



TRANSPORT ASSESSMENT

PROSPERITY PARC, ANGLESEY

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EXECUTIVE SUMMARY

ADC Infrastructure Ltd were commissioned by Anglesey Land Holdings Ltd to provide transport and highways consultancy advice to support an outline planning application for the redevelopment of Prosperity Parc, on Holy Island in Anglesey.

Prosperity Parc is a brownfield site, formerly known as Penrhos Works, comprising the site of the former Anglesey Aluminium Metal facility. It also forms part of the Anglesey Prosperity Zone (APZ) within the Anglesey Freeport.

The outline planning application for the Prosperity Parc redevelopment is for a 'Data Centre and Technology Park (or Parc)' comprising of the following:

- up to 10,000sqm B1 office floorspace
- up to 5,000sqm B1 research and development space
- minimum of 223,000sqm B8 Data Centre use (with the Data Centre use exclusively, and no standard B8 storage and distribution uses)
- a battery energy storage system (BESS), with a capacity of up to 349MW.

The outline planning application seeks a total proposed gross floor area (GFA) of up to 238,000sqm. Therefore, within this maximum, the B8 Data Centre GFA could get larger if the B1 office and/or B1 research and development GFA ultimately reduces.

The site is currently accessed from the A5 London Road, via a priority-controlled T-junction with ghost island right turn lane on the north-western boundary. This will be retained, but with improvements made to the pedestrian and cycle provision at the main site access junction. There is also an existing access onto the A5 via a simple T-junction with ghost island right turn lane at the north-eastern site boundary, which serves the existing employment development outside of the application boundary. This will be retained as a secondary/emergency access for the proposed development.

The existing opportunities for sustainable travel were examined, and it was concluded that there are good opportunities for pedestrian, cycle, bus and rail travel to and from the site, which is consistent with the previous use of the site as a large employment area.

There are good opportunities for cycle travel to and from the site, with a number of areas within cycling distance, and existing/recently improvement cycle routes to access the site. The hourly bus Service 4 routes closest to the site, and Holyhead Station has 10 cycle parking spaces, and a taxi rank. Bus service 4 also routes to Holyhead station. There are therefore good opportunities for bus travel and rail travel as part of a multi-modal journey to and from the site.

The development is forecast to generate 279 pedestrian trips, 111 cycle trips, 223 public transport trips per day. Pedestrian and cycle access would be improved as part of the proposed development, with pedestrian/cycle routes through the site and connections to off-site facilities. Given the outline nature of the proposals, exact details of the location of the routes within the site cannot be provided at this stage. At the site access junction, a footway/cycleway connection is proposed along the main site access road, and an uncontrolled crossing is proposed on the A5 London Road to facilitate access to the existing footway/cycleway on the northern side of the A5 London Road. Furthermore, the opportunities to provide a new pedestrian/cycle access through the western boundary of the site, connecting to the existing infrastructure through the Penrhos Industrial Estate and Holyhead Retail Park is being explored. Whilst this cannot be relied upon, it will be provided subject to any third party land constraints.

It is proposed to provide a bus service into the site, and provide new bus stops within the site in order to reduce walking distances for employees and visitors. A bus turning area would also be provided to

allow the bus to loop in and out of the site access junction. As the application is in outline only, and there is no fixed masterplan, the location of the bus stops and bus turning area have not yet been defined. Nevertheless, due to the security requirements of the site, the bus stops and turning area would be located within the western part of the site and outside of the main secure area. This can be secured via a planning condition requiring details of bus access as part of the Reserved Matters application. Funding for the bus service would be secured via the Section 106 Agreement.

The existing and proposed sustainable travel infrastructure is considered sufficient to serve the forecast increase in trips.

The proposed development would generate 482 two-way vehicle movements in the morning peak hour, 269 two-way vehicle movements in the interpeak hour, and 352 two-way vehicle movements in the evening peak hour, and a total of 4,574 two-way vehicle movements over a day.

Those trips were distributed to the highway network, and the impact of the additional trips was assessed at the following study area junctions.

- 1) A55/A5154/London Road signal controlled T-junction
- 2) A55 Junction 1 – A55/Kingsland Road roundabout
- 3) A55 Junction 2 – TY Mawr Interchange
- 4) A55 Junction 3 – Pencaledog Interchange
- 5) A5153/Penrhos Industrial Estate roundabout (W)
- 6) A5153/Penrhos Industrial Estate roundabout (E)
- 7) A5/A5153/Tesco roundabout
- 8) A5/A5025 signal controlled crossroads in Valley.

It is envisaged that, subject to planning consent being granted in early 2025, the site will open in 2026, and be fully open and operational by 2031. The timescales are linked to the Freeport and associated financial benefits (tax relief etc).

The operation of each junction was assessed in the 2024 base year, and again in the relevant future years. For the local highway network junctions, this was 2026 (opening year) and 2031 (opening year + 5 years). For the A55 junctions, this was 2030 (application + 5 years) and 2040 (application + 15 years). Cumulative impacts, which take into account background traffic growth and the committed developments at Parc Cybi and Land and Lakes, were undertaken.

The junction modelling focuses on the morning (0815-0915 hours) and evening peak hour (1630-1730 hours) only for the local highway network, and examines the morning (0815-0915), interpeak (1200-1300) and evening peak hour (1630-1730) for the A55 junctions.

It was concluded that all of the junctions have capacity to accommodate the additional traffic generated by the development, and that all of the junctions would continue to operate within acceptable limits in terms of capacity, queue length and delay. Therefore, no mitigation measures are required at the study area junctions.

Furthermore, it was concluded that none of the study area junctions have an accident record that would be exacerbated by the additional traffic generated by the proposed development. As the additional traffic would not significantly alter the operation of the junctions, that risk of accidents would not significantly alter. Therefore, no highway safety mitigation measures are required.

Overall, the proposed development should therefore be found acceptable in terms of traffic and transport.

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3377-ADC-HGN-XX-DR-CH-0100 S1 P01 Access Junction Layout

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Appendix R	A5/A5153/Tesco roundabout ARCADY
Appendix S	A5/A5025 signal controlled crossroads LinSig

1.0 INTRODUCTION

- 1.1 ADC Infrastructure Ltd were commissioned by Anglesey Land Holdings Ltd to provide transport and highways consultancy advice to support an outline planning application for the redevelopment of Prosperity Parc, on Holy Island in Anglesey.
- 1.2 Prosperity Parc is a brownfield site, formerly known as Penrhos Works, comprising the site of the former Anglesey Aluminium Metal facility. It also forms part of the Anglesey Prosperity Zone (APZ) within the Anglesey Freeport. The site location is shown in **Figures 1 and 2**.

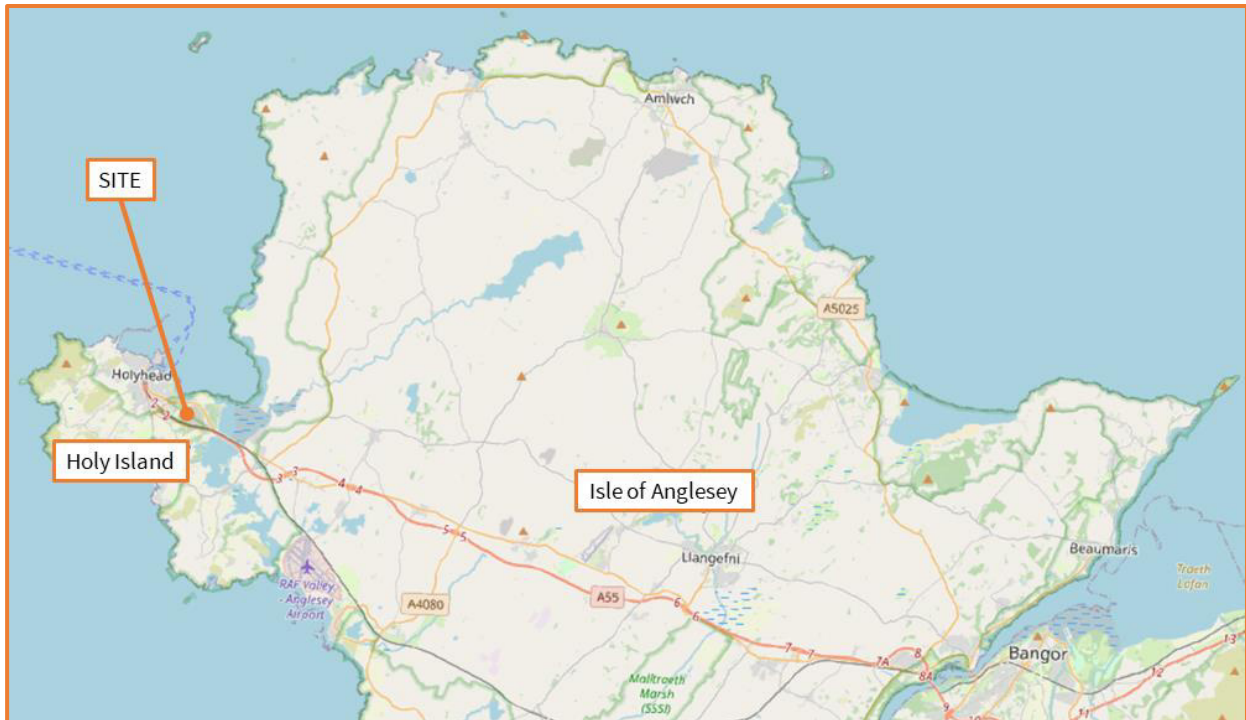


Figure 1: general site location

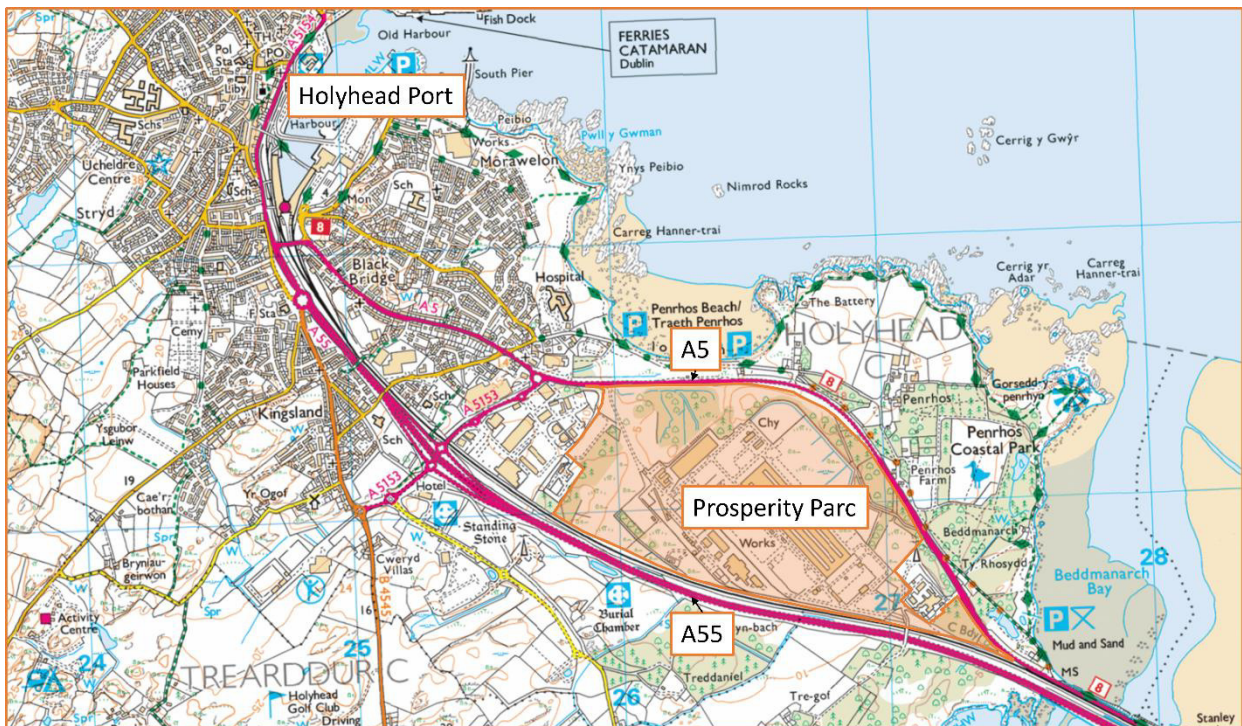


Figure 2: detailed site location

- 1.3 The outline planning application for the Prosperity Parc redevelopment is for a ‘Data Centre and Technology Park (or Parc)’ comprising of the following:
- up to 10,000sqm B1 office floorspace
 - up to 5,000sqm B1 research and development space
 - minimum of 223,000sqm B8 Data Centre use (with the Data Centre use exclusively, and no standard B8 storage and distribution uses)
 - a battery energy storage system (BESS), with a capacity of up to 349MW.
- The outline planning application seeks a total proposed gross floor area (GFA) of up to 238,000sqm. Therefore, within this maximum, the B8 Data Centre GFA could get larger if the B1 office and/or B1 research and development GFA ultimately reduces.
- 1.4 The development will be accessed from the existing access junction with ghost island right turn lane on the A5 London Road to the north, which will be retained in its current form but with improvements to the pedestrian and cycle provisions. The existing secondary/emergency access on London Road to the north-east will also be retained. The provision of a pedestrian/cycle access from the Penrhos Industrial Estate on the western boundary is being explored. A copy of the draft Parameters Plan, together with a draft illustrative layout, is contained in **Appendix A**.
- 1.5 This document forms the Transport Assessment, and has been prepared following consultation with both Isle of Anglesey County Council highways (IoACC) who are responsible for the local highway network, and Welsh Government (WG), who are responsible for the A55.
- 1.6 The key parameters used within this report were submitted to both IoACC and WG through a Transport Assessment Scoping Study (document reference ADC3377-RP-C-v3 – May 2024), and subsequent Technical Note (‘Response to IoACC’s comments on the Transport Assessment Scoping Study’ - document reference ADC3377-RP-D v3 – August 2024), and discussed at various meetings held separately with both parties between April 2024 and September 2024.
- 1.7 A further Technical Note (‘Trip Generation – document reference ADC3377-RP-E-v3 – October 2024) was issued in October 2024.
- 1.8 This pre-application correspondence led to agreement of many of the key parameters used within this Transport Assessment.
- 1.9 This Transport Assessment provides a robust assessment of the likely transport impacts of the proposed redevelopment, and is structured as follows:
- Section 2 presents the existing conditions in the vicinity of the site. It describes the local highway network, including the results of traffic counts and an accident analysis. It also reviews the existing opportunities for sustainable travel, by walking, cycling and public transport including bus and rail.
 - Section 3 describes the outline development proposals.
 - Section 4 presents the forecast trip rates and traffic generation for the proposed B1 office, B1 research and development, and B8 Data Centre uses, and the total traffic generation. The agreed forecast modal split and person trip generation is also presented.
 - Section 5 presents the agreed distribution and assignment of the light vehicle and HGV trips.
 - Section 6 presents the agreed assessment year traffic flows. Based on an application in early 2025, and opening in 2026, the local highway network is assessed in 2026 (opening year) and 2031 (opening year + 5 years). The WG junctions are assessed in 2030 (application +5 years) and 2040 (application +15 years). The assessment years are calculated using agreed TEMPRO Core Scenario growth rates, and including agreed committed developments.

- Section 7 presents the assessment of the impact of the development traffic on the operation of the road network, using ARCADY, PICADY and LinSig modelling. All junctions are modelled in the relevant assessment year.
- Section 8 presents the summary and conclusions.

1.10 A separate Framework Travel Plan has also been produced by ADC Infrastructure Ltd, which includes targets, measures, and incentives to increase the proportion of trips made by sustainable travel modes, and reduce the proportion of car trips generated by the development by 10%. The Travel Plan also includes methods for implementing and monitoring those measures, and the travel patterns to and from the site. For the purposes of a robust assessment, the 10% reduction in vehicle trips has not been taken into account within this Transport Assessment, as agreed with IoACC.

2.0 EXISTING CONDITIONS

Site location and existing use

- 2.1 The site comprises approximately 90ha of brownfield land encompassing the disused Anglesey Aluminium Metal facility, formerly known as Penrhos Works. It also forms part of the Anglesey Freeport. An aerial photograph is shown in **Figure 3** below, although most of the former buildings have now been demolished to prepare for the future redevelopment of the site. The site includes a railway spur on the southern boundary, and underground tunnels connecting to Holyhead Port. For the purposes of this Transport Assessment, it has been assumed that neither the railway nor the tunnels will be used, to provide a robust assessment of the traffic impacts.

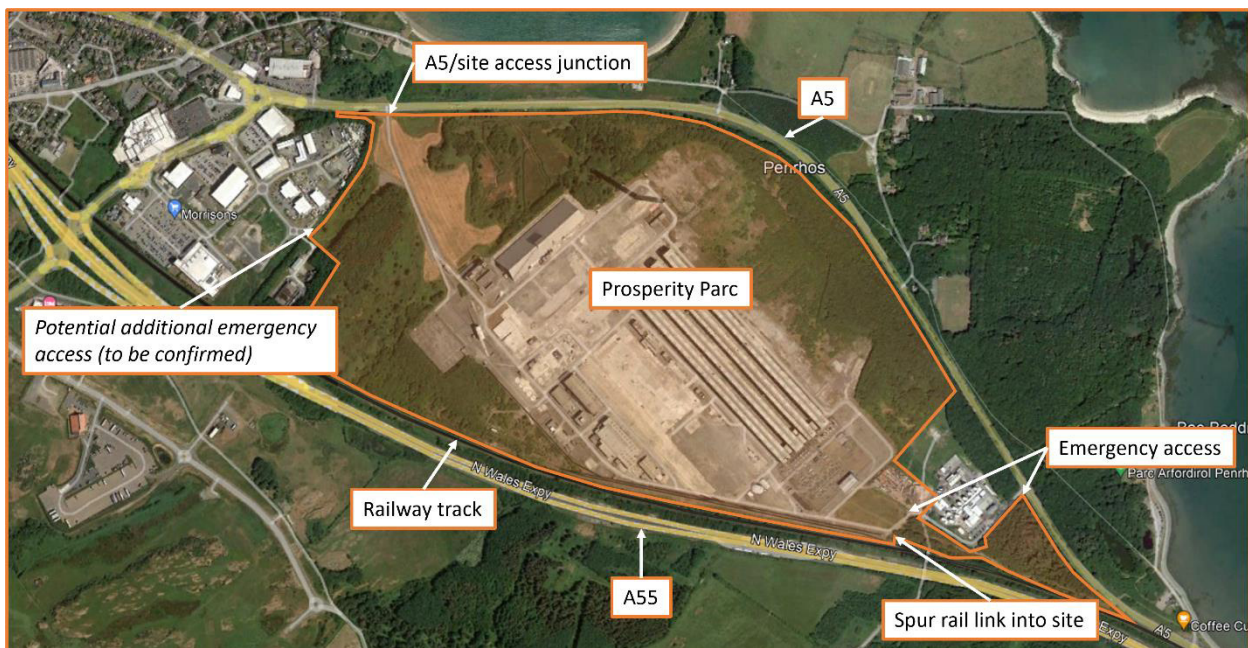


Figure 3: aerial photograph

Highway network

- 2.2 As shown in **Figure 3**, the site is accessed from the A5 London Road, via a priority-controlled T-junction with ghost island right turn lane on the north-western boundary. There is also an existing access onto the A5 via a simple T-junction with ghost island right turn lane at the north-eastern site boundary, which serves the existing employment development outside of the application boundary. This will be retained as a secondary/emergency access for the proposed development.
- 2.3 The local highway network is shown in **Figure 4**. The A5 runs between the A55/A5 signal controlled T-junction to the west and the A55 Junction 3 grade-separated dumbbell junction to the east (Pencaledog Interchange). The A5 is subject to a 20mph, 30mph, 40mph and national speed limit along its length. The A5 London Road/site access junction is subject to a 30mph speed limit. To the east of the site access junction, the A5 is subject to the national speed limit along its length, reducing to 40mph and then 30mph and 20mph through Valley (Y Fali), before increasing to the national speed limit on the approach to the A55 Junction 3.
- 2.4 To the west of the site, the A5 meets the A5153 at a roundabout and is subject to a 20mph speed limit. The A5153 provides access to the Holyhead Retail Park via two roundabouts, and joins the A55 Junction 2, via a grade-separated roundabout junction arrangement (Ty Mawr Interchange). In September 2023, the speed limit at the roundabout and on the roads to the west was reduced

to 20mph, although it is understood that this may now be reversed under the review on the 20mph speed limits.

- 2.5 The A55 North Wales Expressway is a dual carriageway, and the main route through Anglesey. Through Junction 2, the A55 is subject to a 50mph speed limit, before becoming a 30mph speed limit to the west of the junction, on the approach to the Kingsland Roundabout. To the east of Junction 2, the A55 is governed by the national speed limit and bisects both Holy Island and Anglesey, providing a convenient, direct link road across the Menai Strait, to mainland Wales. Connections are also provided to other key trunk roads of the Welsh Strategic Road Network (SRN), including the A5 at Junction 11. Further afield, the A55 stretches along the North Wales coast, and upon crossing into England provides strategic connectivity towards Liverpool and Greater Manchester, connecting Holyhead to the M53 at Chester.
- 2.6 To the west of the A5/A5153 roundabout, the A5 joins the A55 via a signal controlled T-junction. From the junction, the A55 connects directly to Holyhead Port. The A5 between the A5153 roundabout and the Holyhead Port junction is subject to a 7.5T weight limit. The available carriageway space is relatively narrow due extensive on-street parking. Nevertheless, WG have confirmed that this road is used as a diversion route if/when the A55 is ever blocked/closed.
- 2.7 There are therefore, three route options to connect the site to the A55; via the A5 near Holyhead Port, A55 Junction 2 and A55 Junction 3. However, as noted above, the route between the A5 and the A55 is subject to a 7.5T weight restriction and cannot therefore be used by HGVs. Any HGVs travelling between the Holyhead Port and the site would therefore have to route onto the A55 through the Kingsland Roundabout and Junction 2 before joining the A5.

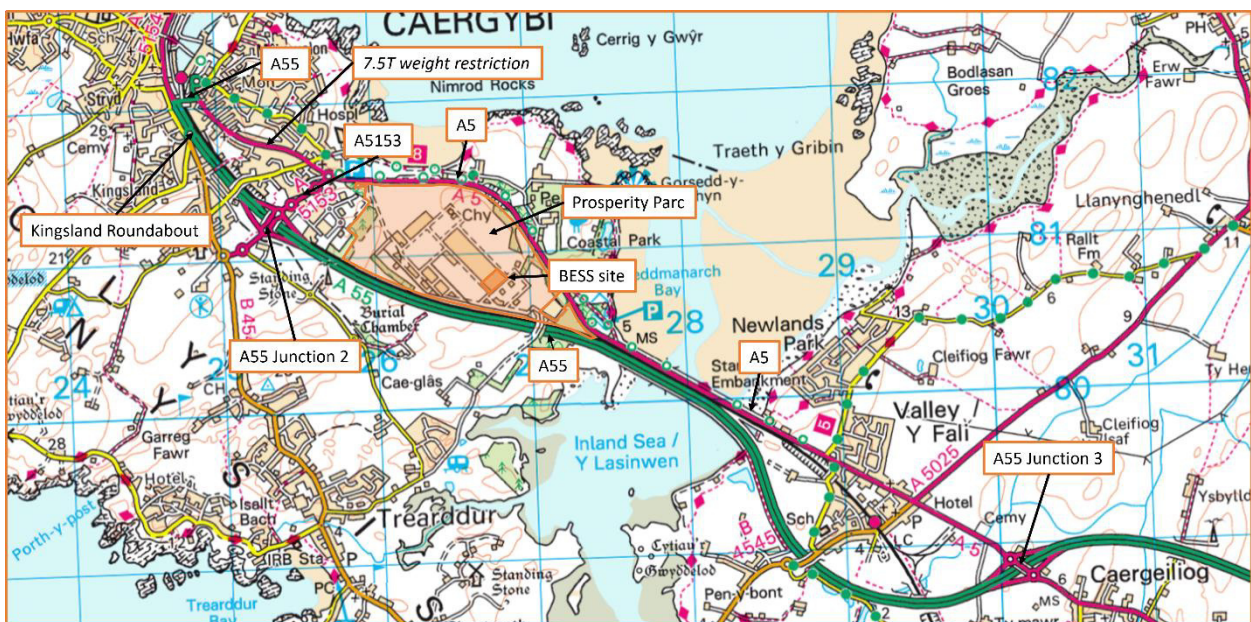


Figure 4: local highway network

Existing traffic flows

- 2.8 Full traffic counts were undertaken at the following 10 junctions (**Figure 5**) in the vicinity of the site, on Tuesday 30 April 2024:
1. A55/NCR 5 Holyhead Port access roundabout
 2. A55/London Road signal controlled T-junction
 3. A5154/London Road signal controlled T-junction
 4. A55 Junction 1 – A55/Kingsland Road roundabout
 5. A55 Junction 2 – TY Mawr Interchange

6. A55 Junction 3 – Pencaledog Interchange
7. A5153/Penrhos Industrial Estate roundabout (W)
8. A5153/Penrhos Industrial Estate roundabout (E)
9. A5/A5153/Tesco roundabout
10. A5/A5025 signal controlled crossroads in Valley.

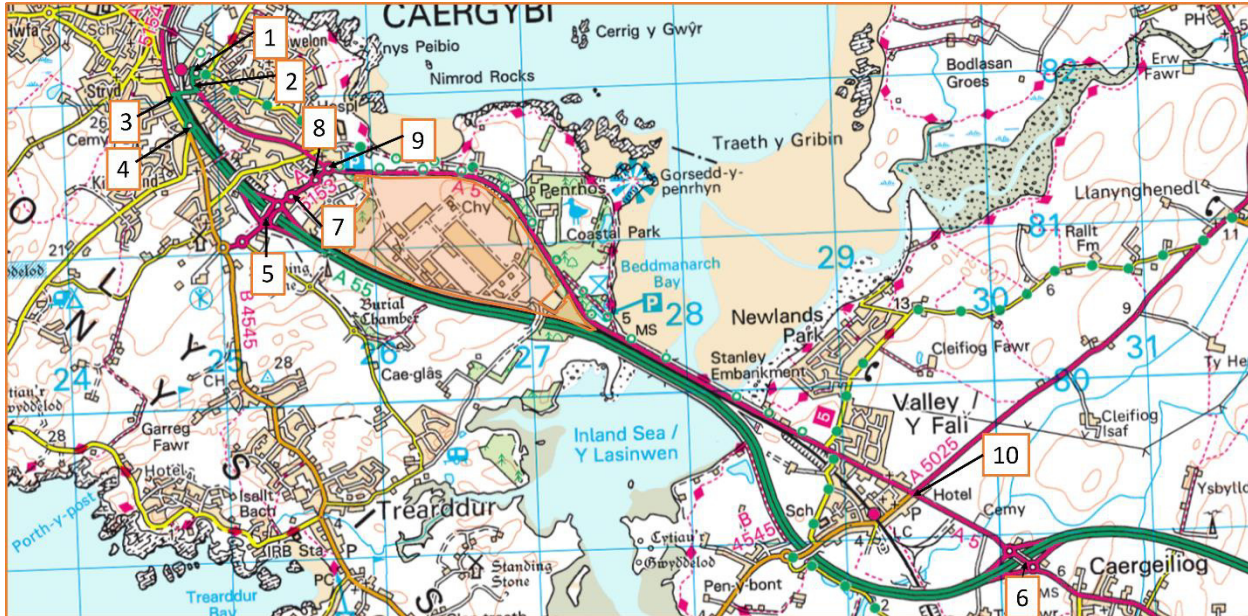


Figure 5: traffic count junctions

- 2.9 All vehicles turning at, and travelling through the junctions were recorded in 15 minute intervals between 0730-0930, 1230-1530 and 1630-1830 hours. The traffic count data is contained in **Appendix B**.
- 2.10 Roadworks were found to be in place on the A5153 on the day of the traffic counts, potentially affecting the traffic flows at Junctions 5, 7, 8 and 9. These were associated with the construction of dropped kerbs and pedestrian crossings. The traffic management included two-way temporary signals between Junction 5 and 7, and a lane closure southbound and narrow lanes northbound between Junction 7 and 8.
- 2.11 As a result, these junctions were resurveyed on Wednesday 17 July 2024, once the roadworks were lifted and before school holidays commenced. All vehicles turning at, and travelling through the junctions were recorded in 15 minute intervals between 0730-0930, 1230-1530 and 1630-1830 hours. The July surveys showed an increase in traffic at all junctions in all time periods compared to the April surveys. The traffic count data is contained in **Appendix C**.
- 2.12 It is noted that the Holyhead Port generates a number of car and HGV movements at scheduled ferry times; two of which fall in the typical highway network morning peak hour (ferries departing at 0815 and 0900). However, the largest ship, Ulysses, which has capacity for the highest number of cars and HGVs, arrives and departs around midnight and midday, and hence does not generate car and HGV trips in the typical peak hours, but does create an interpeak period between 1100 and 1400 hours. The ferry times are shown below.

Dublin to Holyhead		Holyhead to Dublin	
Operator	Arrival time	Operator	Departure time
Stena Line	00:01 Adventurer	Stena Line	02:15 Adventurer
Irish Ferries	00:20 Ulysses	Irish Ferries	02:40 Ulysses
Irish Ferries	05:25 James Joyce	Irish Ferries	08:15 James Joyce
Stena Line	05:45 Estrid	Stena Line	09:00 Estrid
Irish Ferries	09:45 Dublin Swift	Irish Ferries	10:40 Dublin Swift
Irish Ferries	11:30 Ulysses	Irish Ferries	14:10 Ulysses
Stena Line	11:50 Adventurer	Stena Line	14:45 Adventurer
Irish Ferries	16:05 Dublin Swift	Irish Ferries	16:45 Dublin Swift
Irish Ferries	18:00 James Joyce	Irish Ferries	20:15 James Joyce
Stena Line	18:20 Estrid	Stena Line	20:30 Estrid

2.13 For context, the capacity¹ of each ferry used on the Holyhead-Dublin route is detailed in the table below:

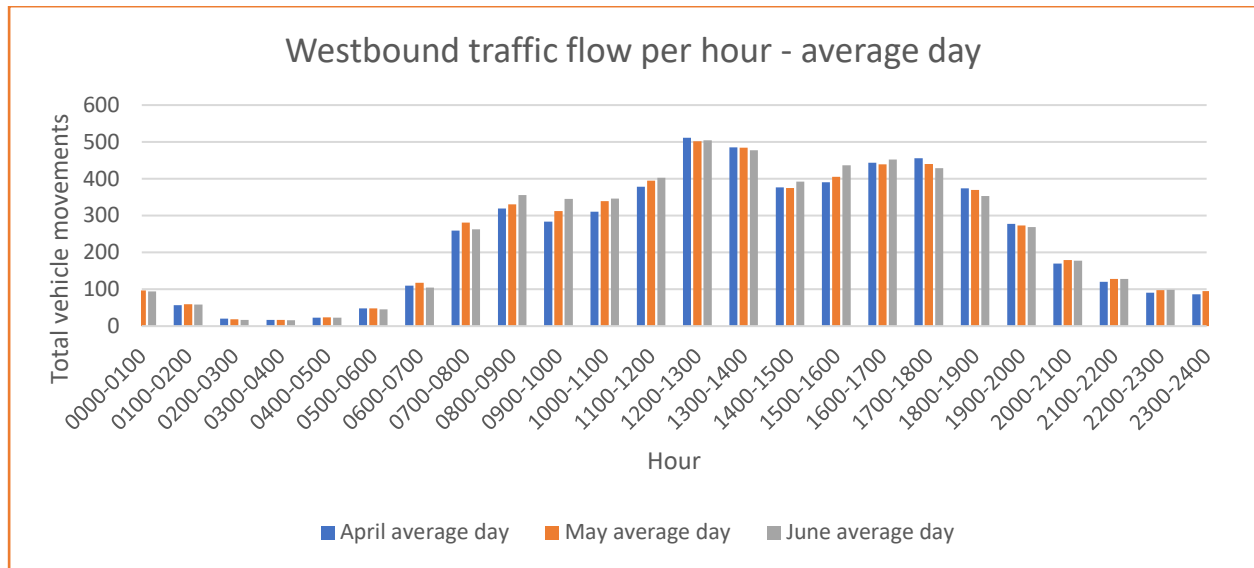
Ferry Name	Operator	Passenger Capacity	Car Capacity	Freight capacity (lane metres)
Ulysses	Irish Ferries	1,875	1,342	4,100
James Joyce	Irish Ferries	2,080	450	2,380
Dublin Swift	Irish Ferries	820	220	-
Stena Adventurer	Stena Line	1500	500	3,400
Stena Estrid	Stena Line	927	120	3,100

2.14 As part of the Scoping Study consultations, it was agreed with IoACC that there is no requirement to assess the impact of the development traffic during the interpeak period. However, WG requested an assessment of the daily traffic flow profile on the A55 to understand whether there were peak periods outside of the morning and evening peak hour that also needed to be assessed.

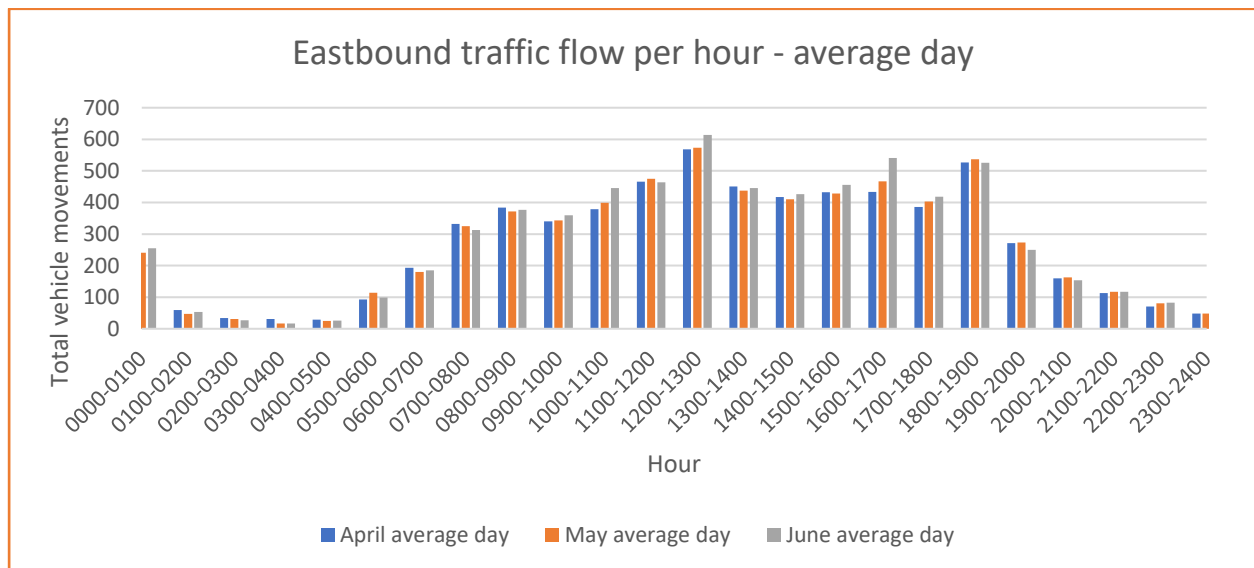
2.15 Therefore, traffic flow data was purchased from Clearview Intelligence Ltd, who have automatic traffic counts (ATCs) installed on the A55 on behalf of the WG. Data was purchased for April, May and June 2024 (as neutral months) on the A55 Mainline on the A55 between Junction 1 and Junction 2. The data is contained in **Appendix D**.

2.16 The graphs below show the traffic profile on the A55 for an average day for each of the three months. As shown, for westbound vehicles, there is a peak in vehicle movements between 1200 and 1400 hours. This is assumed to be associated with the ferries that leave Holyhead for Dublin at 14:10 (Irish Ferries Ulysses) and 14:45 (Stena Line Adventurer).

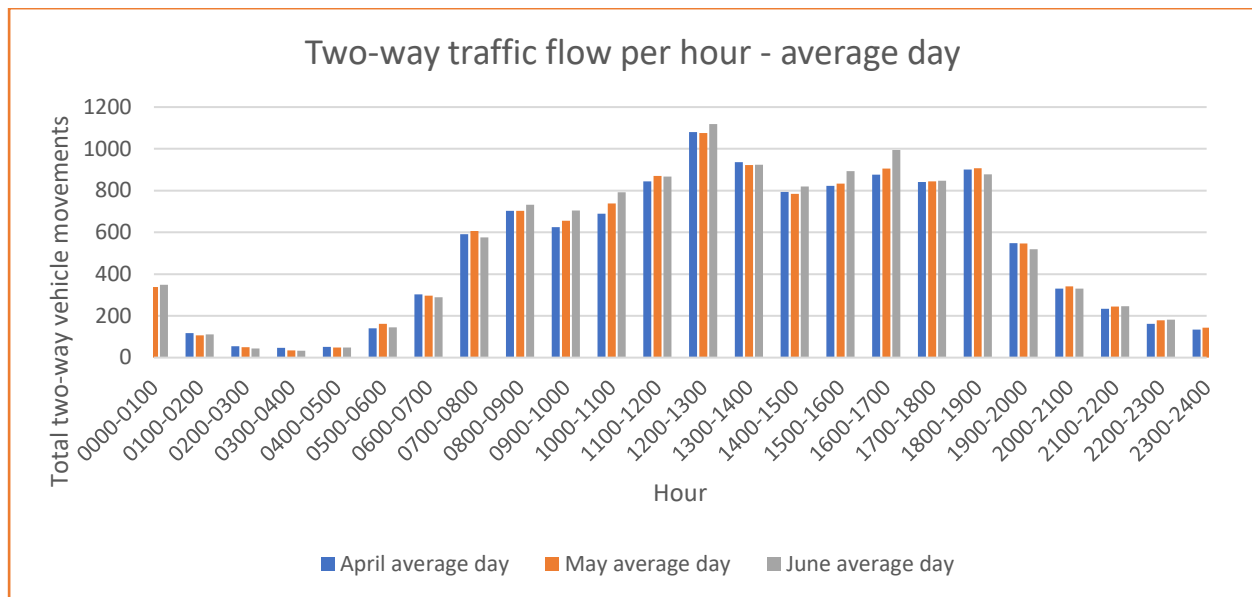
¹ [Our Fleet: Irish Continental Group \(icg.ie\)](#)
[Stena Estrid – StenaLine.com](#)
[Stena Adventurer – StenaLine.com](#)



2.17 For eastbound vehicles, there is a peak between 1200-1300 hours, associated with traffic arriving from the ferry that docks at Holyhead at 11.30 (Irish Ferries Ulysses) and 11.50 (Stena Line Adventurer).



2.18 Based on two-way traffic, the peak hour is 1200-1300 hours, as shown in the graph below.



2.19 Hence, this Transport Assessment focuses on the morning (0815-0915 hours) and evening peak hour (1630-1730 hours) only for the local highway network, and examines the morning (0815-0915), interpeak (1200-1300) and evening peak hour (1630-1730) for the A55 junctions.

2.20 The observed 2024 peak hour traffic flows are shown in **Diagrams 1, 2 and 3 in Appendix E** for the morning, interpeak and evening peak hour.

Road traffic collision analysis

2.21 It is necessary to determine if there are any trends in accident type or location in the vicinity of the site that may be exacerbated by the additional trips generated by the proposed development.

2.22 Therefore, IoACC were contacted to purchase accident data. However, IoACC confirmed that data is not available due to software issues, and therefore reference was instead made to the Crashmap database.

2.23 **Figure 6** below shows the location of all recorded accidents for the last five years (2018-2022, as no data is available for 2023 and 2024). There was one fatal accident on the A5 and another on the A55, as well as several serious accidents. In terms of the key junctions in the vicinity of the site:

1. A55/NCR 5 Holyhead Port access roundabout – no accidents recorded
2. A55/London Road signal controlled T-junction – no accidents recorded
3. A5154/London Road signal controlled T-junction – no accidents recorded
4. A55 Junction 1 – A55/Kingsland Road roundabout – two slight accidents recorded
 - a. 27 March 2020 on the A55 (N) arm
 - b. 10 January 2021 on the Kingsland Road (S) arm
5. A55 Junction 2 – TY Mawr Interchange - two serious accidents recorded
 - a. 1 August 2018 on circulatory carriageway. A car collided into the off-side of a van, which collided with the crash barrier.
 - b. 3 February 2019 on the A5153 (W) approach. A driver, over the age of 75 years, collided with a bollard.
 - c. A third, slight accident was recorded on the eastbound off-slip on 12 August 2018.
6. A55 Junction 3 – Pencaledog Interchange - two slight accidents recorded at the roundabouts.
 - a. 12 July 2021 on the A5 (W) approach to the southern roundabout

- b. 1 June 2022 on the eastbound off-slip approach to the northern roundabout.
 - c. A third, serious accident was recorded on the A55 mainline in the vicinity of the westbound on-slip on 19 September 2021. This involved a car colliding with a cyclist.
 - d. A fatal accident was recorded on the A55 mainline in the vicinity of the westbound off-slip on 6 August 2020. This involved an HGV colliding with a pedestrian.
7. A5153/Penrhos Industrial Estate roundabout (W) – no accidents recorded
 8. A5153/Penrhos Industrial Estate roundabout (E) – no accidents recorded
 9. A5/A5153/Tesco roundabout – no accidents recorded
 10. A5/A5025 signal controlled crossroads in Valley – one slight accident recorded
 - a. 25 November 2019 on the B4545 to the south of the junction.

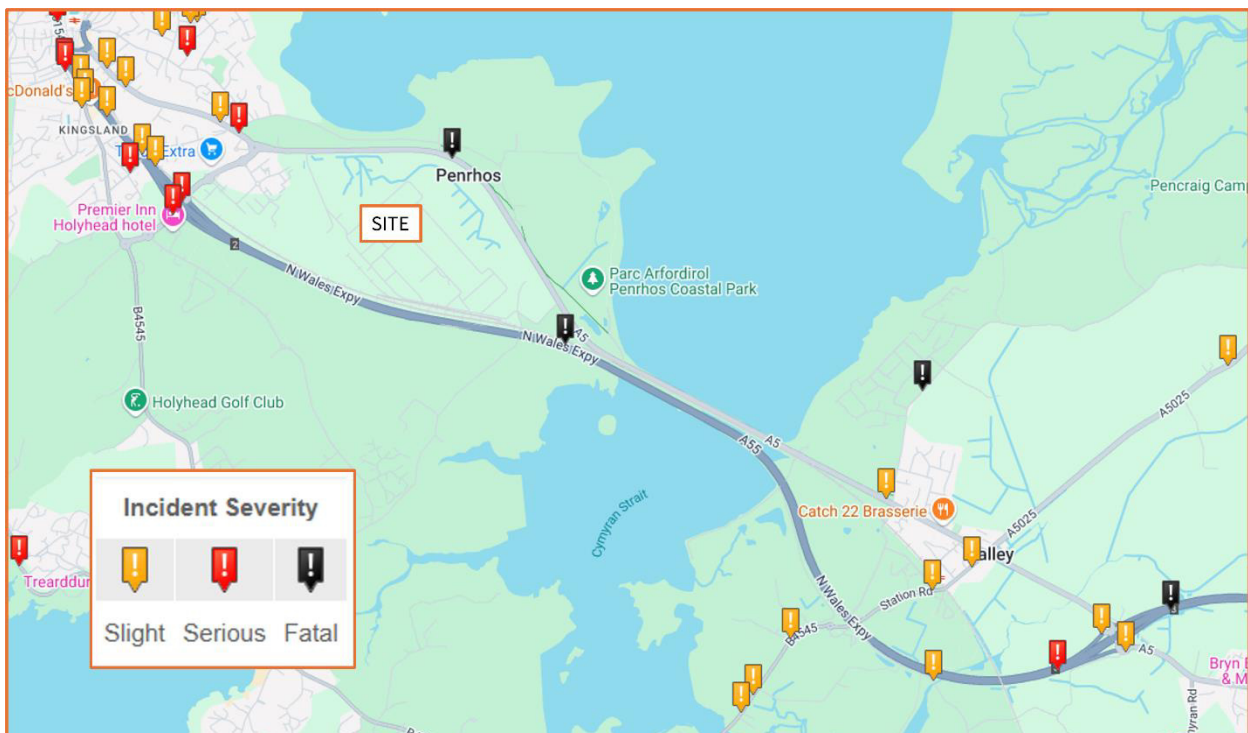


Figure 6: collision data obtained from crashmap.com

2.24 Overall, it can be concluded that there are no distinct clusters of accidents at any of the key junctions in the vicinity of the site.

Opportunities for pedestrian travel

2.25 The WG's Active Travel Act Guidance² outlines distances pedestrians can reasonably be expected to travel. The document describes how, for utility journeys (including journeys to and from work), many pedestrians are likely to travel up to 2 miles (3.2km), some pedestrians are likely to travel up to 3 miles (4.8km), but very few or no pedestrians will travel over 3 miles.

2.26 **Figure 7** shows a 2 mile/3.2km pedestrian catchment area from the site. As shown, it includes the residential areas within Holyhead, meaning there is potential for staff working at the site and living in Holyhead to walk to and from work. In addition, Holy Island railway station is located approximately 2.5km from the centre of the site, meaning those travelling from further afield by train could walk to and from the site. Furthermore, the Holyhead Retail Park, including

² Active Travel Act Guidance, 2021

supermarkets, is within walking distance, meaning there are opportunities for pedestrian trips throughout the day, for example in breaks.

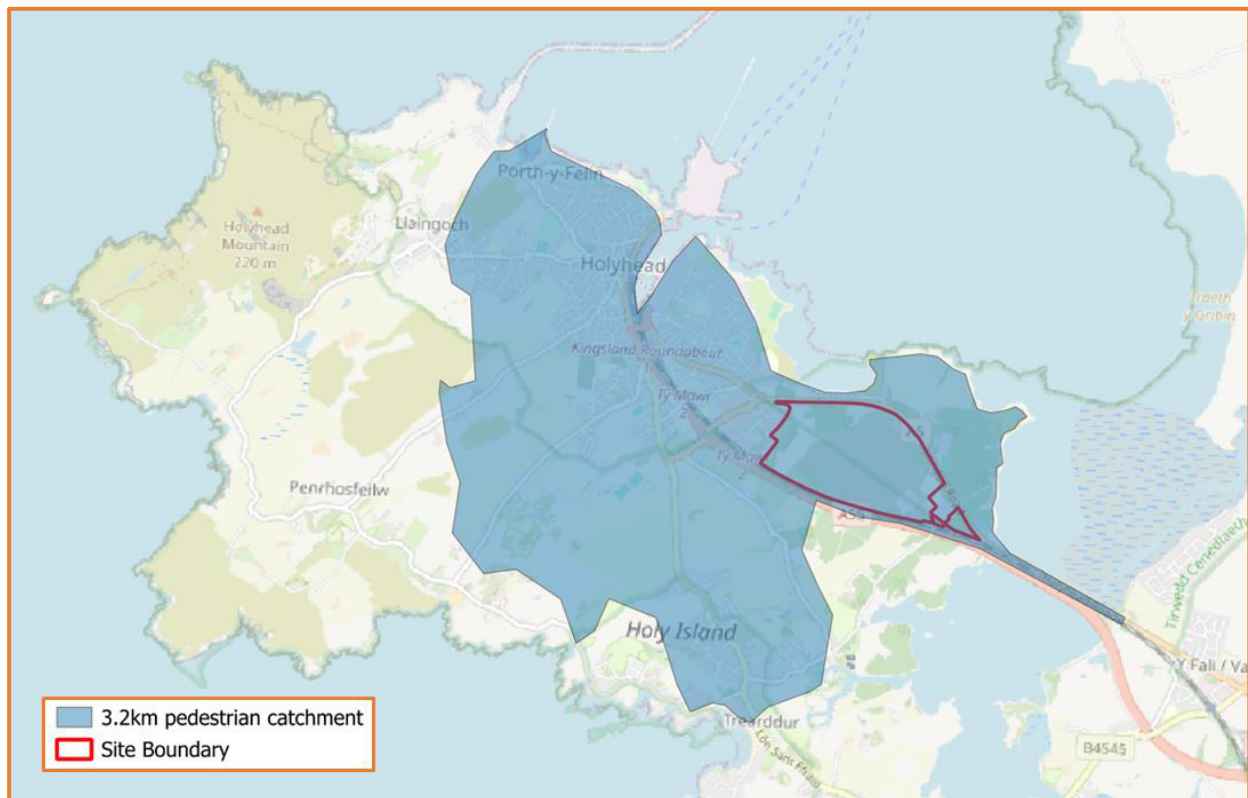


Figure 7: 3.2km (2 mile) pedestrian catchment area

- 2.27 From the site, there are street-lit footways on both sides of the A5 London Road on the desire line to and from Holyhead to the west. However, the footway on the southern side is narrow and will need to be improved as part of the proposed development. This is detailed further in Section 3.
- 2.28 There are crossing facilities, including dropped kerbs and tactile paving, at the A5/A5153 roundabout to facilitate pedestrian movements. As noted above, further improvements have recently been made to provide dropped kerbs and pedestrian crossings on the A5153.
- 2.29 Opportunities to provide a pedestrian and cycle access through the western boundary of the site to provide a direct connection to the Penrhos Industrial Estate and adjacent Holyhead Retail Park, and thus reduce walking distances to those uses, are still being explored. As such, an access in this location cannot be relied upon, but will be provided if possible subject to third party land constraints.
- 2.30 To the east of the site, there is a footway/cycleway on the northern side of A5 London Road only, and it is not street-lit. However, there is likely to be limited pedestrian demand along that route to and from the east due to the limited residential areas and facilities within walking distance.
- 2.31 Therefore, there are good opportunities for pedestrian travel to and from the site. However, improvements at the main site access junction are required, and will be provided as part of the proposed development. Furthermore, if the option is available to provide a new pedestrian and cycle connection into the site from the west, via Penrhos Industrial Estate, to reduce walking distances to the off-site facilities at Holyhead Retail Park, as well as the bus stops, this will be provided.

2.32 There are no PRow within the site boundary that would be affected by the redevelopment. There are a number of public footpaths, in the area, as well as the recreational coastal path route.

Opportunities for cycle travel

2.33 The Active Travel Act Guidance also outlines the distances cyclists can be reasonably be expected to travel for utility journeys (including those to and from work). Many cyclists are likely to travel up to 5 miles (8km), some cyclists are likely to travel up to 7.5 miles (12km), but very few or no cyclists will travel over 12 miles. A 5 mile/8km catchment from the centre of the site is shown in **Figure 8** below.

2.34 As shown, the 8km cycle catchment includes Holyhead town and most of the north of Holy Island. In addition, the Y Fali/Valley to the east is included in the catchment along with associated amenities.

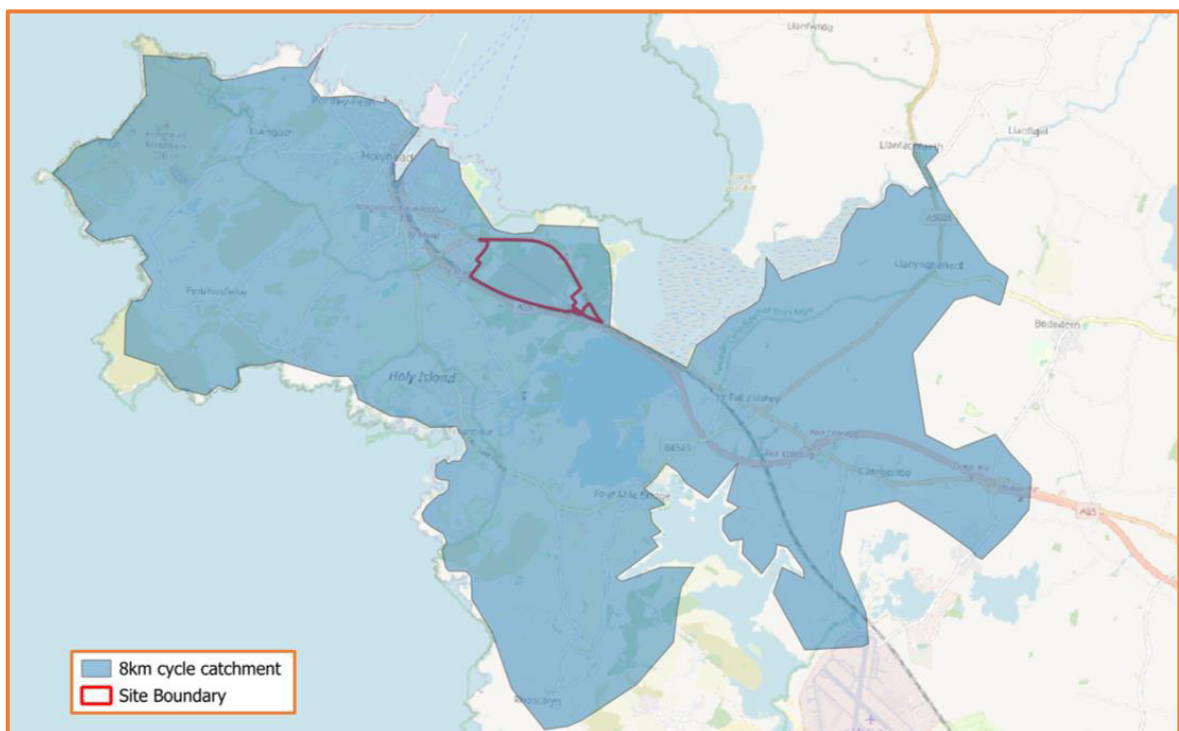


Figure 8: 8km (5 mile) cycle catchment

2.35 With regard to cycle infrastructure, **Figure 9** shows an extract of the Active Travel Map³, and shows that A5 London Road is a designated cycle route, with offroad cycle facilities along the northern side via a shared footway/cycleway linking Holyhead with Valley. The map shows both 'existing routes' and 'future routes'. Existing routes are defined as "current walking and cycling routes that already meet Welsh Government active travel standards, meaning they can be readily used for everyday journeys". Future routes are defined as "new routes that the local authority proposes to create in the future, as well as current routes that are planned for improvement to bring them up to the standards". The future routes along the A5153 to the west of the site are designated as 'short term', and it is assumed that the required improvements were completed as part of the recent improvement works.

³ [Active Travel Network Maps | DataMapWales \(gov.wales\)](https://www.gov.wales/DataMapWales)

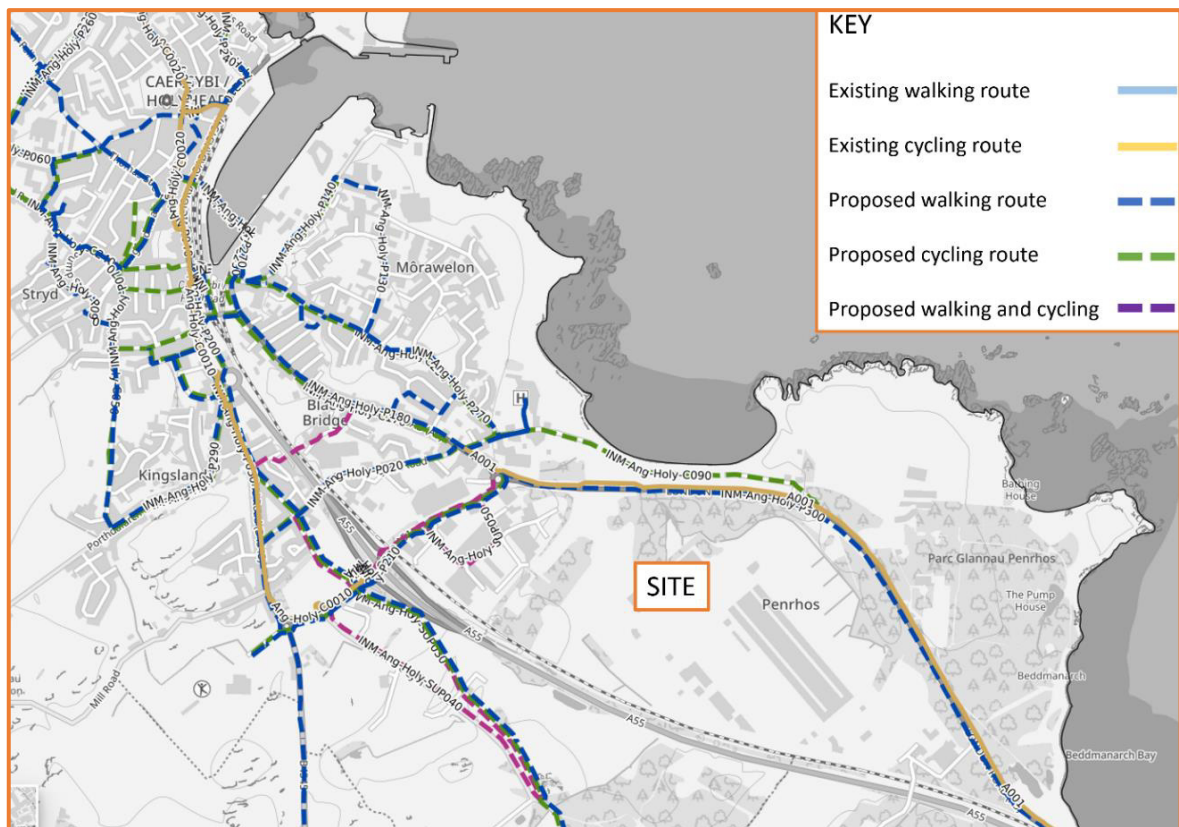


Figure 9: Active Travel Map

2.36 Therefore, there are good opportunities for cycle travel to and from the site, with a number of areas within cycling distance, and existing/recently improvement cycle routes to access the site. However, improvements will be made as part of the proposed development, including the provision of a crossing on the A5 London Road to facilitate access between the site and the existing footway/cycleway on the northern side of the A5 London Road. This is detailed in Section 3. Furthermore, as noted above, if the option is available to provide a new pedestrian and cycle connection into the site from the west, via Penrhos Industrial Estate, to reduce walking and cycling distances to the off-site facilities at Holyhead Retail Park, as well as the bus stops, this will be provided.

Opportunities for bus travel

2.37 **Figure 10** shows the nearest bus stops to the site. The nearest bus stop is around 1,250m from the centre of the site, via the footways along the A5 London Road via the site access on the A5. As detailed earlier, a pedestrian connection through the western boundary would, if deliverable, reduce walking distances to these bus stops to around 800 metres from the centre of the site.

2.38 The table below details the bus services that are operated at these stops. As shown, there is an hourly bus service (number 4) between Holyhead and Llangefni.

2.39 As part of the development proposals, it is proposed to provide a bus service into the site and provide new high quality bus stops within the site. This is detailed further in Section 3.

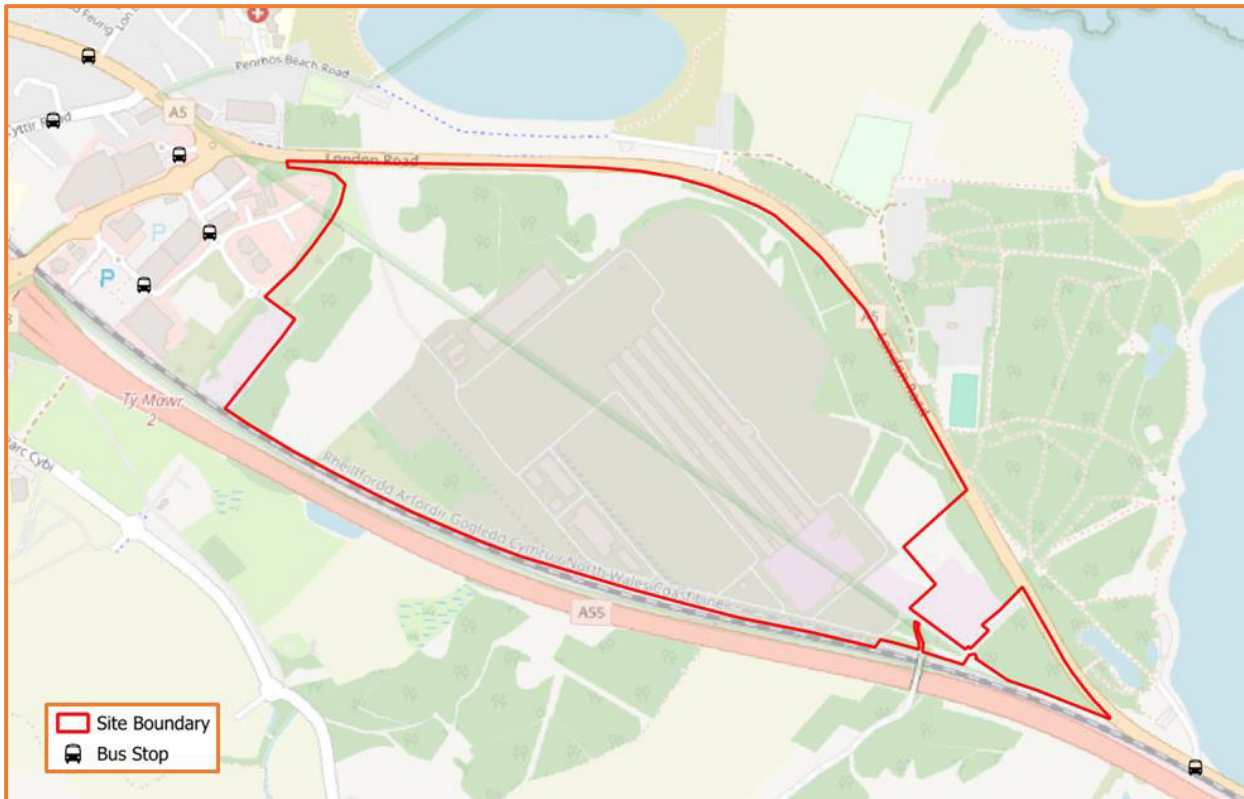


Figure 10: bus stops within the vicinity of the site

Service	Route	Days of Operation	Times	Approx frequency
4	Holyhead to Bangor via Llangefni	Mon – Sat Sun	05:43 to 22:10 09:51 to 21:51	Every hour Every 2 hours
	Bangor to Holyhead via Llangefni	Mon – Sat Sun	06:45 to 23:00 08:46 to 20:46	Every hour Every 2 hours
21A	Holyhead	Mon-Sat	10:23 to 16:42	Every 90 mins
24	Holyhead	Mon-Sun	11:28, 14:38	2 services
24A	Holyhead	Mon-Sun	10:12, 12:47, 16:02	3 services
25	Holyhead - Aberffraw	Mon-Sat	12:07, 15:49	2 services
	Aberffraw - Holyhead	Mon-Sat	11:04, 14:38, 17:46	3 services
61	Holyhead – Cemaes - Amlwch	Mon-Fri Sat	07:49 to 17:06 08:34 to 17:06	Every 2 hours Every 3 hours
	Amlwch – Cemaes - Holyhead	Mon-Fri Sat	06:45 to 15:20 07:30 to 15:20	Every 2 hours Every 3 hours

Opportunities for rail travel

2.40 The railway network within the vicinity of the site is outlined in **Figure 11** below.



Figure 11: railway network within the vicinity of the site

- 2.41 The closest railway station to the site is Holyhead, approximately a 3-minute drive, 6-minute cycle, or 25-minute walk from the site. The station is served by Transport for Wales and Avanti West Coast, and direct services are provided to key national destinations including Swansea, Cardiff, Shrewsbury, Crewe, Birmingham, Manchester, and London.
- 2.42 There are 4 trains a day to London Euston during the week and 3 a day at the weekend. Services to Manchester Piccadilly are offered twice a day during the week and on Saturdays. On Sundays there are limited services to Cardiff, Crewe, Birmingham, and Manchester Airport.
- 2.43 Holyhead Station has 10 cycle parking spaces, and a taxi rank. Bus service 4 also routes to Holyhead station. There are therefore good opportunities for rail travel as part of a multi-modal journey to and from the site.

Summary and conclusions

- 2.44 There are good opportunities for pedestrian, cycle, bus and rail travel to and from the site, which is consistent with the previous use of the site as a large employment area. Nevertheless, improvements will be made to facilitate sustainable travel, as detailed in Section 3.

3.0 PROPOSED DEVELOPMENT

Development proposals

- 3.1 As detailed in Section 1, the outline planning application for the Prosperity Parc redevelopment is for a 'Data Centre and Technology Park (or Parc)' comprising of the following:
- up to 10,000sqm B1 office floorspace
 - up to 5,000sqm B1 research and development space
 - minimum of 223,000sqm B8 Data Centre use (with the Data Centre use exclusively, and no standard B8 storage and distribution uses)
 - a battery energy storage system (BESS), with a capacity of up to 349MW.
- 3.2 The outline planning application seeks a total proposed GFA of up to 238,000sqm. Therefore, within this maximum, the B8 Data Centre GFA could get larger if the B1 office and/or B1 research and development GFA ultimately reduces.
- 3.3 There will be no B2 industrial/manufacturing use, and no standard B8 storage and distribution uses. This can be controlled with an appropriately worded planning condition.
- 3.4 The Prosperity Parc site has a very high electrical power connection, and hence is well suited to accommodate large scale Data Centre use⁴. The Data Centre unit(s) will consist of very large proportions of plant, cooling equipment, and energy storage/back up generators, and only a very small proportion of each building will be populated by people (albeit it's all accessible for maintenance, etc). It is expected that around 10% of the Data Centre unit(s) will be 'office' space, with the rest being 'white' space full of databanks and other kit. Hence, the job creation and traffic generation associated with this use will be low in comparison to the floor space (see paragraph 3.13).
- 3.5 As the application is in outline, the application is supported by a Parameters Plan, contained in **Appendix A**. An illustrative masterplan is also contained in **Appendix A**. As an outline application, details regarding car parking, cycle parking and HGV servicing arrangements are not available at this stage. Nevertheless, they will ultimately be provided in accordance with the relevant standards.

Timescales

- 3.6 It is envisaged that, subject to planning consent being granted in Spring 2025, the site will open in 2026, and be fully open and operational by 2031. The timescales are linked to the Freeport and associated financial benefits (tax relief etc).

Occupiers

- 3.7 At this stage, there are no known occupiers for any of the uses at the development.
- 3.8 The Scoping Study provided context on the historical, existing and consented uses on the site. The existing uses include three businesses – Stena/Anglesey Land Holdings, Eirfuels who operate the P20, and a retail and food warehouse associated with the port. These uses generate around

⁴ It is understood that when the former aluminium smelting site was active, it was the single largest user of electricity in the UK.

40 two-way trips per day. However, to confirm, it is expected that none of these uses will remain permanently at the site as part of the redevelopment.

3.9 The consented uses at the site include a 299Mw BioMass power station, a waste processing/recycling centre, and a Battery Energy Storage System (BESS). The BioMass power station use is forecast to generate around 100 two-way trips per day, with the other two uses generating only minimal flows. To confirm, the BioMass consent will not be implemented, and the land will be used for the proposed development. Only the BESS will be incorporated and constructed within the Prosperity Parc site (hence the inclusion in the development description in paragraph 3.1).

3.10 Therefore, 140 two-way trips per day could be discounted from the proposed trip generation, so that only the net trip generation is assessed. However, for the purposes of a robust assessment, no existing/consented use traffic has been taken into account.

Jobs

3.11 The typical standard employment densities⁵, and associated resultant number of full time equivalent (FTE) jobs is shown in the table below.

Use	standard employment densities (FTE per 100sqm)	density from range	proposed GFA (in sqm)	minimum resultant number of FTE jobs at Prosperity Parc	maximum resultant number of FTE jobs at Prosperity Parc	assumed number of FTE jobs at Prosperity Parc
B1 general office	1 per 12sqm	833	10,000	833	833	833
B1 R&D space	1 per 40-60sqm	83-125	5,000	83	125	125
B8 Data Centres	1 per 200-950sqm	235-1,115	223,000	235	1115	670⁶
Total				1,151	2,073	1,628

3.12 In the absence of confirmed end-users or occupiers of the site, it is appropriate to make assumptions based around generic data or other intelligence about local labour markets and economic context. The standard employment densities provide a range for many land-uses or types of building, and in the case of datacentres, that range is very wide. While emerging Freeport work suggests the site might conservatively deliver in the region of 770 jobs (albeit for a smaller area than the application site), based on standard employment densities for the B1 office and B1 research and development uses, and site-specific densities for the Data Centre, Prosperity Parc could accommodate in the region of 1,628 employees for the development mix detailed in Section 3.1. While the employee numbers could sit anywhere within a range up to 2,073 as shown

⁵ Standard employment densities are taken from the ‘Homes and Communities Agency – Employment Density Guide – 3rd Edition, November 2015

⁶ Initial work for the Freeport suggested a density of a job per 333 sq.m. on a smaller site. If applied pro-rata to the planning application, this would suggest the proposed development would deliver around 670 datacentre jobs, as shown in the table at paragraph 3.11.

in the table above, it is considered that the 1,628 figure provides a robust assessment of the likely number of employees and is broadly consistent with the emerging Freeport analysis.

Site access

- 3.13 The site is accessed via an existing priority-controlled T-junction on the A5 London Road, as shown in **Figure 12**. The junction includes a ghost island right turn lane of approximately 2.5m in width. This is below the minimum recommended width of 3.5m⁷ but the junction operates satisfactorily in capacity terms, has no adverse safety record, and it would satisfactorily accommodate HGV movements. The junction operation is examined further in Section 7. Hence, it is proposed to retain the existing carriageway layout in its current form.
- 3.14 The junction has good visibility in both directions from the site access, and good forward visibility from the right turn lane on the A5. The visibility is in excess of the 43m required based on the 30mph speed limit as shown in **Drawing 3377-ADC-HGN-XX-DR-CH-0100 S1 P01**.
- 3.15 As part of the development proposals, improvements would be made to facilitate pedestrian/cycle access. As shown in **Drawing 3377-ADC-HGN-XX-DR-CH-0100 S1 P01**, it is proposed to provide a 3m wide footway/cycleway alongside the main site access carriageway, and provide an uncontrolled crossing with central refuge on the A5 London Road to facilitate access to the existing footway/cycleway on the northern side of the A5 London Road.
- 3.16 Section 12.4 of the Active Travel Act Guidance (July 2021) describes the options for crossing types, based on the speed limit, total traffic flow to be crossed and the number of lanes to be crossed in one movement. Based on the 30mph speed limit, the forecast AADT flow in 2031 with the development in place, and the provision of a central island so that only one lane needs to be crossed, an uncontrolled crossing is suitable.
- 3.17 **Drawing 3377-ADC-HGN-XX-DR-CH-0100 S1 P01** shows the swept path of a 16.5m HGV turning right in and left out of the site (i.e. to and from the west). As shown, the vehicles can be accommodated within the lane markings.
- 3.18 In order to reduce impacts on the village of Valley, all HGVs would be instructed to arrive and depart via the A55 Junction 2. Nevertheless, **Drawing 3377-ADC-HGN-XX-DR-CH-0100 S1 P01** also shows the swept path of a 16.5m HGV turning left in and right out of the site (i.e. to and from the east), to demonstrate that the manoeuvre can be achieved safely within the junction layout, should it be necessary.
- 3.19 There is an existing access onto the A5 via a simple T-junction with ghost island right turn lane at the north-eastern site boundary, which serves the existing employment development, as shown in **Figure 3**. This would be retained as a secondary/emergency access for the proposed development.
- 3.20 Within the site, the access road and internal road layout would be private. However, in order to reduce walking distances for employees and visitors travelling by bus, new bus stops and a bus turning area (for example via an internal roundabout) would be provided within the site. Given the application is in outline, a planning condition requiring details of bus access/integration as part of the Reserved Matters application could be used to secure this.

⁷ Paragraph 6.10 and 6.10.1 of DMRB CD123 'Geometric design of at-grade priority and signal controlled junctions', Nov 2021, states that the minimum width of right turning lanes should be 3.5m at both new and existing junctions.



