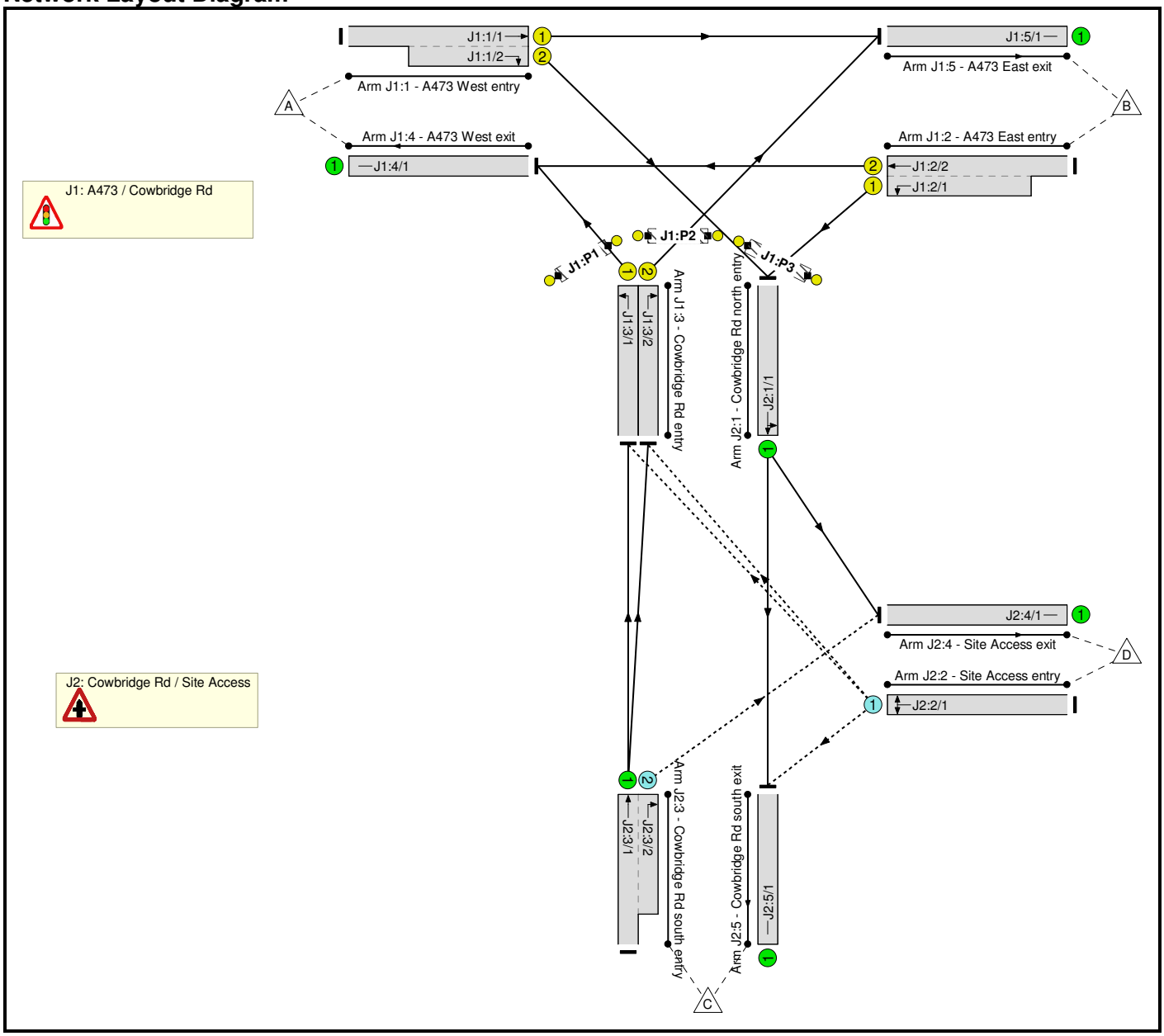
Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	5	1	456	0.010	5	0.0	0.0	7.968	A
B-A	29	7	352	0.081	29	0.1	0.1	11.155	B
C-AB	5	1	525	0.010	5	0.0	0.0	6.926	A
C-A	524	131			524				
A-B	48	12			48				
A-C	504	126			504				

Full Input Data And Results

User and Project Details

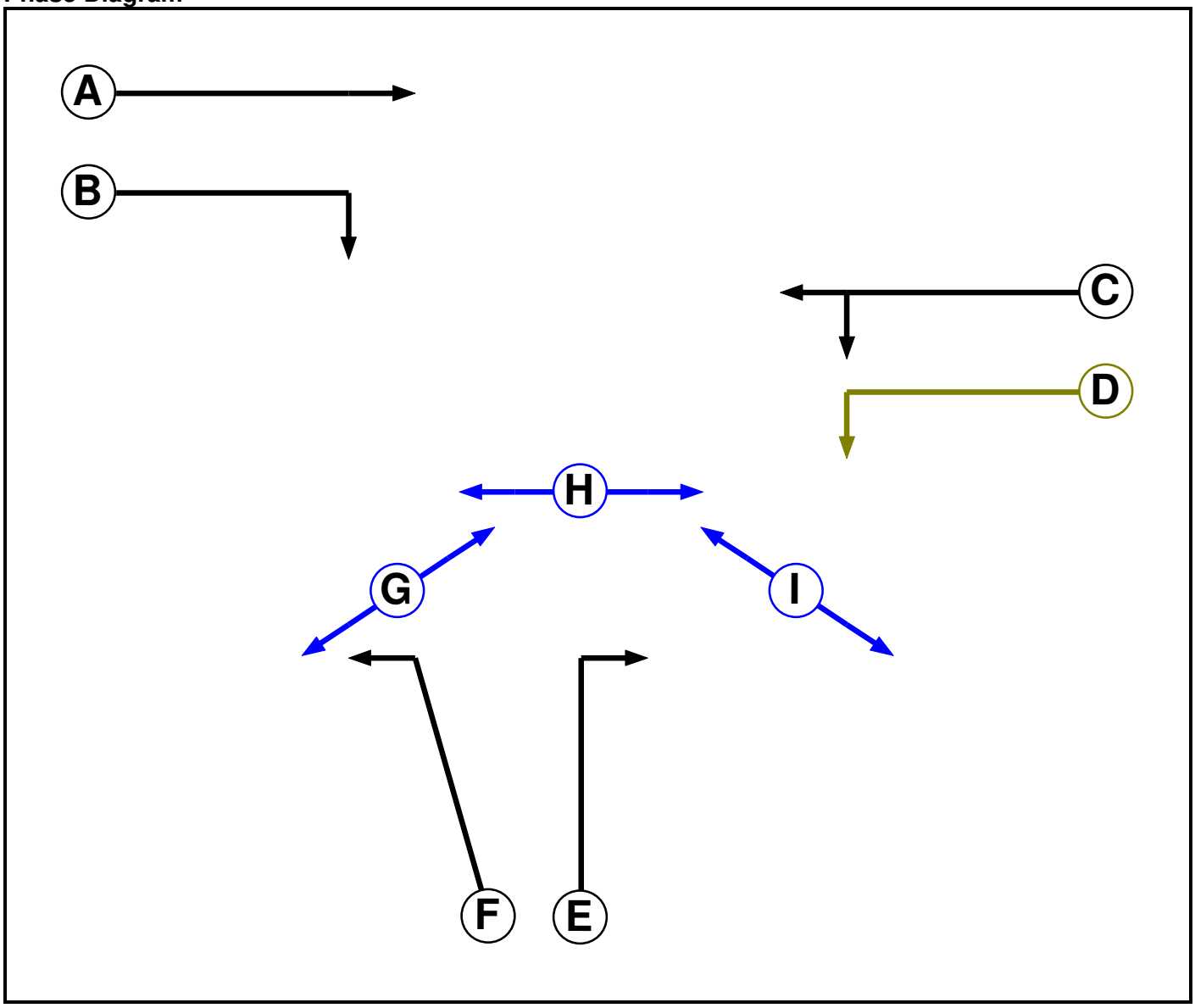
Project:	**Talbot Green Town Centre**
Title:	**A473 / Cowbridge Road and Site Access / Cowbridge Road**
Location:	
Additional detail:	
File name:	A473_Cowbridge Rd and Site Access_Cowbridge Rd.lsg3x
Author:	
Company:	
Address:	

Network Layout Diagram



Full Input Data And Results

Phase Diagram



Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7
C	Traffic		7	7
D	Filter	C	1	0
E	Traffic		7	7
F	Traffic		7	7
G	Pedestrian		4	4
H	Pedestrian		4	4
I	Pedestrian		5	5

Full Input Data And Results

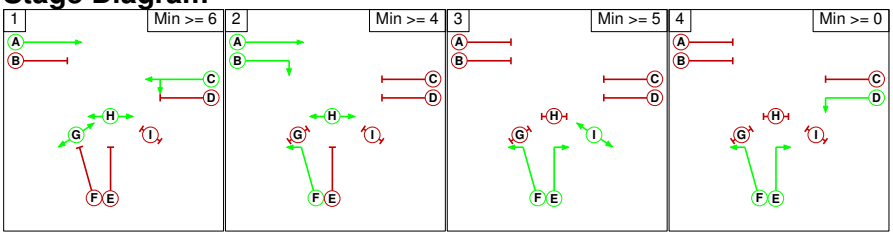
Phase Intergreens Matrix

Terminating Phase \ Starting Phase	A	B	C	D	E	F	G	H	I
A		-	-	-	5	-	-	-	-
B	-		6	7	5	-	-	-	10
C	-	5		-	5	8	-	-	8
D	-	5	-		-	-	-	-	8
E	6	5	5	-		-	-	5	-
F	-	-	5	-	-		5	-	-
G	-	-	-	-	-	7		-	-
H	-	-	-	-	7	-	-		-
I	-	0	0	0	-	-	-	-	

Phases in Stage

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

Stage Diagram



Phase Delays

Term. Stage	Start Stage	Phase	Type	Value	Cont value
1	4	D	Gaining absolute	6	6
2	4	D	Gaining absolute	3	3

Prohibited Stage Change

From Stage \ To Stage	1	2	3	4
1		8	8	8
2	6		10	7
3	6	6		0
4	6	X	X	

Full Input Data And Results

Give-Way Lane Input Data

Junction: J1: A473 / Cowbridge Rd
There are no Opposed Lanes in this Junction

Junction: J2: Cowbridge Rd / Site Access											
Lane	**Movement**	**Max Flow when Giving Way (PCU/Hr)**	**Min Flow when Giving Way (PCU/Hr)**	**Opposing Lane**	**Opp. Lane Coeff.**	**Opp. Mvmnts.**	**Right Turn Storage (PCU)**	**Non-Blocking Storage (PCU)**	**RTF**	**Right Turn Move up (s)**	**Max Turns in Intergreen (PCU)**
J2:2/1 (Site Access entry)	J1:3/1 (Right)	600	0	J2:1/1	0.22	To J2:5/1 (Ahead)	-	-	-	-	-
				J2:3/1	0.22	All					
				J2:3/2	0.22	All					
	J1:3/2 (Right)	600	0	J2:1/1	0.22	To J2:5/1 (Ahead)					
				J2:3/1	0.22	All					
				J2:3/2	0.22	All					
	J2:5/1 (Left)	715	0	J2:1/1	0.22	To J2:5/1 (Ahead)					
J2:3/2 (Cowbridge Rd south entry)	J2:4/1 (Right)	850	0	J2:1/1	0.35	All	-	-	-	-	-

Full Input Data And Results

Lane Input Data

Junction: J1: A473 / Cowbridge Rd												
Lane	**Lane Type**	**Phases**	**Start Disp.**	**End Disp.**	**Physical Length (PCU)**	**Sat Flow Type**	**Def User Saturation Flow (PCU/Hr)**	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Turns**	**Turning Radius (m)**
J1:1/1 (A473 West entry)	U	A	2	3	60.0	Geom	-	3.75	0.00	Y	Arm J1:5 Ahead	Inf
J1:1/2 (A473 West entry)	U	B	2	3	9.0	Geom	-	3.75	0.00	Y	Arm J2:1 Right	15.00
J1:2/1 (A473 East entry)	U	C D	2	3	49.0	Geom	-	3.75	0.00	Y	Arm J2:1 Left	20.00
J1:2/2 (A473 East entry)	U	C	2	3	60.0	Geom	-	3.75	0.00	Y	Arm J1:4 Ahead	Inf
J1:3/1 (Cowbridge Rd entry)	U	F	2	3	9.0	Geom	-	3.00	0.00	Y	Arm J1:4 Left	20.00
J1:3/2 (Cowbridge Rd entry)	U	E	2	3	9.0	Geom	-	3.00	0.00	Y	Arm J1:5 Right	20.00
J1:4/1 (A473 West exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
J1:5/1 (A473 East exit)	U		2	3	60.0	Inf	-	-	-	-	-	-

Full Input Data And Results

Junction: J2: Cowbridge Rd / Site Access												
Lane	**Lane Type**	**Phases**	**Start Disp.**	**End Disp.**	**Physical Length (PCU)**	**Sat Flow Type**	**Def User Saturation Flow (PCU/Hr)**	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Turns**	**Turning Radius (m)**
J2:1/1 (Cowbridge Rd north entry)	U		2	3	9.0	Geom	-	3.00	0.00	Y	Arm J2:4 Left	10.00
											Arm J2:5 Ahead	Inf
J2:2/1 (Site Access entry)	O		2	3	60.0	Geom	-	3.50	0.00	Y	Arm J1:3 Right	12.00
											Arm J2:5 Left	12.00
J2:3/1 (Cowbridge Rd south entry)	U		2	3	60.0	Geom	-	3.00	0.00	Y	Arm J1:3 Ahead	Inf
J2:3/2 (Cowbridge Rd south entry)	O		2	3	18.0	Geom	-	3.00	0.00	Y	Arm J2:4 Right	10.00
J2:4/1 (Site Access exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
J2:5/1 (Cowbridge Rd south exit)	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2025 Base AM'	07:45	08:45	01:00	
2: '2025 Base PM'	16:45	17:45	01:00	
3: '2035 Base AM'	07:45	08:45	01:00	
4: '2035 Base PM'	16:45	17:45	01:00	
5: '2035 Base + Dev AM'	07:45	08:45	01:00	
6: '2035 Base + Dev PM'	16:45	17:45	01:00	

Scenario 1: '2025 Base AM' (FG1: '2025 Base AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	530	289	10	829
	B	439	0	388	13	840
	C	290	341	0	0	631
	D	2	2	0	0	4
	Tot.	731	873	677	23	2304

Traffic Lane Flows

Lane	Scenario 1: 2025 Base AM
Junction: J1: A473 / Cowbridge Rd	
J1:1/1 (with short)	829(In) 530(Out)
J1:1/2 (short)	299
J1:2/1 (short)	401
J1:2/2 (with short)	840(In) 439(Out)
J1:3/1	292
J1:3/2	343
J1:4/1	731
J1:5/1	873
Junction: J2: Cowbridge Rd / Site Access	
J2:1/1	700
J2:2/1	4
J2:3/1 (with short)	631(In) 631(Out)
J2:3/2 (short)	0
J2:4/1	23
J2:5/1	677

Full Input Data And Results

Lane Saturation Flows

Junction: J1: A473 / Cowbridge Rd								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J1:1/1 (A473 West entry)	3.75	0.00	Y	Arm J1:5 Ahead	Inf	100.0 %	1990	1990
J1:1/2 (A473 West entry)	3.75	0.00	Y	Arm J2:1 Right	15.00	100.0 %	1809	1809
J1:2/1 (A473 East entry)	3.75	0.00	Y	Arm J2:1 Left	20.00	100.0 %	1851	1851
J1:2/2 (A473 East entry)	3.75	0.00	Y	Arm J1:4 Ahead	Inf	100.0 %	1990	1990
J1:3/1 (Cowbridge Rd entry)	3.00	0.00	Y	Arm J1:4 Left	20.00	100.0 %	1781	1781
J1:3/2 (Cowbridge Rd entry)	3.00	0.00	Y	Arm J1:5 Right	20.00	100.0 %	1781	1781
J1:4/1 (A473 West exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:5/1 (A473 East exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Junction: J2: Cowbridge Rd / Site Access								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J2:1/1 (Cowbridge Rd north entry)	3.00	0.00	Y	Arm J2:4 Left	10.00	3.3 %	1906	1906
				Arm J2:5 Ahead	Inf	96.7 %		
J2:2/1 (Site Access entry)	3.50	0.00	Y	Arm J1:3 Right	12.00	100.0 %	1747	1747
				Arm J2:5 Left	12.00	0.0 %		
J2:3/1 (Cowbridge Rd south entry)	3.00	0.00	Y	Arm J1:3 Ahead	Inf	100.0 %	1915	1915
J2:3/2 (Cowbridge Rd south entry)	3.00	0.00	Y	Arm J2:4 Right	10.00	0.0 %	1915	1915
J2:4/1 (Site Access exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:5/1 (Cowbridge Rd south exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 2: '2025 Base PM' (FG2: '2025 Base PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	479	257	3	739
	B	595	0	347	4	946
	C	276	352	0	1	629
	D	5	5	3	0	13
	Tot.	876	836	607	8	2327

Traffic Lane Flows

Lane	Scenario 2: 2025 Base PM
Junction: J1: A473 / Cowbridge Rd	
J1:1/1 (with short)	739(In) 479(Out)
J1:1/2 (short)	260
J1:2/1 (short)	351
J1:2/2 (with short)	946(In) 595(Out)
J1:3/1	281
J1:3/2	357
J1:4/1	876
J1:5/1	836
Junction: J2: Cowbridge Rd / Site Access	
J2:1/1	611
J2:2/1	13
J2:3/1 (with short)	629(In) 628(Out)
J2:3/2 (short)	1
J2:4/1	8
J2:5/1	607

Full Input Data And Results

Lane Saturation Flows

Junction: J1: A473 / Cowbridge Rd								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J1:1/1 (A473 West entry)	3.75	0.00	Y	Arm J1:5 Ahead	Inf	100.0 %	1990	1990
J1:1/2 (A473 West entry)	3.75	0.00	Y	Arm J2:1 Right	15.00	100.0 %	1809	1809
J1:2/1 (A473 East entry)	3.75	0.00	Y	Arm J2:1 Left	20.00	100.0 %	1851	1851
J1:2/2 (A473 East entry)	3.75	0.00	Y	Arm J1:4 Ahead	Inf	100.0 %	1990	1990
J1:3/1 (Cowbridge Rd entry)	3.00	0.00	Y	Arm J1:4 Left	20.00	100.0 %	1781	1781
J1:3/2 (Cowbridge Rd entry)	3.00	0.00	Y	Arm J1:5 Right	20.00	100.0 %	1781	1781
J1:4/1 (A473 West exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:5/1 (A473 East exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Junction: J2: Cowbridge Rd / Site Access								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J2:1/1 (Cowbridge Rd north entry)	3.00	0.00	Y	Arm J2:4 Left	10.00	1.1 %	1912	1912
				Arm J2:5 Ahead	Inf	98.9 %		
J2:2/1 (Site Access entry)	3.50	0.00	Y	Arm J1:3 Right	12.00	76.9 %	1747	1747
				Arm J2:5 Left	12.00	23.1 %		
J2:3/1 (Cowbridge Rd south entry)	3.00	0.00	Y	Arm J1:3 Ahead	Inf	100.0 %	1915	1915
J2:3/2 (Cowbridge Rd south entry)	3.00	0.00	Y	Arm J2:4 Right	10.00	100.0 %	1665	1665
J2:4/1 (Site Access exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:5/1 (Cowbridge Rd south exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 3: '2035 Base AM' (FG3: '2035 Base AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	588	321	10	919
	B	487	0	431	14	932
	C	322	378	0	0	700
	D	2	2	0	0	4
	Tot.	811	968	752	24	2555

Traffic Lane Flows

Lane	Scenario 3: 2035 Base AM
Junction: J1: A473 / Cowbridge Rd	
J1:1/1 (with short)	919(In) 588(Out)
J1:1/2 (short)	331
J1:2/1 (short)	445
J1:2/2 (with short)	932(In) 487(Out)
J1:3/1	324
J1:3/2	380
J1:4/1	811
J1:5/1	968
Junction: J2: Cowbridge Rd / Site Access	
J2:1/1	776
J2:2/1	4
J2:3/1 (with short)	700(In) 700(Out)
J2:3/2 (short)	0
J2:4/1	24
J2:5/1	752

Full Input Data And Results

Lane Saturation Flows

Junction: J1: A473 / Cowbridge Rd								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J1:1/1 (A473 West entry)	3.75	0.00	Y	Arm J1:5 Ahead	Inf	100.0 %	1990	1990
J1:1/2 (A473 West entry)	3.75	0.00	Y	Arm J2:1 Right	15.00	100.0 %	1809	1809
J1:2/1 (A473 East entry)	3.75	0.00	Y	Arm J2:1 Left	20.00	100.0 %	1851	1851
J1:2/2 (A473 East entry)	3.75	0.00	Y	Arm J1:4 Ahead	Inf	100.0 %	1990	1990
J1:3/1 (Cowbridge Rd entry)	3.00	0.00	Y	Arm J1:4 Left	20.00	100.0 %	1781	1781
J1:3/2 (Cowbridge Rd entry)	3.00	0.00	Y	Arm J1:5 Right	20.00	100.0 %	1781	1781
J1:4/1 (A473 West exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:5/1 (A473 East exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Junction: J2: Cowbridge Rd / Site Access								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J2:1/1 (Cowbridge Rd north entry)	3.00	0.00	Y	Arm J2:4 Left	10.00	3.1 %	1906	1906
				Arm J2:5 Ahead	Inf	96.9 %		
J2:2/1 (Site Access entry)	3.50	0.00	Y	Arm J1:3 Right	12.00	100.0 %	1747	1747
				Arm J2:5 Left	12.00	0.0 %		
J2:3/1 (Cowbridge Rd south entry)	3.00	0.00	Y	Arm J1:3 Ahead	Inf	100.0 %	1915	1915
J2:3/2 (Cowbridge Rd south entry)	3.00	0.00	Y	Arm J2:4 Right	10.00	0.0 %	1915	1915
J2:4/1 (Site Access exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:5/1 (Cowbridge Rd south exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 4: '2035 Base PM' (FG4: '2035 Base PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	530	285	3	818
	B	658	0	384	4	1046
	C	306	389	0	1	696
	D	5	6	3	0	14
	Tot.	969	925	672	8	2574

Traffic Lane Flows

Lane	Scenario 4: 2035 Base PM
Junction: J1: A473 / Cowbridge Rd	
J1:1/1 (with short)	818(In) 530(Out)
J1:1/2 (short)	288
J1:2/1 (short)	388
J1:2/2 (with short)	1046(In) 658(Out)
J1:3/1	311
J1:3/2	395
J1:4/1	969
J1:5/1	925
Junction: J2: Cowbridge Rd / Site Access	
J2:1/1	676
J2:2/1	14
J2:3/1 (with short)	696(In) 695(Out)
J2:3/2 (short)	1
J2:4/1	8
J2:5/1	672

Full Input Data And Results

Lane Saturation Flows

Junction: J1: A473 / Cowbridge Rd								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J1:1/1 (A473 West entry)	3.75	0.00	Y	Arm J1:5 Ahead	Inf	100.0 %	1990	1990
J1:1/2 (A473 West entry)	3.75	0.00	Y	Arm J2:1 Right	15.00	100.0 %	1809	1809
J1:2/1 (A473 East entry)	3.75	0.00	Y	Arm J2:1 Left	20.00	100.0 %	1851	1851
J1:2/2 (A473 East entry)	3.75	0.00	Y	Arm J1:4 Ahead	Inf	100.0 %	1990	1990
J1:3/1 (Cowbridge Rd entry)	3.00	0.00	Y	Arm J1:4 Left	20.00	100.0 %	1781	1781
J1:3/2 (Cowbridge Rd entry)	3.00	0.00	Y	Arm J1:5 Right	20.00	100.0 %	1781	1781
J1:4/1 (A473 West exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:5/1 (A473 East exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Junction: J2: Cowbridge Rd / Site Access								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J2:1/1 (Cowbridge Rd north entry)	3.00	0.00	Y	Arm J2:4 Left	10.00	1.0 %	1912	1912
				Arm J2:5 Ahead	Inf	99.0 %		
J2:2/1 (Site Access entry)	3.50	0.00	Y	Arm J1:3 Right	12.00	78.6 %	1747	1747
				Arm J2:5 Left	12.00	21.4 %		
J2:3/1 (Cowbridge Rd south entry)	3.00	0.00	Y	Arm J1:3 Ahead	Inf	100.0 %	1915	1915
J2:3/2 (Cowbridge Rd south entry)	3.00	0.00	Y	Arm J2:4 Right	10.00	100.0 %	1665	1665
J2:4/1 (Site Access exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:5/1 (Cowbridge Rd south exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 5: '2035 Base + Dev AM' (FG5: '2035 Base + Dev AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	588	321	13	922
	B	487	0	431	27	945
	C	322	378	0	2	702
	D	14	49	6	0	69
	Tot.	823	1015	758	42	2638

Traffic Lane Flows

Lane	Scenario 5: 2035 Base + Dev AM
Junction: J1: A473 / Cowbridge Rd	
J1:1/1 (with short)	922(In) 588(Out)
J1:1/2 (short)	334
J1:2/1 (short)	458
J1:2/2 (with short)	945(In) 487(Out)
J1:3/1	336
J1:3/2	427
J1:4/1	823
J1:5/1	1015
Junction: J2: Cowbridge Rd / Site Access	
J2:1/1	792
J2:2/1	69
J2:3/1 (with short)	702(In) 700(Out)
J2:3/2 (short)	2
J2:4/1	42
J2:5/1	758

Full Input Data And Results

Lane Saturation Flows

Junction: J1: A473 / Cowbridge Rd								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J1:1/1 (A473 West entry)	3.75	0.00	Y	Arm J1:5 Ahead	Inf	100.0 %	1990	1990
J1:1/2 (A473 West entry)	3.75	0.00	Y	Arm J2:1 Right	15.00	100.0 %	1809	1809
J1:2/1 (A473 East entry)	3.75	0.00	Y	Arm J2:1 Left	20.00	100.0 %	1851	1851
J1:2/2 (A473 East entry)	3.75	0.00	Y	Arm J1:4 Ahead	Inf	100.0 %	1990	1990
J1:3/1 (Cowbridge Rd entry)	3.00	0.00	Y	Arm J1:4 Left	20.00	100.0 %	1781	1781
J1:3/2 (Cowbridge Rd entry)	3.00	0.00	Y	Arm J1:5 Right	20.00	100.0 %	1781	1781
J1:4/1 (A473 West exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:5/1 (A473 East exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Junction: J2: Cowbridge Rd / Site Access								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J2:1/1 (Cowbridge Rd north entry)	3.00	0.00	Y	Arm J2:4 Left	10.00	5.1 %	1901	1901
				Arm J2:5 Ahead	Inf	94.9 %		
J2:2/1 (Site Access entry)	3.50	0.00	Y	Arm J1:3 Right	12.00	91.3 %	1747	1747
				Arm J2:5 Left	12.00	8.7 %		
J2:3/1 (Cowbridge Rd south entry)	3.00	0.00	Y	Arm J1:3 Ahead	Inf	100.0 %	1915	1915
J2:3/2 (Cowbridge Rd south entry)	3.00	0.00	Y	Arm J2:4 Right	10.00	100.0 %	1665	1665
J2:4/1 (Site Access exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:5/1 (Cowbridge Rd south exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 6: '2035 Base + Dev PM' (FG6: '2035 Base + Dev PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	530	285	14	829
	B	658	0	384	49	1091
	C	306	389	0	7	702
	D	10	28	6	0	44
	Tot.	974	947	675	70	2666

Traffic Lane Flows

Lane	Scenario 6: 2035 Base + Dev PM
Junction: J1: A473 / Cowbridge Rd	
J1:1/1 (with short)	829(In) 530(Out)
J1:1/2 (short)	299
J1:2/1 (short)	433
J1:2/2 (with short)	1091(In) 658(Out)
J1:3/1	316
J1:3/2	417
J1:4/1	974
J1:5/1	947
Junction: J2: Cowbridge Rd / Site Access	
J2:1/1	732
J2:2/1	44
J2:3/1 (with short)	702(In) 695(Out)
J2:3/2 (short)	7
J2:4/1	70
J2:5/1	675

Full Input Data And Results

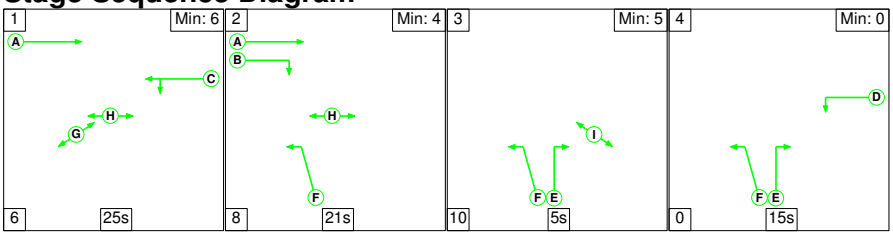
Lane Saturation Flows

Junction: J1: A473 / Cowbridge Rd								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J1:1/1 (A473 West entry)	3.75	0.00	Y	Arm J1:5 Ahead	Inf	100.0 %	1990	1990
J1:1/2 (A473 West entry)	3.75	0.00	Y	Arm J2:1 Right	15.00	100.0 %	1809	1809
J1:2/1 (A473 East entry)	3.75	0.00	Y	Arm J2:1 Left	20.00	100.0 %	1851	1851
J1:2/2 (A473 East entry)	3.75	0.00	Y	Arm J1:4 Ahead	Inf	100.0 %	1990	1990
J1:3/1 (Cowbridge Rd entry)	3.00	0.00	Y	Arm J1:4 Left	20.00	100.0 %	1781	1781
J1:3/2 (Cowbridge Rd entry)	3.00	0.00	Y	Arm J1:5 Right	20.00	100.0 %	1781	1781
J1:4/1 (A473 West exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:5/1 (A473 East exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Junction: J2: Cowbridge Rd / Site Access								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J2:1/1 (Cowbridge Rd north entry)	3.00	0.00	Y	Arm J2:4 Left	10.00	8.6 %	1891	1891
				Arm J2:5 Ahead	Inf	91.4 %		
J2:2/1 (Site Access entry)	3.50	0.00	Y	Arm J1:3 Right	12.00	86.4 %	1747	1747
				Arm J2:5 Left	12.00	13.6 %		
J2:3/1 (Cowbridge Rd south entry)	3.00	0.00	Y	Arm J1:3 Ahead	Inf	100.0 %	1915	1915
J2:3/2 (Cowbridge Rd south entry)	3.00	0.00	Y	Arm J2:4 Right	10.00	100.0 %	1665	1665
J2:4/1 (Site Access exit Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:5/1 (Cowbridge Rd south exit Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 1: '2025 Base AM' (FG1: '2025 Base AM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

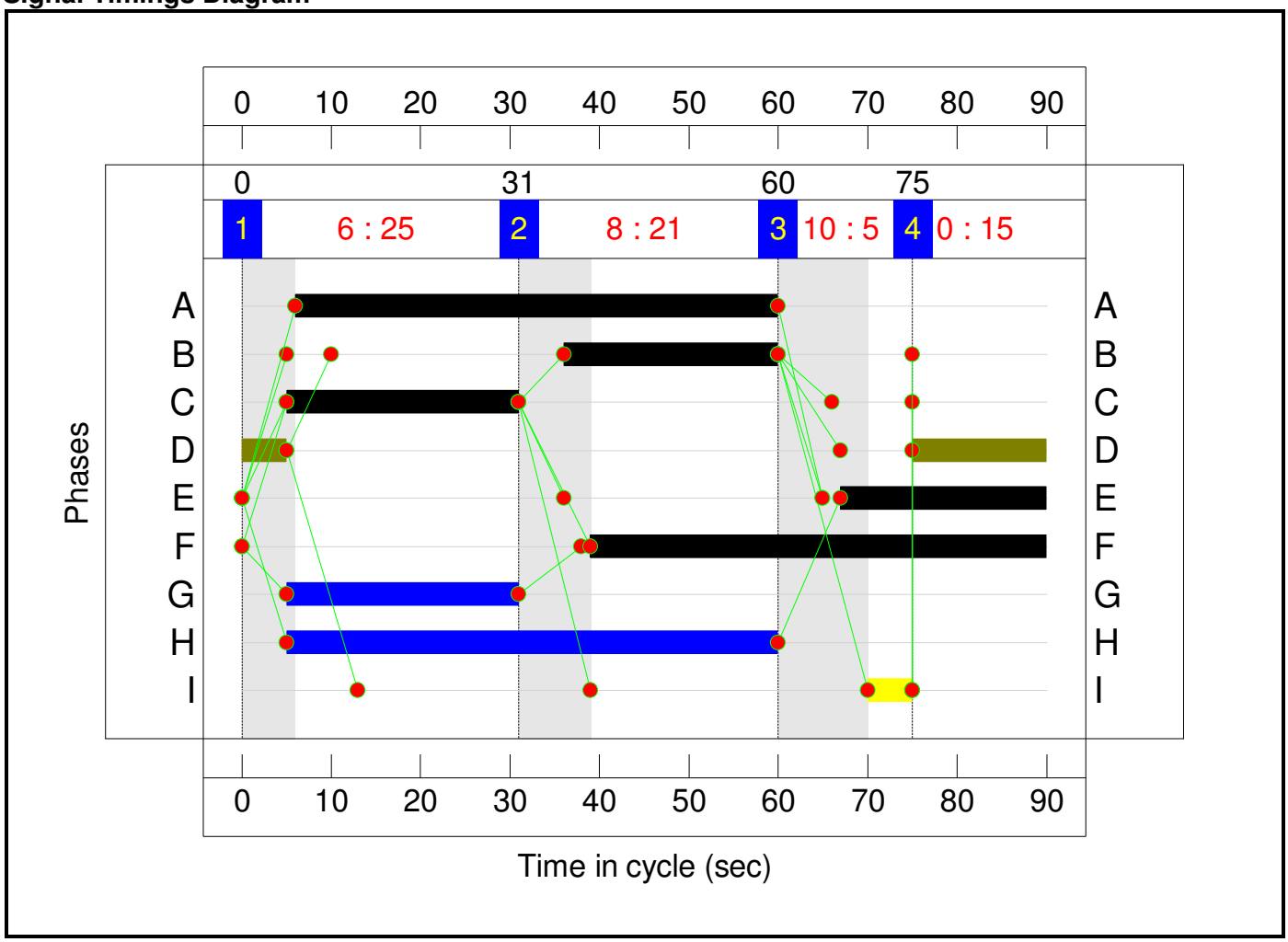


Full Input Data And Results

Stage Timings

Stage	1	2	3	4
Duration	25	21	5	15
Change Point	0	31	60	75

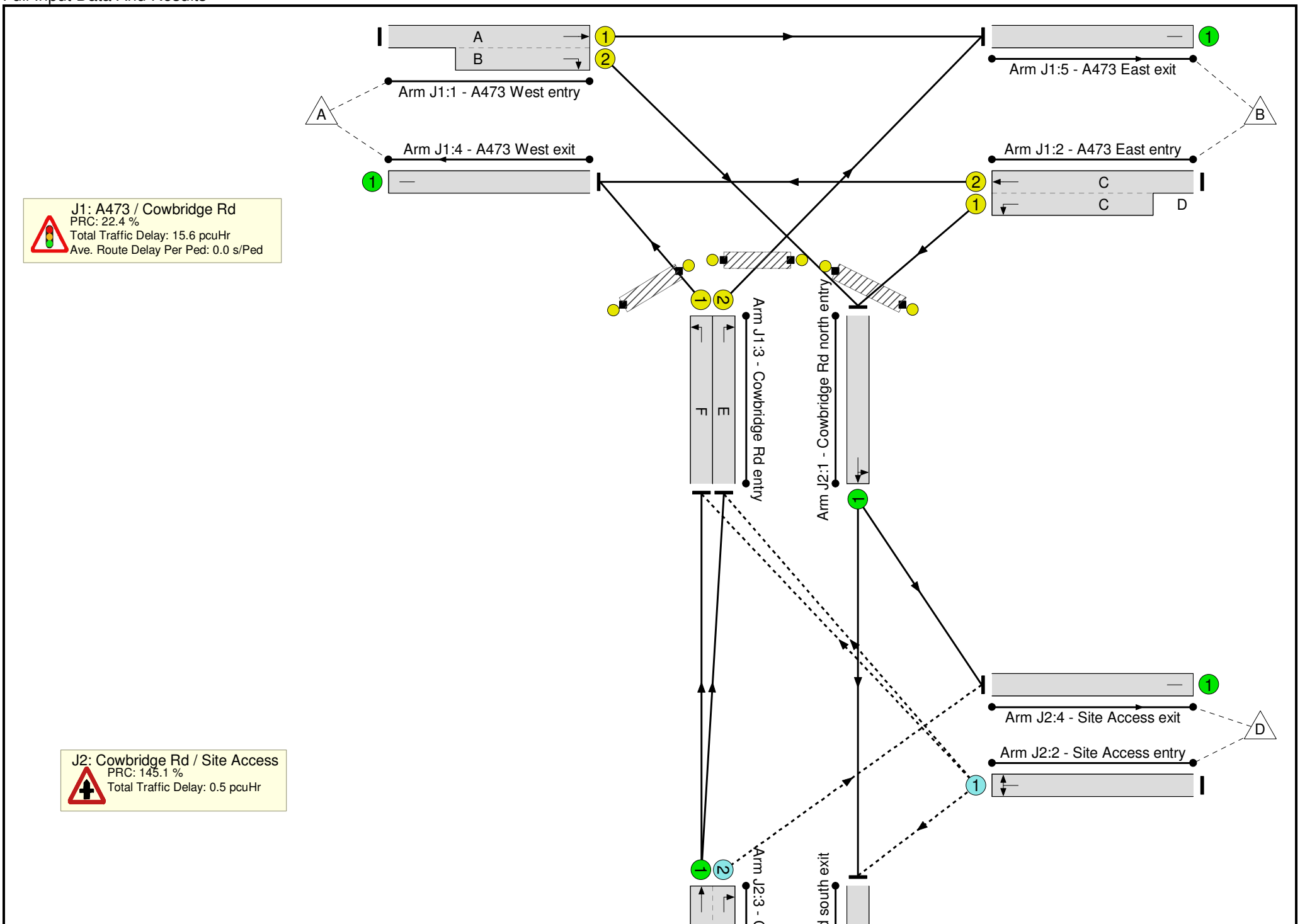
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

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: A473 / Cowbridge Road and Site Access / Cowbridge Road	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**73.5%**
J1: A473 / Cowbridge Rd	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**73.5%**
1/1+1/2	A473 West entry Ahead Right	U	N/A	N/A	A B		1	54:24	-	829	1990:1809	734+414	72.2 : 72.2%
2/2+2/1	A473 East entry Ahead Left	U	N/A	N/A	C	D	1	26:46	20	840	1990:1851	597+917	73.5 : 43.7%
3/1	Cowbridge Rd entry Left	U	N/A	N/A	F		1	51	-	292	1781	1029	28.4%
3/2	Cowbridge Rd entry Right	U	N/A	N/A	E		1	23	-	343	1781	475	72.2%
4/1	A473 West exit	U	N/A	N/A	-		-	-	-	731	Inf	Inf	0.0%
5/1	A473 East exit	U	N/A	N/A	-		-	-	-	873	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	G		1	26	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	H		1	55	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	I		1	5	-	0	-	0	0.0%
J2: Cowbridge Rd / Site Access	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**36.7%**
1/1	Cowbridge Rd north entry Left Ahead	U	N/A	N/A	-		-	-	-	700	1906	1906	36.7%
2/1	Site Access entry Right Left	O	N/A	N/A	-		-	-	-	4	1747	312	1.3%
3/1+3/2	Cowbridge Rd south entry Ahead Right	U+O	N/A	N/A	-		-	-	-	631	1915:1915	1915+0	33.0 : 0.0%
4/1	Site Access exit	U	N/A	N/A	-		-	-	-	23	Inf	Inf	0.0%
5/1	Cowbridge Rd south exit	U	N/A	N/A	-		-	-	-	677	Inf	Inf	0.0%