Figure 12: existing access junction

Sustainable travel infrastructure

- 3.21 As detailed above, pedestrian and cycle access would be improved as part of the proposed development, with pedestrian/cycle routes at the site access junction and through the site. Given the outline nature of the proposals, exact details of the location of the routes within the site cannot be provided at this stage. At the site access junction, a footway/cycleway connection is proposed along the main site access road, and an uncontrolled crossing is proposed on the A5 London Road to facilitate access to the existing footway/cycleway on the northern side of the A5 London Road. This is shown in **Drawing 3377-ADC-HGN-XX-DR-CH-0100 S1 P01**. Secure, covered cycle parking would also be provided for staff and visitors to all units within the site.
- 3.22 As noted above, the opportunities to provide a new pedestrian/cycle access through the western boundary of the site, connecting to the existing infrastructure through the Penrhos Industrial Estate and Holyhead Retail Park is being explored. Whilst this cannot be relied upon, it will be provided subject to any third party land constraints.
- 3.23 As discussed with IoACC, it is proposed to provide a bus service into the site, and provide new high quality bus stops within the site. A bus turning area would also be provided to allow the bus to loop in and out of the site access junction. As the application is in outline only, and there is no fixed masterplan, the location of the bus stops and bus turning area have not yet been defined. Nevertheless, due to the security requirements of the site, the bus stops and turning area would be located within the western part of the site and outside of the main secure area. Arriva have been approached about providing a bus service into the site, and have suggested the provision of a new hourly bus service between Holyhead and Prosperity Parc (rather than diverting the Service 4). Given the application is in outline, a planning condition requiring details of bus access/integration as part of the Reserved Matters application could be used to secure this. Funding for the bus service would be secured via the Section 106 Agreement.

4.0 PROPOSED TRIP RATES AND TRAFFIC GENERATION

Proposed approach

- 4.1 The original Scoping Study (document reference ADC3377-RP-C-v3 – May 2024) presented trip rates per 100sqm gross floor area (GFA) for a mix of B1, B2, and B8 (warehousing and distribution) uses, which gave traffic flows that were consistent with a site with typical employment densities for those uses. That work was then further advanced to consider trip rates per employee, and that work was presented to both IoACC and WG in a Technical Note ('Response to IoACC's comments on the Transport Assessment Scoping Study' - document reference ADC3377-RP-D v3 – August 2024).
- 4.2 However, following a change to the development proposals to exclude the earlier considered B2 use, and restrict the B8 use to Data Centre use only, revised trip rates per 100sqm GFA were presented and submitted to IoACC and WG in a Trip Generation Technical Note ('Trip Generation – document reference ADC3377-RP-E-v3 – October 2024, copy provided at **Appendix F**). Those trip rates have been used in this Transport Assessment and are repeated below for ease of reference.

Proposed B1 office trip rates and traffic generation

- 4.3 The trip rates and resultant traffic generation of the B1 office uses, with a maximum (worst case) GFA of 10,000sqm are shown in the table below.

TRICS B1 office trip rates (per 100sqm)									
	light vehicles			HGVs			total vehicles		
	arrive	depart	two-way	arrive	depart	two-way	arrive	depart	two-way
AM (8-9am)	1.422	0.072	1.494	0	0	0	1.422	0.072	1.494
IP (12-1pm)	0.248	0.463	0.711	0.008	0.008	0.016	0.256	0.471	0.727
PM (5-6pm)	0.088	1.302	1.39	0	0	0	0.088	1.302	1.39
Daily	4.42	4.355	8.775	0.032	0.032	0.064	4.452	4.387	8.839
Traffic generation (10,000sqm)									
AM (8-9am)	142	7	149	0	0	0	142	7	149
IP (12-1pm)	25	46	71	1	1	2	26	47	73
PM (5-6pm)	9	130	139	0	0	0	9	130	139
Daily	442	436	878	3	3	6	445	439	884

Proposed B1b research and development trip rates and traffic generation

- 4.4 The trip rates and resultant traffic generation of the B1 research and development uses, with a maximum (worst case) GFA of 5,000sqm are shown in the table below.

TRICS Research and Development trip rates (per 100sqm)									
	light vehicles			HGVs			total vehicles		
	arrive	depart	two-way	arrive	depart	two-way	arrive	depart	two-way
AM (8-9am)	0.591	0.257	0.848	0.038	0.022	0.06	0.629	0.279	0.908
IP (12-1pm)	0.366	0.421	0.787	0.03	0.027	0.057	0.396	0.448	0.844
PM (5-6pm)	0.198	0.521	0.719	0.007	0.013	0.02	0.205	0.534	0.739
Daily	4.463	4.476	8.939	0.306	0.295	0.601	4.769	4.771	9.54
Traffic generation (5,000sqm)									
AM (8-9am)	30	13	42	2	1	3	31	14	45
IP (12-1pm)	18	21	39	2	1	3	20	22	42
PM (5-6pm)	10	26	36	0	1	1	10	27	37
Daily	223	224	447	15	15	30	238	239	477

Proposed B8 Data Centre trip rates and traffic generation

4.5 The trip rates and resultant traffic generation of the B8 Data Centre, with a minimum GFA of 223,000sqm are shown in the table below.

TRICS B8 Data Centre trip rates (per 100sqm)									
	light vehicles			HGVs			total vehicles		
	arrive	depart	two-way	arrive	depart	two-way	arrive	depart	two-way
AM (8-9am)	0.096	0.025	0.121	0.004	0.004	0.008	0.1	0.029	0.129
IP (12-1pm)	0.029	0.04	0.069	0.000	0.000	0.000	0.029	0.04	0.069
PM (5-6pm)	0.016	0.063	0.079	0.000	0.000	0.000	0.016	0.063	0.079
Daily	0.706	0.698	1.404	0.019	0.018	0.037	0.725	0.716	1.441
Traffic generation (223,000sqm)									
AM (8-9am)	214	56	270	9	9	18	223	65	288
IP (12-1pm)	65	89	154	0	0	0	65	89	154
PM (5-6pm)	36	140	176	0	0	0	36	140	176
Daily	1574	1557	3131	42	40	83	1617	1597	3213

Total vehicle movements

4.6 The total forecast peak hour vehicle movements are shown in the table below. These flows are used within the remainder of this Transport Assessment.

total traffic generation (238,000sqm)									
	light vehicles			HGVs			total vehicles		
	arrive	depart	two-way	arrive	depart	two-way	arrive	depart	two-way
AM (8-9am)	386	76	461	11	10	21	396	86	482
IP (12-1pm)	108	156	264	3	2	5	111	158	269
PM (5-6pm)	55	296	351	0	1	1	55	297	352
Daily	2239	2217	4456	60	58	119	2300	2275	4574

4.7 The above traffic generation is robust when compared with the potential number of employees at Prosperity Parc, which could potentially be as high as around 2,073 employees, as detailed in paragraph 3.12.

4.8 Furthermore, the traffic flows in the table at paragraph 4.6 represent the worst case scenario based on the development quantum and mix detailed in paragraph 3.1. As the Data Centre trip rates are the lowest, the total traffic generation will reduce from that shown in the table above if

the B1 office and B1 research and development GFA ultimately reduces and the B8 Data Centre floor area increases within the total limit of 238,000sqm.

- 4.9 The Travel Plan includes a target to reduce car trips by 10%. Hence, the table below presents the vehicle movements with the Travel Plan in place. However, for the purposes of a robust assessment, this Transport Assessment does not take the Travel Plan reduction into account, as agreed with IoACC.

total traffic generation with Travel Plan									
	light vehicles ⁸			HGVs			total vehicles		
	arrive	depart	two-way	arrive	depart	two-way	arrive	depart	two-way
AM (8-9am)	347	68	415	11	10	21	358	78	436
IP (12-1pm)	97	140	238	3	2	5	100	142	243
PM (5-6pm)	50	266	316	0	1	1	50	267	317
Daily	2015	1995	4010	60	58	119	2075	2053	4129

Trip types

- 4.10 All of the light vehicle arrivals and departures have been assumed to be new trips on the highway network, associated largely with staff travelling to and from work at Prosperity Parc. These are assigned to the highway network in Section 5 using the agreed distribution pattern.
- 4.11 Originally, when the planning application was to include B2 and B8 warehouse and distribution uses, it was agreed with the highway authorities that there would be 50% HGV interaction with Holyhead Port, and hence it was assumed that there would be both new (20%) and transferred (30%) HGV trips between the site and the port. It was assumed that the remaining 50% would be new HGV trips on the A55 to and from the east. However, given the proposed uses, and now that no B2 or B8 storage and distribution uses are proposed, it is assumed that all HGVs will be new trips, with no transferred trips from the port. The revised HGV assignment pattern is detailed in Section 5.

Modal split and person trip generation

- 4.12 The agreed baseline modal split is shown in the table below:

	foot	cycle	public transport	driving a car or van	passenger in a car or van	total
proposed baseline modal split	5%	2%	4%	80%	9%	100%

- 4.13 The baseline modal split and associated person trip generation (based on the light vehicle trip generation in the table at paragraph 4.6) is shown in the table below.

	foot	cycle	public transport	driving a car or van	passenger in a car or van	total
proposed baseline modal split	5%	2%	4%	80%	9%	100%
daily person trips	279	111	223	4456	501	5570

⁸ The car driver modal share is 80% of all trips. Hence this will be reduced by 10% to 72%. The light vehicles in this table have therefore been reduced by 10%.

- 4.14 Again, based on the likely jobs at Prosperity Parc, the above figures are robust. Nevertheless, it is considered that the existing infrastructure (Section 2) and proposed infrastructure (Section 3) would be suitable to accommodate the increase in trips by each mode.

5.0 VEHICLE TRIP DISTRIBUTION AND ASSIGNMENT

Light vehicles (staff and visitors)

5.1 The agreed light vehicle distribution pattern, based on 2011 Census data, is shown in **Diagram 4 in Appendix E**, and illustratively in **Figure 13** below. The development traffic, from the table in paragraph 4.6, was assigned in accordance with the distribution pattern, as shown in **Diagrams 5, 6 and 7 in Appendix E** for the morning, interpeak and evening peak hour.



Figure 13: distributed routes

HGVs

5.2 The proposed HGV distribution pattern is shown in **Diagram 3**. As shown, all HGVs would route between the site and the A55 Jct 2. Of the 100% of HGVs at the A55 Jct 2, it is assumed that half would route to and from the east, and the remainder would route to and from the west. This broadly reflects the observed HGV turning movements at the A55 Jct 2 (in terms of turning movements to and from the A5153) in the morning and evening peak hours, as shown in **Diagrams 1 and 3**. The development traffic assignment is shown in **Diagrams 5, 6 and 7 in Appendix E** for the morning, interpeak and evening peak hour. As shown, the HGV trip generation is low, at 21, 5 and 1 two-way trips in the morning, interpeak and evening peak hour, and even these low figures are considered to be robust.

6.0 ASSESSMENT TRAFFIC FLOWS

Assessment year and growth rates

6.1 As detailed earlier, assuming planning consent is granted in Spring 2025, the development could open in 2026, and be fully constructed and operational by 2031. Hence, assessment years of 2026 and 2031 have been agreed with IoACC and used for the local highway network.

6.2 The observed 2024 data was growthed to 2026 and 2031 using the following agreed TEMPRO Core Scenario growth rates from TEMPRO v8.1 for the Isle of Anglesey 004 MSOA:

2024 to 2026

- AM peak hour 1.014
- PM peak hour 1.012.

2024 to 2031

- AM peak hour 1.060
- PM peak hour 1.057.

The TEMPRO output is contained in **Appendix G**. The 2026 base traffic flows are shown in **Diagrams 8 and 9 in Appendix E**, and the 2031 base traffic flows are shown in **Diagrams 10 and 11 in Appendix E**.

6.3 The WG junctions are assessed in 2030 (application +5 years) and 2040 (application +15 years). The assessment year scenarios were agreed with WG and were calculated using the following TEMPRO Core Scenario growth rates, which were presented in the Trip Generation Technical Note ('Trip Generation – document reference ADC3377-RP-E-v3 – October 2024).

2024 to 2030

- AM peak hour 1.053
- IP peak hour 1.043
- PM peak hour 1.050.

2024 to 2040

- AM peak hour 1.115
- IP peak hour 1.091
- PM peak hour 1.106.

The TEMPRO output is contained in **Appendix H**. The 2030 base traffic flows are shown in **Diagrams 12 to 14 in Appendix E**. The 2040 base traffic flows are shown in **Diagrams 15 to 17 in Appendix E**.

6.4 It is highlighted that TEMPRO already includes committed and allocated sites within the planning assumptions used to calculate the growth rates. Hence, Prosperity Parc and the adjacent Parc Cybi, as safeguarded employment sites, are already included for within TEMPRO. Hence, there is an element of double counting, which means the future assessment traffic flows are robust.

Committed development

6.5 There are a number of committed developments in the vicinity of the site, some of which are now operational, which have been considered through the pre-application discussions. This includes:

- Penrhos Coastal Park (Land and Lakes)
- Parc Cybi.
- Holyhead Interim Inland Border Facility Service.
- Holyhead Hydrogen Hub.
- Holyhead Border Control Post
- Holyhead Waterfront

- Holyhead Breakwater.

6.6 Following correspondence with IoACC, it was agreed that only Parc Cybi and Land and Lakes need to be considered.

6.7 With regards to Parc Cybi, IoACC state “ADC should consider the site as fully developed...”.

6.8 Therefore, the traffic flows for the Parc Cybi development have been included. The flows have been extracted from the Technical Note prepared in March 2013 by Curtins Consulting for the Land and Lakes development. That Technical Note states that the Parc Cybi traffic flow figures were approved by both IoACC and WG. The extracts showing the morning and evening peak hour assigned Parc Cybi traffic flows are contained in **Appendix I**. No traffic flows are provided for the interpeak period. The extracts in **Appendix I** show Parc Cybi generating the following traffic flows:

	arrive	depart	two-way
AM	765	176	941
PM	404	862	1266

6.9 However, parts of the Parc Cybi are already operating and generating traffic. A traffic count was undertaken at the A5153/Parc Cybi roundabout on Wednesday 17 July 2024, between 0730-0930, 1230-1530 and 1630-1830 hours. This shows that the site currently generates the following flows:

	arrive	depart	two-way
AM	22	30	52
IP	43	37	80
PM	41	44	85

6.10 Therefore, in the morning peak hour, Parc Cybi is already generating 5.5% of the agreed traffic in the morning peak hour, and 6.7% in the evening peak hour. Hence, to avoid double counting, the agreed Parc Cybi traffic flows were factored by 94.5% in the morning peak hour and 93.3% in the evening peak hour across the network. This was agreed with IoACC.

6.11 As no interpeak traffic flows were available to replicate, they have instead been calculated manually by averaging the morning and evening peak hour flows for Parc Cybi as shown in **Diagrams 18 and 20 in Appendix E**, and factoring the result to 80%. This is because the B1/B2/B8 trip rates used in the original Scoping Study (comparable to the uses at Parc Cybi) found the traffic generation within the interpeak to be 80.1% of the peak hour traffic flows. Hence, in the absence of a more suitable method to determine the interpeak peak hour Parc Cybi flows, this was considered robust.

6.12 The Parc Cybi traffic flows are shown in **Diagrams 18, 19, and 20 in Appendix E** for the morning, interpeak and evening peak hour.

6.13 With regards to Land and Lakes, IoACC stated “the IoACC would consider it reasonable to consider the development traffic flows associated with the Penrhos site, given its proximity to the Prosperity Parc site”. This request was despite pre-application discussions about the uncertainty of the scheme coming forwards.

6.14 Nevertheless, for the purposes of a robust assessment, the traffic flows for the Penrhos site were extracted, as shown in **Diagrams 21 and 22 in Appendix E** for the morning and evening peak hours. The extracts are shown in **Appendix J**. As shown, in terms of the study area junctions,

only the A5/A5025 signal controlled crossroads in Valley and the A55 Junction 3 experience an increase in traffic as a result of the Penrhos site. No data is available for the interpeak hour, but given the proposed uses (and traffic associated with check-in/check-out), the interpeak traffic is considered to be minimal and has therefore not been separately calculated.

6.15 The total committed development traffic flows are shown in **Diagrams 23 to 25 in Appendix E**.

Background flows

6.16 The total committed development traffic flows were added to the base traffic flows to provide background traffic flows.

6.17 The 2026 background traffic flows, including committed development, are shown in **Diagrams 26 and 27 in Appendix E**.

6.18 Similarly, the 2031 background traffic flows including the committed development are shown in **Diagrams 28 and 29 in Appendix E**.

6.19 For the WG junctions, the 2030 background traffic flows, including committed development, are shown in **Diagrams 30, 31 and 32 in Appendix E**, and the 2040 background traffic flows including committed development are shown in **Diagrams 33, 34, and 35 in Appendix E**.

With development flows

6.20 The development traffic flows shown in **Diagrams 5, 6 and 7 in Appendix E** were added to the background flows, to provide 'with development' flows.

6.21 The 2026 with development traffic flows, including committed development, are shown in **Diagrams 36 and 37 in Appendix E**.

6.22 Similarly, the 2031 with development traffic flows including the committed development are shown in **Diagrams 38 and 39 in Appendix E**.

6.23 For the WG junctions, the 2030 with development traffic flows, including committed development, are shown in **Diagrams 40, 41 and 42 in Appendix E**, and the 2040 background traffic flows including committed development are shown in **Diagrams 43, 44, and 45 in Appendix E**.

Study area

6.24 Based on the forecast increase in trips, the agreed study area comprises the following junctions:

- 1) A55/A5154/London Road signal controlled T-junction
- 2) A55 Junction 1 – A55/Kingsland Road roundabout
- 3) A55 Junction 2 – TY Mawr Interchange
- 4) A55 Junction 3 – Pencaledog Interchange
- 5) A5153/Penrhos Industrial Estate roundabout (W)
- 6) A5153/Penrhos Industrial Estate roundabout (E)
- 7) A5/A5153/Tesco roundabout
- 8) A5/A5025 signal controlled crossroads in Valley.

7.0 HIGHWAY IMPACT

Introduction

7.1 This section examines the operation of the study area junctions and the impact of the additional traffic generated by the development. Each junction is assessed in the relevant assessment year.

A5 London Road/site access junction

7.2 The layout of the A5 London Road/site access junction is shown in **Figure 12**. A PICADY model of the junction was created, with geometries calculated from OS mapping. The junction was modelled in the assessment years of 2026 (opening year) and 2031 (opening year + 5 years). The geometries are shown in the plan in **Appendix K**, together with the PICADY output. The results are summarised in the table below.

scenario	arm	AM peak hour			PM peak hour		
		queue (vehs.)	delay (secs.)	ratio of flow to capacity	queue (vehs.)	delay (secs.)	ratio of flow to capacity
2026 with development	Site access right turn	0.1	6.87	8%	0.4	7.85	29%
	Site access left turn	0.1	11.29	11%	0.5	12.80	34%
	A5 W right turn	0.8	12.15	46%	0.1	6.11	5%
2031 with development	Site access right turn	0.1	6.97	10%	0.4	7.97	29%
	Site access left turn	0.1	11.69	11%	0.5	13.21	34%
	A5 W right turn	0.8	12.30	46%	0.1	6.16	6%

7.3 As shown, the junction is forecast to operate well below 85% ratio of flow to capacity (RFC) and with minimal queueing and delay. The existing junction layout is therefore suitable to accommodate the development traffic flows.

7.4 As detailed in Section 2, there have been no accidents at or in the vicinity of the junction in the last five years. Therefore, as the junction would operate within capacity, without queueing, the existing junction (enhanced with the proposed pedestrian and cycle facilities) is suitable to serve the development.

A55/A5154/London Road signal controlled T-junction

7.5 The layout of the A55/A5154/London Road signal controlled junction is shown in **Figure 14**. Due to the proximity of the A55/London Road signal controlled junction, the two junctions were modelled in LinSig as a network.

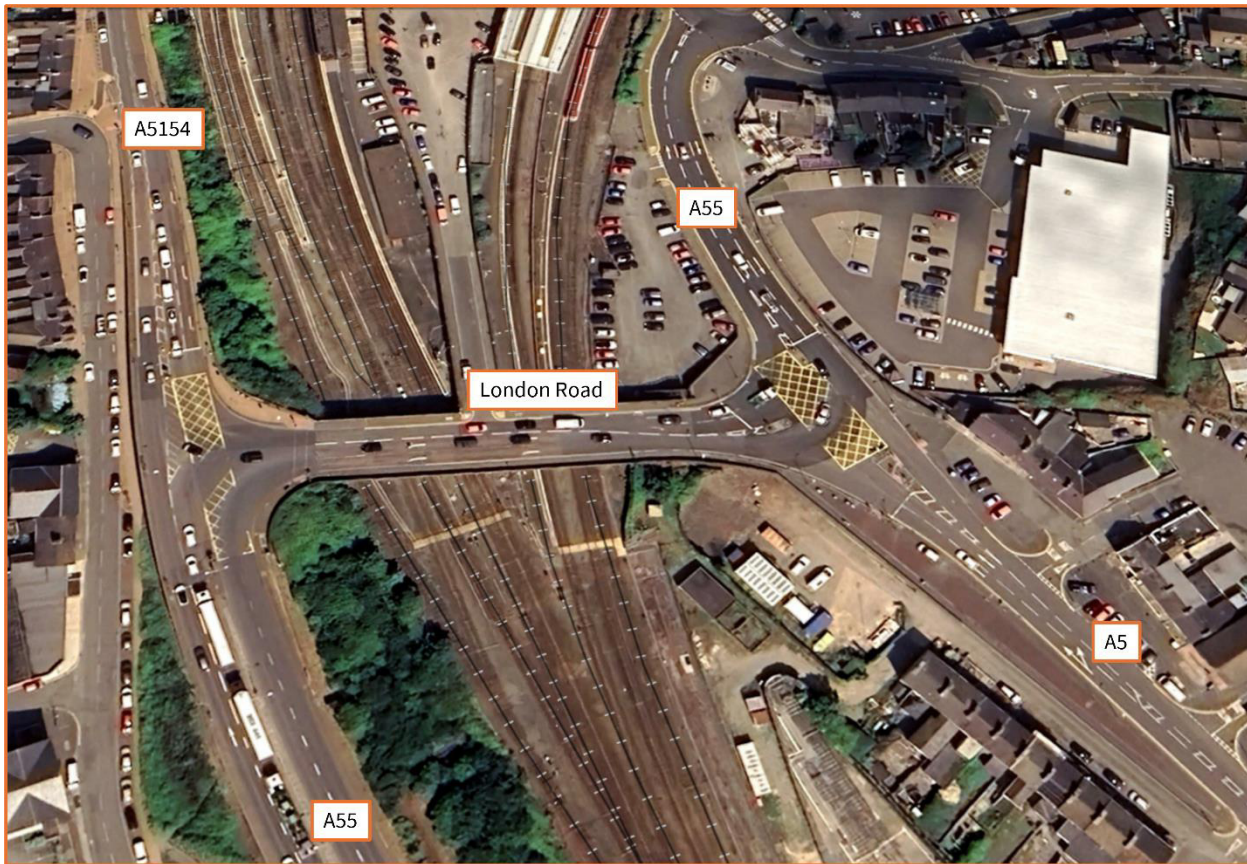
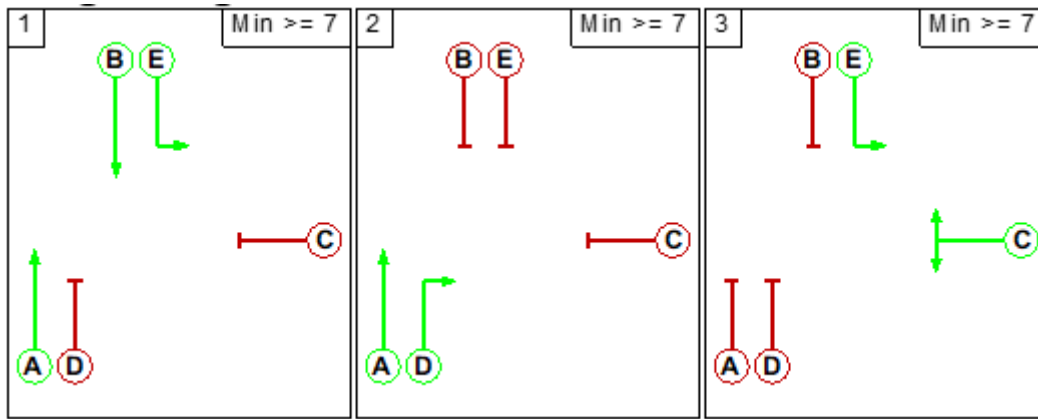


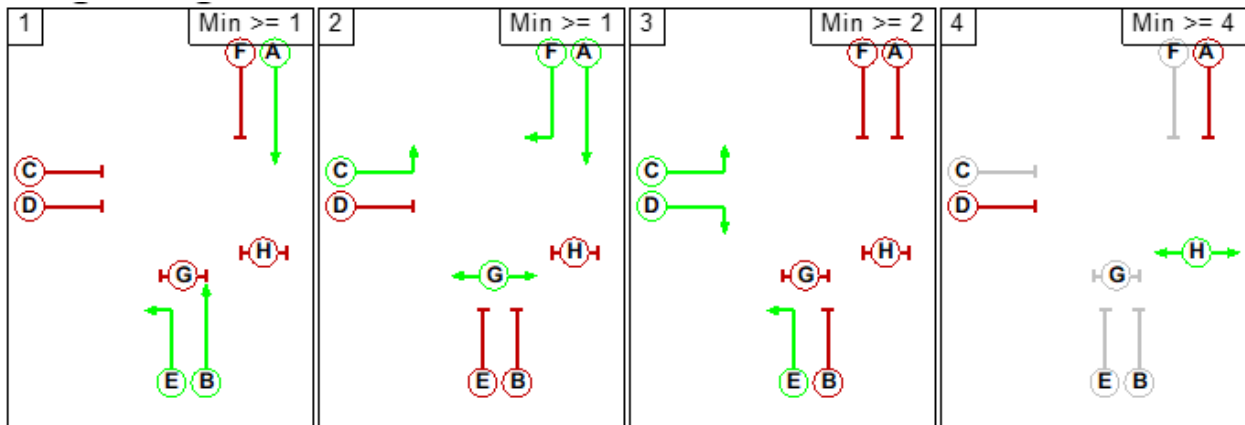
Figure 14: A55/A5154/London Road and A55/London Road junctions

- 7.6 The control spec and traffic signal timing information was requested from WG, but it was not provided. Hence, the LinSig model was set up without it, based on inspection of the on-street operation. The junctions were modelled in the assessment years of 2024, 2030 (application + 5 years) and 2040 (application + 15 years). The LinSig outputs are contained in **Appendix L** and the results are summarised below. The results are summarised for J1 A5154/A55 to the west and J2 A5/A55 London Road to the east.
- 7.7 The results show that the junctions currently operate within the theoretical capacity (90% degree of saturation), with short delays and queues in both peak hours in all scenarios.
- 7.8 In 2040, with the development in place, there would be a maximum queue of 7 PCUs on the London Road arm at the A5/A55 jct in the morning peak hour and interpeak, and a maximum of 7.6 in the evening peak hour. This can be accommodated on the bridge without blocking back to the J2 A55/London Road junction.
- 7.9 Similarly, in 2040, with the development in place, there would be a maximum queue of 2.3 PCUs on the London Road arm at the A5154/A55 jct in the morning peak hour and 2.0 PCUs in the interpeak, and a maximum of 2.4 in the evening peak hour. Again, this can be accommodated on the bridge without blocking back to the J1 A5154/A55 junction.



Peak	Scenario	Cycle time (secs)	PRC (%)	Total delay (PCUhr)	Highest Degree of Saturation (%)	Longest MMQ (m)
AM	2024 observed	90	65.9%	12.58	54.3%	6.0
	2030 background	90	50.9%	13.86	59.6%	7.0
	2030 with development	90	37.7%	14.97	65.4%	9.0
	2040 background	90	43.4%	14.97	62.8%	7.5
	2040 with development	90	31.3%	16.20	68.5%	10.0
IP	2024 observed	90	48.0%	15.20	60.8%	7.9
	2030 background	90	34.2%	16.75	67.1%	7.5
	2030 with development	90	33.4%	17.34	67.5%	8.0
	2040 background	90	28.7%	17.85	69.9%	8.2
	2040 with development	90	27.3%	18.53	70.7%	8.8
PM	2024 observed	90	44.3%	14.54	62.4%	7.1
	2030 background	90	33.2%	16.10	67.6%	8.4
	2030 with development	90	31.6%	16.72	68.4%	9.0
	2040 background	90	26.7%	17.67	71.1%	9.5
	2040 with development	90	25.1%	18.18	71.9%	10.0

J1: A5154/A55 junction results



Peak	Scenario	Cycle time (secs)	PRC (%)	Total delay (PCUhr)	Highest Degree of Saturation (%)	Longest MMQ (m)
AM	2024 observed	90	65.9%	12.58	36.1%	3.9
	2030 background	90	50.9%	13.86	39.5%	4.0
	2030 with development	90	37.7%	14.97	40.2%	4.3
	2040 background	90	43.4%	14.97	39.5%	4.5
	2040 with development	90	31.3%	16.20	43.6%	4.4
IP	2024 observed	90	48.0%	15.20	47.9%	3.9
	2030 background	90	34.2%	16.75	49.9%	4.1
	2030 with development	90	33.4%	17.34	50.0%	4.2
	2040 background	90	28.7%	17.85	52.2%	4.3
	2040 with development	90	27.3%	18.53	53.4%	4.3
PM	2024 observed	90	44.3%	14.54	41.7%	3.9
	2030 background	90	33.2%	16.10	44.6%	4.0
	2030 with development	90	31.6%	16.72	44.7%	4.0
	2040 background	90	26.7%	17.67	47.0%	4.3
	2040 with development	90	25.1%	18.18	47.3%	4.3

J2: A5/A55 London Road junction results

7.10 The proposed development does not have a significant material impact on the operation of the junction, and no mitigation measures are required.

7.11 As detailed in Section 2, no accidents have been recorded at the junction. Hence, no highway safety improvement measures are required as part of the development proposals.

A55 Junction 1 – A55/Kingsland Road roundabout

7.12 The layout of the A55 Junction 1 Kingsland Roundabout is shown in **Figure 15**.



Figure 15: A55 Junction 1 Kingland Roundabout

- 7.13 An ARCADY model of the junction was created, with geometries calculated from OS mapping. The junction was modelled in 2024, 2030 (application + 5 years) and 2040 (application + 15 years). The geometries are shown in the plan in **Appendix M**, together with the ARCADY output. The results are summarised in the table below.

scenario	arm	AM peak hour			IP peak hour			PM peak hour		
		queue (vehs.)	delay (secs.)	ratio of flow to capacity	queue (vehs.)	delay (secs.)	ratio of flow to capacity	queue (vehs.)	delay (secs.)	ratio of flow to capacity
2024 surveyed	A55 (S)	0.4	2.67	27%	0.4	3.01	29%	0.4	2.87	30%
	Kingsland Road (S)	0.5	3.81	31%	0.3	3.41	23%	0.3	3.39	24%
	Kingland Road (N)	1.0	9.78	51%	0.5	7.24	35%	0.6	7.75	39%
	A55 (N)	0.3	2.08	20%	0.3	2.07	21%	0.3	2.01	22%
2030 background (base+ committed development)	A55 (S)	0.4	2.72	28%	0.4	3.07	30%	0.5	2.95	32%
	Kingsland Road (S)	0.5	4.01	35%	0.4	3.55	26%	0.6	4.03	36%
	Kingland Road (N)	1.4	11.92	58%	0.7	8.20	40%	0.8	9.33	46%
	A55 (N)	0.3	2.17	23%	0.3	2.17	24%	0.3	2.10	25%
2030 with development	A55 (S)	0.4	2.80	29%	0.5	3.13	32%	0.5	3.08	35%
	Kingsland Road (S)	0.6	4.13	36%	0.4	3.63	27%	0.6	4.19	37%
	Kingland Road (N)	1.5	12.58	60%	0.7	8.54	41%	0.9	9.98	47%
	A55 (N)	0.4	2.32	28%	0.3	2.20	25%	0.3	2.11	25%
2040 background (base+ committed development)	A55 (S)	0.4	2.81	30%	0.5	3.15	32%	0.5	3.05	33%
	Kingsland Road (S)	0.6	4.24	37%	0.4	3.65	27%	0.6	4.18	37%
	Kingland Road (N)	1.7	13.72	63%	0.7	8.65	42%	0.9	10.13	49%
	A55 (N)	0.3	2.24	25%	0.3	2.20	25%	0.4	2.15	26%
2040 with development	A55 (S)	0.5	2.89	31%	0.5	3.22	34%	0.6	3.19	37%
	Kingsland Road (S)	0.6	4.37	39%	0.4	3.73	28%	0.6	4.34	38%
	Kingland Road (N)	1.8	14.60	65%	0.8	8.98	43%	1.0	10.88	51%
	A55 (N)	0.4	2.39	29%	0.4	2.25	26%	0.4	2.16	27%

7.14 As shown, in 2024, the junction currently operates well below the 85% RFC, with minimal queueing and delay on all arms in all peak hours. This is reflected in the observed queue length data, which shows minimal queueing⁹.

7.15 The growth to 2030 and 2040, and the addition of the committed development traffic, has minimal impact on the operation of the junction, which continues to operate well within acceptable limits.

7.16 The addition of the proposed development traffic has very limited impact on the RFC, queue length, and delay of all arms. The arm with the least spare capacity is Kingsland Road (N) in the

⁹ It is noted that the aerial photograph in Figure 14 shows some queueing on the Kingland Road (N) arm. However, this is not reflected in the observed queue length data in **Appendix B**, which shows minimal queueing throughout the survey period.

morning peak hour. However, by 2040, the development traffic increases the RFC by just 2% to 65% and the delay increases by less than one second with the additional development traffic.

7.17 Therefore, it is concluded that the development does not have a material impact on the operation of the junction, and no mitigation measures are required.

7.18 As detailed in Section 2, two slight accidents have been recorded at the junction. These occurred on different arms of the junction, and in different years. Hence, there is no adverse safety issue with the junction, and no highway safety improvement measures are required as part of the development proposals.

A55 Junction 2 – TY Mawr Interchange

7.19 The layout of the A55 Junction 2 Ty Mawr Interchange is shown in **Figure 16**.



Figure 16: A55 Junction 2 Ty Mawr Interchange

7.20 An ARCADY model of the junction was created, with geometries calculated from OS mapping. The junction was modelled in 2024, 2030 (application + 5 years) and 2040 (application + 15 years). The geometries are shown in the plan in **Appendix N**, together with the ARCADY output. The results are summarised in the table below.

scenario	arm	AM peak hour			IP peak hour			PM peak hour		
		queue (vehs)	delay (secs)	RFC	queue (vehs)	delay (secs)	RFC	queue (vehs)	delay (secs)	RFC
2024 surveyed	A55 (S)	0.2	2.47	14%	0.2	2.88	18%	0.3	3.18	22%
	A5153 (W)	0.1	2.27	11%	0.1	2.41	11%	0.2	2.57	15%
	A55 (N)	0.1	2.91	12%	0.3	3.47	21%	0.2	3.54	18%
	A5153 (E)	0.2	2.34	17%	0.3	2.54	23%	0.4	2.68	28%
2030 background (base+ committed development)	A55 (S)	0.8	4.70	44%	1.1	6.14	52%	0.7	4.77	41%
	A5153 (W)	0.5	2.95	33%	0.5	3.22	34%	1.3	4.98	56%
	A55 (N)	0.3	5.05	24%	0.6	6.63	38%	0.9	12.78	48%
	A5153 (E)	0.6	4.06	38%	0.8	4.61	46%	0.9	5.06	48%
2030 with development	A55 (S)	1.1	5.86	53%	1.3	7.30	58%	0.9	5.79	46%
	A5153 (W)	0.6	3.48	38%	0.6	3.49	36%	1.5	5.96	61%
	A55 (N)	0.7	7.91	42%	0.8	7.61	43%	1.1	14.39	52%
	A5153 (E)	0.7	4.40	42%	1.1	5.15	51%	1.5	6.51	60%
2040 background (base+ committed development)	A55 (S)	0.8	4.90	45%	1.2	6.73	55%	0.8	5.05	43%
	A5153 (W)	0.5	3.02	34%	0.5	3.29	35%	1.4	5.27	58%
	A55 (N)	0.4	5.36	26%	0.	7.10	40%	1.1	14.75	52%
	A5153 (E)	0.7	4.21	40%	0.9	4.82	47%	1.0	5.32	50%
2040 with development	A55 (S)	1.2	6.12	54%	1.5	8.10	61%	1.0	6.21	49%
	A5153 (W)	0.6	3.56	39%	0.6	3.58	37%	1.7	6.36	63%
	A55 (N)	0.8	8.61	45%	0.8	8.22	46%	1.3	16.93	57%
	A5153 (E)	0.8	4.60	44%	1.1	5.44	53%	1.6	6.94	62%

- 7.21 As shown, the junction currently operates well below 85% RFC in all peak hours in 2024. This is reflected in the observed queue length data, which shows minimal queuing.
- 7.22 The background growth to 2030 and 2040, and the inclusion of the committed development traffic (Parc Cybi) has a largely limited impact on the operation of the junction, which continues to operate below 85% RFC, and with minimal queuing and delay. However, whilst it has a low RFC and minimal queue length, the A55 (N) (southbound off-slip) arm is forecast to have a delay of 12.78 seconds in 2030 and 14.75 seconds in 2040 in the evening peak hour (increasing from 3.54 in 2024). This is attributed to the Parc Cybi development, which adds 555 vehicles to the circulatory carriageway past the arm, making it more difficult for vehicles to exit the arm.
- 7.23 The addition of the development traffic does not materially alter the operation of the junction. In the morning peak hour, the arm with the least spare capacity is the A55(S) (the northbound off-slip). In 2040 with the development in place, the RFC increases by 9% to 54%, the queue increases by less than one vehicle to 1.2, and the delay increases by 1.2 seconds of 6.12 seconds. A similarly immaterial impacts occur in the interpeak hour. In the evening peak hour, the arm with the least spare capacity is the A5153 (W) which operates at 63% RFC with a queue of 1.7 vehicles.
- 7.24 In terms of the impact on the delay to the A55(N) arm, the addition of the development traffic worsens the delay by 1.6 seconds in 2030 and by 2.2 seconds in 2040, to 16.9 seconds. This is not a significant increase.
- 7.25 Therefore, it is concluded that the junction can accommodate the development traffic, and no mitigation measures are required.

7.26 As detailed in Section 2, two serious accidents have been recorded at the junction in the last five years. However, these occurred on different arms of the junction, and were different in their nature. Hence, no highway safety improvement measures are required as part of the development proposals.

A55 Junction 3 – Pencaledog Interchange

7.27 The layout of the A55 Junction 3 Pencaledog Interchange is shown in **Figure 17**.



Figure 17: A55 Junction 3 Pencaledog Interchange

7.28 ARCADY models of the junction were created, with geometries calculated from OS mapping for the northern and southern roundabouts. Both roundabouts were modelled in 2024, 2030 (application + 5 years) and 2040 (application + 15 years). The geometries are shown in the plan in **Appendix O**, together with the ARCADY output. The results for the northern roundabout are summarised in the table below.

Northern roundabout	arm	AM peak hour			IP peak hour			PM peak hour		
		queue (vehs)	delay (secs)	ratio of flow to capacity	queue (vehs)	delay (secs)	ratio of flow to capacity	queue (vehs)	delay (secs)	ratio of flow to capacity
2024 surveyed	A5 bridge	0.3	3.66	20%	0.3	3.70	21%	0.5	4.16	32%
	A55 eastbound off-slip	0.1	3.18	9%	0.1	3.09	6%	0.1	3.28	6%
	A5 (N)	0.7	6.76	42%	0.6	6.05	37%	0.4	5.26	29%
2030 background (base+ committed development)	A5 bridge	0.3	3.82	24%	0.3	3.85	24%	0.7	4.72	40%
	A55 eastbound off-slip	0.1	3.27	10%	0.1	3.16	6%	0.1	3.44	6%
	A5 (N)	1.1	8.02	52%	0.8	6.98	46%	0.7	6.24	41%
2030 with development	A5 bridge	0.5	4.19	31%	0.4	3.90	26%	0.7	4.80	41%
	A55 eastbound off-slip	0.1	3.41	10%	0.1	3.19	6%	0.1	3.46	6%
	A5 (N)	1.1	8.54	43%	0.9	7.36	49%	0.7	7.01	48%
2040 background (base+ committed development)	A5 bridge	0.3	3.93	26%	0.3	3.90	25%	0.7	4.87	42%
	A55 eastbound off-slip	0.1	3.32	10%	0.1	3.19	7%	0.1	3.49	7%
	A5 (N)	1.2	8.54	54%	0.9	7.21	47%	0.7	6.40	43%
2040 with development	A5 bridge	0.5	4.27	32%	0.4	4.01	27%	0.7	4.95	43%
	A55 eastbound off-slip	0.1	3.45	11%	0.1	3.23	7%	0.1	3.51	7%
	A5 (N)	1.3	8.89	56%	1.0	7.62	51%	1.0	7.23	49%

7.29 The results for the southern roundabout are shown below.

Southern roundabout	arm	AM peak hour			IP peak hour			PM peak hour		
		queue (vehs)	delay (secs)	ratio of flow to capacity	queue (vehs)	delay (secs)	ratio of flow to capacity	queue (vehs)	delay (secs)	ratio of flow to capacity
2024 surveyed	A5 South	0.2	4.33	14%	0.1	4.17	9%	0.3	4.77	20%
	Farm access	0.0	0.00	0%	0	0	0%	0	0	0%
	A5 Bridge	0.2	4.13	18%	0.1	3.76	11%	0.1	3.7	9%
	A55 westbound off-slip	0.1	2.54	12%	0.1	2.45	12%	0.2	2.58	18%
2030 background (base+ committed development)	A5 South	0.2	4.80	20%	0.2	4.52	14%	0.3	5.18	23%
	Farm access	0.0	0.00	0%	0	0	0%	0	0	0%
	A5 Bridge	0.2	4.21	20%	0.1	3.81	12%	0	3.83	11%
	A55 westbound off-slip	0.2	2.72	18%	0.2	2.61	18%	0.3	2.75	24%
	A5 South	0.3	5.04	20%	0.2	4.58	14%	0.3	5.22	24%

2030 with development	Farm access	0.0	0.00	0%	0	0	0%	0	0	0%
	A5 Bridge	0.2	4.21	20%	0.1	3.81	12%	0.1	3.83	11%
	A55 westbound off-slip	0.3	2.87	23%	0.2	2.66	19%	0.3	2.81	24%
2040 background (base+ committed development)	A5 South	0.3	4.89	21%	0.2	4.58	15%	0.3	5.32	25%
	Farm access	0.0	0.00	0%	0	0	0%	0	0	0%
	A5 Bridge	0.3	4.27	21%	0.1	3.83	13%	0.1	3.86	12%
	A55 westbound off-slip	0.2	2.76	19%	0.2	2.66	18%	0.3	2.83	25%
\2040 with development	A5 South	0.3	5.15	2%	0.2	4.55	15%	0.3	5.36	25%
	Farm access	0.0	0.00	0%	0	0	0%	0	0	0%
	A5 Bridge	0.3	4.27	21%	0.1	3.83	13%	0.1	3.86	12%
	A55 westbound off-slip	0.3	2.92	24%	0.2	2.68	20%	0.3	2.86	26%

7.30 As shown, both the northern and southern roundabout are forecast to operate well below 85% RFC, with minimal queueing and delay in all scenarios. There is minimal queueing on the A5 bridge between the two junctions. The addition of the development does not have a material impact on the operation of the junctions, and no mitigation measures are required.

7.31 As detailed in Section 2, two slight accidents have been recorded at the junction, on different arms and in different years, in the last five years. This is not a significant accident record, and hence no highway safety improvement measures are required as part of the development proposals.

A5153/Penrhos Industrial Estate western roundabout

7.32 The layout of A5153/Penrhos Industrial Estate western roundabout is shown in **Figure 18**.



Figure 18: A5153/Penrhos Industrial Estate western roundabout

- 7.33 An ARCADY model of the junction was created, with geometries calculated from OS mapping. The A5153 (E) approach arm has two lanes; one for ahead and right, and one for left turn only. Hence, there is significant uneven lane usage on this arm. The junction was modelled in 2024, 2026 (opening year) and 2031 (opening year + 5 years), with the uneven lane usage taken into account. The geometries are shown in the plan in **Appendix P**, together with the ARCADY output. The results are summarised in the table below.

scenario	arm	AM peak hour			PM peak hour		
		queue (vehs.)	delay (secs.)	ratio of flow to capacity	queue (vehs.)	delay (secs.)	ratio of flow to capacity
2024 surveyed	Penrhos Industrial Estate	0.1	2.32	9%	0.2	2.64	18%
	A5153 W	0.6	5.44	39%	1.1	7.26	53%
	Tesco service access	0.0	3.59	1%	0.0	0.00	0%
	A5153 E	0.3	4.11	20%	0.5	4.87	34%
2026 background (base+ committed development)	Penrhos Industrial Estate	0.1	2.56	10%	0.2	2.81	19%
	A5153 W	0.7	5.73	42%	2.6	12.46	73%
	Tesco service access	0.0	3.66	1%	0.0	0.0	0%
	A5153 E	0.7	5.97	42%	0.8	6.26	46%
2026 with development	Penrhos Industrial Estate	0.1	2.64	11%	0.2	3.07	20%
	A5153 W	1.6	8.95	62%	2.9	13.45	75%
	Tesco service access	0.0	4.17	1%	0.0	0	0%
	A5153 E	0.9	7.00	48%	1.7	9.33	63%
2031 background (base+ committed development)	Penrhos Industrial Estate	0.1	2.57	11%	0.2	2.85	19%
	A5153 W	0.8	5.92	44%	2.8	13.29	75%
	Tesco service access	0.0	3.70	1%	0.0	0.0	0%
	A5153 E	0.7	6.10	43%	0.9	6.38	47%
2031 with development	Penrhos Industrial Estate	0.1	2.66	11%	0.3	3.13	21%
	A5153 W	1.8	9.39	64%	3.3	14.88	77%
	Tesco service access	0.0	4.22	1%	0.0	0.0	0%
	A5153 E	1.0	7.17	50%	1.8	9.81	65%

- 7.34 As shown, the junction currently operates well below 85% RFC with minimal queuing and delay in 2024. The arm with the least spare capacity is the A5153 (W), which operates at 53% RFC with a queue of 1 vehicle and a delay of 7.3 seconds in the evening peak hour.
- 7.35 The background traffic growth to 2026 and 2031, and the addition of the committed development traffic, increases the RFC, queue length and delay on the A5153 (W), but the junction as a whole continues to operate within acceptable limits.
- 7.36 The addition of the proposed development traffic has limited impact on the operation of the junction. In the worst case evening peak hour, the RFC of the A5153 (W) increases from 73% to 75% in 2031, and the delay increases by 1 second to 13.5 seconds in 2026. In 2031, the RFC on the A5153 (W) increases from 75% to 77% with the addition of the development traffic, and the delay increases by 1.5 seconds to 14.9 seconds.
- 7.37 Overall, it is concluded that the proposed development does not have a material impact on the operation of the junction, and it will continue to operate within acceptable limits. Therefore, no mitigation measures are required.

7.38 As detailed in Section 2, no accidents have been recorded at the junction in the last five years. Hence, no highway safety improvement measures are required as part of the development proposals.

A5153/Penrhos Industrial Estate eastern roundabout

7.39 The layout of the A5153/Penrhos Industrial Estate eastern roundabout is shown in **Figure 19**.

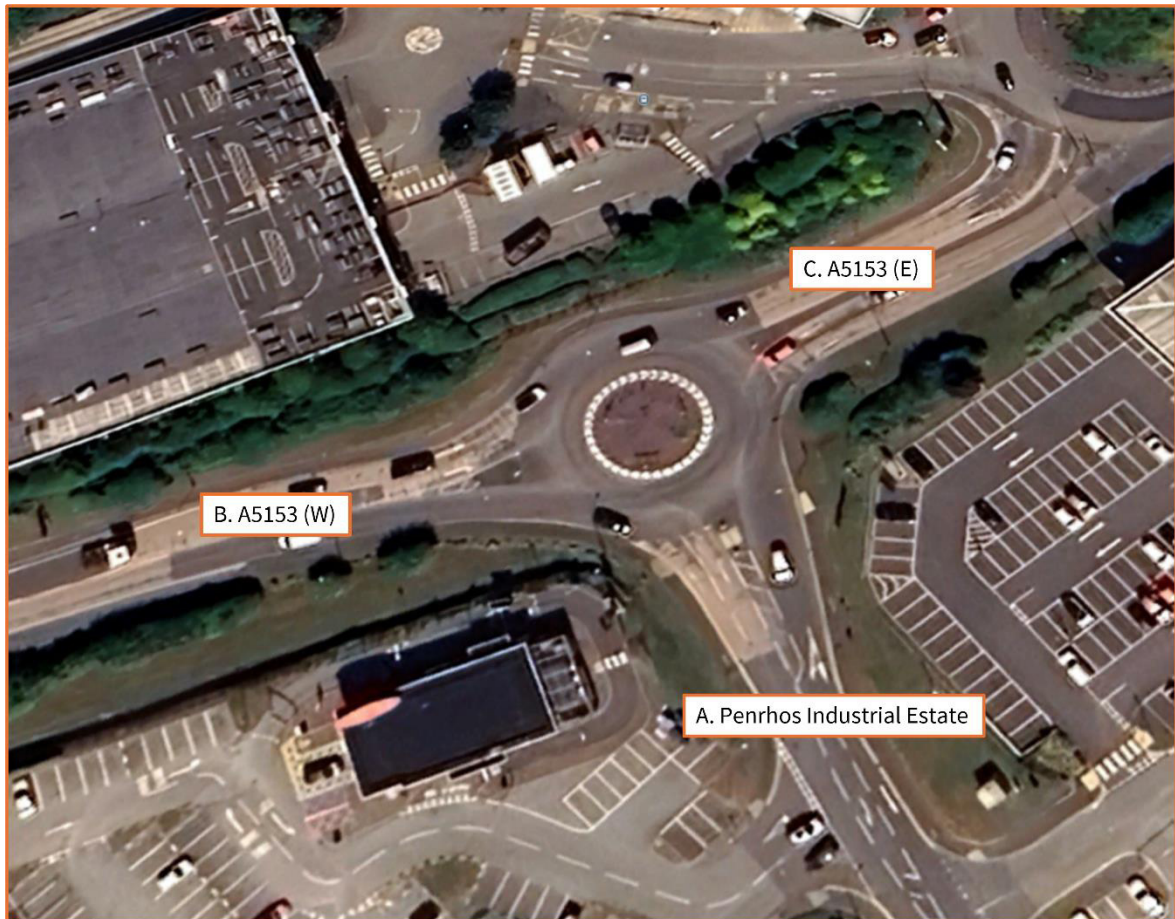


Figure 19: A5153/Penrhos Industrial Estate eastern roundabout

7.40 An ARCADY model of the junction was created, with geometries calculated from OS mapping. The A5153 (W) approach arm has two lanes; one for ahead, and one for right turn. Hence, there is significant uneven lane usage on this arm. The junction was modelled in 2024, 2026 (opening year) and 2031 (opening year + 5 years), with the uneven lane usage taken into account. The geometries are shown in the plan in **Appendix Q**, together with the ARCADY output. The results are summarised in the table below.

scenario	arm	AM peak hour			PM peak hour		
		queue (vehs.)	delay (secs.)	ratio of flow to capacity	queue (vehs.)	delay (secs.)	ratio of flow to capacity
2024 surveyed	Penrhos Industrial Estate access	0.0	2.39	4%	0.2	2.68	16%
	A5153 W	0.4	4.05	27%	0.6	4.60	37%
	A5153 E	0.2	2.27	16%	0.3	2.44	23%
2026 background (base+ committed development)	Penrhos Industrial Estate access	0.1	2.63	5%	0.2	2.85	17%
	A5153 W	0.4	4.27	30%	1.3	7.11	57%
	A5153 E	0.4	2.55	27%	0.4	2.64	29%
2026 with development	Penrhos Industrial Estate access	0.1	2.71	5%	0.2	3..12	18%
	A5153 W	1.0	6.35	51%	1.5	7.67	60%
	A5153 E	0.4	2.74	30%	0.6	2.98	37%
2031 background (base+ committed development)	Penrhos Industrial Estate access	0.1	2.62	5%	0.2	2.90	17%
	A5153 W	0.5	4.34	31%	1.4	7.44	59%
	A5153 E	0.4	2.58	28%	0.4	2.68	30%
2031 with development	Penrhos Industrial Estate access	0.1	2.70	5%	0.2	3.18	19%
	A5153 W	1.1	6.51	52%	1.6	8.06	62%
	A5153 E	0.4	2.74	31%	0.6	3.03	38%

- 7.41 As shown, the junction currently operates well below 85% RFC with minimal queuing and delay in 2024. The background traffic growth to 2026 and 2031, and the addition of the committed development traffic has a limited impact and the junction continues to operate within acceptable limits.
- 7.42 The addition of the proposed development traffic has limited impact on the operation of the junction. In the worst case evening peak hour, the RFC of the A5153 (W) increases from 57% to 60% in 2026, and the delay increases by less than one second in 2026. In 2031, the RFC on the A5153 (W) increases from 59% to 62% with the addition of the development traffic, and the delay increases by 5 seconds to 8.1 seconds.
- 7.43 Overall, it is concluded that the proposed development does not have a material impact on the operation of the junction, and it will continue to operate within acceptable limits. Therefore, no mitigation measures are required.
- 7.44 As detailed in Section 2, no accidents have been recorded at the junction in the last five years. Hence, no highway safety improvement measures are required as part of the development proposals.

A5/A5153/Tesco roundabout

- 7.45 The layout of the A5/A5153/Tesco roundabout is shown in **Figure 20**.



Figure 20: A5/A5153/Tesco roundabout

7.46 An ARCADY model of the junction was created, with geometries calculated from OS mapping. The junction was modelled in 2024, 2026 (opening year) and 2031 (opening year + 5 years). The geometries are shown in the plan in **Appendix R**, together with the ARCADY output. The results are summarised in the table below.

scenario	arm	AM peak hour			PM peak hour		
		queue (vehs.)	delay (secs.)	ratio of flow to capacity	queue (vehs.)	delay (secs.)	ratio of flow to capacity
2024 surveyed	A5 (S)	0.4	4.41	27%	0.5	5.08	34%
	A5153	0.2	2.50	19%	0.4	2.90	30%
	Tesco access	0.2	3.73	15%	0.4	4.65	29%
	A5 (N)	0.5	4.91	32%	0.6	5.86	38%
2026 background (base+ committed development)	A5 (S)	0.7	5.73	43%	0.7	5.94	43%
	A5153	0.3	2.55	21%	0.7	3.47	42%
	Tesco access	0.2	3.81	15%	0.5	5.48	33%
	A5 (N)	0.6	5.27	36%	0.8	7.18	45%
2026 with development	A5 (S)	0.9	6.53	49%	1.5	8.52	60%
	A5153	0.5	3.11	34%	0.8	3.62	44%
	Tesco access	0.2	4.41	17%	0.5	5.73	34%
	A5 (N)	0.8	6.71	44%	0.9	7.48	46%
2031 background (base+ committed development)	A5 (S)	0.8	5.92	44%	0.8	6.19	45%
	A5153	0.3	2.60	22%	0.8	3.57	43%
	Tesco access	0.2	3.89	16%	0.5	5.66	35%
	A5 (N)	0.6	5.42	38%	0.9	7.56	47%
2031 with development	A5 (S)	1.0	6.77	50%	1.6	9.05	62%
	A5153	0.5	3.14	35%	0.8	3.74	45%
	Tesco access	0.2	4.50	18%	0.6	5.94	36%
	A5 (N)	0.8	6.94	46%	0.9	7.88	49%

7.47 As shown, the junction currently operates well below 85% RFC with minimal queuing and delay in 2024. The background traffic growth to 2026 and 2031, and the addition of the committed

development traffic has a limited impact and the junction continues to operate within acceptable limits. The arm with the least spare capacity is the A5(S) in the evening peak hour, which is forecast to operate at 43% RFC in 2026 and 45% RFC in 2031, with delays of around 6 seconds.

7.48 The addition of the proposed development traffic has limited impact on the operation of the junction. In the worst case evening peak hour, the RFC of the A5(S) increases from 43% to 60% in 2026, and the delay increases by 2.5 seconds in 2026. In 2031, the RFC on the A5(S) increases from 45% to 62% with the addition of the development traffic, and the delay increases by around 3 seconds to 9.1 seconds.

7.49 Overall, it is concluded that the proposed development does not have a significant impact on the operation of the junction, and it will continue to operate within acceptable limits. Therefore, no mitigation measures are required.

7.50 As detailed in Section 2, no accidents have been recorded at the junction in the last five years. Hence, no highway safety improvement measures are required as part of the development proposals.

A5/A5025 signal controlled crossroads in Valley

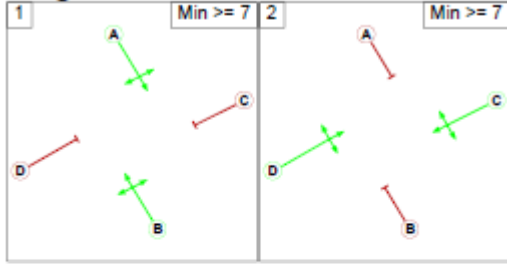
7.51 The A5/A5025 signal controlled crossroads is shown in **Figure 21** below.



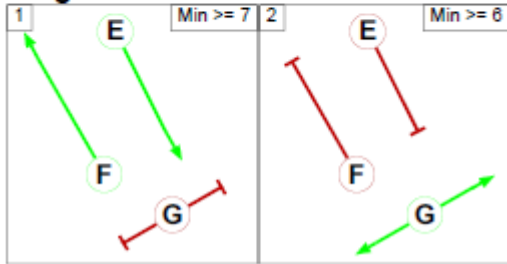
Figure 21: Existing A5/A5025 signal controlled crossroads

7.52 A model of the junction was built using LinSig, and assessed with the 2024, 2026 (opening year) background, 2026 with development and 2031 (opening year + 5 years) background and 2031 with development traffic flows. Signal plan information was obtained from IoACC to understand how the junction operates, including intergreens and the stage sequence shown below. The results are summarised in the table below and the LinSig outputs and signal plan information are contained in **Appendix S**.

Stage Stream: 1



Stage Stream: 2



Peak	Scenario	Cycle time (secs)	PRC (%)	Total delay (PCUhr)	Highest Degree of Saturation (%)	Longest MMQ (m)
AM	2024 observed	60	80.4	4.52	49.9	3.0
	2026 background	60	36.9	6.65	65.8	4.5
	2026 with development	60	31.8	8.10	68.3	5.2
	2031 background	60	40.1	6.99	64.3	4.5
	2031 with development	60	24.2	8.90	72.5	5.5
PM	2024 observed	60	86.7	5.66	48.2	4.7
	2026 background	60	25.5	9.14	71.7	6.4
	2026 with development	60	28.3	10.14	70.2	6.8
	2031 background	60	22.4	9.78	73.5	6.9
	2031 with development	60	21.9	10.90	73.9	8.3

- 7.53 The results show that the junction currently operates within its theoretical capacity, with short delays and queues in both peak hours in all scenarios.
- 7.54 The proposed development does not have a significant material impact on the operation of the junction, which will continue to operate within acceptable limits, and no mitigation measures are therefore required.
- 7.55 As detailed in Section 2, one slight accident has been recorded at the junction in the last five years. Hence, no highway safety improvement measures are required as part of the development proposals.

Summary

- 7.56 Each of the study area junctions was modelled in the current year (2024) and relevant future assessment year, both without and with the development. It is concluded that all of the junctions have capacity to accommodate the additional traffic generated by the development, and that all of the junctions would continue to operate within acceptable limits in terms of capacity, queue length and delay. Therefore, it is concluded that no mitigation measures are required.
- 7.57 Furthermore, it is concluded that none of the study area junctions have an accident record that would be exacerbated by the additional traffic generated by the proposed development. As the additional traffic would not significantly alter the operation of the junctions, that risk of accidents would not significantly alter. Therefore, no highway safety mitigation measures are required.

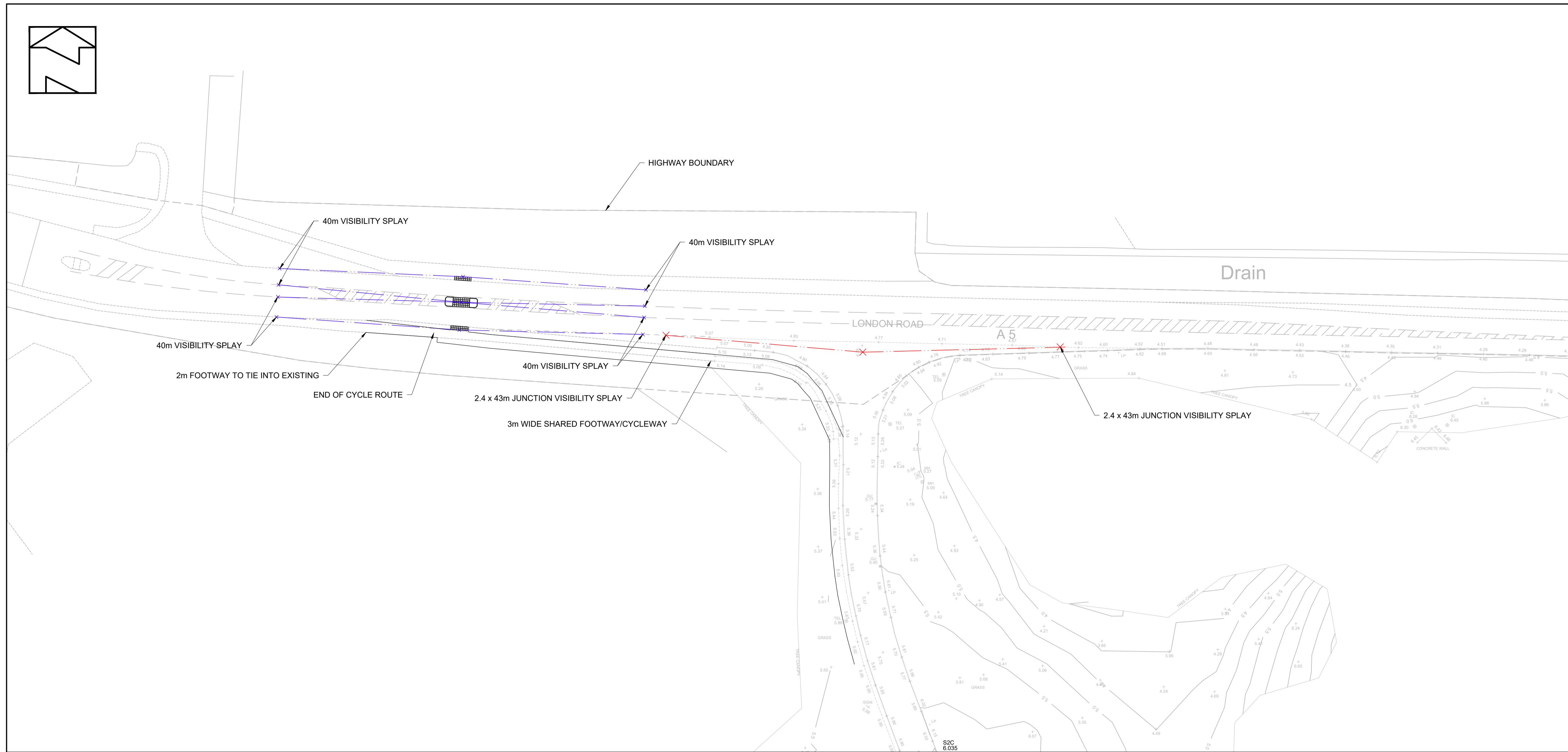
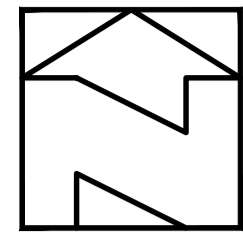
8.0 SUMMARY AND CONCLUSIONS

- 8.1 ADC Infrastructure Ltd were commissioned by Anglesey Land Holdings Ltd to provide transport and highways consultancy advice to support an outline planning application for the redevelopment of Prosperity Parc, on Holy Island in Anglesey.
- 8.2 Prosperity Parc is a brownfield site, formerly known as Penrhos Works, comprising the site of the former Anglesey Aluminium Metal facility. It also forms part of the Anglesey Prosperity Zone (APZ) within the Anglesey Freeport.
- 8.3 The outline planning application for the Prosperity Parc redevelopment is for a 'Data Centre and Technology Park (or Parc)' comprising of the following:
- up to 10,000sqm B1 office floorspace
 - up to 5,000sqm B1 research and development space
 - minimum of 223,000sqm B8 Data Centre use (with the Data Centre use exclusively, and no standard B8 storage and distribution uses)
 - a battery energy storage system (BESS), with a capacity of up to 349MW.
- The outline planning application seeks a total proposed gross floor area (GFA) of up to 238,000sqm. Therefore, within this maximum, the B8 Data Centre GFA could get larger if the B1 office and/or B1 research and development GFA ultimately reduces.
- 8.4 The site is currently accessed from the A5 London Road, via a priority-controlled T-junction with ghost island right turn lane on the north-western boundary. This will be retained, but with improvements made to the pedestrian and cycle provision at the main site access junction. There is also an existing access onto the A5 via a simple T-junction with ghost island right turn lane at the north-eastern site boundary, which serves the existing employment development outside of the application boundary. This will be retained as a secondary/emergency access for the proposed development.
- 8.5 The existing opportunities for sustainable travel were examined, and it was concluded that there are good opportunities for pedestrian, cycle, bus and rail travel to and from the site, which is consistent with the previous use of the site as a large employment area.
- 8.6 There are good opportunities for pedestrian travel to and from the site. There are also good opportunities for cycle travel to and from the site, with a number of areas within cycling distance, and existing/recently improvement cycle routes to access the site. The hourly bus Service 4 routes closest to the site, and Holyhead Station has 10 cycle parking spaces, and a taxi rank. Bus service 4 also routes to Holyhead station. There are therefore good opportunities for bus travel and rail travel as part of a multi-modal journey to and from the site.
- 8.7 The development is forecast to generate 279 pedestrian trips, 111 cycle trips, 223 public transport trips per day.
- 8.8 Pedestrian and cycle access would be improved as part of the proposed development, with pedestrian/cycle routes through the site and connections to off-site facilities. Given the outline nature of the proposals, exact details of the location of the routes within the site cannot be provided at this stage. At the site access junction, a footway/cycleway connection is proposed along the main site access road, and an uncontrolled crossing is proposed on the A5 London Road to facilitate access to the existing footway/cycleway on the northern side of the A5 London Road. Furthermore, the opportunities to provide a new pedestrian/cycle access through the western boundary of the site, connecting to the existing infrastructure through the Penrhos Industrial

- Estate and Holyhead Retail Park is being explored. Whilst this cannot be relied upon, it will be provided subject to any third party land constraints.
- 8.9 It is proposed to provide a bus service into the site, and new high quality bus stops within the site in order to reduce walking distances for employees and visitors. A bus turning area would also be provided to allow the bus to loop in and out of the site access junction. As the application is in outline only, and there is no fixed masterplan, the location of the bus stops and bus turning area have not yet been defined. Nevertheless, due to the security requirements of the site, the bus stops and turning area would be located within the western part of the site and outside of the main secure area. This can be secured via a planning condition requiring details of bus access as part of the Reserved Matters application. Funding for the bus service would be secured via the Section 106 Agreement.
- 8.10 The existing and proposed sustainable travel infrastructure is considered sufficient to serve the forecast increase in trips.
- 8.11 The proposed development would generate 482 two-way vehicle movements in the morning peak hour, 269 two-way vehicle movements in the interpeak hour, and 352 two-way vehicle movements in the evening peak hour, and a total of 4,574 two-way vehicle movements over a day.
- 8.12 Those trips were distributed to the highway network, and the impact of the additional trips was assessed at the following study area junctions.
- 1) A55/A5154/London Road signal controlled T-junction
 - 2) A55 Junction 1 – A55/Kingsland Road roundabout
 - 3) A55 Junction 2 – TY Mawr Interchange
 - 4) A55 Junction 3 – Pencaledog Interchange
 - 5) A5153/Penrhos Industrial Estate roundabout (W)
 - 6) A5153/Penrhos Industrial Estate roundabout (E)
 - 7) A5/A5153/Tesco roundabout
 - 8) A5/A5025 signal controlled crossroads in Valley.
- 8.13 It is envisaged that, subject to planning consent being granted in early 2025, the site will open in 2026, and be fully open and operational by 2031. The timescales are linked to the Freeport and associated financial benefits (tax relief etc).
- 8.14 The operation of each junction was assessed in the 2024 base year, and again in the relevant future years. For the local highway network junctions, this was 2026 (opening year) and 2031 (opening year + 5 years). For the A55 junctions, this was 2030 (application + 5 years) and 2040 (application + 15 years). Cumulative impacts, which take into account background traffic growth and the committed developments at Parc Cybi and Land and Lakes, were undertaken.
- 8.15 The junction modelling focuses on the morning (0815-0915 hours) and evening peak hour (1630-1730 hours) only for the local highway network, and examines the morning (0815-0915), interpeak (1200-1300) and evening peak hour (1630-1730) for the A55 junctions.
- 8.16 It was concluded that all of the junctions have capacity to accommodate the additional traffic generated by the development, and that all of the junctions would continue to operate within acceptable limits in terms of capacity, queue length and delay. Therefore, no mitigation measures are required at the study area junctions.

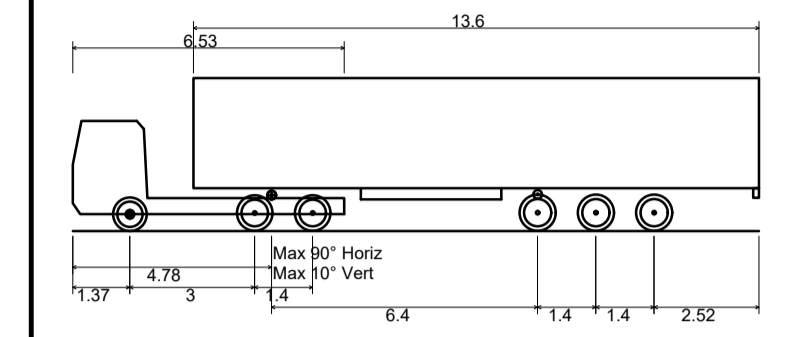
- 8.17 Furthermore, it was concluded that none of the study area junctions have an accident record that would be exacerbated by the additional traffic generated by the proposed development. As the additional traffic would not significantly alter the operation of the junctions, that risk of accidents would not significantly alter. Therefore, no highway safety mitigation measures are required.
- 8.18 Overall, the proposed development should therefore be found acceptable in terms of traffic and transport.