Full Input Data And Results

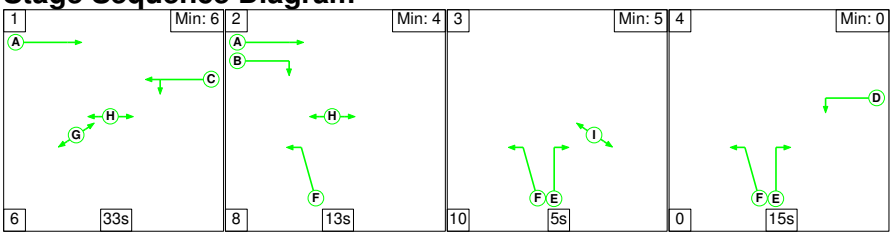
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A473 / Cowbridge Road and Site Access / Cowbridge Road	**-**	**-**	**4**	**0**	**0**	**12.2**	**3.9**	**0.0**	**16.2**	**-**	**-**	**-**	**-**
J1: A473 / Cowbridge Rd	**-**	**-**	**0**	**0**	**0**	**12.2**	**3.4**	**0.0**	**15.6**	**-**	**-**	**-**	**-**
1/1+1/2	829	829	-	-	-	3.7	1.3	-	5.0	21.7	6.9	1.3	8.2
2/2+2/1	840	840	-	-	-	4.9	0.6	-	5.5	23.7	9.8	0.6	10.4
3/1	292	292	-	-	-	0.8	0.2	-	1.0	12.0	3.7	0.2	3.8
3/2	343	343	-	-	-	2.9	1.3	-	4.1	43.4	7.7	1.3	9.0
4/1	731	731	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	873	873	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
J2: Cowbridge Rd / Site Access	**-**	**-**	**4**	**0**	**0**	**0.0**	**0.5**	**0.0**	**0.5**	**-**	**-**	**-**	**-**
1/1	700	700	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
2/1	4	4	4	0	0	0.0	0.0	-	0.0	5.8	0.0	0.0	0.0
3/1+3/2	631	631	0	0	0	0.0	0.2	-	0.2	1.4	0.0	0.2	0.2
4/1	23	23	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	677	677	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): 22.4 Total Delay for Signalled Lanes (pcuHr): 15.63 Cycle Time (s): 90
PRC Over All Lanes (%): 22.4 Total Delay Over All Lanes(pcuHr): 16.18

Full Input Data And Results

Scenario 2: '2025 Base PM' (FG2: '2025 Base PM', Plan 1: 'Network Control Plan 1')

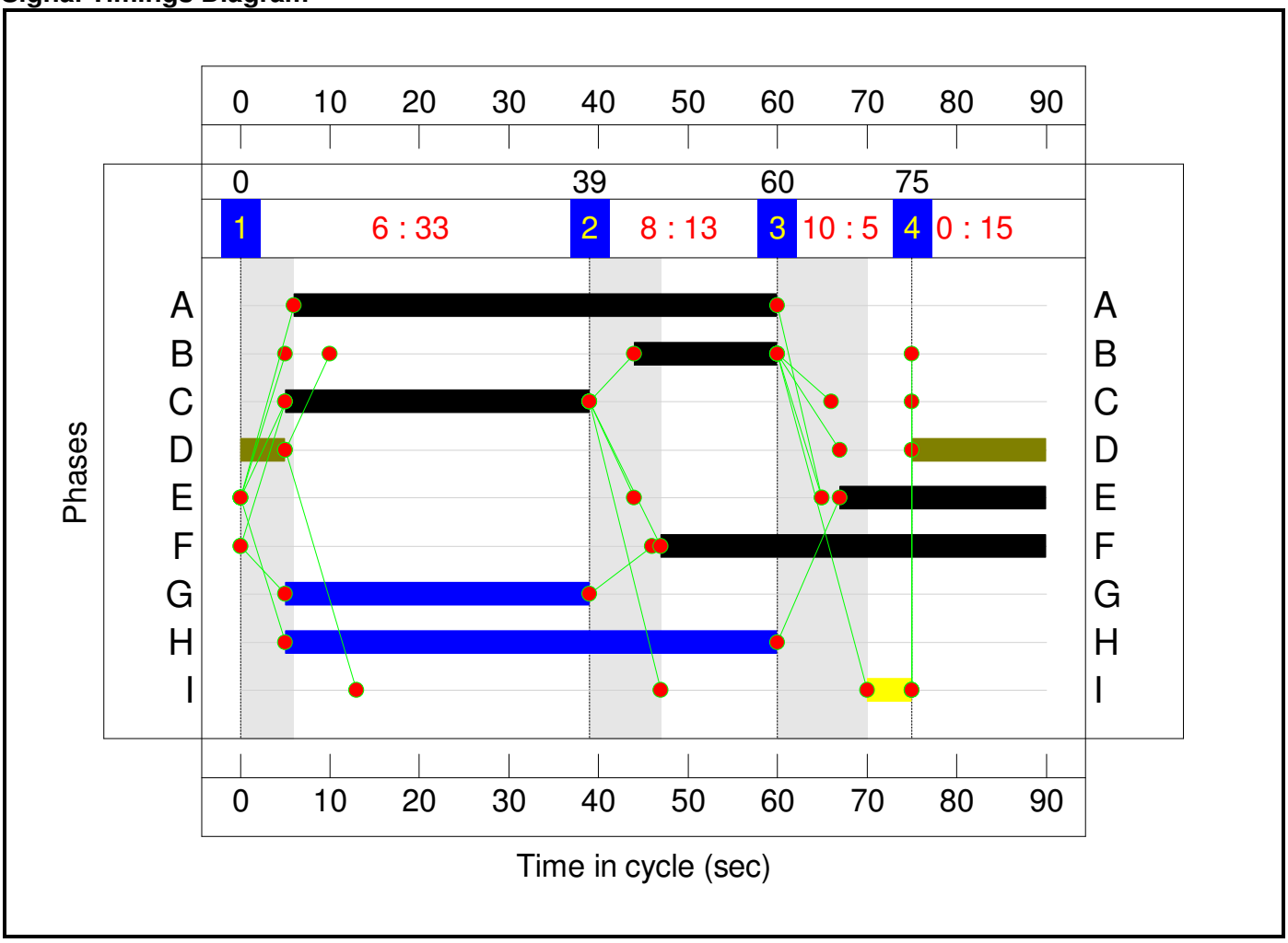
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4
Duration	33	13	5	15
Change Point	0	39	60	75

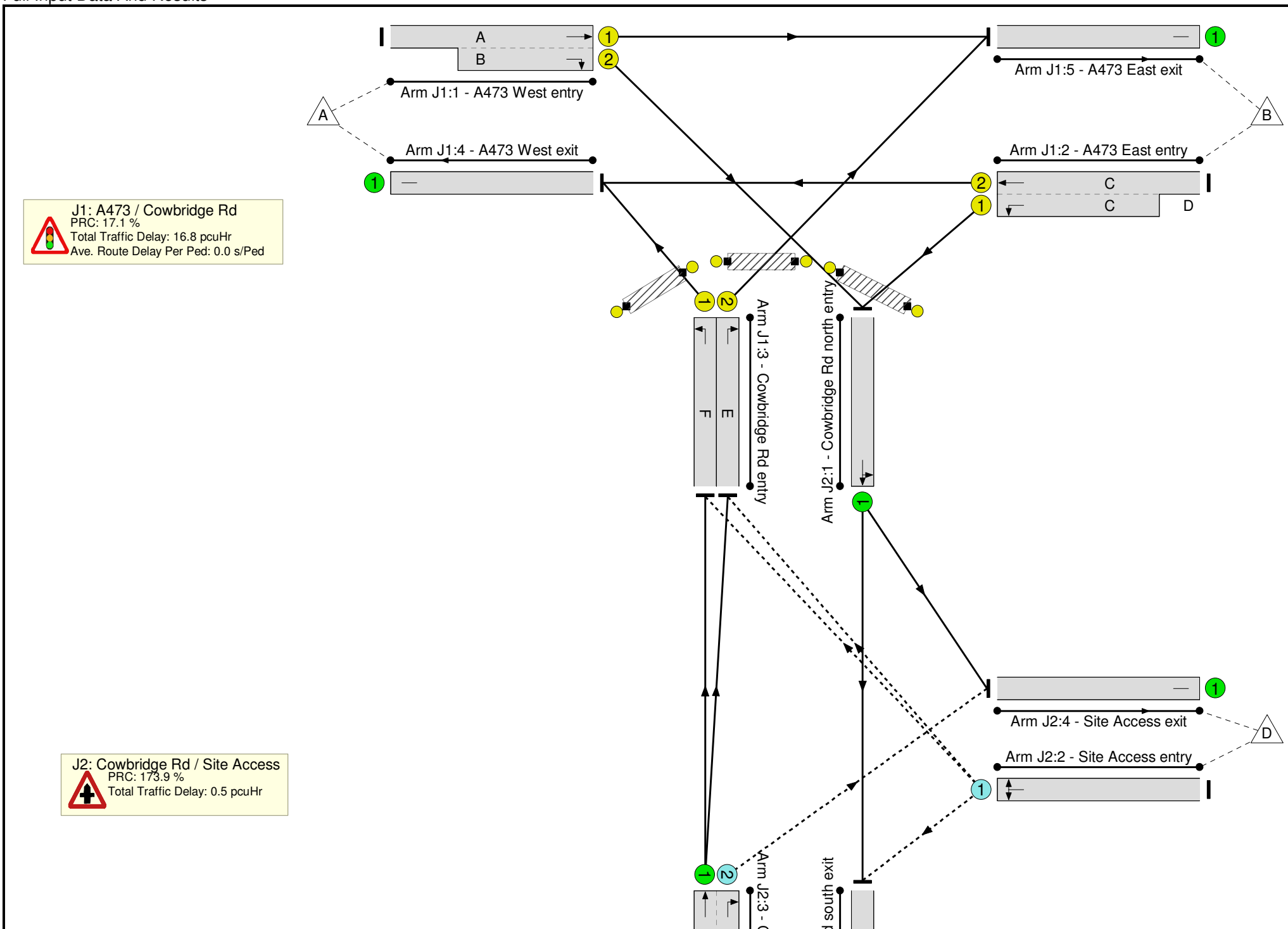
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

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: A473 / Cowbridge Road and Site Access / Cowbridge Road	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**76.9%**
J1: A473 / Cowbridge Rd	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**76.9%**
1/1+1/2	A473 West entry Ahead Right	U	N/A	N/A	A B		1	54:16	-	739	1990:1809	630+342	76.1 : 76.1%
2/2+2/1	A473 East entry Ahead Left	U	N/A	N/A	C	D	1	34:54	20	946	1990:1851	774+691	76.9 : 50.8%
3/1	Cowbridge Rd entry Left	U	N/A	N/A	F		1	43	-	281	1781	871	32.3%
3/2	Cowbridge Rd entry Right	U	N/A	N/A	E		1	23	-	357	1781	475	75.2%
4/1	A473 West exit	U	N/A	N/A	-		-	-	-	876	Inf	Inf	0.0%
5/1	A473 East exit	U	N/A	N/A	-		-	-	-	836	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	G		1	34	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	H		1	55	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	I		1	5	-	0	-	0	0.0%
J2: Cowbridge Rd / Site Access	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**32.9%**
1/1	Cowbridge Rd north entry Left Ahead	U	N/A	N/A	-		-	-	-	611	1912	1912	32.0%
2/1	Site Access entry Right Left	O	N/A	N/A	-		-	-	-	13	1747	363	3.6%
3/1+3/2	Cowbridge Rd south entry Ahead Right	U+O	N/A	N/A	-		-	-	-	629	1915:1665	1911+3	32.9 : 32.9%
4/1	Site Access exit	U	N/A	N/A	-		-	-	-	8	Inf	Inf	0.0%
5/1	Cowbridge Rd south exit	U	N/A	N/A	-		-	-	-	607	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: A473 / Cowbridge Road and Site Access / Cowbridge Road	**-**	**-**	**14**	**0**	**0**	**12.6**	**4.7**	**0.0**	**17.3**	**-**	**-**	**-**	**-**
J1: A473 / Cowbridge Rd	**-**	**-**	**0**	**0**	**0**	**12.6**	**4.2**	**0.0**	**16.8**	**-**	**-**	**-**	**-**
1/1+1/2	739	739	-	-	-	3.7	1.6	-	5.3	25.6	6.1	1.6	7.7
2/2+2/1	946	946	-	-	-	4.8	0.9	-	5.7	21.7	12.9	0.9	13.8
3/1	281	281	-	-	-	1.1	0.2	-	1.3	17.0	4.2	0.2	4.5
3/2	357	357	-	-	-	3.0	1.5	-	4.5	45.2	8.1	1.5	9.6
4/1	876	876	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	836	836	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
J2: Cowbridge Rd / Site Access	**-**	**-**	**14**	**0**	**0**	**0.0**	**0.5**	**0.0**	**0.5**	**-**	**-**	**-**	**-**
1/1	611	611	-	-	-	0.0	0.2	-	0.2	1.4	0.0	0.2	0.2
2/1	13	13	13	0	0	0.0	0.0	-	0.0	5.1	0.0	0.0	0.0
3/1+3/2	629	629	1	0	0	0.0	0.2	-	0.2	1.4	0.0	0.2	0.2
4/1	8	8	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	607	607	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1

PRC for Signalled Lanes (%): 17.1
PRC Over All Lanes (%): 17.1

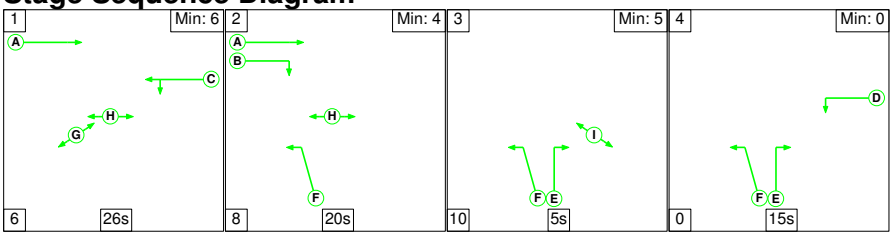
Total Delay for Signalled Lanes (pcuHr): 16.76
Total Delay Over All Lanes(pcuHr): 17.26

Cycle Time (s): 90

Full Input Data And Results

Scenario 3: '2035 Base AM' (FG3: '2035 Base AM', Plan 1: 'Network Control Plan 1')

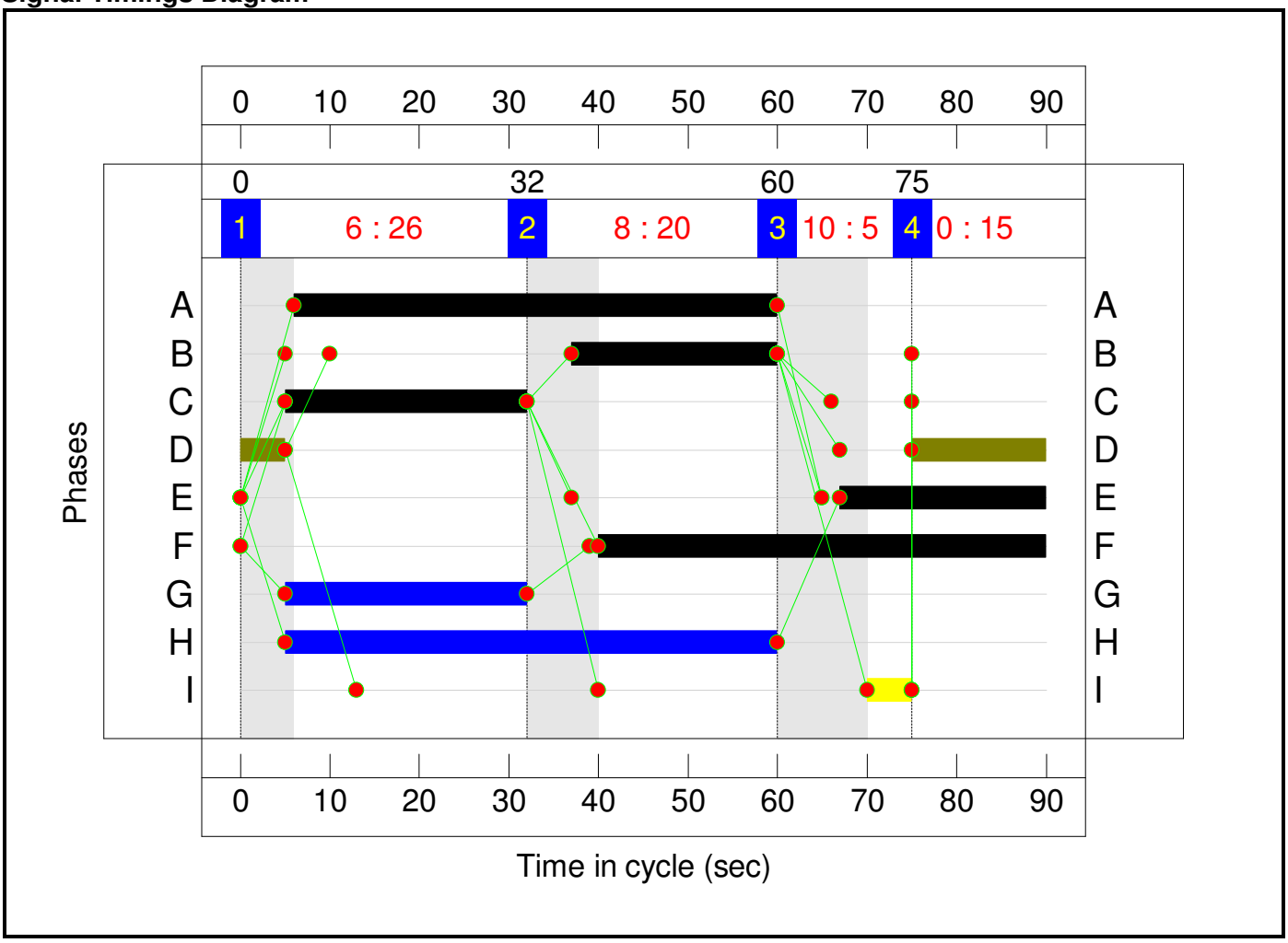
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4
Duration	26	20	5	15
Change Point	0	32	60	75

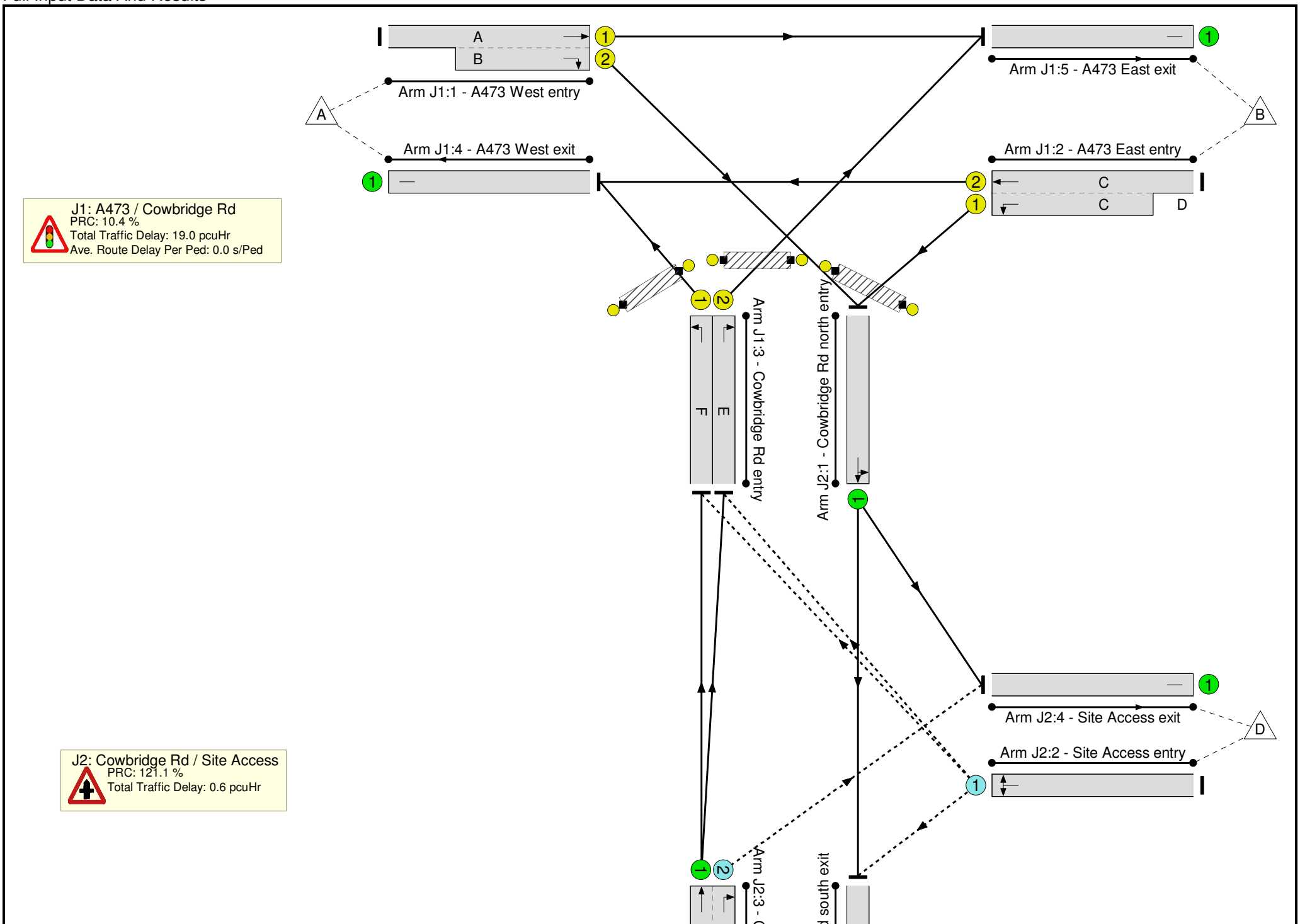
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

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: A473 / Cowbridge Road and Site Access / Cowbridge Road	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**81.5%**
J1: A473 / Cowbridge Rd	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**81.5%**
1/1+1/2	A473 West entry Ahead Right	U	N/A	N/A	A B		1	54:23	-	919	1990:1809	721+406	81.5 : 81.5%
2/2+2/1	A473 East entry Ahead Left	U	N/A	N/A	C	D	1	27:47	20	932	1990:1851	619+917	78.7 : 48.5%
3/1	Cowbridge Rd entry Left	U	N/A	N/A	F		1	50	-	324	1781	1009	32.1%
3/2	Cowbridge Rd entry Right	U	N/A	N/A	E		1	23	-	380	1781	475	80.0%
4/1	A473 West exit	U	N/A	N/A	-		-	-	-	811	Inf	Inf	0.0%
5/1	A473 East exit	U	N/A	N/A	-		-	-	-	968	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	G		1	27	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	H		1	55	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	I		1	5	-	0	-	0	0.0%
J2: Cowbridge Rd / Site Access	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**40.7%**
1/1	Cowbridge Rd north entry Left Ahead	U	N/A	N/A	-		-	-	-	776	1906	1906	40.7%
2/1	Site Access entry Right Left	O	N/A	N/A	-		-	-	-	4	1747	280	1.4%
3/1+3/2	Cowbridge Rd south entry Ahead Right	U+O	N/A	N/A	-		-	-	-	700	1915:1915	1915+0	36.6 : 0.0%
4/1	Site Access exit	U	N/A	N/A	-		-	-	-	24	Inf	Inf	0.0%
5/1	Cowbridge Rd south exit	U	N/A	N/A	-		-	-	-	752	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: A473 / Cowbridge Road and Site Access / Cowbridge Road	**-**	**-**	**4**	**0**	**0**	**13.9**	**5.7**	**0.0**	**19.6**	**-**	**-**	**-**	**-**
J1: A473 / Cowbridge Rd	**-**	**-**	**0**	**0**	**0**	**13.9**	**5.1**	**0.0**	**19.0**	**-**	**-**	**-**	**-**
1/1+1/2	919	919	-	-	-	4.3	2.2	-	6.5	25.3	8.0	2.2	10.2
2/2+2/1	932	932	-	-	-	5.4	0.8	-	6.2	23.9	11.1	0.8	11.9
3/1	324	324	-	-	-	0.9	0.2	-	1.2	13.0	4.2	0.2	4.5
3/2	380	380	-	-	-	3.2	1.9	-	5.2	49.0	8.8	1.9	10.7
4/1	811	811	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	968	968	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
J2: Cowbridge Rd / Site Access	**-**	**-**	**4**	**0**	**0**	**0.0**	**0.6**	**0.0**	**0.6**	**-**	**-**	**-**	**-**
1/1	776	776	-	-	-	0.0	0.3	-	0.3	1.6	0.0	0.3	0.3
2/1	4	4	4	0	0	0.0	0.0	-	0.0	6.5	0.0	0.0	0.0
3/1+3/2	700	700	0	0	0	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
4/1	24	24	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	752	752	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1

PRC for Signalled Lanes (%): 10.4
PRC Over All Lanes (%): 10.4

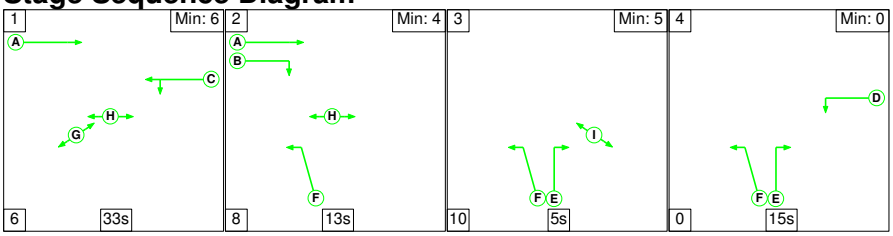
Total Delay for Signalled Lanes (pcuHr): 18.99
Total Delay Over All Lanes(pcuHr): 19.63

Cycle Time (s): 90

Full Input Data And Results

Scenario 4: '2035 Base PM' (FG4: '2035 Base PM', Plan 1: 'Network Control Plan 1')

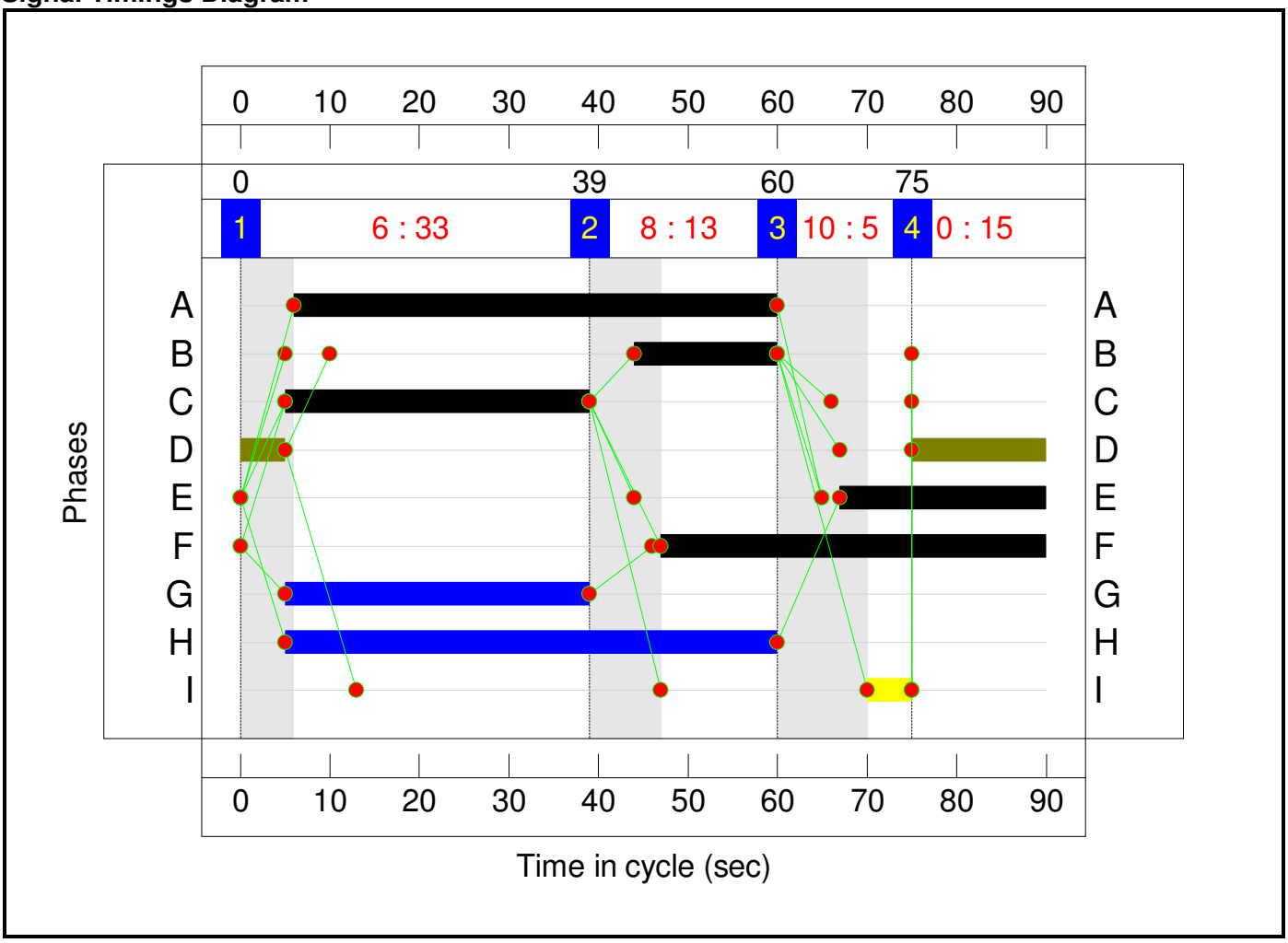
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4
Duration	33	13	5	15
Change Point	0	39	60	75

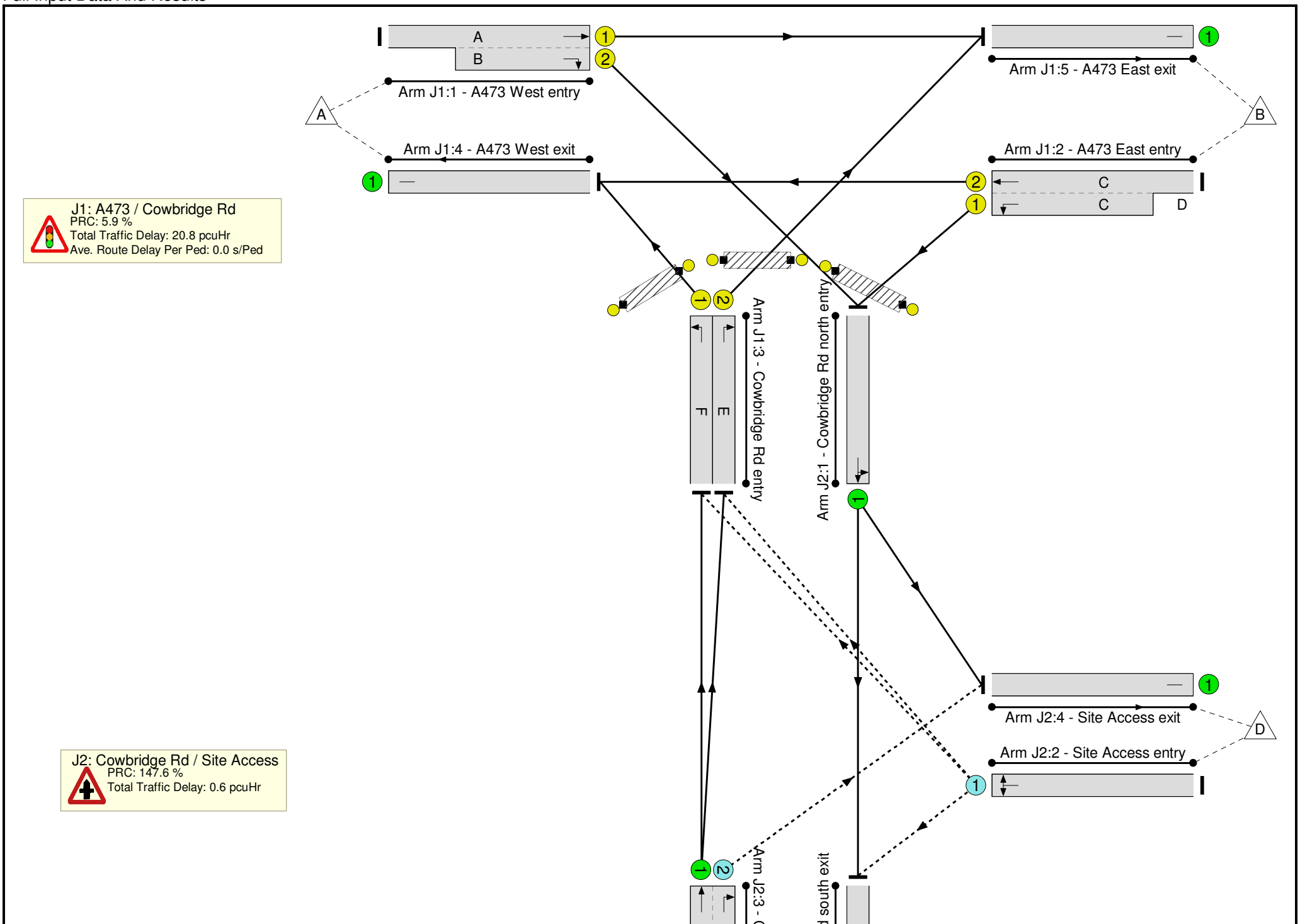
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

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: A473 / Cowbridge Road and Site Access / Cowbridge Road	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**85.0%**
J1: A473 / Cowbridge Rd	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**85.0%**
1/1+1/2	A473 West entry Ahead Right	U	N/A	N/A	A B		1	54:16	-	818	1990:1809	629+342	84.3 : 84.3%
2/2+2/1	A473 East entry Ahead Left	U	N/A	N/A	C	D	1	34:54	20	1046	1990:1851	774+690	85.0 : 56.2%
3/1	Cowbridge Rd entry Left	U	N/A	N/A	F		1	43	-	311	1781	871	35.7%
3/2	Cowbridge Rd entry Right	U	N/A	N/A	E		1	23	-	395	1781	475	83.2%
4/1	A473 West exit	U	N/A	N/A	-		-	-	-	969	Inf	Inf	0.0%
5/1	A473 East exit	U	N/A	N/A	-		-	-	-	925	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	G		1	34	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	H		1	55	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	I		1	5	-	0	-	0	0.0%
J2: Cowbridge Rd / Site Access	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**36.4%**
1/1	Cowbridge Rd north entry Left Ahead	U	N/A	N/A	-		-	-	-	676	1912	1912	35.4%
2/1	Site Access entry Right Left	O	N/A	N/A	-		-	-	-	14	1747	331	4.2%
3/1+3/2	Cowbridge Rd south entry Ahead Right	U+O	N/A	N/A	-		-	-	-	696	1915:1665	1912+3	36.4 : 36.4%
4/1	Site Access exit	U	N/A	N/A	-		-	-	-	8	Inf	Inf	0.0%
5/1	Cowbridge Rd south exit	U	N/A	N/A	-		-	-	-	672	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: A473 / Cowbridge Road and Site Access / Cowbridge Road	**-**	**-**	**15**	**0**	**0**	**14.3**	**7.0**	**0.0**	**21.4**	**-**	**-**	**-**	**-**
J1: A473 / Cowbridge Rd	**-**	**-**	**0**	**0**	**0**	**14.3**	**6.4**	**0.0**	**20.8**	**-**	**-**	**-**	**-**
1/1+1/2	818	818	-	-	-	4.2	2.6	-	6.8	29.8	6.9	2.6	9.5
2/2+2/1	1046	1046	-	-	-	5.5	1.2	-	6.8	23.3	15.0	1.2	16.2
3/1	311	311	-	-	-	1.2	0.3	-	1.5	17.5	4.8	0.3	5.0
3/2	395	395	-	-	-	3.4	2.3	-	5.7	52.4	9.2	2.3	11.6
4/1	969	969	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	925	925	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
J2: Cowbridge Rd / Site Access	**-**	**-**	**15**	**0**	**0**	**0.0**	**0.6**	**0.0**	**0.6**	**-**	**-**	**-**	**-**
1/1	676	676	-	-	-	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
2/1	14	14	14	0	0	0.0	0.0	-	0.0	5.7	0.0	0.0	0.0
3/1+3/2	696	696	1	0	0	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
4/1	8	8	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	672	672	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1

PRC for Signalled Lanes (%): 5.9
PRC Over All Lanes (%): 5.9

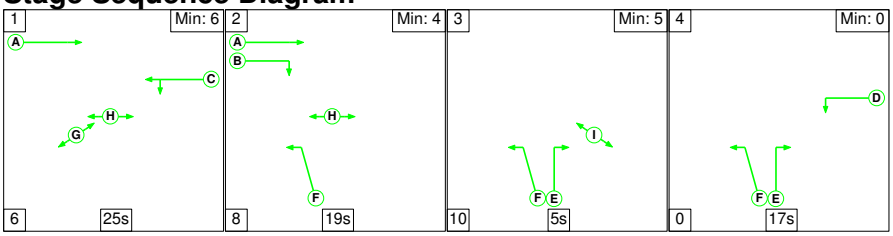
Total Delay for Signalled Lanes (pcuHr): 20.79
Total Delay Over All Lanes(pcuHr): 21.37

Cycle Time (s): 90

Full Input Data And Results

Scenario 5: '2035 Base + Dev AM' (FG5: '2035 Base + Dev AM', Plan 1: 'Network Control Plan 1')

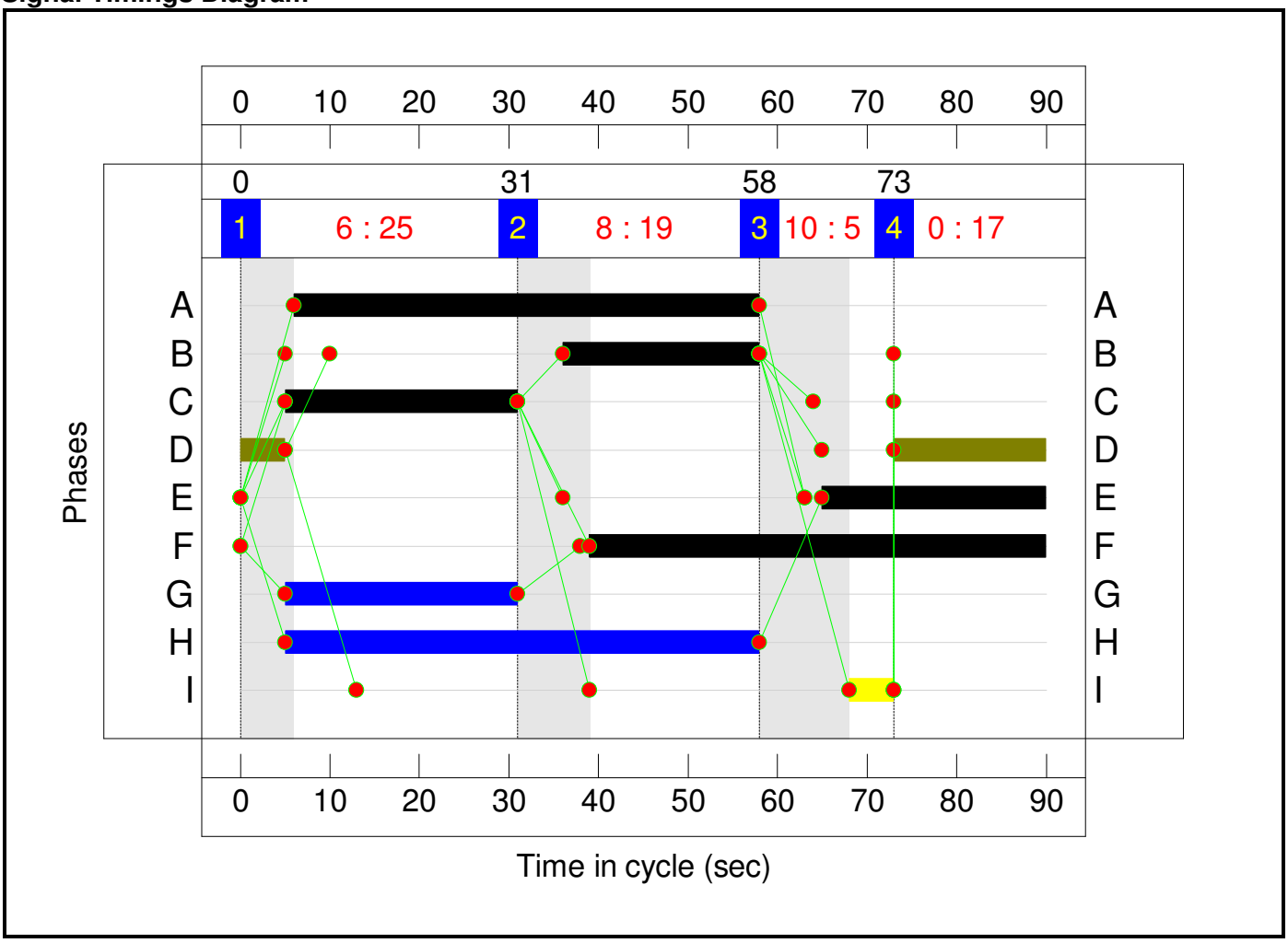
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4
Duration	25	19	5	17
Change Point	0	31	58	73