DRAWINGS



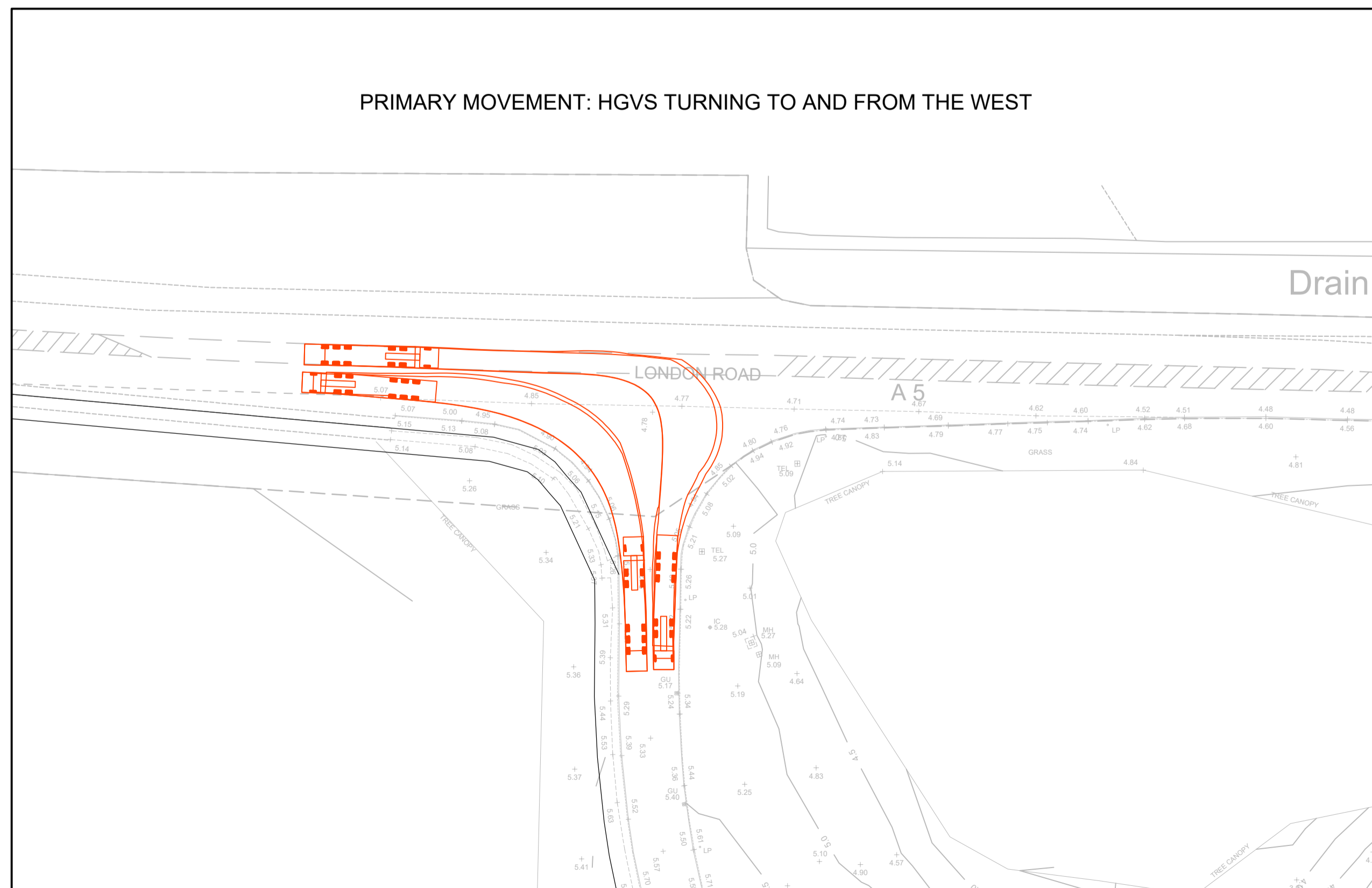
General Notes

1. Do not scale this drawing. All dimensions must be checked/verified on site.
2. This drawing is to be read in conjunction with all relevant architects, engineers and specialists drawings and specifications.
3. All dimensions are in metres unless noted otherwise. All levels are in metres unless noted otherwise.
4. Any discrepancies noted on site are to be reported to the engineer immediately.

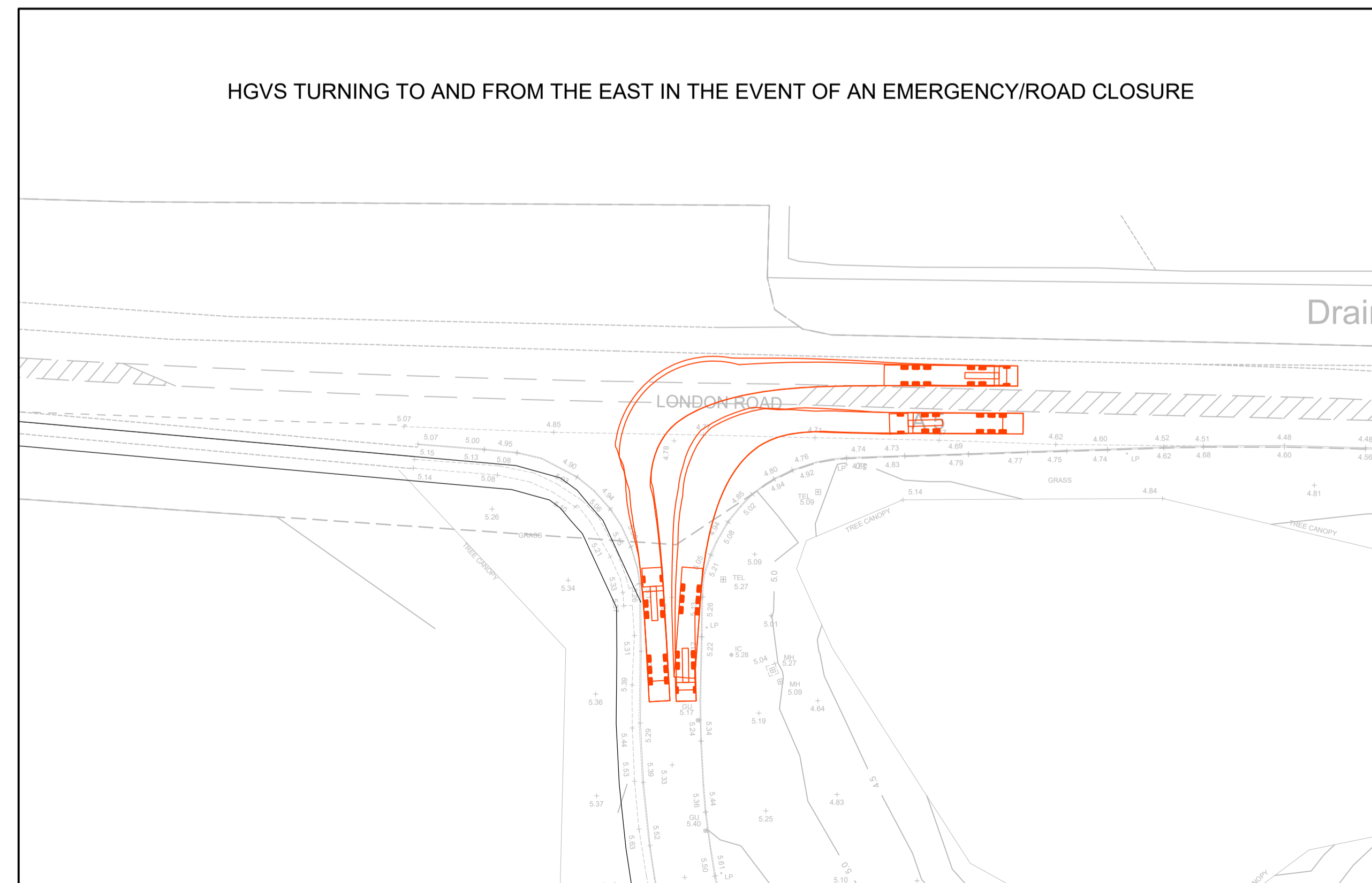


Max Legal Length (UK) Articulated Vehicle (16.5m) 16.500m
 Overall Length 2.550m
 Overall Width 3.681m
 Overall Body Height 0.411m
 Min Body Ground Clearance 2.500m
 Max Track Width 6.00s
 Lock to lock time 6.00s
 Kerb to Kerb Turning Radius 6.530m

PRIMARY MOVEMENT: HGVS TURNING TO AND FROM THE WEST



HGVS TURNING TO AND FROM THE EAST IN THE EVENT OF AN EMERGENCY/ROAD CLOSURE

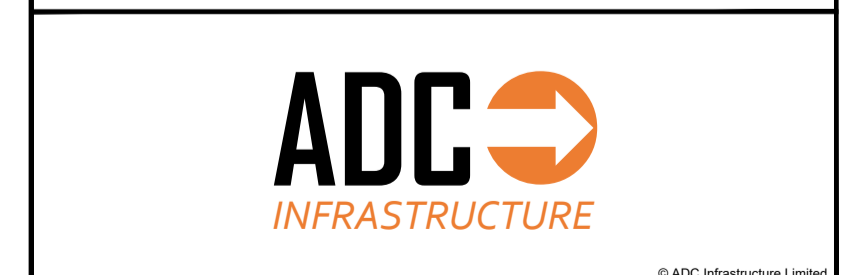


Rev	Date	Description	Dr	Ch
P01	30.10.24	First issue	MT	RL

Client:
Anglesey Land Holdings

Project:
Prosperity Parc

Title:
Access Junction Layout



Size: **A1** Scale: **1:500**








Status: **PRELIMINARY**



Project	Originator	Volume	Level	Type	Role	Number	Status	Revision
3377	-ADC	-HGN	-XX	-DR	-CH	-0100	S1	P01

APPENDIX A

PARAMETERS PLAN AND ILLUSTRATIVE LAYOUT



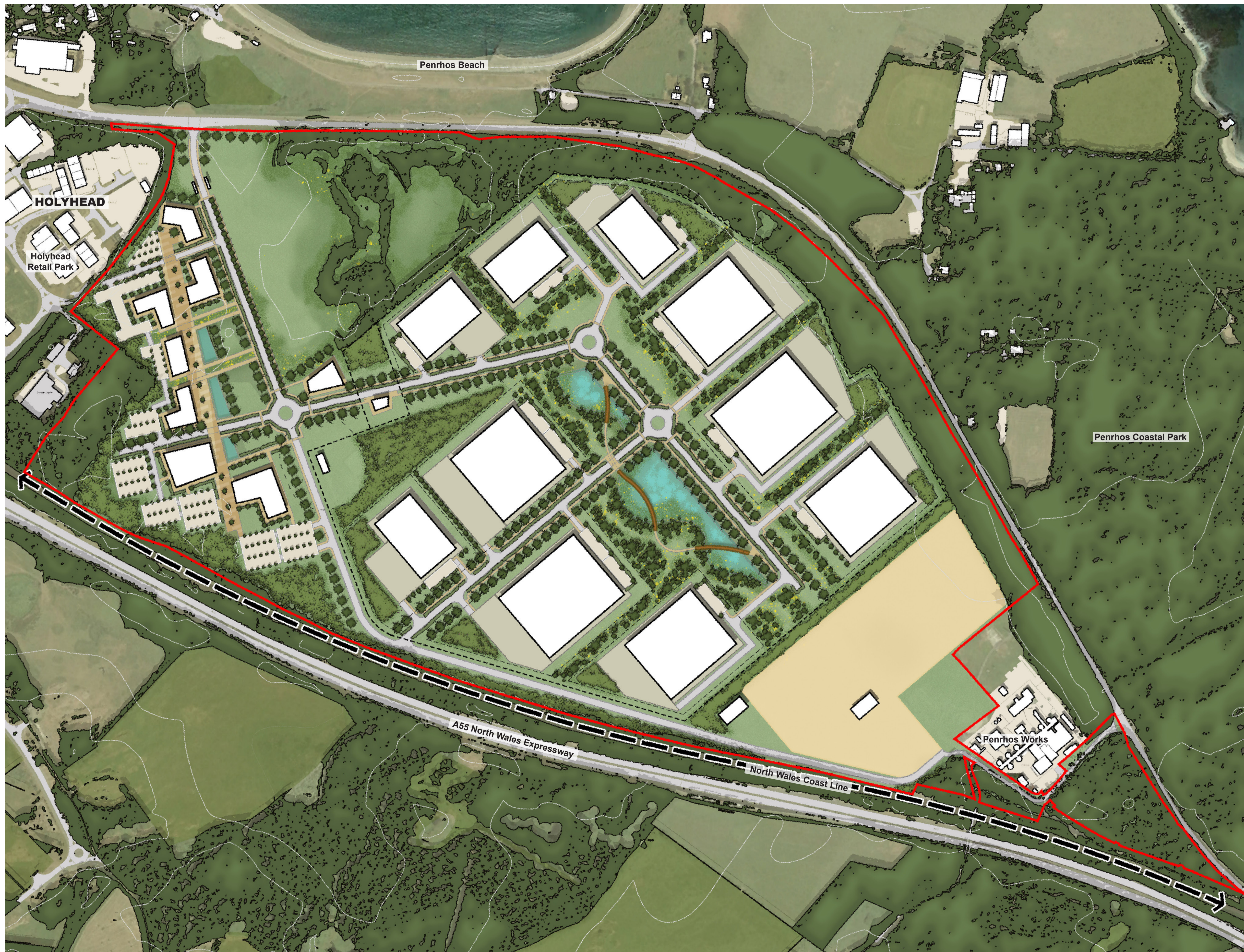
-  Application Site Boundary: 87.92ha / 217.25ac
-  Development Zones / Built Infrastructure: 66.20ha / 163.58ac
- Will contain on-plot and other landscaping and planting, habitat enhancement and creation, drainage and other infrastructure including vehicular, cycle and walking access
- Up to 238,000 sqm Class B1 and B8 (data centres only), plus battery energy storage (unique use);
- Finished Floor Levels: Similar to existing ground levels of approximately 5 to 10m AOD.
-  Retained & Enhanced Green Infrastructure: 21.72ha / 53.67ac
-  Retained existing access from the A5
-  Secondary / emergency site access (existing)
-  Railway site access (existing)
-  Indicative areas of Tree Preservation Orders (TPO)
-  MoD / RAF Consultation Zones on Heights

- Building Heights**
-  Zone A: Max height up to 18m to ridge excluding point features
 -  Zone B: Max height up to 21m to ridge excluding point features





PROSPERITY PARC, ANGLESEY
Oxalis Planning

PARAMETERS PLAN
 REV J
 11906-L-05
 November 2024





KEY

-  Application Site Boundary
-  Existing electric cables / substation to be retained and extended. BESS scheme to be developed in this area

POTENTIAL DEVELOPMENT

-  Potential built development
-  Potential loading yards & HGV parking
-  Potential car parking
-  Indicative primary route with pedestrian / cycle links
-  Indicative emergency access road
-  Potential electricity substations
-  Potential Gatehouse for Main Site
-  Potential Gatehouse / controlled access point for Data Centre
-  Existing Tunnel Access building with 50m buffer zone
-  Data Centre Campus fence lines Double fence line - 8m apart

GREEN INFRASTRUCTURE

-  Indicative areas of existing vegetation
-  Areas of existing vegetation to be retained - Established landscape buffers
-  Potential landscape buffers to reinforce existing vegetation
-  Potential individual tree and hedgerow planting
-  Potential SuDS Features including areas wetland habitat / wildflower grassland
-  Potential Green Corridors - Wildlife corridors between plots



PROSPERITY PARC, ANGLESEY
Oxalis Planning

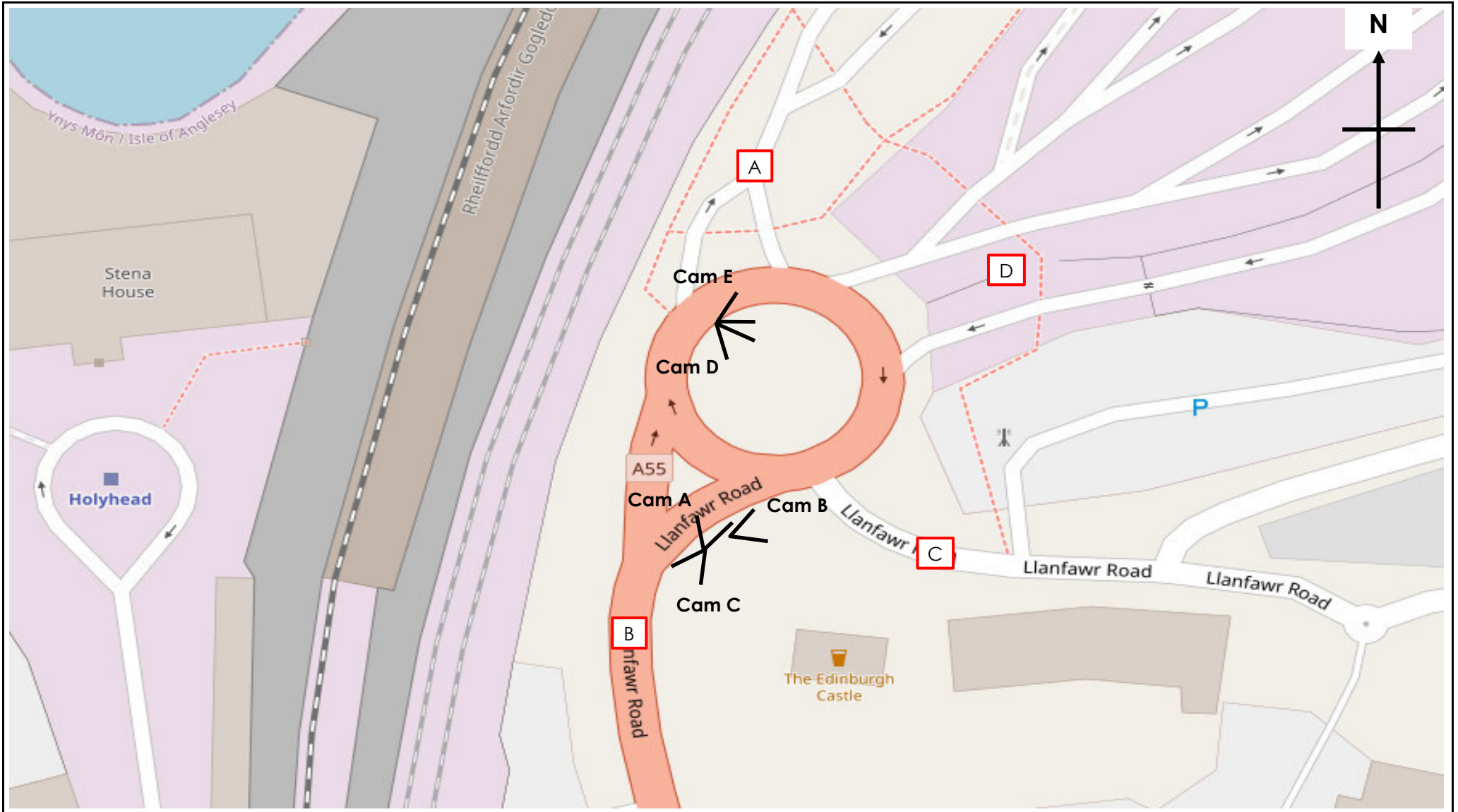
ILLUSTRATIVE
MASTERPLAN


REV L
 11906-L-04

OCTOBER 2024

APPENDIX B

APRIL 2024 TRAFFIC COUNT DATA



	Site / Location: Site 1, A55/NC5 Holyhead Port access	Project No.: 15407	Drawing No.: 15407-01	Drawn By: MN	
	Survey Date: Tuesday 30th April 2024	Project Name: Holy Island, Anglesey			
	Survey Times: 07:30-09:30, 12:30-15:30 & 16:30-18:30	Drawing Title: Site Layout and Observed Movements			



SITE: 1 DATE: 30/04/2024
LOCATION: A55/NC5 Holyhead Port access DAY: Tuesday


Notes: All queues are measured in vehicle numbers on the 5-minute interval.
Lane numbering is outwards from the kerb in the direction of travel.
When a junction is signalled, queues are taken at the end of the red phase nearest to the time interval.

TIME	ARM A		ARM B	ARM C	ARM D	
	LANE 1	LANE 2	LANE 1	LANE 1	LANE 1	LANE 2
07:30	0	0	0	0	0	0
07:35	0	0	0	0	0	0
07:40	0	0	0	0	0	0
07:45	0	0	0	0	0	0
07:50	0	0	0	0	0	0
07:55	0	0	0	0	0	0
08:00	0	0	0	0	0	0
08:05	0	0	0	0	0	0
08:10	0	0	0	0	0	0
08:15	0	0	0	0	0	0
08:20	0	0	0	0	0	0
08:25	0	0	0	0	0	0
08:30	0	0	0	0	0	0
08:35	0	0	0	0	0	0
08:40	0	0	0	0	0	0
08:45	0	0	0	0	0	0
08:50	0	0	0	0	0	0
08:55	0	0	0	0	0	0
09:00	0	0	0	0	0	0
09:05	0	0	0	0	0	0
09:10	0	0	0	0	0	0
09:15	0	0	0	0	0	0
09:20	0	0	0	0	0	0
09:25	0	0	0	0	0	0
09:30	0	0	0	0	0	0
MAX QUEUE	0	0	0	0	0	0

TIME	ARM A		ARM B	ARM C	ARM D	
	LANE 1	LANE 2	LANE 1	LANE 1	LANE 1	LANE 2
12:30	0	0	0	0	0	0
12:35	0	0	0	4	1	0
12:40	0	0	0	0	0	0
12:45	0	0	0	0	0	0
12:50	0	0	0	0	0	0
12:55	0	0	0	0	0	0
13:00	0	0	0	0	0	0
13:05	0	0	0	0	0	0
13:10	0	0	0	0	0	0
13:15	0	0	0	0	0	0
13:20	0	0	0	0	0	0
13:25	0	0	0	0	0	0
13:30	0	0	0	0	0	0
13:35	0	0	0	0	0	0
13:40	0	0	0	0	0	0
13:45	0	0	0	0	1	0
13:50	0	0	0	0	0	0
13:55	0	0	0	0	0	0
14:00	0	0	0	0	0	0
14:05	0	0	0	0	0	0
14:10	0	0	0	0	0	0
14:15	0	0	0	0	0	0
14:20	0	0	0	0	0	0
14:25	0	0	0	0	0	0
14:30	0	0	0	0	0	0
14:35	0	0	0	0	0	0
14:40	0	0	0	0	0	0
14:45	0	0	0	0	0	0
14:50	0	0	0	0	0	0
14:55	0	0	0	0	0	0
15:00	0	0	0	0	0	0
15:05	0	0	0	0	0	0
15:10	0	0	0	0	0	0
15:15	0	0	0	0	0	0
15:20	0	0	0	0	0	0
15:25	0	0	0	0	0	0
15:30	0	0	0	0	0	0
MAX QUEUE	0	0	0	4	1	0

TIME	ARM A		ARM B	ARM C	ARM D	
	LANE 1	LANE 2	LANE 1	LANE 1	LANE 1	LANE 2
16:30	0	0	0	0	0	0
16:35	0	0	0	0	0	0
16:40	0	0	0	0	0	0
16:45	0	0	0	0	0	0
16:50	0	0	0	0	0	0
16:55	0	0	0	0	0	0
17:00	0	0	0	0	0	0
17:05	0	0	0	0	2	0
17:10	1	0	0	0	0	0
17:15	0	0	0	0	0	0
17:20	0	0	0	0	0	0
17:25	0	0	0	0	0	0
17:30	0	0	0	0	0	0
17:35	0	0	0	0	0	0
17:40	0	0	0	0	0	0
17:45	0	0	0	0	0	0
17:50	0	0	0	0	0	0
17:55	0	0	0	0	0	0
18:00	0	0	0	0	0	0
18:05	0	0	0	0	0	0
18:10	0	0	0	0	0	0
18:15	0	0	0	0	0	0
18:20	0	0	0	0	0	0
18:25	0	0	0	0	0	0
18:30	0	0	0	0	2	4
MAX QUEUE	1	0	0	0	2	4



	Site / Location: Site 2, A55/London Road	Project No.: 15407	Drawing No.: 15407-02	Drawn By: MN
	Survey Date: Tuesday 30th April 2024	Project Name: Holy Island, Anglesey		
	Survey Times: 07:30-09:30, 12:30-15:30 & 16:30-18:30	Drawing Title: Site Layout and Observed Movements		



15407 / HOLY ISLAND, ANGLESEY
APRIL 2024
CLASSIFIED TURNING COUNT

15407 / HOLY ISLAND, ANGLESEY
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APRIL 2024
CLASSIFIED TURNING COUNT

15407 / HOLY ISLAND, ANGLESEY
APRIL 2024
CLASSIFIED TURNING COUNT

SITE: 2 DATE: 30/04/2024 LOCATION: ASS/London Road DAY: Tuesday

A to C				A to B				B to A				B to C				C to B				C to A				TO ARM A				TO ARM B				TO ARM C											
TIME	LV	HV	TOT	TIME	LV	HV	TOT	TIME	LV	HV	TOT	TIME	LV	HV	TOT	TIME	LV	HV	TOT	TIME	LV	HV	TOT	TIME	LV	HV	TOT	TIME	LV	HV	TOT	TIME	LV	HV	TOT	TIME	LV	HV	TOT	TIME	LV	HV	TOT
07:30	4	1	5	14	16	30	44	16	24	40	24	4	28	07:30	24	1	25	10	1	11	07:30	54	17	71	18	17	35	07:30	88	20	108	07:30	28	5	33	34	2	36					
07:45	4	1	5	19	14	33	07:45	63	2	65	30	3	33	07:45	30	5	35	15	0	15	07:45	78	2	80	23	15	38	07:45	49	19	68	93	5	98	07:45	34	4	38	45	5	50		
08:00	6	1	7	26	10	36	08:00	35	14	49	26	1	27	08:00	41	2	43	9	0	9	08:00	44	14	58	32	11	43	08:00	67	12	79	61	15	76	08:00	32	2	34	50	2	52		
08:15	16	0	16	28	4	32	08:15	39	5	44	22	0	22	08:15	47	2	49	9	1	10	08:15	48	6	54	44	4	48	08:15	75	6	81	61	5	66	08:15	38	0	38	56	3	59		
08:30	10	1	11	38	6	44	08:30	27	6	33	48	4	52	08:30	50	1	51	7	0	7	08:30	34	6	40	48	7	55	08:30	88	7	95	75	10	85	08:30	58	5	63	57	1	58		
08:45	5	1	6	48	4	52	08:45	44	7	51	54	0	54	08:45	48	3	51	12	1	13	08:45	56	8	64	54	5	59	08:45	94	7	101	98	7	105	08:45	59	1	60	60	4	64		
09:00	11	0	11	41	5	46	09:00	36	9	45	39	4	43	09:00	57	0	57	5	1	6	09:00	41	10	51	52	5	57	09:00	98	5	103	75	13	88	09:00	50	4	54	62	1	63		
09:15	7	2	9	28	6	34	09:15	25	3	28	39	1	40	09:15	49	3	52	9	1	10	09:15	34	4	38	35	8	43	09:15	77	9	86	64	4	68	09:15	46	3	49	58	4	62		
TOT	63	7	70	232	65	307	TOT	313	62	375	282	17	299	TOT	336	17	353	76	5	81	TOT	389	27	416	305	72	377	TOT	558	82	640	595	79	674	TOT	345	24	369	422	22	444		

TIME	LV	HV	TOT
07:30	120	39	159
07:45	141	25	166
08:00	143	28	171
08:15	161	12	173
08:30	180	18	198
08:45	211	16	227
09:00	189	19	208
09:15	157	16	173
TOT	1322	173	1495

PEAK HOUR CALCULATION
07:30 to 08:30 689
07:45 to 08:45 728
08:00 to 09:00 769
08:15 to 09:15 806
08:30 to 09:30 856
PEAK VALUE 856

A to C				A to B				B to A				B to C				C to B				C to A				TO ARM A				TO ARM B				TO ARM C															
TIME	LV	HV	TOT	TIME	LV	HV	TOT	TIME	LV	HV	TOT	TIME	LV	HV	TOT	TIME	LV	HV	TOT	TIME	LV	HV	TOT	TIME	LV	HV	TOT	TIME	LV	HV	TOT	TIME	LV	HV	TOT	TIME	LV	HV	TOT	TIME	LV	HV	TOT	TIME	LV	HV	TOT
12:30	14	0	14	30	13	43	12:30	40	24	64	47	2	49	12:30	46	1	47	13	1	14	12:30	53	25	78	44	13	57	12:30	76	14	90	87	26	113	12:30	61	2	63	59	2	61						
12:45	14	0	14	26	8	34	12:45	55	24	79	38	1	39	12:45	60	3	63	16	0	16	12:45	71	24	95	40	8	48	12:45	86	11	97	93	25	118	12:45	52	1	53	76	3	79						
13:00	8	0	8	27	6	33	13:00	46	22	68	51	2	53	13:00	48	0	48	11	0	11	13:00	57	22	79	35	6	41	13:00	75	6	81	97	24	121	13:00	59	2	61	59	0	59						
13:15	13	1	14	26	15	41	13:15	41	18	59	46	1	47	13:15	66	1	67	10	0	10	13:15	51	18	69	39	16	55	13:15	92	16	108	87	19	106	13:15	59	2	61	76	1	77						
13:30	15	2	17	15	16	31	13:30	38	12	50	29	1	30	13:30	59	1	60	9	3	12	13:30	47	15	62	30	18	48	13:30	74	17	91	67	13	80	13:30	44	3	47	68	4	72						
13:45	10	1	11	29	3	32	13:45	33	13	46	48	0	48	13:45	60	1	61	8	0	8	13:45	41	13	54	39	4	43	13:45	89	4	93	81	13	94	13:45	58	1	59	68	1	69						
14:00	6	2	8	31	14	45	14:00	39	13	52	39	2	41	14:00	51	3	54	5	0	5	14:00	44	13	57	37	16	53	14:00	82	17	99	78	15	93	14:00	45	4	49	56	3	59						
14:15	17	1	18	26	7	33	14:15	33	6	39	41	1	42	14:15	59	1	60	9	0	9	14:15	42	6	48	43	8	51	14:15	85	8	93	74	7	81	14:15	58	2	60	68	1	69						
14:30	9	1	10	37	7	44	14:30	37	7	44	45	3	48	14:30	65	1	66	10	0	10	14:30	47	7	54	46	8	54	14:30	102	8	110	82	8	90	14:30	54	4	58	75	1	76						
14:45	14	1	15	45	4	49	14:45	45	10	55	48	1	49	14:45	62	2	64	6	0	6	14:45	51	10	61	59	5	64	14:45	107	6	113	93	11	104	14:45	62	2	64	68	2	70						
15:00	17	0	17	44	6	50	15:00	35	12	47	37	1	38	15:00	53	1	54	10	0	10	15:00	45	12	57	41	6	47	15:00	97	7	104	72	13	85	15:00	54	1	55	63	1	64						
15:15	10	0	10	35	2	37	15:15	45	13	58	68	0	68	15:15	70	0	70	10	0	10	15:15	55	13	68	45	2	47	15:15	105	2	107	113	13	126	15:15	78	0	78	80	0	80						
TOT	147	9	156	371	101	472	TOT	487	174	661	537	15	552	TOT	699	15	714	117	4	121	TOT	604	178	782	518	110	628	TOT	1070	116	1186	1024	189	1213	TOT	684	24	708	816	19	835						

TIME	LV	HV	TOT
12:30	190	41	231
12:45	209	36	245
13:00	191	30	221
13:15	202	36	238
13:30	145	35	180
13:45	188	18	206
14:00	171	34	205
14:15	185	16	201
14:30	203	19	222
14:45	220	18	238
15:00	196	20	216
15:15	238	15	253
TOT	2338	318	2656

PEAK HOUR CALCULATION
12:30 to 13:30 936
12:45 to 13:45 934
13:00 to 14:00 865
13:15 to 14:15 849
13:30 to 14:30 812
13:45 to 14:45 834
14:00 to 15:00 866
14:15 to 15:15 877
14:30 to 15:30 929
PEAK VALUE 936

A to C				A to B				B to A				B to C				C to B				C to A				TO ARM A				TO ARM B				TO ARM C															
TIME	LV	HV	TOT	TIME	LV	HV	TOT	TIME	LV	HV	TOT	TIME	LV	HV	TOT	TIME	LV	HV	TOT	TIME	LV	HV	TOT	TIME	LV	HV	TOT	TIME	LV	HV	TOT	TIME	LV	HV	TOT	TIME	LV	HV	TOT	TIME	LV	HV	TOT	TIME	LV	HV	TOT
16:30	11	1	12	30	4	34	16:30	31	10	41	63	1	64	16:30	57	0	57	9	0	9	16:30	40	10	50	41	7	48	16:30	87	6	93	94	11	105	16:30	74	2	76	66	0	66						
16:45	10	0	10	40	3	43	16:45	44	14	58	37	0	37	16:45	62	2	64	5	0	5	16:45	49	14	63	50	3	53	16:45	102	5	107	81	14	95	16:45	47	0	47	67	2	69						
17:00	7	2	9	32	4	36	17:00	37	11	48	57	2	59	17:00	74	0	74	13	1	14	17:00	50	12	62	39	6	45	17:00	106	4	110	94	13	107	17:00	64	4	68	87	1	88						
17:15	12	0	12	36	9	45	17:15	38	20	58	48	0	48	17:15	54	0	54	7	0	7	17:15	45	20	65	48	9	57	17:15	90	9	99	86	20	106	17:15	60	0	60	61	0	61						
17:30	6	0	6	29	14	43	17:30	49	17	66	52	1	53	17:30	64	1	65	11	1	12	17:30	60	18	78	35	14	49	17:30	93	15	108	101	18	119	17:30	58	1	59	75								



SITE: 2

DATE: 30/04/2024

LOCATION: A55/London Road

DAY: Tuesday

Notes:

All queues are measured in vehicle numbers on the 5-minute interval.
Lane numbering is outwards from the kerb in the direction of travel.
When a junction is signalled, queues are taken at the end of the red phase nearest to the time interval.

TIME	ARM A		ARM B		ARM C	
	LANE 1	LANE 2	LANE 1	LANE 2	LANE 1	LANE 2
07:30	0	0	0	0	0	1
07:35	0	0	0	1	1	0
07:40	0	1	0	1	0	1
07:45	1	1	0	0	0	3
07:50	0	3	0	2	1	1
07:55	0	1	1	1	2	0
08:00	0	3	0	0	0	1
08:05	0	0	0	0	0	2
08:10	0	0	0	1	2	1
08:15	1	0	0	0	1	1
08:20	0	0	1	0	0	1
08:25	1	0	0	0	0	1
08:30	0	0	0	0	0	1
08:35	2	0	0	0	0	1
08:40	0	0	0	1	0	1
08:45	0	0	0	1	1	1
08:50	0	2	0	5	2	2
08:55	0	1	0	0	3	2
09:00	1	1	0	0	0	1
09:05	0	4	0	1	1	1
09:10	0	2	0	1	0	0
09:15	0	1	0	1	1	1
09:20	0	0	0	1	1	0
09:25	0	0	0	1	0	1
09:30	1	1	0	1	1	0
MAX QUEUE	2	4	1	5	3	3

TIME	ARM A		ARM B		ARM C	
	LANE 1	LANE 2	LANE 1	LANE 2	LANE 1	LANE 2
12:30	0	2	0	0	0	4
12:35	0	9	0	9	2	3
12:40	0	3	0	0	1	1
12:45	0	1	0	0	0	0
12:50	0	1	0	0	2	1
12:55	1	2	0	9	0	2
13:00	0	1	0	1	1	0
13:05	0	0	0	4	0	2
13:10	2	1	0	0	0	1
13:15	1	2	0	1	0	1
13:20	0	3	0	0	0	2
13:25	0	1	0	1	0	1
13:30	0	0	0	0	0	3
13:35	0	1	1	0	1	0
13:40	0	1	0	0	1	1
13:45	0	1	0	2	1	0
13:50	1	0	0	0	1	1
13:55	0	2	0	3	0	0
14:00	0	1	0	0	1	0
14:05	0	1	0	1	0	0
14:10	0	1	0	0	1	1
14:15	0	0	0	1	1	0
14:20	0	2	0	1	0	0
14:25	0	0	0	1	0	0
14:30	1	2	1	4	2	1
14:35	0	0	0	2	1	1
14:40	0	3	0	3	1	1
14:45	0	0	0	1	0	1
14:50	0	0	0	1	0	1
14:55	0	4	0	2	0	1
15:00	0	2	0	0	0	0
15:05	0	0	0	0	1	1
15:10	0	0	0	0	0	1
15:15	1	0	0	0	2	1
15:20	0	1	0	4	0	1
15:25	0	4	0	4	1	1
15:30	0	2	0	3	0	1
MAX QUEUE	2	9	1	9	2	4

TIME	ARM A		ARM B		ARM C	
	LANE 1	LANE 2	LANE 1	LANE 2	LANE 1	LANE 2
16:30	0	1	0	1	2	1
16:35	1	3	0	0	1	1
16:40	0	3	0	2	0	0
16:45	2	1	0	1	1	1
16:50	1	1	2	0	0	0
16:55	0	0	0	1	0	0
17:00	0	0	0	1	0	1
17:05	1	2	0	3	0	2
17:10	0	0	0	0	0	1
17:15	0	0	0	1	0	2
17:20	0	0	0	1	0	1
17:25	1	0	0	0	0	0
17:30	0	0	0	2	1	0
17:35	0	0	0	1	2	1
17:40	0	2	0	1	1	1
17:45	0	2	0	5	1	0
17:50	0	0	0	0	1	1
17:55	0	2	1	0	0	1
18:00	1	1	2	0	0	1
18:05	1	1	0	1	1	0
18:10	0	4	2	1	0	1
18:15	0	1	0	2	0	1
18:20	0	4	1	5	2	1
18:25	0	9	1	3	3	2
18:30	2	14	0	0	6	1
MAX QUEUE	2	14	2	5	6	2

SITE: 3 DATE: 30/04/2024 LOCATION: AS154/London Road DAY: Tuesday

TIME	A to C			A to B			B to A			B to C			C to B			C to A			TO ARM A			FROM ARM A			TO ARM B			FROM ARM B			TO ARM C			FROM ARM C		
	LV	HV	TOT	LV	HV	TOT	LV	HV	TOT	LV	HV	TOT	LV	HV	TOT	LV	HV	TOT	LV	HV	TOT	LV	HV	TOT	LV	HV	TOT	LV	HV	TOT	LV	HV	TOT			
07:30	28	2	30	51	0	51	07:30	32	0	32	07:30	17	56	73	07:30	18	16	34	19	20	39	07:30	51	1	52	77	2	81	07:30	69	18	85	71	17	86	
07:45	43	2	45	62	0	62	07:45	41	4	45	07:45	3	53	56	07:45	20	14	34	28	4	32	07:45	89	8	97	105	2	107	07:45	82	14	96	111	7	118	
08:00	32	1	33	56	3	59	08:00	55	4	59	08:00	14	42	56	08:00	27	11	38	41	1	42	08:00	96	2	98	88	4	92	08:00	83	14	97	83	15	98	
08:15	28	3	31	59	4	63	08:15	78	6	84	08:15	34	36	70	08:15	21	6	27	53	1	54	08:15	131	7	138	87	7	94	08:15	80	10	90	112	8	120	
08:30	56	5	61	57	4	61	08:30	117	2	119	08:30	22	5	27	08:30	19	6	25	44	1	45	08:30	183	3	186	113	9	122	08:30	76	10	86	139	7	146	
08:45	66	0	66	90	0	90	08:45	122	5	127	08:45	31	7	38	08:45	27	5	32	65	2	67	08:45	187	7	194	156	0	156	08:45	117	5	122	153	12	165	
09:00	42	5	47	65	5	70	09:00	82	3	85	09:00	33	8	41	09:00	27	4	31	75	1	76	09:00	157	4	161	107	10	117	09:00	92	9	101	115	11	126	
09:15	37	1	38	53	2	55	09:15	65	3	68	09:15	30	4	34	09:15	15	7	22	57	2	59	09:15	122	5	127	90	3	93	09:15	68	9	77	95	7	102	
P/TOT	332	19	351	493	18	511	P/TOT	612	24	636	267	60	327	P/TOT	174	69	243	404	13	417	P/TOT	1016	37	1053	825	37	862	P/TOT	667	87	754	879	84	963		

TIME	JUNCTION TOTAL		
	LV	HV	TOT
07:30	18	36	223
07:45	264	27	291
08:00	239	31	270
08:15	273	22	295
08:30	337	23	360
08:45	401	19	420
09:00	324	26	350
09:15	237	19	276
P/TOT	2282	203	2485

PEAK HOUR CALCULATION
07:30 to 08:30 1079
07:45 to 08:45 1216
08:00 to 09:00 1345
08:15 to 09:15 1465
08:30 to 09:30 1406
PEAK VALUE 1425

TIME	A to C			A to B			B to A			B to C			C to B			C to A			TO ARM A			FROM ARM A			TO ARM B			FROM ARM B			TO ARM C			FROM ARM C		
	LV	HV	TOT	LV	HV	TOT	LV	HV	TOT	LV	HV	TOT	LV	HV	TOT	LV	HV	TOT	LV	HV	TOT	LV	HV	TOT	LV	HV	TOT	LV	HV	TOT	LV	HV	TOT			
12:30	44	4	48	68	2	70	12:30	49	0	49	12:30	29	13	42	12:30	29	13	42	44	0	44	12:30	93	0	93	112	6	118	12:30	97	15	112	93	22	115	
12:45	43	2	45	60	1	61	12:45	75	0	75	12:45	21	8	29	12:45	21	8	29	49	3	52	12:45	144	3	147	103	3	106	12:45	81	9	90	122	24	146	
13:00	55	2	57	77	2	79	13:00	59	1	60	13:00	42	23	65	13:00	26	6	32	50	0	50	13:00	109	1	110	132	4	136	13:00	103	8	111	101	24	125	
13:15	52	1	53	70	0	70	13:15	68	0	68	13:15	16	51	67	13:15	20	14	34	70	2	72	13:15	138	2	140	122	1	123	13:15	90	14	104	103	16	119	
13:30	38	1	39	61	1	62	13:30	64	1	65	13:30	19	17	36	13:30	19	17	36	56	0	56	13:30	120	1	121	99	2	101	13:30	80	18	98	92	13	105	
13:45	48	0	48	58	2	60	13:45	42	1	43	13:45	35	14	49	13:45	28	2	30	59	1	60	13:45	121	2	123	106	2	108	13:45	86	4	90	97	15	112	
14:00	48	2	50	49	1	50	14:00	83	2	85	14:00	20	12	32	14:00	20	16	36	60	2	62	14:00	143	4	147	97	3	100	14:00	89	17	106	114	14	128	
14:15	46	1	47	62	2	64	14:15	63	2	65	14:15	27	6	33	14:15	22	7	29	44	1	45	14:15	129	3	132	108	3	111	14:15	84	9	93	90	8	98	
14:30	57	4	61	72	2	74	14:30	76	1	77	14:30	25	7	32	14:30	34	6	40	65	2	67	14:30	141	3	144	129	6	135	14:30	106	8	114	101	8	109	
14:45	59	0	59	67	0	67	14:45	76	3	79	14:45	33	11	44	14:45	31	3	34	82	3	85	14:45	158	6	164	126	0	126	14:45	98	3	101	109	14	123	
15:00	50	0	50	66	7	73	15:00	79	2	81	15:00	23	16	39	15:00	33	5	38	61	2	63	15:00	140	4	144	116	7	123	15:00	99	12	111	102	18	120	
15:15	83	0	83	96	3	99	15:15	94	1	95	15:15	33	9	42	15:15	26	1	27	80	0	80	15:15	174	1	175	179	3	182	15:15	122	4	126	127	10	137	
P/TOT	623	17	640	806	23	829	P/TOT	848	14	862	403	172	575	P/TOT	309	98	407	762	16	778	P/TOT	1610	30	1640	1429	40	1469	P/TOT	1115	121	1236	1251	186	1437		

TIME	JUNCTION TOTAL		
	LV	HV	TOT
12:30	278	41	319
12:45	315	38	353
13:00	309	34	343
13:15	315	33	348
13:30	266	32	298
13:45	290	20	310
14:00	291	35	326
14:15	286	19	305
14:30	329	22	351
14:45	348	20	368
15:00	312	32	344
15:15	412	14	426
P/TOT	3751	340	4091

PEAK HOUR CALCULATION
12:30 to 13:30 1363
12:45 to 13:45 1342
13:00 to 14:00 1299
13:15 to 14:15 1282
13:30 to 14:30 1259
13:45 to 14:45 1292
14:00 to 15:00 1350
14:15 to 15:15 1368
14:30 to 15:30 1489
PEAK VALUE 1487

TIME	A to C			A to B			B to A			B to C			C to B			C to A			TO ARM A			FROM ARM A			TO ARM B			FROM ARM B			TO ARM C			FROM ARM C		
	LV	HV	TOT	LV	HV	TOT	LV	HV	TOT	LV	HV	TOT	LV	HV	TOT	LV	HV	TOT	LV	HV	TOT	LV	HV	TOT	LV	HV	TOT	LV	HV	TOT	LV	HV	TOT			
16:30	72	1	73	97	1	98	16:30	86	5	91	16:30	21	11	32	16:30	32	6	38	63	0	63	16:30	149	5	154	169	2	171	16:30	129	7	136	107	16	123	
16:45	58	1	59	90	1	91	16:45	95	24	119	16:45	23	3	26	16:45	23	3	26	75	2	77	16:45	170	3	173	148	2	150	16:45	113	4	117	119	14	133	
17:00	64	2	66	77	1	78	17:00	78	1	79	17:00	12	41	53	17:00	18	4	22	88	0	88	17:00	166	1	167	141	3	144	17:00	95	5	100	107	13	120	
17:15	47	4	51	67	0	67	17:15	92	1	93	17:15	31	8	39	17:15	31	8	39	65	1	66	17:15	157	2	159	114	4	118	17:15	98	8	106	134	17	151	
17:30	65	1	66	67	1	68	17:30	61	0	61	17:30	16	55	71	17:30	27	13	40	70	2	72	17:30	131	2	133	132	2	134	17:30	94	14	108	100	16	116	
17:45	35	0	35	51	2	53	17:45	77	1	78	17:45	22	14	36	17:45	20	10	30	57	4	61	17:45	134	5	139	86	2	88	17:45	71	12	83	99	15	114	
18:00	52	1	53	53	0																															



SITE: 3

DATE: 30/04/2024

LOCATION: A5154/London Road

DAY: Tuesday

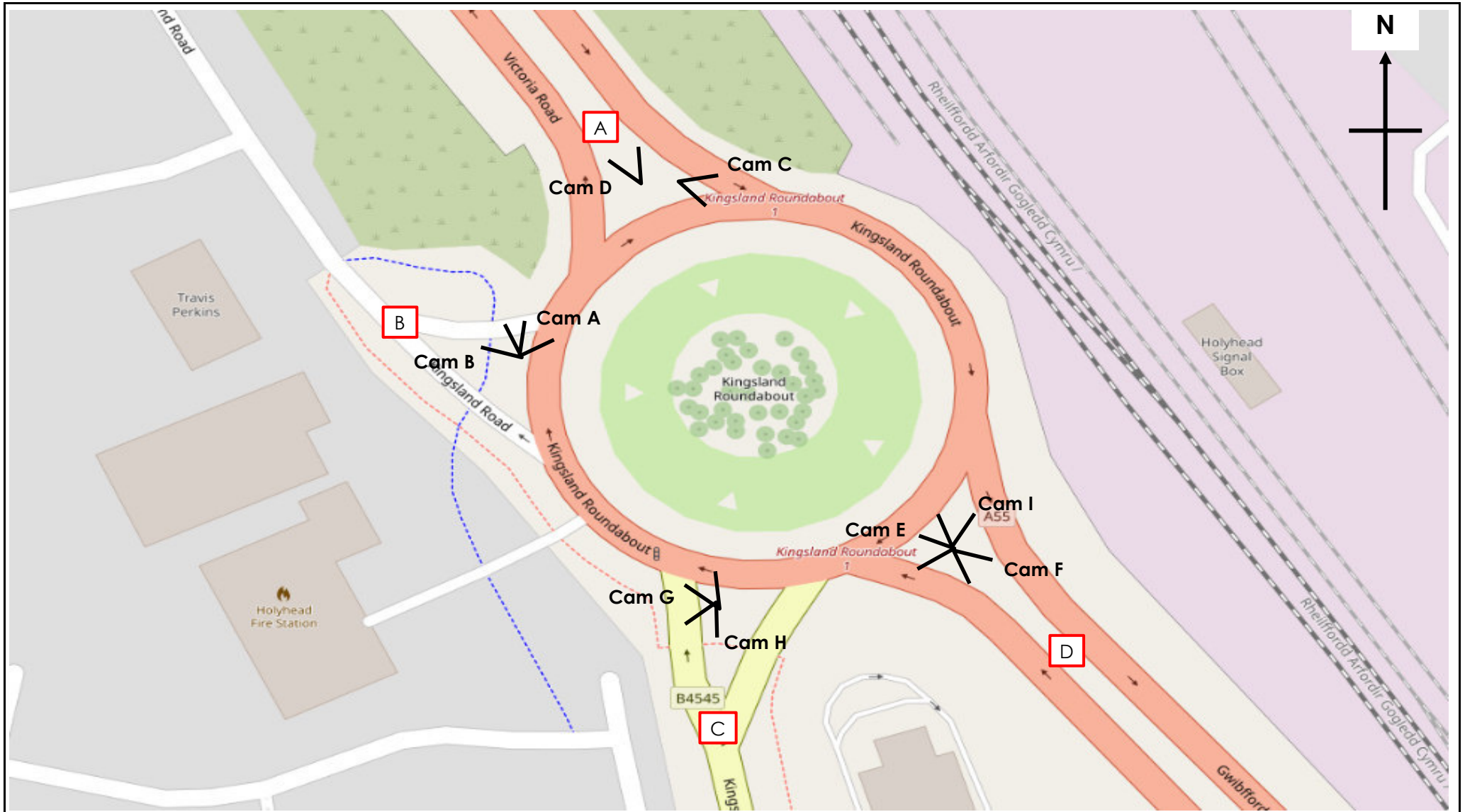
Notes:

All queues are measured in vehicle numbers on the 5-minute interval.
Lane numbering is outwards from the kerb in the direction of travel.
When a junction is signalised, queues are taken at the end of the red phase nearest to the time interval.

TIME	ARM A		ARM B		ARM C	
	LANE 1	LANE 2	LANE 1	LANE 2	LANE 1	LANE 2
07:30	1		0	2	0	0
07:35	0	1	0	1	0	2
07:40	0	3	0	1	1	0
07:45	0	1	0	0	2	0
07:50	0	2	1	2	0	1
07:55	0	1	1	0	2	3
08:00	0	4	2	1	2	5
08:05	0	2	2	0	0	3
08:10	0	3	1	2	0	0
08:15	0	0	1	1	1	2
08:20	0	0	1	2	0	1
08:25	0	2	2	1	0	4
08:30	4	2	1	1	0	2
08:35	1	5	4	3	0	4
08:40	0	2	7	3	1	3
08:45	1	7	3	1	0	5
08:50	0	4	5	0	0	5
08:55	5	11	5	2	0	8
09:00	0	7	3	3	0	5
09:05	0	1	3	2	0	6
09:10	0	5	5	2	1	2
09:15	1	3	2	2	0	1
09:20	0	3	2	2	0	3
09:25	0	2	1	1	0	2
09:30	0	3	3	1	0	2
MAX QUEUE	5	11	7	3	2	8

TIME	ARM A		ARM B		ARM C	
	LANE 1	LANE 2	LANE 1	LANE 2	LANE 1	LANE 2
12:30	2	7	0	2	0	1
12:35	1	5	0	3	0	6
12:40	1	7	1	11	0	4
12:45	0	4	1	3	0	4
12:50	1	4	7	2	0	2
12:55	4	6	5	12	0	9
13:00	1	7	0	2	0	2
13:05	0	2	0	7	0	4
13:10	0	4	1	4	0	1
13:15	1	1	1	2	0	1
13:20	0	4	1	3	1	12
13:25	4	4	3	1	1	10
13:30	4	4	1	1	1	3
13:35	0	4	4	3	0	4
13:40	3	3	0	2	1	2
13:45	1	5	1	3	1	3
13:50	3	5	0	2	0	6
13:55	2	2	2	1	0	3
14:00	0	6	3	1	1	4
14:05	1	3	4	2	0	5
14:10	0	0	3	1	0	2
14:15	6	2	2	1	1	1
14:20	0	3	1	2	3	5
14:25	1	3	1	0	0	2
14:30	1	3	3	1	1	1
14:35	0	0	0	1	0	1
14:40	1	6	2	3	0	12
14:45	1	7	2	3	0	4
14:50	1	7	0	4	0	7
14:55	2	7	0	4	0	2
15:00	0	3	1	1	0	2
15:05	5	1	3	3	0	2
15:10	1	1	1	4	1	2
15:15	2	9	2	3	0	4
15:20	2	1	0	2	1	2
15:25	1	9	8	2	0	2
15:30	3	8	3	2	2	3
MAX QUEUE	6	9	8	12	2	12

TIME	ARM A		ARM B		ARM C	
	LANE 1	LANE 2	LANE 1	LANE 2	LANE 1	LANE 2
16:30	0	0	1	1	2	4
16:35	2	8	0	1	2	7
16:40	0	10	5	1	0	5
16:45	1	1	0	1	0	1
16:50	3	0	2	2	0	9
16:55	2	8	2	4	0	3
17:00	0	0	2	1	0	1
17:05	0	3	5	2	0	4
17:10	2	10	1	1	0	2
17:15	0	3	4	2	0	3
17:20	4	5	0	4	0	4
17:25	2	8	1	5	0	6
17:30	2	1	3	2	3	2
17:35	0	0	0	1	0	1
17:40	0	0	3	1	0	10
17:45	1	2	1	1	0	4
17:50	1	3	3	2	0	2
17:55	0	2	0	3	0	1
18:00	2	3	2	1	0	1
18:05	2	2	4	2	1	0
18:10	1	1	1	1	1	0
18:15	1	2	1	3	3	2
18:20	0	1	3	1	3	3
18:25	0	4	2	4	0	7
18:30	0	3	4	2	4	4
MAX QUEUE	4	10	5	5	4	10



	Site / Location: Site 4, A55 Junction 1 – A55/Kingsland Road	Project No.: 15407	Drawing No.: 15407-04	Drawn By: MN
	Survey Date: Tuesday 30th April 2024	Project Name: Holy Island, Anglesey		
	Survey Times: 07:30-09:30, 12:30-15:30 & 16:30-18:30	Drawing Title: Site Layout and Observed Movements		



SITE: 4

DATE: 30/04/2024

LOCATION: A55 Junction 1 – A55/Kingsland Road

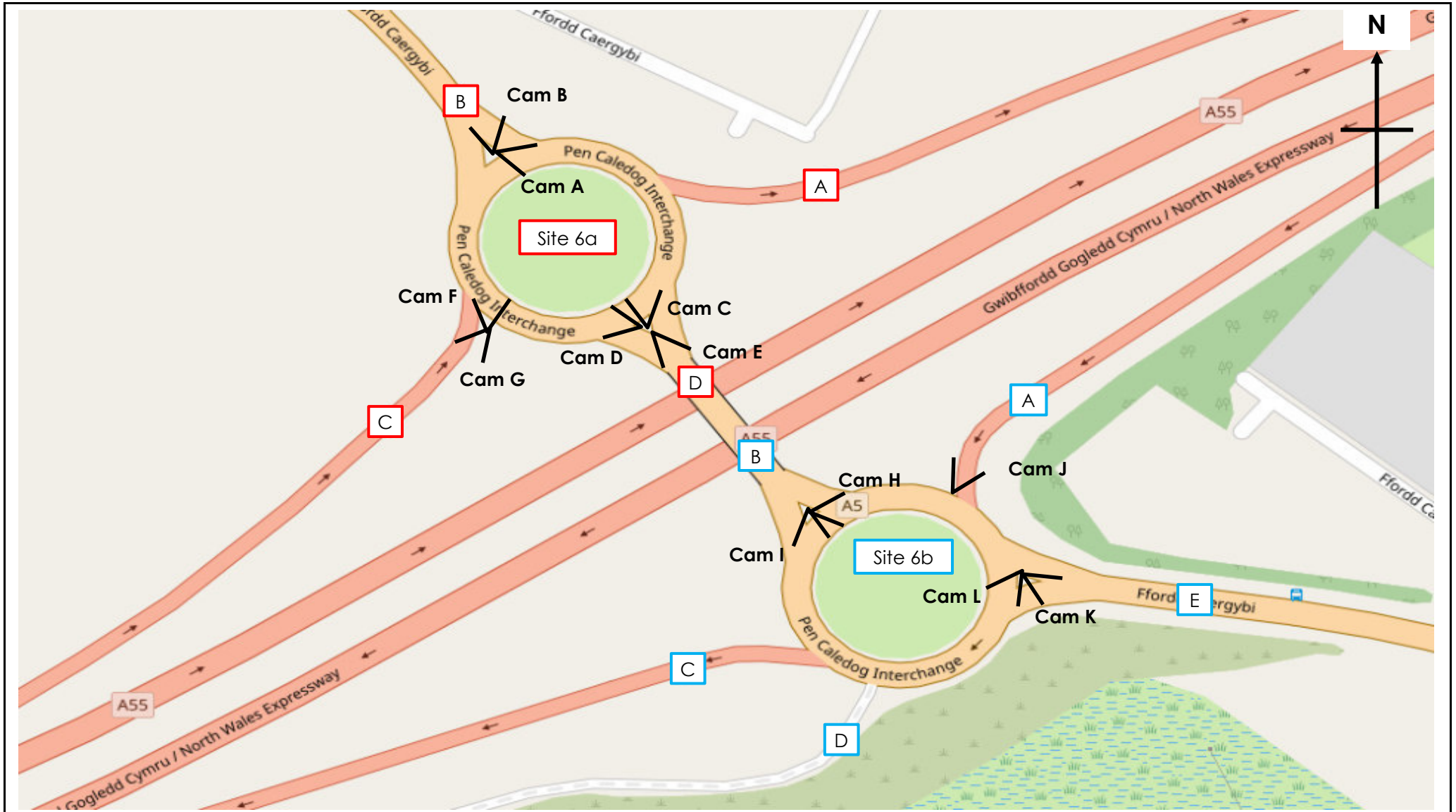
DAY: Tuesday


Notes: All queues are measured in vehicle numbers on the 5-minute interval.
Lane numbering is outwards from the kerb in the direction of travel.
When a junction is signalled, queues are taken at the end of the red phase nearest to the time interval.

TIME	ARM A		ARM B		ARM C		ARM D	
	LANE 1	LANE 2	LANE 1	LANE 1	LANE 2	LANE 1	LANE 2	
07:30	0	0	0	0	0	0	0	
07:35	0	0	1	0	0	0	0	
07:40	0	0	0	0	0	0	0	
07:45	0	0	0	0	0	0	0	
07:50	0	0	0	0	0	0	0	
07:55	0	0	0	0	0	1	0	
08:00	0	0	0	0	0	0	0	
08:05	0	0	0	0	0	0	0	
08:10	0	0	0	0	0	0	0	
08:15	0	0	0	0	0	0	0	
08:20	0	0	0	0	0	0	0	
08:25	0	3	0	0	0	0	0	
08:30	0	0	0	0	0	0	0	
08:35	0	0	0	0	0	0	0	
08:40	0	0	4	0	0	0	0	
08:45	0	0	0	0	0	0	0	
08:50	0	0	2	0	0	0	0	
08:55	0	0	1	1	0	0	0	
09:00	0	0	0	0	0	1	0	
09:05	1	1	0	0	0	0	0	
09:10	0	0	0	0	0	0	0	
09:15	0	0	0	0	0	1	0	
09:20	0	0	0	0	0	0	0	
09:25	0	0	0	0	0	0	0	
09:30	0	0	0	0	0	0	0	
MAX QUEUE	1	3	4	1	1	1	0	

TIME	ARM A		ARM B		ARM C		ARM D	
	LANE 1	LANE 2	LANE 1	LANE 1	LANE 2	LANE 1	LANE 2	
12:30	0	0	0	0	1	0	0	
12:35	0	0	0	0	0	0	0	
12:40	0	0	0	2	0	0	0	
12:45	0	0	0	1	0	0	3	
12:50	0	0	0	0	0	0	0	
12:55	0	0	1	3	1	0	0	
13:00	0	0	0	0	0	0	0	
13:05	0	0	0	1	0	1	0	
13:10	0	0	0	0	0	0	0	
13:15	0	0	0	0	0	0	0	
13:20	0	0	0	0	0	0	0	
13:25	0	0	0	2	0	0	0	
13:30	0	0	0	0	0	0	0	
13:35	0	0	0	1	0	1	0	
13:40	0	0	0	0	0	0	0	
13:45	0	0	0	0	0	0	0	
13:50	0	0	0	0	0	0	0	
13:55	0	0	0	0	0	0	0	
14:00	0	0	0	1	0	0	0	
14:05	0	0	1	0	0	0	0	
14:10	0	0	0	0	0	0	0	
14:15	0	0	0	0	0	0	0	
14:20	0	0	2	0	0	0	0	
14:25	0	0	0	0	0	0	0	
14:30	0	0	0	0	0	0	0	
14:35	0	0	0	0	0	0	0	
14:40	3	0	0	0	0	0	0	
14:45	1	0	0	0	0	0	0	
14:50	0	0	0	0	0	0	0	
14:55	0	0	0	0	0	0	0	
15:00	0	0	0	0	0	0	0	
15:05	0	0	0	0	0	0	0	
15:10	0	0	0	0	1	0	0	
15:15	0	0	0	0	0	5	0	
15:20	0	0	0	0	0	1	0	
15:25	0	0	0	0	0	1	1	
15:30	0	0	0	1	1	0	1	
MAX QUEUE	3	0	2	3	1	5	1	

TIME	ARM A		ARM B		ARM C		ARM D	
	LANE 1	LANE 2	LANE 1	LANE 1	LANE 2	LANE 1	LANE 2	
16:30	0	0	0	0	0	0	0	
16:35	0	0	0	0	0	0	0	
16:40	0	0	0	0	0	0	0	
16:45	0	0	0	2	0	0	0	
16:50	0	0	0	0	0	0	0	
16:55	0	0	0	0	0	0	0	
17:00	0	0	0	0	0	1	0	
17:05	0	0	0	0	0	0	0	
17:10	0	0	0	0	0	0	0	
17:15	0	0	0	0	0	0	0	
17:20	0	0	1	2	0	1	0	
17:25	0	0	0	0	0	1	1	
17:30	0	0	0	1	0	0	0	
17:35	0	0	0	0	0	0	0	
17:40	0	0	0	0	0	0	0	
17:45	0	0	0	1	0	0	0	
17:50	0	0	0	1	2	0	0	
17:55	0	0	0	0	0	0	0	
18:00	0	0	0	0	0	0	0	
18:05	0	0	0	0	0	0	0	
18:10	0	0	0	0	0	0	0	
18:15	0	0	1	0	0	0	0	
18:20	0	0	0	1	0	0	0	
18:25	0	0	1	0	0	0	0	
18:30	0	0	0	0	0	0	0	
MAX QUEUE	0	0	1	2	2	1	1	



	Site / Location: Site 6, A55 Junction 3 – Pencaledog Interchange	Project No.: 15407	Drawing No.: 15407-06	Drawn By: MN
	Survey Date: Tuesday 30th April 2024	Project Name: Holy Island, Anglesey		
	Survey Times: 07:30-09:30, 12:30-15:30 & 16:30-18:30	Drawing Title: Site Layout and Observed Movements		



SITE: 6a

DATE: 30/04/2024

LOCATION: A55 Junction 3 – Pencaledog Interchange

DAY: Tuesday

Notes: All queues are measured in vehicle numbers on the 5-minute interval.
Lane numbering is outwards from the kerb in the direction of travel.
When a junction is signalled, queues are taken at the end of the red phase nearest to the time interval.

TIME	ARM A LANE 1	ARM B LANE 1	ARM C LANE 1	ARM D LANE 1
07:30		0	0	0
07:35		0	0	0
07:40		0	0	0
07:45		0	0	0
07:50		0	0	0
07:55		0	0	0
08:00		0	0	0
08:05		0	0	0
08:10		0	0	0
08:15		0	0	0
08:20		0	1	0
08:25		0	0	0
08:30		0	0	0
08:35		0	0	0
08:40		0	1	0
08:45		0	0	0
08:50		0	0	0
08:55		0	0	0
09:00		0	0	0
09:05		0	0	0
09:10		0	0	0
09:15		0	0	0
09:20		0	0	0
09:25		0	0	0
09:30		0	0	0
MAX QUEUE	0	0	1	0

TIME	ARM A LANE 1	ARM B LANE 1	ARM C LANE 1	ARM D LANE 1
12:30		0	0	0
12:35		0	0	0
12:40		0	0	0
12:45		0	0	0
12:50		0	0	0
12:55		0	0	0
13:00		0	0	0
13:05		0	0	0
13:10		0	0	0
13:15		0	0	0
13:20		0	0	0
13:25		0	0	0
13:30		0	0	0
13:35		0	0	0
13:40		0	0	0
13:45		0	0	0
13:50		0	0	0
13:55		0	0	0
14:00		0	0	0
14:05		0	0	0
14:10		0	0	0
14:15		0	0	0
14:20		0	0	0
14:25		0	0	0
14:30		0	0	0
14:35		0	0	0
14:40		0	0	0
14:45		0	0	0
14:50		0	0	0
14:55		0	0	0
15:00		0	0	0
15:05		0	0	0
15:10		0	0	0
15:15		2	0	0
15:20		0	1	0
15:25		0	0	0
15:30		0	0	0
MAX QUEUE	0	2	1	0

TIME	ARM A LANE 1	ARM B LANE 1	ARM C LANE 1	ARM D LANE 1
16:30		0	0	0
16:35		0	0	0
16:40		0	0	0
16:45		0	0	0
16:50		0	0	0
16:55		0	0	0
17:00		0	0	0
17:05		0	0	0
17:10		0	0	0
17:15		0	0	0
17:20		0	0	0
17:25		0	0	0
17:30		0	0	0
17:35		0	0	0
17:40		0	0	0
17:45		0	0	0
17:50		0	0	0
17:55		0	0	0
18:00		0	0	0
18:05		0	0	0
18:10		0	0	0
18:15		0	0	0
18:20		0	0	0
18:25		0	0	0
18:30		0	0	0
MAX QUEUE	0	0	0	0



SITE: 6b

DATE: 30/04/2024

LOCATION: A55 Junction 3 – Pencaledog Interchange

DAY: Tuesday


Notes: All queues are measured in vehicle numbers on the 5-minute interval.
Lane numbering is outwards from the kerb in the direction of travel.
When a junction is signalised, queues are taken at the end of the red phase nearest to the time interval.

TIME	ARM A		ARM B	ARM C	ARM D	ARM E
	LANE 1	LANE 2	LANE 1	LANE 1	LANE 1	LANE 1
07:30	0	0	0		0	0
07:35	0	0	0		0	0
07:40	0	0	0		0	0
07:45	0	0	0		0	0
07:50	0	0	0		0	0
07:55	0	0	0		0	0
08:00	0	0	0		0	0
08:05	0	0	0		0	0
08:10	0	0	0		0	0
08:15	0	0	0		0	0
08:20	0	0	0		0	0
08:25	0	0	0		0	0
08:30	0	0	0		0	0
08:35	0	0	0		0	0
08:40	0	0	0		0	0
08:45	0	0	0		0	0
08:50	0	0	0		0	0
08:55	0	0	0		0	1
09:00	0	0	0		0	0
09:05	0	0	0		0	0
09:10	0	0	0		0	0
09:15	0	1	0		0	0
09:20	0	0	0		0	0
09:25	0	0	0		0	0
09:30	0	0	0		0	0
MAX QUEUE	0	1	0	0	0	1

TIME	ARM A		ARM B	ARM C	ARM D	ARM E
	LANE 1	LANE 2	LANE 1	LANE 1	LANE 1	LANE 1
12:30	0	0	0		0	0
12:35	0	0	0		0	0
12:40	0	0	0		0	0
12:45	0	0	0		0	0
12:50	0	0	0		0	0
12:55	0	0	0		0	0
13:00	0	0	0		0	0
13:05	0	0	0		0	0
13:10	0	0	0		0	0
13:15	0	0	0		0	0
13:20	0	0	0		0	0
13:25	0	0	0		0	0
13:30	0	0	0		0	1
13:35	0	0	0		0	0
13:40	0	0	0		0	0
13:45	0	0	0		0	0
13:50	0	0	0		0	0
13:55	0	0	0		0	1
14:00	0	0	0		0	1
14:05	0	0	0		0	0
14:10	0	0	0		0	0
14:15	0	0	0		0	0
14:20	0	0	0		0	0
14:25	0	0	0		0	0
14:30	0	0	0		0	0
14:35	0	0	0		0	0
14:40	0	0	0		0	0
14:45	0	0	0		0	0
14:50	0	0	0		0	0
14:55	0	0	0		0	0
15:00	0	0	0		0	0
15:05	0	0	0		0	0
15:10	0	0	0		0	0
15:15	0	0	0		0	0
15:20	0	0	0		0	0
15:25	0	0	0		0	1
15:30	0	0	0		0	0
MAX QUEUE	0	0	0	0	0	1

TIME	ARM A		ARM B	ARM C	ARM D	ARM E
	LANE 1	LANE 2	LANE 1	LANE 1	LANE 1	LANE 1
16:30	0	0	0		0	0
16:35	0	0	0		0	0
16:40	0	0	0		0	0
16:45	0	0	0		0	0
16:50	0	0	0		0	0
16:55	0	0	0		0	0
17:00	0	0	0		0	0
17:05	0	1	0		0	0
17:10	0	0	0		0	1
17:15	0	0	0		0	0
17:20	0	0	0		0	0
17:25	0	0	0		0	0
17:30	0	0	0		0	0
17:35	0	0	0		0	0
17:40	0	0	0		0	0
17:45	0	0	0		0	0
17:50	0	0	0		0	0
17:55	0	0	0		0	0
18:00	0	0	0		0	0
18:05	0	0	0		0	0
18:10	0	0	0		0	0
18:15	0	0	0		0	0
18:20	0	0	0		0	0
18:25	0	0	0		0	0
18:30	0	0	0		0	0
MAX QUEUE	0	1	0	0	0	1



	Site / Location: Site 10, A5/A5025	Project No.: 15407	Drawing No.: 15407-10	Drawn By: MN
	Survey Date: Tuesday 30th April 2024	Project Name: Holy Island, Anglesey		
	Survey Times: 07:30-09:30, 12:30-15:30 & 16:30-18:30	Drawing Title: Site Layout and Observed Movements		



SITE: 10

DATE: 30/04/2024

LOCATION: A5/A5025

DAY: Tuesday

Notes:

All queues are measured in vehicle numbers on the 5-minute interval.
Lane numbering is outwards from the kerb in the direction of travel.
When a junction is signalised, queues are taken at the end of the red phase nearest to the time interval.