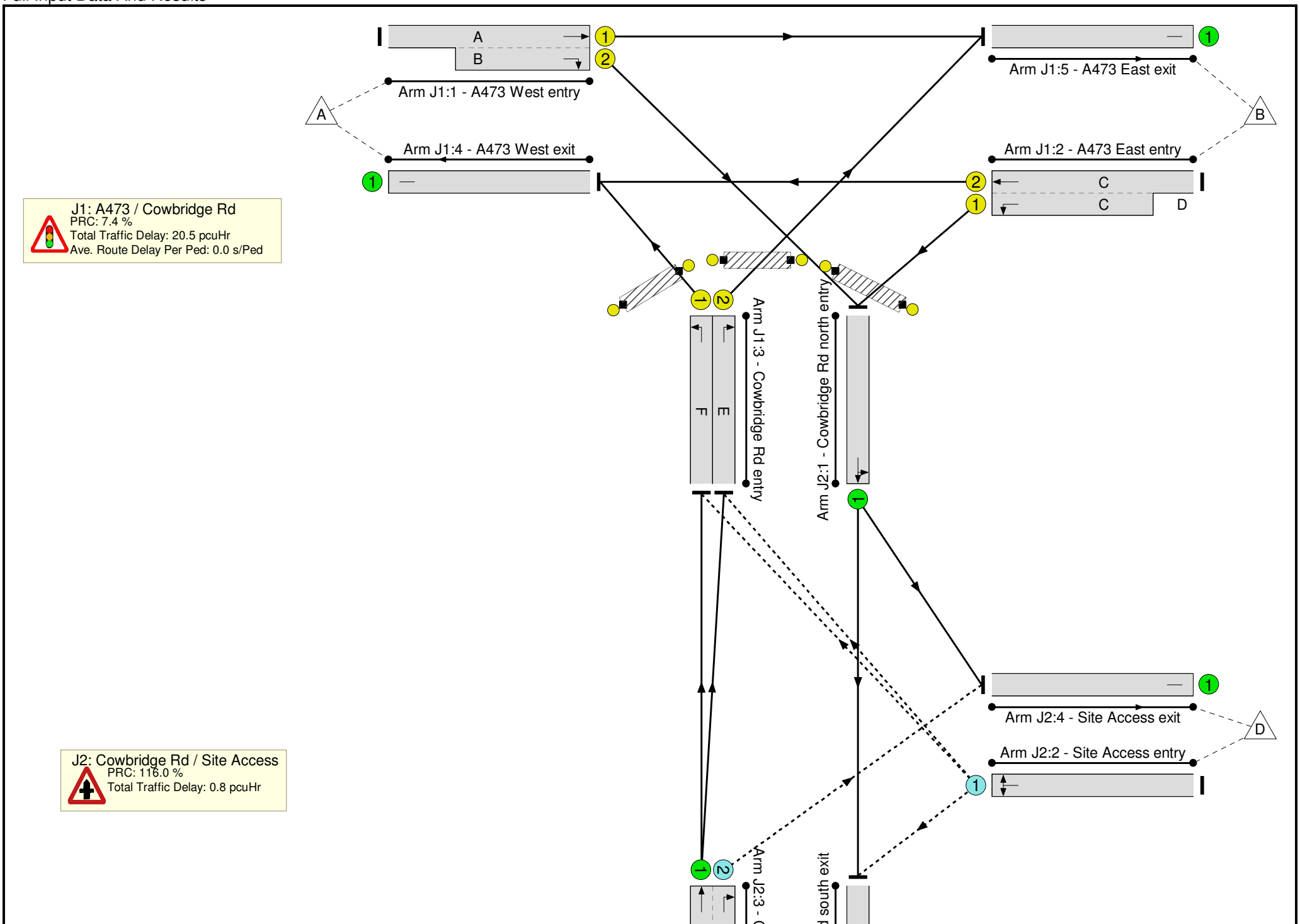
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

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: A473 / Cowbridge Road and Site Access / Cowbridge Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**83.8%**
J1: A473 / Cowbridge Rd	-	-	**N/A**	-	-		-	-	-	-	-	-	**83.8%**
1/1+1/2	A473 West entry Ahead Right	U	N/A	N/A	A B		1	52:22	-	922	1990:1809	702+399	83.8 : 83.8%
2/2+2/1	A473 East entry Ahead Left	U	N/A	N/A	C	D	1	26:48	22	945	1990:1851	597+931	81.6 : 49.2%
3/1	Cowbridge Rd entry Left	U	N/A	N/A	F		1	51	-	336	1781	1029	32.7%
3/2	Cowbridge Rd entry Right	U	N/A	N/A	E		1	25	-	427	1781	515	83.0%
4/1	A473 West exit	U	N/A	N/A	-		-	-	-	823	Inf	Inf	0.0%
5/1	A473 East exit	U	N/A	N/A	-		-	-	-	1015	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	G		1	26	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	H		1	53	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	I		1	5	-	0	-	0	0.0%
J2: Cowbridge Rd / Site Access	-	-	**N/A**	-	-		-	-	-	-	-	-	**41.7%**
1/1	Cowbridge Rd north entry Left Ahead	U	N/A	N/A	-		-	-	-	792	1901	1901	41.7%
2/1	Site Access entry Right Left	O	N/A	N/A	-		-	-	-	69	1747	291	23.7%
3/1+3/2	Cowbridge Rd south entry Ahead Right	U+O	N/A	N/A	-		-	-	-	702	1915:1665	1909+5	36.7 : 36.7%
4/1	Site Access exit	U	N/A	N/A	-		-	-	-	42	Inf	Inf	0.0%
5/1	Cowbridge Rd south exit	U	N/A	N/A	-		-	-	-	758	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: A473 / Cowbridge Road and Site Access / Cowbridge Road	**-**	**-**	**71**	**0**	**0**	**14.6**	**6.7**	**0.0**	**21.3**	**-**	**-**	**-**	**-**
J1: A473 / Cowbridge Rd	**-**	**-**	**0**	**0**	**0**	**14.6**	**5.9**	**0.0**	**20.5**	**-**	**-**	**-**	**-**
1/1+1/2	922	922	-	-	-	4.6	2.5	-	7.1	27.8	8.5	2.5	11.0
2/2+2/1	945	945	-	-	-	5.5	0.8	-	6.3	24.1	11.2	0.8	12.0
3/1	336	336	-	-	-	0.9	0.2	-	1.2	12.5	4.3	0.2	4.5
3/2	427	427	-	-	-	3.6	2.3	-	5.9	49.5	10.0	2.3	12.3
4/1	823	823	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	1015	1015	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
J2: Cowbridge Rd / Site Access	**-**	**-**	**71**	**0**	**0**	**0.0**	**0.8**	**0.0**	**0.8**	**-**	**-**	**-**	**-**
1/1	792	792	-	-	-	0.0	0.4	-	0.4	1.6	0.0	0.4	0.4
2/1	69	69	69	0	0	0.0	0.2	-	0.2	8.1	0.1	0.2	0.3
3/1+3/2	702	702	2	0	0	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
4/1	42	42	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	758	758	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1

PRC for Signalled Lanes (%): 7.4
PRC Over All Lanes (%): 7.4

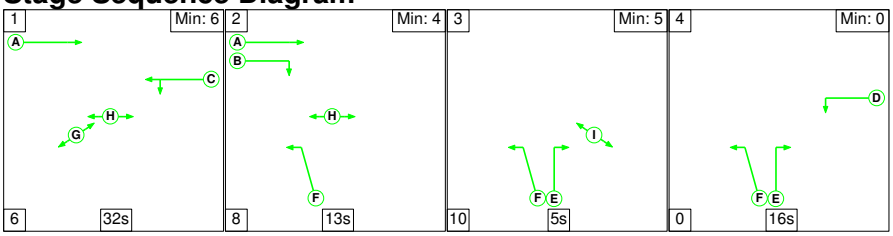
Total Delay for Signalled Lanes (pcuHr): 20.49
Total Delay Over All Lanes(pcuHr): 21.29

Cycle Time (s): 90

Full Input Data And Results

Scenario 6: '2035 Base + Dev PM' (FG6: '2035 Base + Dev PM', Plan 1: 'Network Control Plan 1')

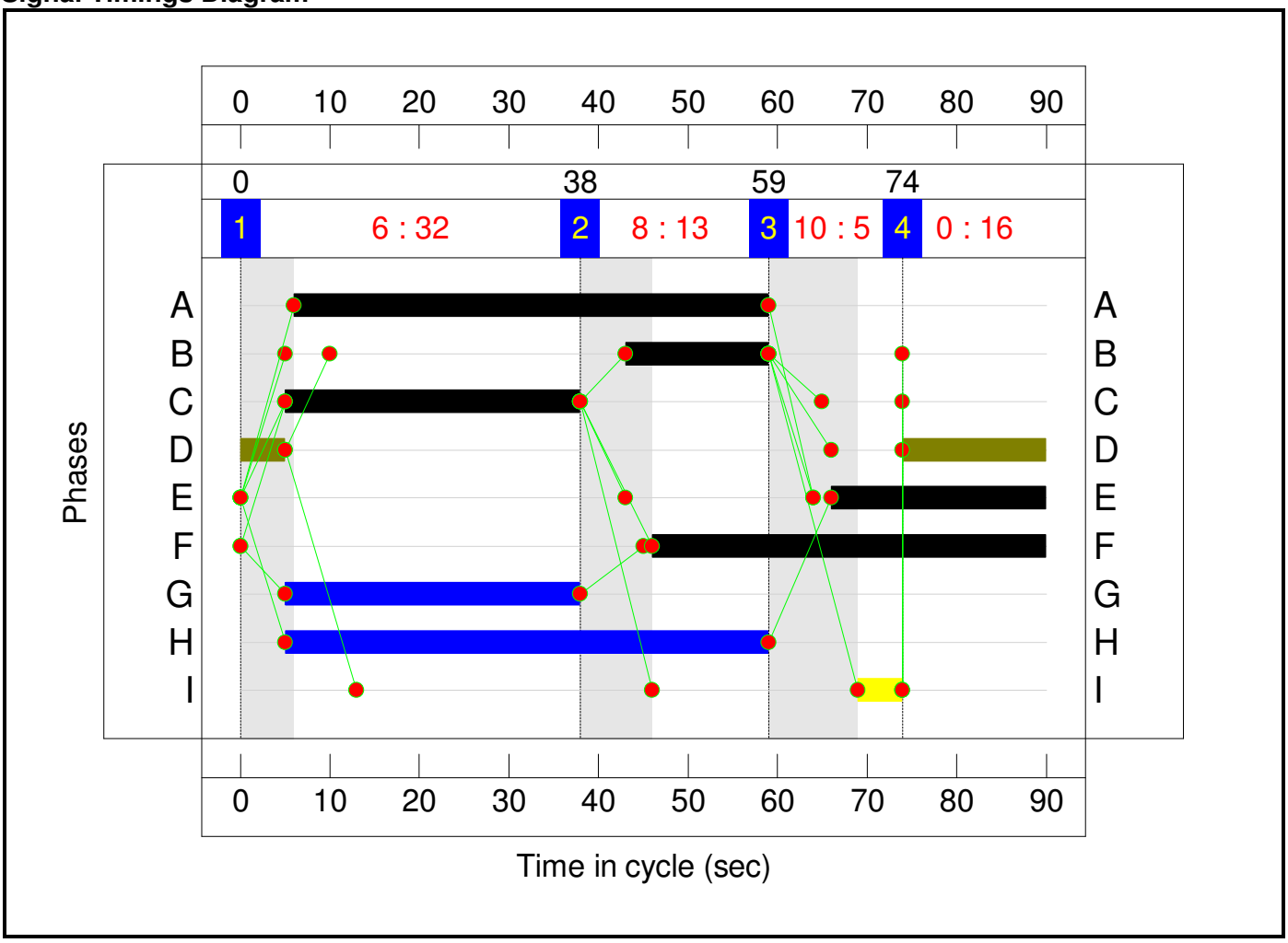
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4
Duration	32	13	5	16
Change Point	0	38	59	74

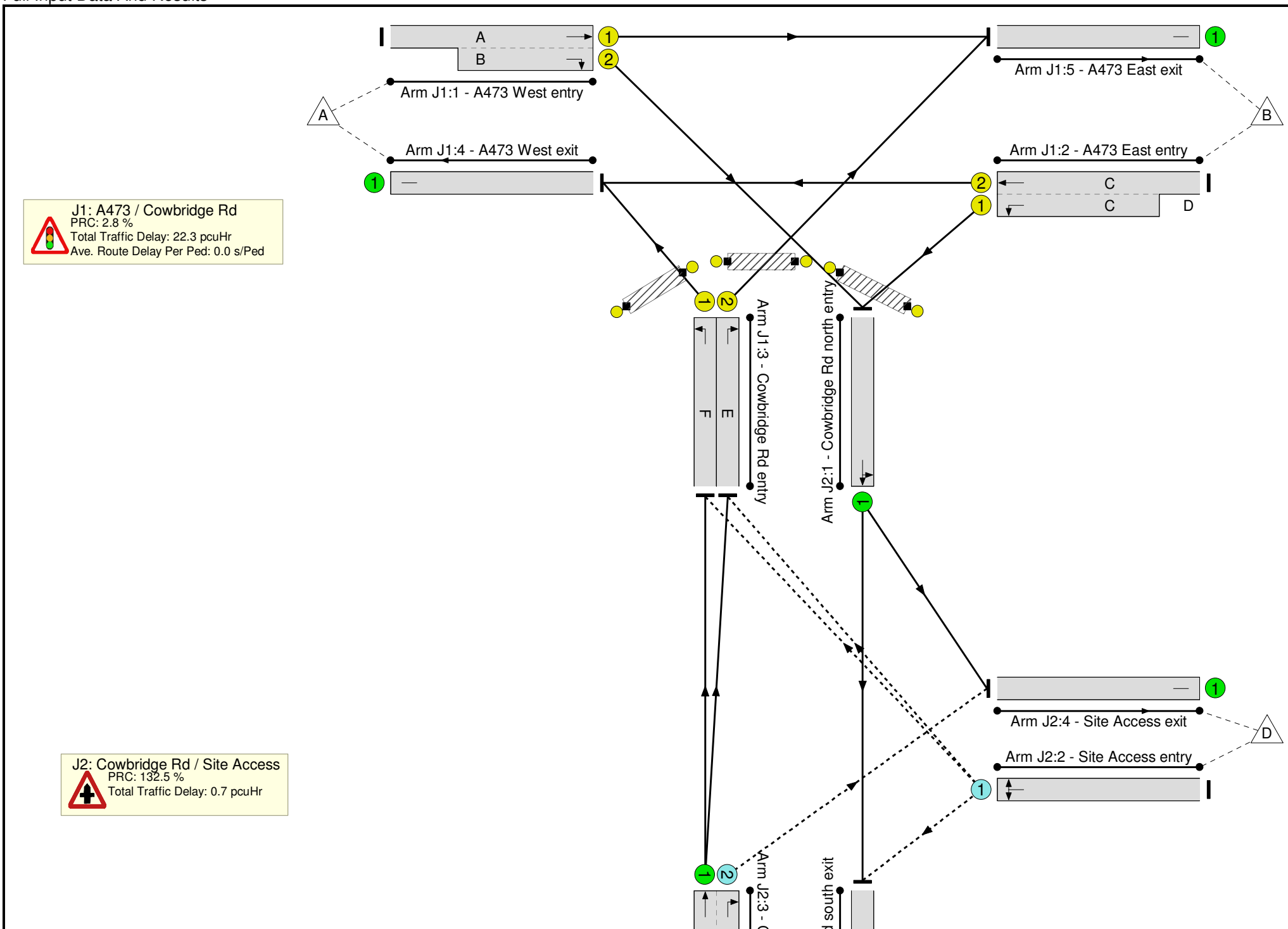
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

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: A473 / Cowbridge Road and Site Access / Cowbridge Road	-	-	**N/A**	-	-		-	-	-	-	-	-	**87.5%**
J1: A473 / Cowbridge Rd	-	-	**N/A**	-	-		-	-	-	-	-	-	**87.5%**
1/1+1/2	A473 West entry Ahead Right	U	N/A	N/A	A B		1	53:16	-	829	1990:1809	606+342	87.5 : 87.5%
2/2+2/1	A473 East entry Ahead Left	U	N/A	N/A	C	D	1	33:54	21	1091	1990:1851	752+767	87.5 : 56.5%
3/1	Cowbridge Rd entry Left	U	N/A	N/A	F		1	44	-	316	1781	890	35.5%
3/2	Cowbridge Rd entry Right	U	N/A	N/A	E		1	24	-	417	1781	495	84.3%
4/1	A473 West exit	U	N/A	N/A	-		-	-	-	974	Inf	Inf	0.0%
5/1	A473 East exit	U	N/A	N/A	-		-	-	-	947	Inf	Inf	0.0%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	G		1	33	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	H		1	54	-	0	-	0	0.0%
Ped Link: P3	Unnamed Ped Link	-	N/A	-	I		1	5	-	0	-	0	0.0%
J2: Cowbridge Rd / Site Access	-	-	**N/A**	-	-		-	-	-	-	-	-	**38.7%**
1/1	Cowbridge Rd north entry Left Ahead	U	N/A	N/A	-		-	-	-	732	1891	1891	38.7%
2/1	Site Access entry Right Left	O	N/A	N/A	-		-	-	-	44	1747	318	13.9%
3/1+3/2	Cowbridge Rd south entry Ahead Right	U+O	N/A	N/A	-		-	-	-	702	1915:1665	1893+19	36.7 : 36.7%
4/1	Site Access exit	U	N/A	N/A	-		-	-	-	70	Inf	Inf	0.0%
5/1	Cowbridge Rd south exit	U	N/A	N/A	-		-	-	-	675	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: A473 / Cowbridge Road and Site Access / Cowbridge Road	**-**	**-**	**51**	**0**	**0**	**15.0**	**8.1**	**0.0**	**23.0**	**-**	**-**	**-**	**-**
J1: A473 / Cowbridge Rd	**-**	**-**	**0**	**0**	**0**	**15.0**	**7.4**	**0.0**	**22.3**	**-**	**-**	**-**	**-**
1/1+1/2	829	829	-	-	-	4.4	3.3	-	7.7	33.5	7.2	3.3	10.5
2/2+2/1	1091	1091	-	-	-	5.8	1.3	-	7.1	23.4	15.2	1.3	16.4
3/1	316	316	-	-	-	1.2	0.3	-	1.5	16.8	4.7	0.3	5.0
3/2	417	417	-	-	-	3.6	2.5	-	6.1	52.4	9.7	2.5	12.2
4/1	974	974	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	947	947	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-
J2: Cowbridge Rd / Site Access	**-**	**-**	**51**	**0**	**0**	**0.0**	**0.7**	**0.0**	**0.7**	**-**	**-**	**-**	**-**
1/1	732	732	-	-	-	0.0	0.3	-	0.3	1.6	0.0	0.3	0.3
2/1	44	44	44	0	0	0.0	0.1	-	0.1	6.6	0.0	0.1	0.1
3/1+3/2	702	702	7	0	0	0.0	0.3	-	0.3	1.5	0.0	0.3	0.3
4/1	70	70	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	675	675	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1

PRC for Signalled Lanes (%): 2.8
PRC Over All Lanes (%): 2.8

Total Delay for Signalled Lanes (pcuHr): 22.35
Total Delay Over All Lanes(pcuHr): 23.03

Cycle Time (s): 90

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.1.7462

Filename: A473_Lanelay Rd Roundabout.j9
Path: J:\110516_LDEV_Talbot Green Town Centre\01 - WIP\Design\30 Technical\31 Modelling\Single Access Modelling
Report generation date: 24/11/2025 16:07:56

Summary of junction performance

	AM				PM			
	Q (PCU)	Delay (s)	RFC	LOS	Q (PCU)	Delay (s)	RFC	LOS
	2025 Base							
1 - A473 east	0.8	3.60	0.43	A	1.1	4.26	0.53	A
2 - A473 west	0.7	2.19	0.39	A	0.6	2.06	0.37	A
3 - Rhodfa Bryn Rhydd	0.2	4.37	0.20	A	0.1	3.58	0.08	A
4 - Lanelay Rd	0.5	3.47	0.31	A	0.7	3.48	0.40	A
	2035 Base							
1 - A473 east	1.0	4.05	0.48	A	1.5	5.07	0.59	A
2 - A473 west	0.8	2.38	0.44	A	0.7	2.24	0.41	A
3 - Rhodfa Bryn Rhydd	0.3	5.01	0.24	A	0.1	3.90	0.10	A
4 - Lanelay Rd	0.6	3.87	0.35	A	0.9	3.93	0.46	A
	2035 Base + Dev							
1 - A473 east	1.0	4.10	0.49	A	1.5	5.11	0.60	A
2 - A473 west	0.8	2.39	0.44	A	0.7	2.25	0.42	A
3 - Rhodfa Bryn Rhydd	0.3	5.04	0.24	A	0.1	3.93	0.10	A
4 - Lanelay Rd	0.6	3.88	0.35	A	0.9	3.97	0.46	A

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

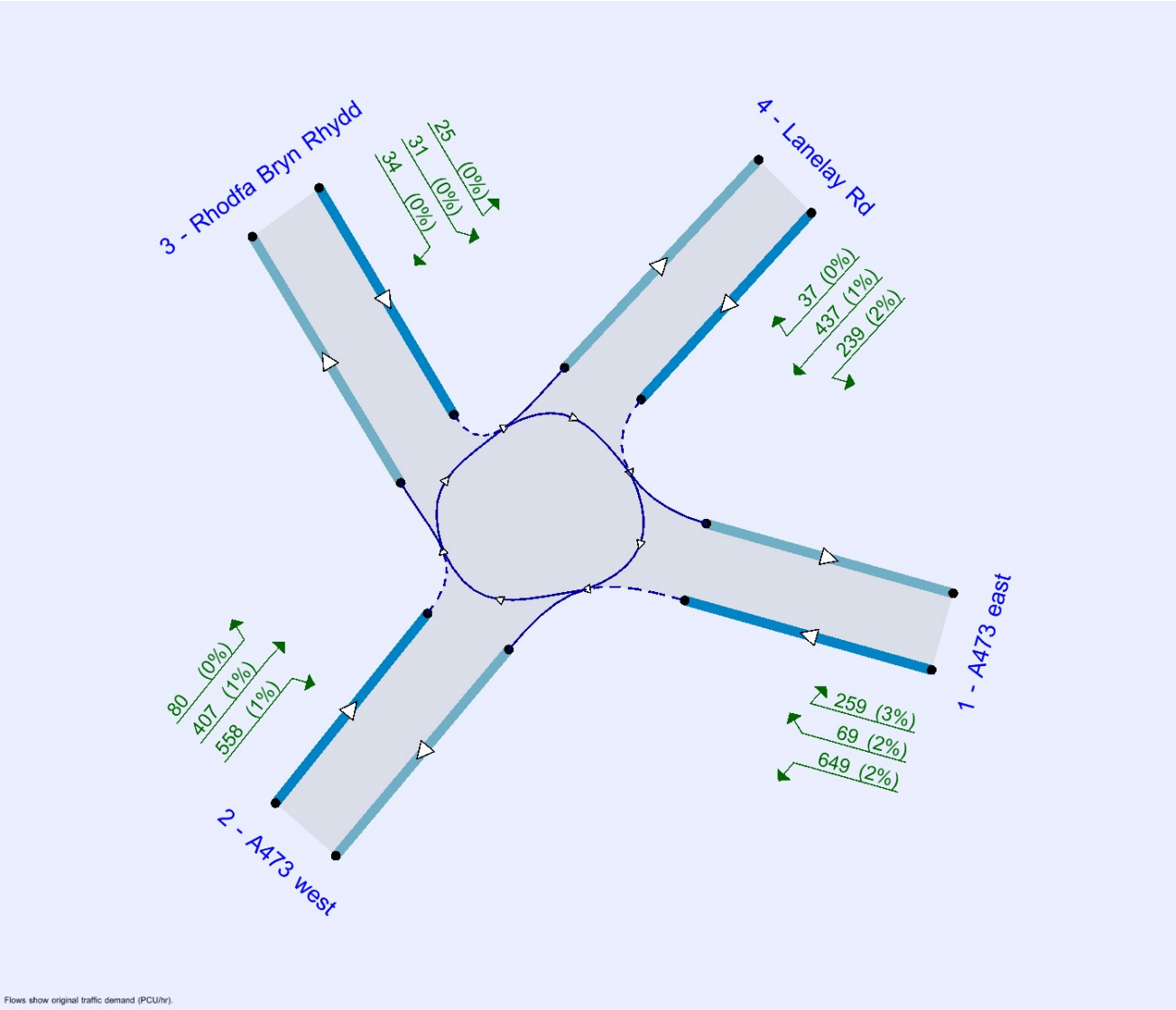
File summary

File Description

Title	A473 / Lanelay Rd Roundabout
Location	Talbot Green
Site number	
Date	18/08/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	PFGROUP\ateague
Description	

Units

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



The junction diagram reflects the last run of Junctions.

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2025 Base	AM	ONE HOUR	07:30	09:00	15	✓
D2	2025 Base	PM	ONE HOUR	16:30	18:00	15	✓
D3	2035 Base	AM	ONE HOUR	07:30	09:00	15	✓
D4	2035 Base	PM	ONE HOUR	16:30	18:00	15	✓
D5	2035 Base + Dev	AM	ONE HOUR	07:30	09:00	15	✓
D6	2035 Base + Dev	PM	ONE HOUR	16:30	18:00	15	✓

Analysis Set Details

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

2025 Base, 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	A473 / Lanelay Rd Roundabout	Standard Roundabout		1, 2, 3, 4	3.03	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	A473 east	
2	A473 west	
3	Rhodfa Bryn Rhydd	
4	Lanelay Rd	

Roundabout Geometry

Arm	V (m)	E (m)	l' (m)	R (m)	D (m)	PHI (deg)	Exit only
1 - A473 east	5.00	7.70	21.1	20.0	59.0	20.0	
2 - A473 west	8.00	10.00	26.5	20.0	59.0	11.0	
3 - Rhodfa Bryn Rhydd	4.50	6.40	13.5	20.0	59.0	22.0	
4 - Lanelay Rd	3.75	8.30	29.6	25.0	59.0	19.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A473 east	0.654	2168
2 - A473 west	0.826	3104
3 - Rhodfa Bryn Rhydd	0.589	1809
4 - Lanelay Rd	0.656	2159

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 segment length (min)	Run automatically
D1	2025 Base	AM	ONE HOUR	07:30	09:00	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.30

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
1 - A473 east		ONE HOUR	✓	731	100.000
2 - A473 west		ONE HOUR	✓	1039	100.000
3 - Rhodfa Bryn Rhydd		ONE HOUR	✓	185	100.000
4 - Lanelay Rd		ONE HOUR	✓	445	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A473 east	2 - A473 west	3 - Rhodfa Bryn Rhydd	4 - Lanelay Rd
From	1 - A473 east	0	543	15	173
	2 - A473 west	626	1	23	389
	3 - Rhodfa Bryn Rhydd	57	94	0	34
	4 - Lanelay Rd	148	290	6	1

Vehicle Mix

HV %s

		To			
		1 - A473 east	2 - A473 west	3 - Rhodfa Bryn Rhydd	4 - Lanelay Rd
From	1 - A473 east	0	7	0	5
	2 - A473 west	9	0	0	3
	3 - Rhodfa Bryn Rhydd	0	2	0	0
	4 - Lanelay Rd	6	5	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A473 east	0.43	3.60	0.8	A	671	1006
2 - A473 west	0.39	2.19	0.7	A	953	1430
3 - Rhodfa Bryn Rhydd	0.20	4.37	0.2	A	170	255
4 - Lanelay Rd	0.31	3.47	0.5	A	408	613

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A473 east	550	138	294	1976	0.279	549	624	0.0	0.4	2.729	A
2 - A473 west	782	196	146	2983	0.262	781	697	0.0	0.4	1.771	A
3 - Rhodfa Bryn Rhydd	139	35	894	1283	0.109	139	33	0.0	0.1	3.186	A
4 - Lanelay Rd	335	84	584	1776	0.189	334	448	0.0	0.2	2.666	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A473 east	657	164	352	1938	0.339	657	747	0.4	0.6	3.040	A
2 - A473 west	934	234	175	2959	0.316	934	834	0.4	0.5	1.925	A
3 - Rhodfa Bryn Rhydd	166	42	1069	1179	0.141	166	40	0.1	0.2	3.598	A
4 - Lanelay Rd	400	100	699	1701	0.235	400	536	0.2	0.3	2.955	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A473 east	805	201	431	1886	0.427	804	914	0.6	0.8	3.597	A
2 - A473 west	1144	286	214	2927	0.391	1143	1020	0.5	0.7	2.185	A
3 - Rhodfa Bryn Rhydd	204	51	1309	1038	0.196	203	48	0.2	0.2	4.369	A
4 - Lanelay Rd	490	122	856	1598	0.307	489	657	0.3	0.5	3.467	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A473 east	805	201	432	1886	0.427	805	915	0.8	0.8	3.604	A
2 - A473 west	1144	286	215	2927	0.391	1144	1022	0.7	0.7	2.187	A
3 - Rhodfa Bryn Rhydd	204	51	1310	1037	0.196	204	48	0.2	0.2	4.373	A
4 - Lanelay Rd	490	122	857	1597	0.307	490	657	0.5	0.5	3.471	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A473 east	657	164	353	1937	0.339	658	748	0.8	0.6	3.050	A
2 - A473 west	934	234	176	2959	0.316	935	836	0.7	0.5	1.927	A
3 - Rhodfa Bryn Rhydd	166	42	1071	1179	0.141	167	40	0.2	0.2	3.607	A
4 - Lanelay Rd	400	100	700	1700	0.235	401	537	0.5	0.3	2.959	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A473 east	550	138	295	1975	0.279	551	626	0.6	0.4	2.739	A
2 - A473 west	782	196	147	2983	0.262	783	699	0.5	0.4	1.775	A
3 - Rhodfa Bryn Rhydd	139	35	896	1281	0.109	139	33	0.2	0.1	3.193	A
4 - Lanelay Rd	335	84	586	1775	0.189	335	450	0.3	0.2	2.671	A

2025 Base, 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	A473 / Lanelay Rd Roundabout	Standard Roundabout		1, 2, 3, 4	3.23	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2025 Base	PM	ONE HOUR	16:30	18:00	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.30

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
1 - A473 east		ONE HOUR	✓	878	100.000
2 - A473 west		ONE HOUR	✓	940	100.000
3 - Rhodfa Bryn Rhydd		ONE HOUR	✓	80	100.000
4 - Lanelay Rd		ONE HOUR	✓	642	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A473 east	2 - A473 west	3 - Rhodfa Bryn Rhydd	4 - Lanelay Rd
From	1 - A473 east	0	584	61	233
	2 - A473 west	499	1	72	368
	3 - Rhodfa Bryn Rhydd	26	31	0	23
	4 - Lanelay Rd	213	395	33	1

Vehicle Mix

HV %s

		To			
		1 - A473 east	2 - A473 west	3 - Rhodfa Bryn Rhydd	4 - Lanelay Rd
From	1 - A473 east	0	2	2	3
	2 - A473 west	1	0	0	1
	3 - Rhodfa Bryn Rhydd	0	0	0	0
	4 - Lanelay Rd	2	1	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A473 east	0.53	4.26	1.1	A	806	1209
2 - A473 west	0.37	2.06	0.6	A	863	1294
3 - Rhodfa Bryn Rhydd	0.08	3.58	0.1	A	73	110
4 - Lanelay Rd	0.40	3.48	0.7	A	589	884

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A473 east	661	165	346	1942	0.340	659	554	0.0	0.5	2.883	A
2 - A473 west	708	177	246	2901	0.244	706	759	0.0	0.3	1.660	A
3 - Rhodfa Bryn Rhydd	60	15	828	1322	0.046	60	125	0.0	0.0	2.853	A
4 - Lanelay Rd	483	121	419	1885	0.256	482	469	0.0	0.3	2.606	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A473 east	789	197	414	1897	0.416	789	663	0.5	0.7	3.340	A
2 - A473 west	845	211	295	2861	0.295	845	908	0.3	0.4	1.806	A
3 - Rhodfa Bryn Rhydd	72	18	990	1226	0.059	72	149	0.0	0.1	3.118	A
4 - Lanelay Rd	577	144	500	1831	0.315	577	561	0.3	0.5	2.918	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A473 east	967	242	507	1837	0.526	965	812	0.7	1.1	4.244	A
2 - A473 west	1035	259	361	2806	0.369	1034	1111	0.4	0.6	2.056	A
3 - Rhodfa Bryn Rhydd	88	22	1212	1095	0.080	88	183	0.1	0.1	3.573	A
4 - Lanelay Rd	707	177	613	1757	0.402	706	687	0.5	0.7	3.477	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A473 east	967	242	508	1836	0.526	967	813	1.1	1.1	4.261	A
2 - A473 west	1035	259	361	2806	0.369	1035	1113	0.6	0.6	2.056	A
3 - Rhodfa Bryn Rhydd	88	22	1213	1095	0.080	88	183	0.1	0.1	3.576	A
4 - Lanelay Rd	707	177	613	1757	0.402	707	688	0.7	0.7	3.483	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A473 east	789	197	415	1897	0.416	791	664	1.1	0.7	3.355	A
2 - A473 west	845	211	295	2860	0.295	846	910	0.6	0.4	1.811	A
3 - Rhodfa Bryn Rhydd	72	18	992	1225	0.059	72	149	0.1	0.1	3.124	A
4 - Lanelay Rd	577	144	501	1831	0.315	578	563	0.7	0.5	2.925	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A473 east	661	165	347	1941	0.341	662	556	0.7	0.5	2.898	A
2 - A473 west	708	177	247	2900	0.244	708	762	0.4	0.3	1.661	A
3 - Rhodfa Bryn Rhydd	60	15	830	1320	0.046	60	125	0.1	0.0	2.859	A
4 - Lanelay Rd	483	121	420	1884	0.257	484	471	0.5	0.4	2.616	A

2035 Base, 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	A473 / Lanelay Rd Roundabout	Standard Roundabout		1, 2, 3, 4	3.37	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2035 Base	AM	ONE HOUR	07:30	09:00	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.30

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
1 - A473 east		ONE HOUR	✓	811	100.000
2 - A473 west		ONE HOUR	✓	1151	100.000
3 - Rhodfa Bryn Rhydd		ONE HOUR	✓	205	100.000
4 - Lanelay Rd		ONE HOUR	✓	493	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A473 east	2 - A473 west	3 - Rhodfa Bryn Rhydd	4 - Lanelay Rd
From	1 - A473 east	0	602	17	192
	2 - A473 west	694	1	25	431
	3 - Rhodfa Bryn Rhydd	63	104	0	38
	4 - Lanelay Rd	164	321	7	1

Vehicle Mix

HV %s

		To			
		1 - A473 east	2 - A473 west	3 - Rhodfa Bryn Rhydd	4 - Lanelay Rd
From	1 - A473 east	0	7	0	5
	2 - A473 west	9	0	0	3
	3 - Rhodfa Bryn Rhydd	0	2	0	0
	4 - Lanelay Rd	6	5	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A473 east	0.48	4.05	1.0	A	744	1116
2 - A473 west	0.44	2.38	0.8	A	1056	1584
3 - Rhodfa Bryn Rhydd	0.24	5.01	0.3	A	188	282
4 - Lanelay Rd	0.35	3.87	0.6	A	452	679

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A473 east	611	153	326	1955	0.312	609	692	0.0	0.5	2.891	A
2 - A473 west	867	217	163	2970	0.292	865	771	0.0	0.4	1.851	A
3 - Rhodfa Bryn Rhydd	154	39	991	1226	0.126	154	37	0.0	0.1	3.400	A
4 - Lanelay Rd	371	93	647	1735	0.214	370	497	0.0	0.3	2.815	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A473 east	729	182	390	1913	0.381	728	827	0.5	0.7	3.287	A
2 - A473 west	1035	259	195	2943	0.352	1034	923	0.4	0.6	2.043	A
3 - Rhodfa Bryn Rhydd	184	46	1185	1111	0.166	184	44	0.1	0.2	3.932	A
4 - Lanelay Rd	443	111	774	1651	0.268	443	595	0.3	0.4	3.182	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A473 east	893	223	477	1856	0.481	892	1013	0.7	1.0	4.034	A
2 - A473 west	1267	317	239	2907	0.436	1266	1130	0.6	0.8	2.376	A
3 - Rhodfa Bryn Rhydd	226	56	1451	955	0.236	225	54	0.2	0.3	4.997	A
4 - Lanelay Rd	543	136	948	1537	0.353	542	728	0.4	0.6	3.861	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A473 east	893	223	478	1856	0.481	893	1014	1.0	1.0	4.047	A
2 - A473 west	1267	317	239	2907	0.436	1267	1132	0.8	0.8	2.379	A
3 - Rhodfa Bryn Rhydd	226	56	1452	954	0.237	226	54	0.3	0.3	5.008	A
4 - Lanelay Rd	543	136	949	1537	0.353	543	729	0.6	0.6	3.868	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A473 east	729	182	391	1913	0.381	730	829	1.0	0.7	3.302	A
2 - A473 west	1035	259	195	2943	0.352	1036	926	0.8	0.6	2.048	A
3 - Rhodfa Bryn Rhydd	184	46	1187	1110	0.166	185	44	0.3	0.2	3.942	A
4 - Lanelay Rd	443	111	776	1650	0.269	444	596	0.6	0.4	3.188	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A473 east	611	153	327	1954	0.312	611	694	0.7	0.5	2.903	A
2 - A473 west	867	217	164	2969	0.292	867	775	0.6	0.4	1.858	A
3 - Rhodfa Bryn Rhydd	154	39	994	1224	0.126	155	37	0.2	0.1	3.410	A
4 - Lanelay Rd	371	93	649	1733	0.214	372	499	0.4	0.3	2.824	A

2035 Base, 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	A473 / Lanelay Rd Roundabout	Standard Roundabout		1, 2, 3, 4	3.70	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2035 Base	PM	ONE HOUR	16:30	18:00	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.30

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
1 - A473 east		ONE HOUR	✓	972	100.000
2 - A473 west		ONE HOUR	✓	1040	100.000
3 - Rhodfa Bryn Rhydd		ONE HOUR	✓	88	100.000
4 - Lanelay Rd		ONE HOUR	✓	711	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A473 east	2 - A473 west	3 - Rhodfa Bryn Rhydd	4 - Lanelay Rd
From	1 - A473 east	0	646	68	258
	2 - A473 west	552	1	80	407
	3 - Rhodfa Bryn Rhydd	29	34	0	25
	4 - Lanelay Rd	236	437	37	1

Vehicle Mix

HV %s

		To			
		1 - A473 east	2 - A473 west	3 - Rhodfa Bryn Rhydd	4 - Lanelay Rd
From	1 - A473 east	0	2	2	3
	2 - A473 west	1	0	0	1
	3 - Rhodfa Bryn Rhydd	0	0	0	0
	4 - Lanelay Rd	2	1	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A473 east	0.59	5.07	1.5	A	892	1338
2 - A473 west	0.41	2.24	0.7	A	954	1431
3 - Rhodfa Bryn Rhydd	0.10	3.90	0.1	A	81	121
4 - Lanelay Rd	0.46	3.93	0.9	A	652	979