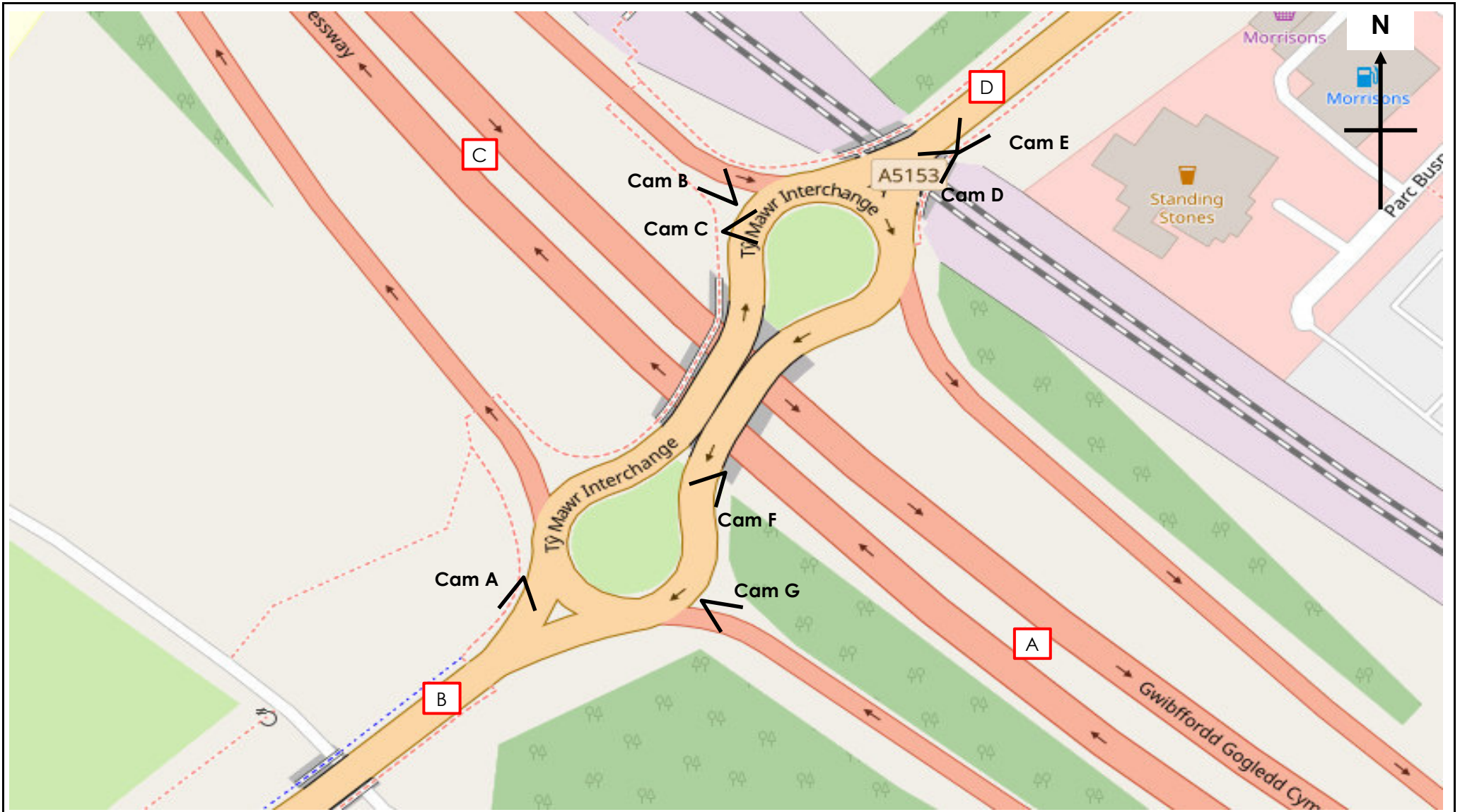
TIME	ARM A		ARM B	ARM C	ARM D
	LANE 1	LANE 2	LANE 1	LANE 1	LANE 1
07:30	0	0	1	0	0
07:35	0	0	0	1	0
07:40	0	2	0	3	0
07:45	0	0	1	1	6
07:50	0	0	0	3	0
07:55	0	0	1	1	0
08:00	0	0	1	0	0
08:05	0	0	1	0	0
08:10	0	1	0	0	0
08:15	1	1	0	0	2
08:20	0	0	2	1	2
08:25	0	0	1	3	2
08:30	5	2	0	2	0
08:35	0	0	0	0	0
08:40	0	0	0	1	0
08:45	1	2	1	1	2
08:50	1	1	0	1	10
08:55	0	0	4	0	1
09:00	0	0	0	0	0
09:05	0	1	2	0	4
09:10	0	1	1	0	5
09:15	1	1	3	2	1
09:20	0	0	2	1	1
09:25	0	2	0	0	0
09:30	0	0	0	2	0
MAX QUEUE	5	2	4	3	10


TIME	ARM A		ARM B	ARM C	ARM D
	LANE 1	LANE 2	LANE 1	LANE 1	LANE 1
12:30	2	0	2	2	3
12:35	0	0	0	2	5
12:40	2	2	3	3	2
12:45	0	2	0	11	2
12:50	1	2	0	2	0
12:55	5	1	6	4	1
13:00	0	0	3	2	0
13:05	1	0	2	1	7
13:10	1	3	0	0	2
13:15	0	0	0	1	0
13:20	3	4	4	5	2
13:25	0	1	5	4	3
13:30	1	0	1	4	0
13:35	0	0	2	0	0
13:40	0	0	0	0	0
13:45	0	2	1	1	1
13:50	0	1	0	0	1
13:55	0	1	1	1	3
14:00	3	6	3	1	2
14:05	0	0	0	2	1
14:10	0	0	1	3	5
14:15	0	0	0	1	0
14:20	0	0	0	3	2
14:25	0	0	0	3	1
14:30	1	0	3	4	1
14:35	0	1	4	0	0
14:40	0	0	3	1	1
14:45	0	0	2	1	0
14:50	0	1	0	1	0
14:55	1	1	0	4	2
15:00	0	2	1	5	2
15:05	0	1	0	4	2
15:10	0	0	1	1	3
15:15	3	3	6	1	2
15:20	3	1	0	5	4
15:25	0	1	0	4	1
15:30	1	1	0	2	5
MAX QUEUE	5	6	6	11	7

TIME	ARM A		ARM B	ARM C	ARM D
	LANE 1	LANE 2	LANE 1	LANE 1	LANE 1
16:30	0	1	3	2	1
16:35	1	0	2	1	1
16:40	0	0	1	4	2
16:45	1	1	2	3	5
16:50	0	0	3	1	0
16:55	0	0	4	2	1
17:00	0	0	0	1	2
17:05	0	0	1	2	1
17:10	0	0	0	1	0
17:15	0	1	2	1	0
17:20	0	1	3	1	0
17:25	0	1	1	3	1
17:30	2	0	2	0	1
17:35	1	0	1	0	1
17:40	0	0	2	1	3
17:45	0	0	0	1	1
17:50	0	1	0	0	3
17:55	1	0	0	2	4
18:00	0	1	1	0	1
18:05	1	1	1	1	0
18:10	0	0	1	0	1
18:15	0	0	0	1	0
18:20	1	1	1	2	2
18:25	0	0	1	1	0
18:30	0	0	2	0	0
MAX QUEUE	2	1	4	4	5

APPENDIX C

JULY 2024 TRAFFIC COUNT DATA



	Site / Location: Site 5, A55 Junction 2 – Ty Mawr Interchange	Project No.: 15762	Drawing No.: 15762-05	Drawn By: MN
	Survey Date: Wednesday 17th July 2024	Project Name: Holy Island, Anglesey		
	Survey Times: 07:30-09:30, 12:30-15:30 & 16:30-18:30	Drawing Title: Site Layout and Observed Movements		



SITE: 5

DATE: 17/07/2024

LOCATION: A55 Junction 2 – TY Mawr Interchange

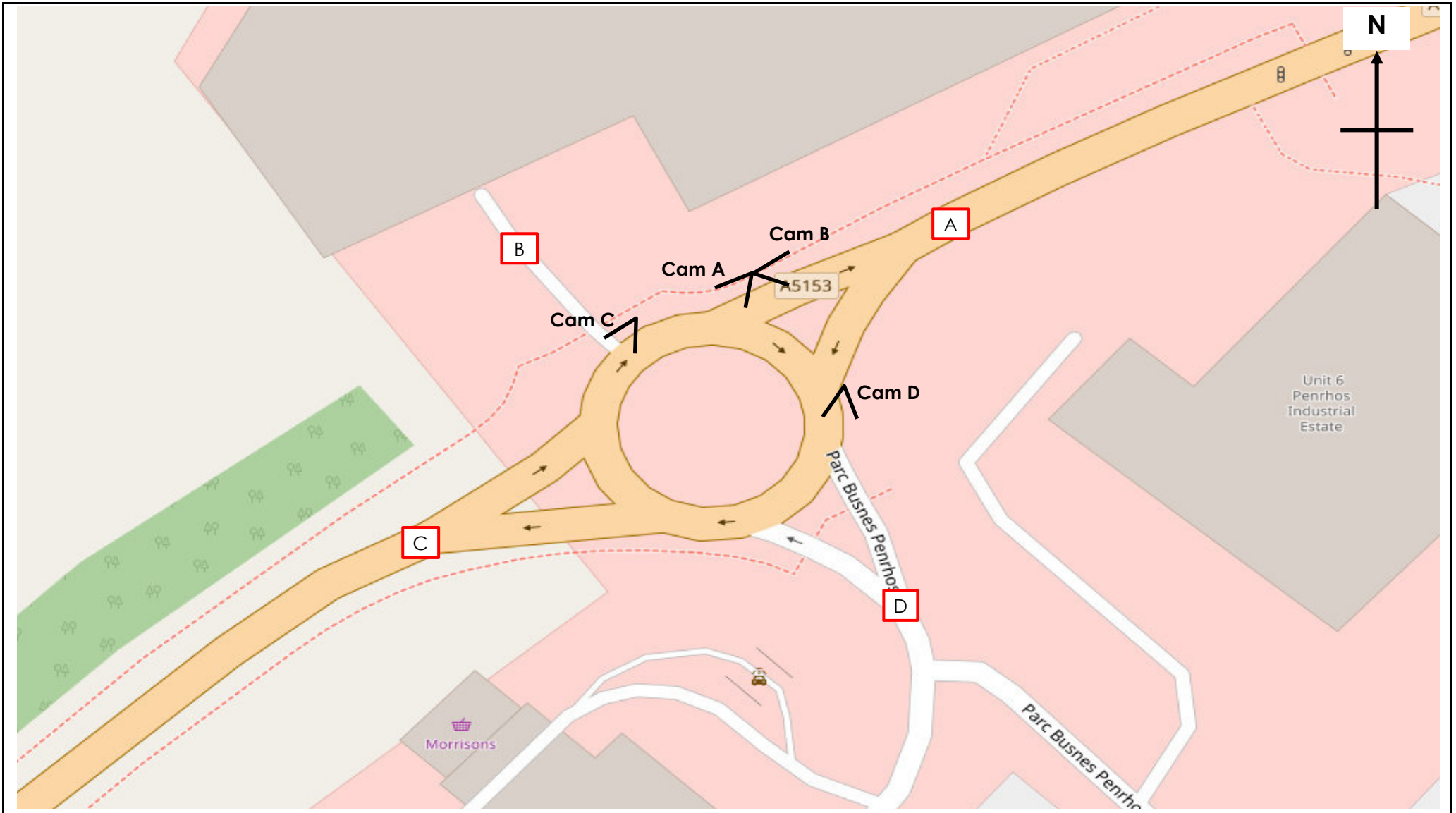
DAY: Wednesday


Notes: All queues are measured in vehicle numbers on the 5-minute interval.
Lane numbering is outwards from the kerb in the direction of travel.
When a junction is signalised, queues are taken at the end of the red phase nearest to the time interval.

TIME	ARM A	ARM B	ARM C	ARM D
	LANE 1	LANE 1	LANE 1	LANE 1
07:30	0	0	0	0
07:35	0	0	0	0
07:40	0	0	0	0
07:45	0	0	0	0
07:50	0	0	0	0
07:55	0	0	0	0
08:00	0	0	0	0
08:05	0	0	0	0
08:10	0	0	0	0
08:15	0	0	1	0
08:20	0	0	1	0
08:25	0	0	0	0
08:30	0	0	0	0
08:35	0	0	0	0
08:40	0	0	0	0
08:45	0	0	0	0
08:50	0	0	0	0
08:55	0	0	0	0
09:00	0	0	0	0
09:05	0	0	0	0
09:10	0	0	0	0
09:15	0	0	0	0
09:20	1	0	0	0
09:25	0	0	0	0
09:30	0	0	0	0
MAX QUEUE	1	0	1	0

TIME	ARM A	ARM B	ARM C	ARM D
	LANE 1	LANE 1	LANE 1	LANE 1
12:30	0	0	0	0
12:35	0	0	0	0
12:40	0	0	7	4
12:45	0	0	0	0
12:50	0	0	3	0
12:55	0	0	0	0
13:00	0	0	0	0
13:05	0	0	0	0
13:10	0	0	0	0
13:15	0	0	0	0
13:20	0	0	0	0
13:25	0	0	0	0
13:30	0	0	0	0
13:35	0	0	0	0
13:40	0	0	0	0
13:45	0	0	0	0
13:50	0	0	0	0
13:55	0	0	2	0
14:00	0	0	0	0
14:05	0	0	0	0
14:10	0	0	0	0
14:15	0	0	0	0
14:20	0	0	0	0
14:25	0	0	0	0
14:30	1	0	0	0
14:35	0	0	0	0
14:40	0	0	0	0
14:45	0	0	0	0
14:50	0	0	0	0
14:55	0	0	0	0
15:00	0	0	0	0
15:05	0	0	0	0
15:10	0	1	0	0
15:15	0	1	0	0
15:20	0	0	0	0
15:25	0	0	0	0
15:30	0	0	1	0
MAX QUEUE	1	1	7	4

TIME	ARM A	ARM B	ARM C	ARM D
	LANE 1	LANE 1	LANE 1	LANE 1
16:30	1	0	0	0
16:35	0	0	0	0
16:40	0	0	0	0
16:45	0	0	0	0
16:50	0	0	0	0
16:55	2	0	0	1
17:00	0	0	0	0
17:05	0	5	0	0
17:10	0	0	0	0
17:15	0	0	0	0
17:20	0	0	0	0
17:25	0	1	0	0
17:30	0	0	0	0
17:35	0	0	0	0
17:40	0	0	0	0
17:45	0	0	0	0
17:50	0	0	0	0
17:55	0	0	0	0
18:00	0	0	0	0
18:05	0	0	0	0
18:10	0	0	0	0
18:15	0	0	0	0
18:20	0	0	0	0
18:25	0	0	0	0
18:30	0	0	0	0
MAX QUEUE	2	5	0	1



 <p>NDC NATIONAL DATA COLLECTION</p>	Site / Location: Site 7, A5153/Penrhos Industrial Estate (W)	Project No.: 15762	Drawing No.: 15762-07	Drawn By: MN
	Survey Date: Wednesday 17th July 2024	Project Name: Holy Island, Anglesey		
	Survey Times: 07:30-09:30, 12:30-15:30 & 16:30-18:30	Drawing Title: Site Layout and Observed Movements		



SITE: 7

DATE: 17/07/2024

LOCATION: A5153/Penrhos Industrial Estate (W)

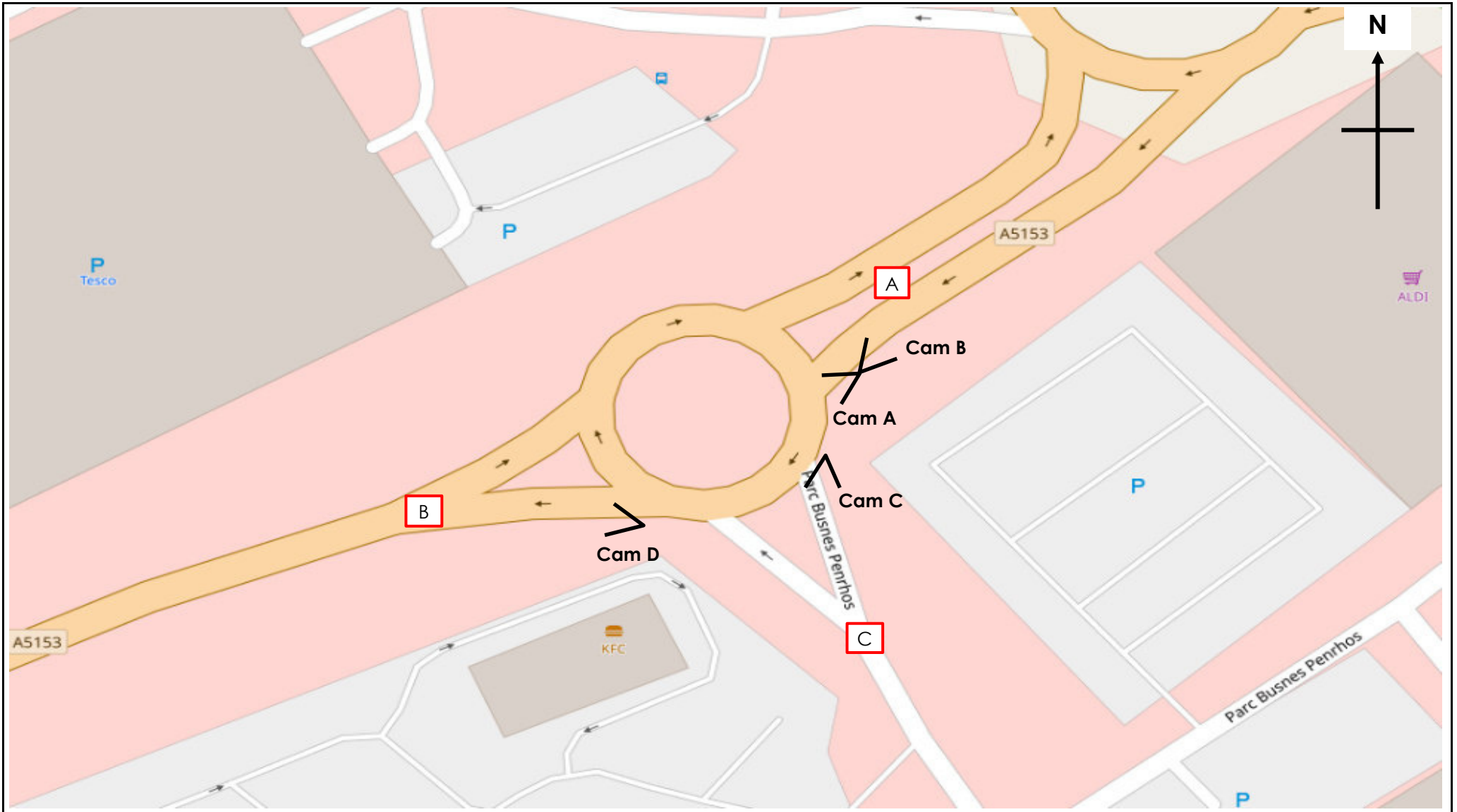
DAY: Wednesday


Notes: All queues are measured in vehicle numbers on the 5-minute interval.
Lane numbering is outwards from the kerb in the direction of travel.
When a junction is signalised, queues are taken at the end of the red phase nearest to the time interval.

TIME	ARM A	ARM B	ARM C	ARM D
	LANE 1	LANE 1	LANE 1	LANE 1
07:30	0	0	0	0
07:35	0	0	0	0
07:40	0	0	0	0
07:45	0	0	0	0
07:50	0	0	0	0
07:55	0	0	0	0
08:00	0	0	0	0
08:05	0	0	0	0
08:10	0	0	0	0
08:15	0	0	0	0
08:20	0	0	0	0
08:25	0	0	0	0
08:30	0	0	0	0
08:35	0	0	0	0
08:40	0	0	0	0
08:45	0	0	0	0
08:50	0	0	0	0
08:55	0	0	0	0
09:00	0	0	0	0
09:05	0	0	0	0
09:10	0	0	0	0
09:15	0	0	0	0
09:20	0	0	0	0
09:25	0	0	0	0
09:30	0	0	0	0
MAX QUEUE	0	0	0	0

TIME	ARM A	ARM B	ARM C	ARM D
	LANE 1	LANE 1	LANE 1	LANE 1
12:30	0	0	0	0
12:35	0	0	0	0
12:40	0	0	0	0
12:45	0	0	0	0
12:50	0	0	3	0
12:55	0	0	0	0
13:00	0	0	0	0
13:05	0	0	0	0
13:10	0	0	0	0
13:15	0	0	0	0
13:20	0	0	0	0
13:25	0	0	0	0
13:30	0	0	0	0
13:35	0	0	0	0
13:40	2	0	5	0
13:45	1	0	0	0
13:50	0	0	0	0
13:55	0	0	0	0
14:00	0	0	0	0
14:05	0	0	0	0
14:10	0	0	0	0
14:15	0	0	0	0
14:20	0	0	0	0
14:25	0	0	0	0
14:30	0	0	0	0
14:35	0	0	0	0
14:40	0	0	0	0
14:45	0	0	0	0
14:50	0	0	0	0
14:55	0	0	0	3
15:00	0	0	0	0
15:05	0	0	0	1
15:10	0	0	0	0
15:15	0	0	0	0
15:20	0	0	0	0
15:25	0	0	0	0
15:30	0	0	0	0
MAX QUEUE	2	0	5	3

TIME	ARM A	ARM B	ARM C	ARM D
	LANE 1	LANE 1	LANE 1	LANE 1
16:30	0	0	0	0
16:35	0	0	0	0
16:40	0	0	0	0
16:45	1	0	0	0
16:50	3	0	0	0
16:55	0	0	0	0
17:00	0	0	0	0
17:05	0	0	0	0
17:10	0	0	0	0
17:15	0	0	0	0
17:20	0	0	0	0
17:25	0	0	0	0
17:30	0	0	0	0
17:35	0	0	0	0
17:40	0	0	0	0
17:45	0	0	0	0
17:50	0	0	0	0
17:55	0	0	0	0
18:00	0	0	0	0
18:05	0	0	0	0
18:10	0	0	0	0
18:15	0	0	0	0
18:20	0	0	0	0
18:25	0	0	0	0
18:30	0	0	0	0
MAX QUEUE	3	0	0	0



	Site / Location: Site 8, A5153/Penrhos Industrial Estate (E)	Project No.: 15762	Drawing No.: 15762-08	Drawn By: MN
	Survey Date: Wednesday 17th July 2024	Project Name: Holy Island, Anglesey		
	Survey Times: 07:30-09:30, 12:30-15:30 & 16:30-18:30	Drawing Title: Site Layout and Observed Movements		



SITE: 8

DATE: 17/07/2024

LOCATION: A5153/Penrhos Industrial Estate (E)

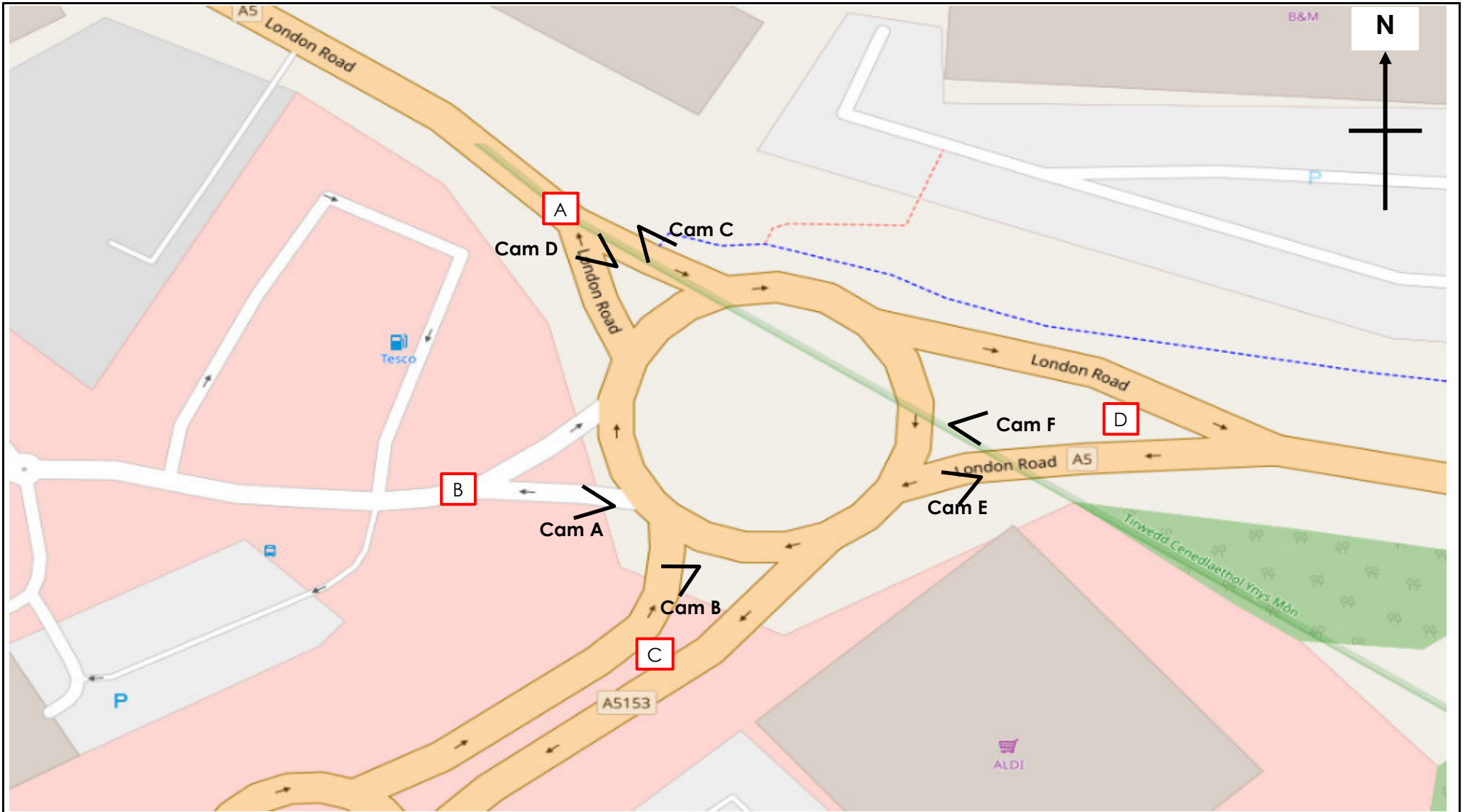
DAY: Wednesday


Notes: All queues are measured in vehicle numbers on the 5-minute interval.
Lane numbering is outwards from the kerb in the direction of travel.
When a junction is signalised, queues are taken at the end of the red phase nearest to the time interval.

TIME	ARM A	ARM B		ARM C	
	LANE 1	LANE 1	LANE 2	LANE 1	LANE 2
07:30	0	0	0	0	0
07:35	0	0	0	0	0
07:40	0	0	0	0	0
07:45	0	0	0	0	0
07:50	0	0	0	0	0
07:55	0	0	0	0	0
08:00	0	0	0	0	0
08:05	0	0	0	0	0
08:10	0	0	0	0	0
08:15	0	0	0	0	0
08:20	0	0	0	0	0
08:25	0	0	0	0	0
08:30	0	0	0	0	0
08:35	0	0	0	0	0
08:40	0	0	0	0	0
08:45	0	0	0	0	0
08:50	0	0	0	0	0
08:55	0	0	0	0	0
09:00	0	0	0	0	0
09:05	0	0	0	0	0
09:10	0	0	0	0	0
09:15	0	0	0	0	0
09:20	0	0	0	0	0
09:25	0	0	0	0	0
09:30	0	0	0	0	0
MAX QUEUE	0	0	0	0	0

TIME	ARM A	ARM B		ARM C	
	LANE 1	LANE 1	LANE 2	LANE 1	LANE 2
12:30	0	0	0	0	0
12:35	0	0	0	0	0
12:40	0	0	0	0	0
12:45	0	0	0	0	0
12:50	0	0	0	0	0
12:55	0	0	0	0	0
13:00	0	0	0	0	0
13:05	0	0	2	0	0
13:10	0	0	0	0	0
13:15	0	0	0	0	0
13:20	0	0	0	0	0
13:25	0	0	0	0	0
13:30	0	0	0	0	0
13:35	0	0	0	0	0
13:40	0	1	1	0	0
13:45	0	0	0	0	0
13:50	0	0	0	0	0
13:55	0	0	0	0	0
14:00	0	0	0	0	0
14:05	0	0	0	0	0
14:10	0	0	0	0	0
14:15	0	0	0	0	0
14:20	0	0	0	0	0
14:25	0	0	0	0	0
14:30	0	0	0	0	0
14:35	0	0	0	0	0
14:40	0	0	0	0	0
14:45	0	0	0	0	0
14:50	0	0	0	0	0
14:55	0	0	0	0	0
15:00	0	0	0	0	0
15:05	0	0	0	0	0
15:10	0	0	0	0	0
15:15	0	0	0	0	1
15:20	0	0	0	0	0
15:25	0	0	0	0	0
15:30	0	0	0	0	0
MAX QUEUE	0	1	2	0	1

TIME	ARM A	ARM B		ARM C	
	LANE 1	LANE 1	LANE 2	LANE 1	LANE 2
16:30	0	0	0	0	0
16:35	0	0	0	0	0
16:40	2	0	0	0	0
16:45	0	0	0	0	0
16:50	0	0	0	0	0
16:55	0	0	0	0	0
17:00	0	0	0	0	0
17:05	0	0	0	0	0
17:10	0	0	0	0	0
17:15	0	0	0	0	0
17:20	0	0	1	0	0
17:25	0	0	0	0	0
17:30	0	0	0	0	0
17:35	0	0	0	0	0
17:40	0	0	0	0	0
17:45	0	0	0	0	0
17:50	0	0	0	0	0
17:55	0	0	0	0	1
18:00	0	0	0	0	1
18:05	0	0	0	0	0
18:10	0	0	0	0	0
18:15	0	0	0	0	0
18:20	0	0	0	0	0
18:25	0	0	0	0	0
18:30	0	0	0	0	0
MAX QUEUE	2	0	1	0	1



	Site / Location: Site 9, A5/A5153/Tesco	Project No.: 15762	Drawing No.: 15762-09	Drawn By: MN	
	Survey Date: Wednesday 17th July 2024	Project Name: Holy Island, Anglesey			
	Survey Times: 07:30-09:30, 12:30-15:30 & 16:30-18:30	Drawing Title: Site Layout and Observed Movements			

DATE			DATE			DATE			DATE			DATE			DATE			DATE			DATE			DATE			DATE			DATE			DATE			DATE			DATE			DATE											
TIME	TIME	TIME	TIME	TIME	TIME	TIME	TIME	TIME	TIME	TIME	TIME	TIME	TIME	TIME	TIME	TIME	TIME	TIME	TIME	TIME	TIME	TIME	TIME	TIME	TIME	TIME	TIME	TIME	TIME	TIME	TIME	TIME	TIME	TIME	TIME	TIME	TIME	TIME	TIME	TIME	TIME	TIME	TIME	TIME									
LOCATION	ADDRESS		LOCATION	ADDRESS		LOCATION	ADDRESS		LOCATION	ADDRESS		LOCATION	ADDRESS		LOCATION	ADDRESS		LOCATION	ADDRESS		LOCATION	ADDRESS		LOCATION	ADDRESS		LOCATION	ADDRESS		LOCATION	ADDRESS		LOCATION	ADDRESS		LOCATION	ADDRESS		LOCATION	ADDRESS		LOCATION	ADDRESS		LOCATION	ADDRESS		LOCATION	ADDRESS		LOCATION	ADDRESS	
0800	0800	0800	0800	0800	0800	0800	0800	0800	0800	0800	0800	0800	0800	0800	0800	0800	0800	0800	0800	0800	0800	0800	0800	0800	0800	0800	0800	0800	0800	0800	0800	0800	0800	0800	0800	0800	0800	0800	0800	0800	0800	0800	0800	0800	0800	0800	0800	0800	0800	0800			



SITE: 9

DATE: 17/07/2024

LOCATION: A5/A5153/Tesco

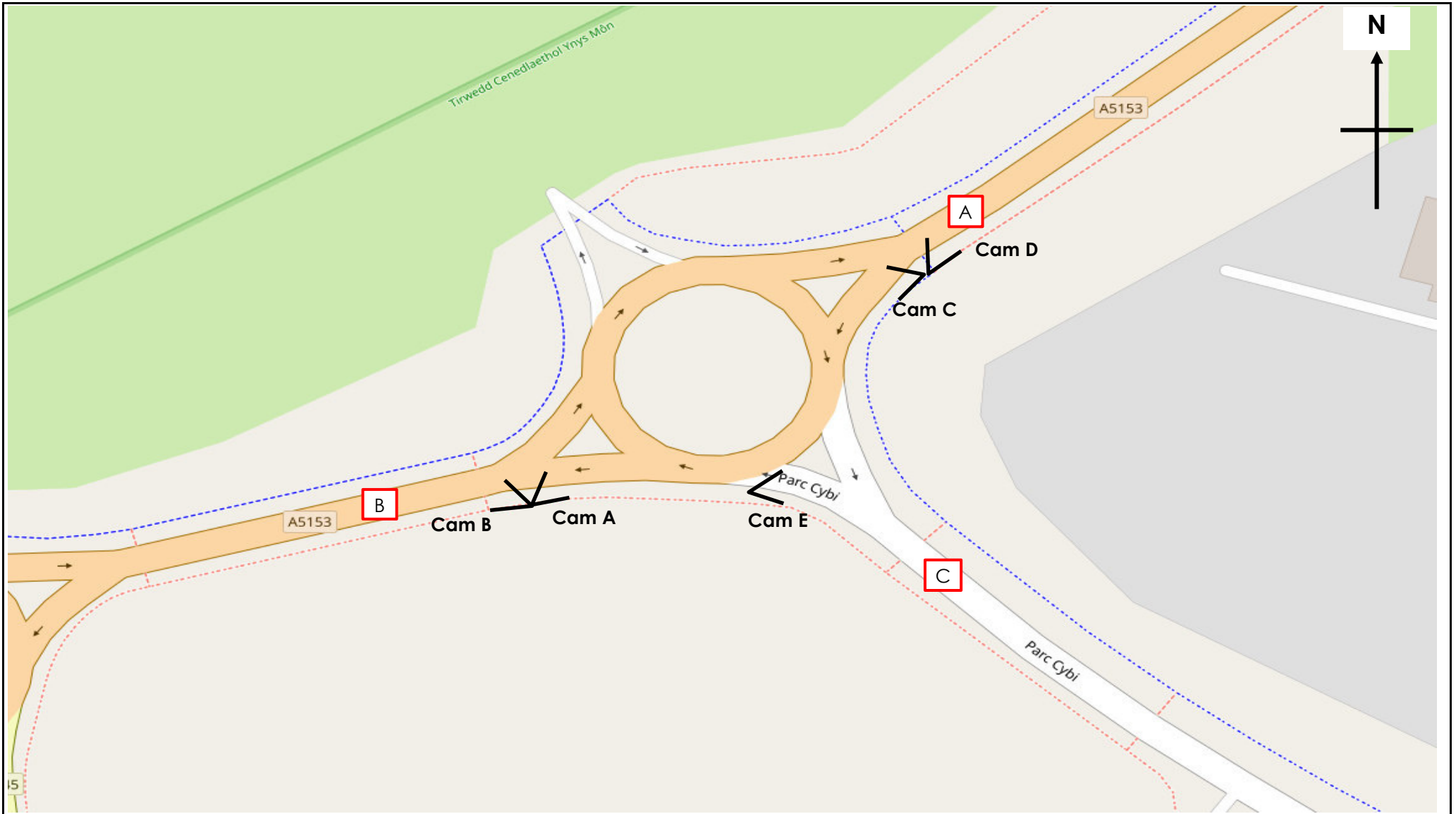
DAY: Wednesday


Notes: All queues are measured in vehicle numbers on the 5-minute interval.
Lane numbering is outwards from the kerb in the direction of travel.
When a junction is signalised, queues are taken at the end of the red phase nearest to the time interval.

TIME	ARM A	ARM B	ARM C		ARM D
	LANE 1	LANE 1	LANE 1	LANE 2	LANE 1
07:30	0	0	0	0	0
07:35	0	0	0	0	0
07:40	0	0	0	0	0
07:45	0	0	0	0	0
07:50	0	0	0	0	0
07:55	0	0	0	0	0
08:00	0	0	0	0	0
08:05	0	0	0	0	0
08:10	0	0	0	0	0
08:15	0	0	0	0	0
08:20	0	0	0	0	0
08:25	0	0	0	0	0
08:30	0	0	0	0	0
08:35	0	0	0	0	0
08:40	0	0	0	0	0
08:45	0	0	0	0	0
08:50	1	1	0	0	1
08:55	0	0	0	0	0
09:00	0	0	0	0	0
09:05	0	0	0	0	0
09:10	0	0	0	0	0
09:15	0	0	0	0	0
09:20	0	0	0	0	0
09:25	0	0	0	0	0
09:30	0	0	0	0	0
MAX QUEUE	1	1	0	0	1

TIME	ARM A	ARM B	ARM C		ARM D
	LANE 1	LANE 1	LANE 1	LANE 2	LANE 1
12:30	0	0	0	0	0
12:35	3	0	0	0	0
12:40	0	0	0	0	2
12:45	0	1	0	0	0
12:50	3	0	0	0	0
12:55	0	0	0	0	0
13:00	0	0	0	0	0
13:05	0	0	0	0	0
13:10	2	0	0	0	0
13:15	4	1	0	0	0
13:20	0	0	0	0	0
13:25	1	0	0	0	5
13:30	1	0	0	0	0
13:35	0	0	0	0	0
13:40	0	0	0	0	0
13:45	0	0	0	0	0
13:50	0	0	0	0	0
13:55	0	0	0	0	0
14:00	3	2	0	0	0
14:05	0	0	0	0	0
14:10	0	0	0	0	0
14:15	0	0	0	0	0
14:20	0	0	0	0	0
14:25	0	0	0	0	0
14:30	0	0	0	0	0
14:35	0	1	0	0	0
14:40	0	1	0	0	0
14:45	0	0	0	0	0
14:50	0	0	0	0	0
14:55	0	0	0	0	0
15:00	0	0	0	0	0
15:05	0	0	0	0	0
15:10	0	0	0	0	0
15:15	0	0	2	0	0
15:20	1	0	0	0	0
15:25	0	0	0	0	0
15:30	0	2	0	0	0
MAX QUEUE	4	2	2	0	5

TIME	ARM A	ARM B	ARM C		ARM D
	LANE 1	LANE 1	LANE 1	LANE 2	LANE 1
16:30	0	0	0	0	0
16:35	0	0	0	0	0
16:40	0	0	0	0	0
16:45	0	0	0	0	0
16:50	0	0	0	0	0
16:55	0	0	0	0	0
17:00	0	0	0	0	0
17:05	0	0	0	0	0
17:10	0	0	0	0	0
17:15	0	0	0	0	2
17:20	0	0	0	0	0
17:25	0	0	0	0	0
17:30	0	0	0	0	0
17:35	0	0	0	0	0
17:40	0	0	0	0	0
17:45	0	0	0	0	0
17:50	0	0	0	0	0
17:55	0	0	0	0	0
18:00	1	1	1	0	0
18:05	0	0	0	0	0
18:10	4	0	2	0	0
18:15	0	0	0	0	0
18:20	0	0	0	0	0
18:25	0	0	0	0	0
18:30	0	0	0	0	0
MAX QUEUE	4	1	2	0	2



	Site / Location: Site 11, A5153 / Parc Cybi	Project No.: 15762	Drawing No.: 15762-11	Drawn By: MN
	Survey Date: Wednesday 17th July 2024	Project Name: Holy Island, Anglesey		
	Survey Times: 07:30-09:30, 12:30-15:30 & 16:30-18:30	Drawing Title: Site Layout and Observed Movements		



SITE: 11

DATE: 17/07/2024

LOCATION: A5153 / Parc Cybi

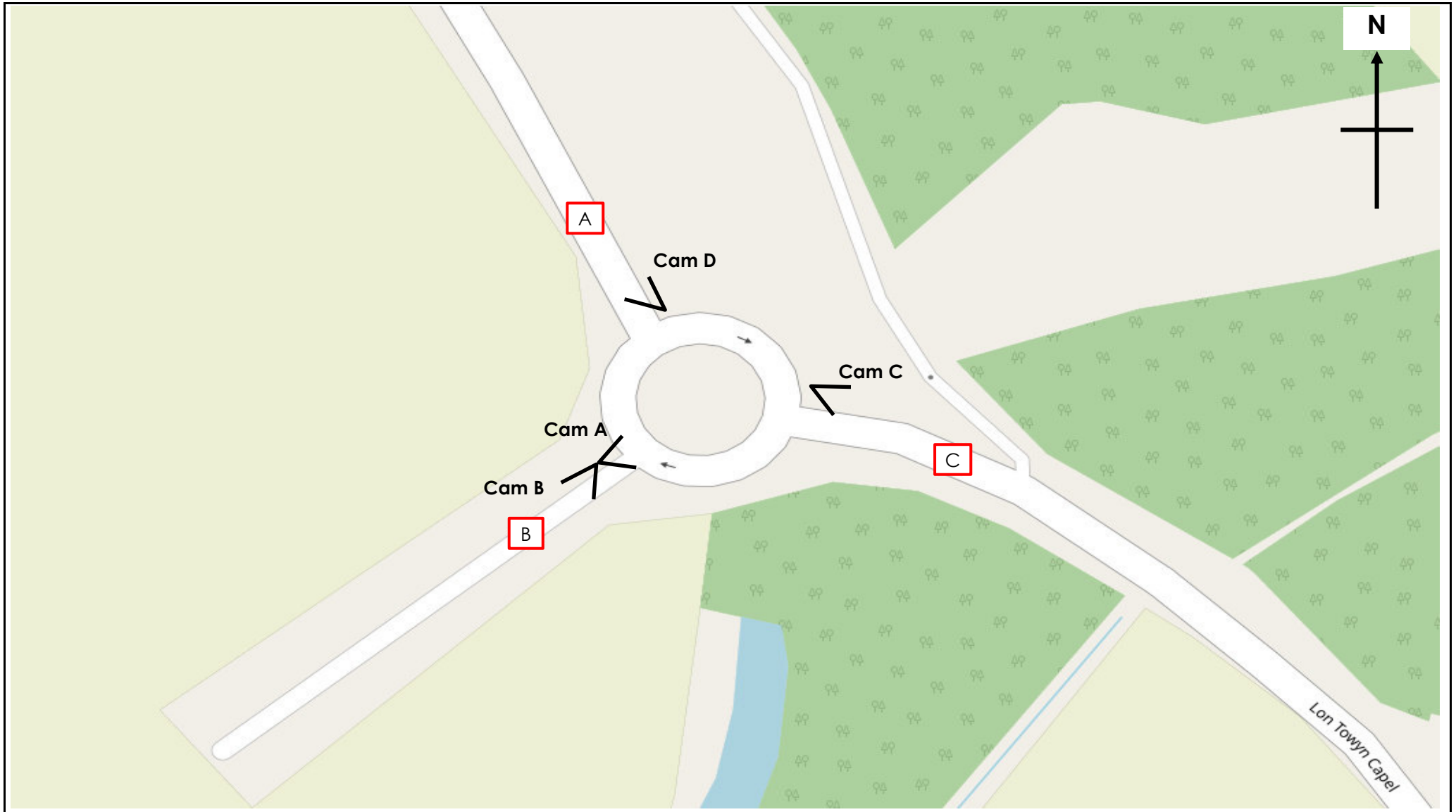
DAY: Wednesday


Notes: All queues are measured in vehicle numbers on the 5-minute interval.
Lane numbering is outwards from the kerb in the direction of travel.
When a junction is signalised, queues are taken at the end of the red phase nearest to the time interval.

TIME	ARM A		ARM B		ARM C	
	LANE 1	LANE 2	LANE 1	LANE 2	LANE 1	LANE 2
07:30	0	0	0	0	0	0
07:35	0	0	0	0	0	0
07:40	0	0	0	0	0	0
07:45	0	0	0	0	0	0
07:50	0	0	0	0	0	0
07:55	0	0	0	0	0	0
08:00	0	0	0	0	0	0
08:05	0	0	0	0	0	0
08:10	0	0	0	0	0	0
08:15	0	0	0	0	0	0
08:20	0	0	0	0	0	0
08:25	0	0	0	0	0	0
08:30	0	0	0	0	0	0
08:35	0	0	0	0	0	0
08:40	0	0	0	0	0	0
08:45	0	0	0	0	0	0
08:50	0	0	0	0	0	0
08:55	0	0	0	0	0	0
09:00	0	0	0	0	0	0
09:05	0	0	0	0	0	0
09:10	0	0	0	0	0	0
09:15	0	0	0	0	0	0
09:20	0	0	0	0	0	0
09:25	0	0	0	0	0	0
09:30	0	0	0	0	0	0
MAX QUEUE	0	0	0	0	0	0

TIME	ARM A		ARM B		ARM C	
	LANE 1	LANE 2	LANE 1	LANE 2	LANE 1	LANE 2
12:30	0	0	0	0	0	0
12:35	0	0	0	0	0	0
12:40	0	0	0	0	0	0
12:45	0	0	0	0	0	0
12:50	0	0	0	0	0	0
12:55	0	0	0	0	0	0
13:00	0	0	0	0	0	0
13:05	0	0	0	0	0	0
13:10	0	0	0	0	0	0
13:15	0	0	0	0	0	0
13:20	0	0	0	0	0	0
13:25	0	0	0	0	0	0
13:30	0	0	0	0	0	0
13:35	0	0	0	0	0	0
13:40	0	0	0	0	0	0
13:45	0	0	0	0	0	0
13:50	0	0	0	0	0	0
13:55	0	0	0	0	1	0
14:00	0	0	0	0	0	0
14:05	0	0	0	0	0	0
14:10	0	0	0	0	0	0
14:15	0	0	0	0	0	0
14:20	0	0	0	0	0	0
14:25	0	0	0	0	0	0
14:30	0	0	0	0	0	0
14:35	0	0	0	0	0	0
14:40	0	0	0	0	0	0
14:45	0	0	0	0	0	0
14:50	0	0	0	0	0	0
14:55	0	0	0	0	0	0
15:00	0	0	0	0	0	0
15:05	0	0	0	0	0	0
15:10	0	0	0	0	0	0
15:15	0	0	0	0	0	0
15:20	0	0	0	0	0	0
15:25	0	0	0	0	0	0
15:30	0	0	0	0	0	0
MAX QUEUE	0	0	0	0	1	0

TIME	ARM A		ARM B		ARM C	
	LANE 1	LANE 2	LANE 1	LANE 2	LANE 1	LANE 2
16:30	0	0	0	0	0	0
16:35	0	0	0	0	0	0
16:40	0	0	0	0	0	0
16:45	0	0	0	0	0	0
16:50	0	0	0	0	0	0
16:55	0	0	0	0	0	0
17:00	0	0	0	0	0	0
17:05	0	0	0	0	0	0
17:10	0	0	0	0	0	0
17:15	0	0	0	0	0	0
17:20	0	0	0	0	0	0
17:25	0	0	0	0	0	0
17:30	0	0	0	0	0	0
17:35	0	0	0	0	0	0
17:40	0	0	0	0	0	0
17:45	0	0	0	0	0	0
17:50	0	0	0	0	0	0
17:55	0	0	0	0	0	0
18:00	0	0	0	0	0	0
18:05	0	0	0	0	0	0
18:10	0	0	0	0	0	0
18:15	0	0	0	0	0	0
18:20	0	0	0	0	0	0
18:25	0	0	0	0	0	0
18:30	0	0	0	0	0	0
MAX QUEUE	0	0	0	0	0	0



	Site / Location: Site 12, Parc Cybi / Lon Trefnath	Project No.: 15762	Drawing No.: 15762-12	Drawn By: MN
	Survey Date: Wednesday 17th July 2024	Project Name: Holy Island, Anglesey		
	Survey Times: 07:30-09:30, 12:30-15:30 & 16:30-18:30	Drawing Title: Site Layout and Observed Movements		



SITE: 12

DATE: 17/07/2024

LOCATION: Parc Cybi / Lon Trefignath

DAY: Wednesday

Notes: All queues are measured in vehicle numbers on the 5-minute interval.
Lane numbering is outwards from the kerb in the direction of travel.
When a junction is signalised, queues are taken at the end of the red phase nearest to the time interval.

TIME	ARM A		ARM B		ARM C	
	LANE 1	LANE 2	LANE 1	LANE 2	LANE 1	LANE 2
07:30	0	0	0	0	0	0
07:35	0	0	0	0	0	0
07:40	0	0	0	0	0	0
07:45	0	0	0	0	0	0
07:50	0	0	0	0	0	0
07:55	0	0	0	0	0	0
08:00	0	0	0	0	0	0
08:05	0	0	0	0	0	0
08:10	0	0	0	0	0	0
08:15	0	0	0	0	0	0
08:20	0	0	0	0	0	0
08:25	0	0	0	0	0	0
08:30	0	0	0	0	0	0
08:35	0	0	0	0	0	0
08:40	0	0	0	0	0	0
08:45	0	0	0	0	0	0
08:50	0	0	0	0	0	0
08:55	0	0	0	0	0	0
09:00	0	0	0	0	0	0
09:05	0	0	0	0	0	0
09:10	0	0	0	0	0	0
09:15	0	0	0	0	0	0
09:20	0	0	0	0	0	0
09:25	0	0	0	0	0	0
09:30	0	0	0	0	0	0
MAX QUEUE	0	0	0	0	0	0

TIME	ARM A		ARM B		ARM C	
	LANE 1	LANE 2	LANE 1	LANE 2	LANE 1	LANE 2
12:30	0	0	0	0	0	0
12:35	0	0	0	0	0	0
12:40	0	0	0	0	0	0
12:45	0	0	0	0	0	0
12:50	0	0	0	0	0	0
12:55	0	0	0	0	0	0
13:00	0	0	0	0	0	0
13:05	0	0	0	0	0	0
13:10	0	0	0	0	0	0
13:15	0	0	0	0	0	0
13:20	0	0	0	0	0	0
13:25	0	0	0	0	0	0
13:30	0	0	0	0	0	0
13:35	0	0	0	0	0	0
13:40	0	0	0	0	0	0
13:45	0	0	0	0	0	0
13:50	0	0	0	0	0	0
13:55	0	0	0	0	0	0
14:00	0	0	0	0	0	0
14:05	0	0	0	0	0	0
14:10	0	0	0	0	0	0
14:15	0	0	0	0	0	0
14:20	0	0	0	0	0	0
14:25	0	0	0	0	0	0
14:30	0	0	0	0	0	0
14:35	0	0	0	0	0	0
14:40	0	0	0	0	0	0
14:45	0	0	0	0	0	0
14:50	0	0	0	0	0	0
14:55	0	0	0	0	0	0
15:00	0	0	0	0	0	0
15:05	0	0	0	0	0	0
15:10	0	0	0	0	0	0
15:15	0	0	0	0	0	0
15:20	0	0	0	0	0	0
15:25	0	0	0	0	0	0
15:30	0	0	0	0	0	0
MAX QUEUE	0	0	0	0	0	0

TIME	ARM A		ARM B		ARM C	
	LANE 1	LANE 2	LANE 1	LANE 2	LANE 1	LANE 2
16:30	0	0	0	0	0	0
16:35	0	0	0	0	0	0
16:40	0	0	0	0	0	0
16:45	0	0	0	0	0	0
16:50	0	0	0	0	0	0
16:55	0	0	0	0	0	0
17:00	0	0	0	0	0	0
17:05	0	0	0	0	0	0
17:10	0	0	0	0	0	0
17:15	0	0	0	0	0	0
17:20	0	0	0	0	0	0
17:25	0	0	0	0	0	0
17:30	0	0	0	0	0	0
17:35	0	0	0	0	0	0
17:40	0	0	0	0	0	0
17:45	0	0	0	0	0	0
17:50	0	0	0	0	0	0
17:55	0	0	0	0	0	0
18:00	0	0	0	0	0	0
18:05	0	0	0	0	0	0
18:10	0	0	0	0	0	0
18:15	0	0	0	0	0	0
18:20	0	0	0	0	0	0
18:25	0	0	0	0	0	0
18:30	0	0	0	0	0	0
MAX QUEUE	0	0	0	0	0	0

APPENDIX D

APRIL/MAY/JUNE 2024 A55 ATC DATA

Count per Carriageway (Unverified), April 2024
 RL10 (0/6B TME Penllech Footbridge)
 Total Vehicles Westbound

		01/04/2024	02/04/2024	03/04/2024	04/04/2024	05/04/2024	06/04/2024	07/04/2024	08/04/2024	09/04/2024	10/04/2024	11/04/2024	12/04/2024	13/04/2024	14/04/2024	15/04/2024	16/04/2024	17/04/2024	18/04/2024	19/04/2024	20/04/2024	21/04/2024	22/04/2024	23/04/2024	24/04/2024	25/04/2024	26/04/2024	27/04/2024	28/04/2024	29/04/2024	30/04/2024
00:00 01:00	71	61	104	126	108	165	78	59	98	80	99	123	128	84	41	94	101	124	106	103	70	59	84	88	122	106	86	64	49	81	
01:00 02:00	38	48	57	69	81	89	65	41	61	59	65	95	78	53	26	49	65	61	51	63	48	37	49	51	62	56	68	42	32	47	
02:00 03:00	12	10	21	21	19	21	34	15	15	36	54	22	29	21	20	15	16	11	30	15	16	18	16	16	12	22	17	14	14	20	
03:00 04:00	15	17	15	13	15	18	15	13	15	40	32	17	20	24	17	17	17	15	17	18	12	10	12	24	15	10	13	11	13	15	
04:00 05:00	13	21	15	19	29	17	27	23	20	25	20	29	18	15	37	27	23	31	27	23	23	26	20	17	28	31	28	20	16	14	
05:00 06:00	30	49	46	51	56	46	32	48	57	58	46	56	39	27	117	58	60	52	58	45	20	43	48	42	56	46	36	16	51	54	
06:00 07:00	75	114	129	126	155	68	59	130	120	141	142	154	72	51	102	103	120	131	131	60	50	120	131	132	148	153	69	54	122	120	
07:00 08:00	183	308	274	290	333	86	193	379	266	275	305	294	172	145	225	285	281	283	318	207	128	320	298	282	326	376	202	100	323	325	
08:00 09:00	129	274	305	339	266	136	113	431	407	439	408	400	175	98	402	417	436	431	390	202	154	390	429	404	410	431	203	114	405	445	
09:00 10:00	166	275	294	284	324	226	145	304	354	309	336	330	236	162	318	307	321	339	348	319	153	328	341	327	324	334	236	145	324	310	
10:00 11:00	238	347	304	321	345	328	236	287	304	316	385	331	336	265	310	301	309	309	311	352	302	295	322	291	299	349	399	298	261	270	
11:00 12:00	357	442	419	443	399	372	328	385	350	343	376	402	464	372	360	322	371	355	362	421	360	334	336	376	373	375	464	405	368	316	
12:00 13:00	610	610	574	643	573	561	541	570	480	449	490	473	557	517	520	476	465	465	476	490	475	461	469	456	505	468	540	532	462	430	
13:00 14:00	519	532	588	503	634	483	648	498	427	479	519	467	472	574	449	441	392	408	484	475	504	413	443	432	462	463	468	528	438	418	
14:00 15:00	380	407	430	423	393	415	415	392	395	409	410	397	397	359	322	330	331	389	385	388	340	336	332	350	377	364	400	323	322	375	
15:00 16:00	343	407	414	395	423	381	346	384	443	386	456	439	377	344	373	395	425	427	402	343	342	398	411	414	400	437	345	322	359	373	
16:00 17:00	317	452	514	467	522	313	281	492	504	594	490	500	363	328	462	501	519	480	508	368	292	517	515	484	489	439	363	304	480	456	
17:00 18:00	338	523	558	549	523	338	302	503	506	517	498	526	379	269	504	504	510	476	536	368	269	489	519	509	516	523	362	290	475	489	
18:00 19:00	346	453	422	429	457	296	309	369	410	431	422	432	328	302	345	403	397	372	386	324	271	359	383	429	417	435	326	249	334	379	
19:00 20:00	257	314	319	308	354	199	217	235	311	295	286	321	288	230	250	324	287	297	371	274	202	241	292	294	275	343	254	208	239	238	
20:00 21:00	140	182	211	199	182	149	124	151	191	134	210	176	180	117	167	174	180	171	206	170	125	128	176	179	183	234	153	150	158	198	
21:00 22:00	97	123	125	153	139	119	103	101	157	119	145	160	119	90	100	121	128	135	112	105	82	106	115	141	115	139	115	94	114	131	
22:00 23:00	88	92	91	126	115	95	66	106	80	73	98	125	87	53	109	79	75	99	111	87	68	92	85	105	97	111	99	48	73	91	
23:00 00:00	83	103	103	89	135	83	56	97	89	74	98	88	81	63	82	99	97	89	104	70	67	79	85	85	82	101	74	61	81	88	
Totals	4845	6164	6332	6386	6580	5004	4733	6013	6060	6081	6390	6357	5395	4563	5658	5842	5926	5950	6230	5290	4373	5599	5911	5928	6093	6346	5320	4392	5513	5683	

Key to data	1255	Normal data	1255	Partial data	1255	Patched data	0	No data file	0	Invalid data file
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Count per Carriageway (Unverified), April 2024
 RL10 (O/6B TME Penllech Footbridge)
 Other Vehicles Westbound

		01/04/2024	02/04/2024	03/04/2024	04/04/2024	05/04/2024	06/04/2024	07/04/2024	08/04/2024	09/04/2024	10/04/2024	11/04/2024	12/04/2024	13/04/2024	14/04/2024	15/04/2024	16/04/2024	17/04/2024	18/04/2024	19/04/2024	20/04/2024	21/04/2024	22/04/2024	23/04/2024	24/04/2024	25/04/2024	26/04/2024	27/04/2024	28/04/2024	29/04/2024	30/04/2024
00:00	01:00	48	41	45	60	56	106	58	28	42	29	37	46	60	50	26	35	36	41	37	50	45	23	29	28	53	42	48	42	22	28
01:00	02:00	25	33	24	26	42	59	41	18	21	15	23	33	41	29	10	15	25	16	17	31	27	14	15	18	23	16	35	18	16	18
02:00	03:00	8	6	12	3	5	9	26	11	1	16	15	4	16	11	10	6	5	3	2	10	6	10	6	4	4	8	9	12	7	9
03:00	04:00	9	8	4	2	2	5	7	5	7	12	8	4	7	8	10	6	2	3	4	5	4	4	4	3	5	3	7	9	4	2
04:00	05:00	7	10	5	7	7	6	10	10	7	9	5	8	7	10	18	11	10	8	12	7	7	9	6	5	9	8	13	9	4	5
05:00	06:00	23	23	26	21	30	18	21	31	25	22	21	27	15	19	82	28	26	29	29	22	8	26	20	23	30	22	20	10	24	23
06:00	07:00	54	83	61	64	95	31	40	86	62	67	66	96	34	32	64	57	62	66	68	39	28	72	61	54	77	95	33	32	77	62
07:00	08:00	152	249	204	206	241	60	151	298	196	190	217	219	124	104	159	198	189	203	220	156	89	234	209	176	221	271	149	83	241	226
08:00	09:00	104	218	240	258	205	100	96	357	331	343	324	335	143	77	342	348	363	346	321	155	98	324	363	334	333	349	168	95	340	370
09:00	10:00	140	227	227	226	265	191	118	248	272	243	267	275	210	137	260	232	252	282	284	292	121	271	270	254	254	269	201	123	267	258
10:00	11:00	208	295	244	253	279	285	212	233	250	241	322	275	290	240	235	230	239	249	246	304	277	239	249	230	247	283	339	265	213	214
11:00	12:00	305	386	345	360	329	311	288	327	271	249	289	314	391	323	284	244	277	287	291	376	313	273	268	284	303	293	409	341	291	244
12:00	13:00	533	510	467	508	480	461	462	457	358	358	386	371	454	424	414	370	358	364	389	412	398	357	342	359	377	366	429	442	368	307
13:00	14:00	464	445	465	405	527	424	546	407	329	376	391	395	413	458	352	331	277	296	392	398	409	326	324	307	363	385	407	413	356	327
14:00	15:00	349	350	368	358	338	376	366	349	338	325	347	338	358	330	263	258	264	322	333	330	315	292	268	282	298	313	361	296	275	299
15:00	16:00	312	353	355	346	375	358	318	332	371	315	389	390	337	306	310	319	346	352	347	304	304	327	335	335	319	379	318	287	294	294
16:00	17:00	287	404	451	407	454	286	247	427	441	498	411	444	342	275	387	411	435	398	441	334	262	448	446	387	403	382	333	274	414	383
17:00	18:00	295	456	465	477	457	303	247	425	425	440	426	464	342	221	428	438	436	409	475	325	227	422	434	421	428	453	325	259	411	408
18:00	19:00	302	397	342	364	387	260	264	302	331	353	358	370	283	268	276	327	333	304	334	292	218	282	321	337	346	369	297	207	266	308
19:00	20:00	219	267	257	236	282	171	175	182	244	233	210	266	251	187	201	246	220	216	303	244	180	193	239	235	207	278	233	177	173	195
20:00	21:00	127	141	168	157	146	132	109	124	131	105	169	140	170	102	141	138	143	139	162	151	106	104	134	151	147	205	148	125	129	160
21:00	22:00	90	95	98	118	110	106	81	76	114	92	105	122	102	73	69	93	97	105	84	93	63	77	87	104	82	117	102	80	85	91
22:00	23:00	65	60	63	80	75	81	53	62	54	47	63	86	70	43	59	50	49	60	84	72	54	56	48	69	55	70	76	35	44	53
23:00	00:00	60	61	59	41	89	61	40	49	46	40	52	60	68	39	36	52	59	47	60	59	45	31	43	44	41	65	50	36	33	46
Totals		4186	5118	4995	4983	5276	4200	3976	4844	4667	4618	4901	5082	4528	3766	4436	4443	4503	4545	4935	4461	3604	4414	4521	4444	4625	5041	4510	3670	4354	4330

Key to data	1255	Normal data	1255	Partial data	1255	Patched data	0	No data file	0	Invalid data file
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Count per Carriageway (Unverified), April 2024
 RL10 (0/6B TME Penllech Footbridge)
 Heavy Vehicles Westbound

		01/04/2024	02/04/2024	03/04/2024	04/04/2024	05/04/2024	06/04/2024	07/04/2024	08/04/2024	09/04/2024	10/04/2024	11/04/2024	12/04/2024	13/04/2024	14/04/2024	15/04/2024	16/04/2024	17/04/2024	18/04/2024	19/04/2024	20/04/2024	21/04/2024	22/04/2024	23/04/2024	24/04/2024	25/04/2024	26/04/2024	27/04/2024	28/04/2024	29/04/2024	30/04/2024
00:00 01:00	23	20	59	66	52	59	20	31	56	51	62	77	68	34	15	59	65	83	69	53	25	36	55	60	69	64	38	22	27	53	
01:00 02:00	13	15	33	43	39	30	24	23	40	44	42	62	37	24	16	34	40	45	34	32	21	23	34	33	39	40	33	24	16	29	
02:00 03:00	4	4	9	18	14	12	8	4	14	20	39	18	13	10	10	9	11	8	28	5	10	8	10	12	8	14	8	2	7	11	
03:00 04:00	6	9	11	11	13	13	8	8	8	28	24	13	13	16	7	11	15	12	13	13	8	6	8	21	10	7	6	2	9	13	
04:00 05:00	6	11	10	12	22	11	17	13	13	16	15	21	11	5	19	16	13	23	15	16	16	17	14	12	19	23	15	11	12	9	
05:00 06:00	7	26	20	30	26	28	11	17	32	36	25	29	24	8	35	30	34	23	29	23	12	17	28	19	26	24	16	6	27	31	
06:00 07:00	21	31	68	62	60	37	19	44	58	74	76	58	38	19	38	46	58	65	63	21	22	48	70	78	71	58	36	22	45	58	
07:00 08:00	31	59	70	84	92	26	42	81	70	85	88	75	48	41	66	87	92	80	98	51	39	86	89	106	105	105	53	17	82	99	
08:00 09:00	25	56	65	81	61	36	17	74	76	96	84	65	32	21	60	69	73	85	69	47	56	66	66	70	77	82	35	19	65	75	
09:00 10:00	26	48	67	58	59	35	27	56	82	66	69	55	26	25	58	75	69	57	64	27	32	57	71	73	70	65	35	22	57	52	
10:00 11:00	30	52	60	68	66	43	24	54	54	75	63	56	46	25	75	71	70	60	65	48	25	56	73	61	52	66	60	33	48	56	
11:00 12:00	52	56	74	83	70	61	40	58	79	94	87	88	73	49	76	78	94	68	71	45	47	61	68	92	70	82	55	64	77	72	
12:00 13:00	77	100	107	135	93	100	79	113	122	91	104	102	103	93	106	106	107	101	87	78	77	104	127	97	128	102	111	90	94	123	
13:00 14:00	55	87	123	98	107	59	102	91	98	103	128	72	59	116	97	110	115	112	92	77	95	87	119	125	99	78	61	115	82	91	
14:00 15:00	31	57	62	65	55	39	49	43	57	84	63	59	39	29	59	72	67	67	52	58	25	44	64	68	79	51	39	27	47	76	
15:00 16:00	31	54	59	49	48	23	28	52	72	71	67	49	40	38	63	76	79	75	55	39	38	71	76	79	81	58	27	35	65	79	
16:00 17:00	30	48	63	60	68	27	34	65	63	96	79	56	21	53	75	90	84	82	67	34	30	69	69	97	86	57	30	30	66	73	
17:00 18:00	43	67	93	72	66	35	55	78	81	77	72	62	37	48	76	66	74	67	61	43	42	67	85	88	88	70	37	31	64	81	
18:00 19:00	44	56	80	65	70	36	45	67	79	78	64	62	45	34	69	76	64	68	52	32	53	77	62	92	71	66	29	42	68	71	
19:00 20:00	38	47	62	72	72	28	42	53	67	62	76	55	37	43	49	78	67	81	68	30	22	48	53	59	68	65	21	31	66	43	
20:00 21:00	13	41	43	42	36	17	15	27	60	29	41	36	10	15	26	36	37	32	44	19	19	24	42	28	36	29	5	25	29	38	
21:00 22:00	7	28	27	35	29	13	22	25	43	27	40	38	17	17	31	28	31	30	28	12	19	29	28	37	33	22	13	14	29	40	
22:00 23:00	23	32	28	46	40	14	13	44	26	26	35	39	17	10	50	29	26	39	27	15	14	36	37	36	42	41	23	13	29	38	
23:00 00:00	23	42	44	48	46	22	16	48	43	34	46	28	13	24	46	47	38	42	44	11	22	48	42	41	41	36	24	25	48	42	
Totals	659	1046	1337	1403	1304	804	757	1169	1393	1463	1489	1275	867	797	1222	1399	1423	1405	1295	829	769	1185	1390	1484	1468	1305	810	722	1159	1353	

Key to data	1255	Normal data	1255	Partial data	1255	Patched data	0	No data file	0	Invalid data file
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Count per Carriageway (Unverified), April 2024
 RL10 (0/6B TME Penllech Footbridge)
 Total Vehicles Eastbound

		01/04/2024	02/04/2024	03/04/2024	04/04/2024	05/04/2024	06/04/2024	07/04/2024	08/04/2024	09/04/2024	10/04/2024	11/04/2024	12/04/2024	13/04/2024	14/04/2024	15/04/2024	16/04/2024	17/04/2024	18/04/2024	19/04/2024	20/04/2024	21/04/2024	22/04/2024	23/04/2024	24/04/2024	25/04/2024	26/04/2024	27/04/2024	28/04/2024	29/04/2024	30/04/2024
00:00	01:00	155	294	293	302	259	180	29	364	296	33	28	304	337	211	209	63	237	238	239	277	161	178	150	245	232	245	273	172	226	260
01:00	02:00	20	19	49	52	46	402	21	14	41	21	180	39	61	34	16	245	50	48	56	43	28	17	31	39	54	48	30	31	17	39
02:00	03:00	22	16	35	27	33	33	17	12	31	27	143	30	45	27	7	43	30	37	27	30	37	13	144	24	17	19	38	22	15	22
03:00	04:00	12	17	12	15	16	18	181	11	17	211	85	16	14	11	22	19	17	13	16	19	11	14	41	18	16	19	16	7	15	14
04:00	05:00	17	24	22	28	31	27	22	34	28	55	57	28	22	27	34	35	26	32	30	29	18	43	25	27	31	26	16	19	36	27
05:00	06:00	70	122	115	120	102	51	46	110	67	79	78	145	130	65	94	106	141	87	103	47	27	113	138	103	112	88	66	33	138	80
06:00	07:00	99	195	233	207	215	238	144	178	185	339	257	180	96	65	237	267	229	249	223	154	66	202	227	224	252	240	145	54	173	222
07:00	08:00	123	348	389	377	377	168	100	381	375	453	476	427	172	115	370	396	411	449	405	172	110	395	446	500	404	431	169	127	420	460
08:00	09:00	183	347	390	373	372	239	126	489	531	519	502	506	207	155	471	493	501	498	472	299	174	453	467	464	462	501	263	150	447	458
09:00	10:00	244	314	291	350	391	321	223	381	445	375	353	416	341	242	349	368	346	364	360	340	223	375	374	355	390	367	352	242	355	371
10:00	11:00	361	448	377	394	426	372	357	347	372	400	424	407	413	357	381	305	372	372	369	412	362	365	350	356	390	391	420	376	340	330
11:00	12:00	480	608	526	654	495	406	353	446	376	443	417	450	500	534	477	368	474	527	508	492	462	459	346	429	471	441	475	465	461	433
12:00	13:00	777	544	564	588	787	406	658	647	434	418	611	803	788	558	520	612	504	449	547	516	402	521	590	517	491	643	649	505	494	506
13:00	14:00	457	510	518	507	466	531	625	448	437	427	618	430	473	411	392	398	420	397	421	509	506	387	394	370	365	413	477	396	413	417
14:00	15:00	407	401	459	509	462	595	414	414	423	383	469	436	458	397	443	353	400	399	397	446	393	385	382	384	382	433	401	386	361	352
15:00	16:00	375	450	457	444	464	360	319	442	582	572	526	508	406	325	414	444	439	434	490	387	319	408	426	443	470	504	384	361	399	427
16:00	17:00	302	499	449	489	475	318	238	474	573	526	490	507	365	271	457	472	526	490	473	376	270	444	515	492	496	421	335	290	488	466
17:00	18:00	263	446	445	433	414	327	228	393	472	455	405	400	335	253	437	423	430	416	424	364	242	441	446	460	439	414	326	241	429	378
18:00	19:00	612	665	664	681	624	268	446	585	376	432	497	680	561	564	267	516	543	533	526	459	505	568	574	548	580	548	472	533	450	514
19:00	20:00	354	310	303	257	297	207	452	288	236	475	403	252	251	182	218	349	230	232	239	227	169	224	237	234	273	266	228	178	337	219
20:00	21:00	124	197	185	129	156	125	112	146	198	192	167	196	188	101	288	178	170	131	189	166	119	129	163	181	165	188	152	101	132	126
21:00	22:00	90	105	115	131	97	173	65	90	327	93	106	100	130	66	80	116	106	95	135	105	86	81	137	126	102	130	123	72	103	121
22:00	23:00	58	71	72	77	91	85	50	57	72	65	98	87	91	51	69	67	73	68	74	96	41	57	76	69	82	95	72	38	53	62
23:00	00:00	29	58	47	50	57	48	28	59	41	32	46	72	51	28	156	44	43	43	50	46	34	42	40	49	48	57	55	30	36	37
Totals		5634	7008	7010	7194	7153	5898	5254	6810	6935	7025	7436	7419	6435	5050	6408	6680	6718	6601	6773	6011	4765	6314	6719	6657	6724	6928	5937	4829	6338	6341

Key to data	1255	Normal data	1255	Partial data	1255	Patched data	0	No data file	0	Invalid data file
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Count per Carriageway (Unverified), April 2024
 RL10 (O/6B TME Penllech Footbridge)
 Other Vehicles Eastbound

		01/04/2024	02/04/2024	03/04/2024	04/04/2024	05/04/2024	06/04/2024	07/04/2024	08/04/2024	09/04/2024	10/04/2024	11/04/2024	12/04/2024	13/04/2024	14/04/2024	15/04/2024	16/04/2024	17/04/2024	18/04/2024	19/04/2024	20/04/2024	21/04/2024	22/04/2024	23/04/2024	24/04/2024	25/04/2024	26/04/2024	27/04/2024	28/04/2024	29/04/2024	30/04/2024					
00:00 01:00	89	166	102	108	112	112	21	232	73	10	9	123	164	137	88	31	56	69	75	90	72	70	40	67	45	85	104	89	98	65						
01:00 02:00	16	8	11	9	12	201	16	7	6	6	73	8	22	21	9	41	6	8	9	10	17	5	5	8	7	9	9	14	10	4						
02:00 03:00	15	12	14	10	14	13	11	6	5	8	26	8	22	15	4	7	7	9	8	15	22	7	25	9	5	7	16	16	6	11						
03:00 04:00	8	13	9	6	6	8	106	4	10	102	20	6	5	6	14	8	8	5	3	9	4	7	10	7	9	8	11	7	11	8						
04:00 05:00	16	18	15	19	21	18	14	23	20	17	27	15	12	15	20	16	18	20	18	17	9	26	17	18	20	15	12	12	21	18						
05:00 06:00	58	92	78	83	77	41	33	77	49	59	57	93	70	43	72	81	100	68	69	35	21	76	85	71	83	67	46	22	90	68						
06:00 07:00	70	141	159	142	147	180	107	135	144	185	176	125	73	54	171	168	161	158	139	96	54	155	159	144	159	161	93	47	129	163						
07:00 08:00	109	301	317	309	306	140	85	333	331	376	393	369	141	96	327	335	337	365	347	144	96	348	370	376	335	358	135	111	360	364						
08:00 09:00	158	309	329	328	318	173	102	431	470	434	427	435	184	122	398	425	423	418	406	262	152	392	405	388	385	428	228	134	404	390						
09:00 10:00	211	263	249	291	341	284	200	327	335	312	288	366	320	218	300	311	284	325	292	311	205	327	315	297	328	310	318	225	294	307						
10:00 11:00	317	397	322	330	361	346	332	299	294	323	367	354	378	334	326	244	312	304	310	381	333	311	285	286	317	326	384	355	296	261						
11:00 12:00	402	500	426	545	404	371	332	362	333	350	366	364	412	468	365	310	366	401	417	434	398	368	289	322	384	343	421	401	384	341						
12:00 13:00	675	479	470	481	644	370	571	540	358	353	497	664	644	491	408	437	398	364	450	432	363	399	416	378	374	528	506	430	391	409						
13:00 14:00	412	439	455	420	404	439	543	388	361	348	491	365	420	374	333	320	348	335	363	433	445	325	301	305	299	347	417	359	347	343						
14:00 15:00	378	374	397	435	404	507	385	359	366	315	391	380	434	367	376	302	328	334	340	400	365	333	313	314	313	368	365	356	312	287						
15:00 16:00	355	414	412	394	415	333	296	388	432	453	463	450	377	302	357	380	374	372	438	347	288	357	364	380	399	441	360	331	336	357						
16:00 17:00	274	447	405	437	424	288	213	421	484	432	425	463	341	237	399	405	459	427	433	335	248	375	437	420	423	376	308	265	424	410						
17:00 18:00	242	401	400	397	372	300	207	354	423	406	360	364	318	226	391	375	377	370	376	332	210	400	403	410	378	373	300	214	386	327						
18:00 19:00	485	514	525	532	491	256	388	437	274	338	388	564	474	454	232	395	419	388	395	384	403	429	421	392	447	430	408	418	359	345						
19:00 20:00	326	263	264	221	264	176	346	236	197	363	330	218	228	155	180	258	183	195	211	204	150	172	204	183	231	228	212	157	251	183						
20:00 21:00	114	164	159	109	127	110	101	122	156	150	147	164	174	88	179	153	137	110	161	148	101	109	142	155	139	152	142	89	106	105						
21:00 22:00	78	89	89	107	80	112	56	68	202	74	80	84	112	53	64	97	81	79	108	96	73	61	106	106	82	118	115	55	80	97						
22:00 23:00	52	57	58	58	72	78	40	46	60	51	73	74	83	45	56	54	57	58	58	90	35	48	61	51	61	77	59	30	37	46						
23:00 00:00	18	37	27	32	38	41	23	32	21	18	30	46	43	22	89	22	27	28	37	41	24	22	24	28	28	37	48	20	22	20						
Totals	4878	5898	5692	5803	5854	4897	4528	5627	5404	5483	5904	6102	5451	4343	5158	5175	5266	5210	5463	5046	4088	5122	5197	5115	5251	5592	5017	4157	5154	4929						
Key to data	1255	Normal data	1255	Partial data	1255	Patched data	0	No data file	0	Invalid data file																										

Count per Carriageway (Unverified), April 2024
 RL10 (0/6B TME Penllech Footbridge)
 Heavy Vehicles Eastbound

		01/04/2024	02/04/2024	03/04/2024	04/04/2024	05/04/2024	06/04/2024	07/04/2024	08/04/2024	09/04/2024	10/04/2024	11/04/2024	12/04/2024	13/04/2024	14/04/2024	15/04/2024	16/04/2024	17/04/2024	18/04/2024	19/04/2024	20/04/2024	21/04/2024	22/04/2024	23/04/2024	24/04/2024	25/04/2024	26/04/2024	27/04/2024	28/04/2024	29/04/2024	30/04/2024
00:00 01:00	66	128	191	194	147	68	8	132	223	23	19	181	173	74	121	32	181	169	164	187	89	108	110	178	187	160	169	83	128	195	
01:00 02:00	4	11	38	43	34	201	5	7	35	15	107	31	39	13	7	204	44	40	47	33	11	12	26	31	47	39	21	17	7	35	
02:00 03:00	7	4	21	17	19	20	6	6	26	19	117	22	23	12	3	36	23	28	19	15	15	6	119	15	12	12	22	6	9	11	
03:00 04:00	4	4	3	9	10	10	75	7	7	109	65	10	9	5	8	11	9	8	13	10	7	7	31	11	7	11	5	0	4	6	
04:00 05:00	1	6	7	9	10	9	8	11	8	38	30	13	10	12	14	19	8	12	12	12	9	17	8	9	11	11	4	7	15	9	
05:00 06:00	12	30	37	37	25	10	13	33	18	20	21	52	60	22	22	25	41	19	34	12	6	37	53	32	29	21	20	11	48	12	
06:00 07:00	29	54	74	65	68	58	37	43	41	154	81	55	23	11	66	99	68	91	84	58	12	47	68	80	93	79	52	7	44	59	
07:00 08:00	14	47	72	68	71	28	15	48	44	77	83	58	31	19	43	61	74	84	58	28	14	47	76	124	69	73	34	16	60	96	
08:00 09:00	25	38	61	45	54	66	24	58	61	85	75	71	23	33	73	68	78	80	66	37	22	61	62	76	77	73	35	16	43	68	
09:00 10:00	33	51	42	59	50	37	23	54	110	63	65	50	21	24	49	57	62	39	68	29	18	48	59	58	62	57	34	17	61	64	
10:00 11:00	44	51	55	64	65	26	25	48	78	77	57	53	35	23	55	61	60	68	59	31	29	54	65	70	73	65	36	21	44	69	
11:00 12:00	78	108	100	109	91	35	21	84	43	93	51	86	88	66	112	58	108	126	91	58	64	91	57	107	87	98	54	64	77	92	
12:00 13:00	102	65	94	107	143	36	87	107	76	65	114	139	144	67	112	175	106	85	97	84	39	122	174	139	117	115	143	75	103	97	
13:00 14:00	45	71	63	87	62	92	82	60	76	79	127	65	53	37	59	78	72	62	58	76	61	62	93	65	66	66	60	37	66	74	
14:00 15:00	29	27	62	74	58	88	29	55	57	68	78	56	24	30	67	51	72	65	57	46	28	52	69	70	69	65	36	30	49	65	
15:00 16:00	20	36	45	50	49	27	23	54	150	119	63	58	29	23	57	64	65	62	52	40	31	51	62	63	71	63	24	30	63	70	
16:00 17:00	28	52	44	52	51	30	25	53	89	94	65	44	24	34	58	67	67	63	40	41	22	69	78	72	73	45	27	25	64	56	
17:00 18:00	21	45	45	36	42	27	21	39	49	49	45	36	17	27	46	48	53	46	48	32	32	41	43	50	61	41	26	27	43	51	
18:00 19:00	127	151	139	149	133	12	58	148	102	94	109	116	87	110	35	121	124	145	131	75	102	139	153	156	133	118	64	115	91	169	
19:00 20:00	28	47	39	36	33	31	106	52	39	112	73	34	23	27	38	91	47	37	28	23	19	52	33	51	42	38	16	21	86	36	
20:00 21:00	10	33	26	20	29	15	11	24	42	20	32	14	13	109	25	33	21	28	18	18	20	21	26	26	36	10	12	26	21		
21:00 22:00	12	16	26	24	17	61	9	22	125	19	26	16	18	13	16	19	25	16	27	9	13	20	31	20	20	12	8	17	23	24	
22:00 23:00	6	14	14	19	19	7	10	11	12	14	25	13	8	6	13	13	16	10	16	6	6	9	15	18	21	18	13	8	16	16	
23:00 00:00	11	21	20	18	19	7	5	27	20	14	16	26	8	6	67	22	16	15	13	5	10	20	16	21	20	20	7	10	14	17	
Totals	756	1110	1318	1391	1299	1001	726	1183	1531	1542	1532	1317	984	707	1250	1505	1452	1391	1310	965	677	1192	1522	1542	1473	1336	920	672	1184	1412	
Key to data	1255	Normal data	1255	Partial data	1255	Patched data	0	No data file	0	Invalid data file																					

Count per Carriageway (Unverified), May 2024
 RL10 (0/6B TME Penllech Footbridge)
 Total Vehicles Westbound

		01/05/2024	02/05/2024	03/05/2024	04/05/2024	05/05/2024	06/05/2024	07/05/2024	08/05/2024	09/05/2024	10/05/2024	11/05/2024	12/05/2024	13/05/2024	14/05/2024	15/05/2024	16/05/2024	17/05/2024	18/05/2024	19/05/2024	20/05/2024	21/05/2024	22/05/2024	23/05/2024	24/05/2024	25/05/2024	26/05/2024	27/05/2024	28/05/2024	29/05/2024	30/05/2024	31/05/2024
00:00	01:00	89	75	131	122	73	42	64	89	110	97	118	79	58	103	103	117	104	101	73	51	82	94	92	141	189	103	90	74	113	96	114
01:00	02:00	73	59	60	97	45	38	37	52	61	79	46	57	37	54	61	52	70	50	54	29	46	65	74	84	102	63	55	34	68	71	63
02:00	03:00	18	24	20	22	11	19	10	16	13	21	10	19	11	31	18	18	22	16	15	12	15	22	13	44	28	19	8	12	25	22	31
03:00	04:00	23	14	13	18	18	10	9	11	20	22	17	16	14	15	20	15	16	22	24	9	11	16	22	21	26	16	20	15	17	12	13
04:00	05:00	27	29	31	17	17	23	18	22	28	31	21	17	13	13	21	34	31	21	16	20	27	22	38	35	24	16	16	14	26	31	36
05:00	06:00	52	53	66	41	21	41	45	41	49	54	40	18	61	53	58	55	54	49	30	41	49	57	86	59	40	27	34	50	64	53	59
06:00	07:00	146	145	141	69	51	74	127	150	140	150	91	46	145	123	150	130	126	86	44	129	115	142	177	166	87	53	107	131	152	134	114
07:00	08:00	315	281	382	196	135	200	335	286	388	317	260	145	360	335	318	290	329	205	146	306	330	296	352	402	282	172	170	296	300	286	303
08:00	09:00	441	436	414	192	141	127	424	424	404	383	229	116	429	429	434	460	406	222	139	453	426	400	452	409	321	118	164	297	335	314	309
09:00	10:00	348	341	327	226	241	159	299	324	329	354	279	148	302	319	343	356	400	302	226	372	400	369	315	417	401	212	238	323	336	323	351
10:00	11:00	317	297	307	354	361	285	311	322	351	325	394	318	350	298	328	339	327	389	371	330	348	321	315	357	389	300	354	310	394	369	374
11:00	12:00	386	356	371	427	467	392	370	396	355	391	431	414	354	358	374	371	335	394	366	359	374	338	356	402	458	440	459	401	470	466	419
12:00	13:00	480	470	509	538	511	624	485	506	459	438	442	566	499	430	491	483	469	482	505	531	476	437	450	533	574	581	532	513	503	530	519
13:00	14:00	426	460	474	499	491	494	526	430	455	385	488	521	436	440	381	437	435	532	574	495	444	455	497	541	563	609	558	504	517	467	484
14:00	15:00	336	353	421	381	351	322	348	380	345	338	414	344	335	327	310	342	386	376	362	374	351	343	399	378	445	429	425	404	431	409	457
15:00	16:00	430	463	439	354	360	349	411	429	397	414	370	314	385	410	397	394	425	375	423	471	460	400	383	427	393	405	403	400	430	386	469
16:00	17:00	496	453	490	412	319	332	473	473	446	402	358	296	475	469	483	451	489	360	336	514	487	498	527	542	371	418	385	451	489	448	466
17:00	18:00	522	517	512	398	258	356	515	528	472	450	382	284	471	467	526	441	501	349	286	481	466	478	533	498	390	321	315	466	492	485	493
18:00	19:00	369	419	384	332	291	348	432	405	420	362	300	247	328	390	417	390	435	332	293	349	387	389	416	413	354	335	308	398	399	417	393
19:00	20:00	312	298	295	216	233	262	252	313	287	307	219	223	233	249	268	273	299	223	195	245	263	286	284	399	245	223	245	346	303	342	344
20:00	21:00	210	161	210	149	158	127	179	184	200	195	158	133	140	179	198	170	233	180	129	205	201	156	180	262	163	137	171	194	181	195	215
21:00	22:00	142	142	146	115	101	90	105	116	126	156	164	71	122	107	130	126	157	138	102	121	144	122	156	169	124	112	118	140	126	132	146
22:00	23:00	84	84	169	96	70	77	73	82	98	108	118	62	81	97	83	72	125	96	70	82	114	102	100	141	95	83	98	125	115	112	125
23:00	00:00	120	101	147	87	65	48	95	95	95	142	76	53	84	95	95	103	130	75	53	104	98	98	135	146	87	76	76	61	96	106	115
Totals		6162	6031	6459	5358	4789	4839	5943	6074	6048	5921	5425	4507	5723	5791	6007	5919	6304	5375	4832	6083	6114	5906	6352	6986	6151	5268	5349	5959	6382	6206	6412

Key to data	1255	Normal data	1255	Partial data	1255	Patched data	0	No data file	0	Invalid data file
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Count per Carriageway (Unverified), May 2024
 RL10 (O/6B TME Penllech Footbridge)
 Other Vehicles Westbound

		01/05/2024	02/05/2024	03/05/2024	04/05/2024	05/05/2024	06/05/2024	07/05/2024	08/05/2024	09/05/2024	10/05/2024	11/05/2024	12/05/2024	13/05/2024	14/05/2024	15/05/2024	16/05/2024	17/05/2024	18/05/2024	19/05/2024	20/05/2024	21/05/2024	22/05/2024	23/05/2024	24/05/2024	25/05/2024	26/05/2024	27/05/2024	28/05/2024	29/05/2024	30/05/2024	31/05
00:00 01:00	34	29	60	76	43	30	41	35	42	37	71	56	28	44	43	40	43	56	53	28	34	39	39	71	123	74	62	48	44	43	43	
01:00 02:00	24	15	26	49	29	24	25	22	25	25	24	35	19	25	18	15	31	21	31	11	20	26	21	30	65	45	37	17	21	25	24	
02:00 03:00	3	10	5	15	6	11	5	5	5	5	14	3	8	4	4	8	9	8	7	5	7	5	14	9	11	5	4	9	7	7		
03:00 04:00	4	6	4	8	10	6	7	3	2	8	3	7	5	6	7	3	6	7	16	5	6	4	8	12	14	4	11	7	4	3	3	
04:00 05:00	7	12	9	9	6	11	9	3	9	12	10	3	5	2	8	13	9	8	9	7	8	9	9	11	8	6	9	2	3	13	12	
05:00 06:00	25	26	33	23	18	27	27	20	19	33	18	15	36	28	22	32	29	25	14	24	26	28	37	27	22	18	18	32	30	28	28	
06:00 07:00	69	78	94	42	34	44	86	78	74	82	68	26	106	60	73	68	56	53	30	76	56	71	110	102	49	38	73	77	68	60	69	
07:00 08:00	233	186	281	143	116	143	254	204	276	226	196	120	255	222	224	191	237	148	109	223	237	210	232	298	227	133	119	220	214	194	215	
08:00 09:00	363	369	339	156	127	93	353	348	323	311	174	95	352	343	346	366	344	186	112	359	348	327	355	348	268	109	128	245	275	228	244	
09:00 10:00	286	265	271	198	215	136	240	251	251	282	222	131	242	269	260	281	319	249	198	303	328	308	249	343	363	190	204	266	276	260	297	
10:00 11:00	262	231	241	308	326	239	244	253	283	259	345	280	279	254	251	248	260	344	331	278	268	255	243	286	346	263	306	258	343	296	314	
11:00 12:00	306	280	302	384	420	340	294	303	273	319	388	356	297	264	310	299	255	334	327	292	318	251	270	331	394	383	410	327	386	368	347	
12:00 13:00	353	370	400	463	443	492	394	385	340	345	373	459	382	317	366	357	364	409	425	408	356	353	342	420	483	496	448	415	417	401	426	
13:00 14:00	292	344	396	414	420	414	360	330	337	316	412	438	330	303	279	328	338	448	452	399	346	306	361	438	518	518	487	394	386	363	396	
14:00 15:00	292	289	349	336	324	293	280	315	271	294	347	317	294	269	248	283	330	342	326	318	303	271	316	329	394	398	380	332	352	345	404	
15:00 16:00	367	375	383	320	324	303	339	346	332	354	318	283	318	341	320	325	371	345	381	404	391	326	322	368	349	373	367	327	354	322	416	
16:00 17:00	409	387	430	368	282	287	414	399	374	346	303	259	401	397	422	371	431	329	288	412	417	422	448	484	334	366	337	367	413	365	411	
17:00 18:00	452	435	452	367	238	314	420	459	402	381	337	239	386	388	441	368	434	317	238	405	387	410	462	440	350	283	282	398	422	402	432	
18:00 19:00	294	343	325	303	253	293	343	321	337	299	265	206	266	321	321	316	366	298	243	289	306	303	340	358	303	286	266	323	319	321	344	
19:00 20:00	236	226	260	183	202	218	202	244	227	246	186	185	180	193	206	210	247	187	165	196	199	212	231	326	220	186	211	261	231	271	284	
20:00 21:00	158	133	164	132	143	116	123	148	152	160	137	114	96	145	156	133	196	166	116	162	151	115	144	215	146	118	146	139	131	160	175	
21:00 22:00	111	104	117	95	85	66	78	90	99	134	147	61	87	79	103	92	124	120	88	93	109	83	110	134	97	92	103	103	97	107	117	
22:00 23:00	47	55	134	87	55	57	38	41	55	87	97	45	42	60	45	38	82	83	64	51	79	56	67	106	76	65	87	87	61	88	99	
23:00 00:00	62	54	85	67	49	28	40	45	50	75	61	39	46	52	40	51	66	59	39	42	50	38	81	112	71	59	49	31	50	51	59	
Totals	4689	4622	5160	4546	4168	3985	4616	4648	4558	4636	4507	3783	4455	4390	4513	4432	4946	4543	4063	4792	4748	4430	4802	5603	5229	4514	4545	4680	4906	4721	5166	

Key to data	1255	Normal data	1255	Partial data	1255	Patched data	0	No data file	0	Invalid data file
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Count per Carriageway (Unverified), May 2024
 RL10 (0/6B TME Penllech Footbridge)
 Heavy Vehicles Westbound

		01/05/2024	02/05/2024	03/05/2024	04/05/2024	05/05/2024	06/05/2024	07/05/2024	08/05/2024	09/05/2024	10/05/2024	11/05/2024	12/05/2024	13/05/2024	14/05/2024	15/05/2024	16/05/2024	17/05/2024	18/05/2024	19/05/2024	20/05/2024	21/05/2024	22/05/2024	23/05/2024	24/05/2024	25/05/2024	26/05/2024	27/05/2024	28/05/2024	29/05/2024	30/05/2024	31/05/2024
00:00	01:00	55	46	71	46	30	12	23	54	68	60	47	23	30	59	60	77	61	45	20	23	48	55	53	70	66	29	28	26	69	53	71
01:00	02:00	49	44	34	48	16	14	12	30	36	54	22	22	18	29	43	37	39	29	23	18	26	39	53	54	37	18	18	17	47	46	39
02:00	03:00	15	14	15	7	5	8	5	11	8	16	5	5	8	23	14	14	14	7	7	5	10	15	8	30	19	8	3	8	16	15	24
03:00	04:00	19	8	9	10	8	4	2	8	18	14	14	9	9	9	13	12	10	15	8	4	5	12	14	9	12	12	9	8	13	9	10
04:00	05:00	20	17	22	8	11	12	9	19	19	19	11	14	8	11	13	21	22	13	7	13	19	13	29	24	16	10	7	12	23	18	24
05:00	06:00	27	27	33	18	3	14	18	21	30	21	22	3	25	25	36	23	25	24	16	17	23	29	49	32	18	9	16	18	34	25	31
06:00	07:00	77	67	47	27	17	30	41	72	66	68	23	20	39	63	77	62	70	33	14	53	59	71	67	64	38	15	34	54	84	74	45
07:00	08:00	82	95	101	53	19	57	81	82	112	91	64	25	105	113	94	99	92	57	37	83	93	86	120	104	55	39	51	76	86	92	88
08:00	09:00	78	67	75	36	14	34	71	76	81	72	55	21	77	86	88	94	62	36	27	94	78	73	97	61	53	9	36	52	60	86	65
09:00	10:00	62	76	56	28	26	23	59	73	78	72	57	17	60	50	83	75	81	53	28	69	72	61	66	74	38	22	34	57	60	63	54
10:00	11:00	55	66	66	46	35	46	67	69	68	66	49	38	71	44	77	91	67	45	40	52	80	66	72	71	43	37	48	52	51	73	60
11:00	12:00	80	76	69	43	47	52	76	93	82	72	43	58	57	94	64	72	80	60	39	67	56	87	86	71	64	57	49	74	84	98	72
12:00	13:00	127	100	109	75	68	132	91	121	119	93	69	107	117	113	125	126	105	73	80	123	120	84	108	113	91	85	84	98	86	129	93
13:00	14:00	134	116	78	85	71	80	166	100	118	69	76	83	106	137	102	109	97	84	122	96	98	149	136	103	45	91	71	110	131	104	88
14:00	15:00	44	64	72	45	27	29	68	65	74	44	67	27	41	58	62	59	56	34	36	56	48	72	83	49	51	31	45	72	79	64	53
15:00	16:00	63	88	56	34	36	46	72	83	65	60	52	31	67	69	77	69	54	30	42	67	69	74	61	59	44	32	36	73	76	64	53
16:00	17:00	87	66	60	44	37	45	59	74	72	56	55	37	74	72	61	80	58	31	48	102	70	76	79	58	37	52	48	84	76	83	55
17:00	18:00	70	82	60	31	20	42	95	69	70	69	45	45	85	79	85	73	67	32	48	76	79	68	71	58	40	38	33	68	70	83	61
18:00	19:00	75	76	59	29	38	55	89	84	83	63	35	41	62	69	96	74	69	34	50	60	81	86	76	55	51	49	42	75	80	96	49
19:00	20:00	76	72	35	33	31	44	50	69	60	61	33	38	53	56	62	63	52	36	30	49	64	74	53	73	25	37	34	85	72	71	60
20:00	21:00	52	28	46	17	15	11	56	36	48	35	21	19	44	34	42	37	37	14	13	43	50	41	36	47	17	19	25	55	50	35	40
21:00	22:00	31	38	29	20	16	24	27	26	27	22	17	10	35	28	27	34	33	18	14	28	35	39	46	35	27	20	15	37	29	25	29
22:00	23:00	37	29	35	9	15	20	35	41	43	21	21	17	39	37	38	34	43	13	6	31	35	46	33	35	19	18	11	38	54	24	26
23:00	00:00	58	47	62	20	16	20	55	50	45	67	15	14	38	43	55	52	64	16	14	62	48	60	54	34	16	17	27	30	46	55	56
Totals		1473	1409	1299	812	621	854	1327	1426	1490	1285	918	724	1268	1401	1494	1487	1358	832	769	1291	1366	1476	1550	1383	922	754	804	1279	1476	1485	1246

Key to data	1255	Normal data	1255	Partial data	1255	Patched data	0	No data file	0	Invalid data file
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Count per Carriageway (Unverified), May 2024
 RL10 (0/6B TME Penllech Footbridge)
 Total Vehicles Eastbound

		01/05/2024	02/05/2024	03/05/2024	04/05/2024	05/05/2024	06/05/2024	07/05/2024	08/05/2024	09/05/2024	10/05/2024	11/05/2024	12/05/2024	13/05/2024	14/05/2024	15/05/2024	16/05/2024	17/05/2024	18/05/2024	19/05/2024	20/05/2024	21/05/2024	22/05/2024	23/05/2024	24/05/2024	25/05/2024	26/05/2024	27/05/2024	28/05/2024	29/05/2024	30/05/2024	31/05
00:00 01:00	284	259	265	365	157	183	216	260	261	254	281	213	224	265	256	268	260	306	197	211	292	209	171	124	299	151	210	322	266	290	152	
01:00 02:00	48	40	52	34	49	21	19	35	51	38	40	39	14	64	49	56	40	52	35	10	47	72	67	48	45	33	28	35	46	43	201	
02:00 03:00	22	28	27	37	21	11	14	20	24	38	27	26	13	26	34	35	32	31	20	12	17	29	35	155	38	26	23	22	45	41	37	
03:00 04:00	18	14	17	23	15	15	9	11	20	17	13	13	7	22	17	16	17	17	16	8	13	16	17	47	25	20	13	14	12	22	30	
04:00 05:00	32	32	25	16	7	18	32	23	31	22	24	16	29	23	36	43	29	30	15	25	25	22	32	26	19	13	14	26	30	22	31	
05:00 06:00	158	133	169	73	35	94	160	107	160	165	63	33	121	186	183	152	133	88	37	128	181	103	115	121	68	38	73	104	107	126	120	
06:00 07:00	212	213	225	135	75	90	193	238	206	190	142	62	200	180	183	198	185	119	85	170	200	314	236	225	169	109	95	257	248	207	208	
07:00 08:00	466	435	383	143	117	152	401	428	405	392	192	119	380	396	445	406	414	193	149	394	390	423	428	396	179	136	162	384	412	405	351	
08:00 09:00	501	495	452	224	142	183	435	475	448	478	261	172	444	493	449	449	427	262	149	471	491	485	644	439	270	121	168	363	384	378	381	
09:00 10:00	347	353	380	317	282	231	377	340	359	382	395	260	351	317	360	326	366	384	263	377	403	332	383	398	416	211	254	387	359	344	379	
10:00 11:00	373	339	386	429	354	438	369	351	350	369	429	376	374	330	323	369	470	397	468	451	412	403	341	390	418	415	478	420	425	408	518	
11:00 12:00	464	523	480	510	526	474	463	433	508	442	532	522	493	397	420	454	447	499	478	429	439	388	370	548	449	447	550	520	506	557	455	
12:00 13:00	487	518	826	749	529	617	509	525	562	587	599	556	553	526	569	494	585	571	535	532	532	537	540	637	669	528	591	530	464	559	746	
13:00 14:00	426	413	449	482	403	412	424	406	477	429	403	407	380	415	433	377	411	467	416	421	433	371	634	486	475	461	471	393	464	427	505	
14:00 15:00	387	374	420	482	422	419	418	411	393	394	386	391	374	352	333	383	367	430	397	392	400	389	424	417	405	453	456	471	484	460	437	
15:00 16:00	432	461	514	414	390	366	417	451	442	454	360	345	396	452	451	422	480	381	350	439	456	470	456	480	354	393	420	454	469	426	482	
16:00 17:00	515	463	501	371	304	335	496	449	466	478	387	289	423	498	477	516	491	505	405	625	565	490	459	468	438	433	376	614	632	501	498	
17:00 18:00	432	412	389	324	292	313	427	451	390	419	350	270	403	415	440	395	504	305	296	508	431	402	398	398	402	348	529	386	485	416	574	
18:00 19:00	563	626	570	466	488	632	581	535	590	469	482	605	314	543	561	597	485	461	500	578	607	515	418	715	446	468	535	524	608	698	469	
19:00 20:00	228	245	254	202	225	262	263	252	264	336	239	190	469	225	243	236	240	225	209	274	251	307	394	254	246	208	417	371	275	322	354	
20:00 21:00	165	170	159	145	154	113	167	148	158	185	179	130	136	150	172	149	184	165	126	164	188	149	261	184	156	123	149	151	175	180	195	
21:00 22:00	119	110	100	100	118	73	128	111	116	136	155	87	81	130	117	89	120	134	120	124	148	94	137	101	121	98	138	124	111	125	155	
22:00 23:00	60	70	98	86	74	67	77	64	63	105	121	52	76	76	78	56	85	105	66	73	88	95	74	75	100	79	89	92	89	83	97	
23:00 00:00	44	41	56	42	44	39	39	46	47	74	93	27	42	43	54	40	51	58	31	37	46	38	35	66	68	47	29	44	50	52	67	
Totals	6783	6767	7197	6169	5223	5558	6634	6570	6791	6853	6153	5200	6297	6524	6683	6526	6823	6185	5363	6853	7055	6653	7069	7198	6275	5359	6268	7008	7146	7092	7442	
Key to data	1255	Normal data	1255	Partial data	1255	Patched data	0	No data file	0	Invalid data file																						

Count per Carriageway (Unverified), May 2024
 RL10 (O/6B TME Penllech Footbridge)
 Other Vehicles Eastbound

		01/05/2024	02/05/2024	03/05/2024	04/05/2024	05/05/2024	06/05/2024	07/05/2024	08/05/2024	09/05/2024	10/05/2024	11/05/2024	12/05/2024	13/05/2024	14/05/2024	15/05/2024	16/05/2024	17/05/2024	18/05/2024	19/05/2024	20/05/2024	21/05/2024	22/05/2024	23/05/2024	24/05/2024	25/05/2024	26/05/2024	27/05/2024	28/05/2024	29/05/2024	30/05/2024	31/05
00:00	01:00	75	67	101	145	88	103	105	83	80	80	100	121	95	85	83	76	74	136	108	89	71	66	45	47	126	84	119	118	103	113	57
01:00	02:00	7	5	12	12	28	14	8	3	10	8	10	25	6	9	8	9	10	16	20	3	9	20	9	22	17	19	19	15	11	12	93
02:00	03:00	10	20	11	21	18	6	7	6	7	14	16	21	7	9	11	11	12	16	11	8	5	9	13	35	16	17	16	11	14	14	11
03:00	04:00	6	8	7	16	11	12	8	6	7	7	6	9	2	7	6	6	8	9	11	4	7	6	8	14	12	8	12	12	5	8	11
04:00	05:00	19	24	17	11	5	13	23	14	20	14	18	6	20	15	22	22	18	18	9	18	17	12	19	16	10	7	8	18	15	16	19
05:00	06:00	96	86	112	56	28	67	112	77	94	118	46	25	87	112	101	94	87	59	32	94	104	69	82	86	49	28	53	78	72	89	81
06:00	07:00	142	137	136	84	62	69	148	165	145	105	56	152	134	134	150	127	78	70	130	149	171	170	164	116	86	65	174	164	137	139	
07:00	08:00	388	353	317	124	105	123	344	340	337	324	164	98	333	339	360	337	344	165	136	337	326	339	341	322	145	116	130	313	340	326	295
08:00	09:00	426	434	388	186	129	152	388	409	376	413	225	149	385	394	375	368	374	233	131	420	416	415	478	382	233	107	141	312	324	310	307
09:00	10:00	307	282	328	286	266	200	313	270	303	317	349	236	299	270	293	268	306	341	240	314	334	279	293	337	367	192	220	332	306	292	337
10:00	11:00	304	273	334	390	333	385	305	300	288	297	384	351	298	282	252	303	395	361	420	365	340	337	269	332	372	370	423	360	371	342	457
11:00	12:00	347	417	366	418	469	383	345	344	390	321	428	447	399	309	322	358	326	407	410	339	333	312	309	477	384	381	448	400	389	436	370
12:00	13:00	369	411	655	644	464	502	408	399	451	451	478	470	450	406	431	392	454	489	456	422	413	388	436	496	512	464	479	445	369	447	596
13:00	14:00	348	345	385	435	376	365	359	330	390	359	367	356	296	332	339	299	352	410	384	334	335	308	514	394	418	439	431	330	385	356	422
14:00	15:00	324	318	366	432	386	383	350	353	327	328	335	363	312	285	271	319	305	395	355	333	338	301	334	357	372	420	419	407	420	408	394
15:00	16:00	389	398	440	385	370	342	347	389	373	403	316	313	345	391	386	360	418	343	314	381	388	390	406	432	323	360	391	402	400	369	420
16:00	17:00	445	394	448	336	273	296	432	385	393	422	350	260	378	431	418	436	440	466	369	535	496	415	393	425	397	395	341	540	568	431	441
17:00	18:00	385	373	364	297	272	279	382	389	358	380	319	253	356	363	396	346	446	278	265	447	372	348	356	361	375	320	487	341	439	374	538
18:00	19:00	432	463	450	404	421	479	434	380	425	359	407	478	257	383	409	449	397	387	368	428	438	379	323	590	365	392	370	407	471	554	364
19:00	20:00	191	206	218	181	208	232	206	200	227	295	215	163	331	170	208	187	203	201	182	225	203	234	286	221	228	186	340	293	225	247	312
20:00	21:00	137	144	142	126	141	105	138	125	126	163	155	115	111	124	140	122	168	149	112	143	152	118	204	163	142	100	132	116	140	146	162
21:00	22:00	88	90	85	88	104	62	99	97	91	117	144	77	62	110	91	70	101	120	105	97	121	68	113	81	106	87	124	102	83	104	127
22:00	23:00	46	55	79	78	63	50	59	48	47	95	111	40	59	61	62	43	62	97	60	58	70	72	57	59	84	64	78	74	65	70	90
23:00	00:00	23	24	35	38	39	28	15	19	26	53	78	22	23	29	30	17	29	49	23	12	25	18	15	46	63	37	25	25	28	32	54
Totals		5304	5327	5796	5193	4659	4650	5335	5131	5291	5483	5126	4454	5063	5050	5148	5042	5456	5223	4591	5536	5462	5074	5473	5859	5232	4679	5271	5625	5707	5633	6097
Key to data		1255	Normal data	1255	Partial data	1255	Patched data	0	No data file	0	Invalid data file																					

Count per Carriageway (Unverified), May 2024
 RL10 (O/6B TME Penllech Footbridge)
 Heavy Vehicles Eastbound

		01/05/2024	02/05/2024	03/05/2024	04/05/2024	05/05/2024	06/05/2024	07/05/2024	08/05/2024	09/05/2024	10/05/2024	11/05/2024	12/05/2024	13/05/2024	14/05/2024	15/05/2024	16/05/2024	17/05/2024	18/05/2024	19/05/2024	20/05/2024	21/05/2024	22/05/2024	23/05/2024	24/05/2024	25/05/2024	26/05/2024	27/05/2024	28/05/2024	29/05/2024	30/05/2024	31/05
00:00 01:00	209	192	164	220	69	80	111	177	181	174	181	92	129	180	173	192	186	170	89	122	221	143	126	77	173	67	91	204	163	177	95	
01:00 02:00	41	35	40	22	21	7	11	32	41	30	30	14	8	55	41	47	30	36	15	7	38	52	58	26	28	14	9	20	35	31	108	
02:00 03:00	12	8	16	16	3	5	7	14	17	24	11	5	6	17	23	24	20	15	9	4	12	20	22	120	22	9	7	11	31	27	26	
03:00 04:00	12	6	10	7	4	3	1	5	13	10	7	4	5	15	11	10	9	8	5	4	6	10	9	33	13	12	1	2	7	14	19	
04:00 05:00	13	8	8	5	2	5	9	9	11	8	6	10	9	8	14	21	11	12	6	7	8	10	13	10	9	6	6	8	15	6	12	
05:00 06:00	62	47	57	17	7	27	48	30	66	47	17	8	34	74	82	58	46	29	5	34	77	34	33	35	19	10	20	26	35	37	39	
06:00 07:00	70	76	89	51	13	21	45	73	61	45	37	6	48	46	49	48	58	41	15	40	51	143	66	61	53	23	30	83	84	70	69	
07:00 08:00	78	82	66	19	12	29	57	88	68	68	28	21	47	57	85	69	70	28	13	57	64	84	87	74	34	20	32	71	72	79	56	
08:00 09:00	75	61	64	38	13	31	47	66	72	65	36	23	59	99	74	81	53	29	18	51	75	70	166	57	37	14	27	51	60	68	74	
09:00 10:00	40	71	52	31	16	31	64	70	56	65	46	24	52	47	67	58	60	43	23	63	69	53	90	61	49	19	34	55	53	52	42	
10:00 11:00	69	66	52	39	21	53	64	51	62	72	45	25	76	48	71	66	75	36	48	86	72	66	72	58	46	45	55	60	54	66	61	
11:00 12:00	117	106	114	92	57	91	118	89	118	121	104	75	94	88	98	96	121	92	68	90	106	76	61	71	65	66	102	120	117	121	85	
12:00 13:00	118	107	171	105	65	115	101	126	111	136	121	86	103	120	138	102	131	82	79	110	119	149	104	141	157	64	112	85	95	112	150	
13:00 14:00	78	68	64	47	27	47	65	76	87	70	36	51	84	83	94	78	59	57	32	87	98	63	120	92	57	22	40	63	79	71	83	
14:00 15:00	63	56	54	50	36	36	68	58	66	66	51	28	62	67	62	64	62	35	42	59	62	88	90	60	33	33	37	64	64	52	43	
15:00 16:00	43	63	74	29	20	24	70	62	69	51	44	32	51	61	65	62	62	38	36	58	68	80	50	48	31	33	29	52	69	57	62	
16:00 17:00	70	69	53	35	31	39	64	64	73	56	37	29	45	67	59	80	51	39	36	90	69	75	66	43	41	38	35	74	64	70	57	
17:00 18:00	47	39	25	27	20	34	45	62	32	39	31	17	47	52	44	49	58	27	31	61	59	54	42	37	27	28	42	45	46	42	36	
18:00 19:00	131	163	120	62	67	153	147	155	165	110	75	127	57	160	152	148	88	74	132	150	169	136	95	125	81	76	165	117	137	144	105	
19:00 20:00	37	39	36	21	17	30	57	52	37	41	24	27	138	55	35	49	37	24	27	49	48	73	108	33	18	22	77	78	50	75	42	
20:00 21:00	28	26	17	19	13	8	29	23	32	22	24	15	25	26	32	27	16	16	14	21	36	31	57	21	14	23	17	35	35	34	33	
21:00 22:00	31	20	15	12	14	11	29	14	25	19	11	10	19	20	26	19	19	14	15	27	27	26	24	20	15	11	14	22	28	21	28	
22:00 23:00	14	15	19	8	11	17	18	16	16	10	10	12	17	15	16	13	23	8	6	15	18	23	17	16	16	15	11	18	24	13	7	
23:00 00:00	21	17	21	4	5	11	24	27	21	21	15	5	19	14	24	23	22	9	8	25	21	20	20	20	5	10	4	19	22	20	13	
Totals	1479	1440	1401	976	564	908	1299	1439	1500	1370	1027	746	1234	1474	1535	1484	1367	962	772	1317	1593	1579	1596	1339	1043	680	997	1383	1439	1459	1345	

Key to data	1255	Normal data	1255	Partial data	1255	Patched data	0	No data file	0	Invalid data file
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Count per Carriageway (Unverified), June 2024

RL10 (0/6B TME Penllech Footbridge)

Total Vehicles Westbound

		01/06/2024	02/06/2024	03/06/2024	04/06/2024	05/06/2024	06/06/2024	07/06/2024	08/06/2024	09/06/2024	10/06/2024	11/06/2024	12/06/2024	13/06/2024	14/06/2024	15/06/2024	16/06/2024	17/06/2024	18/06/2024	19/06/2024	20/06/2024	21/06/2024	22/06/2024	23/06/2024	24/06/2024	25/06/2024	26/06/2024	27/06/2024	28/06/2024	29/06/2024	30/06/2024
00:00	01:00	122	78	52	86	88	94	89	106	66	45	102	107	100	107	119	63	59	113	97	103	118	123	66	60	100	102	125	132	123	74
01:00	02:00	63	57	33	51	71	57	59	68	31	34	56	58	68	70	66	55	49	56	60	60	73	66	44	34	83	68	65	78	66	46
02:00	03:00	18	11	12	10	23	21	27	25	19	13	10	14	15	28	28	16	19	14	14	20	10	12	11	8	14	17	27	17	20	16
03:00	04:00	18	20	10	11	11	22	11	17	16	17	16	15	22	20	23	11	13	17	15	11	23	10	17	10	25	17	10	15	13	12
04:00	05:00	27	10	25	21	19	30	23	24	15	15	23	25	25	15	22	20	23	26	27	20	23	21	12	26	31	33	25	31	25	19
05:00	06:00	72	27	50	61	38	61	47	34	23	45	54	57	47	50	39	26	40	53	53	60	55	36	25	43	55	52	55	51	38	27
06:00	07:00	72	53	98	107	135	109	134	73	50	113	131	133	130	102	73	60	104	113	142	121	139	89	43	119	124	126	161	146	79	59
07:00	08:00	185	119	330	309	294	303	330	210	159	301	316	296	274	303	201	113	314	304	305	323	283	218	168	315	266	350	301	328	226	143
08:00	09:00	205	131	412	408	460	418	416	257	115	458	445	476	433	449	184	129	428	463	473	451	399	263	138	522	426	471	434	462	167	167
09:00	10:00	317	229	382	373	349	388	386	313	210	378	412	394	326	379	341	197	368	372	392	406	395	322	262	391	341	403	363	406	353	208
10:00	11:00	354	321	336	277	345	364	332	348	310	347	361	342	314	326	419	327	384	329	359	383	340	391	351	381	329	328	354	346	365	318
11:00	12:00	417	369	417	367	380	381	349	462	343	410	426	412	378	407	449	426	385	388	427	442	352	466	364	389	372	425	421	396	431	431
12:00	13:00	457	436	508	474	549	438	470	503	563	466	490	469	515	475	555	513	524	525	510	470	514	583	522	512	489	415	572	500	552	570
13:00	14:00	454	447	458	491	454	408	455	503	473	481	449	475	484	472	472	508	482	498	509	442	461	504	568	468	513	353	525	508	491	528
14:00	15:00	388	349	341	366	343	363	399	415	334	397	345	418	370	452	386	425	407	394	375	389	439	421	430	419	392	373	404	411	418	406
15:00	16:00	388	363	461	400	429	412	481	393	390	441	442	439	409	484	386	437	461	448	487	442	462	399	453	462	458	470	433	539	372	455
16:00	17:00	338	318	542	505	507	533	505	372	349	478	512	477	469	554	386	298	488	467	524	466	519	422	348	436	528	476	455	528	427	350
17:00	18:00	360	244	485	475	499	476	495	359	234	451	501	490	473	458	342	254	482	508	541	498	515	331	257	510	527	489	461	512	381	263
18:00	19:00	291	266	337	369	367	377	370	322	260	377	387	388	356	449	313	253	365	357	407	384	380	315	247	381	370	437	459	418	311	269
19:00	20:00	261	188	253	245	260	271	336	256	210	268	251	253	238	332	230	254	276	249	319	288	307	253	228	232	301	404	333	353	221	199
20:00	21:00	152	135	157	204	161	209	278	161	105	163	194	189	193	197	129	158	194	190	163	219	203	192	147	186	161	183	188	221	141	143
21:00	22:00	119	76	126	130	126	127	153	179	106	110	142	139	133	143	110	102	111	134	116	145	164	130	90	118	130	130	140	154	140	123
22:00	23:00	105	75	102	100	86	89	117	107	61	81	94	102	100	136	103	54	89	107	115	112	133	97	88	80	78	121	99	112	115	89
23:00	00:00	82	49	87	92	78	126	117	68	42	75	99	97	111	130	60	53	82	96	101	100	110	66	54	86	92	92	91	126	83	62
Totals		5265	4371	6014	5932	6072	6077	6379	5575	4484	5964	6258	6265	5983	6538	5436	4752	6147	6221	6531	6355	6417	5730	4933	6188	6205	6335	6501	6790	5558	4977

Key to data	1255	Normal data	1255	Partial data	1255	Patched data	0	No data file	0	Invalid data file
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Count per Carriageway (Unverified), June 2024
 RL10 (O/6B TME Penllech Footbridge)
 Other Vehicles Westbound

		01/06/2024	02/06/2024	03/06/2024	04/06/2024	05/06/2024	06/06/2024	07/06/2024	08/06/2024	09/06/2024	10/06/2024	11/06/2024	12/06/2024	13/06/2024	14/06/2024	15/06/2024	16/06/2024	17/06/2024	18/06/2024	19/06/2024	20/06/2024	21/06/2024	22/06/2024	23/06/2024	24/06/2024	25/06/2024	26/06/2024	27/06/2024	28/06/2024	29/06/2024	30/06/2024
00:00	01:00	65	56	28	40	37	33	42	55	46	26	40	36	40	49	66	40	32	43	41	43	58	57	43	32	51	41	42	47	60	55
01:00	02:00	24	31	19	22	17	21	16	22	17	21	15	19	17	26	33	29	23	30	18	14	31	34	26	14	34	26	23	36	31	24
02:00	03:00	10	9	10	3	9	1	8	13	10	7	4	4	1	9	13	10	10	3	5	3	4	6	7	6	6	8	8	7	11	8
03:00	04:00	9	10	4	3	3	4	4	5	7	9	4	4	11	6	15	3	7	5	4	1	4	7	7	1	15	11	2	4	6	8
04:00	05:00	12	6	10	6	3	5	9	12	4	9	9	12	8	5	10	8	11	8	7	6	9	8	2	9	9	10	10	10	14	7
05:00	06:00	49	18	26	35	20	25	21	19	14	22	32	31	22	23	18	16	22	22	18	27	27	25	20	27	25	21	29	22	16	21
06:00	07:00	44	35	63	61	66	54	68	38	34	62	51	50	62	55	42	43	64	50	63	55	76	47	28	61	59	61	91	87	46	43
07:00	08:00	134	82	248	217	197	205	234	167	115	233	222	190	178	207	150	81	224	228	208	235	214	156	121	238	176	234	201	244	160	101
08:00	09:00	172	110	337	335	374	346	342	214	97	380	376	406	361	365	152	110	345	379	390	373	337	222	101	446	347	377	350	380	137	135
09:00	10:00	267	197	317	303	284	319	321	270	181	314	338	315	259	314	301	171	302	303	316	320	331	287	233	298	276	325	294	341	313	180
10:00	11:00	305	292	282	224	275	300	274	307	274	293	288	272	248	276	355	282	311	269	292	305	276	337	314	296	264	264	292	283	329	291
11:00	12:00	367	321	339	283	304	294	280	406	286	335	339	341	291	331	379	373	307	300	341	355	291	397	321	317	289	336	346	316	377	367
12:00	13:00	399	373	399	362	402	327	360	417	453	380	361	359	384	401	476	409	419	363	384	349	392	499	437	411	378	320	444	388	459	478
13:00	14:00	394	387	385	349	335	282	375	428	368	392	318	355	376	387	414	402	390	359	373	351	379	447	453	374	355	300	396	425	419	450
14:00	15:00	347	322	293	305	287	291	349	361	303	338	295	338	307	393	347	383	352	306	305	326	378	385	381	354	328	318	339	366	386	362
15:00	16:00	352	328	392	334	345	335	416	357	352	376	366	361	342	405	361	396	401	370	407	378	400	364	410	391	398	407	368	467	331	405
16:00	17:00	294	278	460	420	422	457	435	341	301	412	430	401	396	492	351	264	419	407	430	399	459	379	289	363	455	401	370	472	367	309
17:00	18:00	320	207	393	408	411	405	438	315	195	380	423	415	412	405	310	219	418	433	460	406	420	298	212	435	449	432	399	449	340	219
18:00	19:00	265	230	270	307	310	302	324	269	197	292	309	319	273	394	284	206	302	294	328	306	330	285	209	307	311	335	366	358	266	224
19:00	20:00	229	173	209	203	196	218	279	218	174	219	197	222	196	278	203	218	212	184	255	238	272	223	190	192	247	293	263	302	196	177
20:00	21:00	138	115	123	161	128	183	238	145	80	127	157	154	141	164	113	136	164	155	132	167	163	173	132	150	125	140	149	177	123	122
21:00	22:00	107	69	92	87	97	100	125	161	81	93	102	113	92	109	91	82	84	95	91	120	124	114	74	91	97	98	113	123	123	96
22:00	23:00	91	63	60	58	47	59	87	96	39	50	52	68	61	108	85	39	48	71	62	70	94	79	67	55	44	81	63	80	99	73
23:00	00:00	73	40	44	41	35	56	64	53	26	37	42	43	46	88	42	38	45	45	56	49	59	54	36	31	50	44	46	84	60	44
Totals		4467	3752	4803	4567	4604	4622	5109	4689	3654	4807	4770	4828	4524	5290	4611	3958	4912	4722	4986	4896	5128	4883	4113	4899	4788	4883	5004	5468	4669	4199

Key to data	1255	Normal data	1255	Partial data	1255	Patched data	0	No data file	0	Invalid data file
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Count per Carriageway (Unverified), June 2024
 RL10 (0/6B TME Penllech Footbridge)
 Heavy Vehicles Westbound

		01/06/2024	02/06/2024	03/06/2024	04/06/2024	05/06/2024	06/06/2024	07/06/2024	08/06/2024	09/06/2024	10/06/2024	11/06/2024	12/06/2024	13/06/2024	14/06/2024	15/06/2024	16/06/2024	17/06/2024	18/06/2024	19/06/2024	20/06/2024	21/06/2024	22/06/2024	23/06/2024	24/06/2024	25/06/2024	26/06/2024	27/06/2024	28/06/2024	29/06/2024	30/06/2024
00:00 01:00	57	22	24	46	51	61	47	51	20	19	62	71	60	58	53	23	27	70	56	60	60	66	23	28	49	61	83	85	63	19	
01:00 02:00	39	26	14	29	54	36	43	46	14	13	41	39	51	44	33	26	26	26	42	46	42	32	18	20	49	42	42	42	35	22	
02:00 03:00	8	2	2	7	14	20	19	12	9	6	6	10	14	19	15	6	9	11	9	17	6	6	4	2	8	9	19	10	9	8	
03:00 04:00	9	10	6	8	8	18	7	12	9	8	12	11	11	14	8	8	6	12	11	10	19	3	10	9	10	6	8	11	7	4	
04:00 05:00	15	4	15	15	16	25	14	12	11	6	14	13	17	10	12	12	12	18	20	14	14	13	10	17	22	23	15	21	11	12	
05:00 06:00	23	9	24	26	18	36	26	15	9	23	22	26	25	27	21	10	18	31	35	33	28	11	5	16	30	31	26	29	22	6	
06:00 07:00	28	18	35	46	69	55	66	35	16	51	80	83	68	47	31	17	40	63	79	66	63	42	15	58	65	70	59	33	16		
07:00 08:00	51	37	82	92	97	98	96	43	44	68	94	106	96	96	51	32	90	76	97	88	69	62	47	77	90	116	100	84	66	42	
08:00 09:00	33	21	75	73	86	72	74	43	18	78	69	70	72	84	32	19	83	84	83	78	62	41	37	76	79	94	84	82	30	32	
09:00 10:00	50	32	65	70	65	69	65	43	29	64	74	79	67	65	40	26	66	69	76	86	64	35	29	93	65	78	69	65	40	28	
10:00 11:00	49	29	54	53	70	64	58	41	36	54	73	70	66	50	64	45	73	60	67	78	64	54	37	85	65	64	62	63	36	27	
11:00 12:00	50	48	78	84	76	87	69	56	57	75	87	71	87	76	70	53	78	88	86	87	61	69	43	72	83	89	75	80	54	64	
12:00 13:00	58	63	109	112	147	111	110	86	110	86	129	110	131	74	79	104	105	162	126	121	122	84	85	101	111	95	128	112	93	92	
13:00 14:00	60	60	73	142	119	126	80	75	105	89	131	120	108	85	58	106	92	139	136	91	82	57	115	94	158	53	129	83	72	78	
14:00 15:00	41	27	48	61	56	72	50	54	31	59	50	80	63	59	39	42	55	88	70	63	61	36	49	65	64	55	65	45	32	44	
15:00 16:00	36	35	69	66	84	77	65	36	38	65	76	78	67	79	25	41	60	78	80	64	62	35	43	71	60	63	65	72	41	50	
16:00 17:00	44	40	82	85	85	76	70	31	48	66	82	76	73	62	35	34	69	60	94	67	60	43	59	73	73	75	85	56	60	41	
17:00 18:00	40	37	92	67	88	71	57	44	39	71	78	75	61	53	32	35	64	75	81	92	95	33	45	75	78	57	62	63	41	44	
18:00 19:00	26	36	67	62	57	75	46	53	63	85	78	69	83	55	29	47	63	63	79	78	50	30	38	74	59	102	93	60	45	45	
19:00 20:00	32	15	44	42	64	53	57	38	36	49	54	31	42	54	27	36	64	65	64	50	35	30	38	40	54	111	70	51	25	22	
20:00 21:00	14	20	34	43	33	26	40	16	25	36	37	35	52	33	16	22	30	35	31	52	40	19	15	36	36	43	39	44	18	21	
21:00 22:00	12	7	34	43	29	27	28	18	25	17	40	26	41	34	19	20	27	39	25	25	40	16	16	27	33	32	27	31	17	27	
22:00 23:00	14	12	42	42	39	30	30	11	22	31	42	34	39	28	18	15	41	36	53	42	39	18	21	25	34	40	36	32	16	16	
23:00 00:00	9	9	43	51	43	70	53	15	16	38	57	54	65	42	18	15	37	51	45	51	51	12	18	55	42	48	45	42	23	18	
Totals	798	619	1211	1365	1468	1455	1270	886	830	1157	1488	1437	1459	1248	825	794	1235	1499	1545	1459	1289	847	820	1289	1417	1452	1497	1322	889	778	

Key to data	1255	Normal data	1255	Partial data	1255	Patched data	0	No data file	0	Invalid data file
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Count per Carriageway (Unverified), June 2024
 RL10 (0/6B TME Penllech Footbridge)
 Total Vehicles Eastbound

		01/06/2024	02/06/2024	03/06/2024	04/06/2024	05/06/2024	06/06/2024	07/06/2024	08/06/2024	09/06/2024	10/06/2024	11/06/2024	12/06/2024	13/06/2024	14/06/2024	15/06/2024	16/06/2024	17/06/2024	18/06/2024	19/06/2024	20/06/2024	21/06/2024	22/06/2024	23/06/2024	24/06/2024	25/06/2024	26/06/2024	27/06/2024	28/06/2024	29/06/2024	30/06/2024
00:00 01:00	381	289	236	218	164	247	298	277	176	184	263	263	287	289	253	172	196	279	252	263	259	287	180	243	298	326	285	231	335	219	
01:00 02:00	71	32	28	38	172	64	48	47	28	15	56	53	48	52	46	30	39	41	56	58	51	54	29	24	71	57	68	151	54	30	
02:00 03:00	32	28	14	17	52	28	31	29	15	8	24	37	33	37	17	23	30	27	42	26	21	13	13	30	30	31	39	34	23		
03:00 04:00	18	17	14	13	13	23	20	12	11	17	14	22	19	18	18	15	26	17	15	25	22	16	16	13	14	13	13	19	12	12	
04:00 05:00	26	13	27	26	28	31	29	29	13	31	25	28	33	24	29	13	33	27	28	33	34	19	17	30	40	22	26	26	22	14	
05:00 06:00	55	35	136	88	79	141	99	53	34	119	157	93	86	94	91	33	85	144	136	122	122	79	35	126	143	165	140	115	126	33	
06:00 07:00	175	106	186	230	260	215	242	163	59	195	231	251	259	225	98	53	183	229	233	204	205	129	57	196	227	218	227	273	98	112	
07:00 08:00	144	116	356	389	432	405	360	166	132	388	399	442	392	379	150	129	392	421	436	392	374	178	139	396	429	419	399	374	149	120	
08:00 09:00	249	162	431	466	472	493	461	233	170	477	469	489	453	451	205	145	463	445	461	491	478	275	169	444	451	473	479	471	255	129	
09:00 10:00	320	275	372	434	371	365	330	382	251	325	369	395	369	398	311	318	360	394	395	459	395	394	275	346	385	420	391	398	341	240	
10:00 11:00	516	449	474	340	403	428	518	410	456	409	452	376	425	477	514	384	459	330	411	364	523	445	483	466	456	448	396	511	571	479	
11:00 12:00	465	494	440	469	420	448	451	429	469	493	476	455	436	426	469	482	432	447	412	448	397	519	447	532	463	513	465	509	503	515	
12:00 13:00	794	529	526	519	456	545	606	656	552	556	490	551	763	696	626	452	648	530	590	554	732	683	616	668	524	561	825	733	790	638	
13:00 14:00	478	430	413	395	530	445	414	486	434	434	457	460	385	409	546	429	426	462	455	413	435	469	419	421	437	410	478	474	481	444	
14:00 15:00	436	383	393	403	424	394	401	470	410	399	424	400	396	493	482	445	424	405	431	412	417	428	446	423	462	401	449	443	465	445	
15:00 16:00	396	356	451	391	491	435	577	424	352	447	460	483	461	527	464	546	487	433	501	489	533	375	415	454	445	467	485	552	398	384	
16:00 17:00	582	266	591	541	592	555	510	481	336	632	586	601	473	648	420	443	504	648	676	616	595	539	501	623	604	612	469	635	484	477	
17:00 18:00	338	373	426	400	473	404	564	378	290	443	496	440	395	471	475	324	553	452	488	441	443	372	327	426	470	423	373	439	349	306	
18:00 19:00	572	622	473	473	554	529	557	464	420	520	557	572	318	581	507	456	542	517	548	521	540	559	468	625	582	554	591	597	443	494	
19:00 20:00	250	184	226	322	236	285	262	229	171	240	247	222	401	291	242	201	229	247	234	277	274	226	223	257	272	306	260	270	206	221	
20:00 21:00	145	129	156	161	145	170	169	148	121	146	178	158	147	176	129	111	156	165	145	160	163	160	128	183	119	187	182	211	145	123	
21:00 22:00	129	88	77	119	111	113	127	145	68	103	112	112	122	151	133	85	90	123	125	113	127	173	84	112	143	119	154	160	119	89	
22:00 23:00	100	57	81	70	74	88	86	105	44	81	93	77	76	103	91	52	76	82	85	117	92	91	66	82	76	101	73	87	97	79	
23:00 00:00	55	37	52	35	45	43	58	48	28	45	32	43	41	77	61	31	51	54	61	63	46	64	37	36	45	62	55	64	52	22	
Totals	6727	5470	6579	6557	6997	6894	7218	6264	5040	6707	7067	7023	6818	7493	6397	5366	6877	6922	7201	7077	7283	6555	5590	7139	7186	7307	7314	7782	6529	5648	

Key to data	1255	Normal data	1255	Partial data	1255	Patched data	0	No data file	0	Invalid data file
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Count per Carriageway (Unverified), June 2024
 RL10 (0/6B TME Penllech Footbridge)
 Other Vehicles Eastbound

		01/06/2024	02/06/2024	03/06/2024	04/06/2024	05/06/2024	06/06/2024	07/06/2024	08/06/2024	09/06/2024	10/06/2024	11/06/2024	12/06/2024	13/06/2024	14/06/2024	15/06/2024	16/06/2024	17/06/2024	18/06/2024	19/06/2024	20/06/2024	21/06/2024	22/06/2024	23/06/2024	24/06/2024	25/06/2024	26/06/2024	27/06/2024	28/06/2024	29/06/2024	30/06/2024
00:00 01:00	213	211	104	78	39	69	98	94	94	76	54	80	94	109	100	101	85	69	81	97	94	109	104	113	98	110	122	110	148	139	
01:00 02:00	18	22	16	8	63	11	14	6	14	7	13	10	4	7	14	17	18	7	9	11	10	9	15	8	29	14	14	56	22	14	
02:00 03:00	14	18	9	8	13	9	11	13	10	5	9	14	10	10	16	9	18	6	11	10	8	7	7	11	10	8	7	14	14	21	
03:00 04:00	11	13	11	7	7	12	7	5	8	13	6	10	11	10	14	11	18	6	7	14	12	8	12	5	5	8	3	6	7	8	
04:00 05:00	19	10	15	17	15	14	16	22	9	21	16	17	17	19	22	9	21	15	18	19	19	15	6	24	18	12	19	14	14	11	
05:00 06:00	45	30	86	67	64	79	76	47	26	75	99	69	69	72	59	26	67	90	97	82	74	62	29	94	108	106	104	69	83	26	
06:00 07:00	125	84	140	167	155	143	144	105	45	148	148	160	162	137	73	45	143	152	148	139	140	77	48	149	154	147	143	185	72	89	
07:00 08:00	122	99	317	344	342	334	303	135	113	338	333	345	325	307	119	106	334	354	345	315	319	143	121	348	352	336	327	308	117	97	
08:00 09:00	218	144	370	403	390	419	392	200	146	418	393	415	379	396	181	126	403	391	405	428	418	239	139	385	385	403	410	409	218	104	
09:00 10:00	296	247	312	365	311	309	286	338	228	275	325	317	305	329	274	276	308	332	325	370	338	342	240	291	323	343	327	340	300	199	
10:00 11:00	468	410	422	286	347	365	458	372	403	353	369	307	360	422	465	356	395	270	341	298	456	413	436	391	391	372	341	460	519	441	
11:00 12:00	420	433	351	349	307	340	348	357	394	378	346	363	357	356	380	413	328	333	334	354	324	424	373	417	352	393	346	388	431	440	
12:00 13:00	606	462	437	415	364	426	463	528	469	466	401	447	601	535	506	409	515	406	450	415	548	544	504	533	411	444	670	591	637	555	
13:00 14:00	426	386	365	328	398	357	328	444	393	366	365	394	297	353	504	399	362	373	356	339	363	418	380	368	355	341	387	390	426	411	
14:00 15:00	401	361	337	336	347	319	348	426	384	346	340	327	343	435	436	414	370	337	359	342	363	381	409	361	377	342	385	383	424	403	
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16:00 17:00	543	238	525	468	522	488	456	441	295	548	515	523	412	591	395	411	443	574	591	532	539	503	448	553	530	522	401	586	440	428	
17:00 18:00	307	351	368	351	425	375	514	347	256	403	432	383	354	438	439	300	487	405	429	383	402	342	289	383	431	385	340	408	314	280	
18:00 19:00	503	514	377	322	398	377	424	377	337	381	380	417	271	444	428	356	379	361	404	371	422	447	374	476	420	401	433	460	376	388	
19:00 20:00	225	169	183	240	193	236	228	205	153	190	202	192	282	262	218	179	176	206	186	244	254	208	178	209	231	250	220	233	183	200	
20:00 21:00	127	114	127	138	128	149	149	126	77	132	151	134	129	154	120	99	140	131	127	127	144	145	118	164	100	133	154	183	125	112	
21:00 22:00	119	79	63	91	91	97	106	124	51	78	95	91	99	139	118	66	71	103	103	95	107	153	77	87	114	98	132	137	108	75	
22:00 23:00	88	52	63	54	56	78	73	96	37	71	69	64	58	85	82	42	63	64	67	90	74	84	60	65	63	81	62	76	87	62	
23:00 00:00	49	30	33	16	27	28	43	43	15	29	18	28	22	62	50	25	30	36	35	40	31	57	27	25	23	36	34	46	42	18	
Totals	5717	4804	5429	5198	5438	5406	5809	5239	4278	5510	5474	5521	5356	6143	5440	4644	5616	5381	5657	5552	5935	5481	4770	5867	5670	5691	5797	6346	5472	4872	

Key to data	1255	Normal data	1255	Partial data	1255	Patched data	0	No data file	0	Invalid data file
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Count per Carriageway (Unverified), June 2024
 RL10 (0/6B TME Penllech Footbridge)
 Heavy Vehicles Eastbound

		01/06/2024	02/06/2024	03/06/2024	04/06/2024	05/06/2024	06/06/2024	07/06/2024	08/06/2024	09/06/2024	10/06/2024	11/06/2024	12/06/2024	13/06/2024	14/06/2024	15/06/2024	16/06/2024	17/06/2024	18/06/2024	19/06/2024	20/06/2024	21/06/2024	22/06/2024	23/06/2024	24/06/2024	25/06/2024	26/06/2024	27/06/2024	28/06/2024	29/06/2024	30/06/2024
00:00 01:00	168	78	132	140	125	178	200	183	82	108	209	183	193	180	153	71	111	210	171	166	165	178	76	130	200	216	163	121	187	80	
01:00 02:00	53	10	12	30	109	53	34	41	14	8	43	43	44	45	32	13	21	34	47	47	41	45	14	16	42	43	54	95	32	16	
02:00 03:00	18	10	5	9	39	19	20	16	5	3	15	23	23	27	21	8	5	24	16	32	18	14	6	2	20	22	24	25	20	2	
03:00 04:00	7	4	3	6	6	11	13	7	3	4	8	12	8	8	4	4	8	11	8	11	10	8	4	8	9	5	10	13	5	4	
04:00 05:00	7	3	12	9	13	17	13	7	4	10	9	11	16	5	7	4	12	12	10	14	15	4	11	6	22	10	7	12	8	3	
05:00 06:00	10	5	50	21	15	62	23	6	8	44	58	24	17	22	32	7	18	54	39	40	48	17	6	32	35	59	36	46	43	7	
06:00 07:00	50	22	46	63	105	72	98	58	14	47	83	91	97	88	25	8	40	77	85	65	65	52	9	47	73	71	84	88	26	23	
07:00 08:00	22	17	39	45	90	71	57	31	19	50	66	97	67	72	31	23	58	67	91	77	55	35	18	48	77	83	72	66	32	23	
08:00 09:00	31	18	61	63	82	74	69	33	24	59	76	74	74	55	24	19	60	54	56	63	60	36	30	59	66	70	69	62	37	25	
09:00 10:00	24	28	60	69	60	56	44	44	23	50	44	78	64	69	37	42	52	62	70	89	57	52	35	55	62	77	64	58	41	41	
10:00 11:00	48	39	52	54	56	63	60	38	53	56	83	69	65	55	49	28	64	60	70	66	67	32	47	75	65	76	55	51	52	38	
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12:00 13:00	188	67	89	104	92	119	143	128	83	90	89	104	162	161	120	43	133	124	140	139	184	139	112	135	113	117	155	142	153	83	
13:00 14:00	52	44	48	67	132	88	86	42	41	68	92	66	88	56	42	30	64	89	99	74	72	51	39	53	82	69	91	84	55	33	
14:00 15:00	35	22	56	67	77	75	53	44	26	53	84	73	53	58	46	31	54	68	72	70	54	47	37	62	85	59	64	60	41	42	
15:00 16:00	42	29	53	51	55	63	53	36	31	54	65	69	66	56	37	97	45	73	72	52	57	24	39	47	55	61	69	58	33	33	
16:00 17:00	39	28	66	73	70	67	54	40	41	84	71	78	61	57	25	32	61	74	85	84	56	36	53	70	74	90	68	49	44	49	
17:00 18:00	31	22	58	49	48	29	50	31	34	40	64	57	41	33	36	24	66	47	59	58	41	30	38	43	39	38	33	31	35	26	
18:00 19:00	69	108	96	151	156	152	133	87	83	139	177	155	47	137	79	100	163	156	144	150	118	112	94	149	162	153	158	137	67	106	
19:00 20:00	25	15	43	82	43	49	34	24	18	50	45	30	119	29	24	22	53	41	48	33	20	18	45	48	41	56	40	37	23	21	
20:00 21:00	18	15	29	23	17	21	20	22	44	14	27	24	18	22	9	12	16	34	18	33	19	15	10	19	19	54	28	28	20	11	
21:00 22:00	10	9	14	28	20	16	21	21	17	25	17	21	23	12	15	19	19	20	22	18	20	20	7	25	29	21	22	23	11	14	
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23:00 00:00	6	7	19	19	18	15	15	5	13	16	14	15	19	15	11	6	21	18	26	23	15	7	10	11	22	26	21	18	10	4	
Totals	1010	666	1150	1359	1559	1488	1409	1025	762	1197	1593	1502	1462	1350	957	722	1261	1541	1544	1525	1348	1074	820	1272	1516	1616	1517	1436	1057	776	

Key to data	1255	Normal data	1255	Partial data	1255	Patched data	0	No data file	0	Invalid data file
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APPENDIX E