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A473 east	732	183	383	1918	0.382	729	614	0.0	0.6	3.111	A
2 - A473 west	783	196	273	2879	0.272	781	839	0.0	0.4	1.737	A
3 - Rhodfa Bryn Rhydd	66	17	916	1270	0.052	66	139	0.0	0.1	2.990	A
4 - Lanelay Rd	535	134	463	1856	0.288	534	519	0.0	0.4	2.764	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A473 east	874	218	458	1869	0.468	873	734	0.6	0.9	3.718	A
2 - A473 west	935	234	327	2834	0.330	934	1004	0.4	0.5	1.917	A
3 - Rhodfa Bryn Rhydd	79	20	1095	1164	0.068	79	166	0.1	0.1	3.317	A
4 - Lanelay Rd	639	160	553	1796	0.356	639	621	0.4	0.6	3.159	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A473 east	1070	268	561	1802	0.594	1068	899	0.9	1.5	5.034	A
2 - A473 west	1145	286	400	2774	0.413	1144	1229	0.5	0.7	2.234	A
3 - Rhodfa Bryn Rhydd	97	24	1341	1019	0.095	97	203	0.1	0.1	3.901	A
4 - Lanelay Rd	783	196	678	1715	0.457	782	760	0.6	0.8	3.917	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A473 east	1070	268	562	1801	0.594	1070	900	1.5	1.5	5.070	A
2 - A473 west	1145	286	401	2773	0.413	1145	1231	0.7	0.7	2.237	A
3 - Rhodfa Bryn Rhydd	97	24	1342	1019	0.095	97	204	0.1	0.1	3.905	A
4 - Lanelay Rd	783	196	678	1714	0.457	783	761	0.8	0.9	3.928	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A473 east	874	218	459	1868	0.468	876	735	1.5	0.9	3.747	A
2 - A473 west	935	234	328	2833	0.330	936	1007	0.7	0.5	1.920	A
3 - Rhodfa Bryn Rhydd	79	20	1097	1163	0.068	79	167	0.1	0.1	3.321	A
4 - Lanelay Rd	639	160	554	1796	0.356	640	622	0.9	0.6	3.169	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A473 east	732	183	384	1917	0.382	733	616	0.9	0.6	3.132	A
2 - A473 west	783	196	274	2877	0.272	783	843	0.5	0.4	1.739	A
3 - Rhodfa Bryn Rhydd	66	17	918	1268	0.052	66	139	0.1	0.1	2.997	A
4 - Lanelay Rd	535	134	464	1855	0.289	536	521	0.6	0.4	2.775	A

2035 Base + Dev, 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	A473 / Lanelay Rd Roundabout	Standard Roundabout		1, 2, 3, 4	3.39	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2035 Base + Dev	AM	ONE HOUR	07:30	09:00	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.30

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
1 - A473 east		ONE HOUR	✓	822	100.000
2 - A473 west		ONE HOUR	✓	1153	100.000
3 - Rhodfa Bryn Rhydd		ONE HOUR	✓	206	100.000
4 - Lanelay Rd		ONE HOUR	✓	494	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A473 east	2 - A473 west	3 - Rhodfa Bryn Rhydd	4 - Lanelay Rd
From	1 - A473 east	0	608	19	195
	2 - A473 west	696	1	25	431
	3 - Rhodfa Bryn Rhydd	64	104	0	38
	4 - Lanelay Rd	165	321	7	1

Vehicle Mix

HV %s

		To			
		1 - A473 east	2 - A473 west	3 - Rhodfa Bryn Rhydd	4 - Lanelay Rd
From	1 - A473 east	0	7	0	5
	2 - A473 west	9	0	0	3
	3 - Rhodfa Bryn Rhydd	0	2	0	0
	4 - Lanelay Rd	6	5	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A473 east	0.49	4.10	1.0	A	754	1131
2 - A473 west	0.44	2.39	0.8	A	1058	1587
3 - Rhodfa Bryn Rhydd	0.24	5.04	0.3	A	189	284
4 - Lanelay Rd	0.35	3.88	0.6	A	453	680

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A473 east	619	155	326	1955	0.317	617	695	0.0	0.5	2.908	A
2 - A473 west	868	217	167	2967	0.293	866	776	0.0	0.4	1.855	A
3 - Rhodfa Bryn Rhydd	155	39	995	1223	0.127	155	38	0.0	0.1	3.409	A
4 - Lanelay Rd	372	93	650	1733	0.215	371	499	0.0	0.3	2.819	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A473 east	739	185	390	1913	0.386	738	831	0.5	0.7	3.314	A
2 - A473 west	1037	259	199	2939	0.353	1036	929	0.4	0.6	2.049	A
3 - Rhodfa Bryn Rhydd	185	46	1190	1109	0.167	185	46	0.1	0.2	3.947	A
4 - Lanelay Rd	444	111	777	1650	0.269	444	597	0.3	0.4	3.189	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A473 east	905	226	477	1856	0.488	904	1017	0.7	1.0	4.085	A
2 - A473 west	1269	317	244	2903	0.437	1268	1137	0.6	0.8	2.386	A
3 - Rhodfa Bryn Rhydd	227	57	1456	951	0.238	226	56	0.2	0.3	5.027	A
4 - Lanelay Rd	544	136	951	1535	0.354	543	731	0.4	0.6	3.873	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A473 east	905	226	478	1856	0.488	905	1018	1.0	1.0	4.098	A
2 - A473 west	1269	317	244	2902	0.437	1269	1138	0.8	0.8	2.388	A
3 - Rhodfa Bryn Rhydd	227	57	1458	951	0.239	227	56	0.3	0.3	5.038	A
4 - Lanelay Rd	544	136	952	1535	0.354	544	732	0.6	0.6	3.880	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A473 east	739	185	391	1913	0.386	740	833	1.0	0.7	3.327	A
2 - A473 west	1037	259	200	2939	0.353	1038	931	0.8	0.6	2.054	A
3 - Rhodfa Bryn Rhydd	185	46	1192	1107	0.167	186	46	0.3	0.2	3.959	A
4 - Lanelay Rd	444	111	779	1649	0.269	445	599	0.6	0.4	3.195	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A473 east	619	155	327	1954	0.317	620	697	0.7	0.5	2.920	A
2 - A473 west	868	217	167	2966	0.293	869	779	0.6	0.4	1.862	A
3 - Rhodfa Bryn Rhydd	155	39	998	1222	0.127	155	38	0.2	0.1	3.422	A
4 - Lanelay Rd	372	93	652	1732	0.215	372	501	0.4	0.3	2.831	A

2035 Base + Dev, 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	A473 / Lanelay Rd Roundabout	Standard Roundabout		1, 2, 3, 4	3.72	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2035 Base + Dev	PM	ONE HOUR	16:30	18:00	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.30

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
1 - A473 east		ONE HOUR	✓	977	100.000
2 - A473 west		ONE HOUR	✓	1046	100.000
3 - Rhodfa Bryn Rhydd		ONE HOUR	✓	90	100.000
4 - Lanelay Rd		ONE HOUR	✓	714	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A473 east	2 - A473 west	3 - Rhodfa Bryn Rhydd	4 - Lanelay Rd
From	1 - A473 east	0	649	69	259
	2 - A473 west	558	1	80	407
	3 - Rhodfa Bryn Rhydd	31	34	0	25
	4 - Lanelay Rd	239	437	37	1

Vehicle Mix

HV %s

		To			
		1 - A473 east	2 - A473 west	3 - Rhodfa Bryn Rhydd	4 - Lanelay Rd
From	1 - A473 east	0	2	2	3
	2 - A473 west	1	0	0	1
	3 - Rhodfa Bryn Rhydd	0	0	0	0
	4 - Lanelay Rd	2	1	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A473 east	0.60	5.11	1.5	A	897	1345
2 - A473 west	0.42	2.25	0.7	A	960	1440
3 - Rhodfa Bryn Rhydd	0.10	3.93	0.1	A	83	124
4 - Lanelay Rd	0.46	3.97	0.9	A	655	983

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A473 east	736	184	383	1918	0.384	733	622	0.0	0.6	3.121	A
2 - A473 west	787	197	275	2877	0.274	786	841	0.0	0.4	1.742	A
3 - Rhodfa Bryn Rhydd	68	17	921	1267	0.053	68	140	0.0	0.1	3.001	A
4 - Lanelay Rd	538	134	469	1852	0.290	536	520	0.0	0.4	2.777	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A473 east	878	220	458	1869	0.470	877	744	0.6	0.9	3.735	A
2 - A473 west	940	235	329	2833	0.332	940	1007	0.4	0.5	1.924	A
3 - Rhodfa Bryn Rhydd	81	20	1101	1160	0.070	81	167	0.1	0.1	3.333	A
4 - Lanelay Rd	642	160	561	1792	0.358	641	622	0.4	0.6	3.180	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A473 east	1076	269	561	1802	0.597	1073	911	0.9	1.5	5.072	A
2 - A473 west	1152	288	402	2772	0.415	1151	1232	0.5	0.7	2.246	A
3 - Rhodfa Bryn Rhydd	99	25	1348	1015	0.098	99	204	0.1	0.1	3.930	A
4 - Lanelay Rd	786	197	686	1709	0.460	785	761	0.6	0.9	3.955	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A473 east	1076	269	562	1801	0.597	1076	912	1.5	1.5	5.108	A
2 - A473 west	1152	288	403	2771	0.416	1152	1234	0.7	0.7	2.248	A
3 - Rhodfa Bryn Rhydd	99	25	1350	1014	0.098	99	205	0.1	0.1	3.934	A
4 - Lanelay Rd	786	197	687	1709	0.460	786	762	0.9	0.9	3.966	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A473 east	878	220	459	1868	0.470	881	745	1.5	0.9	3.764	A
2 - A473 west	940	235	330	2832	0.332	941	1010	0.7	0.5	1.929	A
3 - Rhodfa Bryn Rhydd	81	20	1104	1159	0.070	81	168	0.1	0.1	3.338	A
4 - Lanelay Rd	642	160	562	1791	0.358	643	623	0.9	0.6	3.190	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A473 east	736	184	384	1917	0.384	737	624	0.9	0.6	3.144	A
2 - A473 west	787	197	276	2876	0.274	788	845	0.5	0.4	1.746	A
3 - Rhodfa Bryn Rhydd	68	17	924	1265	0.054	68	140	0.1	0.1	3.006	A
4 - Lanelay Rd	538	134	470	1851	0.290	538	521	0.6	0.4	2.790	A

Junctions 9

ARCADY 9 - Roundabout Module

Filename: A473_Heol-y-Pant Roundabout.j9
Path: J:\110516_LDEV_Talbot Green Town Centre\01 - WIP\Design\30 Technical\31 Modelling\Single Access Modelling
Report generation date: 24/11/2025 16:03:59

Summary of junction performance

	AM				PM			
	Q (PCU)	Delay (s)	RFC	LOS	Q (PCU)	Delay (s)	RFC	LOS
	2025 Base							
1 - A473 east	1.1	4.04	0.51	A	1.9	5.84	0.65	A
2 - Heol-y-Pant	0.1	1.94	0.07	A	0.2	2.46	0.20	A
3 - A473 west	1.0	3.77	0.48	A	1.1	4.23	0.52	A
4 - Retail Park Access	0.1	3.76	0.13	A	0.7	5.44	0.41	A
	2035 Base							
1 - A473 east	1.4	4.59	0.57	A	2.7	7.61	0.73	A
2 - Heol-y-Pant	0.1	2.03	0.08	A	0.3	2.69	0.23	A
3 - A473 west	1.3	4.25	0.54	A	1.4	4.99	0.58	A
4 - Retail Park Access	0.2	4.06	0.15	A	0.9	6.46	0.48	A
	2035 Base + Dev							
1 - A473 east	1.4	4.67	0.57	A	3.2	8.48	0.76	A
2 - Heol-y-Pant	0.1	2.05	0.08	A	0.3	2.76	0.24	A
3 - A473 west	1.4	4.51	0.57	A	1.5	5.15	0.60	A
4 - Retail Park Access	0.2	4.19	0.15	A	0.9	6.61	0.48	A

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

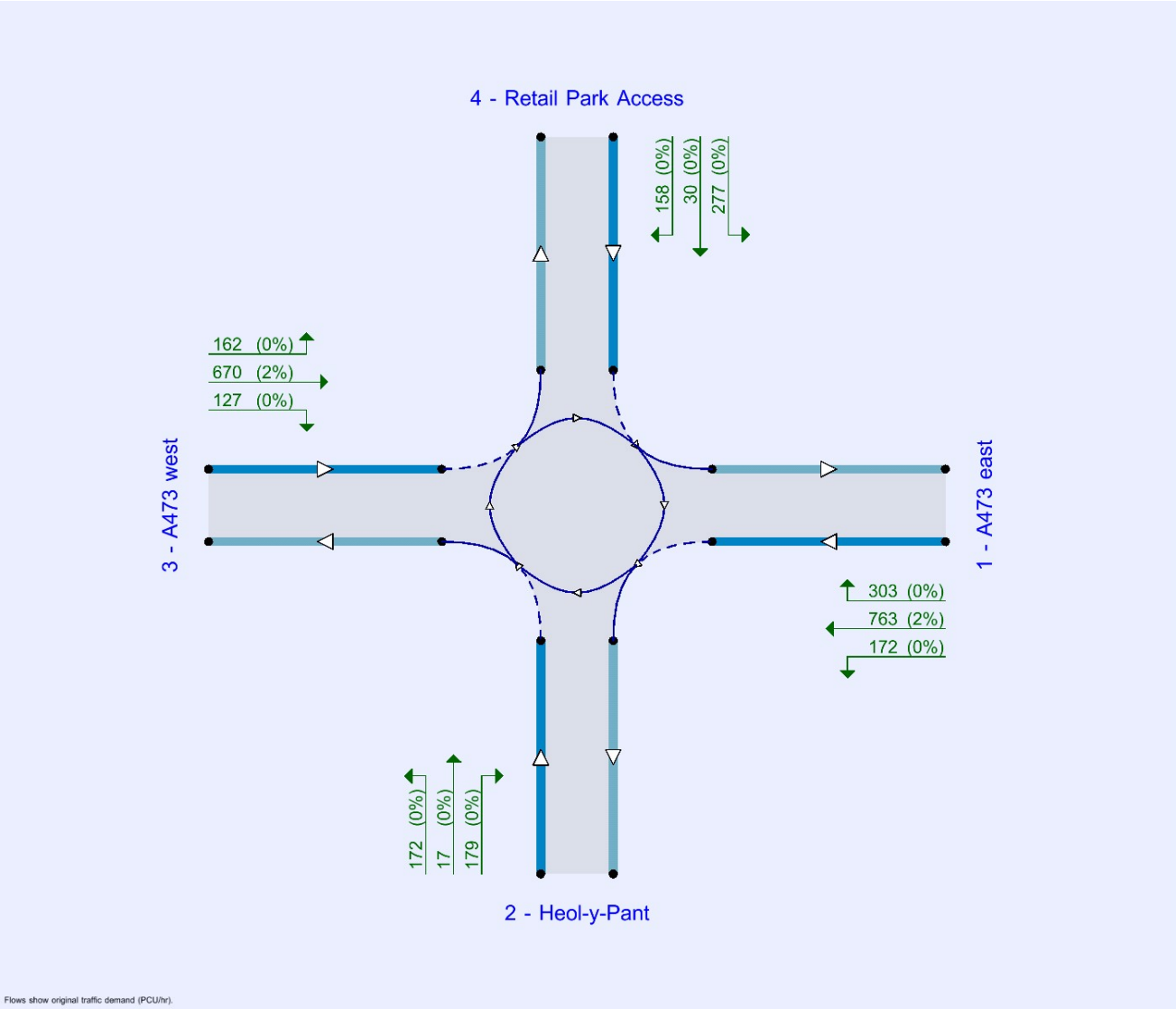
File summary

File Description

Title	A473 / Heol-y-Pant Roundabout
Location	Talbot Green
Site number	
Date	18/08/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	PFGROUP\ateague
Description	

Units

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



The junction diagram reflects the last run of Junctions.

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2025 Base	AM	ONE HOUR	07:30	09:00	15	✓
D2	2025 Base	PM	ONE HOUR	16:30	18:00	15	✓
D3	2035 Base	AM	ONE HOUR	07:30	09:00	15	✓
D4	2035 Base	PM	ONE HOUR	16:30	18:00	15	✓
D5	2035 Base + Dev	AM	ONE HOUR	07:30	09:00	15	✓
D6	2035 Base + Dev	PM	ONE HOUR	16:30	18:00	15	✓

Analysis Set Details

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

2025 Base, 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	A473 / Heol-y-Pant Roundabout	Standard Roundabout		1, 2, 3, 4	3.78	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	A473 east	
2	Heol-y-Pant	
3	A473 west	
4	Retail Park Access	

Roundabout Geometry

Arm	V (m)	E (m)	l' (m)	R (m)	D (m)	PHI (deg)	Exit only
1 - A473 east	4.00	9.00	17.3	20.0	63.0	30.0	
2 - Heol-y-Pant	8.00	8.80	9.7	20.0	63.0	25.0	
3 - A473 west	4.00	9.00	22.9	30.0	63.0	35.0	
4 - Retail Park Access	3.65	7.50	8.6	20.0	63.0	21.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A473 east	0.591	1999
2 - Heol-y-Pant	0.706	2661
3 - A473 west	0.608	2102
4 - Retail Park Access	0.538	1635

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 segment length (min)	Run automatically
D1	2025 Base	AM	ONE HOUR	07:30	09:00	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.30

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
1 - A473 east		ONE HOUR	✓	891	100.000
2 - Heol-y-Pant		ONE HOUR	✓	118	100.000
3 - A473 west		ONE HOUR	✓	879	100.000
4 - Retail Park Access		ONE HOUR	✓	130	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A473 east	2 - Heol-y-Pant	3 - A473 west	4 - Retail Park Access
From	1 - A473 east	0	71	734	86
	2 - Heol-y-Pant	62	0	49	7
	3 - A473 west	751	55	0	73
	4 - Retail Park Access	77	6	47	0

Vehicle Mix

HV %s

		To			
		1 - A473 east	2 - Heol-y-Pant	3 - A473 west	4 - Retail Park Access
From	1 - A473 east	0	0	6	0
	2 - Heol-y-Pant	0	0	0	0
	3 - A473 west	7	0	0	1
	4 - Retail Park Access	3	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A473 east	0.51	4.04	1.1	A	818	1226
2 - Heol-y-Pant	0.07	1.94	0.1	A	108	162
3 - A473 west	0.48	3.77	1.0	A	807	1210
4 - Retail Park Access	0.13	3.76	0.1	A	119	179

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A473 east	671	168	81	1951	0.344	669	668	0.0	0.6	2.979	A
2 - Heol-y-Pant	89	22	651	2202	0.040	89	99	0.0	0.0	1.703	A
3 - A473 west	662	165	116	2031	0.326	660	623	0.0	0.5	2.827	A
4 - Retail Park Access	98	24	651	1285	0.076	98	125	0.0	0.1	3.101	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A473 east	801	200	97	1942	0.413	800	799	0.6	0.7	3.352	A
2 - Heol-y-Pant	106	27	779	2111	0.050	106	119	0.0	0.1	1.794	A
3 - A473 west	790	198	139	2017	0.392	790	745	0.5	0.7	3.159	A
4 - Retail Park Access	117	29	780	1216	0.096	117	149	0.1	0.1	3.349	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A473 east	981	245	119	1929	0.509	980	979	0.7	1.1	4.027	A
2 - Heol-y-Pant	130	32	953	1988	0.065	130	145	0.1	0.1	1.937	A
3 - A473 west	968	242	170	1998	0.484	967	913	0.7	1.0	3.756	A
4 - Retail Park Access	143	36	954	1122	0.128	143	183	0.1	0.1	3.760	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A473 east	981	245	119	1929	0.509	981	980	1.1	1.1	4.038	A
2 - Heol-y-Pant	130	32	955	1987	0.065	130	145	0.1	0.1	1.938	A
3 - A473 west	968	242	171	1998	0.484	968	914	1.0	1.0	3.766	A
4 - Retail Park Access	143	36	956	1121	0.128	143	183	0.1	0.1	3.762	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A473 east	801	200	97	1942	0.413	802	801	1.1	0.8	3.366	A
2 - Heol-y-Pant	106	27	781	2110	0.050	106	119	0.1	0.1	1.798	A
3 - A473 west	790	198	140	2017	0.392	791	747	1.0	0.7	3.169	A
4 - Retail Park Access	117	29	781	1215	0.096	117	149	0.1	0.1	3.353	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A473 east	671	168	81	1951	0.344	672	671	0.8	0.6	2.995	A
2 - Heol-y-Pant	89	22	653	2200	0.040	89	99	0.1	0.0	1.707	A
3 - A473 west	662	165	117	2031	0.326	662	626	0.7	0.5	2.837	A
4 - Retail Park Access	98	24	654	1283	0.076	98	125	0.1	0.1	3.107	A

2025 Base, 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	A473 / Heol-y-Pant Roundabout	Standard Roundabout		1, 2, 3, 4	4.85	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2025 Base	PM	ONE HOUR	16:30	18:00	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.30

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
1 - A473 east		ONE HOUR	✓	1078	100.000
2 - Heol-y-Pant		ONE HOUR	✓	332	100.000
3 - A473 west		ONE HOUR	✓	848	100.000
4 - Retail Park Access		ONE HOUR	✓	420	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A473 east	2 - Heol-y-Pant	3 - A473 west	4 - Retail Park Access
From	1 - A473 east	0	155	649	274
	2 - Heol-y-Pant	162	0	155	15
	3 - A473 west	586	115	1	146
	4 - Retail Park Access	250	27	143	0

Vehicle Mix

HV %s

		To			
		1 - A473 east	2 - Heol-y-Pant	3 - A473 west	4 - Retail Park Access
From	1 - A473 east	0	0	2	0
	2 - Heol-y-Pant	0	0	0	0
	3 - A473 west	2	0	0	0
	4 - Retail Park Access	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A473 east	0.65	5.84	1.9	A	989	1484
2 - Heol-y-Pant	0.20	2.46	0.2	A	305	457
3 - A473 west	0.52	4.23	1.1	A	778	1167
4 - Retail Park Access	0.41	5.44	0.7	A	385	578

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A473 east	812	203	215	1872	0.433	808	749	0.0	0.8	3.426	A
2 - Heol-y-Pant	250	62	800	2096	0.119	249	223	0.0	0.1	1.950	A
3 - A473 west	638	160	338	1896	0.337	636	711	0.0	0.5	2.904	A
4 - Retail Park Access	316	79	648	1286	0.246	315	326	0.0	0.3	3.700	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A473 east	969	242	257	1847	0.525	968	896	0.8	1.1	4.150	A
2 - Heol-y-Pant	298	75	958	1984	0.150	298	267	0.1	0.2	2.134	A
3 - A473 west	762	191	405	1856	0.411	762	851	0.5	0.7	3.348	A
4 - Retail Park Access	378	94	776	1218	0.310	377	391	0.3	0.4	4.278	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A473 east	1187	297	314	1813	0.655	1184	1097	1.1	1.9	5.777	A
2 - Heol-y-Pant	366	91	1172	1833	0.199	365	326	0.2	0.2	2.452	A
3 - A473 west	934	233	496	1800	0.519	932	1041	0.7	1.1	4.212	A
4 - Retail Park Access	462	116	950	1124	0.411	461	478	0.4	0.7	5.422	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A473 east	1187	297	315	1813	0.655	1187	1099	1.9	1.9	5.835	A
2 - Heol-y-Pant	366	91	1175	1831	0.200	366	327	0.2	0.2	2.455	A
3 - A473 west	934	233	497	1800	0.519	934	1044	1.1	1.1	4.229	A
4 - Retail Park Access	462	116	951	1124	0.412	462	479	0.7	0.7	5.443	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A473 east	969	242	258	1847	0.525	972	899	1.9	1.1	4.195	A
2 - Heol-y-Pant	298	75	962	1981	0.151	299	268	0.2	0.2	2.139	A
3 - A473 west	762	191	406	1855	0.411	764	855	1.1	0.7	3.365	A
4 - Retail Park Access	378	94	778	1217	0.310	379	392	0.7	0.5	4.300	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A473 east	812	203	216	1872	0.434	813	752	1.1	0.8	3.456	A
2 - Heol-y-Pant	250	62	805	2093	0.119	250	224	0.2	0.1	1.953	A
3 - A473 west	638	160	340	1895	0.337	639	715	0.7	0.5	2.921	A
4 - Retail Park Access	316	79	651	1285	0.246	317	328	0.5	0.3	3.721	A

2035 Base, 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	A473 / Heol-y-Pant Roundabout	Standard Roundabout		1, 2, 3, 4	4.26	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2035 Base	AM	ONE HOUR	07:30	09:00	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.30

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
1 - A473 east		ONE HOUR	✓	988	100.000
2 - Heol-y-Pant		ONE HOUR	✓	131	100.000
3 - A473 west		ONE HOUR	✓	975	100.000
4 - Retail Park Access		ONE HOUR	✓	144	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A473 east	2 - Heol-y-Pant	3 - A473 west	4 - Retail Park Access
From	1 - A473 east	0	79	814	95
	2 - Heol-y-Pant	69	0	54	8
	3 - A473 west	833	61	0	81
	4 - Retail Park Access	85	7	52	0

Vehicle Mix

HV %s

		To			
		1 - A473 east	2 - Heol-y-Pant	3 - A473 west	4 - Retail Park Access
From	1 - A473 east	0	0	6	0
	2 - Heol-y-Pant	0	0	0	0
	3 - A473 west	7	0	0	1
	4 - Retail Park Access	3	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A473 east	0.57	4.59	1.4	A	907	1360
2 - Heol-y-Pant	0.08	2.03	0.1	A	120	180
3 - A473 west	0.54	4.25	1.3	A	895	1342
4 - Retail Park Access	0.15	4.06	0.2	A	132	198

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A473 east	744	186	90	1946	0.382	741	741	0.0	0.7	3.171	A
2 - Heol-y-Pant	99	25	721	2152	0.046	98	110	0.0	0.0	1.752	A
3 - A473 west	734	184	129	2023	0.363	732	690	0.0	0.6	3.000	A
4 - Retail Park Access	108	27	723	1247	0.087	108	138	0.0	0.1	3.233	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A473 east	888	222	108	1935	0.459	887	886	0.7	0.9	3.648	A
2 - Heol-y-Pant	118	29	863	2051	0.057	118	132	0.0	0.1	1.860	A
3 - A473 west	877	219	155	2008	0.437	876	826	0.6	0.8	3.422	A
4 - Retail Park Access	129	32	865	1170	0.111	129	165	0.1	0.1	3.536	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A473 east	1088	272	132	1921	0.566	1086	1085	0.9	1.4	4.573	A
2 - Heol-y-Pant	144	36	1056	1915	0.075	144	162	0.1	0.1	2.032	A
3 - A473 west	1073	268	189	1987	0.540	1072	1011	0.8	1.3	4.234	A
4 - Retail Park Access	159	40	1059	1066	0.149	158	202	0.1	0.2	4.055	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A473 east	1088	272	132	1921	0.566	1088	1087	1.4	1.4	4.594	A
2 - Heol-y-Pant	144	36	1058	1914	0.075	144	162	0.1	0.1	2.034	A
3 - A473 west	1073	268	189	1987	0.540	1073	1013	1.3	1.3	4.249	A
4 - Retail Park Access	159	40	1060	1065	0.149	159	203	0.2	0.2	4.060	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A473 east	888	222	108	1935	0.459	890	889	1.4	0.9	3.671	A
2 - Heol-y-Pant	118	29	866	2050	0.057	118	132	0.1	0.1	1.865	A
3 - A473 west	877	219	155	2008	0.437	878	829	1.3	0.8	3.440	A
4 - Retail Park Access	129	32	867	1169	0.111	130	166	0.2	0.1	3.542	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A473 east	744	186	90	1946	0.382	745	744	0.9	0.7	3.189	A
2 - Heol-y-Pant	99	25	724	2149	0.046	99	111	0.1	0.0	1.757	A
3 - A473 west	734	184	130	2023	0.363	735	694	0.8	0.6	3.016	A
4 - Retail Park Access	108	27	726	1245	0.087	109	139	0.1	0.1	3.241	A

2035 Base, 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	A473 / Heol-y-Pant Roundabout	Standard Roundabout		1, 2, 3, 4	5.99	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2035 Base	PM	ONE HOUR	16:30	18:00	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.30

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
1 - A473 east		ONE HOUR	✓	1193	100.000
2 - Heol-y-Pant		ONE HOUR	✓	368	100.000
3 - A473 west		ONE HOUR	✓	939	100.000
4 - Retail Park Access		ONE HOUR	✓	465	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A473 east	2 - Heol-y-Pant	3 - A473 west	4 - Retail Park Access
From	1 - A473 east	0	172	718	303
	2 - Heol-y-Pant	179	0	172	17
	3 - A473 west	649	127	1	162
	4 - Retail Park Access	277	30	158	0

Vehicle Mix

HV %s

		To			
		1 - A473 east	2 - Heol-y-Pant	3 - A473 west	4 - Retail Park Access
From	1 - A473 east	0	0	2	0
	2 - Heol-y-Pant	0	0	0	0
	3 - A473 west	2	0	0	0
	4 - Retail Park Access	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A473 east	0.73	7.61	2.7	A	1095	1642
2 - Heol-y-Pant	0.23	2.69	0.3	A	338	507
3 - A473 west	0.58	4.99	1.4	A	862	1292
4 - Retail Park Access	0.48	6.46	0.9	A	427	640

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A473 east	898	225	237	1859	0.483	894	829	0.0	0.9	3.776	A
2 - Heol-y-Pant	277	69	885	2036	0.136	276	247	0.0	0.2	2.046	A
3 - A473 west	707	177	374	1874	0.377	704	787	0.0	0.6	3.126	A
4 - Retail Park Access	350	88	717	1249	0.280	349	361	0.0	0.4	3.990	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A473 east	1072	268	284	1831	0.586	1071	992	0.9	1.4	4.793	A
2 - Heol-y-Pant	331	83	1059	1913	0.173	331	295	0.2	0.2	2.274	A
3 - A473 west	844	211	448	1829	0.461	843	942	0.6	0.9	3.712	A
4 - Retail Park Access	418	105	858	1174	0.356	417	433	0.4	0.5	4.756	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A473 east	1314	328	347	1794	0.732	1308	1214	1.4	2.7	7.449	A
2 - Heol-y-Pant	405	101	1294	1747	0.232	405	361	0.2	0.3	2.682	A
3 - A473 west	1034	258	548	1769	0.585	1032	1151	0.9	1.4	4.956	A
4 - Retail Park Access	512	128	1051	1070	0.478	511	529	0.5	0.9	6.413	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A473 east	1314	328	348	1794	0.732	1313	1217	2.7	2.7	7.605	A
2 - Heol-y-Pant	405	101	1299	1743	0.232	405	362	0.3	0.3	2.689	A
3 - A473 west	1034	258	549	1768	0.585	1034	1155	1.4	1.4	4.992	A
4 - Retail Park Access	512	128	1053	1069	0.479	512	531	0.9	0.9	6.458	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A473 east	1072	268	285	1831	0.586	1078	996	2.7	1.5	4.887	A
2 - Heol-y-Pant	331	83	1066	1908	0.173	331	297	0.3	0.2	2.282	A
3 - A473 west	844	211	450	1828	0.462	846	947	1.4	0.9	3.739	A
4 - Retail Park Access	418	105	861	1172	0.357	419	435	0.9	0.6	4.793	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A473 east	898	225	238	1858	0.483	900	833	1.5	1.0	3.825	A
2 - Heol-y-Pant	277	69	890	2032	0.136	277	248	0.2	0.2	2.051	A
3 - A473 west	707	177	376	1873	0.377	708	791	0.9	0.6	3.147	A
4 - Retail Park Access	350	88	721	1248	0.281	351	364	0.6	0.4	4.016	A

2035 Base + Dev, 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	A473 / Heol-y-Pant Roundabout	Standard Roundabout		1, 2, 3, 4	4.42	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2035 Base + Dev	AM	ONE HOUR	07:30	09:00	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.30

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
1 - A473 east		ONE HOUR	✓	1001	100.000
2 - Heol-y-Pant		ONE HOUR	✓	131	100.000
3 - A473 west		ONE HOUR	✓	1022	100.000
4 - Retail Park Access		ONE HOUR	✓	144	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A473 east	2 - Heol-y-Pant	3 - A473 west	4 - Retail Park Access
From	1 - A473 east	0	79	827	95
	2 - Heol-y-Pant	69	0	54	8
	3 - A473 west	880	61	0	81
	4 - Retail Park Access	85	7	52	0

Vehicle Mix

HV %s

		To			
		1 - A473 east	2 - Heol-y-Pant	3 - A473 west	4 - Retail Park Access
From	1 - A473 east	0	0	6	0
	2 - Heol-y-Pant	0	0	0	0
	3 - A473 west	7	0	0	1
	4 - Retail Park Access	3	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A473 east	0.57	4.67	1.4	A	919	1378
2 - Heol-y-Pant	0.08	2.05	0.1	A	120	180
3 - A473 west	0.57	4.51	1.4	A	938	1407
4 - Retail Park Access	0.15	4.19	0.2	A	132	198

Main Results for each time segment

07:30 - 07:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A473 east	754	188	90	1946	0.387	751	776	0.0	0.7	3.198	A
2 - Heol-y-Pant	99	25	731	2145	0.046	98	110	0.0	0.0	1.758	A
3 - A473 west	769	192	129	2023	0.380	767	700	0.0	0.7	3.084	A
4 - Retail Park Access	108	27	758	1228	0.088	108	138	0.0	0.1	3.288	A

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A473 east	900	225	108	1935	0.465	899	929	0.7	0.9	3.690	A
2 - Heol-y-Pant	118	29	875	2043	0.058	118	132	0.0	0.1	1.868	A
3 - A473 west	919	230	154	2008	0.458	918	838	0.7	0.9	3.559	A
4 - Retail Park Access	129	32	907	1147	0.113	129	165	0.1	0.1	3.615	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A473 east	1102	276	132	1921	0.574	1100	1137	0.9	1.4	4.652	A
2 - Heol-y-Pant	144	36	1070	1905	0.076	144	162	0.1	0.1	2.044	A
3 - A473 west	1125	281	189	1987	0.566	1123	1025	0.9	1.4	4.487	A
4 - Retail Park Access	159	40	1110	1038	0.153	158	202	0.1	0.2	4.182	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A473 east	1102	276	132	1921	0.574	1102	1138	1.4	1.4	4.675	A
2 - Heol-y-Pant	144	36	1072	1904	0.076	144	162	0.1	0.1	2.045	A
3 - A473 west	1125	281	189	1987	0.566	1125	1027	1.4	1.4	4.507	A
4 - Retail Park Access	159	40	1112	1037	0.153	159	203	0.2	0.2	4.189	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A473 east	900	225	108	1935	0.465	902	931	1.4	0.9	3.711	A
2 - Heol-y-Pant	118	29	877	2041	0.058	118	132	0.1	0.1	1.870	A
3 - A473 west	919	230	155	2008	0.458	921	840	1.4	0.9	3.580	A
4 - Retail Park Access	129	32	910	1146	0.113	130	166	0.2	0.1	3.622	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A473 east	754	188	90	1946	0.387	755	779	0.9	0.7	3.219	A
2 - Heol-y-Pant	99	25	734	2142	0.046	99	111	0.1	0.0	1.760	A
3 - A473 west	769	192	130	2023	0.380	770	703	0.9	0.7	3.104	A
4 - Retail Park Access	108	27	761	1226	0.088	109	139	0.1	0.1	3.294	A

2035 Base + Dev, 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	A473 / Heol-y-Pant Roundabout	Standard Roundabout		1, 2, 3, 4	6.44	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2035 Base + Dev	PM	ONE HOUR	16:30	18:00	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.30

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Av. Demand (PCU/hr)	Scaling Factor (%)
1 - A473 east		ONE HOUR	✓	1238	100.000
2 - Heol-y-Pant		ONE HOUR	✓	368	100.000
3 - A473 west		ONE HOUR	✓	960	100.000
4 - Retail Park Access		ONE HOUR	✓	465	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - A473 east	2 - Heol-y-Pant	3 - A473 west	4 - Retail Park Access
From	1 - A473 east	0	172	763	303
	2 - Heol-y-Pant	179	0	172	17
	3 - A473 west	670	127	1	162
	4 - Retail Park Access	277	30	158	0

Vehicle Mix

HV %s

		To			
		1 - A473 east	2 - Heol-y-Pant	3 - A473 west	4 - Retail Park Access
From	1 - A473 east	0	0	2	0
	2 - Heol-y-Pant	0	0	0	0
	3 - A473 west	2	0	0	0
	4 - Retail Park Access	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Q (PCU)	Max LOS	Av. Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - A473 east	0.76	8.48	3.2	A	1136	1704
2 - Heol-y-Pant	0.24	2.76	0.3	A	338	507
3 - A473 west	0.60	5.15	1.5	A	881	1321
4 - Retail Park Access	0.48	6.61	0.9	A	427	640

Main Results for each time segment

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A473 east	932	233	237	1859	0.501	928	845	0.0	1.0	3.912	A
2 - Heol-y-Pant	277	69	918	2012	0.138	276	247	0.0	0.2	2.074	A
3 - A473 west	723	181	374	1874	0.386	720	820	0.0	0.6	3.169	A
4 - Retail Park Access	350	88	733	1241	0.282	349	361	0.0	0.4	4.027	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A473 east	1113	278	284	1831	0.608	1111	1011	1.0	1.6	5.059	A
2 - Heol-y-Pant	331	83	1099	1885	0.176	331	295	0.2	0.2	2.316	A
3 - A473 west	863	216	448	1829	0.472	862	982	0.6	0.9	3.785	A
4 - Retail Park Access	418	105	877	1163	0.359	417	433	0.4	0.6	4.821	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A473 east	1363	341	347	1794	0.760	1357	1237	1.6	3.1	8.249	A
2 - Heol-y-Pant	405	101	1343	1712	0.237	405	361	0.2	0.3	2.753	A
3 - A473 west	1057	264	548	1769	0.598	1055	1200	0.9	1.5	5.115	A
4 - Retail Park Access	512	128	1074	1058	0.484	511	529	0.6	0.9	6.558	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A473 east	1363	341	348	1794	0.760	1363	1240	3.1	3.2	8.478	A
2 - Heol-y-Pant	405	101	1349	1708	0.237	405	362	0.3	0.3	2.761	A
3 - A473 west	1057	264	549	1768	0.598	1057	1204	1.5	1.5	5.155	A
4 - Retail Park Access	512	128	1076	1057	0.484	512	531	0.9	0.9	6.606	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A473 east	1113	278	285	1831	0.608	1119	1015	3.2	1.6	5.183	A
2 - Heol-y-Pant	331	83	1107	1879	0.176	331	297	0.3	0.2	2.326	A
3 - A473 west	863	216	450	1828	0.472	865	988	1.5	0.9	3.818	A
4 - Retail Park Access	418	105	880	1162	0.360	419	435	0.9	0.6	4.858	A