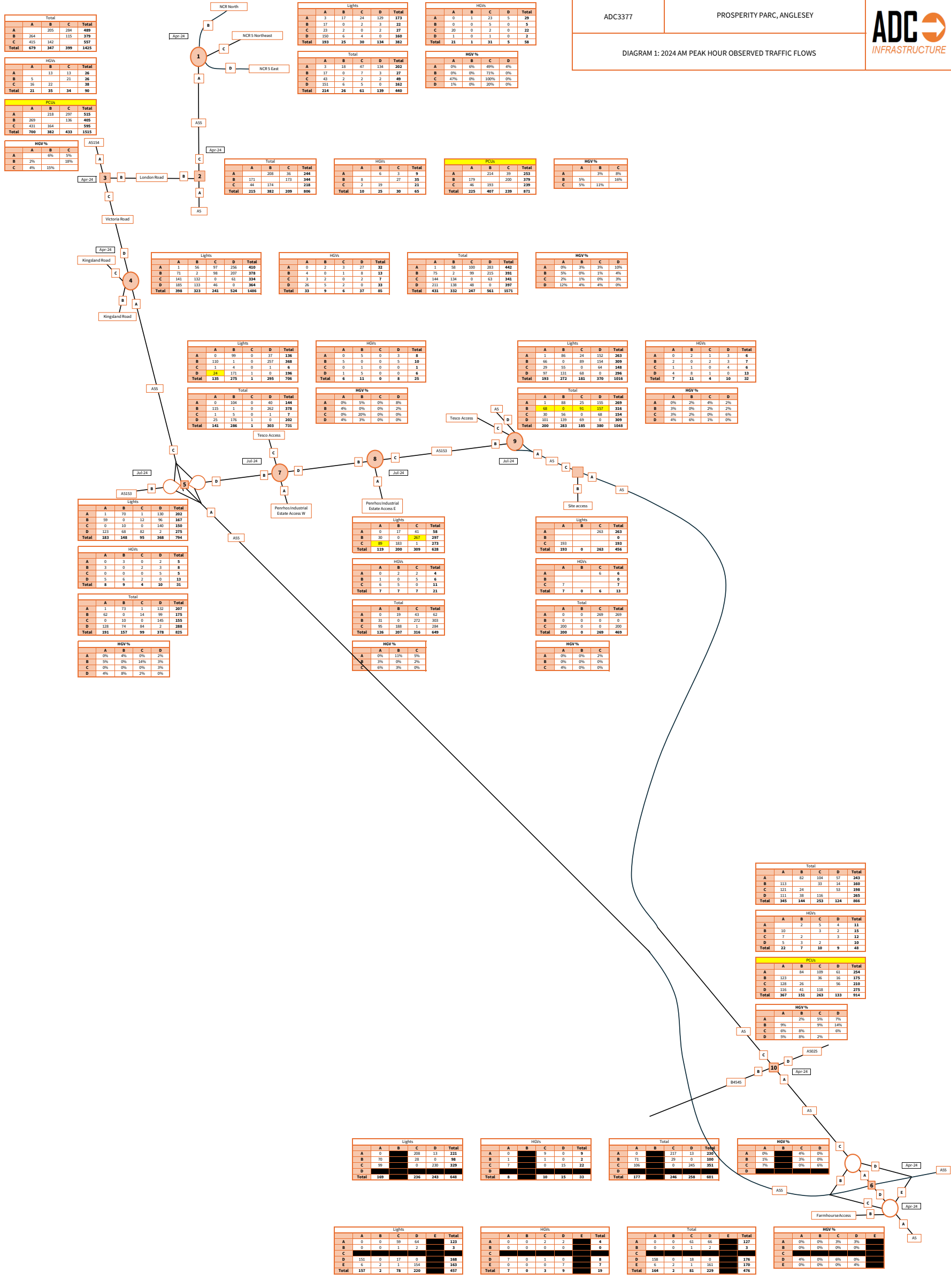
TRAFFIC FLOW DIAGRAMS

ADC3377

PROSPERITY PARC, ANGLESEY



DIAGRAM 1: 2024 AM PEAK HOUR OBSERVED TRAFFIC FLOWS

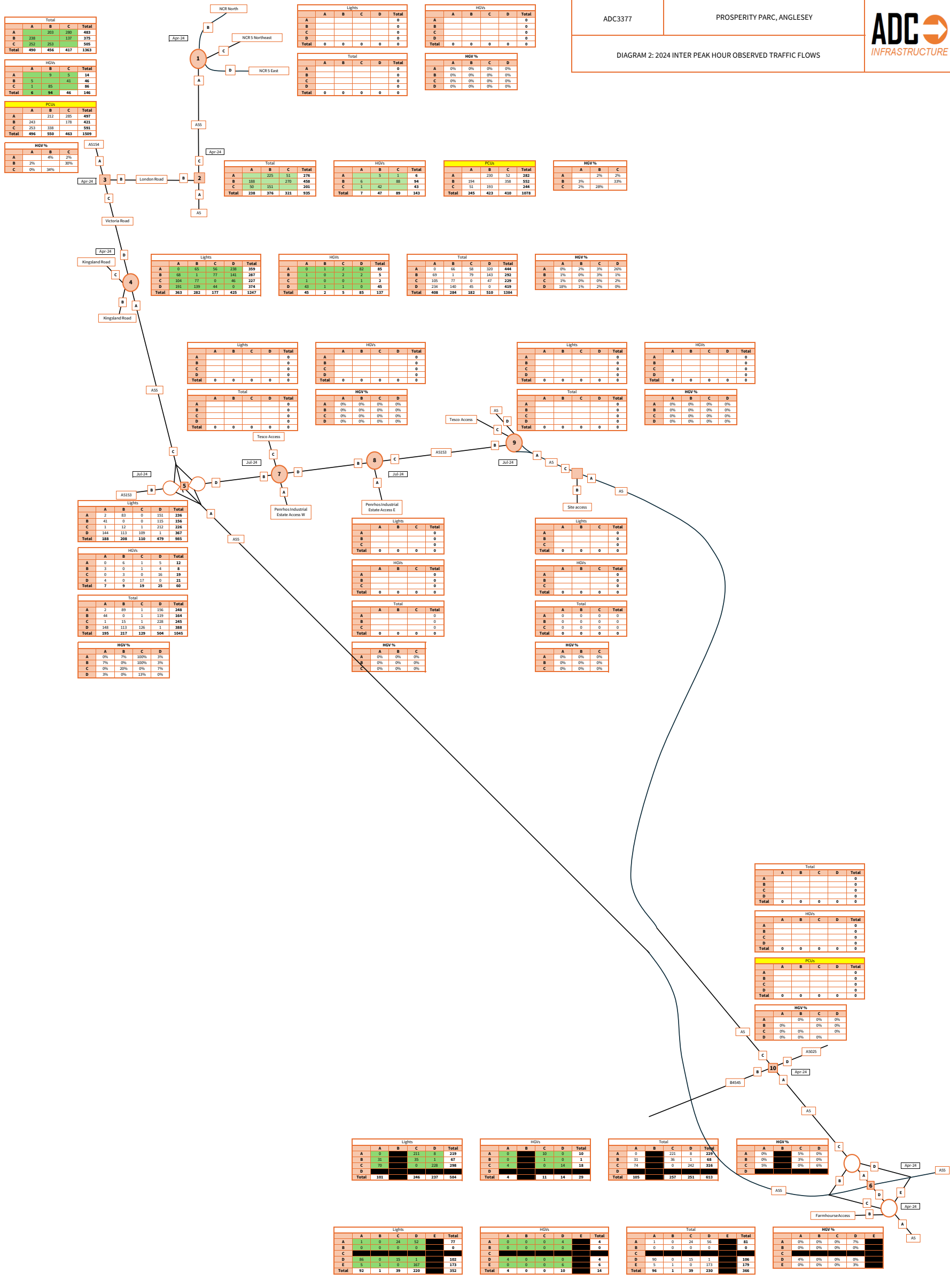


ADC3377

PROSPERITY PARC, ANGLESEY



DIAGRAM 2: 2024 INTER PEAK HOUR OBSERVED TRAFFIC FLOWS

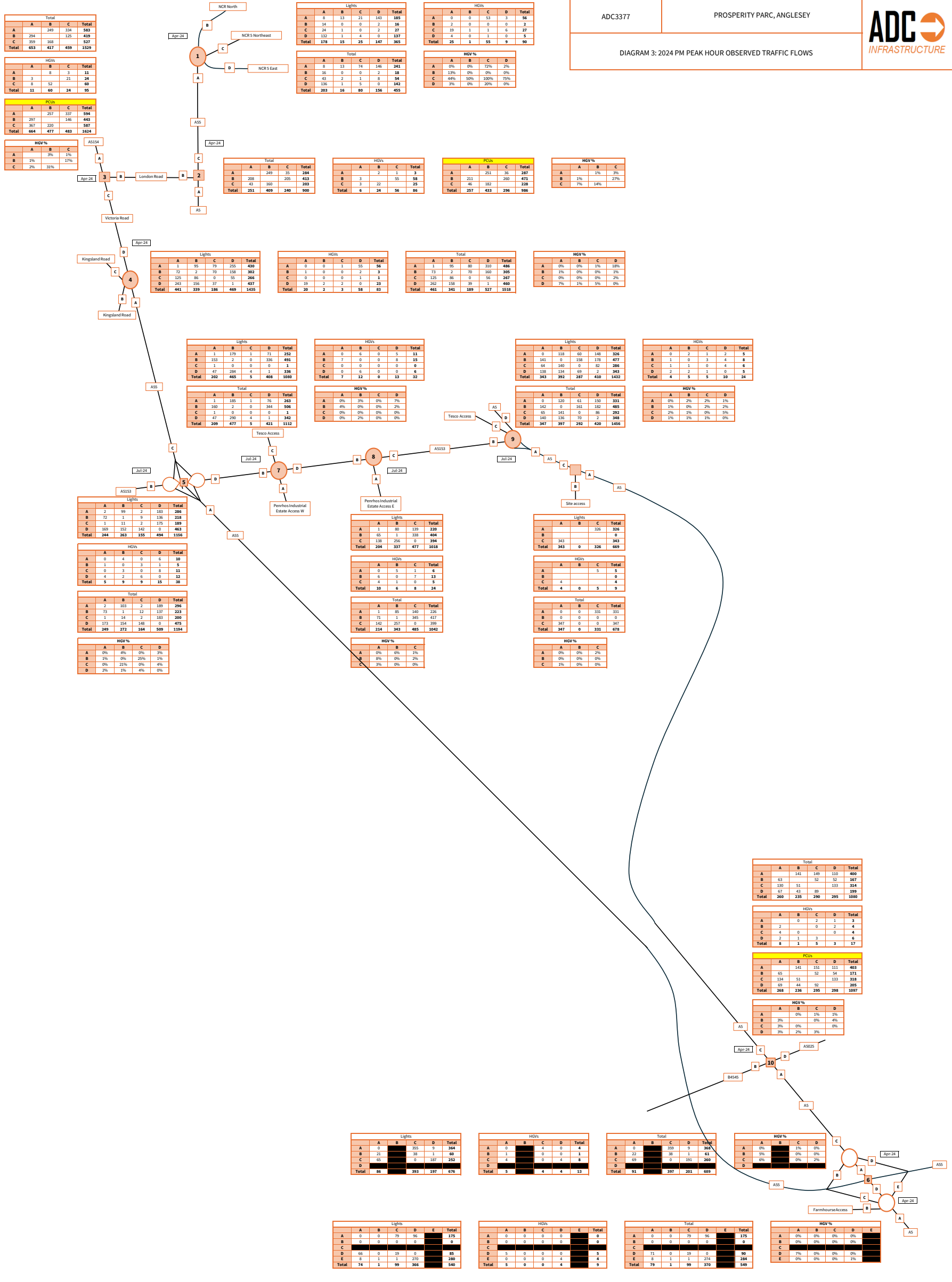


ADC3377

PROSPERITY PARC, ANGLESEY



DIAGRAM 3: 2024 PM PEAK HOUR OBSERVED TRAFFIC FLOWS

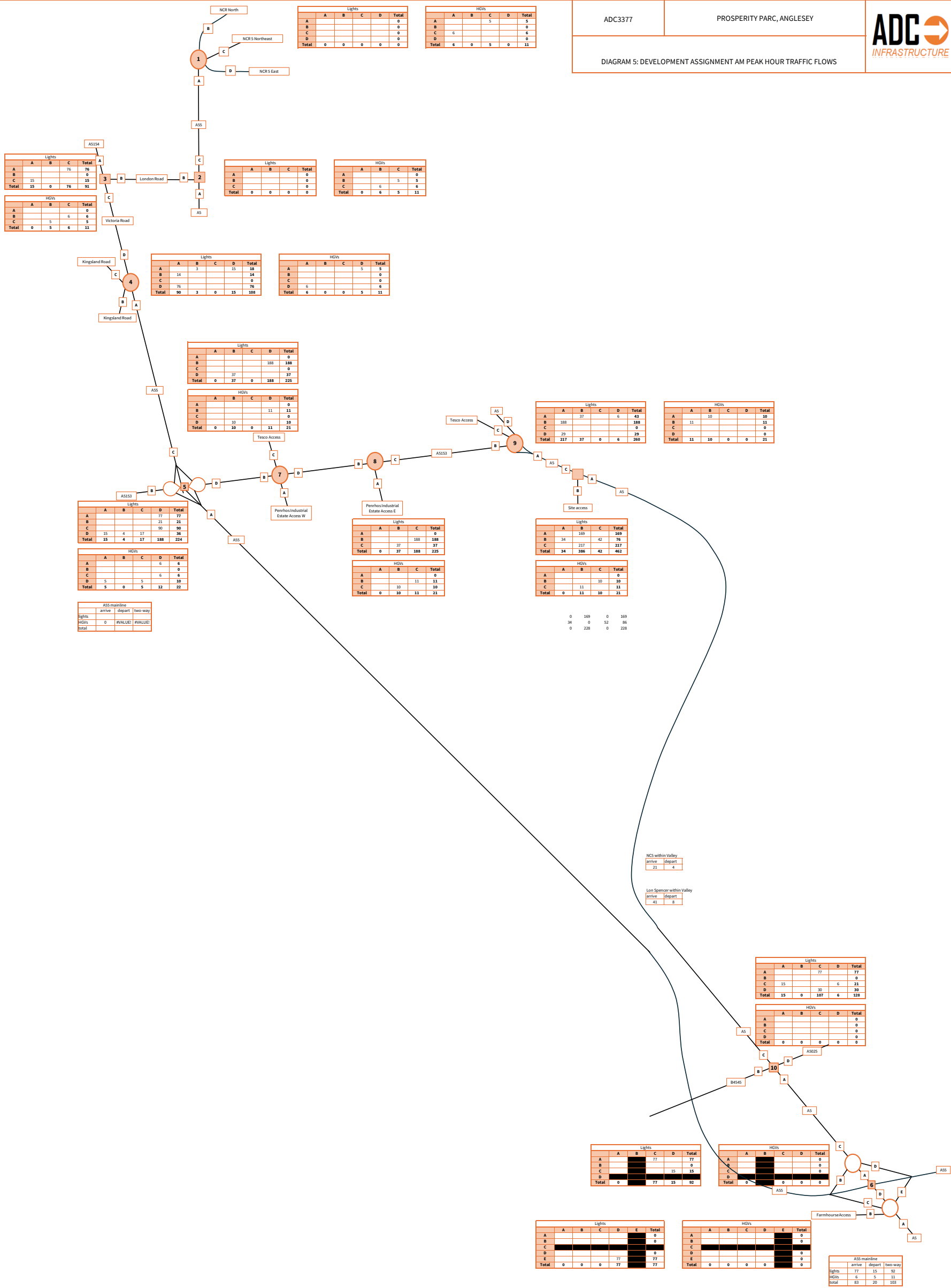


ADC3377

PROSPERITY PARC, ANGLESEY



DIAGRAM 5: DEVELOPMENT ASSIGNMENT AM PEAK HOUR TRAFFIC FLOWS

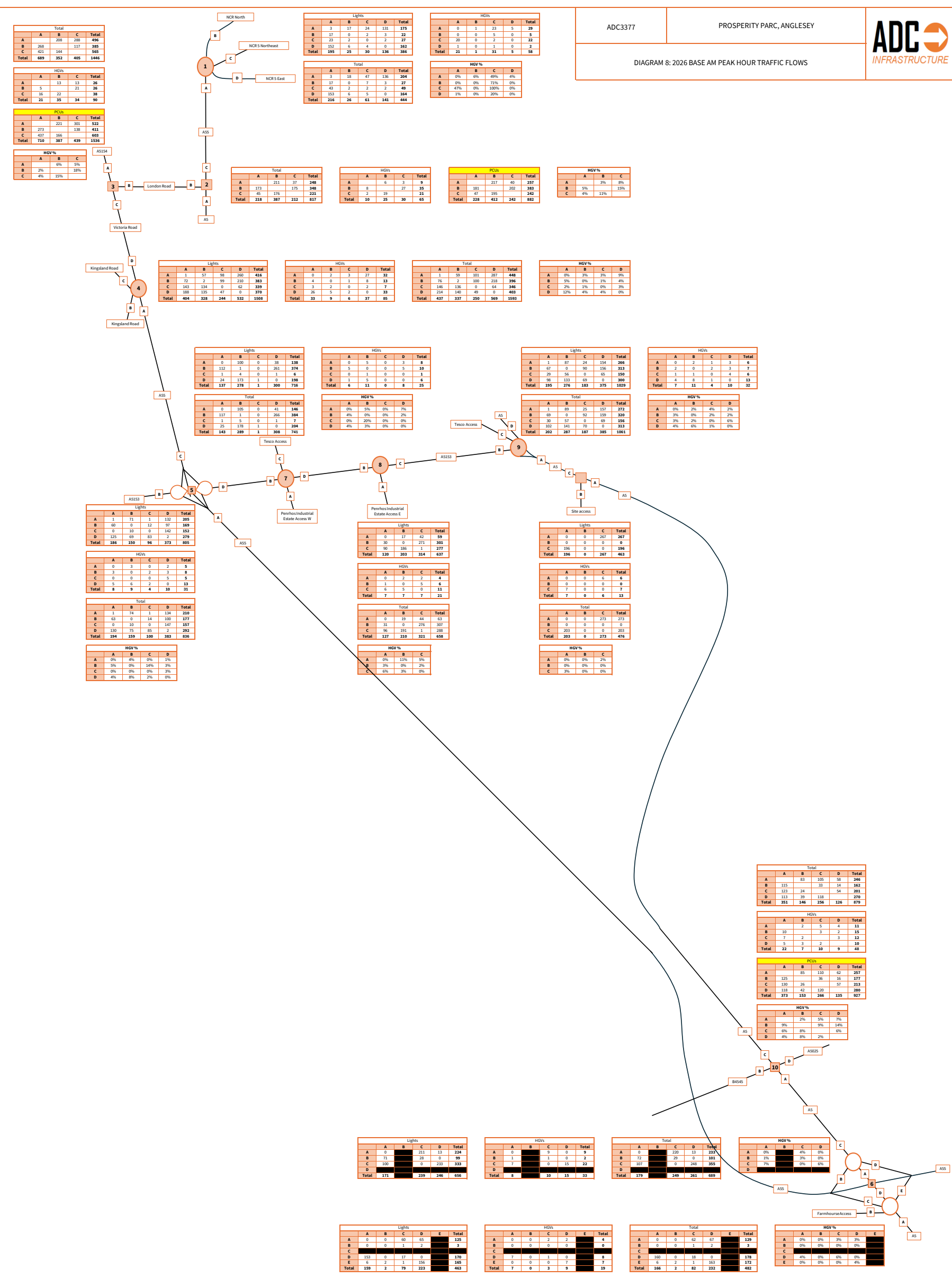


ADC3377

PROSPERITY PARC, ANGLESEY



DIAGRAM 8: 2026 BASE AM PEAK HOUR TRAFFIC FLOWS

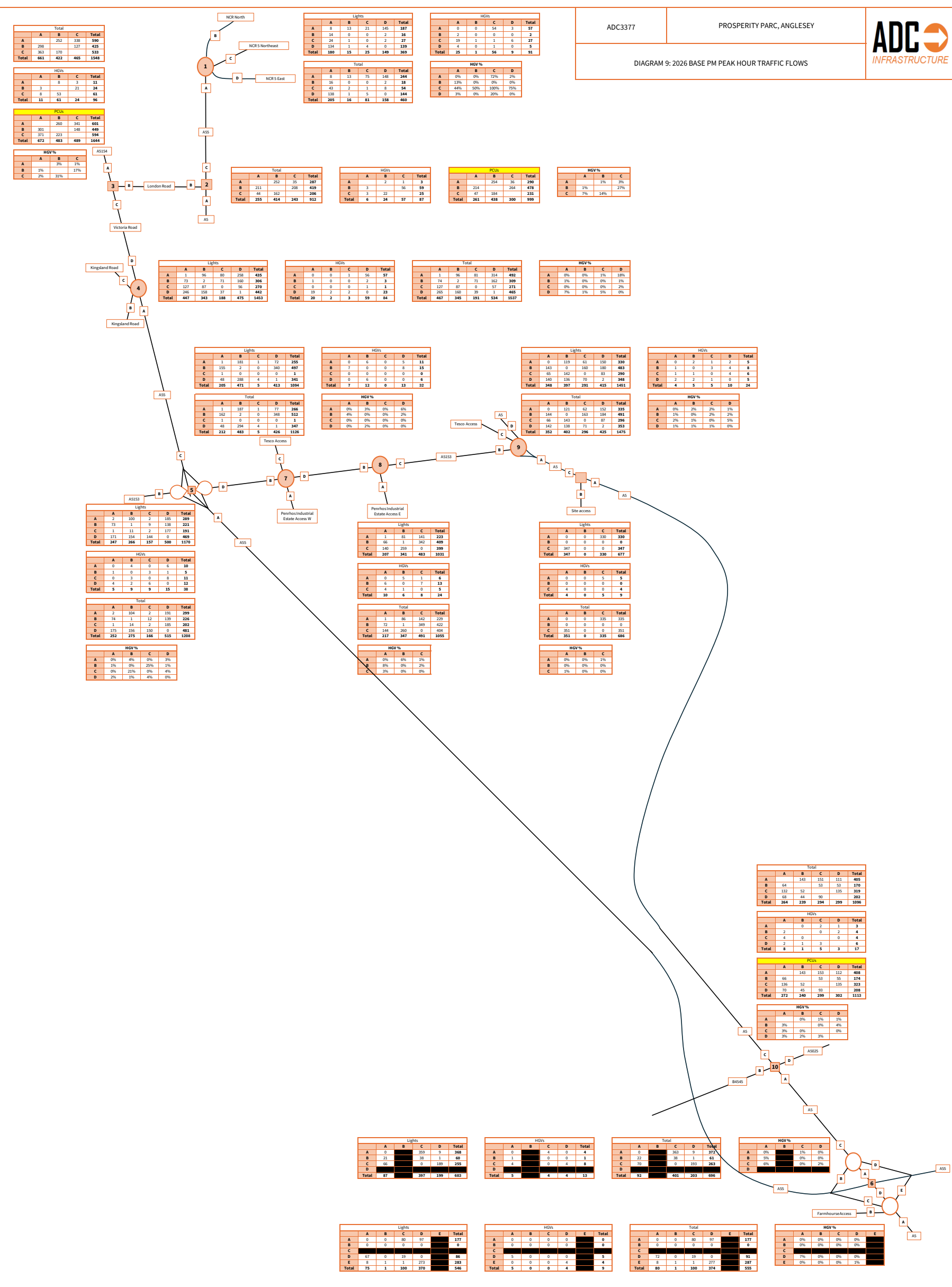


ADC3377

PROSPERITY PARC, ANGLESEY



DIAGRAM 9: 2026 BASE PM PEAK HOUR TRAFFIC FLOWS

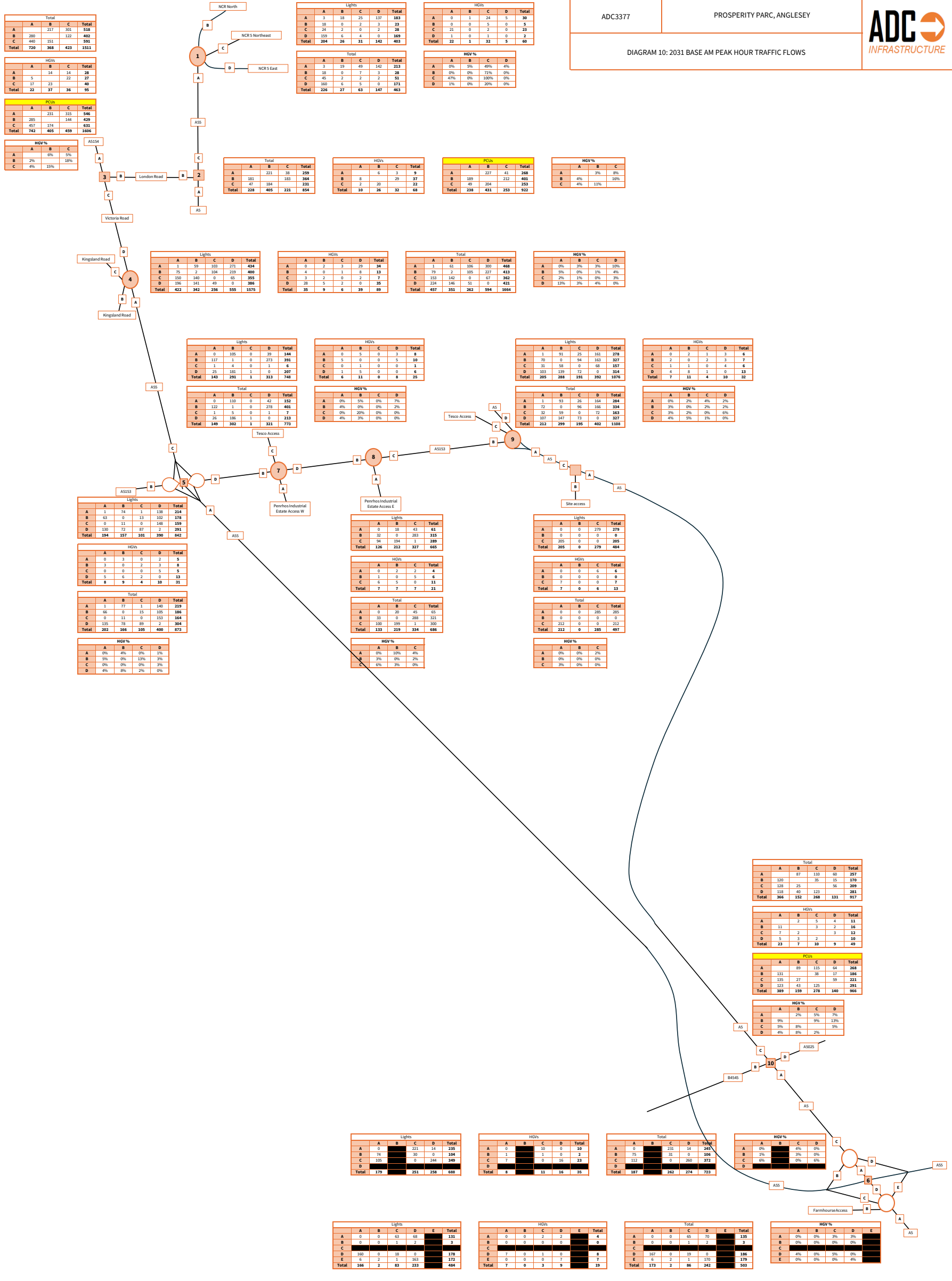


ADC3377

PROSPERITY PARC, ANGLESEY



DIAGRAM 10: 2031 BASE AM PEAK HOUR TRAFFIC FLOWS

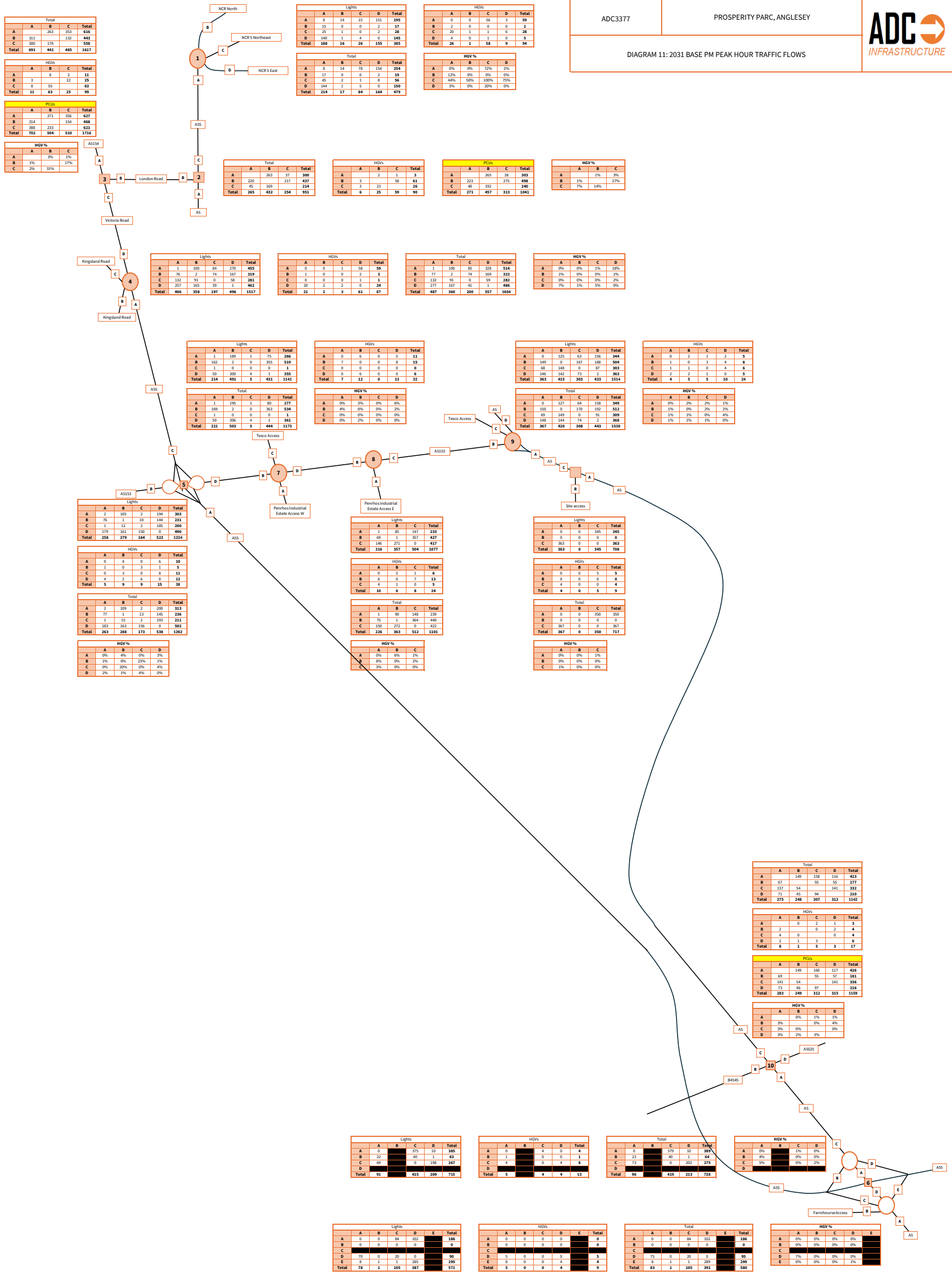


ADC3377

PROSPERITY PARC, ANGLESEY



DIAGRAM 11: 2031 BASE PM PEAK HOUR TRAFFIC FLOWS

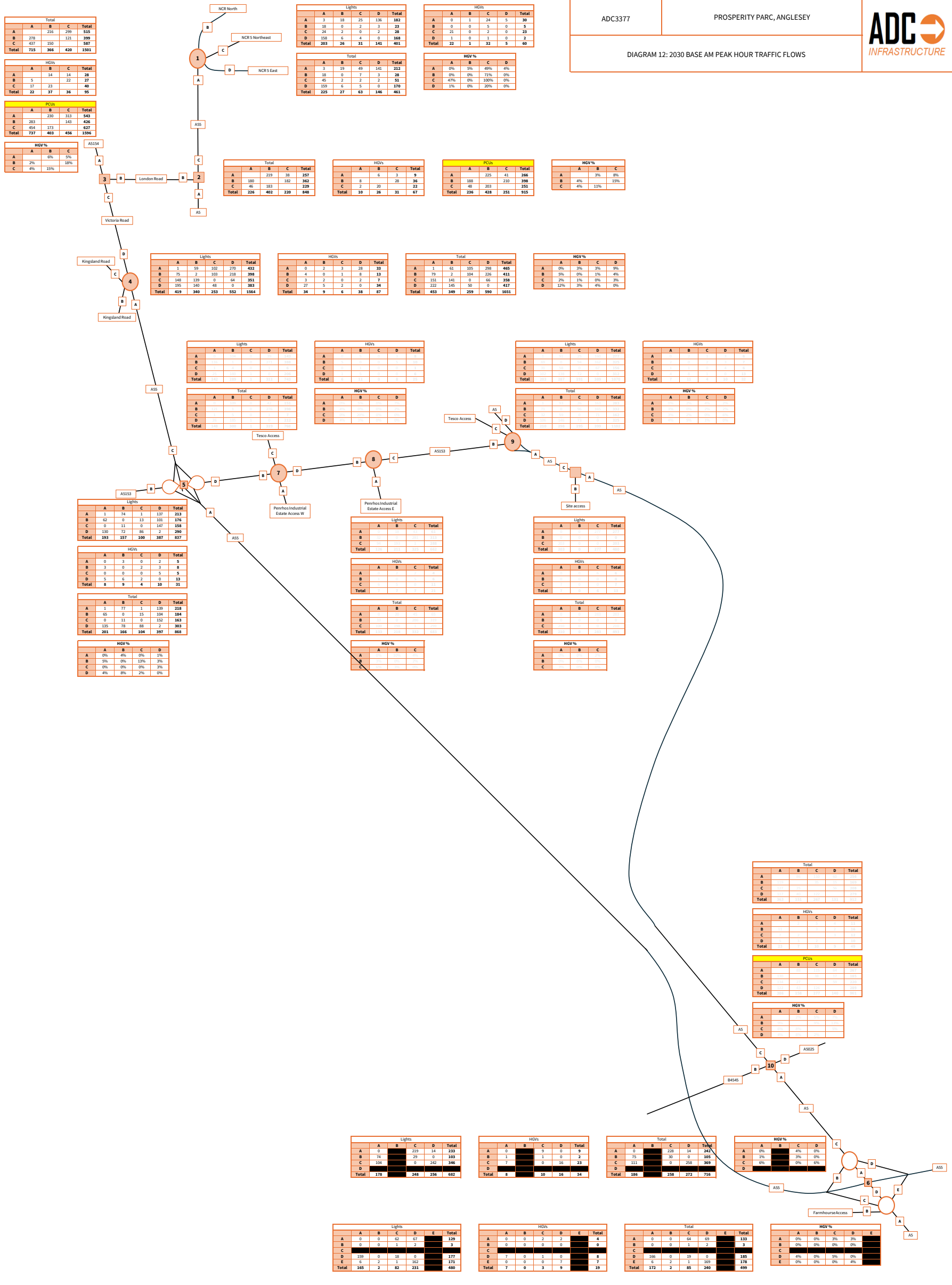


ADC3377

PROSPERITY PARC, ANGLESEY



DIAGRAM 12: 2030 BASE AM PEAK HOUR TRAFFIC FLOWS

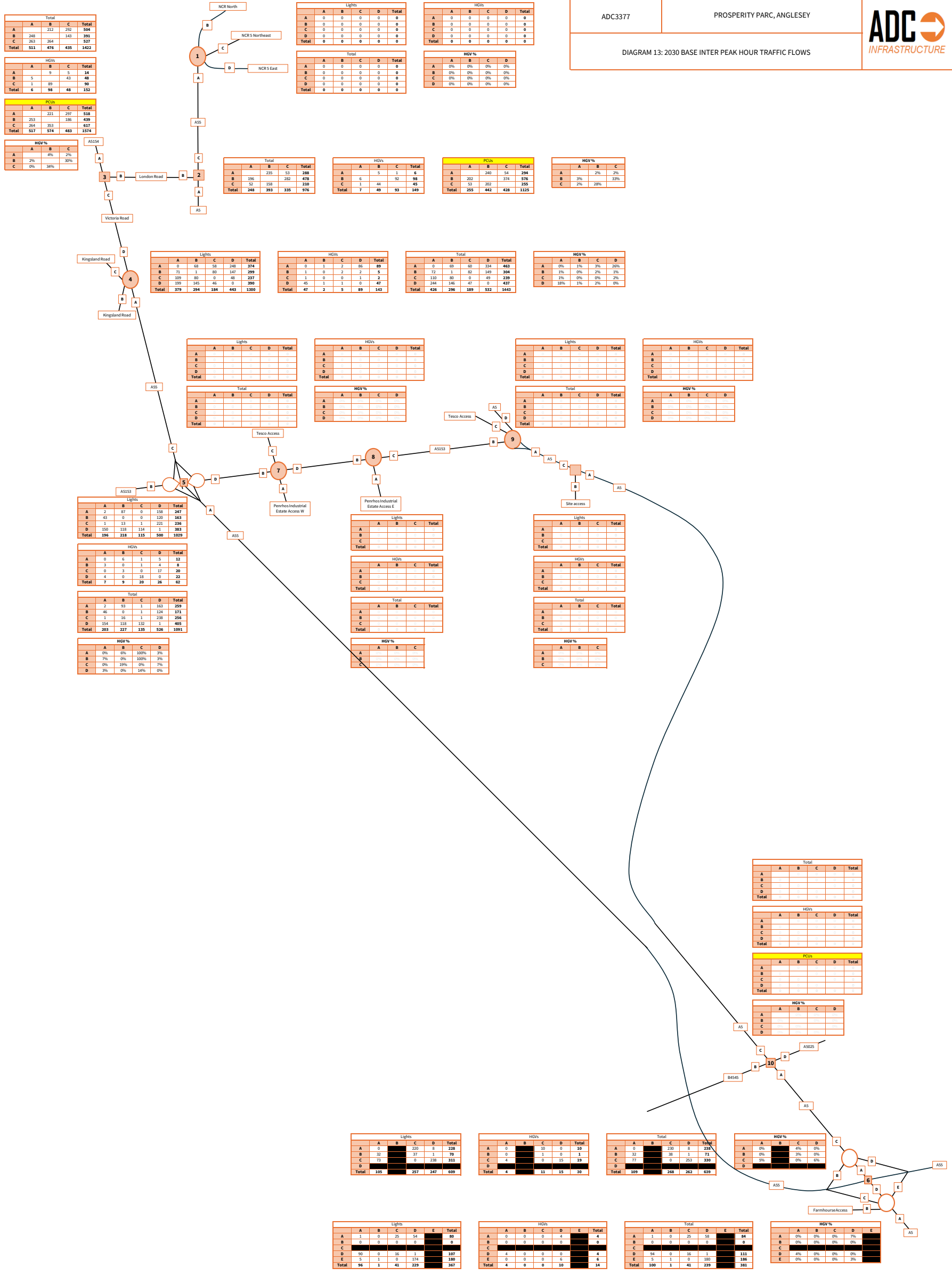


ADC3377

PROSPERITY PARC, ANGLESEY



DIAGRAM 13: 2030 BASE INTER PEAK HOUR TRAFFIC FLOWS

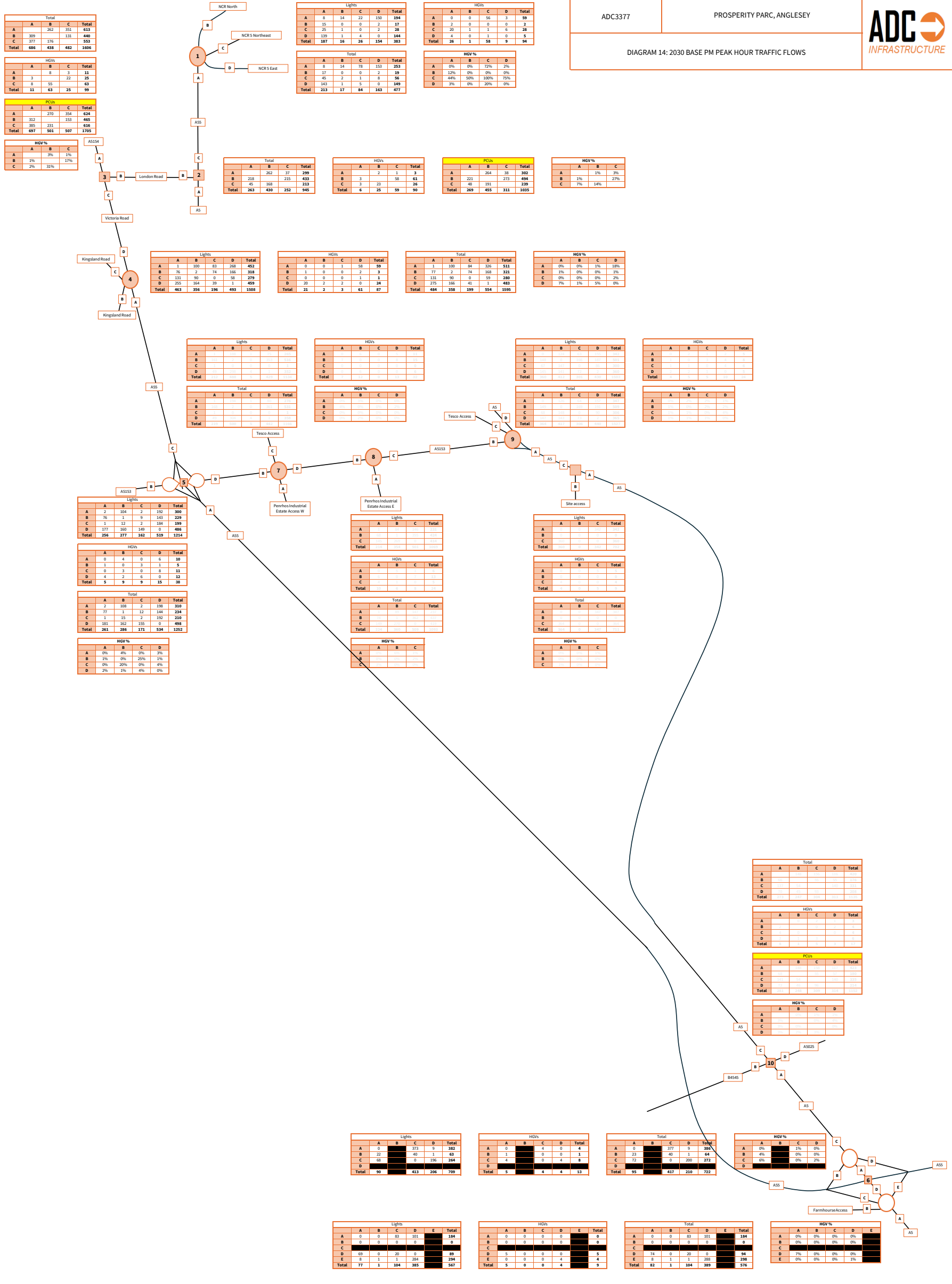


ADC3377

PROSPERITY PARC, ANGLESEY



DIAGRAM 14: 2030 BASE PM PEAK HOUR TRAFFIC FLOWS

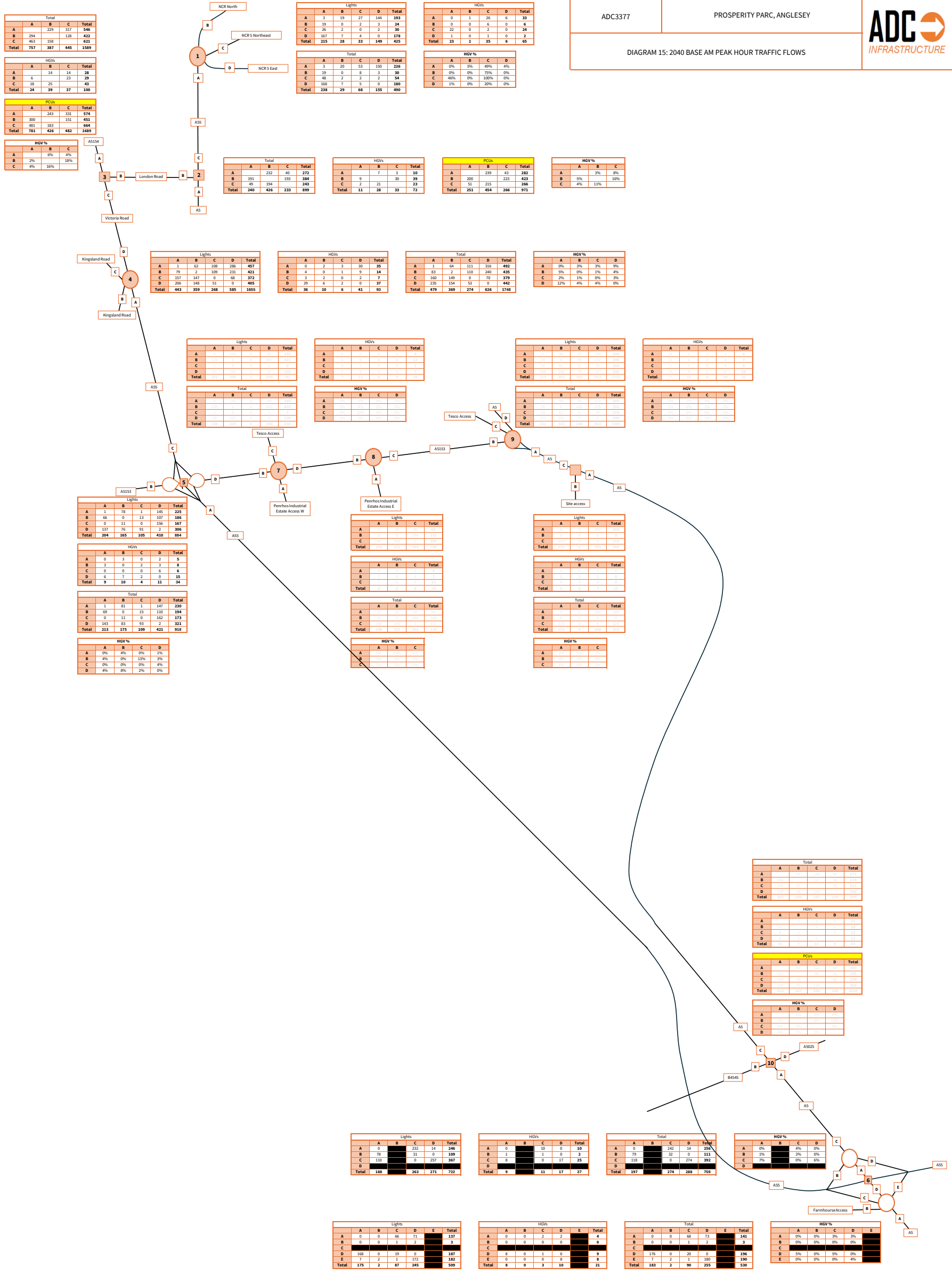


ADC3377

PROSPERITY PARC, ANGLESEY



DIAGRAM 15: 2040 BASE AM PEAK HOUR TRAFFIC FLOWS

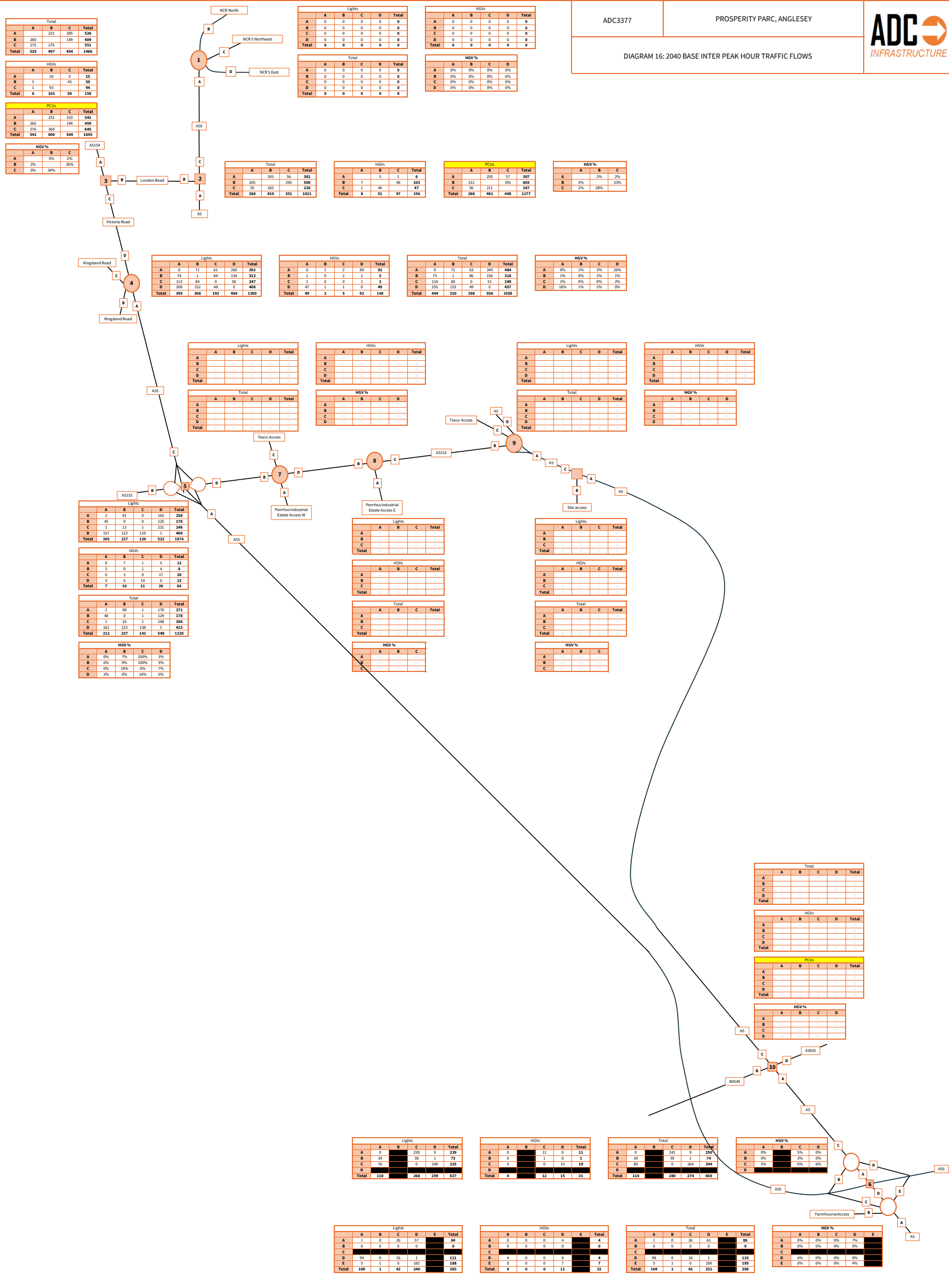


ADC3377

PROSPERITY PARC, ANGLESEY



DIAGRAM 16: 2040 BASE INTER PEAK HOUR TRAFFIC FLOWS

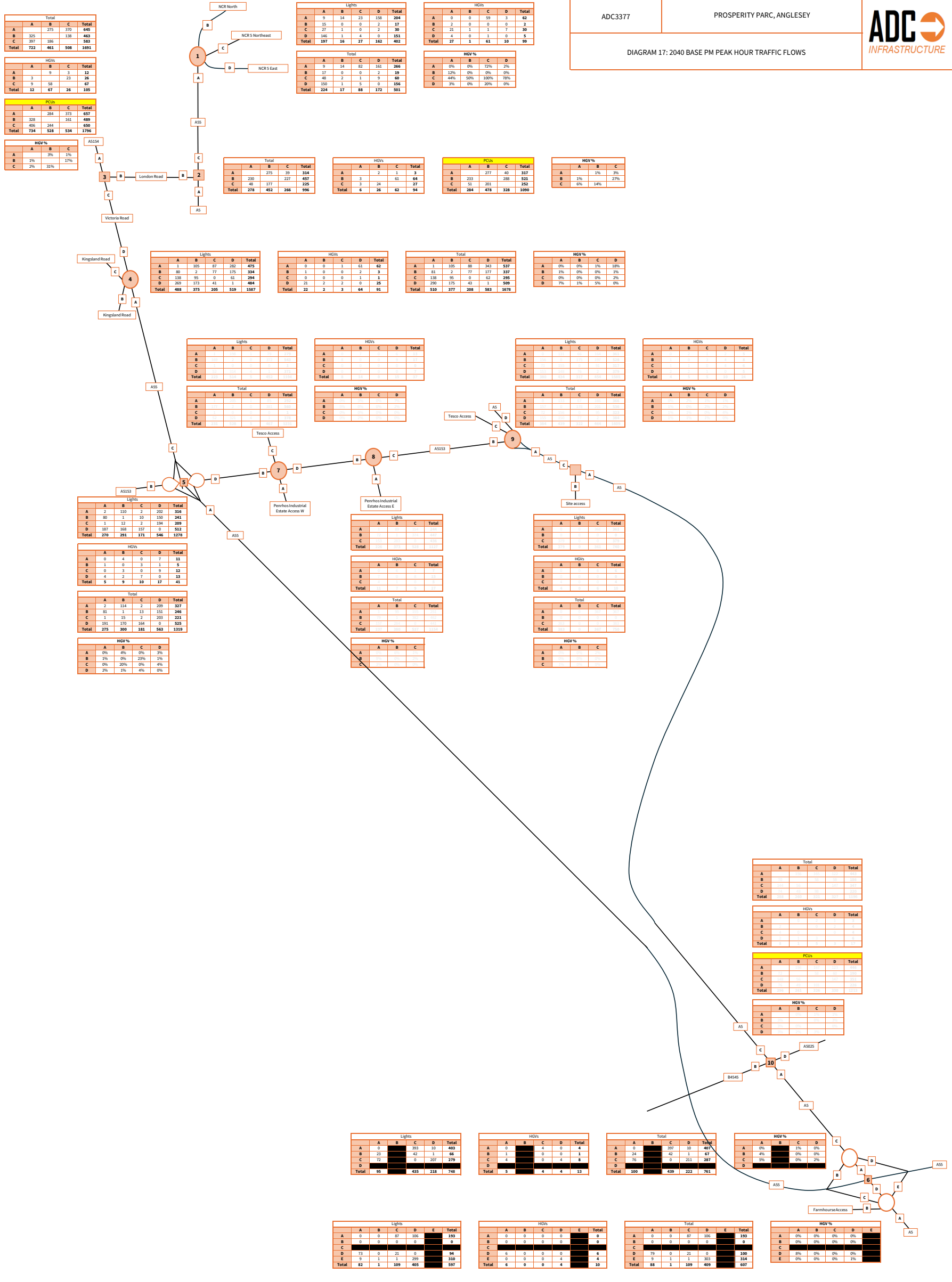


ADC3377

PROSPERITY PARC, ANGLESEY



DIAGRAM 17: 2040 BASE PM PEAK HOUR TRAFFIC FLOWS

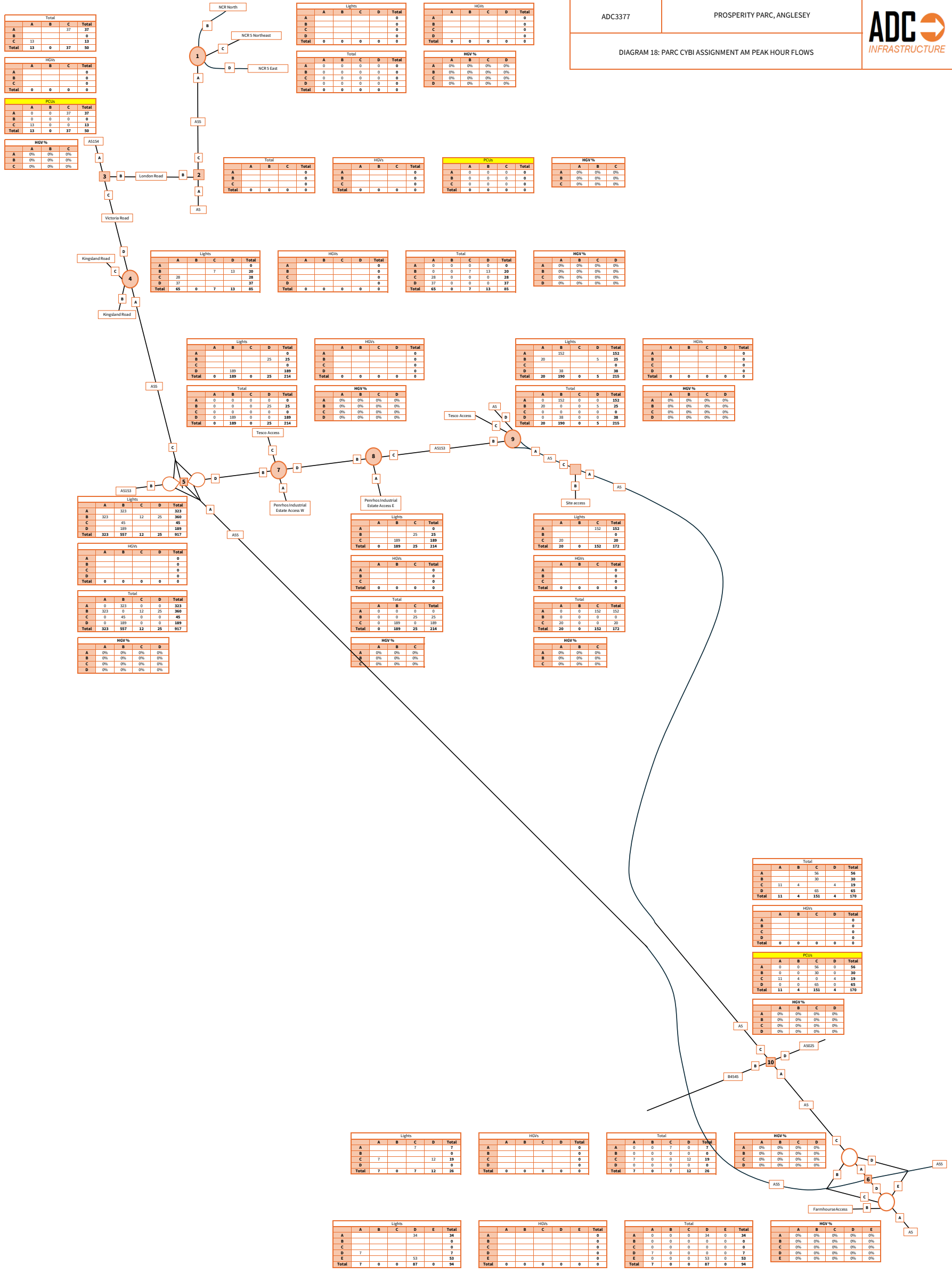


ADC3377

PROSPERITY PARC, ANGLESEY



DIAGRAM 18: PARC CYBI ASSIGNMENT AM PEAK HOUR FLOWS

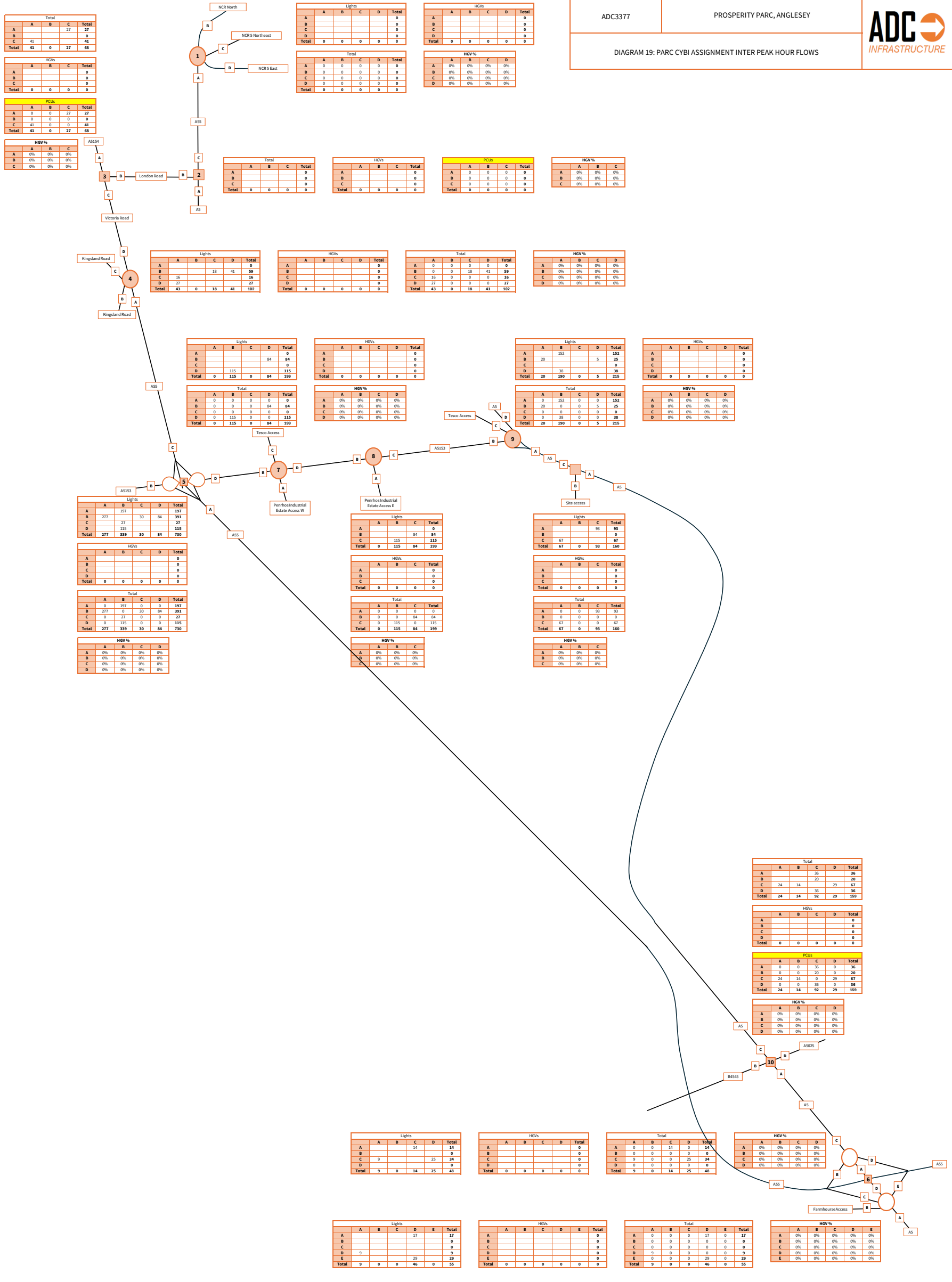


ADC3377

PROSPERITY PARC, ANGLESEY



DIAGRAM 19: PARC CYBI ASSIGNMENT INTER PEAK HOUR FLOWS

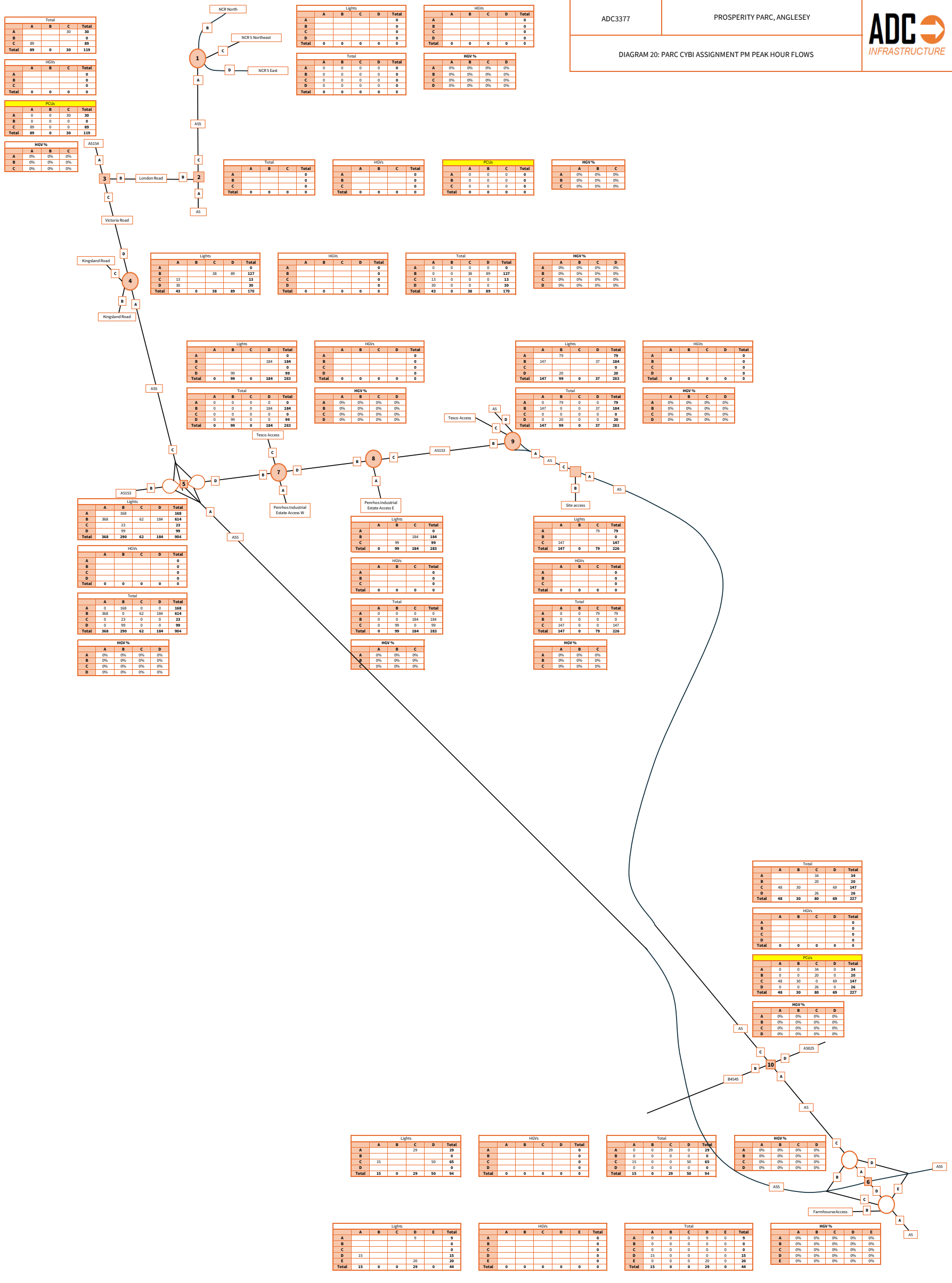


ADC3377

PROSPERITY PARC, ANGLESEY



DIAGRAM 20: PARC CYBI ASSIGNMENT PM PEAK HOUR FLOWS

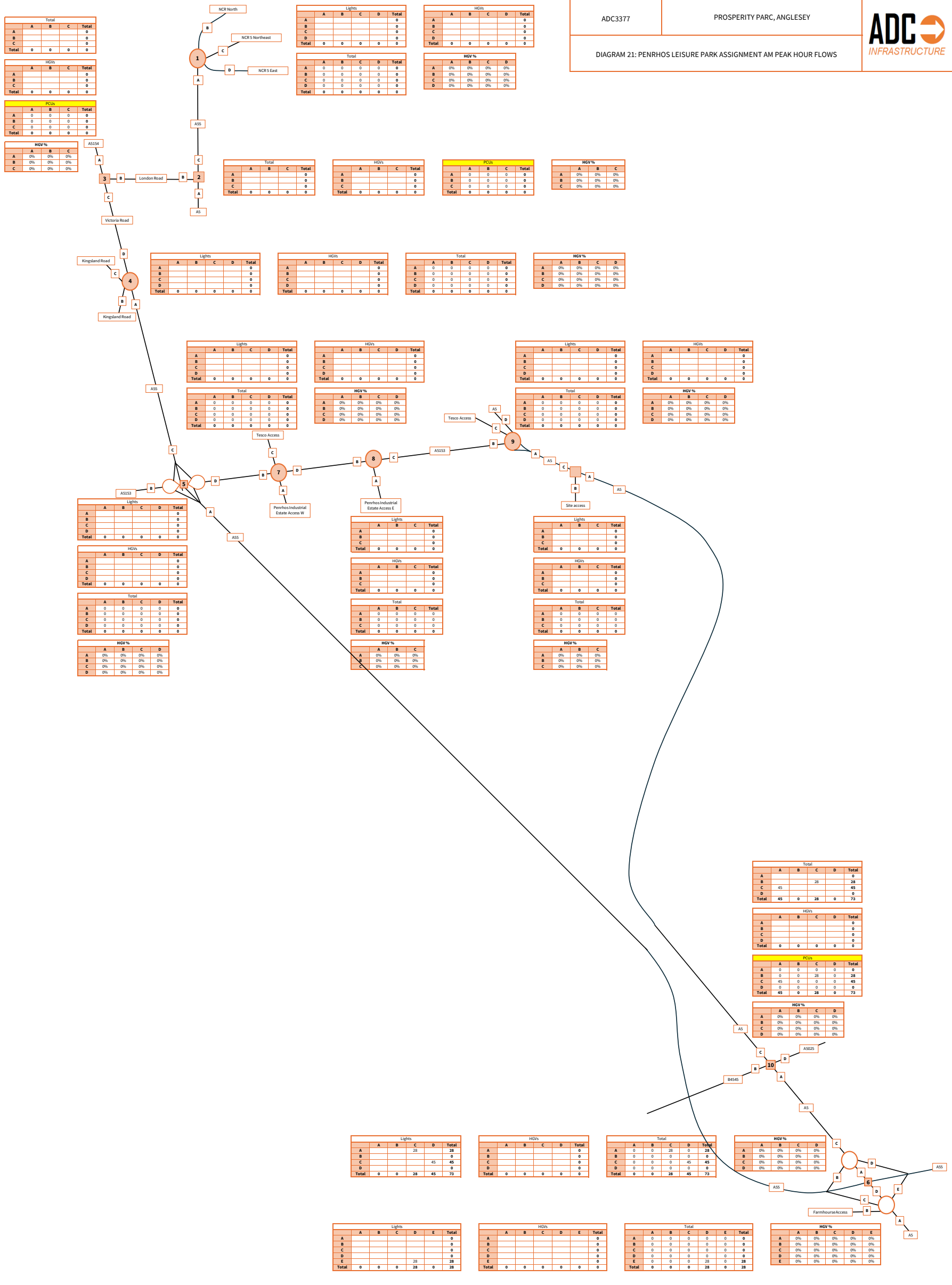


ADC3377

PROSPERITY PARC, ANGLESEY



DIAGRAM 21: PENRHOS LEISURE PARK ASSIGNMENT AM PEAK HOUR FLOWS

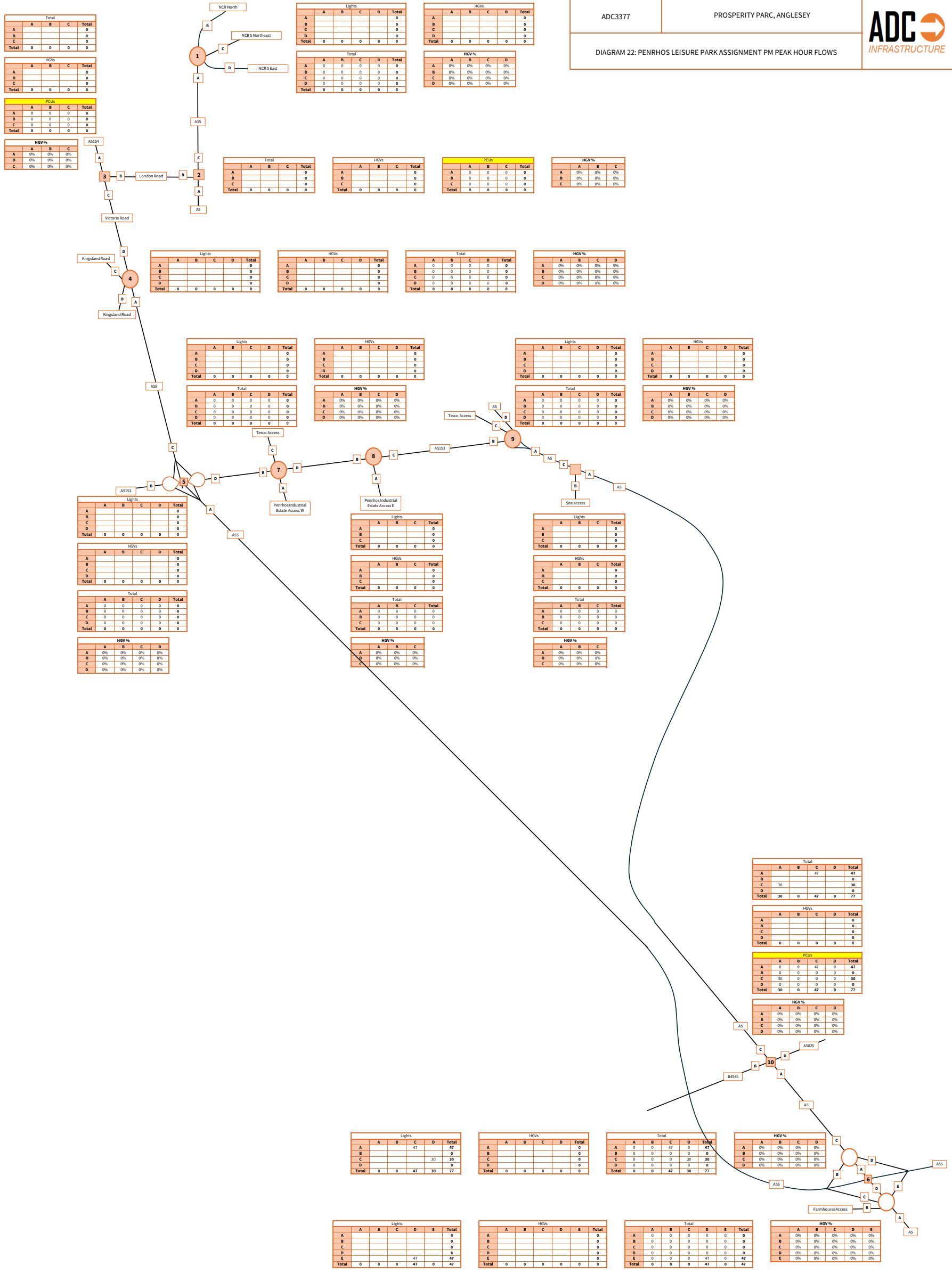


ADC3377

PROSPERITY PARC, ANGLESEY



DIAGRAM 22: PENRHOS LEISURE PARK ASSIGNMENT PM PEAK HOUR FLOWS

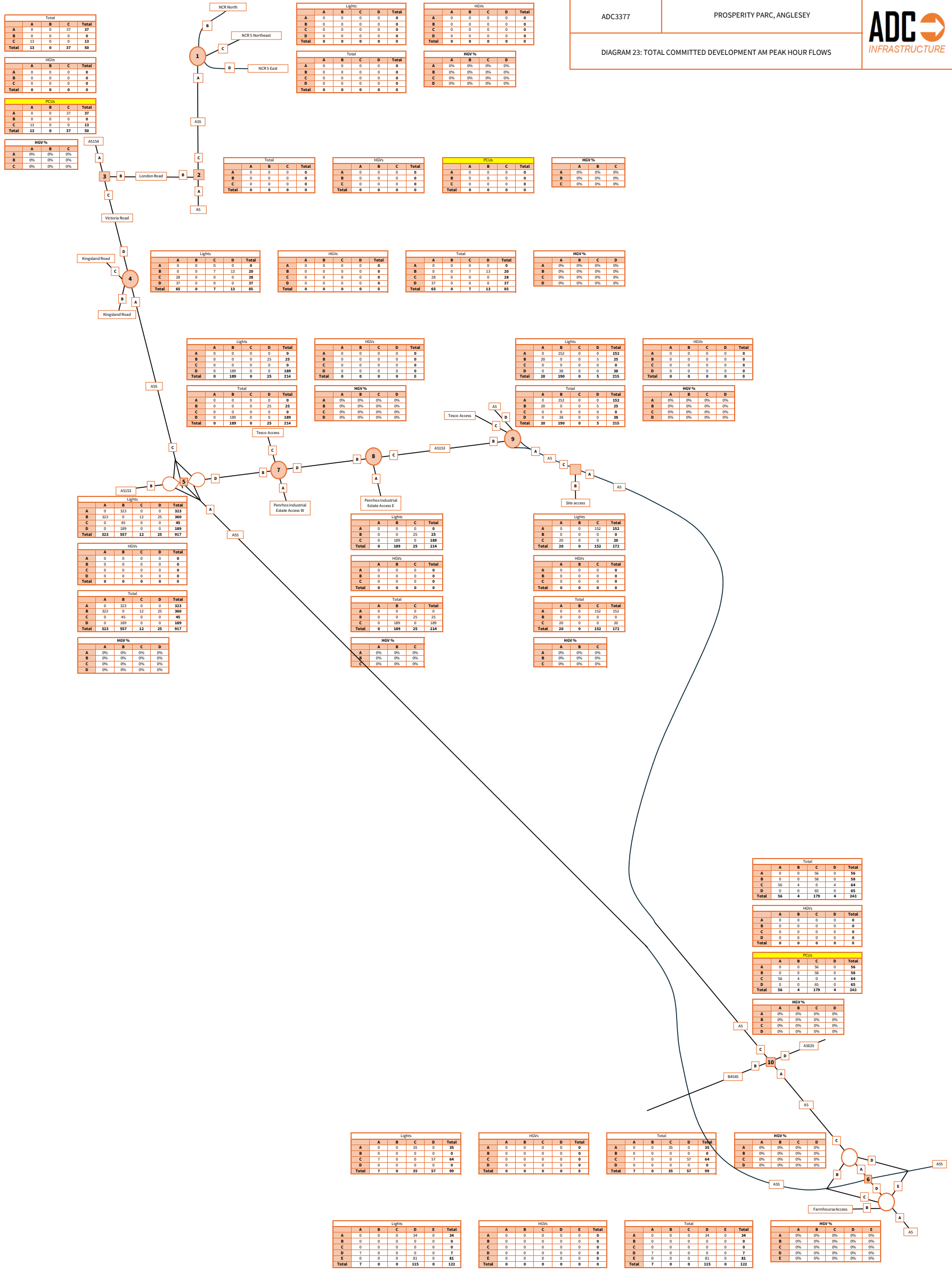


ADC3377

PROSPERITY PARC, ANGLESEY



DIAGRAM 23: TOTAL COMMITTED DEVELOPMENT AM PEAK HOUR FLOWS

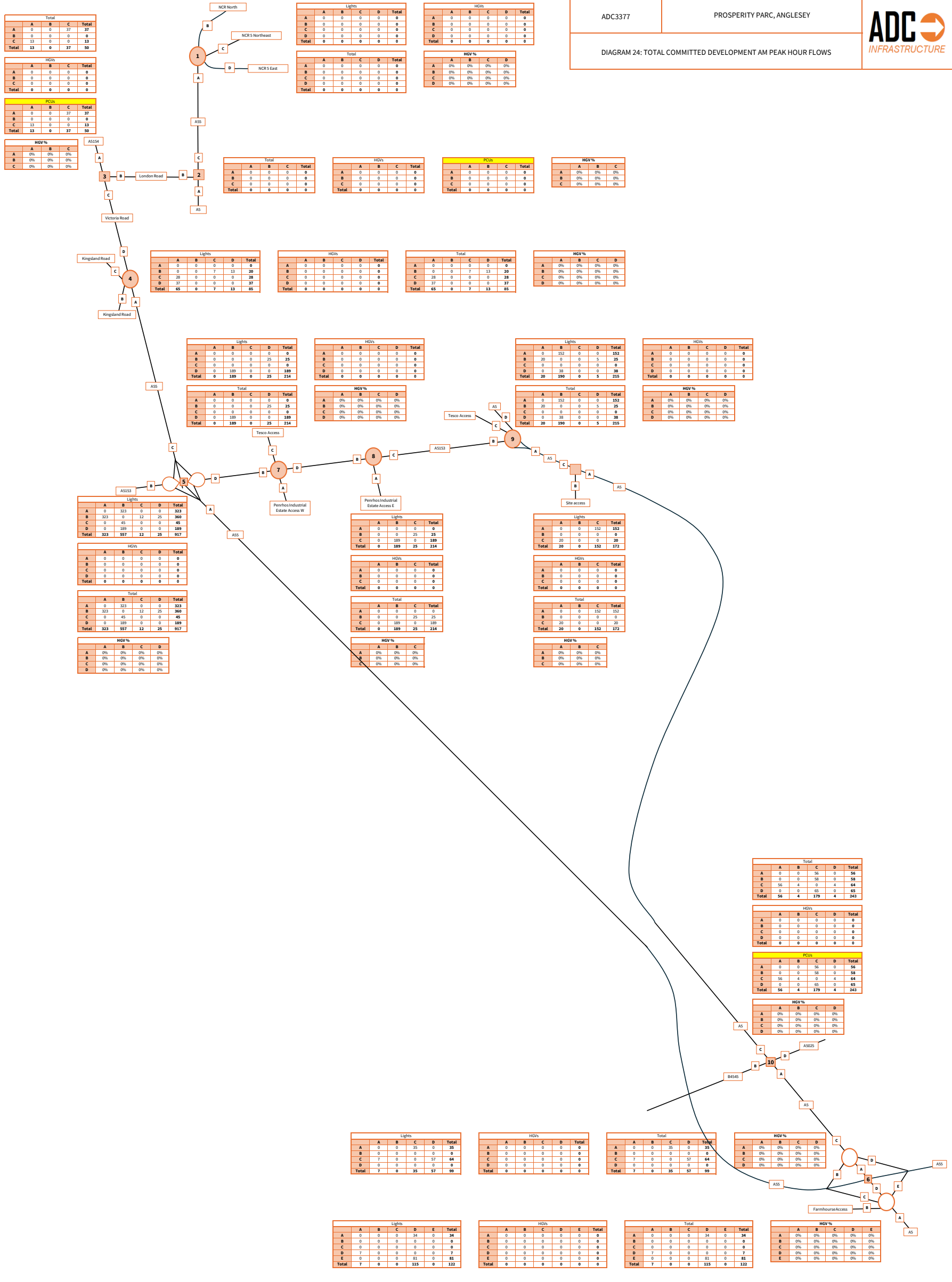


ADC3377

PROSPERITY PARC, ANGLESEY



DIAGRAM 24: TOTAL COMMITTED DEVELOPMENT AM PEAK HOUR FLOWS

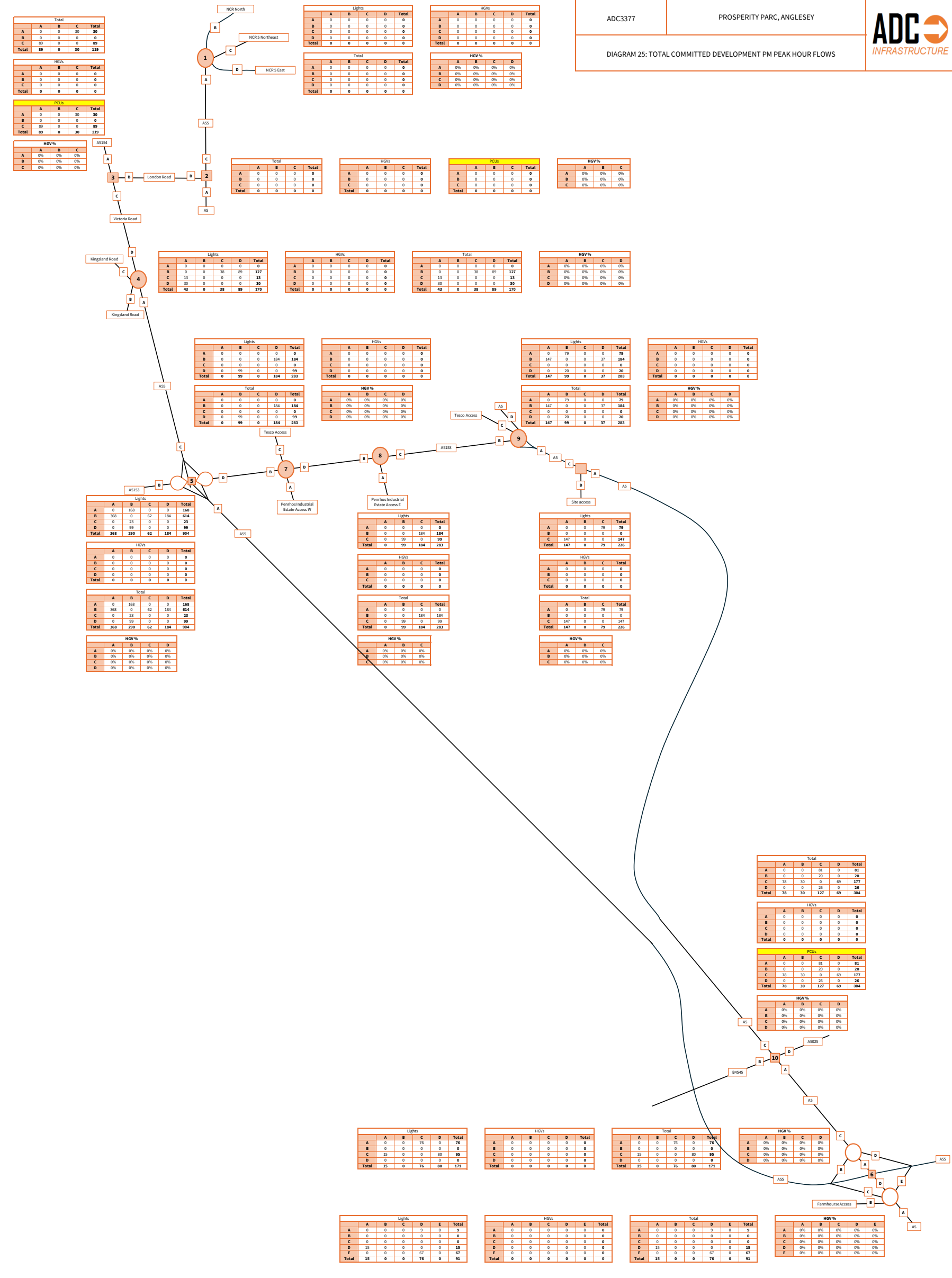


ADC3377

PROSPERITY PARC, ANGLESEY



DIAGRAM 25: TOTAL COMMITTED DEVELOPMENT PM PEAK HOUR FLOWS

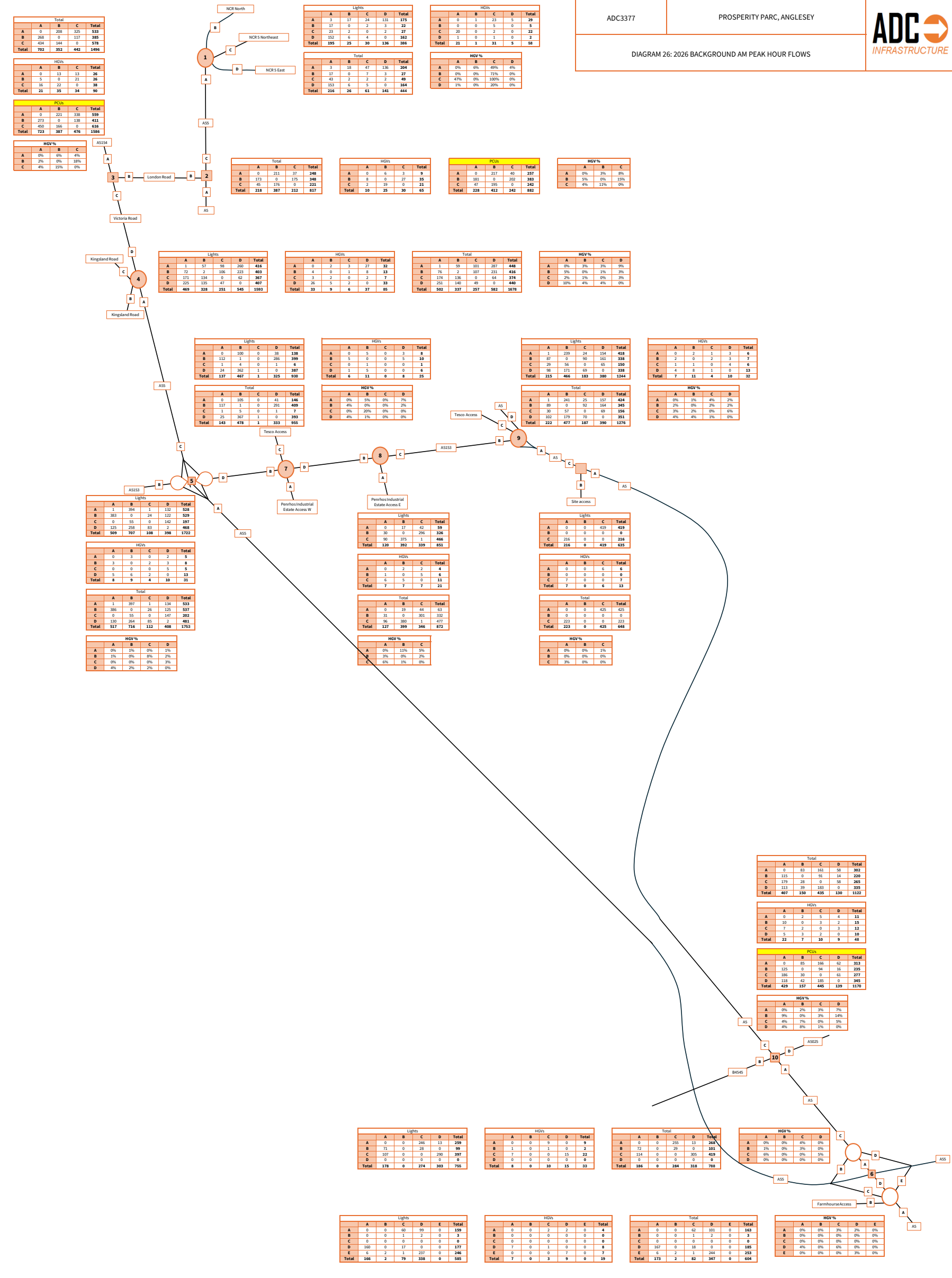


ADC3377

PROSPERITY PARC, ANGLESEY



DIAGRAM 26: 2026 BACKGROUND AM PEAK HOUR FLOWS



ADC3377

PROSPERITY PARC, ANGLESEY



DIAGRAM 27: 2026 BACKGROUND PM PEAK HOUR FLOWS

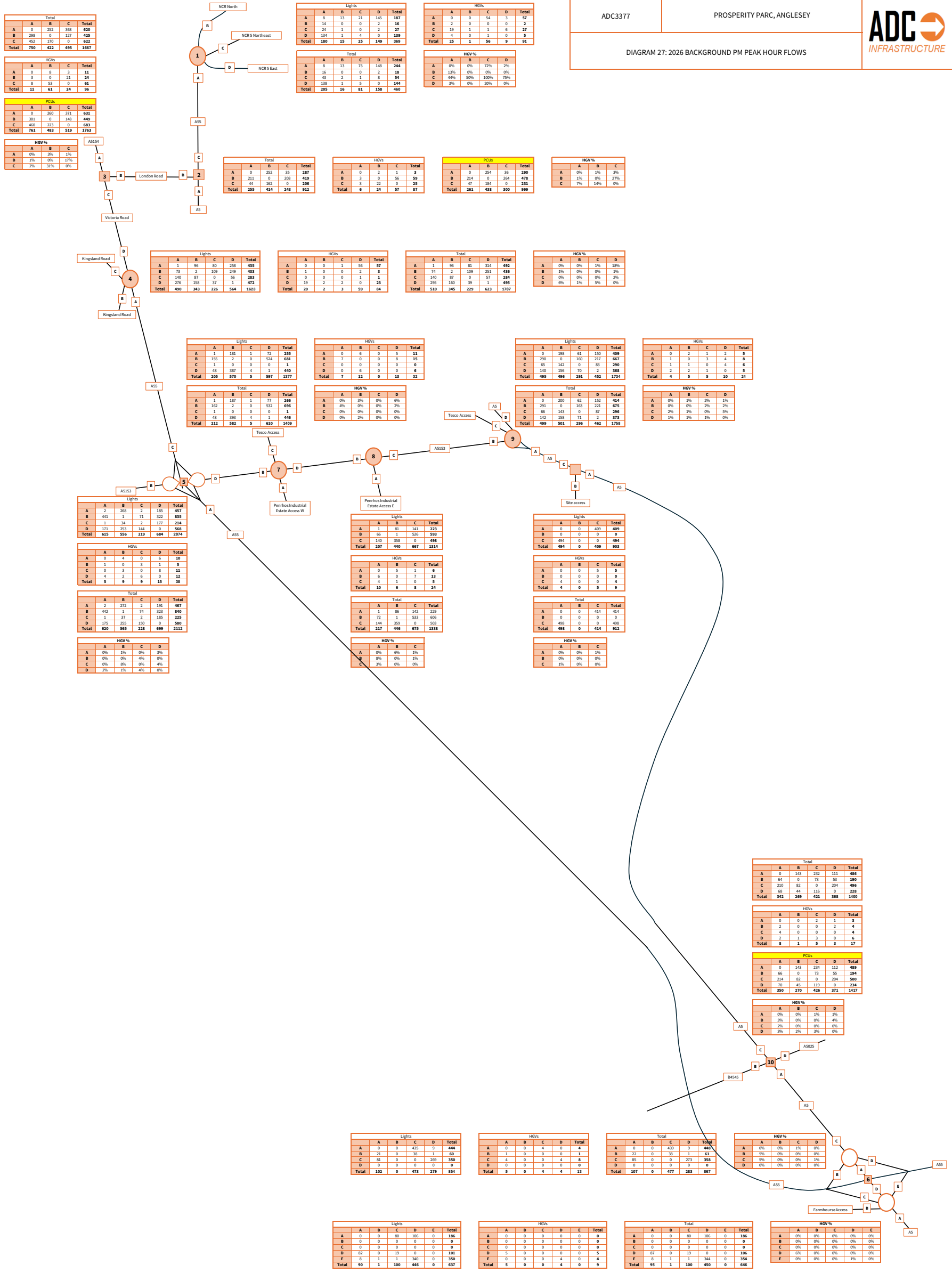
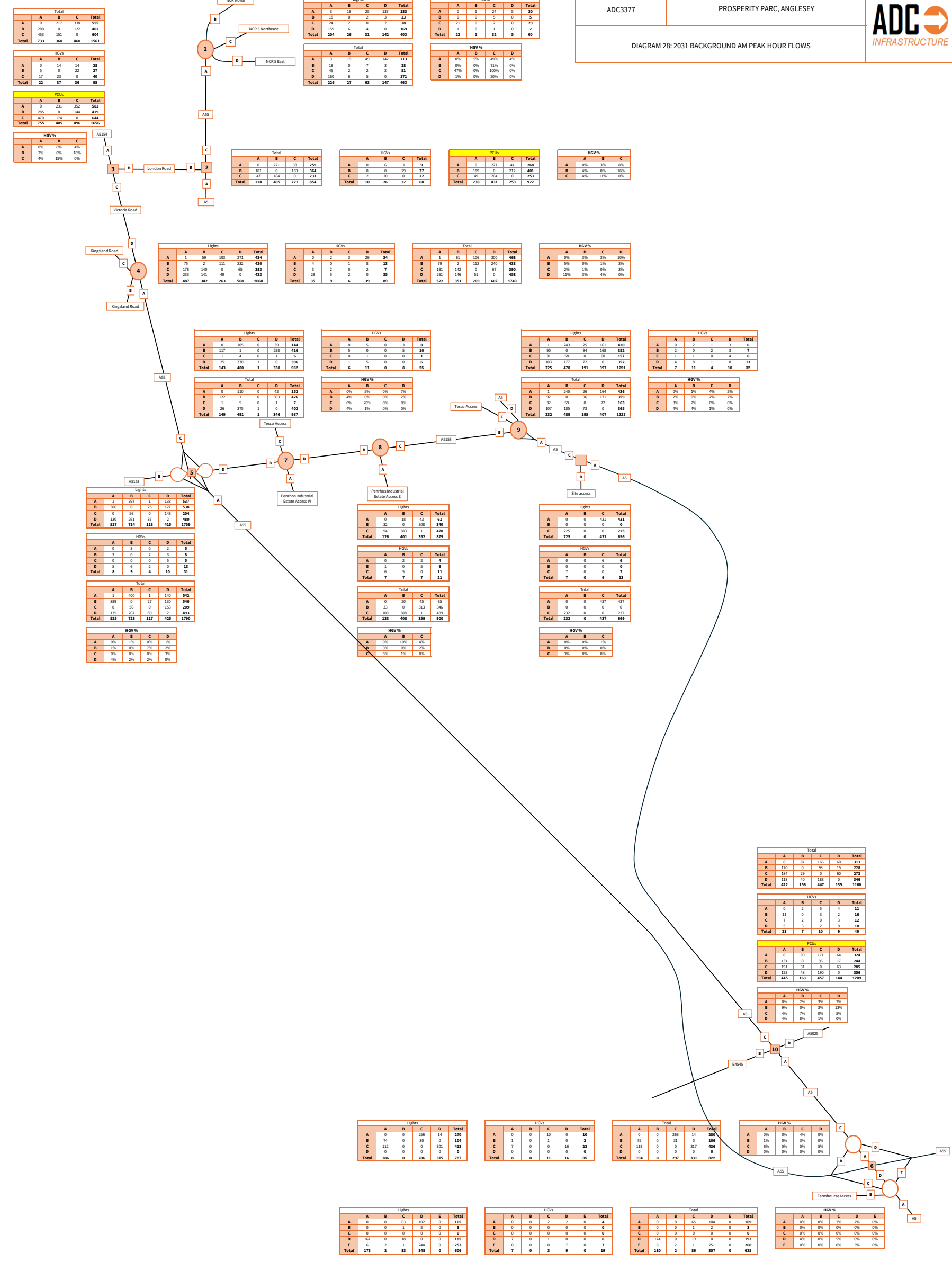


DIAGRAM 28: 2031 BACKGROUND AM PEAK HOUR FLOWS

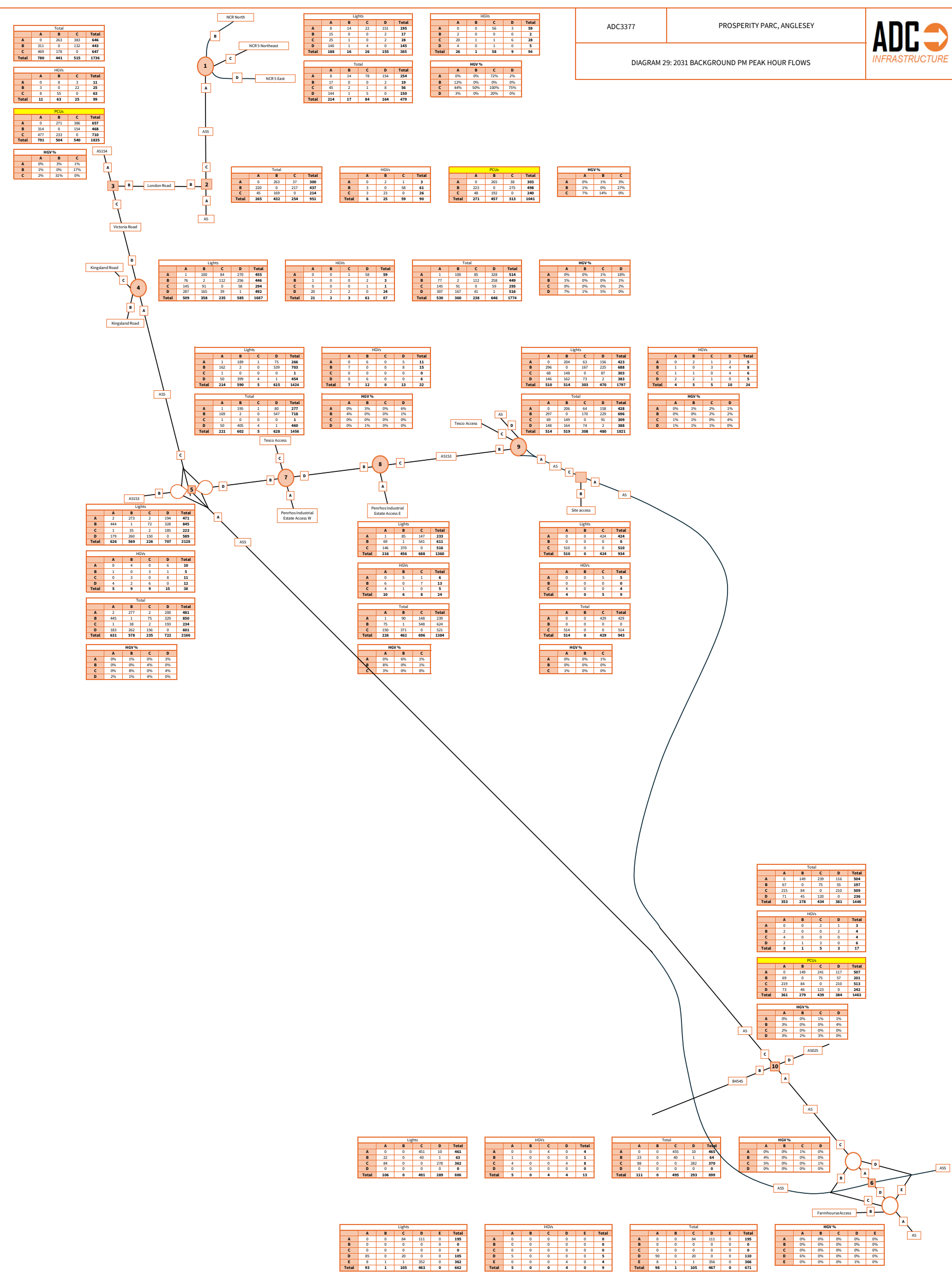


ADC3377

PROSPERITY PARC, ANGLESEY



DIAGRAM 29: 2031 BACKGROUND PM PEAK HOUR FLOWS

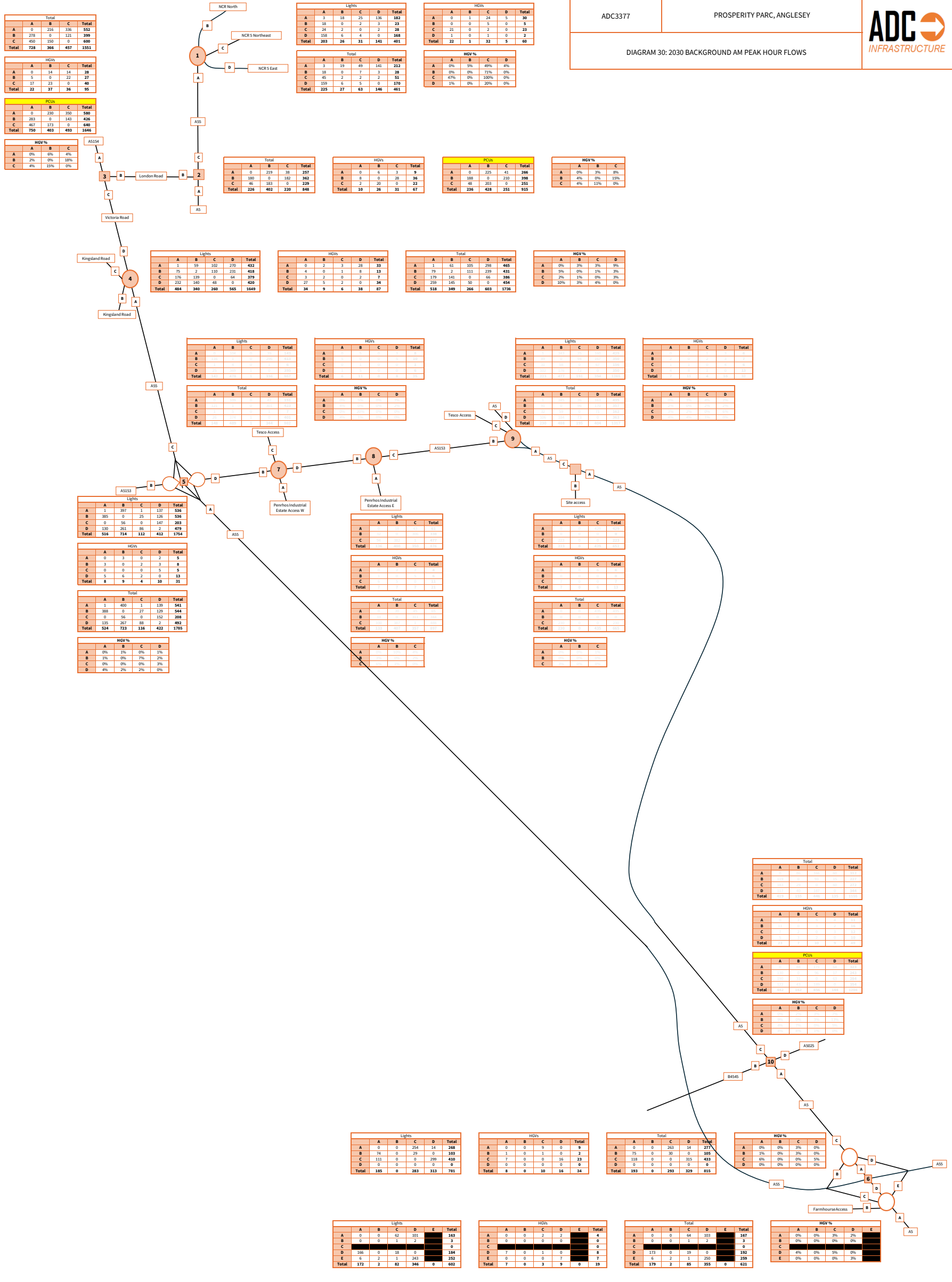


ADC3377

PROSPERITY PARC, ANGLESEY



DIAGRAM 30: 2030 BACKGROUND AM PEAK HOUR FLOWS

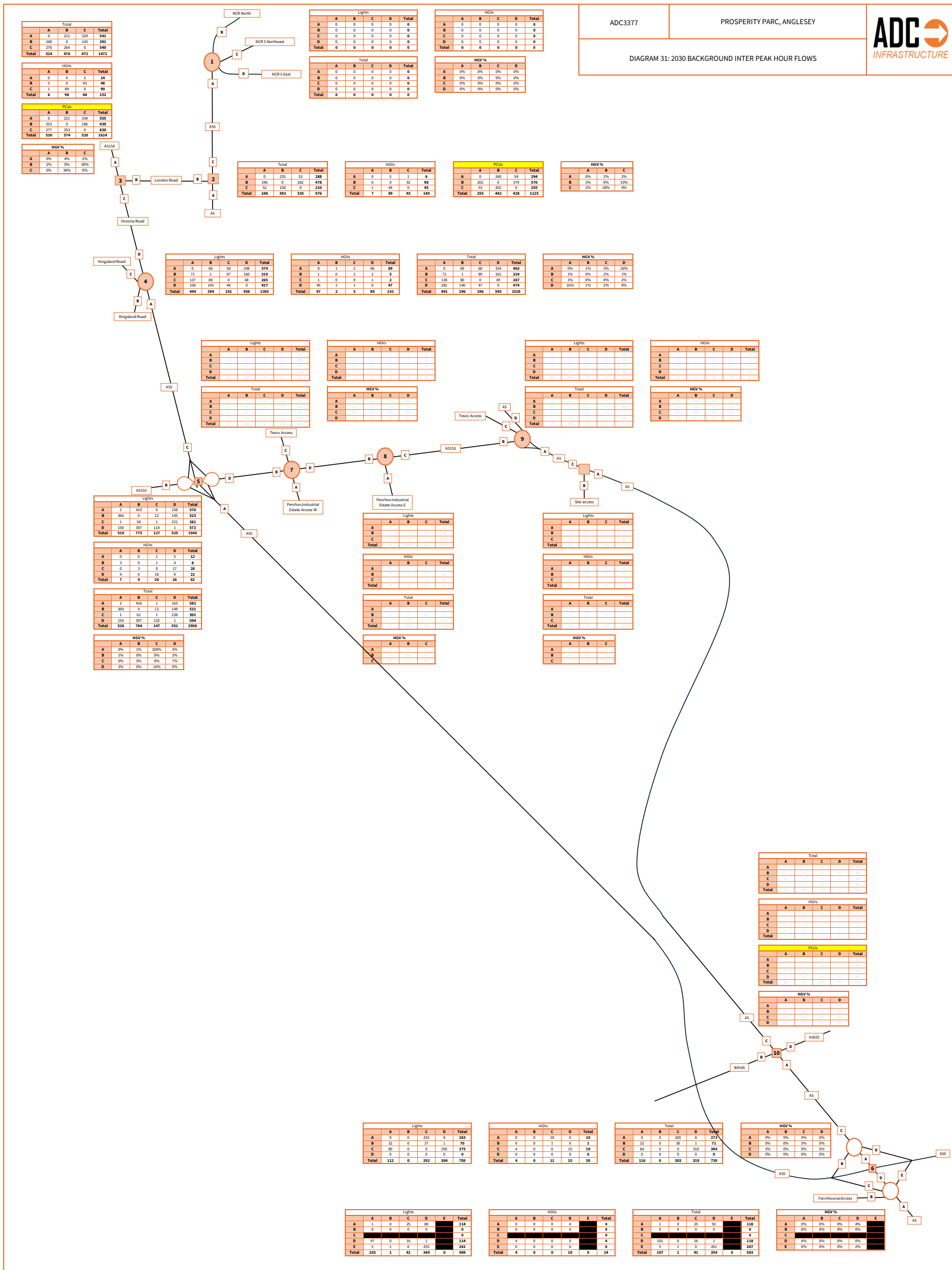


ADC3377

PROSPERITY PARC, ANGLESEY



DIAGRAM 31: 2030 BACKGROUND INTER PEAK HOUR FLOWS

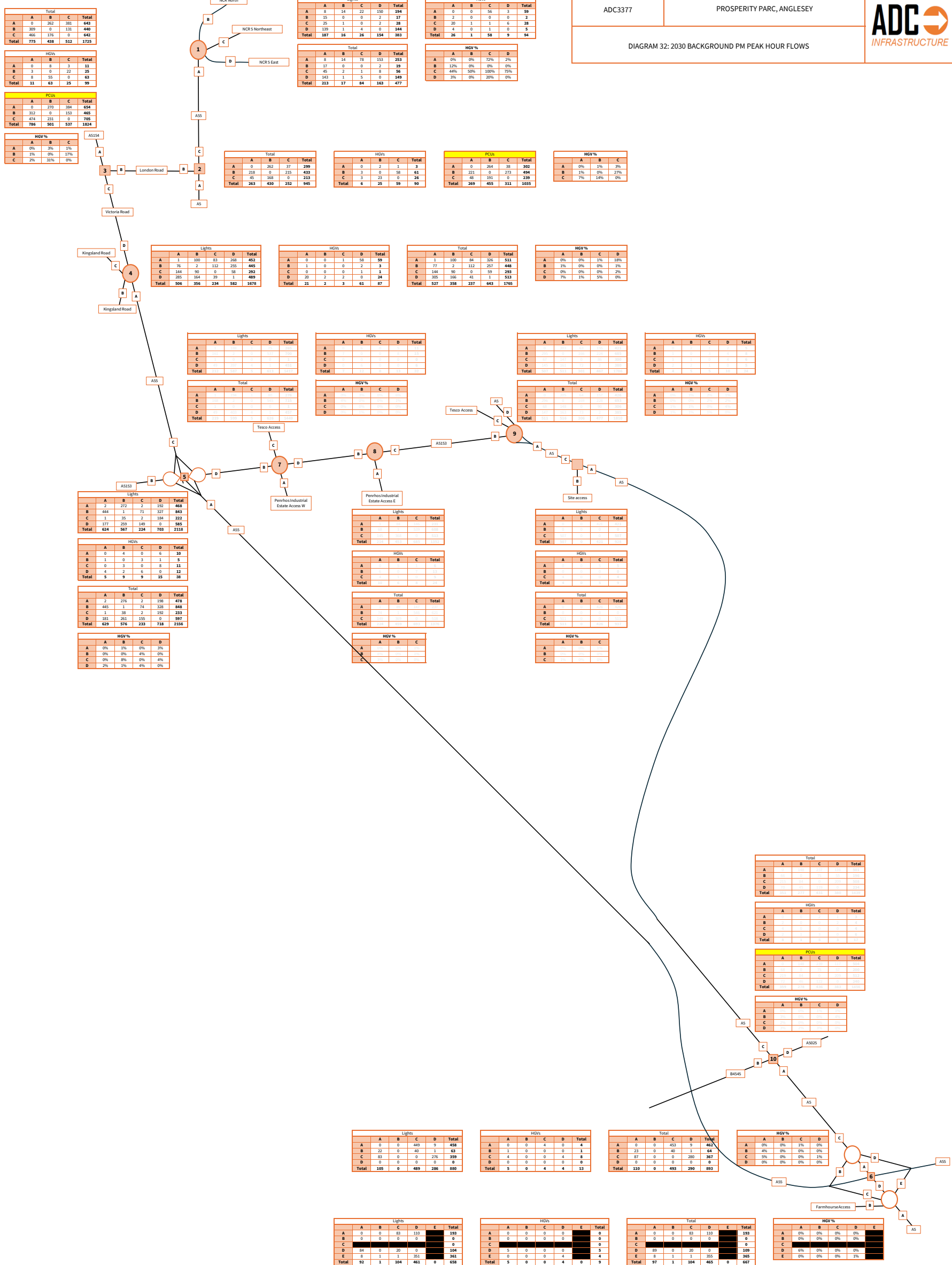


ADC3377

PROSPERITY PARC, ANGLESEY



DIAGRAM 32: 2030 BACKGROUND PM PEAK HOUR FLOWS



ADC3377

PROSPERITY PARC, ANGLESEY



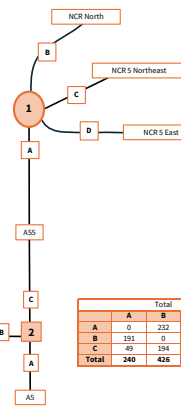
DIAGRAM 33: 2040 BACKGROUND AM PEAK HOUR FLOWS

Total			
A	B	C	Total
0	229	354	583
294	0	120	412
476	150	0	626
Total	770	387	1623

HGVs			
A	B	C	Total
0	14	14	28
6	0	23	29
18	25	0	43
Total	24	39	100

PCUs			
A	B	C	Total
0	243	308	551
300	0	155	455
494	183	0	677
Total	794	428	1379

HGV%			
A	B	C	Total
0%	6%	4%	
2%	0%	18%	
4%	35%	0%	



Lights				
A	B	C	D	Total
3	19	27	144	193
10	0	2	2	24
26	2	0	2	30
167	7	4	0	178
Total	215	28	33	425

HGVs				
A	B	C	D	Total
0	1	26	6	33
0	0	5	0	5
22	0	2	0	24
1	0	1	0	2
Total	23	35	6	65

HGV%				
A	B	C	D	Total
0%	5%	49%	4%	
0%	0%	75%	0%	
40%	0%	100%	0%	
1%	0%	20%	0%	

Total				
A	B	C	D	Total
20	53	150	226	
19	0	8	3	30
48	2	2	2	54
168	7	5	0	180
Total	238	29	68	490

HGVs				
A	B	C	D	Total
0	7	3	3	10
9	0	30	39	
21	0	23		
Total	11	28	33	72

PCUs				
A	B	C	D	Total
0	239	43	282	
200	0	223	423	
51	215	0	266	
Total	251	454	286	971

HGV%				
A	B	C	D	Total
0%	3%	8%		
3%	0%	100%		
4%	13%	0%		

Lights				
A	B	C	D	Total
1	42	108	286	457
79	2	136	244	441
185	147	0	60	409
243	148	51	0	442
Total	508	359	275	1740

HGVs				
A	B	C	D	Total
0	2	5	30	35
4	0	1	9	14
3	2	0	2	7
29	6	2	0	37
Total	36	10	6	41

Total				
A	B	C	D	Total
1	64	111	316	492
83	7	117	253	455
188	149	0	10	407
272	154	53	0	479
Total	544	369	281	1833

HGV%				
A	B	C	D	Total
0%	3%	3%	5%	
5%	0%	1%	4%	
2%	1%	0%	3%	
13%	4%	4%	0%	

Lights				
A	B	C	D	Total
1	1	1	1	4
1	1	1	1	4
1	1	1	1	4
1	1	1	1	4
Total	4	4	4	16

HGVs				
A	B	C	D	Total
1	1	1	1	4
1	1	1	1	4
1	1	1	1	4
1	1	1	1	4
Total	4	4	4	16

Total				
A	B	C	D	Total
1	1	1	1	4
1	1	1	1	4
1	1	1	1	4
1	1	1	1	4
Total	4	4	4	16

HGV%				
A	B	C	D	Total
1%	1%	1%	1%	
1%	1%	1%	1%	
1%	1%	1%	1%	
1%	1%	1%	1%	

Lights				
A	B	C	D	Total
1	1	1	1	4
1	1	1	1	4
1	1	1	1	4
1	1	1	1	4
Total	4	4	4	16

HGVs				
A	B	C	D	Total
1	1	1	1	4
1	1	1	1	4
1	1	1	1	4
1	1	1	1	4
Total	4	4	4	16

Total				
A	B	C	D	Total
1	1	1	1	4
1	1	1	1	4
1	1	1	1	4
1	1	1	1	4
Total	4	4	4	16

HGV%				
A	B	C	D	Total
1%	1%	1%	1%	
1%	1%	1%	1%	
1%	1%	1%	1%	
1%	1%	1%	1%	

Lights				
A	B	C	D	Total
1	1	1	1	4
1	1	1	1	4
1	1	1	1	4
1	1	1	1	4
Total	4	4	4	16

HGVs				
A	B	C	D	Total
1	1	1	1	4
1	1	1	1	4
1	1	1	1	4
1	1	1	1	4
Total	4	4	4	16

Total				
A	B	C	D	Total
1	1	1	1	4
1	1	1	1	4
1	1	1	1	4
1	1	1	1	4
Total	4	4	4	16

HGV%				
A	B	C	D	Total
1%	1%	1%	1%	
1%	1%	1%	1%	
1%	1%	1%	1%	
1%	1%	1%	1%	

Lights				
A	B	C	D	Total
1	1	1	1	4
1	1	1	1	4
1	1	1	1	4
1	1	1	1	4
Total	4	4	4	16

HGVs				
A	B	C	D	Total
1	1	1	1	4
1	1	1	1	4
1	1	1	1	4
1	1	1	1	4
Total	4	4	4	16

Total				
A	B	C	D	Total
1	1	1	1	4
1	1	1	1	4
1	1	1	1	4
1	1	1	1	4
Total	4	4	4	16

HGV%				
A	B	C	D	Total
1%	1%	1%	1%	
1%	1%	1%	1%	
1%	1%	1%	1%	
1%	1%	1%	1%	

Lights				
A	B	C	D	Total
1	1	1	1	4
1	1	1	1	4
1	1	1	1	4
1	1	1	1	4
Total	4	4	4	16

HGVs				
A	B	C	D	Total
1	1	1	1	4
1	1	1	1	4
1	1	1	1	4
1	1	1	1	4
Total	4	4	4	16

Total				
A	B	C	D	Total
1	1	1	1	4
1	1	1	1	4
1	1	1	1	4
1	1	1	1	4
Total	4	4	4	16

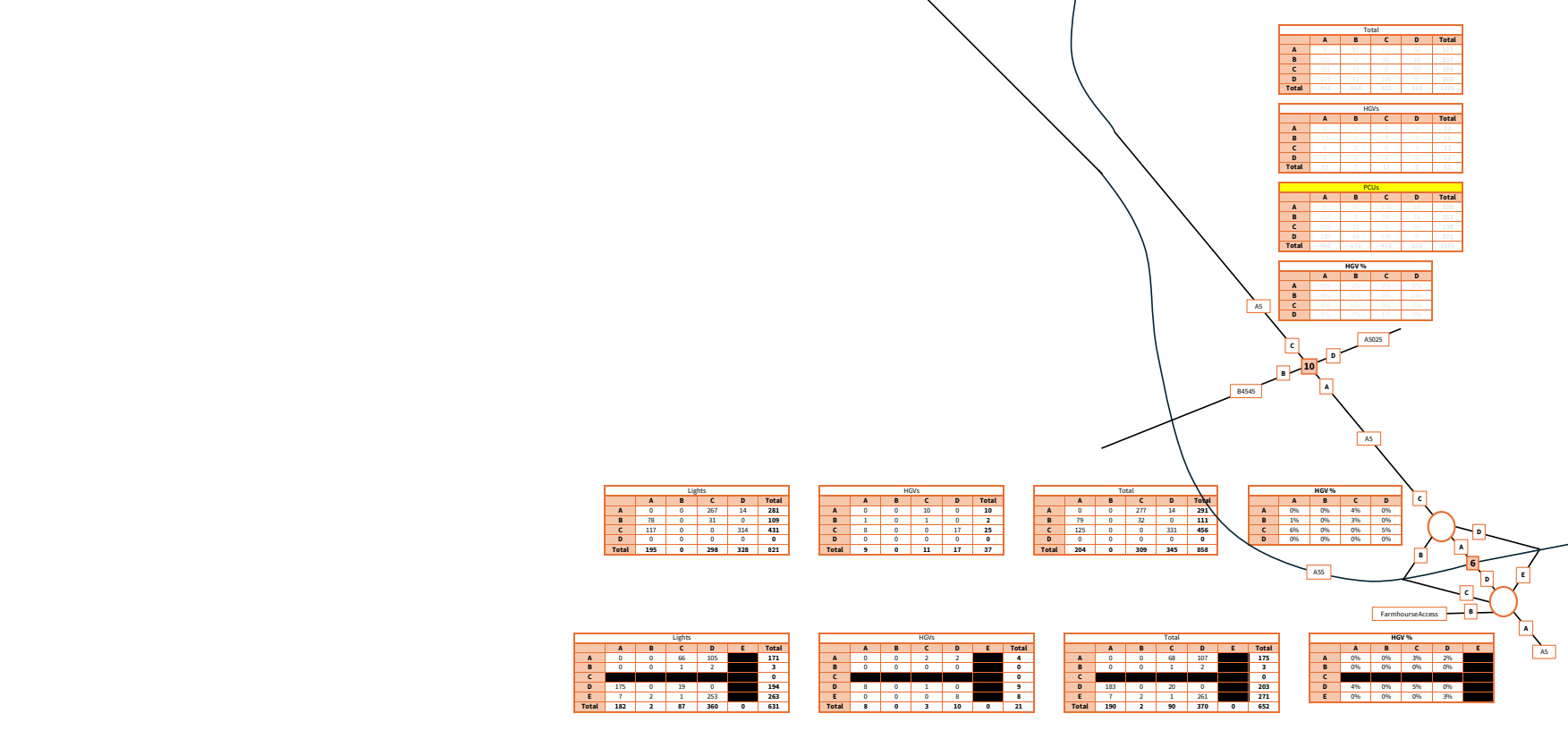
HGV%				
A	B	C	D	Total
1%	1%	1%	1%	
1%	1%	1%	1%	
1%	1%	1%	1%	
1%	1%	1%	1%	

Lights				
A	B	C	D	Total
1	1	1	1	4
1	1	1	1	4
1	1	1	1	4
1	1	1	1	4
Total	4	4	4	16

HGVs				
A	B	C	D	Total
1	1	1	1	4
1	1	1	1	4
1	1	1	1	4
1	1	1	1	4
Total	4	4	4	16

Total				
A	B	C	D	Total
1	1	1	1	4
1	1	1	1	4
1	1	1	1	4
1	1	1	1	4
Total	4	4	4	16

HGV%				
A	B	C	D	Total
1%	1%	1%	1%	
1%	1%	1%	1%	
1%	1%	1%	1%	
1%	1%	1%	1%	



Lights				
A	B	C	D	Total
0	0	267	14	281
78	0	31	0	109
117	0	0	134	431
0	0	0	0	0
Total	195	0	298	821

HGVs				
A	B	C	D	Total
0	0	10	0	10
3	0	1	0	4
0	0	0	0	0
0	0	0	0	0
Total	9	0	11	17

Total				
A	B	C	D	Total
0	0	277	14	291
79	0	32	0	111
125	0	0	134	459
0	0	0	0	0
Total	204	0	309	858

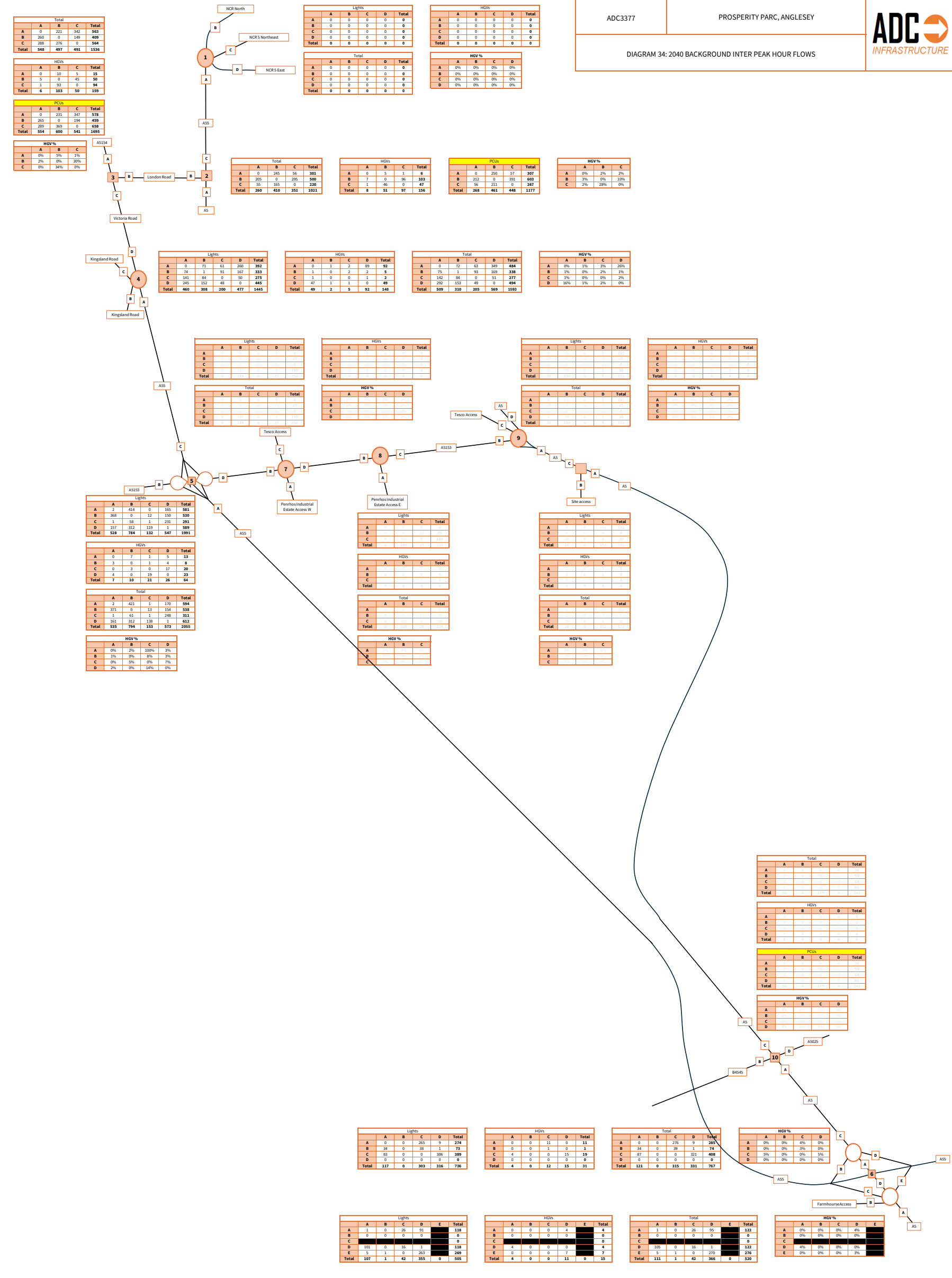
HGV%				
A	B	C	D	Total
0%	0%	4%	0%	
3%	0%	3%	0%	
0%	0%	0%	0%	
0%	0%	0%	0%	

Lights				
A	B	C	D	Total
0	0	66	105	171
0	0	11	2	13
0	0	0	0	0

ADC3377

PROSPERITY PARC, ANGLESEY

DIAGRAM 34: 2040 BACKGROUND INTER PEAK HOUR FLOWS

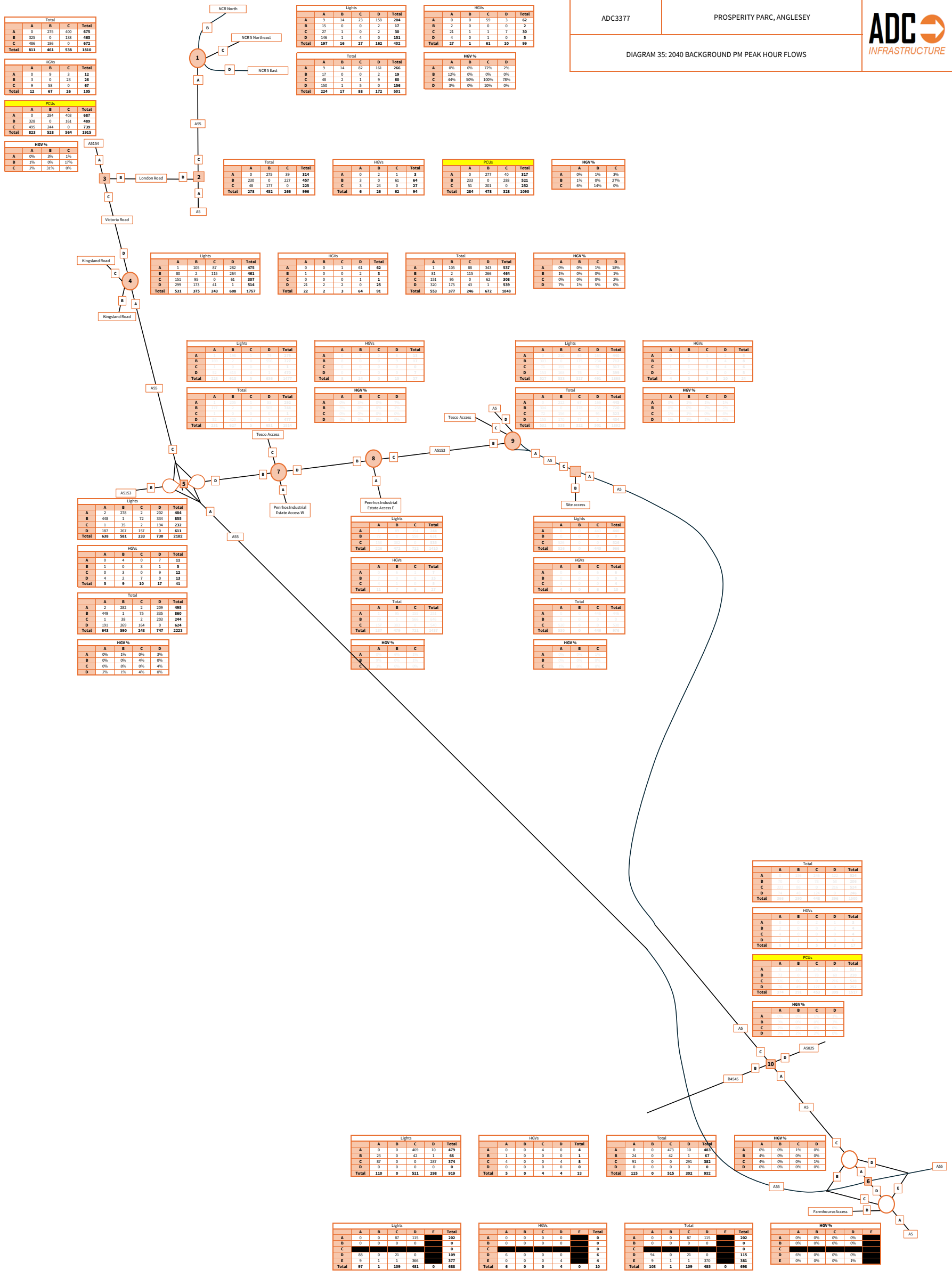


ADC3377

PROSPERITY PARC, ANGLESEY



DIAGRAM 35: 2040 BACKGROUND PM PEAK HOUR FLOWS



ADC3377

PROSPERITY PARC, ANGLESEY



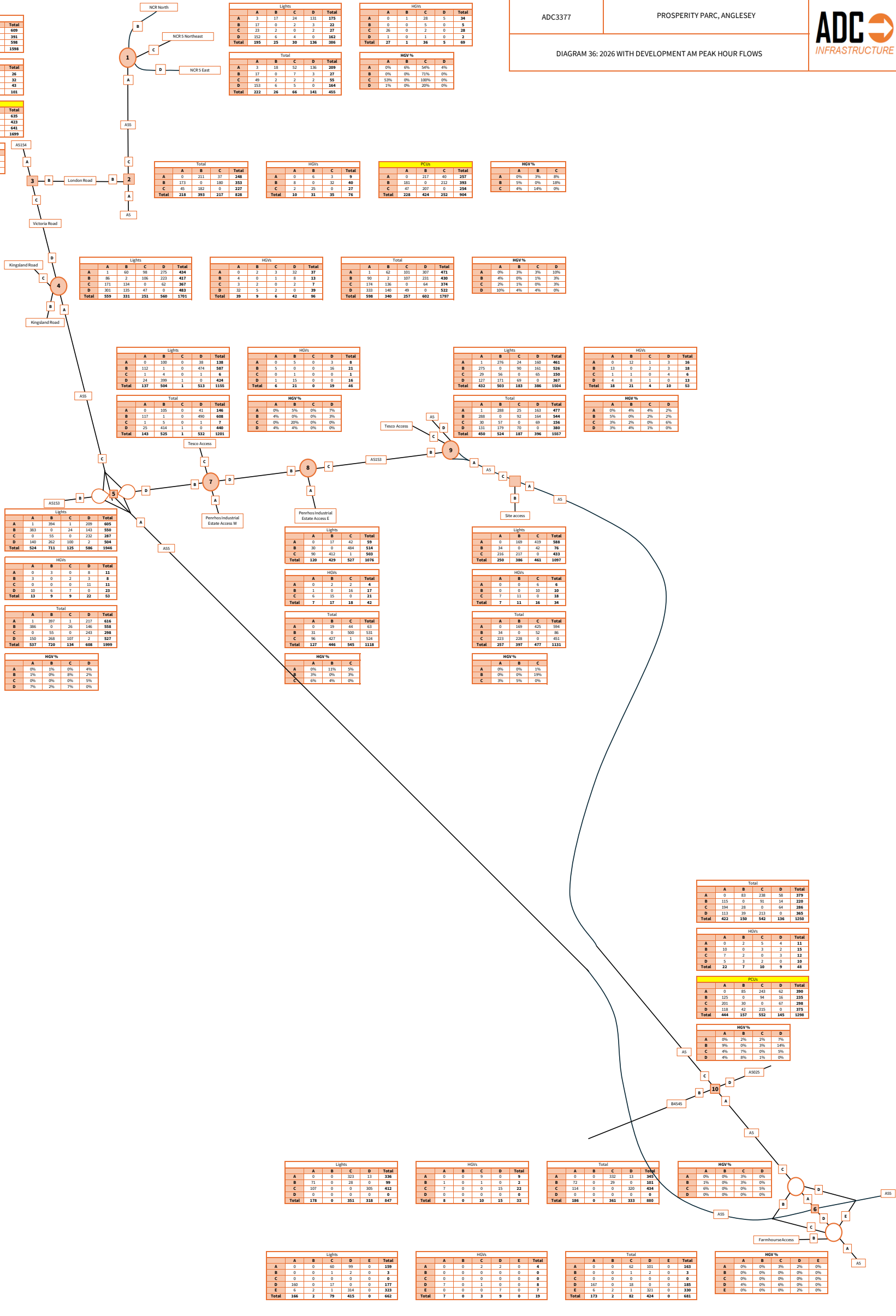
DIAGRAM 36: 2026 WITH DEVELOPMENT AM PEAK HOUR FLOWS

Total			
A	B	C	Total
0	268	465	663
268	0	123	391
440	140	0	580
Total	717	357	1074