17:45 - 18:00

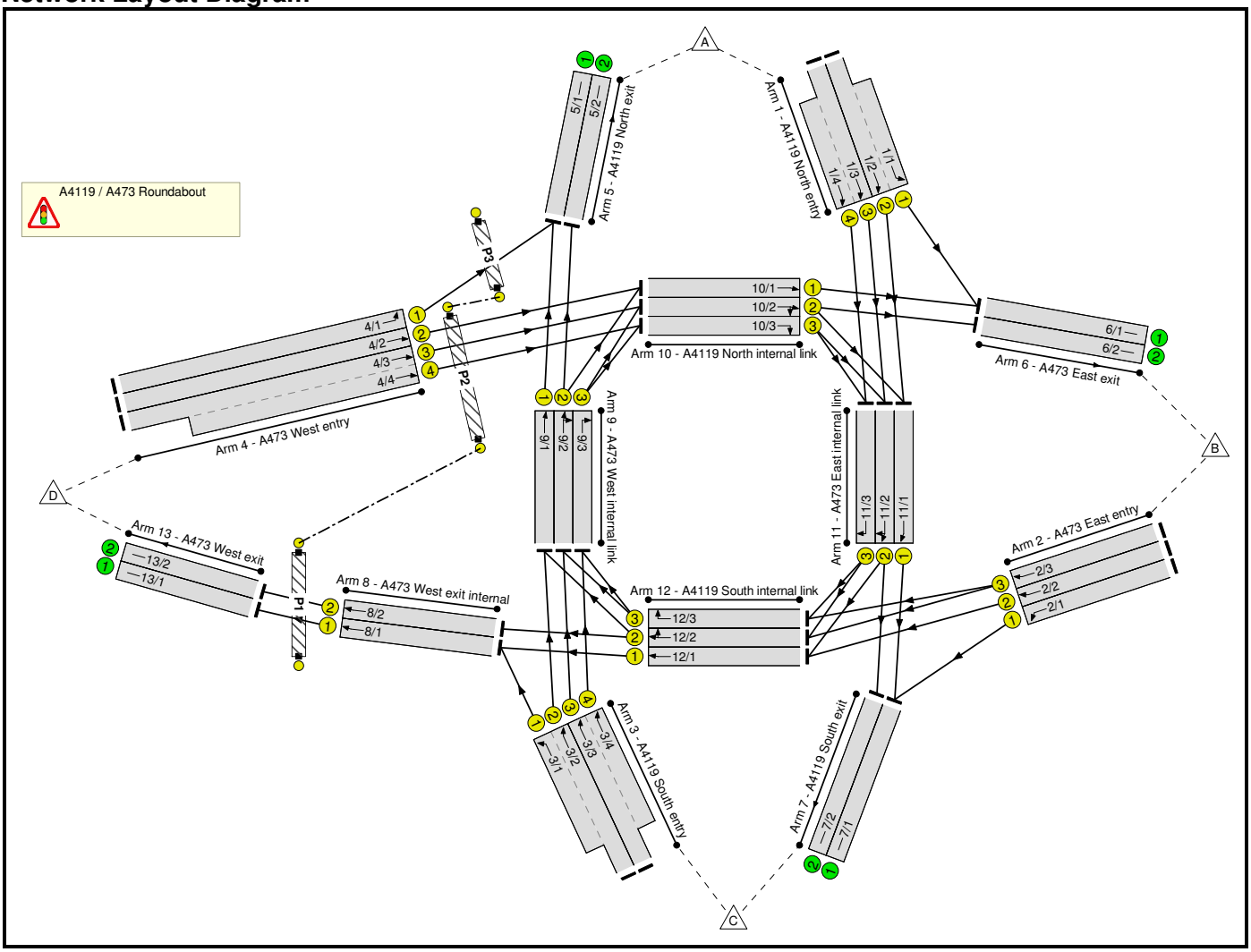
Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A473 east	932	233	238	1858	0.502	934	849	1.6	1.0	3.967	A
2 - Heol-y-Pant	277	69	924	2008	0.138	277	248	0.2	0.2	2.079	A
3 - A473 west	723	181	376	1873	0.386	724	825	0.9	0.6	3.191	A
4 - Retail Park Access	350	88	737	1239	0.283	351	364	0.6	0.4	4.055	A

Full Input Data And Results

User and Project Details

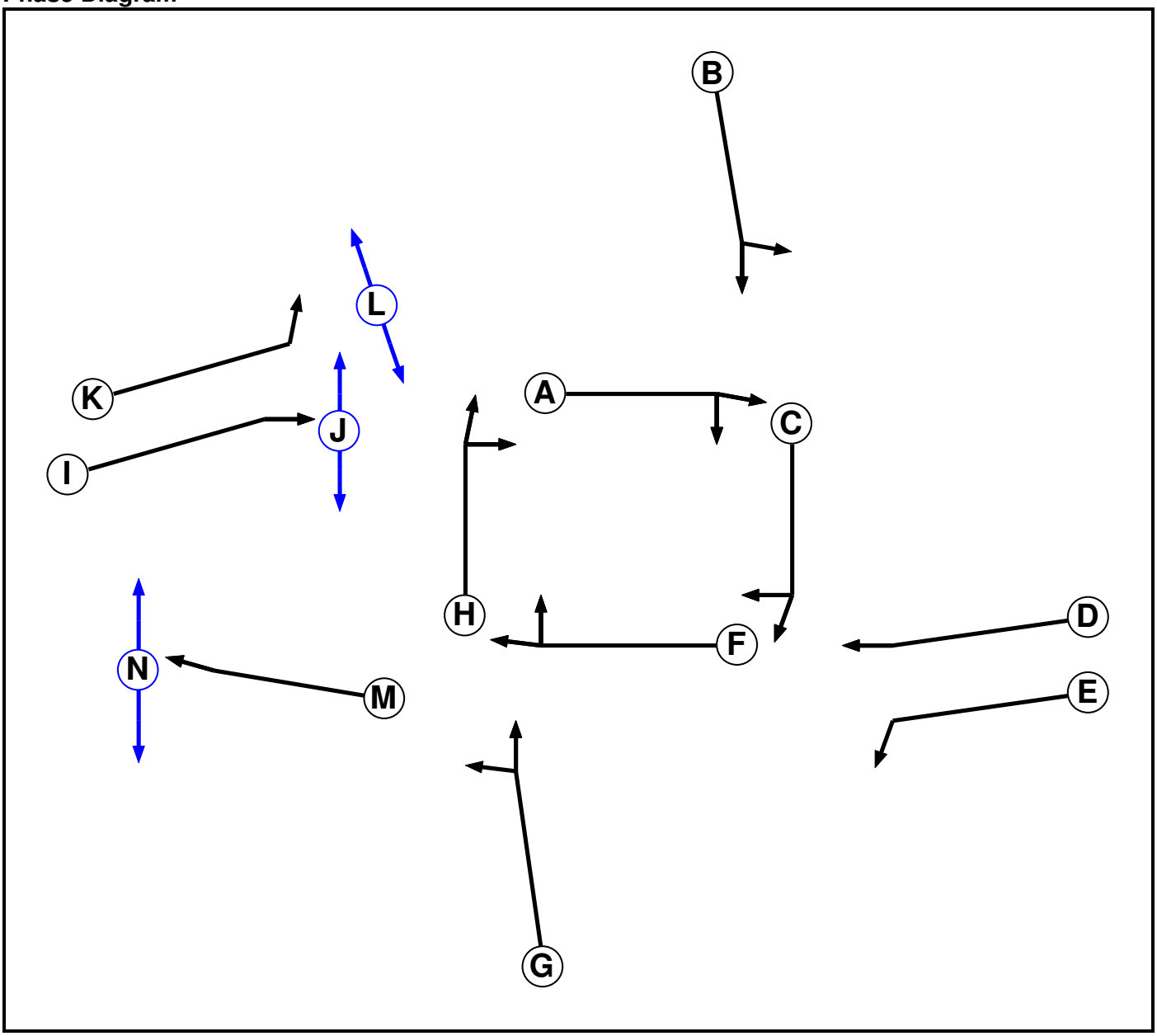
Project:	**Talbot Green Town Centre**
Title:	**A4119 / A473 Roundabout**
Location:	
Additional detail:	
File name:	A4119_A473 Roundabout.lsg3x
Author:	
Company:	
Address:	

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	Traffic	2		7	7
D	Traffic	2		7	7
E	Traffic	2		7	7
F	Traffic	3		7	7
G	Traffic	3		7	7
H	Traffic	4		7	7
I	Traffic	4		7	7
J	Pedestrian	4		6	6
K	Traffic	4		7	7
L	Pedestrian	4		4	4
M	Traffic	5		7	7
N	Pedestrian	5		5	5

Full Input Data And Results

Phase Intergreens Matrix

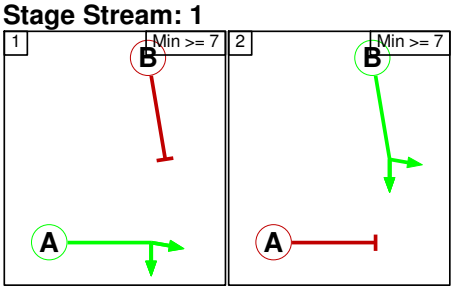
Terminating Phase \ Starting Phase	A	B	C	D	E	F	G	H	I	J	K	L	M	N
A		6	-	-	-	-	-	-	-	-	-	-	-	-
B	6		-	-	-	-	-	-	-	-	-	-	-	-
C	-	-		6	6	-	-	-	-	-	-	-	-	-
D	-	-	6		-	-	-	-	-	-	-	-	-	-
E	-	-	6	-		-	-	-	-	-	-	-	-	-
F	-	-	-	-	-		6	-	-	-	-	-	-	-
G	-	-	-	-	-	6		-	-	-	-	-	-	-
H	-	-	-	-	-	-	-		6	-	6	-	-	-
I	-	-	-	-	-	-	-	6		5	-	-	-	-
J	-	-	-	-	-	-	-	-	0		-	-	-	-
K	-	-	-	-	-	-	-	6	-	-		5	-	-
L	-	-	-	-	-	-	-	-	-	-	6		-	-
M	-	-	-	-	-	-	-	-	-	-	-	-		6
N	-	-	-	-	-	-	-	-	-	-	-	-	0	

Phases in Stage

Stream	Stage No.	Phases in Stage
1	1	A
1	2	B
2	1	C
2	2	E
2	3	D E
3	1	F
3	2	G
4	1	H J L
4	2	K
4	3	I K
5	1	M
5	2	N

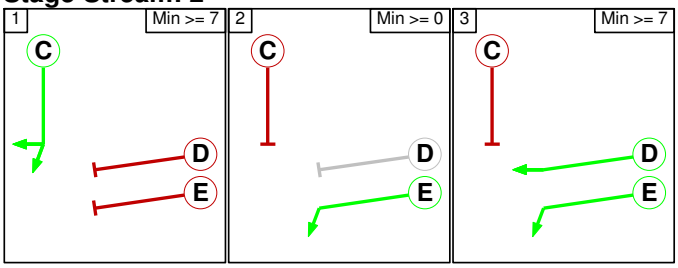
Stage Diagram

Stage Stream: 1

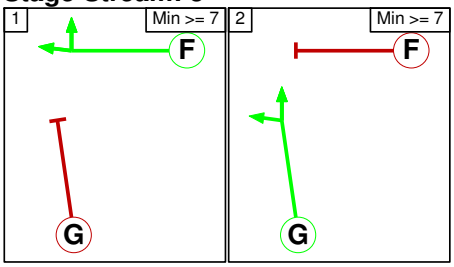


Full Input Data And Results

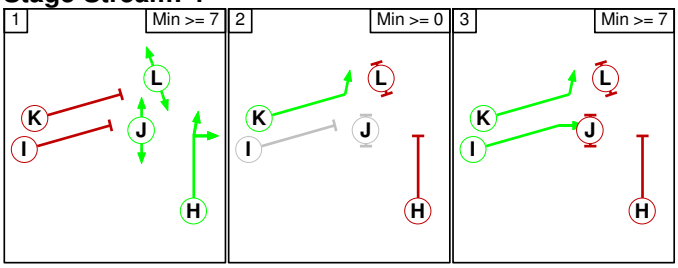
Stage Stream: 2



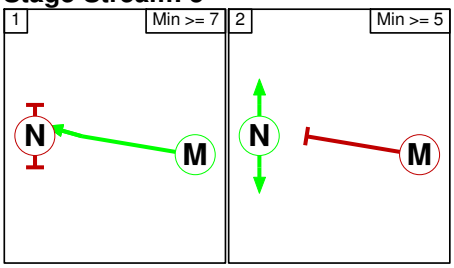
Stage Stream: 3



Stage Stream: 4



Stage Stream: 5



Phase Delays

Stage Stream: 1

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

Stage Stream: 2

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

Stage Stream: 3

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

Stage Stream: 4

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

Full Input Data And Results

Stage Stream: 5

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

Prohibited Stage Change

Stage Stream: 1

	To Stage		
		1	2
From Stage	1		6
	2	6	

Stage Stream: 2

	To Stage			
		1	2	3
From Stage	1		6	6
	2	6		2
	3	6	0	

Stage Stream: 3

	To Stage		
		1	2
From Stage	1		6
	2	6	

Stage Stream: 4

	To Stage			
		1	2	3
From Stage	1		6	6
	2	6		2
	3	6	0	

Stage Stream: 5

	To Stage		
		1	2
From Stage	1		6
	2	2	

Full Input Data And Results

Give-Way Lane Input Data

Junction: A4119 / A473 Roundabout
There are no Opposed Lanes in this Junction

Full Input Data And Results

Lane Input Data

Junction: A4119 / A473 Roundabout												
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 (A4119 North entry)	U	B	2	3	13.0	Geom	-	3.25	0.00	Y	Arm 6 Left	50.00
1/2 (A4119 North entry)	U	B	2	3	90.0	Geom	-	3.25	0.00	Y	Arm 11 Ahead	45.00
1/3 (A4119 North entry)	U	B	2	3	90.0	Geom	-	3.25	0.00	Y	Arm 11 Ahead	45.00
1/4 (A4119 North entry)	U	B	2	3	13.0	Geom	-	3.25	0.00	Y	Arm 11 Ahead	45.00
2/1 (A473 East entry)	U	E	2	3	18.0	Geom	-	3.80	0.00	Y	Arm 7 Left	30.00
2/2 (A473 East entry)	U	D	2	3	130.0	Geom	-	3.25	0.00	Y	Arm 12 Ahead	40.00
2/3 (A473 East entry)	U	D	2	3	35.0	Geom	-	3.25	0.00	Y	Arm 12 Ahead	40.00
3/1 (A4119 South entry)	U	G	2	3	16.0	Geom	-	3.25	0.00	Y	Arm 8 Left	50.00
3/2 (A4119 South entry)	U	G	2	3	115.0	Geom	-	3.25	0.00	Y	Arm 9 Ahead	45.00
3/3 (A4119 South entry)	U	G	2	3	115.0	Geom	-	3.25	0.00	Y	Arm 9 Ahead	45.00
3/4 (A4119 South entry)	U	G	2	3	16.0	Geom	-	3.25	0.00	Y	Arm 9 Ahead	45.00
4/1 (A473 West entry)	U	K	2	3	20.0	Geom	-	3.25	0.00	Y	Arm 5 Left	35.00
4/2 (A473 West entry)	U	I	2	3	75.0	Geom	-	3.25	0.00	Y	Arm 10 Ahead	45.00
4/3 (A473 West entry)	U	I	2	3	32.0	Geom	-	3.25	0.00	Y	Arm 10 Ahead	45.00
4/4 (A473 West entry)	U	I	2	3	38.0	Geom	-	3.25	0.00	Y	Arm 10 Ahead	45.00
5/1 (A4119 North exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
5/2 (A4119 North exit)	U		2	3	60.0	Inf	-	-	-	-	-	-

Full Input Data And Results

6/1 (A473 East exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
6/2 (A473 East exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
7/1 (A4119 South exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
7/2 (A4119 South exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
8/1 (A473 West exit internal)	U	M	2	3	8.0	Geom	-	3.25	0.00	Y	Arm 13 Ahead	Inf
8/2 (A473 West exit internal)	U	M	2	3	8.0	Geom	-	3.25	0.00	Y	Arm 13 Ahead	Inf
9/1 (A473 West internal link)	U	H	2	3	6.0	User	1900	-	-	-	-	-
9/2 (A473 West internal link)	U	H	2	3	6.0	User	1900	-	-	-	-	-
9/3 (A473 West internal link)	U	H	2	3	6.0	User	1900	-	-	-	-	-
10/1 (A4119 North internal link)	U	A	2	3	7.0	User	1900	-	-	-	-	-
10/2 (A4119 North internal link)	U	A	2	3	6.0	User	1900	-	-	-	-	-
10/3 (A4119 North internal link)	U	A	2	3	5.0	User	1900	-	-	-	-	-
11/1 (A473 East internal link)	U	C	2	3	8.0	User	1900	-	-	-	-	-
11/2 (A473 East internal link)	U	C	2	3	7.0	User	1900	-	-	-	-	-
11/3 (A473 East internal link)	U	C	2	3	6.0	User	1900	-	-	-	-	-
12/1 (A4119 South internal link)	U	F	2	3	8.0	User	1900	-	-	-	-	-
12/2 (A4119 South internal link)	U	F	2	3	7.0	User	1900	-	-	-	-	-
12/3 (A4119 South internal link)	U	F	2	3	6.0	User	1900	-	-	-	-	-

13/1 (A473 West exit)	U		2	3	60.0	Inf	-	-	-	-	-	-
13/2 (A473 West exit)	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2025 Base AM'	07:45	08:45	01:00	
2: '2025 Base PM'	16:45	17:45	01:00	
3: '2035 Base AM'	07:45	08:45	01:00	
4: '2035 Base PM'	16:45	17:45	01:00	
5: '2035 Base + Dev AM'	07:45	08:45	01:00	
6: '2035 Base + Dev PM'	16:45	17:45	01:00	

Scenario 1: '2025 Base AM' (FG1: '2025 Base AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	219	778	170	1167
	B	250	3	625	450	1328
	C	1021	297	1	265	1584
	D	175	437	272	0	884
	Tot.	1446	956	1676	885	4963

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 1: 2025 Base AM
Junction: A4119 / A473 Roundabout	
1/1 (short)	219
1/2 (with short)	629(In) 410(Out)
1/3 (with short)	538(In) 413(Out)
1/4 (short)	125
2/1	625
2/2	163
2/3	540
3/1 (short)	265
3/2 (with short)	797(In) 532(Out)
3/3 (with short)	787(In) 489(Out)
3/4 (short)	298
4/1	175
4/2	254
4/3 (with short)	455(In) 260(Out)
4/4 (short)	195
5/1	707
5/2	739
6/1	475
6/2	481
7/1	1112
7/2	564
8/1	473
8/2	412
9/1	532
9/2	741
9/3	299
10/1	256
10/2	558
10/3	196
11/1	487
11/2	609
11/3	125
12/1	208
12/2	412
12/3	253

Full Input Data And Results

13/1	473
13/2	412

Full Input Data And Results

Lane Saturation Flows

Junction: A4119 / A473 Roundabout								
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 (A4119 North entry)	3.25	0.00	Y	Arm 6 Left	50.00	100.0 %	1883	1883
1/2 (A4119 North entry)	3.25	0.00	Y	Arm 11 Ahead	45.00	100.0 %	1877	1877
1/3 (A4119 North entry)	3.25	0.00	Y	Arm 11 Ahead	45.00	100.0 %	1877	1877
1/4 (A4119 North entry)	3.25	0.00	Y	Arm 11 Ahead	45.00	100.0 %	1877	1877
2/1 (A473 East entry)	3.80	0.00	Y	Arm 7 Left	30.00	100.0 %	1900	1900
2/2 (A473 East entry)	3.25	0.00	Y	Arm 12 Ahead	40.00	100.0 %	1870	1870
2/3 (A473 East entry)	3.25	0.00	Y	Arm 12 Ahead	40.00	100.0 %	1870	1870
3/1 (A4119 South entry)	3.25	0.00	Y	Arm 8 Left	50.00	100.0 %	1883	1883
3/2 (A4119 South entry)	3.25	0.00	Y	Arm 9 Ahead	45.00	100.0 %	1877	1877
3/3 (A4119 South entry)	3.25	0.00	Y	Arm 9 Ahead	45.00	100.0 %	1877	1877
3/4 (A4119 South entry)	3.25	0.00	Y	Arm 9 Ahead	45.00	100.0 %	1877	1877
4/1 (A473 West entry)	3.25	0.00	Y	Arm 5 Left	35.00	100.0 %	1860	1860
4/2 (A473 West entry)	3.25	0.00	Y	Arm 10 Ahead	45.00	100.0 %	1877	1877
4/3 (A473 West entry)	3.25	0.00	Y	Arm 10 Ahead	45.00	100.0 %	1877	1877
4/4 (A473 West entry)	3.25	0.00	Y	Arm 10 Ahead	45.00	100.0 %	1877	1877
5/1 (A4119 North exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (A4119 North exit Lane 2)	Infinite Saturation Flow						Inf	Inf
6/1 (A473 East exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/2 (A473 East exit Lane 2)	Infinite Saturation Flow						Inf	Inf
7/1 (A4119 South exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (A4119 South exit Lane 2)	Infinite Saturation Flow						Inf	Inf
8/1 (A473 West exit internal)	3.25	0.00	Y	Arm 13 Ahead	Inf	100.0 %	1940	1940
8/2 (A473 West exit internal)	3.25	0.00	Y	Arm 13 Ahead	Inf	100.0 %	1940	1940

9/1 (A473 West internal link Lane 1)	This lane uses a directly entered Saturation Flow	1900	1900
9/2 (A473 West internal link Lane 2)	This lane uses a directly entered Saturation Flow	1900	1900
9/3 (A473 West internal link Lane 3)	This lane uses a directly entered Saturation Flow	1900	1900
10/1 (A4119 North internal link Lane 1)	This lane uses a directly entered Saturation Flow	1900	1900
10/2 (A4119 North internal link Lane 2)	This lane uses a directly entered Saturation Flow	1900	1900
10/3 (A4119 North internal link Lane 3)	This lane uses a directly entered Saturation Flow	1900	1900
11/1 (A473 East internal link Lane 1)	This lane uses a directly entered Saturation Flow	1900	1900
11/2 (A473 East internal link Lane 2)	This lane uses a directly entered Saturation Flow	1900	1900
11/3 (A473 East internal link Lane 3)	This lane uses a directly entered Saturation Flow	1900	1900
12/1 (A4119 South internal link Lane 1)	This lane uses a directly entered Saturation Flow	1900	1900
12/2 (A4119 South internal link Lane 2)	This lane uses a directly entered Saturation Flow	1900	1900
12/3 (A4119 South internal link Lane 3)	This lane uses a directly entered Saturation Flow	1900	1900
13/1 (A473 West exit Lane 1)	Infinite Saturation Flow	Inf	Inf
13/2 (A473 West exit Lane 2)	Infinite Saturation Flow	Inf	Inf

Scenario 2: '2025 Base PM' (FG2: '2025 Base PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	311	924	299	1534
	B	292	0	385	393	1070
	C	1141	576	3	376	2096
	D	304	447	233	0	984
	Tot.	1737	1334	1545	1068	5684

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 2: 2025 Base PM
Junction: A4119 / A473 Roundabout	
1/1 (short)	311
1/2 (with short)	802(In) 491(Out)
1/3 (with short)	732(In) 492(Out)
1/4 (short)	240
2/1	385
2/2	372
2/3	313
3/1 (short)	376
3/2 (with short)	964(In) 588(Out)
3/3 (with short)	1132(In) 588(Out)
3/4 (short)	544
4/1	304
4/2	296
4/3 (with short)	384(In) 218(Out)
4/4 (short)	166
5/1	1017
5/2	720
6/1	642
6/2	692
7/1	943
7/2	602
8/1	807
8/2	261
9/1	713
9/2	755
9/3	544
10/1	331
10/2	759
10/3	169
11/1	558
11/2	661
11/3	240
12/1	431
12/2	386
12/3	167

Full Input Data And Results

13/1	807
13/2	261

Full Input Data And Results

Lane Saturation Flows

Junction: A4119 / A473 Roundabout								
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 (A4119 North entry)	3.25	0.00	Y	Arm 6 Left	50.00	100.0 %	1883	1883
1/2 (A4119 North entry)	3.25	0.00	Y	Arm 11 Ahead	45.00	100.0 %	1877	1877
1/3 (A4119 North entry)	3.25	0.00	Y	Arm 11 Ahead	45.00	100.0 %	1877	1877
1/4 (A4119 North entry)	3.25	0.00	Y	Arm 11 Ahead	45.00	100.0 %	1877	1877
2/1 (A473 East entry)	3.80	0.00	Y	Arm 7 Left	30.00	100.0 %	1900	1900
2/2 (A473 East entry)	3.25	0.00	Y	Arm 12 Ahead	40.00	100.0 %	1870	1870
2/3 (A473 East entry)	3.25	0.00	Y	Arm 12 Ahead	40.00	100.0 %	1870	1870
3/1 (A4119 South entry)	3.25	0.00	Y	Arm 8 Left	50.00	100.0 %	1883	1883
3/2 (A4119 South entry)	3.25	0.00	Y	Arm 9 Ahead	45.00	100.0 %	1877	1877
3/3 (A4119 South entry)	3.25	0.00	Y	Arm 9 Ahead	45.00	100.0 %	1877	1877
3/4 (A4119 South entry)	3.25	0.00	Y	Arm 9 Ahead	45.00	100.0 %	1877	1877
4/1 (A473 West entry)	3.25	0.00	Y	Arm 5 Left	35.00	100.0 %	1860	1860
4/2 (A473 West entry)	3.25	0.00	Y	Arm 10 Ahead	45.00	100.0 %	1877	1877
4/3 (A473 West entry)	3.25	0.00	Y	Arm 10 Ahead	45.00	100.0 %	1877	1877
4/4 (A473 West entry)	3.25	0.00	Y	Arm 10 Ahead	45.00	100.0 %	1877	1877
5/1 (A4119 North exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (A4119 North exit Lane 2)	Infinite Saturation Flow						Inf	Inf
6/1 (A473 East exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/2 (A473 East exit Lane 2)	Infinite Saturation Flow						Inf	Inf
7/1 (A4119 South exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (A4119 South exit Lane 2)	Infinite Saturation Flow						Inf	Inf
8/1 (A473 West exit internal)	3.25	0.00	Y	Arm 13 Ahead	Inf	100.0 %	1940	1940
8/2 (A473 West exit internal)	3.25	0.00	Y	Arm 13 Ahead	Inf	100.0 %	1940	1940

9/1 (A473 West internal link Lane 1)	This lane uses a directly entered Saturation Flow	1900	1900
9/2 (A473 West internal link Lane 2)	This lane uses a directly entered Saturation Flow	1900	1900
9/3 (A473 West internal link Lane 3)	This lane uses a directly entered Saturation Flow	1900	1900
10/1 (A4119 North internal link Lane 1)	This lane uses a directly entered Saturation Flow	1900	1900
10/2 (A4119 North internal link Lane 2)	This lane uses a directly entered Saturation Flow	1900	1900
10/3 (A4119 North internal link Lane 3)	This lane uses a directly entered Saturation Flow	1900	1900
11/1 (A473 East internal link Lane 1)	This lane uses a directly entered Saturation Flow	1900	1900
11/2 (A473 East internal link Lane 2)	This lane uses a directly entered Saturation Flow	1900	1900
11/3 (A473 East internal link Lane 3)	This lane uses a directly entered Saturation Flow	1900	1900
12/1 (A4119 South internal link Lane 1)	This lane uses a directly entered Saturation Flow	1900	1900
12/2 (A4119 South internal link Lane 2)	This lane uses a directly entered Saturation Flow	1900	1900
12/3 (A4119 South internal link Lane 3)	This lane uses a directly entered Saturation Flow	1900	1900
13/1 (A473 West exit Lane 1)	Infinite Saturation Flow	Inf	Inf
13/2 (A473 West exit Lane 2)	Infinite Saturation Flow	Inf	Inf

Scenario 3: '2035 Base AM' (FG3: '2035 Base AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	243	862	188	1293
	B	277	3	693	499	1472
	C	1132	329	1	294	1756
	D	194	484	302	0	980
	Tot.	1603	1059	1858	981	5501

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 3: 2035 Base AM
Junction: A4119 / A473 Roundabout	
1/1 (short)	243
1/2 (with short)	674(In) 431(Out)
1/3 (with short)	619(In) 431(Out)
1/4 (short)	188
2/1	693
2/2	390
2/3	389
3/1 (short)	294
3/2 (with short)	860(In) 566(Out)
3/3 (with short)	896(In) 566(Out)
3/4 (short)	330
4/1	194
4/2	262
4/3 (with short)	524(In) 262(Out)
4/4 (short)	262
5/1	899
5/2	704
6/1	507
6/2	552
7/1	1165
7/2	693
8/1	684
8/2	297
9/1	705
9/2	706
9/3	331
10/1	264
10/2	593
10/3	262
11/1	472
11/2	693
11/3	188
12/1	390
12/2	436
12/3	141

Full Input Data And Results

13/1	684
13/2	297

Full Input Data And Results

Lane Saturation Flows

Junction: A4119 / A473 Roundabout								
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 (A4119 North entry)	3.25	0.00	Y	Arm 6 Left	50.00	100.0 %	1883	1883
1/2 (A4119 North entry)	3.25	0.00	Y	Arm 11 Ahead	45.00	100.0 %	1877	1877
1/3 (A4119 North entry)	3.25	0.00	Y	Arm 11 Ahead	45.00	100.0 %	1877	1877
1/4 (A4119 North entry)	3.25	0.00	Y	Arm 11 Ahead	45.00	100.0 %	1877	1877
2/1 (A473 East entry)	3.80	0.00	Y	Arm 7 Left	30.00	100.0 %	1900	1900
2/2 (A473 East entry)	3.25	0.00	Y	Arm 12 Ahead	40.00	100.0 %	1870	1870
2/3 (A473 East entry)	3.25	0.00	Y	Arm 12 Ahead	40.00	100.0 %	1870	1870
3/1 (A4119 South entry)	3.25	0.00	Y	Arm 8 Left	50.00	100.0 %	1883	1883
3/2 (A4119 South entry)	3.25	0.00	Y	Arm 9 Ahead	45.00	100.0 %	1877	1877
3/3 (A4119 South entry)	3.25	0.00	Y	Arm 9 Ahead	45.00	100.0 %	1877	1877
3/4 (A4119 South entry)	3.25	0.00	Y	Arm 9 Ahead	45.00	100.0 %	1877	1877
4/1 (A473 West entry)	3.25	0.00	Y	Arm 5 Left	35.00	100.0 %	1860	1860
4/2 (A473 West entry)	3.25	0.00	Y	Arm 10 Ahead	45.00	100.0 %	1877	1877
4/3 (A473 West entry)	3.25	0.00	Y	Arm 10 Ahead	45.00	100.0 %	1877	1877
4/4 (A473 West entry)	3.25	0.00	Y	Arm 10 Ahead	45.00	100.0 %	1877	1877
5/1 (A4119 North exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (A4119 North exit Lane 2)	Infinite Saturation Flow						Inf	Inf
6/1 (A473 East exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/2 (A473 East exit Lane 2)	Infinite Saturation Flow						Inf	Inf
7/1 (A4119 South exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (A4119 South exit Lane 2)	Infinite Saturation Flow						Inf	Inf
8/1 (A473 West exit internal)	3.25	0.00	Y	Arm 13 Ahead	Inf	100.0 %	1940	1940
8/2 (A473 West exit internal)	3.25	0.00	Y	Arm 13 Ahead	Inf	100.0 %	1940	1940

9/1 (A473 West internal link Lane 1)	This lane uses a directly entered Saturation Flow	1900	1900
9/2 (A473 West internal link Lane 2)	This lane uses a directly entered Saturation Flow	1900	1900
9/3 (A473 West internal link Lane 3)	This lane uses a directly entered Saturation Flow	1900	1900
10/1 (A4119 North internal link Lane 1)	This lane uses a directly entered Saturation Flow	1900	1900
10/2 (A4119 North internal link Lane 2)	This lane uses a directly entered Saturation Flow	1900	1900
10/3 (A4119 North internal link Lane 3)	This lane uses a directly entered Saturation Flow	1900	1900
11/1 (A473 East internal link Lane 1)	This lane uses a directly entered Saturation Flow	1900	1900
11/2 (A473 East internal link Lane 2)	This lane uses a directly entered Saturation Flow	1900	1900
11/3 (A473 East internal link Lane 3)	This lane uses a directly entered Saturation Flow	1900	1900
12/1 (A4119 South internal link Lane 1)	This lane uses a directly entered Saturation Flow	1900	1900
12/2 (A4119 South internal link Lane 2)	This lane uses a directly entered Saturation Flow	1900	1900
12/3 (A4119 South internal link Lane 3)	This lane uses a directly entered Saturation Flow	1900	1900
13/1 (A473 West exit Lane 1)	Infinite Saturation Flow	Inf	Inf
13/2 (A473 West exit Lane 2)	Infinite Saturation Flow	Inf	Inf

Scenario 4: '2035 Base PM' (FG4: '2035 Base PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	344	1023	331	1698
	B	323	0	426	435	1184
	C	1263	637	3	416	2319
	D	336	495	258	0	1089
	Tot.	1922	1476	1710	1182	6290

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 4: 2035 Base PM
Junction: A4119 / A473 Roundabout	
1/1 (short)	344
1/2 (with short)	855(In) 511(Out)
1/3 (with short)	843(In) 512(Out)
1/4 (short)	331
2/1	426
2/2	379
2/3	379
3/1 (short)	416
3/2 (with short)	1051(In) 635(Out)
3/3 (with short)	1268(In) 636(Out)
3/4 (short)	632
4/1	336
4/2	251
4/3 (with short)	502(In) 251(Out)
4/4 (short)	251
5/1	1132
5/2	790
6/1	603
6/2	873
7/1	946
7/2	764
8/1	795
8/2	387
9/1	796
9/2	798
9/3	632
10/1	259
10/2	882
10/3	252
11/1	520
11/2	764
11/3	331
12/1	379
12/2	548
12/3	162

Full Input Data And Results

13/1	795
13/2	387

Full Input Data And Results

Lane Saturation Flows

Junction: A4119 / A473 Roundabout								
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 (A4119 North entry)	3.25	0.00	Y	Arm 6 Left	50.00	100.0 %	1883	1883
1/2 (A4119 North entry)	3.25	0.00	Y	Arm 11 Ahead	45.00	100.0 %	1877	1877
1/3 (A4119 North entry)	3.25	0.00	Y	Arm 11 Ahead	45.00	100.0 %	1877	1877
1/4 (A4119 North entry)	3.25	0.00	Y	Arm 11 Ahead	45.00	100.0 %	1877	1877
2/1 (A473 East entry)	3.80	0.00	Y	Arm 7 Left	30.00	100.0 %	1900	1900
2/2 (A473 East entry)	3.25	0.00	Y	Arm 12 Ahead	40.00	100.0 %	1870	1870
2/3 (A473 East entry)	3.25	0.00	Y	Arm 12 Ahead	40.00	100.0 %	1870	1870
3/1 (A4119 South entry)	3.25	0.00	Y	Arm 8 Left	50.00	100.0 %	1883	1883
3/2 (A4119 South entry)	3.25	0.00	Y	Arm 9 Ahead	45.00	100.0 %	1877	1877
3/3 (A4119 South entry)	3.25	0.00	Y	Arm 9 Ahead	45.00	100.0 %	1877	1877
3/4 (A4119 South entry)	3.25	0.00	Y	Arm 9 Ahead	45.00	100.0 %	1877	1877
4/1 (A473 West entry)	3.25	0.00	Y	Arm 5 Left	35.00	100.0 %	1860	1860
4/2 (A473 West entry)	3.25	0.00	Y	Arm 10 Ahead	45.00	100.0 %	1877	1877
4/3 (A473 West entry)	3.25	0.00	Y	Arm 10 Ahead	45.00	100.0 %	1877	1877
4/4 (A473 West entry)	3.25	0.00	Y	Arm 10 Ahead	45.00	100.0 %	1877	1877
5/1 (A4119 North exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (A4119 North exit Lane 2)	Infinite Saturation Flow						Inf	Inf
6/1 (A473 East exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/2 (A473 East exit Lane 2)	Infinite Saturation Flow						Inf	Inf
7/1 (A4119 South exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (A4119 South exit Lane 2)	Infinite Saturation Flow						Inf	Inf
8/1 (A473 West exit internal)	3.25	0.00	Y	Arm 13 Ahead	Inf	100.0 %	1940	1940
8/2 (A473 West exit internal)	3.25	0.00	Y	Arm 13 Ahead	Inf	100.0 %	1940	1940

9/1 (A473 West internal link Lane 1)	This lane uses a directly entered Saturation Flow	1900	1900
9/2 (A473 West internal link Lane 2)	This lane uses a directly entered Saturation Flow	1900	1900
9/3 (A473 West internal link Lane 3)	This lane uses a directly entered Saturation Flow	1900	1900
10/1 (A4119 North internal link Lane 1)	This lane uses a directly entered Saturation Flow	1900	1900
10/2 (A4119 North internal link Lane 2)	This lane uses a directly entered Saturation Flow	1900	1900
10/3 (A4119 North internal link Lane 3)	This lane uses a directly entered Saturation Flow	1900	1900
11/1 (A473 East internal link Lane 1)	This lane uses a directly entered Saturation Flow	1900	1900
11/2 (A473 East internal link Lane 2)	This lane uses a directly entered Saturation Flow	1900	1900
11/3 (A473 East internal link Lane 3)	This lane uses a directly entered Saturation Flow	1900	1900
12/1 (A4119 South internal link Lane 1)	This lane uses a directly entered Saturation Flow	1900	1900
12/2 (A4119 South internal link Lane 2)	This lane uses a directly entered Saturation Flow	1900	1900
12/3 (A4119 South internal link Lane 3)	This lane uses a directly entered Saturation Flow	1900	1900
13/1 (A473 West exit Lane 1)	Infinite Saturation Flow	Inf	Inf
13/2 (A473 West exit Lane 2)	Infinite Saturation Flow	Inf	Inf

Scenario 5: '2035 Base + Dev AM' (FG5: '2035 Base + Dev AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	243	862	189	1294
	B	277	3	693	502	1475
	C	1132	329	1	303	1765
	D	196	496	335	0	1027
	Tot.	1605	1071	1891	994	5561

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 5: 2035 Base + Dev AM
Junction: A4119 / A473 Roundabout	
1/1 (short)	243
1/2 (with short)	674(In) 431(Out)
1/3 (with short)	620(In) 431(Out)
1/4 (short)	189
2/1	693
2/2	391
2/3	391
3/1 (short)	303
3/2 (with short)	869(In) 566(Out)
3/3 (with short)	896(In) 566(Out)
3/4 (short)	330
4/1	196
4/2	277
4/3 (with short)	554(In) 277(Out)
4/4 (short)	277
5/1	901
5/2	704
6/1	522
6/2	549
7/1	1183
7/2	708
8/1	694
8/2	300
9/1	705
9/2	706
9/3	331
10/1	279
10/2	608
10/3	277
11/1	490
11/2	708
11/3	189
12/1	391
12/2	439

Full Input Data And Results

12/3	141
13/1	694
13/2	300

Full Input Data And Results

Lane Saturation Flows

Junction: A4119 / A473 Roundabout								
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 (A4119 North entry)	3.25	0.00	Y	Arm 6 Left	50.00	100.0 %	1883	1883
1/2 (A4119 North entry)	3.25	0.00	Y	Arm 11 Ahead	45.00	100.0 %	1877	1877
1/3 (A4119 North entry)	3.25	0.00	Y	Arm 11 Ahead	45.00	100.0 %	1877	1877
1/4 (A4119 North entry)	3.25	0.00	Y	Arm 11 Ahead	45.00	100.0 %	1877	1877
2/1 (A473 East entry)	3.80	0.00	Y	Arm 7 Left	30.00	100.0 %	1900	1900
2/2 (A473 East entry)	3.25	0.00	Y	Arm 12 Ahead	40.00	100.0 %	1870	1870
2/3 (A473 East entry)	3.25	0.00	Y	Arm 12 Ahead	40.00	100.0 %	1870	1870
3/1 (A4119 South entry)	3.25	0.00	Y	Arm 8 Left	50.00	100.0 %	1883	1883
3/2 (A4119 South entry)	3.25	0.00	Y	Arm 9 Ahead	45.00	100.0 %	1877	1877
3/3 (A4119 South entry)	3.25	0.00	Y	Arm 9 Ahead	45.00	100.0 %	1877	1877
3/4 (A4119 South entry)	3.25	0.00	Y	Arm 9 Ahead	45.00	100.0 %	1877	1877
4/1 (A473 West entry)	3.25	0.00	Y	Arm 5 Left	35.00	100.0 %	1860	1860
4/2 (A473 West entry)	3.25	0.00	Y	Arm 10 Ahead	45.00	100.0 %	1877	1877
4/3 (A473 West entry)	3.25	0.00	Y	Arm 10 Ahead	45.00	100.0 %	1877	1877
4/4 (A473 West entry)	3.25	0.00	Y	Arm 10 Ahead	45.00	100.0 %	1877	1877
5/1 (A4119 North exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (A4119 North exit Lane 2)	Infinite Saturation Flow						Inf	Inf
6/1 (A473 East exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/2 (A473 East exit Lane 2)	Infinite Saturation Flow						Inf	Inf
7/1 (A4119 South exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (A4119 South exit Lane 2)	Infinite Saturation Flow						Inf	Inf
8/1 (A473 West exit internal)	3.25	0.00	Y	Arm 13 Ahead	Inf	100.0 %	1940	1940
8/2 (A473 West exit internal)	3.25	0.00	Y	Arm 13 Ahead	Inf	100.0 %	1940	1940

9/1 (A473 West internal link Lane 1)	This lane uses a directly entered Saturation Flow	1900	1900
9/2 (A473 West internal link Lane 2)	This lane uses a directly entered Saturation Flow	1900	1900
9/3 (A473 West internal link Lane 3)	This lane uses a directly entered Saturation Flow	1900	1900
10/1 (A4119 North internal link Lane 1)	This lane uses a directly entered Saturation Flow	1900	1900
10/2 (A4119 North internal link Lane 2)	This lane uses a directly entered Saturation Flow	1900	1900
10/3 (A4119 North internal link Lane 3)	This lane uses a directly entered Saturation Flow	1900	1900
11/1 (A473 East internal link Lane 1)	This lane uses a directly entered Saturation Flow	1900	1900
11/2 (A473 East internal link Lane 2)	This lane uses a directly entered Saturation Flow	1900	1900
11/3 (A473 East internal link Lane 3)	This lane uses a directly entered Saturation Flow	1900	1900
12/1 (A4119 South internal link Lane 1)	This lane uses a directly entered Saturation Flow	1900	1900
12/2 (A4119 South internal link Lane 2)	This lane uses a directly entered Saturation Flow	1900	1900
12/3 (A4119 South internal link Lane 3)	This lane uses a directly entered Saturation Flow	1900	1900
13/1 (A473 West exit Lane 1)	Infinite Saturation Flow	Inf	Inf
13/2 (A473 West exit Lane 2)	Infinite Saturation Flow	Inf	Inf

Scenario 6: '2035 Base + Dev PM' (FG6: '2035 Base + Dev PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	344	1023	333	1700
	B	323	0	426	446	1195
	C	1263	637	3	448	2351
	D	337	500	273	0	1110
	Tot.	1923	1481	1725	1227	6356

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 6: 2035 Base + Dev PM
Junction: A4119 / A473 Roundabout	
1/1 (short)	344
1/2 (with short)	856(In) 512(Out)
1/3 (with short)	844(In) 511(Out)
1/4 (short)	333
2/1	426
2/2	384
2/3	385
3/1 (short)	448
3/2 (with short)	1083(In) 635(Out)
3/3 (with short)	1268(In) 636(Out)
3/4 (short)	632
4/1	337
4/2	258
4/3 (with short)	515(In) 257(Out)
4/4 (short)	258
5/1	1134
5/2	789
6/1	610
6/2	871
7/1	955
7/2	770
8/1	832
8/2	395
9/1	797
9/2	797
9/3	632
10/1	266
10/2	888
10/3	259
11/1	529
11/2	770
11/3	333
12/1	384
12/2	557

Full Input Data And Results

12/3	161
13/1	832
13/2	395

Full Input Data And Results

Lane Saturation Flows

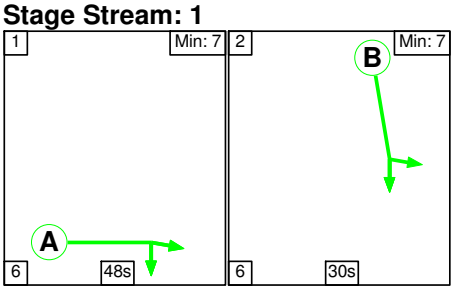
Junction: A4119 / A473 Roundabout								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (A4119 North entry)	3.25	0.00	Y	Arm 6 Left	50.00	100.0 %	1883	1883
1/2 (A4119 North entry)	3.25	0.00	Y	Arm 11 Ahead	45.00	100.0 %	1877	1877
1/3 (A4119 North entry)	3.25	0.00	Y	Arm 11 Ahead	45.00	100.0 %	1877	1877
1/4 (A4119 North entry)	3.25	0.00	Y	Arm 11 Ahead	45.00	100.0 %	1877	1877
2/1 (A473 East entry)	3.80	0.00	Y	Arm 7 Left	30.00	100.0 %	1900	1900
2/2 (A473 East entry)	3.25	0.00	Y	Arm 12 Ahead	40.00	100.0 %	1870	1870
2/3 (A473 East entry)	3.25	0.00	Y	Arm 12 Ahead	40.00	100.0 %	1870	1870
3/1 (A4119 South entry)	3.25	0.00	Y	Arm 8 Left	50.00	100.0 %	1883	1883
3/2 (A4119 South entry)	3.25	0.00	Y	Arm 9 Ahead	45.00	100.0 %	1877	1877
3/3 (A4119 South entry)	3.25	0.00	Y	Arm 9 Ahead	45.00	100.0 %	1877	1877
3/4 (A4119 South entry)	3.25	0.00	Y	Arm 9 Ahead	45.00	100.0 %	1877	1877
4/1 (A473 West entry)	3.25	0.00	Y	Arm 5 Left	35.00	100.0 %	1860	1860
4/2 (A473 West entry)	3.25	0.00	Y	Arm 10 Ahead	45.00	100.0 %	1877	1877
4/3 (A473 West entry)	3.25	0.00	Y	Arm 10 Ahead	45.00	100.0 %	1877	1877
4/4 (A473 West entry)	3.25	0.00	Y	Arm 10 Ahead	45.00	100.0 %	1877	1877
5/1 (A4119 North exit Lane 1)	Infinite Saturation Flow						Inf	Inf
5/2 (A4119 North exit Lane 2)	Infinite Saturation Flow						Inf	Inf
6/1 (A473 East exit Lane 1)	Infinite Saturation Flow						Inf	Inf
6/2 (A473 East exit Lane 2)	Infinite Saturation Flow						Inf	Inf
7/1 (A4119 South exit Lane 1)	Infinite Saturation Flow						Inf	Inf
7/2 (A4119 South exit Lane 2)	Infinite Saturation Flow						Inf	Inf
8/1 (A473 West exit internal)	3.25	0.00	Y	Arm 13 Ahead	Inf	100.0 %	1940	1940
8/2 (A473 West exit internal)	3.25	0.00	Y	Arm 13 Ahead	Inf	100.0 %	1940	1940

9/1 (A473 West internal link Lane 1)	This lane uses a directly entered Saturation Flow	1900	1900
9/2 (A473 West internal link Lane 2)	This lane uses a directly entered Saturation Flow	1900	1900
9/3 (A473 West internal link Lane 3)	This lane uses a directly entered Saturation Flow	1900	1900
10/1 (A4119 North internal link Lane 1)	This lane uses a directly entered Saturation Flow	1900	1900
10/2 (A4119 North internal link Lane 2)	This lane uses a directly entered Saturation Flow	1900	1900
10/3 (A4119 North internal link Lane 3)	This lane uses a directly entered Saturation Flow	1900	1900
11/1 (A473 East internal link Lane 1)	This lane uses a directly entered Saturation Flow	1900	1900
11/2 (A473 East internal link Lane 2)	This lane uses a directly entered Saturation Flow	1900	1900
11/3 (A473 East internal link Lane 3)	This lane uses a directly entered Saturation Flow	1900	1900
12/1 (A4119 South internal link Lane 1)	This lane uses a directly entered Saturation Flow	1900	1900
12/2 (A4119 South internal link Lane 2)	This lane uses a directly entered Saturation Flow	1900	1900
12/3 (A4119 South internal link Lane 3)	This lane uses a directly entered Saturation Flow	1900	1900
13/1 (A473 West exit Lane 1)	Infinite Saturation Flow	Inf	Inf
13/2 (A473 West exit Lane 2)	Infinite Saturation Flow	Inf	Inf

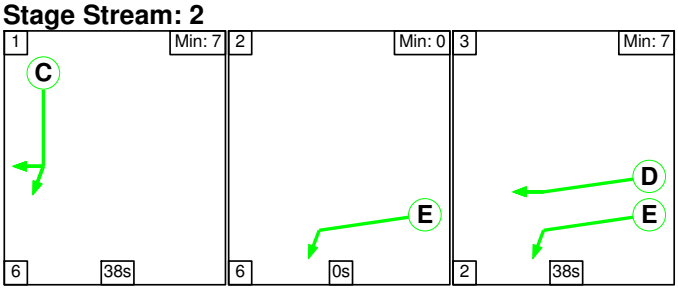
Scenario 1: '2025 Base AM' (FG1: '2025 Base AM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

Stage Stream: 1

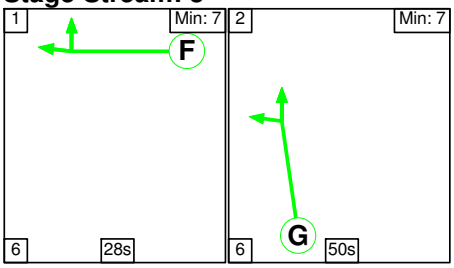


Stage Stream: 2

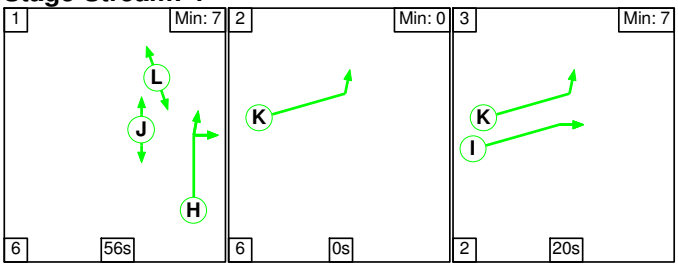


Full Input Data And Results

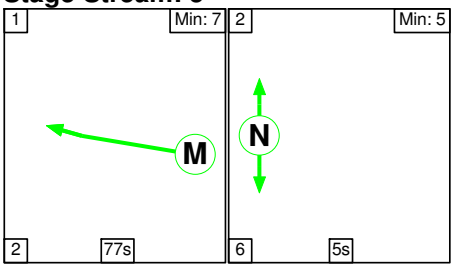
Stage Stream: 3



Stage Stream: 4



Stage Stream: 5



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	48	30
Change Point	67	31

Stage Stream: 2

Stage	1	2	3
Duration	38	0	38
Change Point	11	55	61

Stage Stream: 3

Stage	1	2
Duration	28	50
Change Point	46	80

Stage Stream: 4

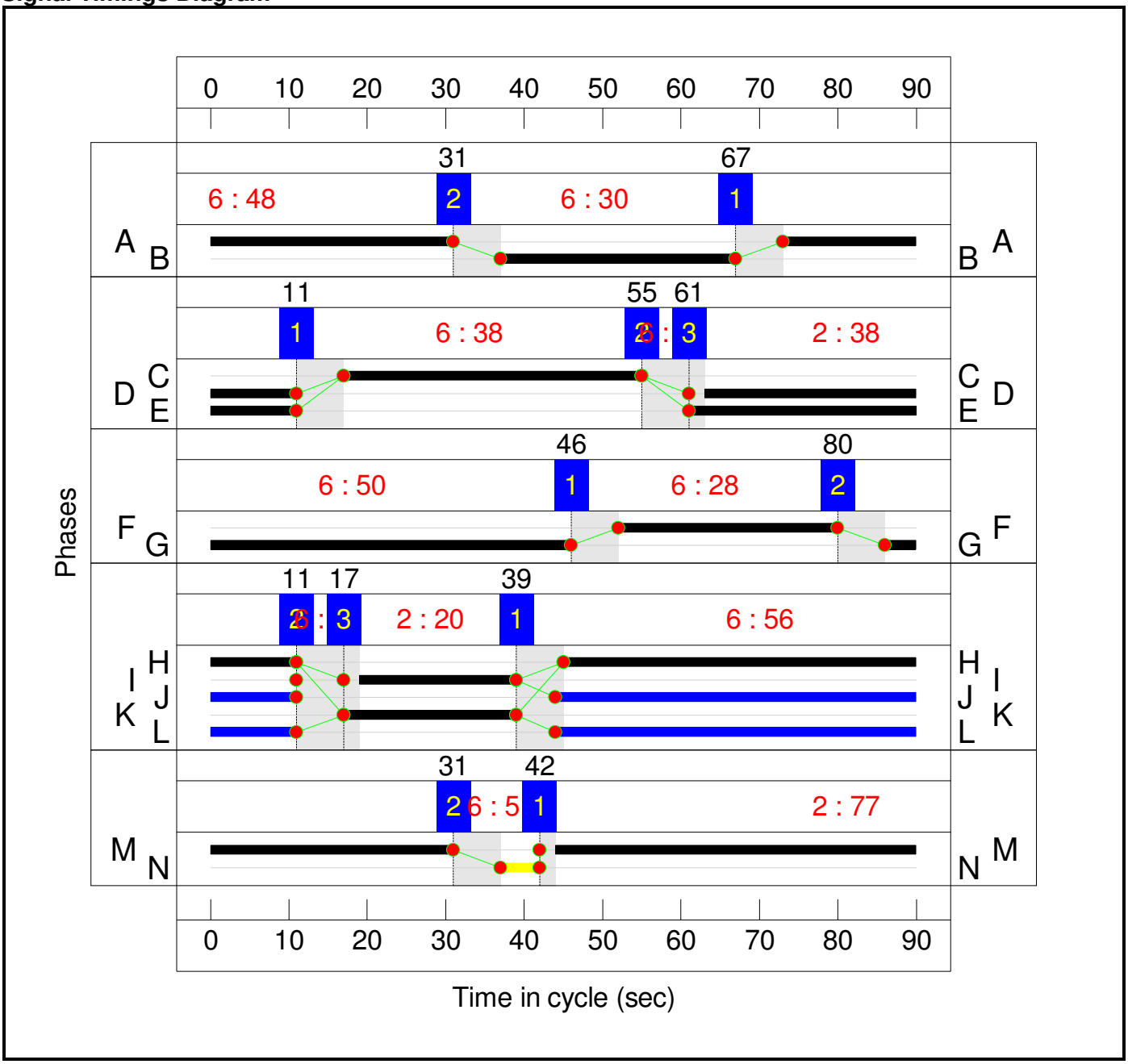
Stage	1	2	3
Duration	56	0	20
Change Point	39	11	17

Full Input Data And Results

Stage Stream: 5

Stage	1	2
Duration	77	5
Change Point	42	31

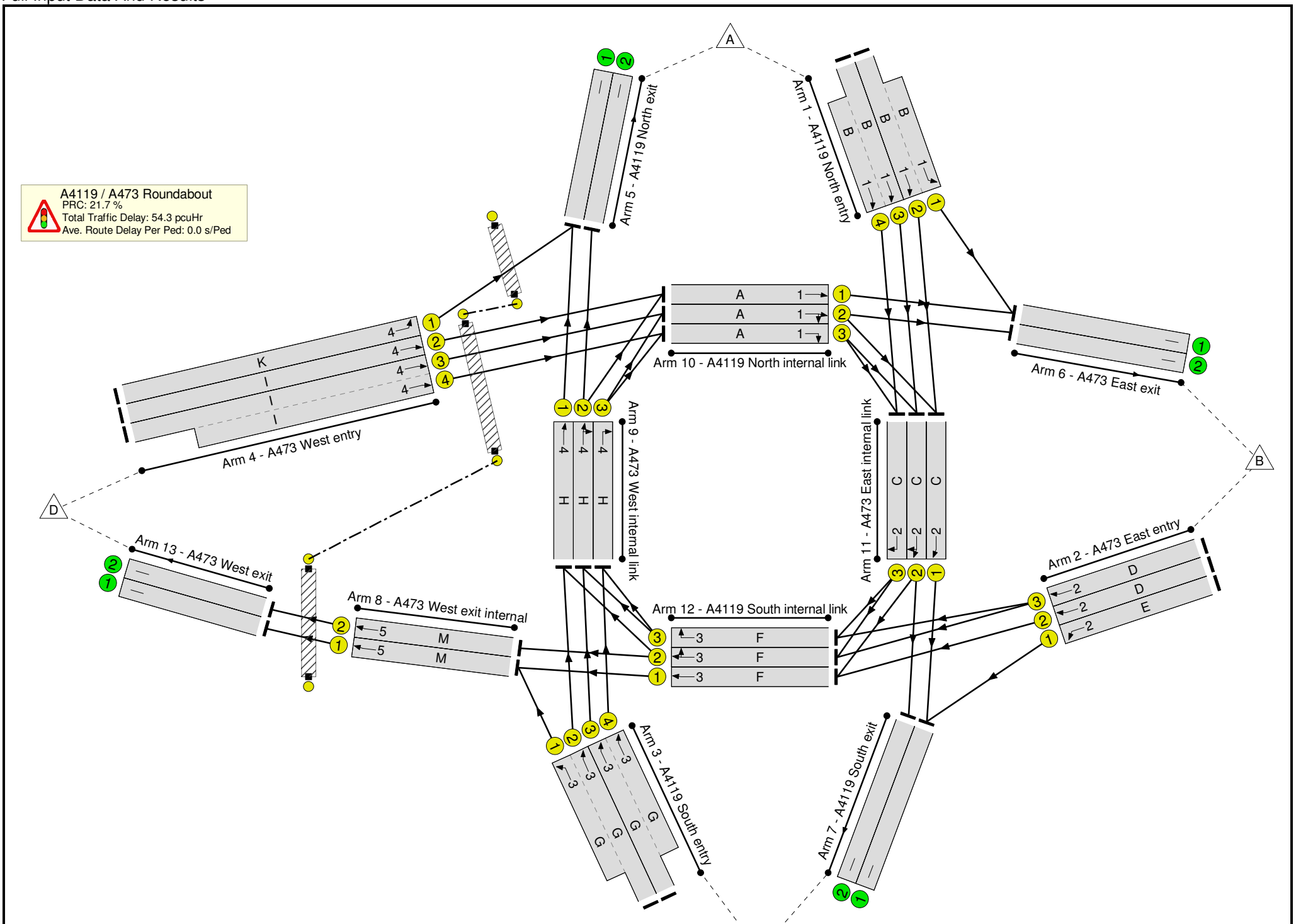
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

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: A4119 / A473 Roundabout	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**74.0%**
A4119 / A473 Roundabout	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**74.0%**
1/2+1/1	A4119 North entry Left Ahead	U	1	N/A	B		1	30	-	629	1877:1883	602+321	68.1 : 68.1%
1/3+1/4	A4119 North entry Ahead	U	1	N/A	B		1	30	-	538	1877:1877	616+186	67.0 : 67.0%
2/1	A473 East entry Left	U	2	N/A	E		1	40	-	625	1900	866	72.2%
2/2	A473 East entry Ahead	U	2	N/A	D		1	38	-	163	1870	810	20.1%
2/3	A473 East entry Ahead	U	2	N/A	D		1	38	-	540	1870	810	66.6%
3/2+3/1	A4119 South entry Left Ahead	U	3	N/A	G		1	50	-	797	1877:1883	919+458	57.9 : 57.9%
3/3+3/4	A4119 South entry Ahead	U	3	N/A	G		1	50	-	787	1877:1877	899+548	54.4 : 54.4%
4/1	A473 West entry Left	U	4	N/A	K		1	22	-	175	1860	475	36.8%
4/2	A473 West entry Ahead	U	4	N/A	I		1	20	-	254	1877	438	58.0%
4/3+4/4	A473 West entry Ahead	U	4	N/A	I		1	20	-	455	1877:1877	438+438	59.4 : 44.5%
5/1	A4119 North exit	U	N/A	N/A	-		-	-	-	707	Inf	Inf	0.0%
5/2	A4119 North exit	U	N/A	N/A	-		-	-	-	739	Inf	Inf	0.0%
6/1	A473 East exit	U	N/A	N/A	-		-	-	-	475	Inf	Inf	0.0%
6/2	A473 East exit	U	N/A	N/A	-		-	-	-	481	Inf	Inf	0.0%
7/1	A4119 South exit	U	N/A	N/A	-		-	-	-	1112	Inf	Inf	0.0%
7/2	A4119 South exit	U	N/A	N/A	-		-	-	-	564	Inf	Inf	0.0%

Full Input Data And Results

8/1	A473 West exit internal Ahead	U	5	N/A	M		1	77	-	473	1940	1681	28.1%
8/2	A473 West exit internal Ahead	U	5	N/A	M		1	77	-	412	1940	1681	24.5%
9/1	A473 West internal link Ahead	U	4	N/A	H		1	56	-	532	1900	1203	44.2%
9/2	A473 West internal link Ahead Right	U	4	N/A	H		1	56	-	741	1900	1203	61.6%
9/3	A473 West internal link Right	U	4	N/A	H		1	56	-	299	1900	1203	24.8%
10/1	A4119 North internal link Ahead	U	1	N/A	A		1	48	-	256	1900	1034	24.7%
10/2	A4119 North internal link Ahead Right	U	1	N/A	A		1	48	-	558	1900	1034	53.9%
10/3	A4119 North internal link Right	U	1	N/A	A		1	48	-	196	1900	1034	18.9%
11/1	A473 East internal link Ahead	U	2	N/A	C		1	38	-	487	1900	823	59.1%
11/2	A473 East internal link Ahead Right	U	2	N/A	C		1	38	-	609	1900	823	74.0%
11/3	A473 East internal link Right	U	2	N/A	C		1	38	-	125	1900	823	15.2%
12/1	A4119 South internal link Ahead	U	3	N/A	F		1	28	-	208	1900	612	34.0%
12/2	A4119 South internal link Ahead Right	U	3	N/A	F		1	28	-	412	1900	612	67.3%
12/3	A4119 South internal link Right	U	3	N/A	F		1	28	-	253	1900	612	41.3%
13/1	A473 West exit	U	N/A	N/A	-		-	-	-	473	Inf	Inf	0.0%
13/2	A473 West exit	U	N/A	N/A	-		-	-	-	412	Inf	Inf	0.0%

Full Input Data And Results

Ped Link: P1	A473 West exit Ped Link	-	5	-	N		1	5	-	0	-	0	0.0%
Ped Link: P2	A473 West entry Ped Link A	-	4	-	J		1	57	-	0	-	0	0.0%
Ped Link: P3	A473 West entry Ped Link B	-	4	-	L		1	57	-	0	-	0	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: A4119 / A473 Roundabout	**-**	**-**	**0**	**0**	**0**	**40.6**	**13.7**	**0.0**	**54.3**	**-**	**-**	**-**	**-**
A4119 / A473 Roundabout	**-**	**-**	**0**	**0**	**0**	**40.6**	**13.7**	**0.0**	**54.3**	**-**	**-**	**-**	**-**
1/2+1/1	629	629	-	-	-	4.2	1.1	-	5.2	29.8	8.5	1.1	9.6
1/3+1/4	538	538	-	-	-	3.6	1.0	-	4.6	30.6	8.6	1.0	9.6
2/1	625	625	-	-	-	3.5	1.3	-	4.7	27.3	12.7	1.3	14.0
2/2	163	163	-	-	-	0.7	0.1	-	0.8	18.6	2.5	0.1	2.6
2/3	540	540	-	-	-	3.0	1.0	-	4.0	26.9	10.7	1.0	11.6
3/2+3/1	797	797	-	-	-	2.5	0.7	-	3.2	14.2	8.0	0.7	8.7
3/3+3/4	787	787	-	-	-	2.4	0.6	-	3.0	13.6	7.1	0.6	7.7
4/1	175	175	-	-	-	1.3	0.3	-	1.6	33.5	3.5	0.3	3.8
4/2	254	254	-	-	-	2.2	0.7	-	2.8	40.3	5.6	0.7	6.3
4/3+4/4	455	455	-	-	-	3.8	0.5	-	4.4	34.5	5.8	0.5	6.3
5/1	707	707	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	739	739	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	475	475	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	481	481	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	1112	1112	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	564	564	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	473	473	-	-	-	0.1	0.2	-	0.3	2.0	1.0	0.2	1.2
8/2	412	412	-	-	-	0.0	0.2	-	0.2	1.4	0.0	0.2	0.2
9/1	532	532	-	-	-	1.8	0.4	-	2.2	15.1	7.1	0.4	7.5
9/2	741	741	-	-	-	1.2	0.8	-	2.0	9.7	7.6	0.8	8.4
9/3	299	299	-	-	-	0.6	0.2	-	0.8	9.1	3.1	0.2	3.3
10/1	256	256	-	-	-	0.4	0.2	-	0.6	8.4	1.1	0.2	1.2
10/2	558	558	-	-	-	1.4	0.6	-	2.0	13.0	4.3	0.6	4.8

Full Input Data And Results

10/3	196	196	-	-	-	0.2	0.1	-	0.4	6.7	0.6	0.1	0.7
11/1	487	487	-	-	-	1.4	0.7	-	2.1	15.8	2.8	0.7	3.5
11/2	609	609	-	-	-	1.2	1.4	-	2.6	15.5	2.5	1.4	3.9
11/3	125	125	-	-	-	0.3	0.1	-	0.3	9.8	0.5	0.1	0.6
12/1	208	208	-	-	-	0.7	0.3	-	1.0	17.0	2.0	0.3	2.3
12/2	412	412	-	-	-	2.5	1.0	-	3.5	30.5	6.1	1.0	7.1
12/3	253	253	-	-	-	1.6	0.4	-	1.9	27.6	2.6	0.4	3.0
13/1	473	473	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/2	412	412	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-

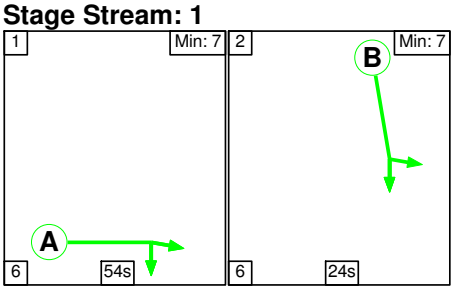
C1	Stream: 1 PRC for Signalled Lanes (%):	32.1	Total Delay for Signalled Lanes (pcuHr):	12.76	Cycle Time (s): 90
C1	Stream: 2 PRC for Signalled Lanes (%):	21.7	Total Delay for Signalled Lanes (pcuHr):	14.71	Cycle Time (s): 90
C1	Stream: 3 PRC for Signalled Lanes (%):	33.7	Total Delay for Signalled Lanes (pcuHr):	12.54	Cycle Time (s): 90
C1	Stream: 4 PRC for Signalled Lanes (%):	46.2	Total Delay for Signalled Lanes (pcuHr):	13.82	Cycle Time (s): 90
C1	Stream: 5 PRC for Signalled Lanes (%):	219.9	Total Delay for Signalled Lanes (pcuHr):	0.43	Cycle Time (s): 90
	PRC Over All Lanes (%):	21.7	Total Delay Over All Lanes(pcuHr):	54.26	

Full Input Data And Results

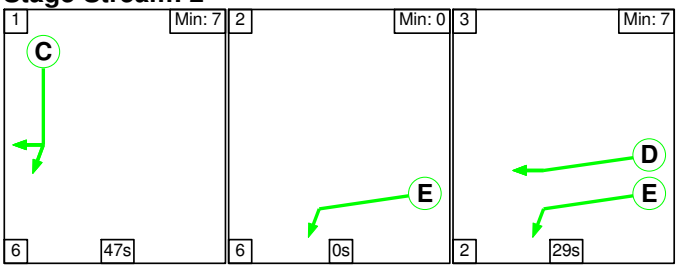
Scenario 2: '2025 Base PM' (FG2: '2025 Base PM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

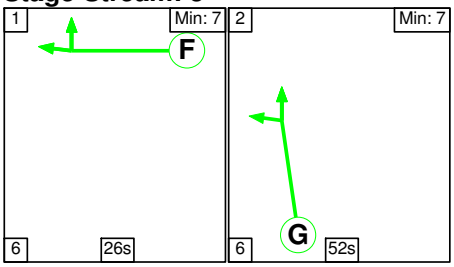
Stage Stream: 1



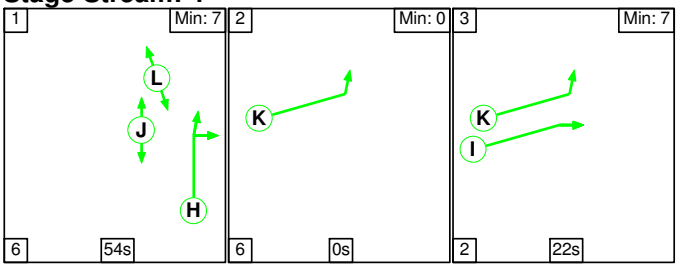
Stage Stream: 2



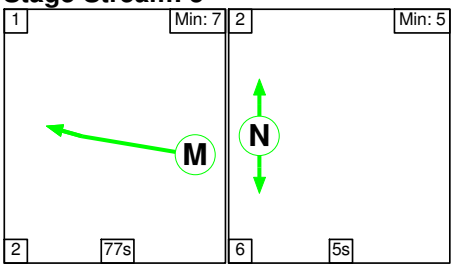
Stage Stream: 3



Stage Stream: 4



Stage Stream: 5



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	54	24
Change Point	19	79

Full Input Data And Results

Stage Stream: 2

Stage	1	2	3
Duration	47	0	29
Change Point	51	14	20

Stage Stream: 3

Stage	1	2
Duration	26	52
Change Point	3	35

Stage Stream: 4

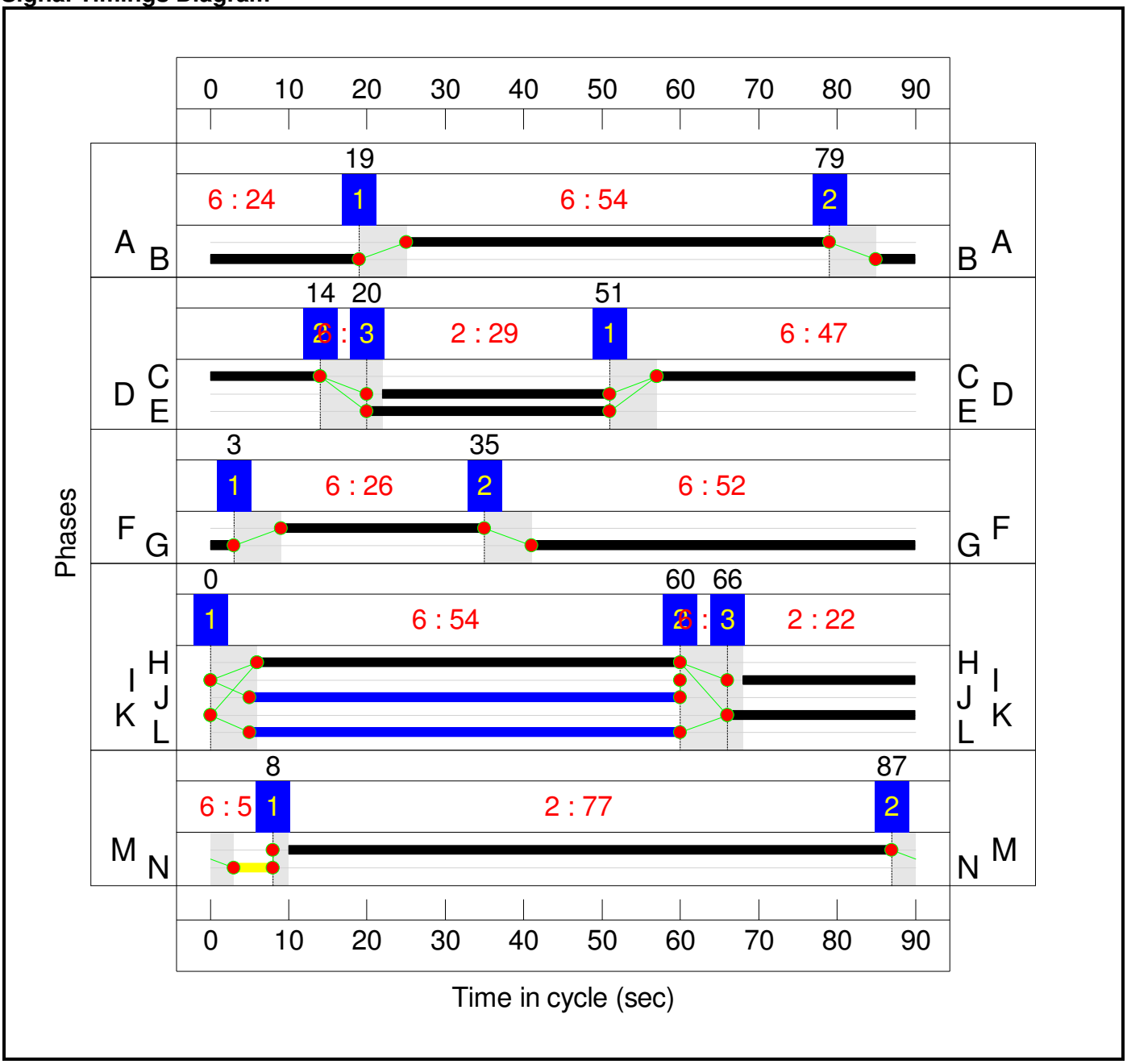
Stage	1	2	3
Duration	54	0	22
Change Point	0	60	66

Stage Stream: 5

Stage	1	2
Duration	77	5
Change Point	8	87

Full Input Data And Results

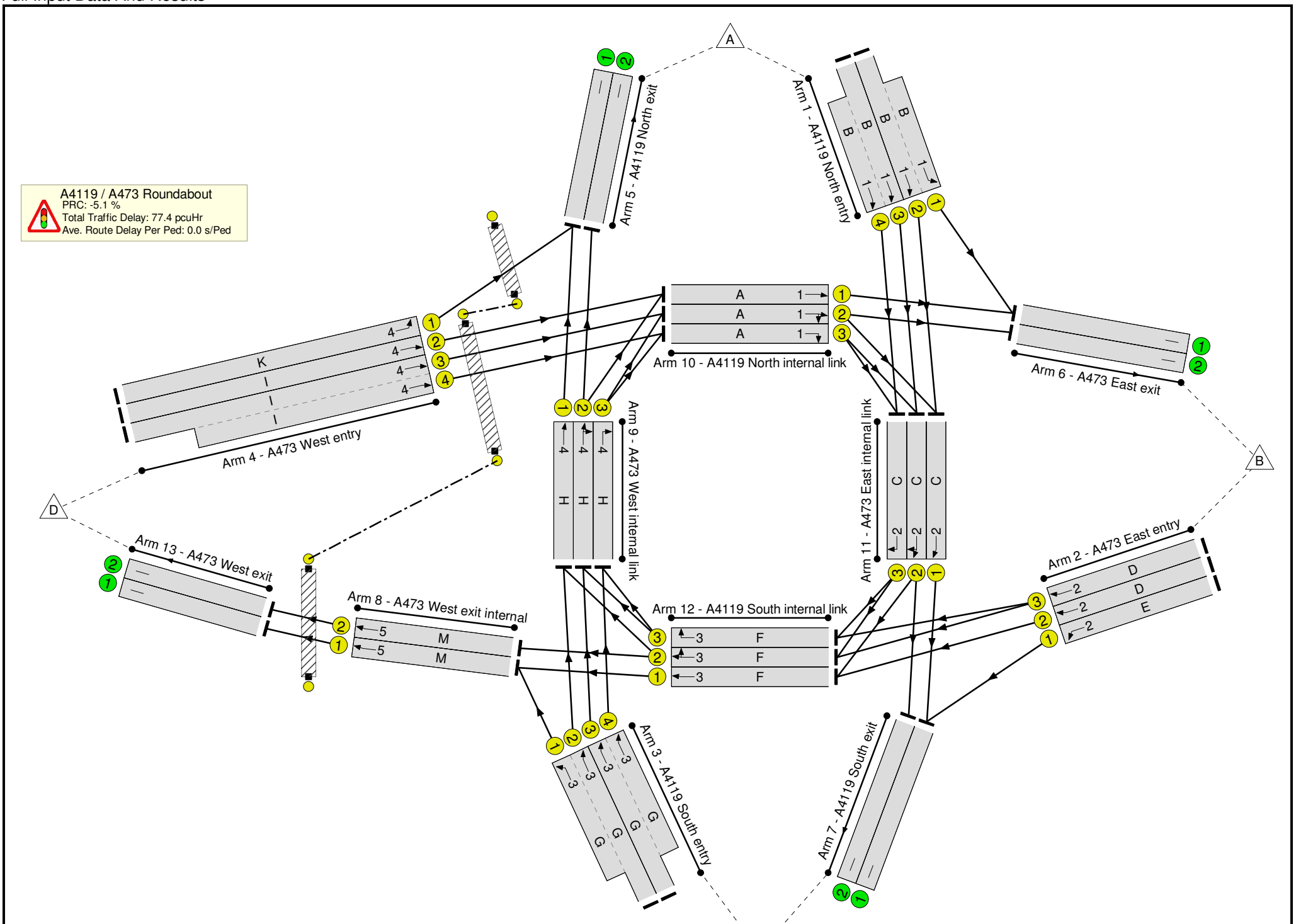
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

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: A4119 / A473 Roundabout	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**94.6%**
A4119 / A473 Roundabout	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**94.6%**
1/2+1/1	A4119 North entry Left Ahead	U	1	N/A	B		1	24	-	802	1877:1883	520+329	94.4 : 94.4%
1/3+1/4	A4119 North entry Ahead	U	1	N/A	B		1	24	-	732	1877:1877	520+254	94.6 : 94.6%
2/1	A473 East entry Left	U	2	N/A	E		1	31	-	385	1900	676	57.0%
2/2	A473 East entry Ahead	U	2	N/A	D		1	29	-	372	1870	623	59.7%
2/3	A473 East entry Ahead	U	2	N/A	D		1	29	-	313	1870	623	50.2%
3/2+3/1	A4119 South entry Left Ahead	U	3	N/A	G		1	52	-	964	1877:1883	920+588	63.9 : 63.9%
3/3+3/4	A4119 South entry Ahead	U	3	N/A	G		1	52	-	1132	1877:1877	878+813	66.9 : 66.9%
4/1	A473 West entry Left	U	4	N/A	K		1	24	-	304	1860	517	58.8%
4/2	A473 West entry Ahead	U	4	N/A	I		1	22	-	296	1877	480	61.7%
4/3+4/4	A473 West entry Ahead	U	4	N/A	I		1	22	-	384	1877:1877	480+480	45.4 : 34.6%
5/1	A4119 North exit	U	N/A	N/A	-		-	-	-	1017	Inf	Inf	0.0%
5/2	A4119 North exit	U	N/A	N/A	-		-	-	-	720	Inf	Inf	0.0%
6/1	A473 East exit	U	N/A	N/A	-		-	-	-	642	Inf	Inf	0.0%
6/2	A473 East exit	U	N/A	N/A	-		-	-	-	692	Inf	Inf	0.0%
7/1	A4119 South exit	U	N/A	N/A	-		-	-	-	943	Inf	Inf	0.0%
7/2	A4119 South exit	U	N/A	N/A	-		-	-	-	602	Inf	Inf	0.0%

Full Input Data And Results

8/1	A473 West exit internal Ahead	U	5	N/A	M		1	77	-	807	1940	1681	48.0%
8/2	A473 West exit internal Ahead	U	5	N/A	M		1	77	-	261	1940	1681	15.5%
9/1	A473 West internal link Ahead	U	4	N/A	H		1	54	-	713	1900	1161	61.4%
9/2	A473 West internal link Ahead Right	U	4	N/A	H		1	54	-	755	1900	1161	65.0%
9/3	A473 West internal link Right	U	4	N/A	H		1	54	-	544	1900	1161	46.9%
10/1	A4119 North internal link Ahead	U	1	N/A	A		1	54	-	331	1900	1161	28.5%
10/2	A4119 North internal link Ahead Right	U	1	N/A	A		1	54	-	759	1900	1161	65.4%
10/3	A4119 North internal link Right	U	1	N/A	A		1	54	-	169	1900	1161	14.6%
11/1	A473 East internal link Ahead	U	2	N/A	C		1	47	-	558	1900	1013	55.1%
11/2	A473 East internal link Ahead Right	U	2	N/A	C		1	47	-	661	1900	1013	65.2%
11/3	A473 East internal link Right	U	2	N/A	C		1	47	-	240	1900	1013	23.7%
12/1	A4119 South internal link Ahead	U	3	N/A	F		1	26	-	431	1900	570	75.6%
12/2	A4119 South internal link Ahead Right	U	3	N/A	F		1	26	-	386	1900	570	67.7%
12/3	A4119 South internal link Right	U	3	N/A	F		1	26	-	167	1900	570	29.3%
13/1	A473 West exit	U	N/A	N/A	-		-	-	-	807	Inf	Inf	0.0%
13/2	A473 West exit	U	N/A	N/A	-		-	-	-	261	Inf	Inf	0.0%

Full Input Data And Results

Ped Link: P1	A473 West exit Ped Link	-	5	-	N		1	5	-	0	-	0	0.0%
Ped Link: P2	A473 West entry Ped Link A	-	4	-	J		1	55	-	0	-	0	0.0%
Ped Link: P3	A473 West entry Ped Link B	-	4	-	L		1	55	-	0	-	0	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: A4119 / A473 Roundabout	**-**	**-**	**0**	**0**	**0**	**50.1**	**27.3**	**0.0**	**77.4**	**-**	**-**	**-**	**-**
A4119 / A473 Roundabout	**-**	**-**	**0**	**0**	**0**	**50.1**	**27.3**	**0.0**	**77.4**	**-**	**-**	**-**	**-**
1/2+1/1	802	802	-	-	-	6.8	6.6	-	13.4	60.1	12.0	6.6	18.6
1/3+1/4	732	732	-	-	-	6.1	6.7	-	12.8	63.0	12.0	6.7	18.7
2/1	385	385	-	-	-	2.5	0.7	-	3.2	29.6	7.7	0.7	8.4
2/2	372	372	-	-	-	2.6	0.7	-	3.3	32.1	7.6	0.7	8.4
2/3	313	313	-	-	-	2.1	0.5	-	2.6	29.8	6.3	0.5	6.8
3/2+3/1	964	964	-	-	-	2.8	0.9	-	3.7	13.8	8.7	0.9	9.5
3/3+3/4	1132	1132	-	-	-	3.4	1.0	-	4.4	14.1	8.7	1.0	9.7
4/1	304	304	-	-	-	2.4	0.7	-	3.1	36.5	6.5	0.7	7.2
4/2	296	296	-	-	-	2.4	0.8	-	3.2	39.3	6.5	0.8	7.3
4/3+4/4	384	384	-	-	-	3.0	0.3	-	3.3	31.0	4.5	0.3	4.9
5/1	1017	1017	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	720	720	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	642	642	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	692	692	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	943	943	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	602	602	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	807	807	-	-	-	0.1	0.5	-	0.6	2.5	1.0	0.5	1.5
8/2	261	261	-	-	-	0.0	0.1	-	0.1	1.3	0.0	0.1	0.1
9/1	713	713	-	-	-	1.7	0.8	-	2.5	12.7	7.2	0.8	8.0
9/2	755	755	-	-	-	1.6	0.9	-	2.5	11.9	7.0	0.9	7.9
9/3	544	544	-	-	-	1.3	0.4	-	1.8	11.8	5.4	0.4	5.9
10/1	331	331	-	-	-	1.0	0.2	-	1.2	13.1	2.9	0.2	3.1
10/2	759	759	-	-	-	1.4	0.9	-	2.3	11.1	6.3	0.9	7.3

Full Input Data And Results

10/3	169	169	-	-	-	0.2	0.1	-	0.3	6.3	0.7	0.1	0.8
11/1	558	558	-	-	-	2.0	0.6	-	2.6	16.5	4.2	0.6	4.9
11/2	661	661	-	-	-	1.8	0.9	-	2.7	14.9	4.0	0.9	4.9
11/3	240	240	-	-	-	0.2	0.2	-	0.4	5.6	0.5	0.2	0.7
12/1	431	431	-	-	-	2.6	1.5	-	4.1	34.2	4.9	1.5	6.4
12/2	386	386	-	-	-	1.5	1.0	-	2.5	23.3	6.9	1.0	7.9
12/3	167	167	-	-	-	0.6	0.2	-	0.9	18.5	1.0	0.2	1.3
13/1	807	807	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/2	261	261	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-

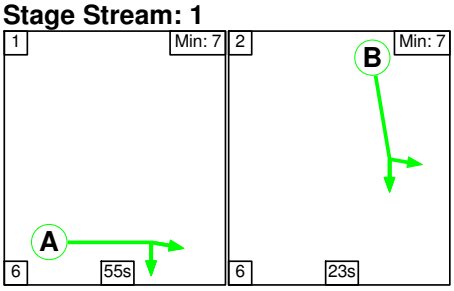
C1	Stream: 1 PRC for Signalled Lanes (%):	-5.1	Total Delay for Signalled Lanes (pcuHr):	30.02	Cycle Time (s):	90
C1	Stream: 2 PRC for Signalled Lanes (%):	38.0	Total Delay for Signalled Lanes (pcuHr):	14.74	Cycle Time (s):	90
C1	Stream: 3 PRC for Signalled Lanes (%):	19.0	Total Delay for Signalled Lanes (pcuHr):	15.58	Cycle Time (s):	90
C1	Stream: 4 PRC for Signalled Lanes (%):	38.4	Total Delay for Signalled Lanes (pcuHr):	16.42	Cycle Time (s):	90
C1	Stream: 5 PRC for Signalled Lanes (%):	87.5	Total Delay for Signalled Lanes (pcuHr):	0.64	Cycle Time (s):	90
	PRC Over All Lanes (%):	-5.1	Total Delay Over All Lanes(pcuHr):	77.41		

Full Input Data And Results

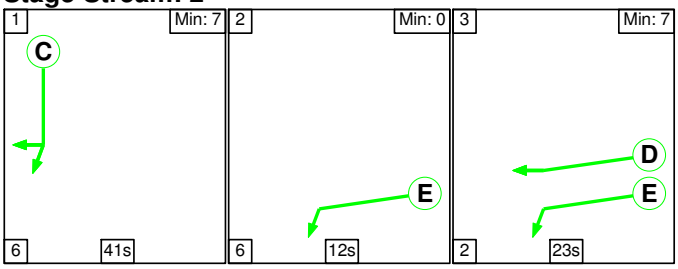
Scenario 3: '2035 Base AM' (FG3: '2035 Base AM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

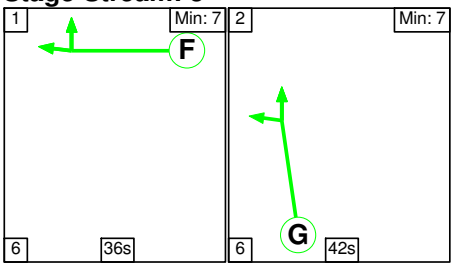
Stage Stream: 1



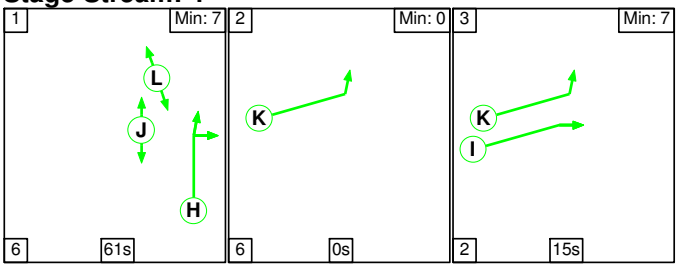
Stage Stream: 2



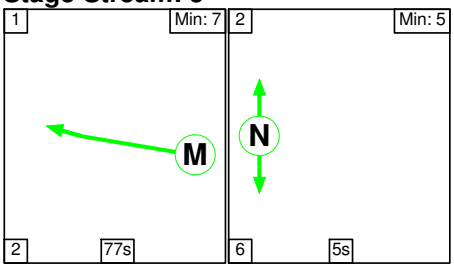
Stage Stream: 3



Stage Stream: 4



Stage Stream: 5



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	55	23
Change Point	1	62

Full Input Data And Results

Stage Stream: 2

Stage	1	2	3
Duration	41	12	23
Change Point	48	5	23

Stage Stream: 3

Stage	1	2
Duration	36	42
Change Point	20	62

Stage Stream: 4

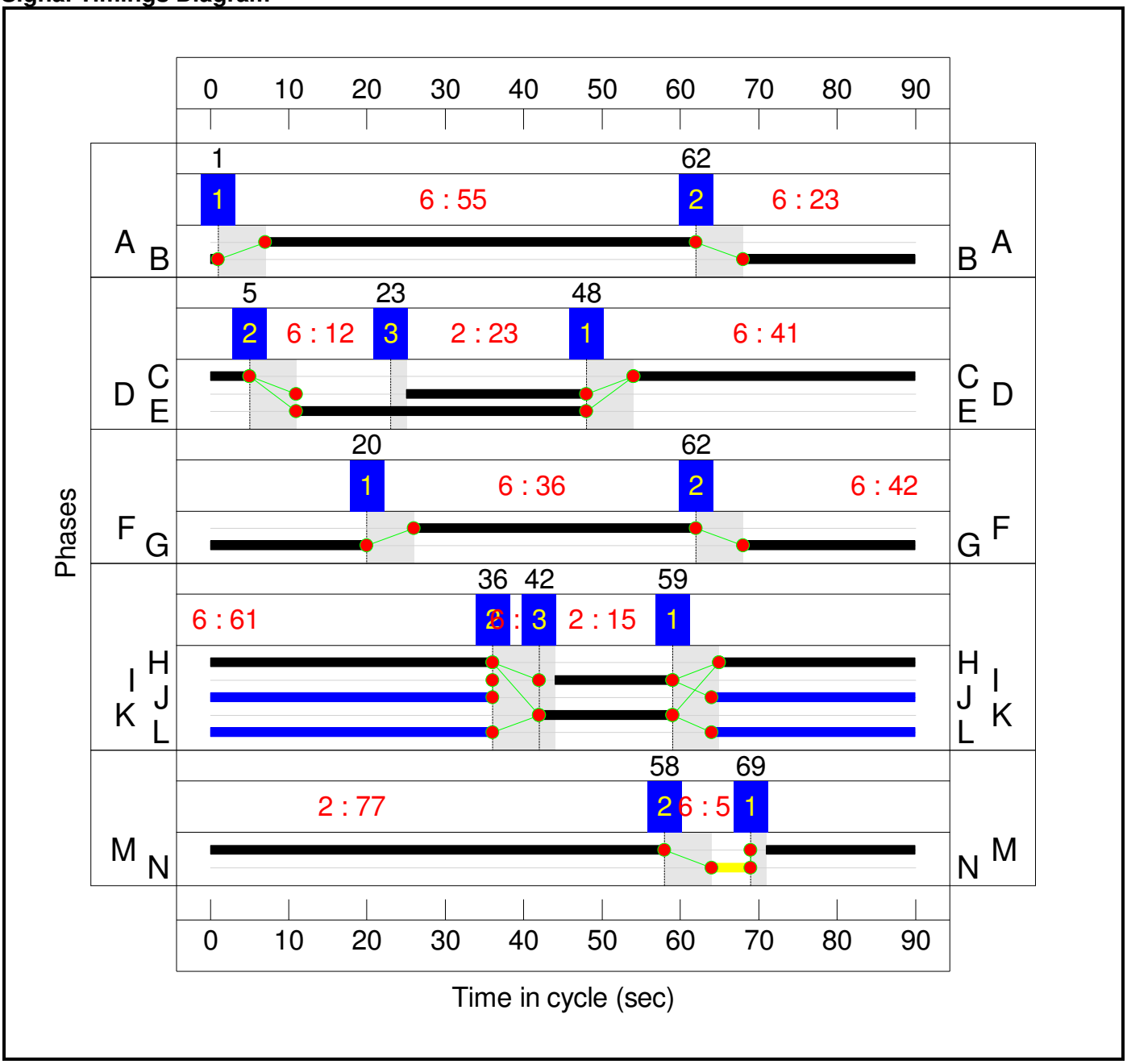
Stage	1	2	3
Duration	61	0	15
Change Point	59	36	42

Stage Stream: 5

Stage	1	2
Duration	77	5
Change Point	69	58

Full Input Data And Results

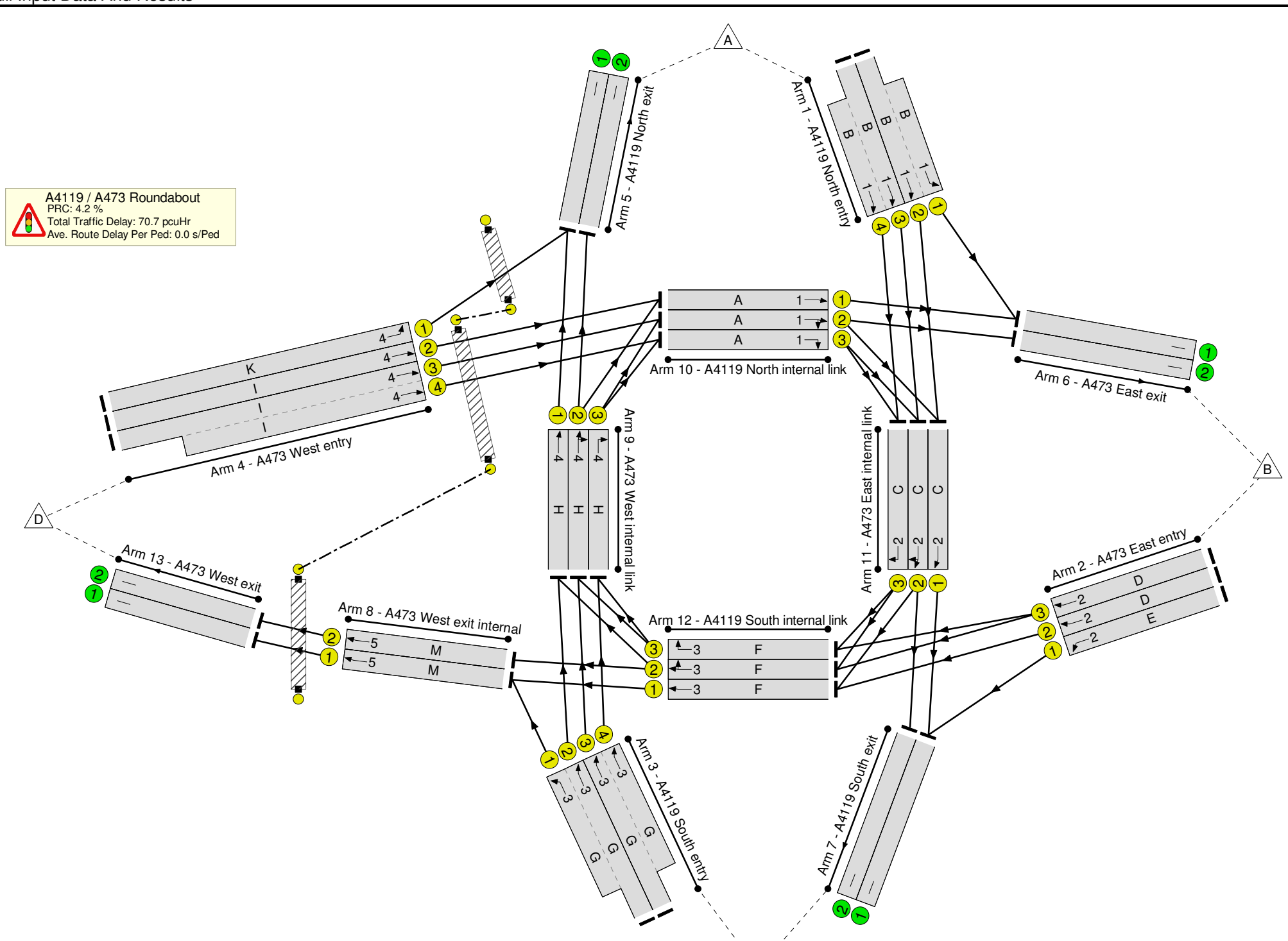
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

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: A4119 / A473 Roundabout	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**86.4%**
A4119 / A473 Roundabout	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**86.4%**
1/2+1/1	A4119 North entry Left Ahead	U	1	N/A	B		1	23	-	674	1877:1883	501+282	86.1 : 86.1%
1/3+1/4	A4119 North entry Ahead	U	1	N/A	B		1	23	-	619	1877:1877	501+218	86.1 : 86.1%
2/1	A473 East entry Left	U	2	N/A	E		1	37	-	693	1900	802	86.4%
2/2	A473 East entry Ahead	U	2	N/A	D		1	23	-	390	1870	499	78.2%
2/3	A473 East entry Ahead	U	2	N/A	D		1	23	-	389	1870	499	78.0%
3/2+3/1	A4119 South entry Left Ahead	U	3	N/A	G		1	42	-	860	1877:1883	805+418	70.3 : 70.3%
3/3+3/4	A4119 South entry Ahead	U	3	N/A	G		1	42	-	896	1877:1877	798+465	70.9 : 70.9%
4/1	A473 West entry Left	U	4	N/A	K		1	17	-	194	1860	372	52.2%
4/2	A473 West entry Ahead	U	4	N/A	I		1	15	-	262	1877	334	78.5%
4/3+4/4	A473 West entry Ahead	U	4	N/A	I		1	15	-	524	1877:1877	334+334	78.5 : 78.5%
5/1	A4119 North exit	U	N/A	N/A	-		-	-	-	899	Inf	Inf	0.0%
5/2	A4119 North exit	U	N/A	N/A	-		-	-	-	704	Inf	Inf	0.0%
6/1	A473 East exit	U	N/A	N/A	-		-	-	-	507	Inf	Inf	0.0%
6/2	A473 East exit	U	N/A	N/A	-		-	-	-	552	Inf	Inf	0.0%
7/1	A4119 South exit	U	N/A	N/A	-		-	-	-	1165	Inf	Inf	0.0%
7/2	A4119 South exit	U	N/A	N/A	-		-	-	-	693	Inf	Inf	0.0%

Full Input Data And Results

8/1	A473 West exit internal Ahead	U	5	N/A	M		1	77	-	684	1940	1681	40.7%
8/2	A473 West exit internal Ahead	U	5	N/A	M		1	77	-	297	1940	1681	17.7%
9/1	A473 West internal link Ahead	U	4	N/A	H		1	61	-	705	1900	1309	53.9%
9/2	A473 West internal link Ahead Right	U	4	N/A	H		1	61	-	706	1900	1309	53.9%
9/3	A473 West internal link Right	U	4	N/A	H		1	61	-	331	1900	1309	25.3%
10/1	A4119 North internal link Ahead	U	1	N/A	A		1	55	-	264	1900	1182	22.3%
10/2	A4119 North internal link Ahead Right	U	1	N/A	A		1	55	-	593	1900	1182	50.2%
10/3	A4119 North internal link Right	U	1	N/A	A		1	55	-	262	1900	1182	22.2%
11/1	A473 East internal link Ahead	U	2	N/A	C		1	41	-	472	1900	887	53.2%
11/2	A473 East internal link Ahead Right	U	2	N/A	C		1	41	-	693	1900	887	78.2%
11/3	A473 East internal link Right	U	2	N/A	C		1	41	-	188	1900	887	21.2%
12/1	A4119 South internal link Ahead	U	3	N/A	F		1	36	-	390	1900	781	49.9%
12/2	A4119 South internal link Ahead Right	U	3	N/A	F		1	36	-	436	1900	781	55.8%
12/3	A4119 South internal link Right	U	3	N/A	F		1	36	-	141	1900	781	18.1%
13/1	A473 West exit	U	N/A	N/A	-		-	-	-	684	Inf	Inf	0.0%
13/2	A473 West exit	U	N/A	N/A	-		-	-	-	297	Inf	Inf	0.0%

Full Input Data And Results

Ped Link: P1	A473 West exit Ped Link	-	5	-	N		1	5	-	0	-	0	0.0%
Ped Link: P2	A473 West entry Ped Link A	-	4	-	J		1	62	-	0	-	0	0.0%
Ped Link: P3	A473 West entry Ped Link B	-	4	-	L		1	62	-	0	-	0	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: A4119 / A473 Roundabout	**-**	**-**	**0**	**0**	**0**	**45.6**	**25.1**	**0.0**	**70.7**	**-**	**-**	**-**	**-**
A4119 / A473 Roundabout	**-**	**-**	**0**	**0**	**0**	**45.6**	**25.1**	**0.0**	**70.7**	**-**	**-**	**-**	**-**
1/2+1/1	674	674	-	-	-	5.6	2.9	-	8.6	45.8	10.2	2.9	13.1
1/3+1/4	619	619	-	-	-	5.2	2.9	-	8.1	47.1	10.2	2.9	13.1
2/1	693	693	-	-	-	4.6	3.0	-	7.6	39.3	15.6	3.0	18.6
2/2	390	390	-	-	-	3.3	1.7	-	5.1	46.6	9.0	1.7	10.7
2/3	389	389	-	-	-	3.3	1.7	-	5.0	46.5	9.0	1.7	10.7
3/2+3/1	860	860	-	-	-	4.0	1.2	-	5.1	21.5	10.5	1.2	11.7
3/3+3/4	896	896	-	-	-	4.1	1.2	-	5.3	21.5	10.5	1.2	11.7
4/1	194	194	-	-	-	1.7	0.5	-	2.3	42.2	4.3	0.5	4.9
4/2	262	262	-	-	-	2.6	1.7	-	4.3	59.3	6.3	1.7	8.0
4/3+4/4	524	524	-	-	-	5.1	1.8	-	6.9	47.6	6.3	1.8	8.0
5/1	899	899	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	704	704	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	507	507	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	552	552	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	1165	1165	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	693	693	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	684	684	-	-	-	0.0	0.3	-	0.3	1.8	0.0	0.3	0.4
8/2	297	297	-	-	-	0.0	0.1	-	0.1	1.3	0.0	0.1	0.1
9/1	705	705	-	-	-	0.9	0.6	-	1.5	7.8	3.7	0.6	4.3
9/2	706	706	-	-	-	0.6	0.6	-	1.2	6.0	2.3	0.6	2.8
9/3	331	331	-	-	-	0.0	0.2	-	0.2	1.9	0.0	0.2	0.2
10/1	264	264	-	-	-	0.0	0.1	-	0.2	2.2	0.1	0.1	0.2
10/2	593	593	-	-	-	1.7	0.5	-	2.2	13.5	7.8	0.5	8.3

Full Input Data And Results

10/3	262	262	-	-	-	0.0	0.1	-	0.2	2.1	0.0	0.1	0.2
11/1	472	472	-	-	-	0.1	0.6	-	0.6	4.8	0.6	0.6	1.1
11/2	693	693	-	-	-	0.4	1.8	-	2.1	10.9	6.5	1.8	8.3
11/3	188	188	-	-	-	0.0	0.1	-	0.1	2.6	0.0	0.1	0.1
12/1	390	390	-	-	-	0.0	0.5	-	0.5	4.6	0.0	0.5	0.5
12/2	436	436	-	-	-	2.4	0.6	-	3.0	25.0	10.3	0.6	10.9
12/3	141	141	-	-	-	0.0	0.1	-	0.1	2.8	0.0	0.1	0.1
13/1	684	684	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/2	297	297	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-

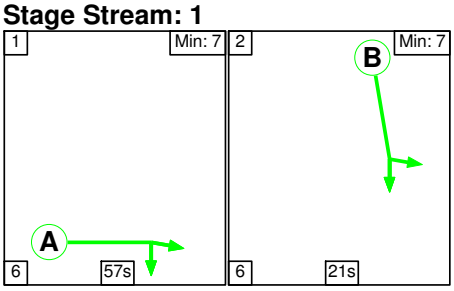
C1	Stream: 1 PRC for Signalled Lanes (%):	4.5	Total Delay for Signalled Lanes (pcuHr):	19.22	Cycle Time (s):	90
C1	Stream: 2 PRC for Signalled Lanes (%):	4.2	Total Delay for Signalled Lanes (pcuHr):	20.51	Cycle Time (s):	90
C1	Stream: 3 PRC for Signalled Lanes (%):	26.9	Total Delay for Signalled Lanes (pcuHr):	14.11	Cycle Time (s):	90
C1	Stream: 4 PRC for Signalled Lanes (%):	14.6	Total Delay for Signalled Lanes (pcuHr):	16.40	Cycle Time (s):	90
C1	Stream: 5 PRC for Signalled Lanes (%):	121.2	Total Delay for Signalled Lanes (pcuHr):	0.45	Cycle Time (s):	90
	PRC Over All Lanes (%):	4.2	Total Delay Over All Lanes(pcuHr):	70.69		

Full Input Data And Results

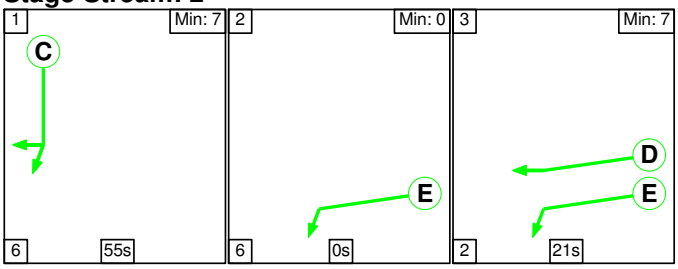
Scenario 4: '2035 Base PM' (FG4: '2035 Base PM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

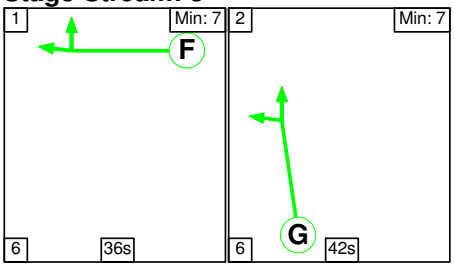
Stage Stream: 1



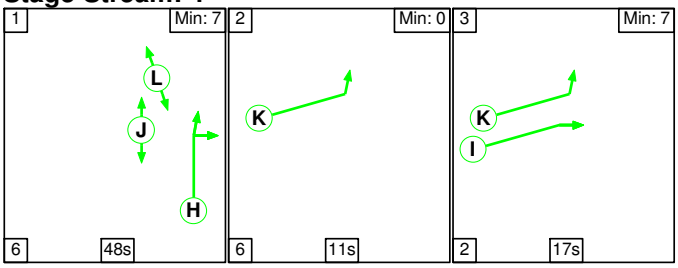
Stage Stream: 2



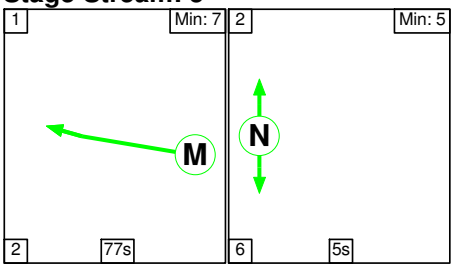
Stage Stream: 3



Stage Stream: 4



Stage Stream: 5



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	57	21
Change Point	0	63

Full Input Data And Results

Stage Stream: 2

Stage	1	2	3
Duration	55	0	21
Change Point	31	2	8

Stage Stream: 3

Stage	1	2
Duration	36	42
Change Point	77	29

Stage Stream: 4

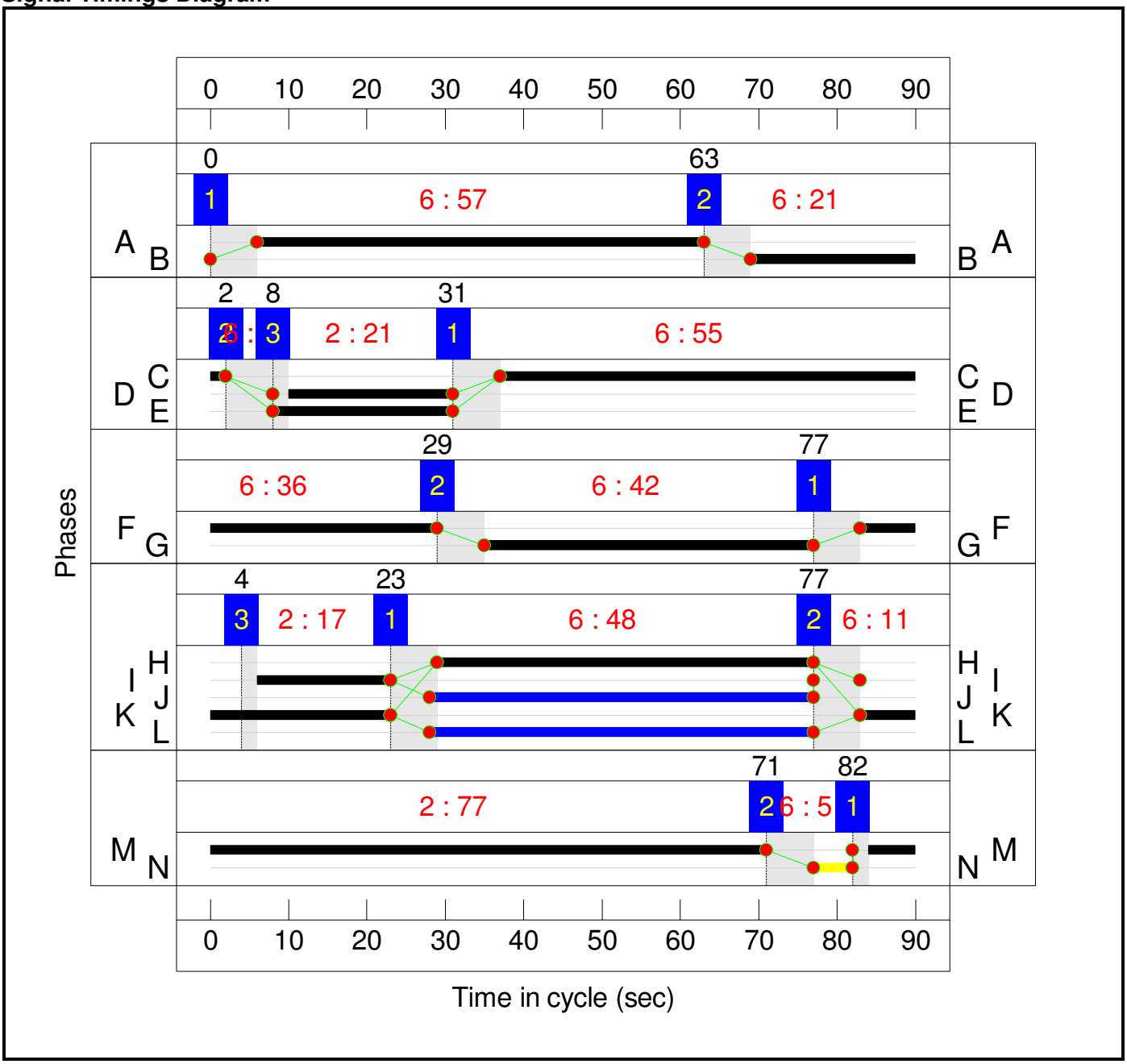
Stage	1	2	3
Duration	48	11	17
Change Point	23	77	4

Stage Stream: 5

Stage	1	2
Duration	77	5
Change Point	82	71

Full Input Data And Results

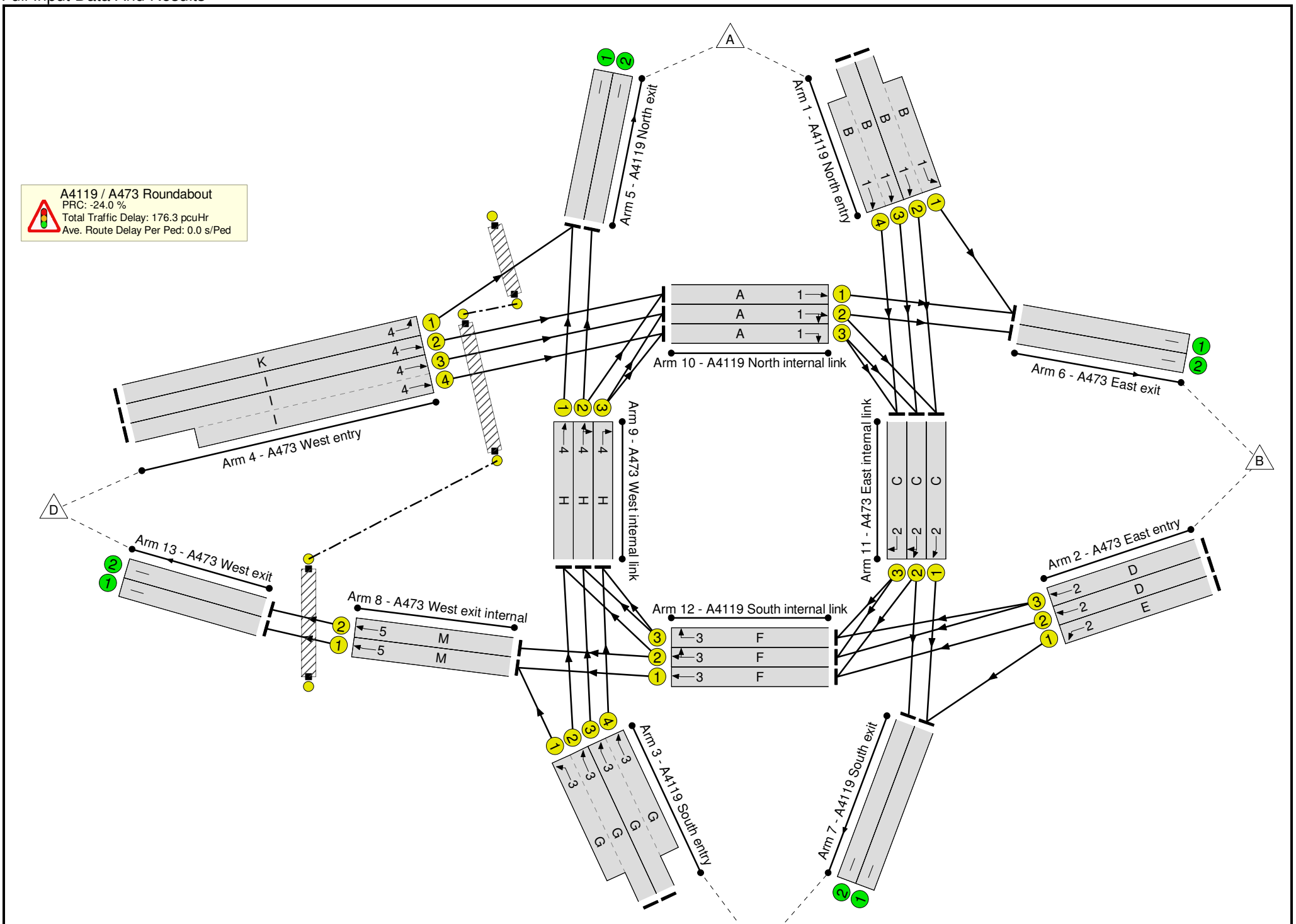
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

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: A4119 / A473 Roundabout	-	-	**N/A**	-	-		-	-	-	-	-	-	**111.6%**
A4119 / A473 Roundabout	-	-	**N/A**	-	-		-	-	-	-	-	-	**111.6%**
1/2+1/1	A4119 North entry Left Ahead	U	1	N/A	B		1	21	-	855	1877:1883	459+309	111.4 : 111.4%
1/3+1/4	A4119 North entry Ahead	U	1	N/A	B		1	21	-	843	1877:1877	459+297	111.6 : 111.6%
2/1	A473 East entry Left	U	2	N/A	E		1	23	-	426	1900	507	84.1%
2/2	A473 East entry Ahead	U	2	N/A	D		1	21	-	379	1870	457	82.9%
2/3	A473 East entry Ahead	U	2	N/A	D		1	21	-	379	1870	457	82.9%
3/2+3/1	A4119 South entry Left Ahead	U	3	N/A	G		1	42	-	1051	1877:1883	791+518	80.2 : 80.2%
3/3+3/4	A4119 South entry Ahead	U	3	N/A	G		1	42	-	1268	1877:1877	766+761	83.1 : 83.1%
4/1	A473 West entry Left	U	4	N/A	K		1	30	-	336	1860	641	52.4%
4/2	A473 West entry Ahead	U	4	N/A	I		1	17	-	251	1877	375	66.9%
4/3+4/4	A473 West entry Ahead	U	4	N/A	I		1	17	-	502	1877:1877	375+375	66.9 : 66.9%
5/1	A4119 North exit	U	N/A	N/A	-		-	-	-	1132	Inf	Inf	0.0%
5/2	A4119 North exit	U	N/A	N/A	-		-	-	-	790	Inf	Inf	0.0%
6/1	A473 East exit	U	N/A	N/A	-		-	-	-	603	Inf	Inf	0.0%
6/2	A473 East exit	U	N/A	N/A	-		-	-	-	873	Inf	Inf	0.0%
7/1	A4119 South exit	U	N/A	N/A	-		-	-	-	946	Inf	Inf	0.0%
7/2	A4119 South exit	U	N/A	N/A	-		-	-	-	764	Inf	Inf	0.0%

Full Input Data And Results

8/1	A473 West exit internal Ahead	U	5	N/A	M		1	77	-	795	1940	1681	47.3%
8/2	A473 West exit internal Ahead	U	5	N/A	M		1	77	-	387	1940	1681	21.9%
9/1	A473 West internal link Ahead	U	4	N/A	H		1	48	-	796	1900	1034	76.9%
9/2	A473 West internal link Ahead Right	U	4	N/A	H		1	48	-	798	1900	1034	77.1%
9/3	A473 West internal link Right	U	4	N/A	H		1	48	-	632	1900	1034	61.1%
10/1	A4119 North internal link Ahead	U	1	N/A	A		1	57	-	259	1900	1224	21.2%
10/2	A4119 North internal link Ahead Right	U	1	N/A	A		1	57	-	882	1900	1224	72.0%
10/3	A4119 North internal link Right	U	1	N/A	A		1	57	-	252	1900	1224	20.6%
11/1	A473 East internal link Ahead	U	2	N/A	C		1	55	-	520	1900	1182	39.6%
11/2	A473 East internal link Ahead Right	U	2	N/A	C		1	55	-	764	1900	1182	60.1%
11/3	A473 East internal link Right	U	2	N/A	C		1	55	-	331	1900	1182	26.4%
12/1	A4119 South internal link Ahead	U	3	N/A	F		1	36	-	379	1900	781	48.5%
12/2	A4119 South internal link Ahead Right	U	3	N/A	F		1	36	-	548	1900	781	67.7%
12/3	A4119 South internal link Right	U	3	N/A	F		1	36	-	162	1900	781	20.7%
13/1	A473 West exit	U	N/A	N/A	-		-	-	-	795	Inf	Inf	0.0%
13/2	A473 West exit	U	N/A	N/A	-		-	-	-	387	Inf	Inf	0.0%

Full Input Data And Results

Ped Link: P1	A473 West exit Ped Link	-	5	-	N		1	5	-	0	-	0	0.0%
Ped Link: P2	A473 West entry Ped Link A	-	4	-	J		1	49	-	0	-	0	0.0%
Ped Link: P3	A473 West entry Ped Link B	-	4	-	L		1	49	-	0	-	0	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: A4119 / A473 Roundabout	**-**	**-**	**0**	**0**	**0**	**56.9**	**119.4**	**0.0**	**176.3**	**-**	**-**	**-**	**-**
A4119 / A473 Roundabout	**-**	**-**	**0**	**0**	**0**	**56.9**	**119.4**	**0.0**	**176.3**	**-**	**-**	**-**	**-**
1/2+1/1	855	785	-	-	-	9.3	48.1	-	57.4	241.7	14.4	48.1	62.5
1/3+1/4	843	770	-	-	-	9.2	48.2	-	57.4	245.0	14.4	48.2	62.6
2/1	426	426	-	-	-	3.7	2.5	-	6.2	52.2	10.1	2.5	12.5
2/2	379	379	-	-	-	3.4	2.3	-	5.7	54.0	8.9	2.3	11.2
2/3	379	379	-	-	-	3.4	2.3	-	5.7	54.0	8.9	2.3	11.2
3/2+3/1	1051	1051	-	-	-	5.1	2.0	-	7.1	24.3	12.5	2.0	14.5
3/3+3/4	1268	1268	-	-	-	6.5	2.4	-	8.9	25.4	12.5	2.4	15.0
4/1	336	336	-	-	-	2.2	0.5	-	2.8	29.5	6.7	0.5	7.3
4/2	251	251	-	-	-	2.3	1.0	-	3.3	47.5	5.8	1.0	6.8
4/3+4/4	502	502	-	-	-	4.6	1.0	-	5.6	40.4	5.8	1.0	6.8
5/1	1132	1132	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	790	790	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	585	585	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	873	873	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	894	894	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	711	711	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	795	795	-	-	-	0.1	0.4	-	0.6	2.5	1.2	0.4	1.6
8/2	368	368	-	-	-	0.0	0.1	-	0.1	1.4	0.0	0.1	0.1
9/1	796	796	-	-	-	0.9	1.6	-	2.5	11.3	4.7	1.6	6.4
9/2	798	798	-	-	-	0.7	1.7	-	2.4	10.9	4.8	1.7	6.5
9/3	632	632	-	-	-	0.2	0.8	-	1.0	5.7	0.5	0.8	1.3
10/1	259	259	-	-	-	0.0	0.1	-	0.1	2.0	0.0	0.1	0.2
10/2	882	882	-	-	-	1.2	1.3	-	2.4	10.0	9.2	1.3	10.5

Full Input Data And Results

10/3	252	252	-	-	-	0.0	0.1	-	0.1	1.9	0.0	0.1	0.1
11/1	468	468	-	-	-	0.4	0.3	-	0.8	5.9	1.3	0.3	1.6
11/2	711	711	-	-	-	1.9	0.8	-	2.7	13.7	6.7	0.8	7.4
11/3	312	312	-	-	-	0.0	0.2	-	0.2	2.3	0.1	0.2	0.2
12/1	379	379	-	-	-	0.4	0.5	-	0.8	8.1	0.7	0.5	1.1
12/2	529	529	-	-	-	1.0	1.0	-	2.1	14.1	8.2	1.0	9.2
12/3	162	162	-	-	-	0.2	0.1	-	0.3	6.5	0.3	0.1	0.4
13/1	795	795	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/2	368	368	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-

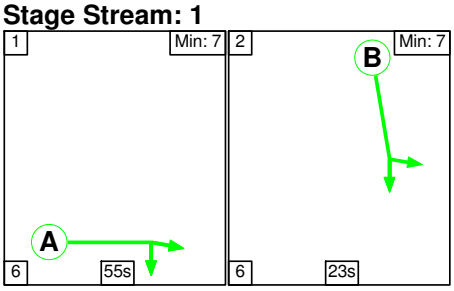
C1	Stream: 1 PRC for Signalled Lanes (%):	-24.0	Total Delay for Signalled Lanes (pcuHr):	117.50	Cycle Time (s): 90
C1	Stream: 2 PRC for Signalled Lanes (%):	7.0	Total Delay for Signalled Lanes (pcuHr):	21.21	Cycle Time (s): 90
C1	Stream: 3 PRC for Signalled Lanes (%):	8.3	Total Delay for Signalled Lanes (pcuHr):	19.24	Cycle Time (s): 90
C1	Stream: 4 PRC for Signalled Lanes (%):	16.7	Total Delay for Signalled Lanes (pcuHr):	17.61	Cycle Time (s): 90
C1	Stream: 5 PRC for Signalled Lanes (%):	90.3	Total Delay for Signalled Lanes (pcuHr):	0.69	Cycle Time (s): 90
	PRC Over All Lanes (%):	-24.0	Total Delay Over All Lanes(pcuHr):	176.25	

Full Input Data And Results

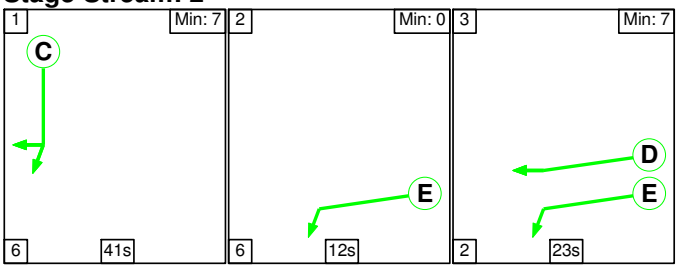
Scenario 5: '2035 Base + Dev AM' (FG5: '2035 Base + Dev AM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

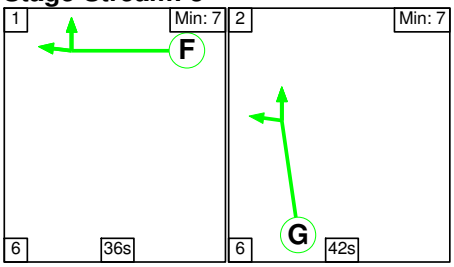
Stage Stream: 1



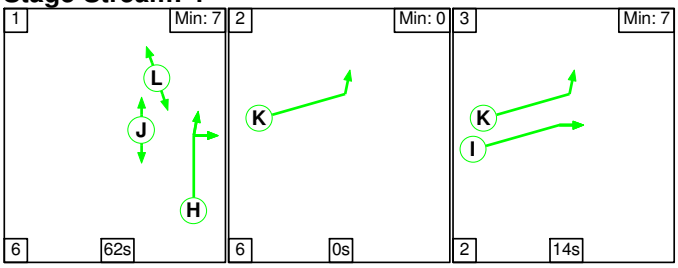
Stage Stream: 2



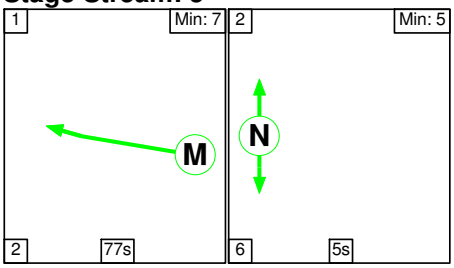
Stage Stream: 3



Stage Stream: 4



Stage Stream: 5



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	55	23
Change Point	1	62

Full Input Data And Results

Stage Stream: 2

Stage	1	2	3
Duration	41	12	23
Change Point	48	5	23

Stage Stream: 3

Stage	1	2
Duration	36	42
Change Point	20	62

Stage Stream: 4

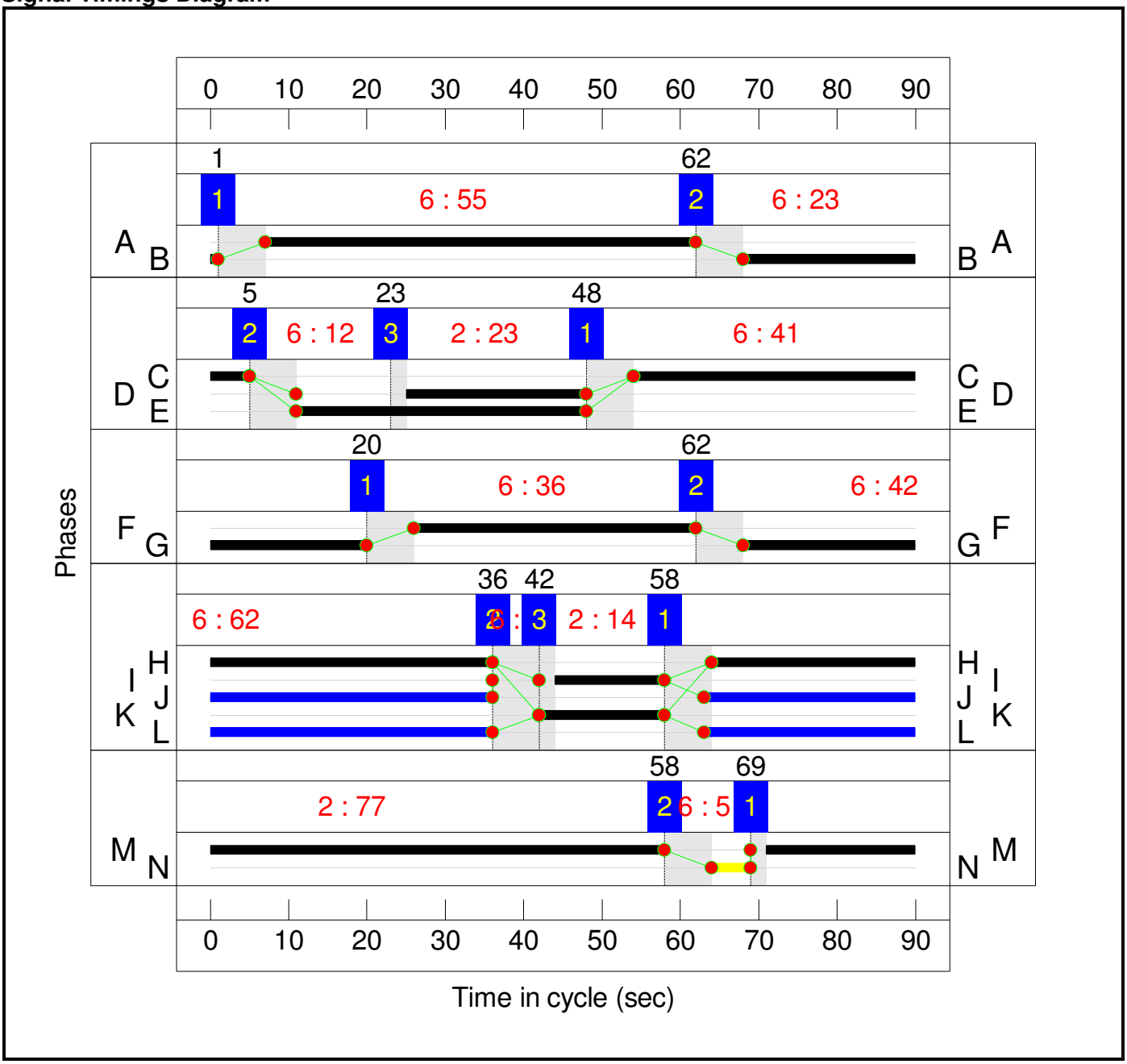
Stage	1	2	3
Duration	62	0	14
Change Point	58	36	42

Stage Stream: 5

Stage	1	2
Duration	77	5
Change Point	69	58

Full Input Data And Results

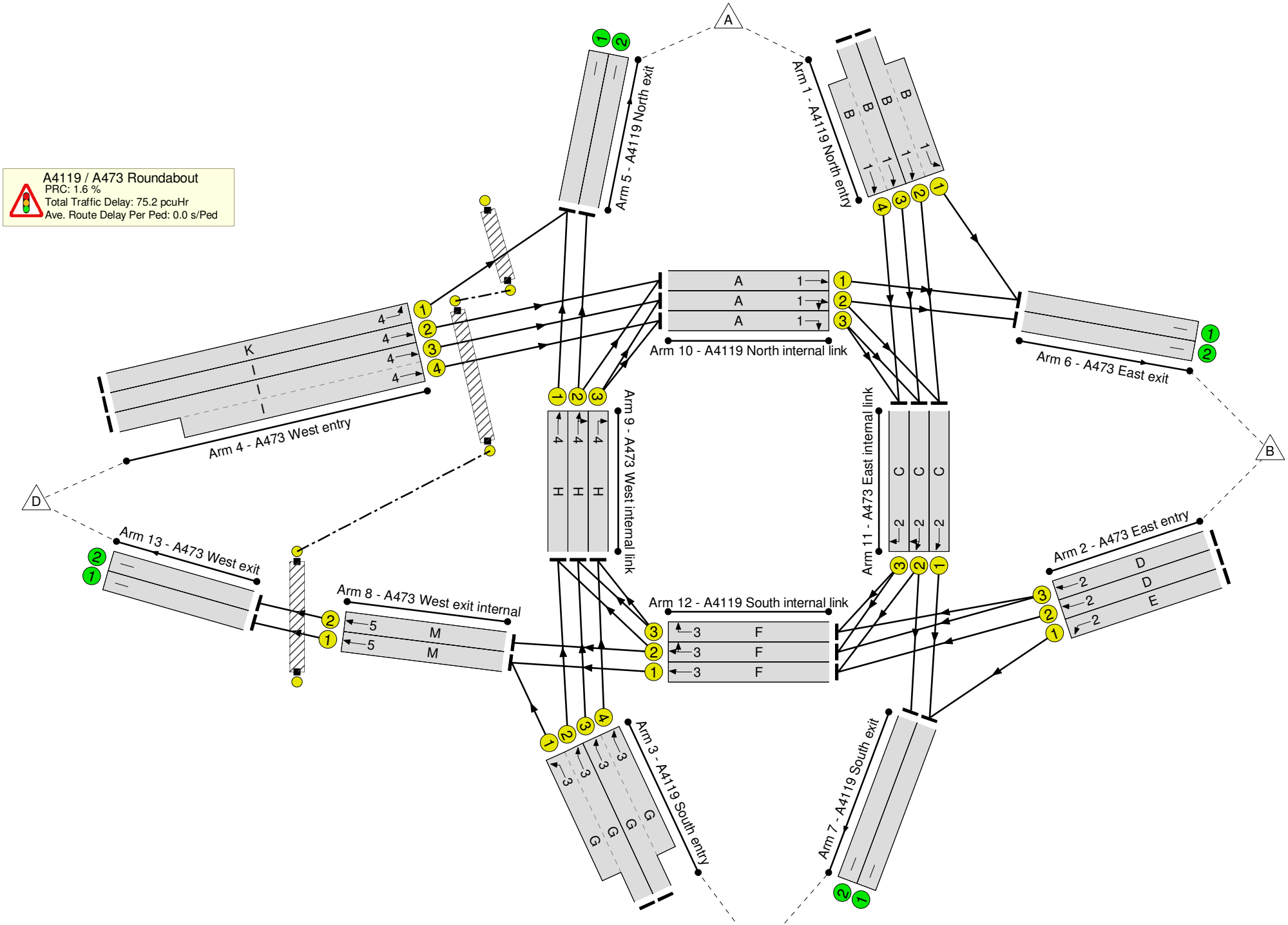
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

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: A4119 / A473 Roundabout	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**88.5%**
A4119 / A473 Roundabout	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**88.5%**
1/2+1/1	A4119 North entry Left Ahead	U	1	N/A	B		1	23	-	674	1877:1883	501+282	86.1 : 86.1%
1/3+1/4	A4119 North entry Ahead	U	1	N/A	B		1	23	-	620	1877:1877	501+219	86.1 : 86.1%
2/1	A473 East entry Left	U	2	N/A	E		1	37	-	693	1900	802	86.4%
2/2	A473 East entry Ahead	U	2	N/A	D		1	23	-	391	1870	499	78.4%
2/3	A473 East entry Ahead	U	2	N/A	D		1	23	-	391	1870	499	78.4%
3/2+3/1	A4119 South entry Left Ahead	U	3	N/A	G		1	42	-	869	1877:1883	803+430	70.5 : 70.5%
3/3+3/4	A4119 South entry Ahead	U	3	N/A	G		1	42	-	896	1877:1877	798+465	70.9 : 70.9%
4/1	A473 West entry Left	U	4	N/A	K		1	16	-	196	1860	351	55.8%
4/2	A473 West entry Ahead	U	4	N/A	I		1	14	-	277	1877	313	88.5%
4/3+4/4	A473 West entry Ahead	U	4	N/A	I		1	14	-	554	1877:1877	313+313	88.5 : 88.5%
5/1	A4119 North exit	U	N/A	N/A	-		-	-	-	901	Inf	Inf	0.0%
5/2	A4119 North exit	U	N/A	N/A	-		-	-	-	704	Inf	Inf	0.0%
6/1	A473 East exit	U	N/A	N/A	-		-	-	-	522	Inf	Inf	0.0%
6/2	A473 East exit	U	N/A	N/A	-		-	-	-	549	Inf	Inf	0.0%
7/1	A4119 South exit	U	N/A	N/A	-		-	-	-	1183	Inf	Inf	0.0%
7/2	A4119 South exit	U	N/A	N/A	-		-	-	-	708	Inf	Inf	0.0%

Full Input Data And Results

8/1	A473 West exit internal Ahead	U	5	N/A	M		1	77	-	694	1940	1681	41.3%
8/2	A473 West exit internal Ahead	U	5	N/A	M		1	77	-	300	1940	1681	17.8%
9/1	A473 West internal link Ahead	U	4	N/A	H		1	62	-	705	1900	1330	53.0%
9/2	A473 West internal link Ahead Right	U	4	N/A	H		1	62	-	706	1900	1330	53.1%
9/3	A473 West internal link Right	U	4	N/A	H		1	62	-	331	1900	1330	24.9%
10/1	A4119 North internal link Ahead	U	1	N/A	A		1	55	-	279	1900	1182	23.6%
10/2	A4119 North internal link Ahead Right	U	1	N/A	A		1	55	-	608	1900	1182	51.4%
10/3	A4119 North internal link Right	U	1	N/A	A		1	55	-	277	1900	1182	23.4%
11/1	A473 East internal link Ahead	U	2	N/A	C		1	41	-	490	1900	887	55.3%
11/2	A473 East internal link Ahead Right	U	2	N/A	C		1	41	-	708	1900	887	79.8%
11/3	A473 East internal link Right	U	2	N/A	C		1	41	-	189	1900	887	21.3%
12/1	A4119 South internal link Ahead	U	3	N/A	F		1	36	-	391	1900	781	50.1%
12/2	A4119 South internal link Ahead Right	U	3	N/A	F		1	36	-	439	1900	781	56.2%
12/3	A4119 South internal link Right	U	3	N/A	F		1	36	-	141	1900	781	18.1%
13/1	A473 West exit	U	N/A	N/A	-		-	-	-	694	Inf	Inf	0.0%
13/2	A473 West exit	U	N/A	N/A	-		-	-	-	300	Inf	Inf	0.0%

Full Input Data And Results

Ped Link: P1	A473 West exit Ped Link	-	5	-	N		1	5	-	0	-	0	0.0%
Ped Link: P2	A473 West entry Ped Link A	-	4	-	J		1	63	-	0	-	0	0.0%
Ped Link: P3	A473 West entry Ped Link B	-	4	-	L		1	63	-	0	-	0	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: A4119 / A473 Roundabout	**-**	**-**	**0**	**0**	**0**	**46.5**	**28.7**	**0.0**	**75.2**	**-**	**-**	**-**	**-**
A4119 / A473 Roundabout	**-**	**-**	**0**	**0**	**0**	**46.5**	**28.7**	**0.0**	**75.2**	**-**	**-**	**-**	**-**
1/2+1/1	674	674	-	-	-	5.6	2.9	-	8.6	45.8	10.2	2.9	13.1
1/3+1/4	620	620	-	-	-	5.2	2.9	-	8.1	47.0	10.2	2.9	13.1
2/1	693	693	-	-	-	4.6	3.0	-	7.6	39.3	15.6	3.0	18.6
2/2	391	391	-	-	-	3.3	1.8	-	5.1	46.8	9.0	1.8	10.8
2/3	391	391	-	-	-	3.3	1.8	-	5.1	46.8	9.0	1.8	10.8
3/2+3/1	869	869	-	-	-	4.0	1.2	-	5.2	21.5	10.5	1.2	11.7
3/3+3/4	896	896	-	-	-	4.1	1.2	-	5.3	21.5	10.5	1.2	11.7
4/1	196	196	-	-	-	1.8	0.6	-	2.4	44.6	4.4	0.6	5.0
4/2	277	277	-	-	-	2.8	3.3	-	6.1	79.1	6.7	3.3	10.0
4/3+4/4	554	554	-	-	-	5.6	3.5	-	9.2	59.5	6.7	3.5	10.2
5/1	901	901	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	704	704	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	522	522	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	549	549	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	1183	1183	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	708	708	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	694	694	-	-	-	0.0	0.4	-	0.4	1.8	0.0	0.4	0.4
8/2	300	300	-	-	-	0.0	0.1	-	0.1	1.3	0.0	0.1	0.1
9/1	705	705	-	-	-	0.9	0.6	-	1.5	7.5	3.5	0.6	4.0
9/2	706	706	-	-	-	0.6	0.6	-	1.1	5.8	2.3	0.6	2.8
9/3	331	331	-	-	-	0.0	0.2	-	0.2	1.8	0.0	0.2	0.2
10/1	279	279	-	-	-	0.0	0.2	-	0.2	2.2	0.1	0.2	0.2
10/2	608	608	-	-	-	1.7	0.5	-	2.3	13.3	7.8	0.5	8.3

Full Input Data And Results

10/3	277	277	-	-	-	0.0	0.2	-	0.2	2.1	0.0	0.2	0.2
11/1	490	490	-	-	-	0.1	0.6	-	0.7	5.0	0.7	0.6	1.3
11/2	708	708	-	-	-	0.4	1.9	-	2.3	11.7	6.9	1.9	8.9
11/3	189	189	-	-	-	0.0	0.1	-	0.1	2.6	0.0	0.1	0.1
12/1	391	391	-	-	-	0.0	0.5	-	0.5	4.6	0.0	0.5	0.5
12/2	439	439	-	-	-	2.4	0.6	-	3.1	25.1	10.4	0.6	11.0
12/3	141	141	-	-	-	0.0	0.1	-	0.1	2.8	0.0	0.1	0.1
13/1	694	694	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/2	300	300	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-

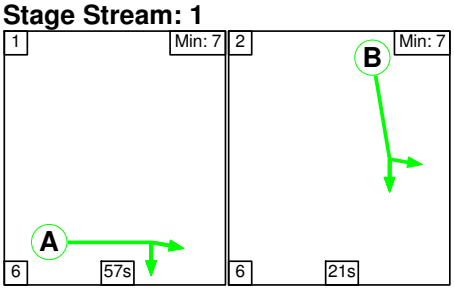
C1	Stream: 1 PRC for Signalled Lanes (%):	4.5	Total Delay for Signalled Lanes (pcuHr):	19.27	Cycle Time (s):	90
C1	Stream: 2 PRC for Signalled Lanes (%):	4.2	Total Delay for Signalled Lanes (pcuHr):	20.86	Cycle Time (s):	90
C1	Stream: 3 PRC for Signalled Lanes (%):	26.9	Total Delay for Signalled Lanes (pcuHr):	14.19	Cycle Time (s):	90
C1	Stream: 4 PRC for Signalled Lanes (%):	1.6	Total Delay for Signalled Lanes (pcuHr):	20.45	Cycle Time (s):	90
C1	Stream: 5 PRC for Signalled Lanes (%):	118.0	Total Delay for Signalled Lanes (pcuHr):	0.46	Cycle Time (s):	90
	PRC Over All Lanes (%):	1.6	Total Delay Over All Lanes(pcuHr):	75.22		

Full Input Data And Results

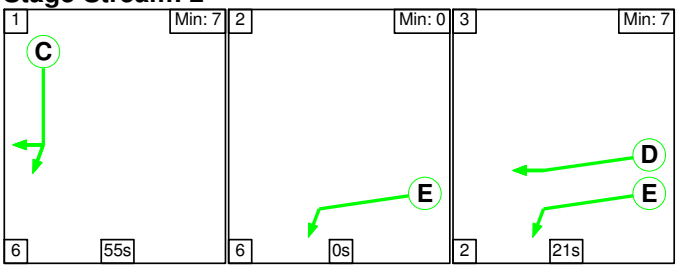
Scenario 6: '2035 Base + Dev PM' (FG6: '2035 Base + Dev PM', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

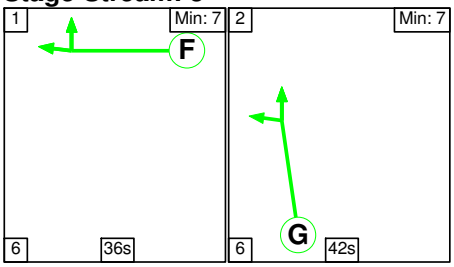
Stage Stream: 1



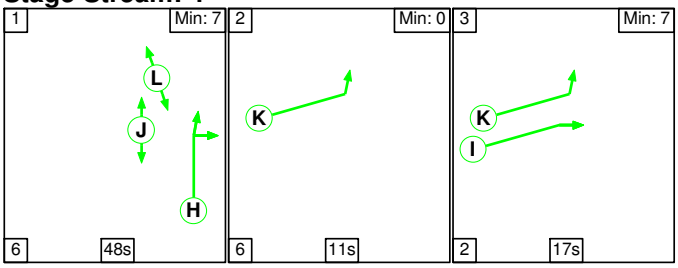
Stage Stream: 2



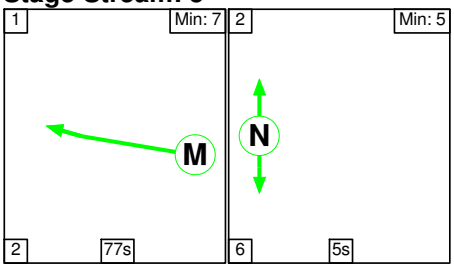
Stage Stream: 3



Stage Stream: 4



Stage Stream: 5



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	57	21
Change Point	0	63

Full Input Data And Results

Stage Stream: 2

Stage	1	2	3
Duration	55	0	21
Change Point	31	2	8

Stage Stream: 3

Stage	1	2
Duration	36	42
Change Point	77	29

Stage Stream: 4

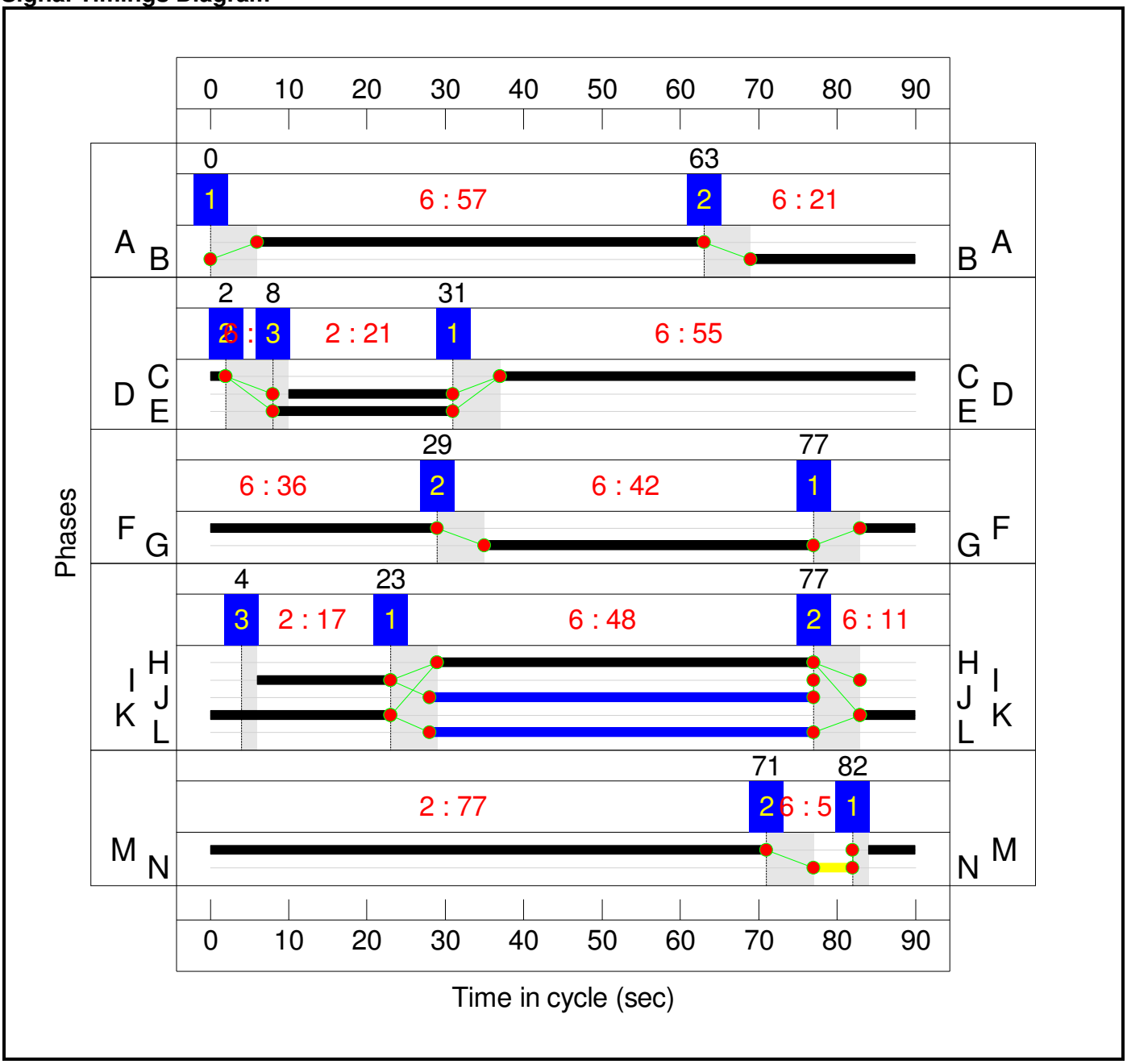
Stage	1	2	3
Duration	48	11	17
Change Point	23	77	4

Stage Stream: 5

Stage	1	2
Duration	77	5
Change Point	82	71

Full Input Data And Results

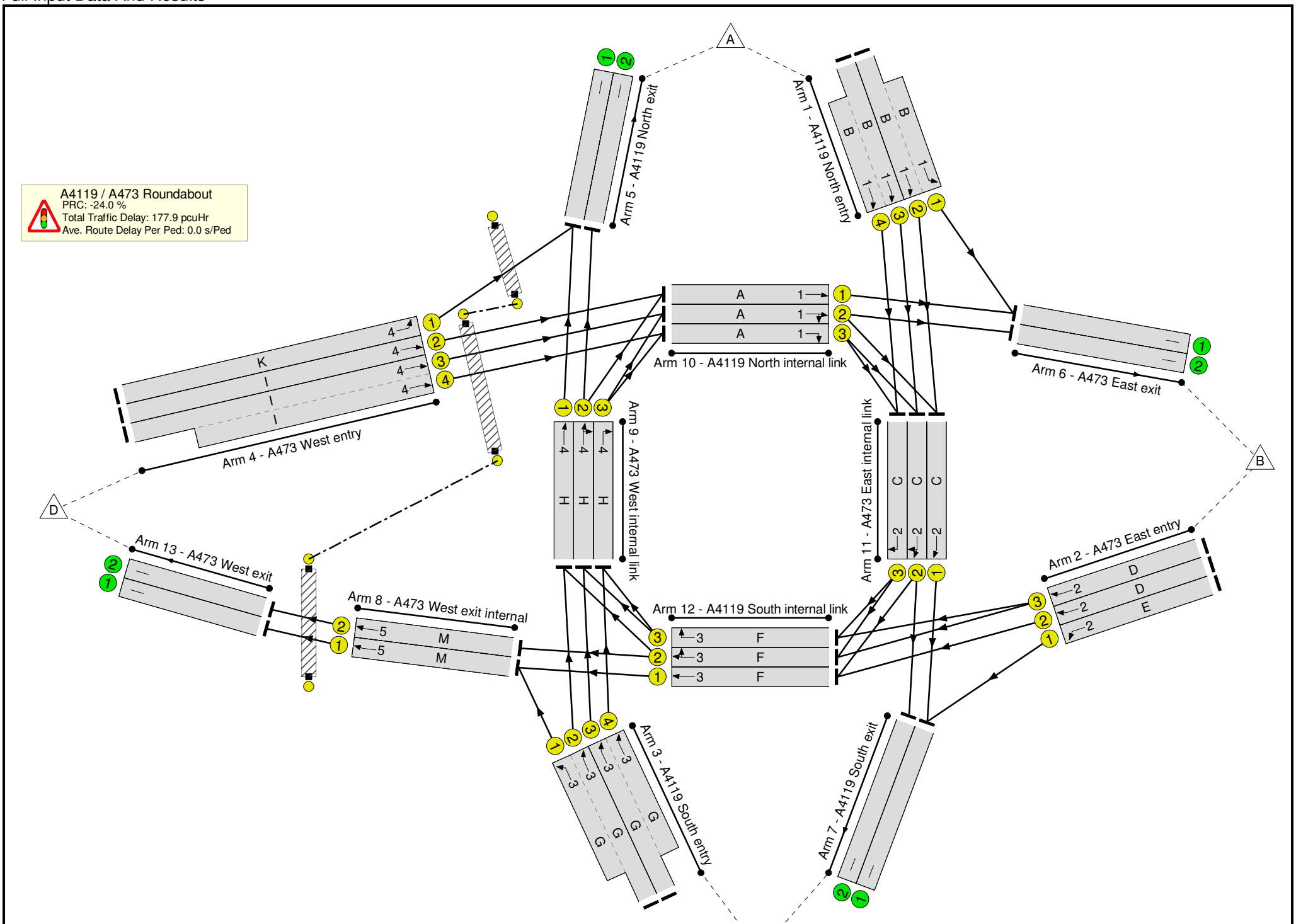
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Full Input Data And Results



Full Input Data And Results

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: A4119 / A473 Roundabout	-	-	**N/A**	-	-		-	-	-	-	-	-	**111.6%**
A4119 / A473 Roundabout	-	-	**N/A**	-	-		-	-	-	-	-	-	**111.6%**
1/2+1/1	A4119 North entry Left Ahead	U	1	N/A	B		1	21	-	856	1877:1883	459+308	111.6 : 111.6%
1/3+1/4	A4119 North entry Ahead	U	1	N/A	B		1	21	-	844	1877:1877	459+299	111.4 : 111.4%
2/1	A473 East entry Left	U	2	N/A	E		1	23	-	426	1900	507	84.1%
2/2	A473 East entry Ahead	U	2	N/A	D		1	21	-	384	1870	457	84.0%
2/3	A473 East entry Ahead	U	2	N/A	D		1	21	-	385	1870	457	84.2%
3/2+3/1	A4119 South entry Left Ahead	U	3	N/A	G		1	42	-	1083	1877:1883	787+555	80.7 : 80.7%
3/3+3/4	A4119 South entry Ahead	U	3	N/A	G		1	42	-	1268	1877:1877	766+761	83.1 : 83.1%
4/1	A473 West entry Left	U	4	N/A	K		1	30	-	337	1860	641	52.6%
4/2	A473 West entry Ahead	U	4	N/A	I		1	17	-	258	1877	375	68.7%
4/3+4/4	A473 West entry Ahead	U	4	N/A	I		1	17	-	515	1877:1877	375+375	68.5 : 68.7%
5/1	A4119 North exit	U	N/A	N/A	-		-	-	-	1134	Inf	Inf	0.0%
5/2	A4119 North exit	U	N/A	N/A	-		-	-	-	789	Inf	Inf	0.0%
6/1	A473 East exit	U	N/A	N/A	-		-	-	-	610	Inf	Inf	0.0%
6/2	A473 East exit	U	N/A	N/A	-		-	-	-	871	Inf	Inf	0.0%
7/1	A4119 South exit	U	N/A	N/A	-		-	-	-	955	Inf	Inf	0.0%
7/2	A4119 South exit	U	N/A	N/A	-		-	-	-	770	Inf	Inf	0.0%

Full Input Data And Results

8/1	A473 West exit internal Ahead	U	5	N/A	M		1	77	-	832	1940	1681	49.5%
8/2	A473 West exit internal Ahead	U	5	N/A	M		1	77	-	395	1940	1681	22.4%
9/1	A473 West internal link Ahead	U	4	N/A	H		1	48	-	797	1900	1034	77.0%
9/2	A473 West internal link Ahead Right	U	4	N/A	H		1	48	-	797	1900	1034	77.0%
9/3	A473 West internal link Right	U	4	N/A	H		1	48	-	632	1900	1034	61.1%
10/1	A4119 North internal link Ahead	U	1	N/A	A		1	57	-	266	1900	1224	21.7%
10/2	A4119 North internal link Ahead Right	U	1	N/A	A		1	57	-	888	1900	1224	72.5%
10/3	A4119 North internal link Right	U	1	N/A	A		1	57	-	259	1900	1224	21.2%
11/1	A473 East internal link Ahead	U	2	N/A	C		1	55	-	529	1900	1182	40.2%
11/2	A473 East internal link Ahead Right	U	2	N/A	C		1	55	-	770	1900	1182	60.7%
11/3	A473 East internal link Right	U	2	N/A	C		1	55	-	333	1900	1182	26.7%
12/1	A4119 South internal link Ahead	U	3	N/A	F		1	36	-	384	1900	781	49.2%
12/2	A4119 South internal link Ahead Right	U	3	N/A	F		1	36	-	557	1900	781	69.0%
12/3	A4119 South internal link Right	U	3	N/A	F		1	36	-	161	1900	781	20.6%
13/1	A473 West exit	U	N/A	N/A	-		-	-	-	832	Inf	Inf	0.0%
13/2	A473 West exit	U	N/A	N/A	-		-	-	-	395	Inf	Inf	0.0%

Full Input Data And Results

Ped Link: P1	A473 West exit Ped Link	-	5	-	N		1	5	-	0	-	0	0.0%
Ped Link: P2	A473 West entry Ped Link A	-	4	-	J		1	49	-	0	-	0	0.0%
Ped Link: P3	A473 West entry Ped Link B	-	4	-	L		1	49	-	0	-	0	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: A4119 / A473 Roundabout	**-**	**-**	**0**	**0**	**0**	**57.6**	**120.3**	**0.0**	**177.9**	**-**	**-**	**-**	**-**
A4119 / A473 Roundabout	**-**	**-**	**0**	**0**	**0**	**57.6**	**120.3**	**0.0**	**177.9**	**-**	**-**	**-**	**-**
1/2+1/1	856	783	-	-	-	9.4	48.8	-	58.2	244.7	14.4	48.8	63.3
1/3+1/4	844	774	-	-	-	9.2	47.5	-	56.7	241.9	14.4	47.5	61.9
2/1	426	426	-	-	-	3.7	2.5	-	6.2	52.2	10.1	2.5	12.5
2/2	384	384	-	-	-	3.4	2.5	-	5.9	55.4	9.1	2.5	11.5
2/3	385	385	-	-	-	3.5	2.5	-	6.0	55.7	9.1	2.5	11.6
3/2+3/1	1083	1083	-	-	-	5.3	2.1	-	7.3	24.4	12.5	2.1	14.6
3/3+3/4	1268	1268	-	-	-	6.5	2.4	-	8.9	25.4	12.5	2.4	15.0
4/1	337	337	-	-	-	2.2	0.6	-	2.8	29.5	6.7	0.6	7.3
4/2	258	258	-	-	-	2.4	1.1	-	3.5	48.5	5.9	1.1	7.0
4/3+4/4	515	515	-	-	-	4.8	1.1	-	5.9	41.0	5.9	1.1	7.0
5/1	1134	1134	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/2	789	789	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	590	590	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2	871	871	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	902	902	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	718	718	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	832	832	-	-	-	0.1	0.5	-	0.6	2.6	1.2	0.5	1.7
8/2	377	377	-	-	-	0.0	0.1	-	0.1	1.4	0.0	0.1	0.1
9/1	797	797	-	-	-	0.9	1.7	-	2.5	11.4	4.8	1.7	6.4
9/2	797	797	-	-	-	0.7	1.7	-	2.4	10.8	4.8	1.7	6.5
9/3	632	632	-	-	-	0.2	0.8	-	1.0	5.7	0.5	0.8	1.3
10/1	266	266	-	-	-	0.0	0.1	-	0.1	2.0	0.0	0.1	0.2
10/2	888	888	-	-	-	1.2	1.3	-	2.5	10.1	9.3	1.3	10.6

Full Input Data And Results

10/3	259	259	-	-	-	0.0	0.1	-	0.1	1.9	0.0	0.1	0.1
11/1	476	476	-	-	-	0.5	0.3	-	0.8	6.2	1.5	0.3	1.8
11/2	718	718	-	-	-	2.0	0.8	-	2.8	13.9	6.8	0.8	7.6
11/3	315	315	-	-	-	0.0	0.2	-	0.2	2.3	0.1	0.2	0.2
12/1	384	384	-	-	-	0.4	0.5	-	0.9	8.4	0.7	0.5	1.2
12/2	539	539	-	-	-	1.1	1.1	-	2.2	14.6	8.3	1.1	9.4
12/3	161	161	-	-	-	0.2	0.1	-	0.3	6.8	0.3	0.1	0.4
13/1	832	832	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
13/2	377	377	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P3	0	0	-	-	-	-	-	-	-	-	-	-	-

C1	Stream: 1 PRC for Signalled Lanes (%):	-24.0	Total Delay for Signalled Lanes (pcuHr):	117.68	Cycle Time (s): 90
C1	Stream: 2 PRC for Signalled Lanes (%):	6.9	Total Delay for Signalled Lanes (pcuHr):	21.83	Cycle Time (s): 90
C1	Stream: 3 PRC for Signalled Lanes (%):	8.3	Total Delay for Signalled Lanes (pcuHr):	19.65	Cycle Time (s): 90
C1	Stream: 4 PRC for Signalled Lanes (%):	16.8	Total Delay for Signalled Lanes (pcuHr):	18.01	Cycle Time (s): 90
C1	Stream: 5 PRC for Signalled Lanes (%):	81.9	Total Delay for Signalled Lanes (pcuHr):	0.75	Cycle Time (s): 90
	PRC Over All Lanes (%):	-24.0	Total Delay Over All Lanes(pcuHr):	177.92	