HGVs			
A	B	C	Total
0	13	13	26
5	0	27	32
16	27	0	43
Total	21	40	61

PCUs			
A	B	C	Total
0	273	418	691
273	0	150	423
465	176	0	641
Total	738	397	1135

HGVs %			
A	B	C	Total
0%	6%	3%	9%
2%	0%	22%	24%
4%	13%	0%	17%
Total	6%	25%	31%

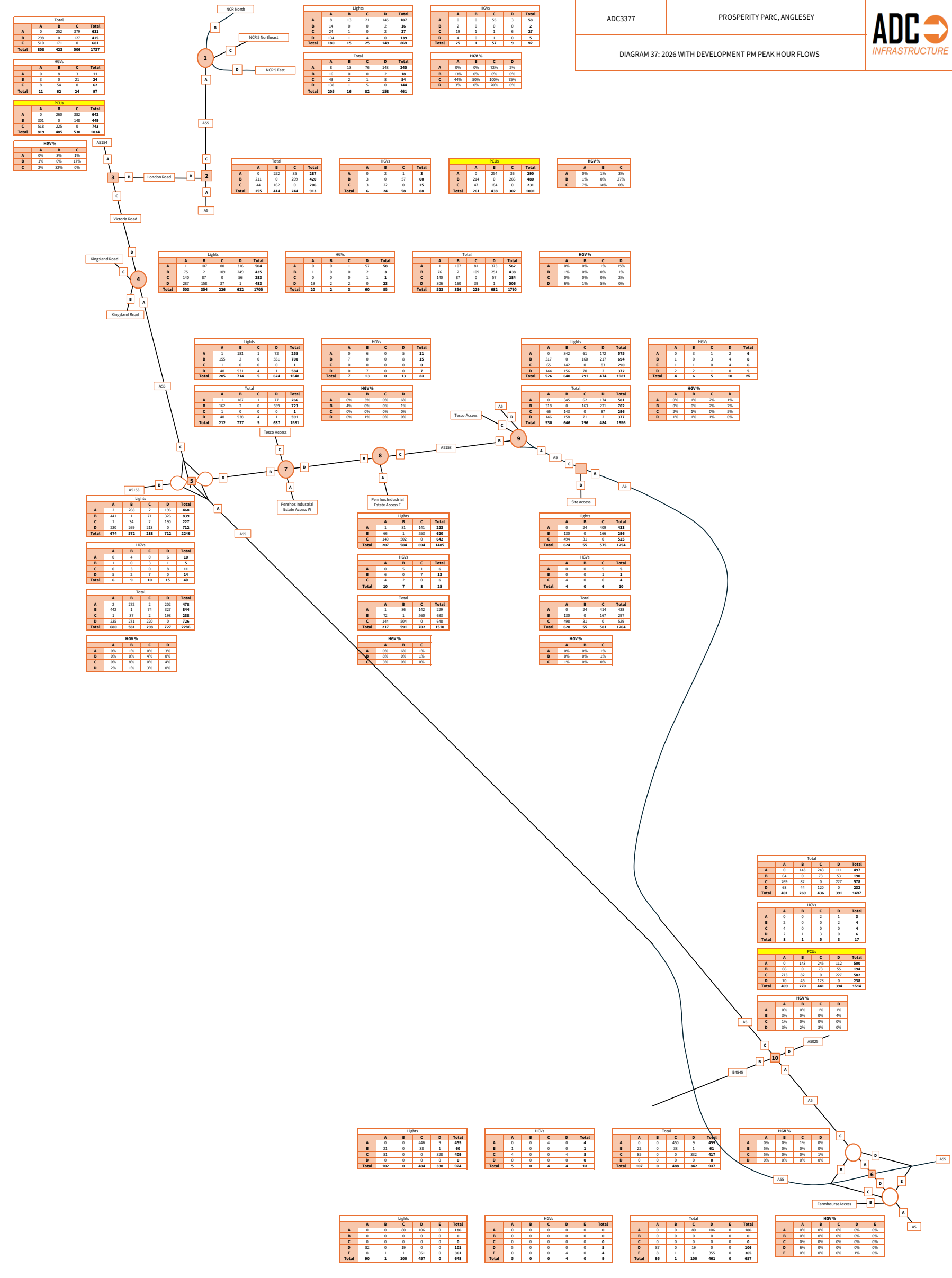


ADC3377

PROSPERITY PARC, ANGLESEY



DIAGRAM 37: 2026 WITH DEVELOPMENT PM PEAK HOUR FLOWS

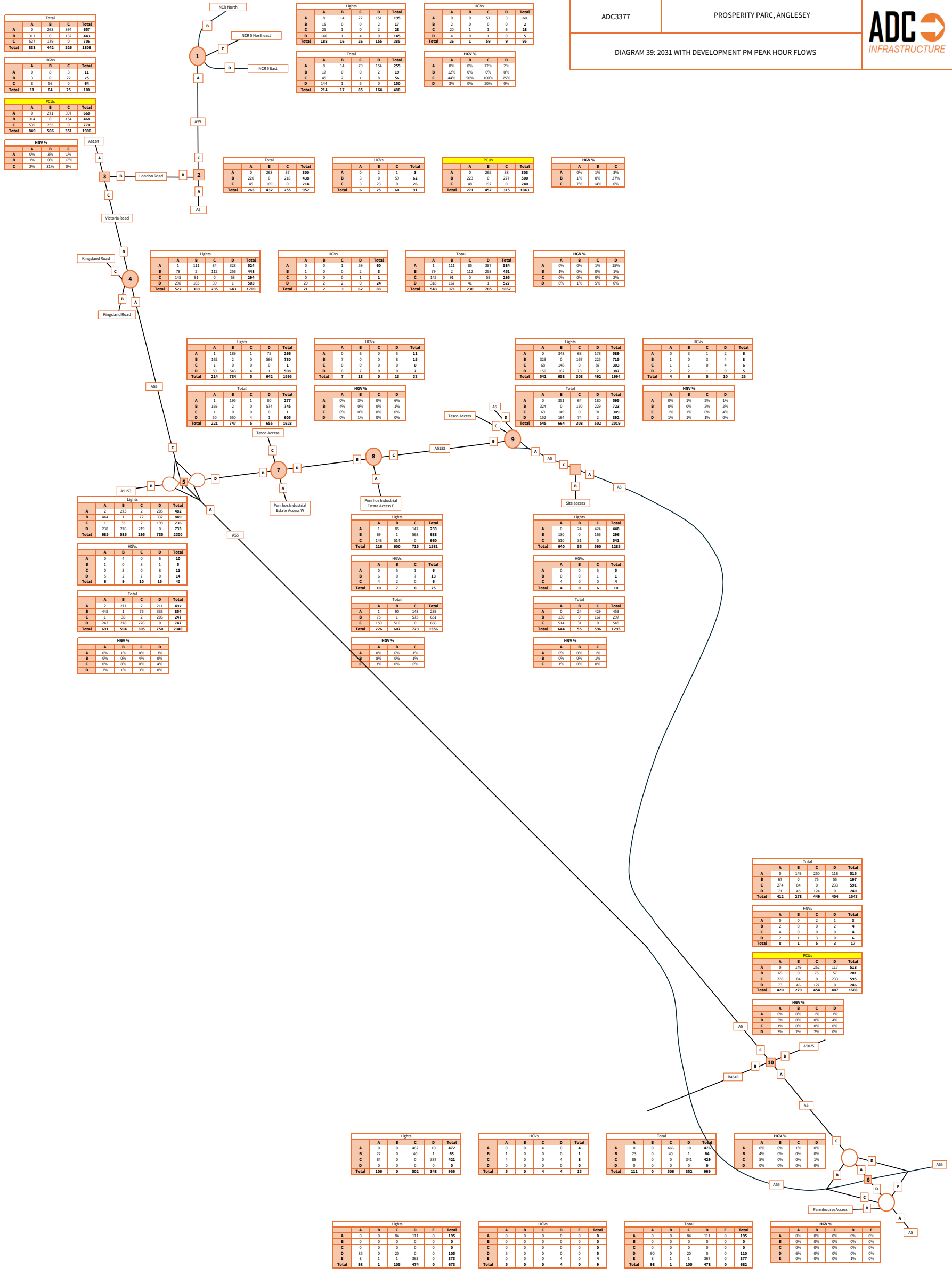


ADC3377

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DIAGRAM 39: 2031 WITH DEVELOPMENT PM PEAK HOUR FLOWS

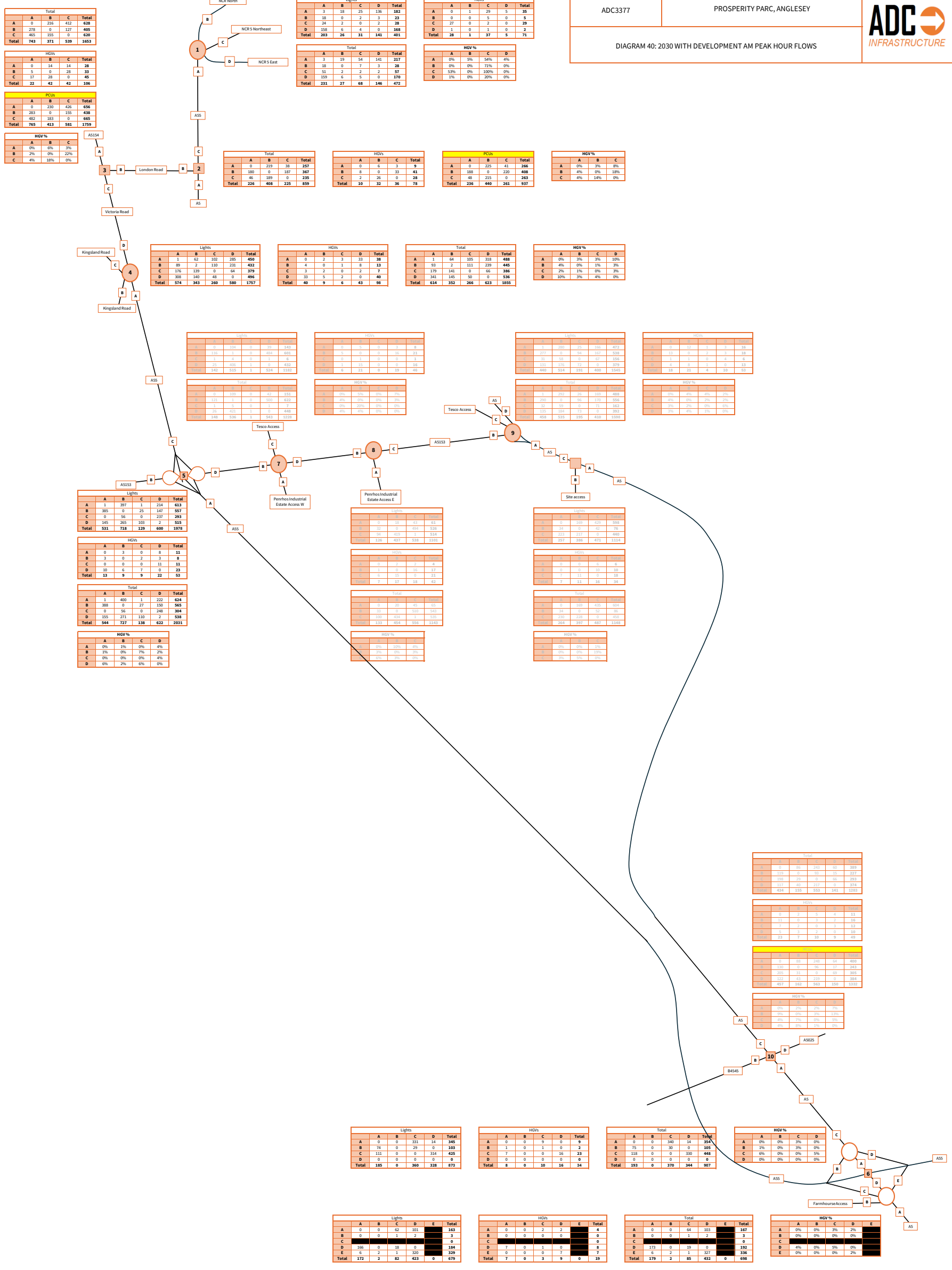


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DIAGRAM 40: 2030 WITH DEVELOPMENT AM PEAK HOUR FLOWS

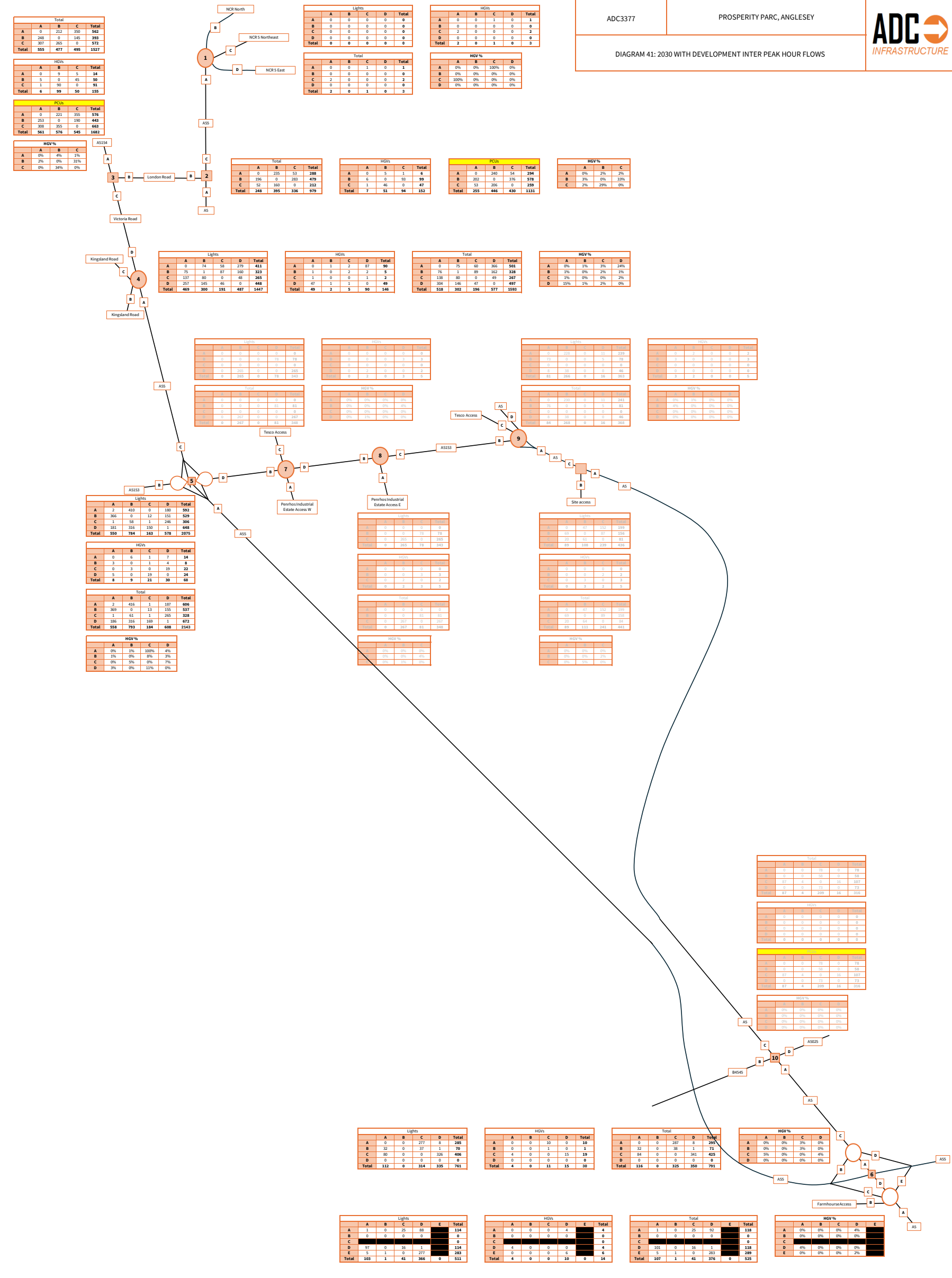


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DIAGRAM 41: 2030 WITH DEVELOPMENT INTER PEAK HOUR FLOWS

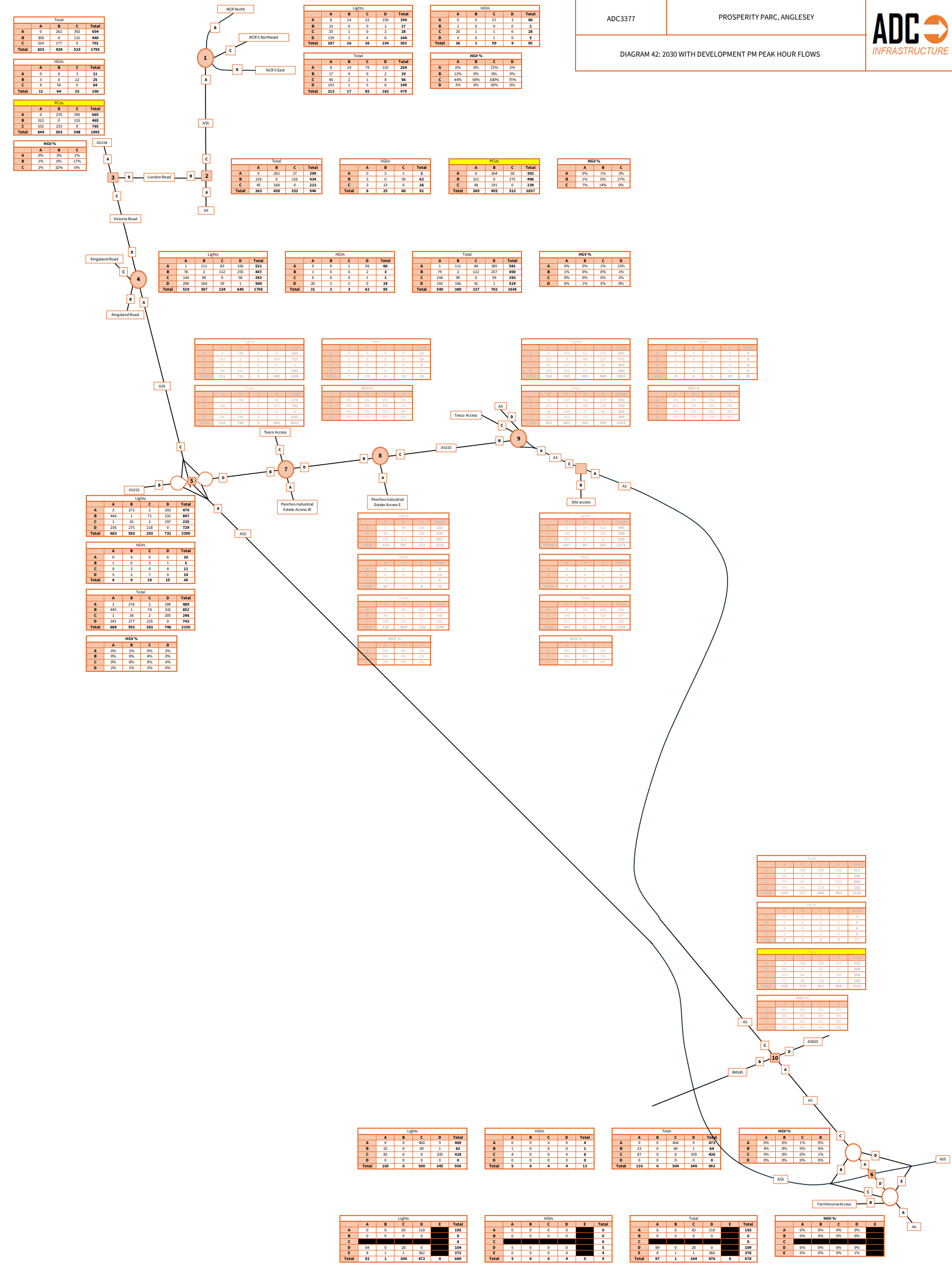


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DIAGRAM 42: 2030 WITH DEVELOPMENT PM PEAK HOUR FLOWS

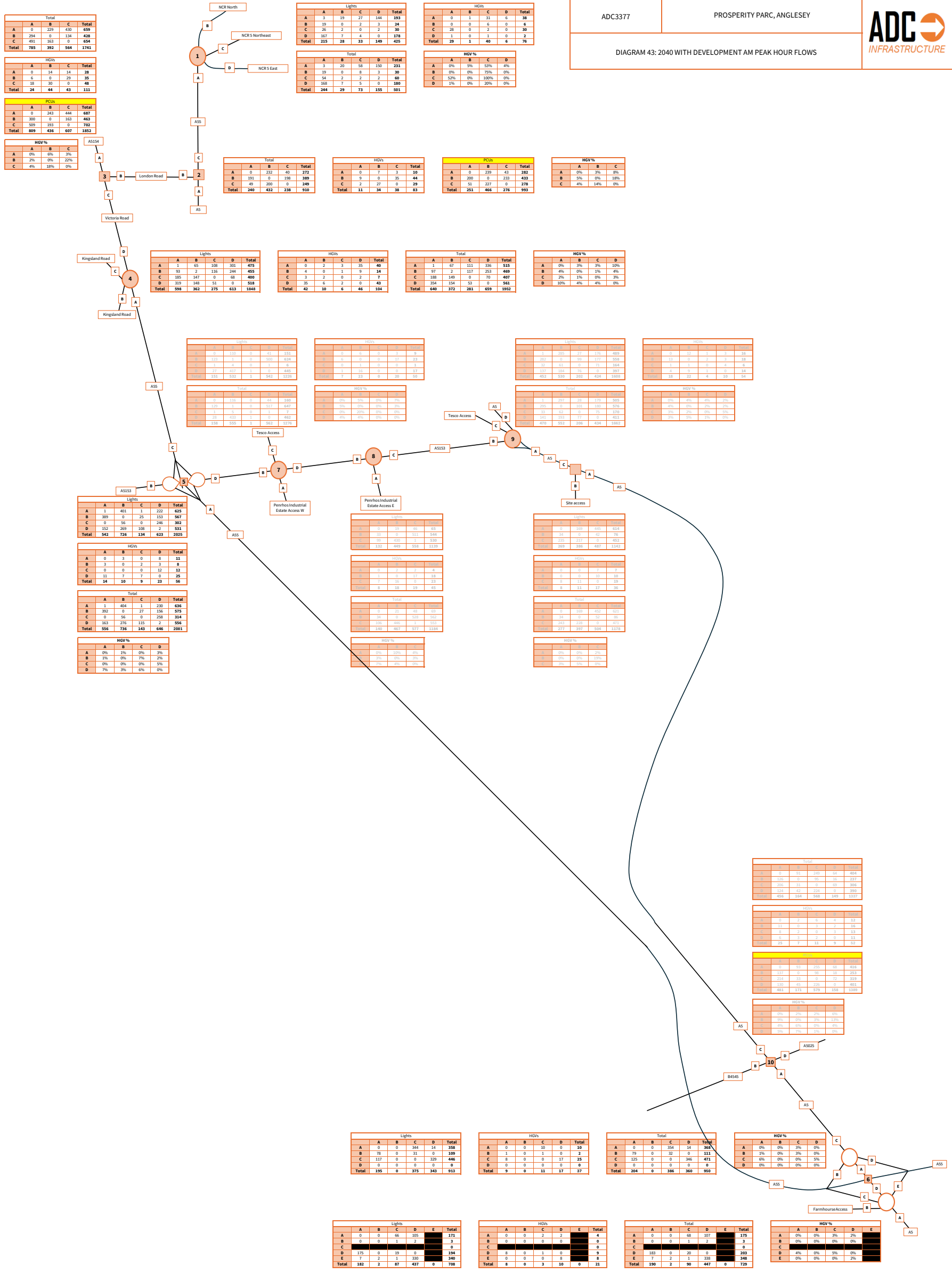


ADC3377

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DIAGRAM 43: 2040 WITH DEVELOPMENT AM PEAK HOUR FLOWS

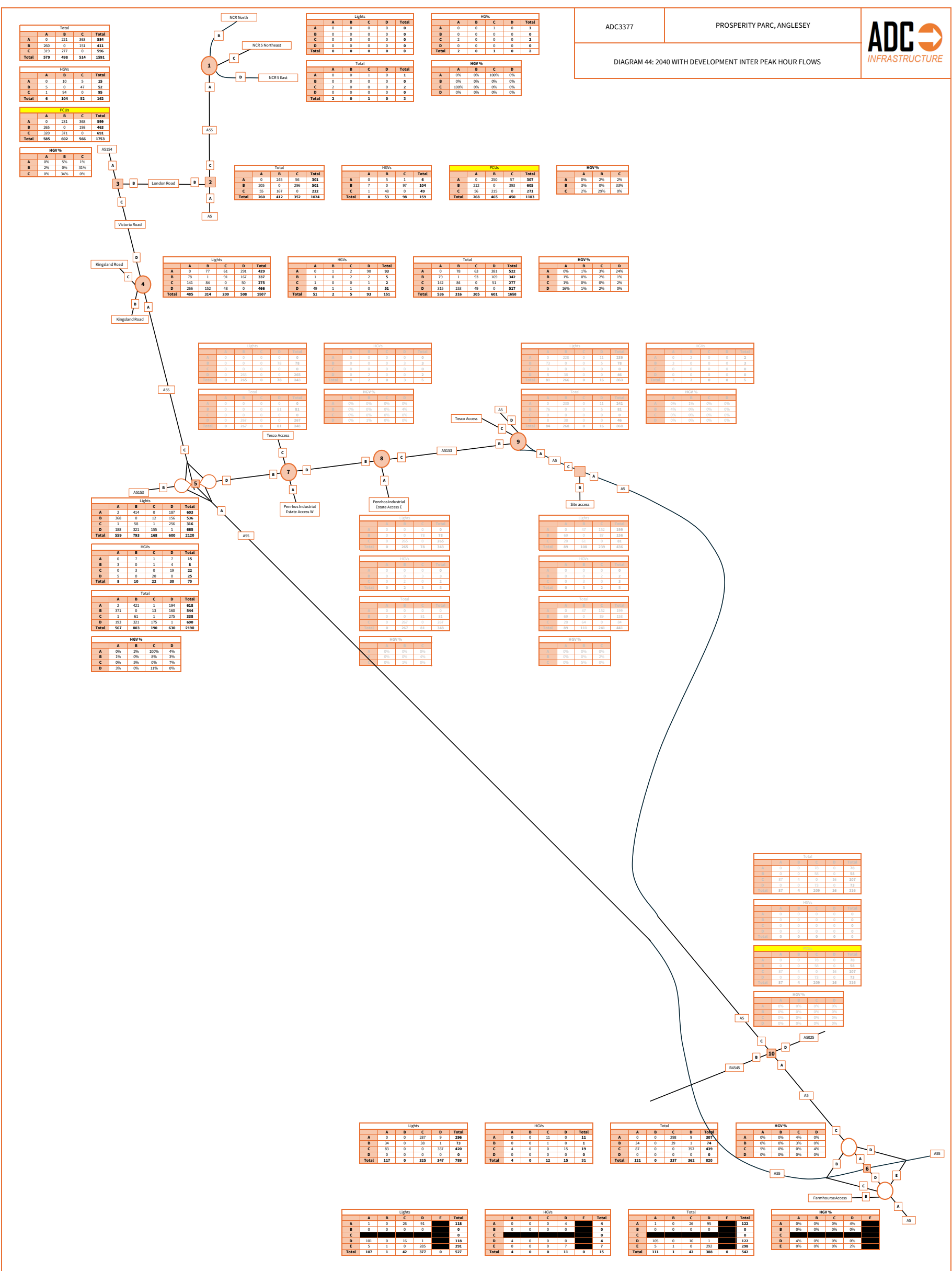


ADC3377

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DIAGRAM 44: 2040 WITH DEVELOPMENT INTER PEAK HOUR FLOWS

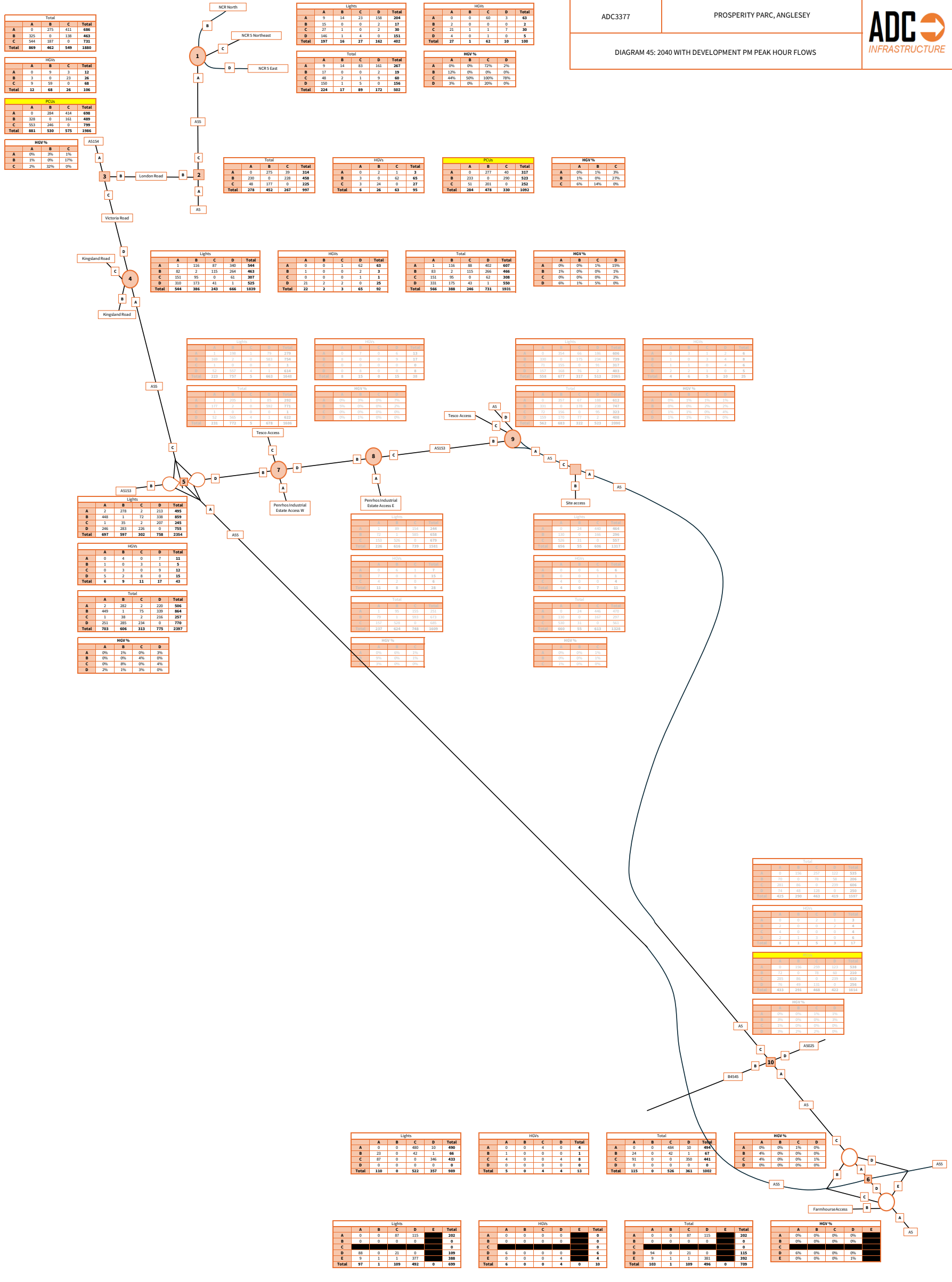


ADC3377

PROSPERITY PARC, ANGLESEY



DIAGRAM 45: 2040 WITH DEVELOPMENT PM PEAK HOUR FLOWS



APPENDIX F

TRIP GENERATION TECHNICAL NOTE – DOCUMENT REFERENCE ADC3377-RP-E-V3



TECHNICAL NOTE – TRIP GENERATION

PROSPERITY PARC, ANGLESEY

DOCUMENT CONTROL

project number: ADC3377			report reference: ADC3377-RP-E	
version	date	author	reviewer	comments
1	03/10/2024	R Leconte		internal
2	08/10/2024	R Leconte	S Dunhill	issued to Client team
3	21/10/2024	R Leconte	S Dunhill	issued to IoACC and WG

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APPENDICES

Appendix A	TRICS outputs - office
Appendix B	TRICS outputs – R&D
Appendix C	TRICS outputs – Data Centre
Appendix D	Traffic flow diagrams

1.0 INTRODUCTION

- 1.1 ADC Infrastructure Ltd are commissioned by Anglesey Land Holdings Ltd to provide transport and highways consultancy advice as part of the proposed redevelopment of Prosperity Parc, on Holy Island in Anglesey.
- 1.2 Until now, ADC have been working on the basis that the outline planning application for the Prosperity Parc redevelopment would be for up to 225,000sqm of employment floorspace, with the following assumptions about, or limits on, certain uses within that potential mix:
- a maximum of 5% B1 light industrial use (maximum of up to 11,250sqm)
 - a maximum of 20% B2 manufacturing use (maximum of up to 45,000sqm)
 - a minimum of 75% B8 storage and distribution including any data centre use (minimum of 168,750sqm).
- 1.3 All work to date has been based on the above development mix and quantum. This includes the Transport Assessment Scoping Study (document reference ADC3377-RP-C-v3 – May 2024) and the Technical Note detailing our response to IoACC’s comments on the Transport Assessment Scoping Study (document reference ADC3377-RP-D-v3 - August 2024).
- 1.4 Through the above work, and correspondence with both IoACC and WG, ADC understand that the approach to the trip rates and traffic generation is not agreed, but that the following parameters are agreed:
- development vehicle trip distribution and assignment, based on 2011 Census data for light vehicles and a first principles approach for HGVs based on the interaction with the Holyhead Port/Freeport.
 - the eight study area junctions – comprising: 1) A5154/London Road signal controlled T-junction; 2) A55 Junction 1 – A55/Kingsland Road roundabout; 3) A55 Junction 2 – TY Mawr Interchange; 4) A55 Junction 3 – Pencaledog Interchange; 5) A5153/Penrhos Industrial Estate roundabout (W); 6) A5153/Penrhos Industrial Estate roundabout (E); 7) A5/A5153/Tesco roundabout and 8) A5/A5025 signal controlled crossroads in Valley.
 - the TEMPRO growth rates, and forecast assessment years – 2026 and 2031 for the local highway network, and 2029 and 2039 for the WG junctions.
 - the committed development that should be included within the assessment year traffic flows – limited to Parc Cybi and the Penrhos site within the Land and Lakes development.
 - the approach to modelling the impacts of the development traffic, using PICADY, ARCADY and LinSig as appropriate.
 - the forecast modal split based 2011 Census data.
- 1.5 Focusing on the trip rates and traffic generation, ADC had proposed to calculate this using trip rates per employee from the TRICS database, using a ‘realistic scenario’ of 1,020 employees, and an ‘ambitious scenario’ of 1,800 employees. This was on the basis that the Outline Business Case (OBC) covering the Prosperity Parc site predicts a much lower level of employment than that suggested by standard employment densities, and hence the use of trip rates per 100sqm would have significantly overestimated the likely traffic generation.
- 1.6 However, WG requested *“that the anticipated trip generation data be based on the proposed floor area. This being the industry standard.”* Whilst initially agreeing to the employee-based approach to calculating the trip rates and traffic generation, following WG’s stance, IoACC advised that they needed to review the approach further before confirming their position.

- 1.7 This Technical Note has therefore been prepared to present and agree revised trip rates, which are per 100sqm as requested, and the resultant traffic generation for use in the Transport Assessment. The agreed modal split is used to present updated person trip generation figures.
- 1.8 At the same time, the development proposals have changed from those stated in paragraph 1.2 above. The outline planning application will now be for a ‘Technology and Energy/Data Park (or Parc)’ comprising of the following:
- up to 10,000sqm B1 office
 - up to 5,000sqm B1 research and development space
 - minimum of 223,000sqm/maximum of 238,000sqm B8 data centre use (with the data centre use exclusively, and no standard B8 storage and distribution uses).
- The total proposed GFA has therefore increased to up to 238,000sqm.
- 1.9 The outline planning application is to be submitted at the end of 2024 or very early in 2025, with the opening of the development in 2026. Therefore, the assessment opening year of 2026, and the IoACC assessment year of 2031 (opening year + 5 years) remain as previously agreed. However, the WG assessment years have changed by one year to now be 2030 (application + 5 years) and 2040 (application + 15 years). This Technical Note therefore presents revised TEMPRO growth rates for the WG assessment years.

2.0 DEVELOPMENT PROPOSALS AND PROPOSED USE TRIP RATES AND TRIP GENERATION

Development proposals

- 2.1 To recap, the outline planning application for the redevelopment of Prosperity Parc will now be for up to 238,000sqm employment ‘Technology and Energy/Data Park (or Parc)’ comprising of the following:
- up to 10,000sqm B1 office use
 - up to 5,000sqm B1 research and development space
 - minimum of 223,000sqm B8 data centre use (with the data centre use exclusively, and no standard B8 storage and distribution uses).
- 2.2 The total proposed GFA has therefore increased to up to 238,000sqm (previously up to 225,000sqm) and there will now be no B2 industrial/manufacturing use, and no standard B8 storage and distribution use.
- 2.3 The Prosperity Parc site has a very high electrical power connection, and hence is well suited to accommodate a large scale Data Centre¹. The Data Centre use will consist of very large proportions of plant and cooling or energy storage/back up generators, and only a very small proportion will be populated by people (albeit it’s all accessible for maintenance, etc). At this stage, it is expected that 10% of the data centre will be ‘office’ space, with the rest being ‘white’ space full of databanks and other kit. Hence, the job creation and traffic generation associated with this use will be low in comparison to the floor space. However, at this stage, there are no known occupiers to provide specific forecasts.

Jobs

- 2.4 The typical standard employment densities, and associated resultant number of full time equivalent (FTE) jobs is shown in the table below.

Use	standard employment densities (FTE per 100sqm)	density from range	proposed GFA (in sqm)	minimum resultant number of FTE jobs at Prosperity Parc	maximum resultant number of FTE jobs at Prosperity Parc
B1 general office	1 per 12sqm	833	10,000	833	833
B1 R&D space	1 per 40-60sqm	83-125	5,000	83	125
B8 Data Centres	1 per 200-950sqm	235-1,115	223,000	235	1115
Total				1,151	2,073

- 2.5 Whilst the Data Centre employment density has a wide range, based on calculations within the OBC, the Prosperity Parc Data Centre would generate around 670 jobs².

¹ The OBC notes that when the former aluminium smelting site was active, it was the single largest user of electricity in the UK.

² The OBC forecasts that a 50,000sqm Data Centre would generate 150 jobs (which is 1 job per 333sqm), so pro-rata a 223,000sqm Data Centre would generate 670 jobs.

Approach to trip rates

2.6 In line with comments received from WG and IoACC, it is proposed to calculate the forecast traffic generation using trip rates per 100sqm GFA from the TRICS database. The following sections detail the forecast trip rates and traffic generation.

Proposed B1 office trip rates and traffic generation

2.7 The TRICS 7.11.3 database was examined to determine the likely trip rates and traffic generation for the proposed B1 office use with a GFA of up to 10,000sqm.

2.8 The following selection criteria was applied:

- the ‘employment – office’ category was selected
- multi-modal sites were selected
- sites in Greater London and in Ireland were deselected
- trip rate per 100sqm was selected
- the default GFA range was retained
- the age range was amended to include sites from 01/01/2019 (to ensure surveys are less than five years old - based on the most recent surveys available being undertaken in 2023, as requested by IoACC)
- one site surveyed during Covid restrictions was deselected
- this selection resulted in five sites.

2.9 The average trip rates were selected, and applied to the proposed worst case floor area of 10,000sqm, as shown in the table below. The TRICS outputs are contained in **Appendix A**.

TRICS B1 office trip rates (per 100sqm)									
	light vehicles			HGVs			total vehicles		
	arrive	depart	two-way	arrive	depart	two-way	arrive	depart	two-way
AM (8-9am)	1.422	0.072	1.494	0	0	0	1.422	0.072	1.494
IP (12-1pm)	0.248	0.463	0.711	0.008	0.008	0.016	0.256	0.471	0.727
PM (5-6pm)	0.088	1.302	1.39	0	0	0	0.088	1.302	1.39
Daily	4.42	4.355	8.775	0.032	0.032	0.064	4.452	4.387	8.839
Traffic generation (10,000sqm)									
AM (8-9am)	142	7	149	0	0	0	142	7	149
IP (12-1pm)	25	46	71	1	1	2	26	47	73
PM (5-6pm)	9	130	139	0	0	0	9	130	139
Daily	442	436	878	3	3	6	445	439	884

Proposed B1b research and development trip rates and traffic generation

2.10 The TRICS 7.11.3 database was examined to determine the likely trip rates and traffic generation for the proposed B1 research and development use with a GFA of up to 5,000sqm.

2.11 The following selection criteria was applied:

- the ‘employment – industrial estate’ category was selected
- multi-modal sites were selected
- sites in Greater London and in Ireland were deselected
- trip rate per 100sqm was selected
- the default GFA range was retained

- the age range was amended to include sites from 01/01/2019 (to ensure surveys are less than five years old - based on the most recent surveys available being undertaken in 2023, as requested by IoACC)
- no sites were surveyed during Covid restrictions
- this selection resulted in 13 sites.

2.12 The average trip rates were selected, and applied to the proposed worst case floor area of 5,000sqm, as shown in the table below. The TRICS outputs are contained in **Appendix B**.

TRICS Research and Development trip rates (per 100sqm)									
	light vehicles			HGVs			total vehicles		
	arrive	depart	two-way	arrive	depart	two-way	arrive	depart	two-way
AM (8-9am)	0.591	0.257	0.848	0.038	0.022	0.06	0.629	0.279	0.908
IP (12-1pm)	0.366	0.421	0.787	0.03	0.027	0.057	0.396	0.448	0.844
PM (5-6pm)	0.198	0.521	0.719	0.007	0.013	0.02	0.205	0.534	0.739
Daily	4.463	4.476	8.939	0.306	0.295	0.601	4.769	4.771	9.54
Traffic generation (5,000sqm)									
AM (8-9am)	30	13	42	2	1	3	31	14	45
IP (12-1pm)	18	21	39	2	1	3	20	22	42
PM (5-6pm)	10	26	36	0	1	1	10	27	37
Daily	223	224	447	15	15	30	238	239	477

Proposed B8 Data Centre trip rates and traffic generation

2.13 To be consistent with the selection criteria for the B1 uses, the following selection criteria was applied:

- the ‘employment – Data Centre’ category was selected
- multi-modal sites selected
- sites in Greater London and in Ireland were deselected
- trip rate per 100sqm was selected
- the default GFA range was retained
- the age range was amended to include sites from 01/01/2019 (to ensure surveys are less than five years old - based on the most recent surveys available being undertaken in 2023, as requested by IoACC)
- no sites were surveyed during Covid restrictions
- this selection resulted in four sites.

2.14 The average trip rates were selected, and applied to the proposed worst case floor area of 223,000sqm, as shown in the table below. The TRICS outputs are contained in **Appendix C**.

TRICS B8 Data Centre trip rates (per 100sqm)									
	light vehicles			HGVs			total vehicles		
	arrive	depart	two-way	arrive	depart	two-way	arrive	depart	two-way
AM (8-9am)	0.096	0.025	0.121	0.004	0.004	0.008	0.1	0.029	0.129
IP (12-1pm)	0.029	0.04	0.069	0.000	0.000	0.000	0.029	0.04	0.069
PM (5-6pm)	0.016	0.063	0.079	0.000	0.000	0.000	0.016	0.063	0.079
Daily	0.706	0.698	1.404	0.019	0.018	0.037	0.725	0.716	1.441
Traffic generation (223,000sqm)									
AM (8-9am)	214	56	270	9	9	18	223	65	288
IP (12-1pm)	65	89	154	0	0	0	65	89	154
PM (5-6pm)	36	140	176	0	0	0	36	140	176
Daily	1574	1557	3131	42	40	83	1617	1597	3213

Total vehicle movements

2.15 Therefore, the total forecast peak hour vehicle movements are shown in the table below. These flows will be assessed within the Transport Assessment.

total traffic generation (238,000sqm)									
	light vehicles			HGVs			total vehicles		
	arrive	depart	two-way	arrive	depart	two-way	arrive	depart	two-way
AM (8-9am)	386	76	461	11	10	21	396	86	482
IP (12-1pm)	108	156	264	3	2	5	111	158	269
PM (5-6pm)	55	296	351	0	1	1	55	297	352
Daily	2239	2217	4456	60	58	119	2300	2275	4574

2.16 The above traffic generation is robust when compared with the potential number of employees at Prosperity Parc, of between 1,151 and 2,073 employees, as detailed in the table at paragraph 2.4. The trip rates and traffic generation should therefore be acceptable to WG and IoACC.

2.17 It is highlighted that the traffic flows in the table at paragraph 2.15, which will be used in the Transport Assessment, represent the worse case scenario based on the development quantum and mix detailed in paragraph 1.8. As the Data Centre trip rates are the lowest, the total traffic generation will reduce from that shown in the table above if the B1 office and B1 research and development GFA ultimately reduces and the B8 Data Centre floor area increases within the total limit of 238,000sqm.

2.18 The Travel Plan will include a target to reduce car trips by 10%. Hence, the table below presents the vehicle movements with the Travel Plan in place. However, for the purposes of a robust assessment, the Transport Assessment will not take the Travel Plan reduction into account, as agreed with IoACC.

total traffic generation with Travel Plan									
	light vehicles ³			HGVs			total vehicles		
	arrive	depart	two-way	arrive	depart	two-way	arrive	depart	two-way
AM (8-9am)	347	68	415	11	10	21	358	78	436
IP (12-1pm)	97	140	238	3	2	5	100	142	243
PM (5-6pm)	50	266	316	0	1	1	50	267	317
Daily	2015	1995	4010	60	58	119	2075	2053	4129

Trip types

- 2.19 As presented in previous work, all of the light vehicle arrivals and departures have been assumed to be new trips on the highway network, associated largely with staff travelling to and from work at Prosperity Parc. These will be distributed using the agreed distribution pattern.
- 2.20 As before, it is assumed that the HGVs travelling to and from the site will be a combination of new trips, and transferred trips to/from Holyhead Port. As before, the HGV trips will be distributed and assigned assuming 50% HGVs travelling between the site and the port (50% - with 30% transferred and 20% new) and 50% travelling between the site and the A55 East.

Modal split and person trip generation

- 2.21 It is proposed to retain the agreed baseline modal split originally presented in the Scoping Study, and subsequent Technical Note, as shown below:

	foot	cycle	public transport	driving a car or van	passenger in a car or van	total
proposed baseline modal split	5%	2%	4%	80%	9%	100%

- 2.22 The baseline modal split and associated person trip generation (based on the light vehicle trip generation in the table at paragraph 2.15) is shown in the table below.

	foot	cycle	public transport	driving a car or van	passenger in a car or van	total
proposed baseline modal split	5%	2%	4%	80%	9%	100%
person trips	279	111	223	4456	501	5570

- 2.23 Again, based on the likely jobs at Prosperity Parc, the above figures are robust.

³ The car driver modal share is 80% of all trips. Hence this will be reduced by 10% to 72%. The light vehicles in this table have therefore been reduced by 10%.

3.0 VEHICLE TRIP DISTRIBUTION AND ASSIGNMENT

- 3.1 The agreed distribution pattern is shown in **Diagram 1 in Appendix D**. This is the same as presented in the Scoping Study.
- 3.2 The updated AM, IP and PM traffic assignment is shown in **Diagrams 2, 3 and 4 in Appendix D**. This has been updated based on the revised trip generation calculations.

4.0 ASSESSMENT YEARS

4.1 As detailed in Section 1, the outline planning application is to be submitted at the end of 2024 or very early in 2025, with the opening of the development in 2026. Therefore, the IoACC assessment opening year of 2026, and the IoACC assessment year of 2031 (opening year + 5 years) remain as previously agreed. However, the WG assessment years have changed by one year to now be 2030 (application + 5 years) and 2040 (application + 15 years).

4.2 The observed 2024 flows will be growthed to 2030 and 2040 with the following Core Scenario growth rates from TEMPRO v8.1 for the Isle of Anglesey 004 MSOA:

2024 to 2030

- AM peak hour 1.053
- Interpeak hour 1.043
- PM peak hour 1.050.

2024 to 2040

- AM peak hour 1.115
- Interpeak hour 1.091
- PM peak hour 1.106.

The TEMPRO output is contained in **Appendix H**.

4.3 As detailed in Section 1, the traffic flows associated with the agreed committed developments at Parc Cybi and the Penrhos site within the Land and Lakes development will be added to the 2030 and 2040 baseline traffic flows.

5.0 SUMMARY

- 5.1 ADC Infrastructure Ltd are commissioned by Anglesey Land Holdings Ltd to provide transport and highways consultancy advice as part of the proposed redevelopment of Prosperity Parc, on Holy Island in Anglesey.
- 5.2 The development proposals have changed from those previously presented. The outline planning application for the redevelopment of Prosperity Parc will now be for up to 238,000sqm employment ‘Technology and Energy/Data Park (or Parc)’ comprising of the following:
 - up to 10,000sqm B1 office use
 - up to 5,000sqm B1 research and development space
 - minimum of 223,000sqm B8 data centre use (with the data centre use exclusively, and no standard B8 storage and distribution uses).
- 5.3 This Technical Note has been prepared to present and agree the trip rates, based on the proposed gross floor areas.
- 5.4 As submission of the outline planning application may slip into early 2025, the WG assessment years have been amended by one year to 2030 (application + 5 years) and 2040 (application + 15 years). Hence, revised TEMPRO growth rates have also been presented for agreement.
- 5.5 The next step is to produce the Transport Assessment and Framework Travel Plan, with the intention to submit the outline planning application by the end of 2024/very early 2025. Therefore, it would be helpful to arrange a joint meeting with both IoACC and WG to discuss this report in October 2024.

APPENDIX A

TRICS OUTPUTS - OFFICE

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT

Category : A - OFFICE

MULTI-MODAL TOTAL VEHICLES

Selected regions and areas:

02	SOUTH EAST	
	WS WEST SUSSEX	1 days
04	EAST ANGLIA	
	NF NORFOLK	2 days
06	WEST MIDLANDS	
	WK WARWICKSHIRE	1 days
10	WALES	
	CP CAERPHILLY	1 days

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

Primary Filtering selection:

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

Parameter: Gross floor area
 Actual Range: 500 to 5700 (units: sqm)
 Range Selected by User: 178 to 70291 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/19 to 23/11/22

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

Selected survey days:

Monday 1 days
 Wednesday 3 days
 Thursday 1 days

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

Selected survey types:

Manual count 5 days
 Directional ATC Count 0 days

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

Selected Locations:

Suburban Area (PPS6 Out of Centre) 1
 Edge of Town 4

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

Selected Location Sub Categories:

Industrial Zone 2
 Commercial Zone 1
 Residential Zone 1
 No Sub Category 1

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

Inclusion of Servicing Vehicles Counts:

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

Secondary Filtering selection:Use Class:

Not Known 5 days

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

Filter by Site Operations Breakdown:

All Surveys Included

Population within 500m Range:

All Surveys Included

Secondary Filtering selection (Cont.):Population within 1 mile:

10,001 to 15,000	1 days
15,001 to 20,000	3 days
20,001 to 25,000	1 days

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

Population within 5 miles:

100,001 to 125,000	1 days
125,001 to 250,000	4 days

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

Car ownership within 5 miles:

0.6 to 1.0	3 days
1.1 to 1.5	2 days

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

Travel Plan:

No	5 days
----	--------

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

PTAL Rating:

No PTAL Present	5 days
-----------------	--------

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

LIST OF SITES relevant to selection parameters

- | | |
|---|---|
| <p>1 CP-02-A-02 INSURANCE COMPANY
SIR ALFRED OWEN WAY
CAERPHILLY</p> <p>Suburban Area (PPS6 Out of Centre)
Industrial Zone
Total Gross floor area: 1824 sqm
Survey date: THURSDAY 13/10/22</p> | <p>CAERPHILLY</p> <p>Survey Type: MANUAL</p> |
| <p>2 NF-02-A-04 BUILDING CONSULTANT
WHITING ROAD
NORWICH</p> <p>Edge of Town
Commercial Zone
Total Gross floor area: 500 sqm
Survey date: WEDNESDAY 13/11/19</p> | <p>NORFOLK</p> <p>Survey Type: MANUAL</p> |
| <p>3 NF-02-A-05 COUNCIL OFFICES
YARMOUTH ROAD
NORWICH</p> <p>Edge of Town
Residential Zone
Total Gross floor area: 3697 sqm
Survey date: MONDAY 12/09/22</p> | <p>NORFOLK</p> <p>Survey Type: MANUAL</p> |
| <p>4 WK-02-A-03 ENGINEERING CONSULTANTS
BUDBROOKE ROAD
WARWICK</p> <p>Edge of Town
Industrial Zone
Total Gross floor area: 796 sqm
Survey date: WEDNESDAY 23/11/22</p> | <p>WARWICKSHIRE</p> <p>Survey Type: MANUAL</p> |
| <p>5 WS-02-A-06 SOUTHERN WATER OFFICES
YEOMAN ROAD
WORTHING</p> <p>Edge of Town
No Sub Category
Total Gross floor area: 5700 sqm
Survey date: WEDNESDAY 18/05/22</p> | <p>WEST SUSSEX</p> <p>Survey Type: MANUAL</p> |

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

MANUALLY DESELECTED SITES

Site Ref	Reason for Deselection
GM-02-A-10	Covid

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

MULTI-MODAL TOTAL VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Total People to Total Vehicles ratio (all time periods and directions): 1.38

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	5	2503	0.919	5	2503	0.064	5	2503	0.983
08:00 - 09:00	5	2503	1.422	5	2503	0.072	5	2503	1.494
09:00 - 10:00	5	2503	0.695	5	2503	0.152	5	2503	0.847
10:00 - 11:00	5	2503	0.072	5	2503	0.088	5	2503	0.160
11:00 - 12:00	5	2503	0.176	5	2503	0.144	5	2503	0.320
12:00 - 13:00	5	2503	0.256	5	2503	0.471	5	2503	0.727
13:00 - 14:00	5	2503	0.320	5	2503	0.296	5	2503	0.616
14:00 - 15:00	5	2503	0.168	5	2503	0.296	5	2503	0.464
15:00 - 16:00	5	2503	0.136	5	2503	0.415	5	2503	0.551
16:00 - 17:00	5	2503	0.096	5	2503	0.719	5	2503	0.815
17:00 - 18:00	5	2503	0.088	5	2503	1.302	5	2503	1.390
18:00 - 19:00	5	2503	0.104	5	2503	0.368	5	2503	0.472
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			4.452			4.387			8.839

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

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

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Parameter summary

Trip rate parameter range selected:	500 - 5700 (units: sqm)
Survey date date range:	01/01/19 - 23/11/22
Number of weekdays (Monday-Friday):	5
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	1

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

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

MULTI-MODAL OGVS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 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	5	2503	0.000	5	2503	0.000	5	2503	0.000
08:00 - 09:00	5	2503	0.000	5	2503	0.000	5	2503	0.000
09:00 - 10:00	5	2503	0.016	5	2503	0.016	5	2503	0.032
10:00 - 11:00	5	2503	0.000	5	2503	0.000	5	2503	0.000
11:00 - 12:00	5	2503	0.008	5	2503	0.008	5	2503	0.016
12:00 - 13:00	5	2503	0.008	5	2503	0.008	5	2503	0.016
13:00 - 14:00	5	2503	0.000	5	2503	0.000	5	2503	0.000
14:00 - 15:00	5	2503	0.000	5	2503	0.000	5	2503	0.000
15:00 - 16:00	5	2503	0.000	5	2503	0.000	5	2503	0.000
16:00 - 17:00	5	2503	0.000	5	2503	0.000	5	2503	0.000
17:00 - 18:00	5	2503	0.000	5	2503	0.000	5	2503	0.000
18:00 - 19:00	5	2503	0.000	5	2503	0.000	5	2503	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.032			0.032			0.064

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

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

APPENDIX B

TRICS OUTPUTS – R&D SPACE

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
Category : D - INDUSTRIAL ESTATE

MULTI-MODAL TOTAL VEHICLESSelected regions and areas:

02	SOUTH EAST	
	BU BUCKINGHAMSHIRE	1 days
04	EAST ANGLIA	
	NF NORFOLK	1 days
05	EAST MIDLANDS	
	DY DERBY	1 days
06	WEST MIDLANDS	
	WK WARWICKSHIRE	2 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	DR DONCASTER	1 days
	NY NORTH YORKSHIRE	2 days
09	NORTH	
	TW TYNE & WEAR	2 days
10	WALES	
	SW SWANSEA	2 days
11	SCOTLAND	
	HI HIGHLAND	1 days

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

Primary Filtering selection:

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

Parameter: Gross floor area
 Actual Range: 1660 to 35183 (units: sqm)
 Range Selected by User: 552 to 150564 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/19 to 06/11/23

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

Selected survey days:

Monday	1 days
Tuesday	2 days
Wednesday	4 days
Thursday	3 days
Friday	3 days

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

Selected survey types:

Manual count	13 days
Directional ATC Count	0 days

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

Selected Locations:

Suburban Area (PPS6 Out of Centre)	2
Edge of Town	11

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

Selected Location Sub Categories:

Industrial Zone	5
Residential Zone	1
Out of Town	1
No Sub Category	6

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

Inclusion of Servicing Vehicles Counts:

Servicing vehicles Included	1 days - Selected
Servicing vehicles Excluded	14 days - Selected

Secondary Filtering selection:**Use Class:**

Not Known	13 days
-----------	---------

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

Filter by Site Operations Breakdown:

All Surveys Included

Population within 500m Range:

All Surveys Included

Secondary Filtering selection (Cont.):Population within 1 mile:

1,001 to 5,000	1 days
5,001 to 10,000	2 days
10,001 to 15,000	5 days
15,001 to 20,000	2 days
20,001 to 25,000	1 days
25,001 to 50,000	1 days
50,001 to 100,000	1 days

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

Population within 5 miles:

5,001 to 25,000	1 days
25,001 to 50,000	1 days
50,001 to 75,000	1 days
100,001 to 125,000	1 days
125,001 to 250,000	7 days
250,001 to 500,000	2 days

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

Car ownership within 5 miles:

0.6 to 1.0	8 days
1.1 to 1.5	5 days

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

Travel Plan:

No	13 days
----	---------

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

PTAL Rating:

No PTAL Present	13 days
-----------------	---------

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

LIST OF SITES relevant to selection parameters

1	BU-02-D-01	INDUSTRIAL ESTATE	BUCKINGHAMSHIRE
	BEECH ROAD HIGH WYCOMBE		
	Edge of Town Residential Zone		
	Total Gross floor area:	6460 sqm	
	Survey date: MONDAY	06/11/23	Survey Type: MANUAL
2	DR-02-D-03	INDUSTRIAL ESTATE	DONCASTER
	MIDDLE BANK DONCASTER		
	Suburban Area (PPS6 Out of Centre) Industrial Zone		
	Total Gross floor area:	6737 sqm	
	Survey date: TUESDAY	21/09/21	Survey Type: MANUAL
3	DY-02-D-02	INDUSTRIAL ESTATE	DERBY
	SHAFTESBURY STREET DERBY ROSE HILL		
	Suburban Area (PPS6 Out of Centre) No Sub Category		
	Total Gross floor area:	8400 sqm	
	Survey date: FRIDAY	06/10/23	Survey Type: MANUAL
4	HI-02-D-04	INDUSTRIAL ESTATE	HIGHLAND
	FORRES ROAD NAIRN		
	Edge of Town No Sub Category		
	Total Gross floor area:	17000 sqm	
	Survey date: TUESDAY	18/04/23	Survey Type: MANUAL
5	NF-02-D-04	INDUSTRIAL ESTATE	NORFOLK
	DRAYTON HIGH ROAD NORWICH		
	Edge of Town No Sub Category		
	Total Gross floor area:	10673 sqm	
	Survey date: WEDNESDAY	14/09/22	Survey Type: MANUAL
6	NY-02-D-03	INDUSTRIAL ESTATE	NORTH YORKSHIRE
	RACECOURSE ROAD RICHMOND		
	Edge of Town Out of Town		
	Total Gross floor area:	35183 sqm	
	Survey date: THURSDAY	05/05/22	Survey Type: MANUAL
7	NY-02-D-04	INDUSTRIAL ESTATE	NORTH YORKSHIRE
	GRIMBALD CRAG CLOSE KNARESBOROUGH		
	Edge of Town Industrial Zone		
	Total Gross floor area:	1660 sqm	
	Survey date: FRIDAY	30/06/23	Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

8	SW-02-D-01	INDUSTRIAL ESTATE	SWANSEA
	UPPER FOREST WAY SWANSEA SWANSEA ENTERPRISE PK Edge of Town Industrial Zone Total Gross floor area: 6822 sqm Survey date: WEDNESDAY 09/10/19		Survey Type: MANUAL
9	SW-02-D-02	INDUSTRIAL ESTATE	SWANSEA
	CLARION COURT SWANSEA SWANSEA ENTERPRISE PK Edge of Town Industrial Zone Total Gross floor area: 5280 sqm Survey date: THURSDAY 10/10/19		Survey Type: MANUAL
10	TW-02-D-09	INDUSTRIAL ESTATE	TYNE & WEAR
	ELEVENTH AVENUE GATESHEAD TEAM VALLEY Edge of Town No Sub Category Total Gross floor area: 6200 sqm Survey date: WEDNESDAY 18/05/22		Survey Type: MANUAL
11	TW-02-D-10	INDUSTRIAL ESTATE	TYNE & WEAR
	ELEVENTH AVENUE GATESHEAD TEAM VALLEY Edge of Town No Sub Category Total Gross floor area: 21500 sqm Survey date: WEDNESDAY 18/05/22		Survey Type: MANUAL
12	WK-02-D-03	INDUSTRIAL ESTATE	WARWICKSHIRE
	EASTBORO WAY NUNEATON Edge of Town Industrial Zone Total Gross floor area: 20860 sqm Survey date: THURSDAY 26/09/19		Survey Type: MANUAL
13	WK-02-D-04	INDUSTRIAL ESTATE	WARWICKSHIRE
	ABELES WAY ATHERSTONE Edge of Town No Sub Category Total Gross floor area: 17500 sqm Survey date: FRIDAY 27/09/19		Survey Type: MANUAL

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

TRIP RATE for Land Use 02 - EMPLOYMENT/D - INDUSTRIAL ESTATE

MULTI-MODAL TOTAL VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Total People to Total Vehicles ratio (all time periods and directions): 1.26

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	13	12637	0.088	13	12637	0.016	13	12637	0.104
06:00 - 07:00	13	12637	0.133	13	12637	0.050	13	12637	0.183
07:00 - 08:00	13	12637	0.432	13	12637	0.130	13	12637	0.562
08:00 - 09:00	13	12637	0.629	13	12637	0.279	13	12637	0.908
09:00 - 10:00	13	12637	0.464	13	12637	0.360	13	12637	0.824
10:00 - 11:00	13	12637	0.414	13	12637	0.354	13	12637	0.768
11:00 - 12:00	13	12637	0.385	13	12637	0.390	13	12637	0.775
12:00 - 13:00	13	12637	0.396	13	12637	0.448	13	12637	0.844
13:00 - 14:00	13	12637	0.409	13	12637	0.454	13	12637	0.863
14:00 - 15:00	13	12637	0.347	13	12637	0.408	13	12637	0.755
15:00 - 16:00	13	12637	0.310	13	12637	0.380	13	12637	0.690
16:00 - 17:00	13	12637	0.340	13	12637	0.537	13	12637	0.877
17:00 - 18:00	13	12637	0.205	13	12637	0.534	13	12637	0.739
18:00 - 19:00	13	12637	0.109	13	12637	0.233	13	12637	0.342
19:00 - 20:00	13	12637	0.079	13	12637	0.133	13	12637	0.212
20:00 - 21:00	13	12637	0.029	13	12637	0.065	13	12637	0.094
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			4.769			4.771			9.540

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

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

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The Company accepts no responsibility for loss which may arise from reliance on data contained in the TRICS Database. [No warranty of any kind, express or implied, is made as to the data contained in the TRICS Database.]

Parameter summary

Trip rate parameter range selected:	1660 - 35183 (units: sqm)
Survey date date range:	01/01/19 - 06/11/23
Number of weekdays (Monday-Friday):	13
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	2
Surveys manually removed from selection:	0

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

TRIP RATE for Land Use 02 - EMPLOYMENT/D - INDUSTRIAL ESTATE

MULTI-MODAL OGVS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	13	12637	0.006	13	12637	0.006	13	12637	0.012
06:00 - 07:00	13	12637	0.006	13	12637	0.011	13	12637	0.017
07:00 - 08:00	13	12637	0.011	13	12637	0.013	13	12637	0.024
08:00 - 09:00	13	12637	0.038	13	12637	0.022	13	12637	0.060
09:00 - 10:00	13	12637	0.031	13	12637	0.029	13	12637	0.060
10:00 - 11:00	13	12637	0.033	13	12637	0.029	13	12637	0.062
11:00 - 12:00	13	12637	0.035	13	12637	0.028	13	12637	0.063
12:00 - 13:00	13	12637	0.030	13	12637	0.027	13	12637	0.057
13:00 - 14:00	13	12637	0.029	13	12637	0.029	13	12637	0.058
14:00 - 15:00	13	12637	0.024	13	12637	0.028	13	12637	0.052
15:00 - 16:00	13	12637	0.021	13	12637	0.028	13	12637	0.049
16:00 - 17:00	13	12637	0.024	13	12637	0.023	13	12637	0.047
17:00 - 18:00	13	12637	0.007	13	12637	0.013	13	12637	0.020
18:00 - 19:00	13	12637	0.005	13	12637	0.005	13	12637	0.010
19:00 - 20:00	13	12637	0.004	13	12637	0.002	13	12637	0.006
20:00 - 21:00	13	12637	0.002	13	12637	0.002	13	12637	0.004
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.306			0.295			0.601

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

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

APPENDIX C

TRICS OUTPUTS – DATA CENTRE

Calculation Reference: AUDIT-855401-241003-1018

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT

Category : I - DATA CENTRE

MULTI-MODAL TOTAL VEHICLES

Selected regions and areas:

02 SOUTH EAST

SO SLOUGH

4 days

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

Primary Filtering selection:

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

Parameter: Gross floor area
 Actual Range: 5677 to 16000 (units: sqm)
 Range Selected by User: 5677 to 16000 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/19 to 24/05/23

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

Selected survey days:

Monday 1 days
 Wednesday 3 days

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

Selected survey types:

Manual count 4 days
 Directional ATC Count 0 days

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

Selected Locations:

Suburban Area (PPS6 Out of Centre) 4

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

Selected Location Sub Categories:

Industrial Zone 4

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

Inclusion of Servicing Vehicles Counts:

Servicing vehicles Included 5 days - Selected
 Servicing vehicles Excluded X days - Selected

Secondary Filtering selection:Use Class:

Not Known 4 days

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

Filter by Site Operations Breakdown:

All Surveys Included

Population within 500m Range:

All Surveys Included

Secondary Filtering selection (Cont.):Population within 1 mile:

25,001 to 50,000

4 days

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

Population within 5 miles:

250,001 to 500,000

4 days

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

Car ownership within 5 miles:

0.6 to 1.0

4 days

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

Travel Plan:

No

4 days

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

PTAL Rating:

No PTAL Present

4 days

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

LIST OF SITES relevant to selection parameters

1	SO-02-I-01 LIVERPOOL ROAD SLOUGH	DATA CENTRE	SLOUGH
	Suburban Area (PPS6 Out of Centre) Industrial Zone		
	Total Gross floor area:	16000 sqm	
	Survey date: WEDNESDAY	26/04/23	Survey Type: MANUAL
2	SO-02-I-02 LIVERPOOL ROAD SLOUGH	DATA CENTRE	SLOUGH
	Suburban Area (PPS6 Out of Centre) Industrial Zone		
	Total Gross floor area:	5677 sqm	
	Survey date: WEDNESDAY	24/05/23	Survey Type: MANUAL
3	SO-02-I-03 LIVERPOOL ROAD SLOUGH	DATA CENTRE	SLOUGH
	Suburban Area (PPS6 Out of Centre) Industrial Zone		
	Total Gross floor area:	11700 sqm	
	Survey date: WEDNESDAY	24/05/23	Survey Type: MANUAL
4	SO-02-I-04 AJAX AVENUE SLOUGH	DATA CENTRE	SLOUGH
	Suburban Area (PPS6 Out of Centre) Industrial Zone		
	Total Gross floor area:	11402 sqm	
	Survey date: MONDAY	22/05/23	Survey Type: MANUAL

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

TRIP RATE for Land Use 02 - EMPLOYMENT/I - DATA CENTRE

MULTI-MODAL TOTAL VEHICLESCalculation factor: **100 sqm****BOLD print indicates peak (busiest) period**

Total People to Total Vehicles ratio (all time periods and directions): 2.02

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00	3	9593	0.000	3	9593	0.000	3	9593	0.000
01:00 - 02:00	3	9593	0.000	3	9593	0.000	3	9593	0.000
02:00 - 03:00	3	9593	0.000	3	9593	0.000	3	9593	0.000
03:00 - 04:00	3	9593	0.000	3	9593	0.000	3	9593	0.000
04:00 - 05:00	3	9593	0.007	3	9593	0.000	3	9593	0.007
05:00 - 06:00	3	9593	0.024	3	9593	0.007	3	9593	0.031
06:00 - 07:00	4	11195	0.100	4	11195	0.042	4	11195	0.142
07:00 - 08:00	4	11195	0.130	4	11195	0.022	4	11195	0.152
08:00 - 09:00	4	11195	0.100	4	11195	0.029	4	11195	0.129
09:00 - 10:00	4	11195	0.067	4	11195	0.040	4	11195	0.107
10:00 - 11:00	4	11195	0.054	4	11195	0.025	4	11195	0.079
11:00 - 12:00	4	11195	0.031	4	11195	0.047	4	11195	0.078
12:00 - 13:00	4	11195	0.029	4	11195	0.040	4	11195	0.069
13:00 - 14:00	4	11195	0.040	4	11195	0.045	4	11195	0.085
14:00 - 15:00	4	11195	0.042	4	11195	0.047	4	11195	0.089
15:00 - 16:00	4	11195	0.013	4	11195	0.089	4	11195	0.102
16:00 - 17:00	4	11195	0.011	4	11195	0.080	4	11195	0.091
17:00 - 18:00	4	11195	0.016	4	11195	0.063	4	11195	0.079
18:00 - 19:00	4	11195	0.029	4	11195	0.060	4	11195	0.089
19:00 - 20:00	4	11195	0.009	4	11195	0.025	4	11195	0.034
20:00 - 21:00	3	9593	0.003	3	9593	0.021	3	9593	0.024
21:00 - 22:00	3	9593	0.003	3	9593	0.014	3	9593	0.017
22:00 - 23:00	3	9593	0.010	3	9593	0.017	3	9593	0.027
23:00 - 24:00	3	9593	0.007	3	9593	0.003	3	9593	0.010
Total Rates:			0.725			0.716			1.441

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

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

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Parameter summary

Trip rate parameter range selected:	5677 - 16000 (units: sqm)
Survey date date range:	01/01/19 - 24/05/23
Number of weekdays (Monday-Friday):	5
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

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

TRIP RATE for Land Use 02 - EMPLOYMENT/I - DATA CENTRE

MULTI-MODAL OGVS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00	3	9593	0.000	3	9593	0.000	3	9593	0.000
01:00 - 02:00	3	9593	0.000	3	9593	0.000	3	9593	0.000
02:00 - 03:00	3	9593	0.000	3	9593	0.000	3	9593	0.000
03:00 - 04:00	3	9593	0.000	3	9593	0.000	3	9593	0.000
04:00 - 05:00	3	9593	0.000	3	9593	0.000	3	9593	0.000
05:00 - 06:00	3	9593	0.000	3	9593	0.000	3	9593	0.000
06:00 - 07:00	4	11195	0.000	4	11195	0.000	4	11195	0.000
07:00 - 08:00	4	11195	0.002	4	11195	0.002	4	11195	0.004
08:00 - 09:00	4	11195	0.004	4	11195	0.004	4	11195	0.008
09:00 - 10:00	4	11195	0.000	4	11195	0.000	4	11195	0.000
10:00 - 11:00	4	11195	0.002	4	11195	0.000	4	11195	0.002
11:00 - 12:00	4	11195	0.000	4	11195	0.002	4	11195	0.002
12:00 - 13:00	4	11195	0.000	4	11195	0.000	4	11195	0.000
13:00 - 14:00	4	11195	0.004	4	11195	0.004	4	11195	0.008
14:00 - 15:00	4	11195	0.007	4	11195	0.004	4	11195	0.011
15:00 - 16:00	4	11195	0.000	4	11195	0.002	4	11195	0.002
16:00 - 17:00	4	11195	0.000	4	11195	0.000	4	11195	0.000
17:00 - 18:00	4	11195	0.000	4	11195	0.000	4	11195	0.000
18:00 - 19:00	4	11195	0.000	4	11195	0.000	4	11195	0.000
19:00 - 20:00	4	11195	0.000	4	11195	0.000	4	11195	0.000
20:00 - 21:00	3	9593	0.000	3	9593	0.000	3	9593	0.000
21:00 - 22:00	3	9593	0.000	3	9593	0.000	3	9593	0.000
22:00 - 23:00	3	9593	0.000	3	9593	0.000	3	9593	0.000
23:00 - 24:00	3	9593	0.000	3	9593	0.000	3	9593	0.000
Total Rates:			0.019			0.018			0.037

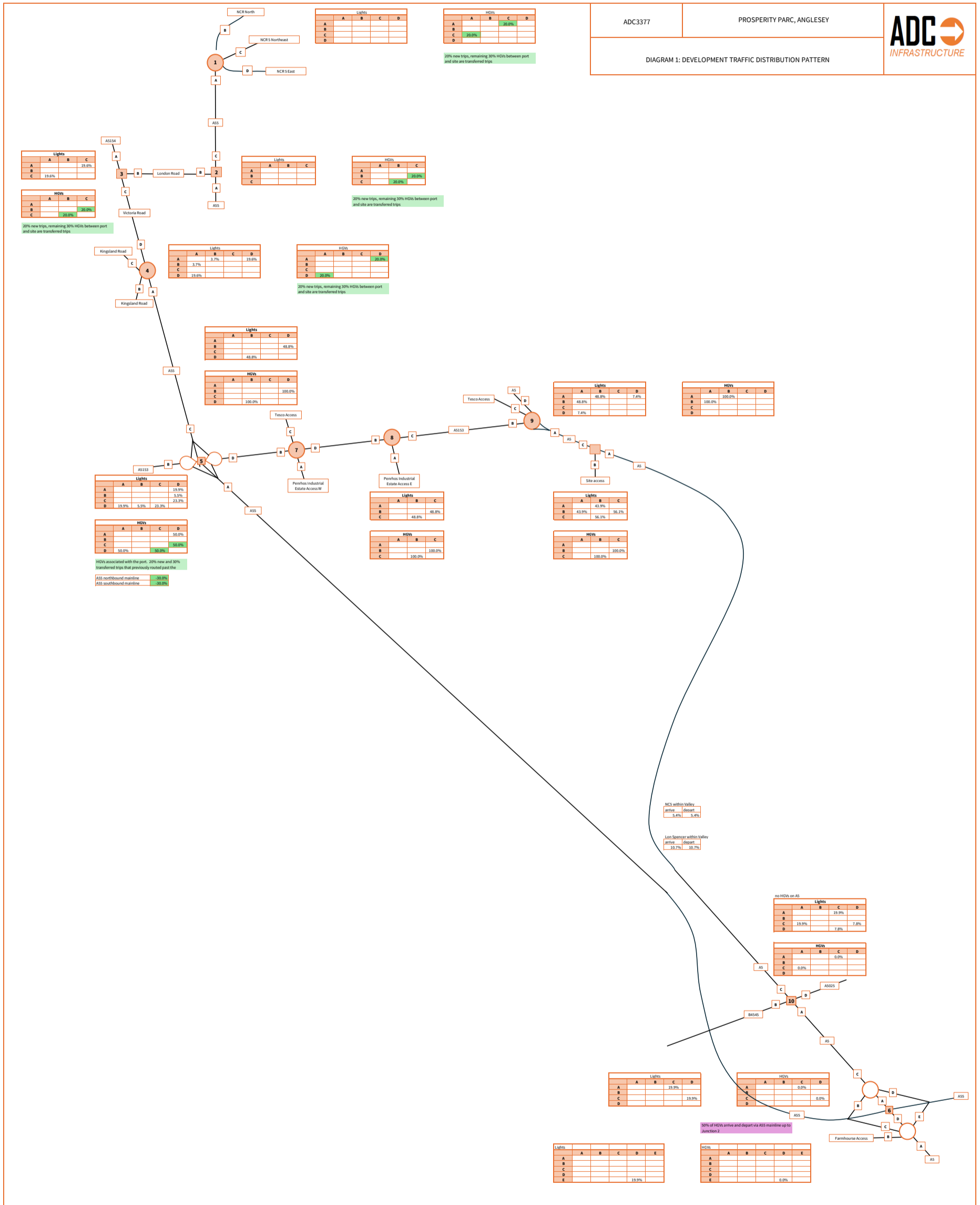
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APPENDIX D

TRAFFIC FLOW DIAGRAMS

DIAGRAM 1: DEVELOPMENT TRAFFIC DISTRIBUTION PATTERN

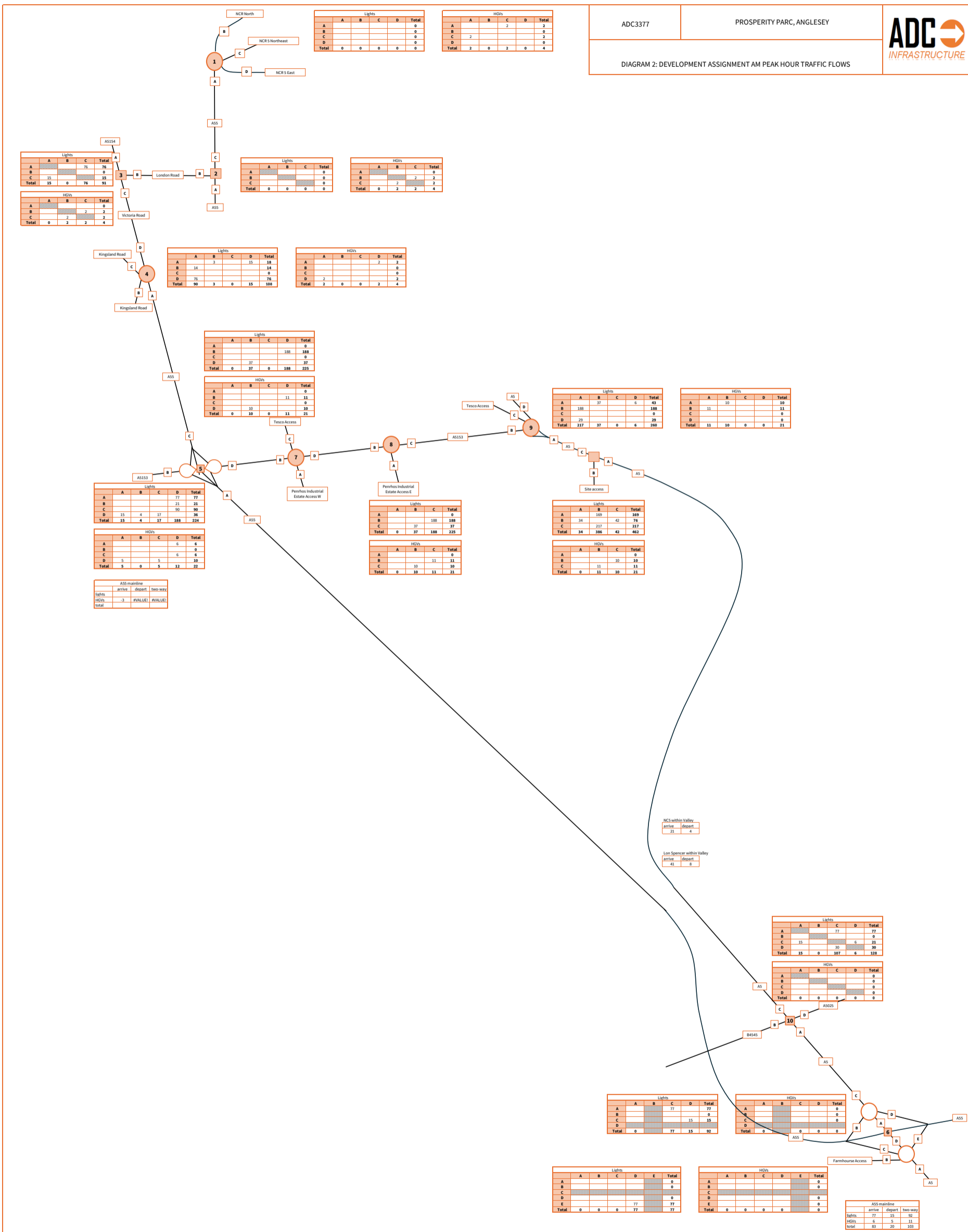


ADC3377

PROSPERITY PARC, ANGLESEY



DIAGRAM 2: DEVELOPMENT ASSIGNMENT AM PEAK HOUR TRAFFIC FLOWS

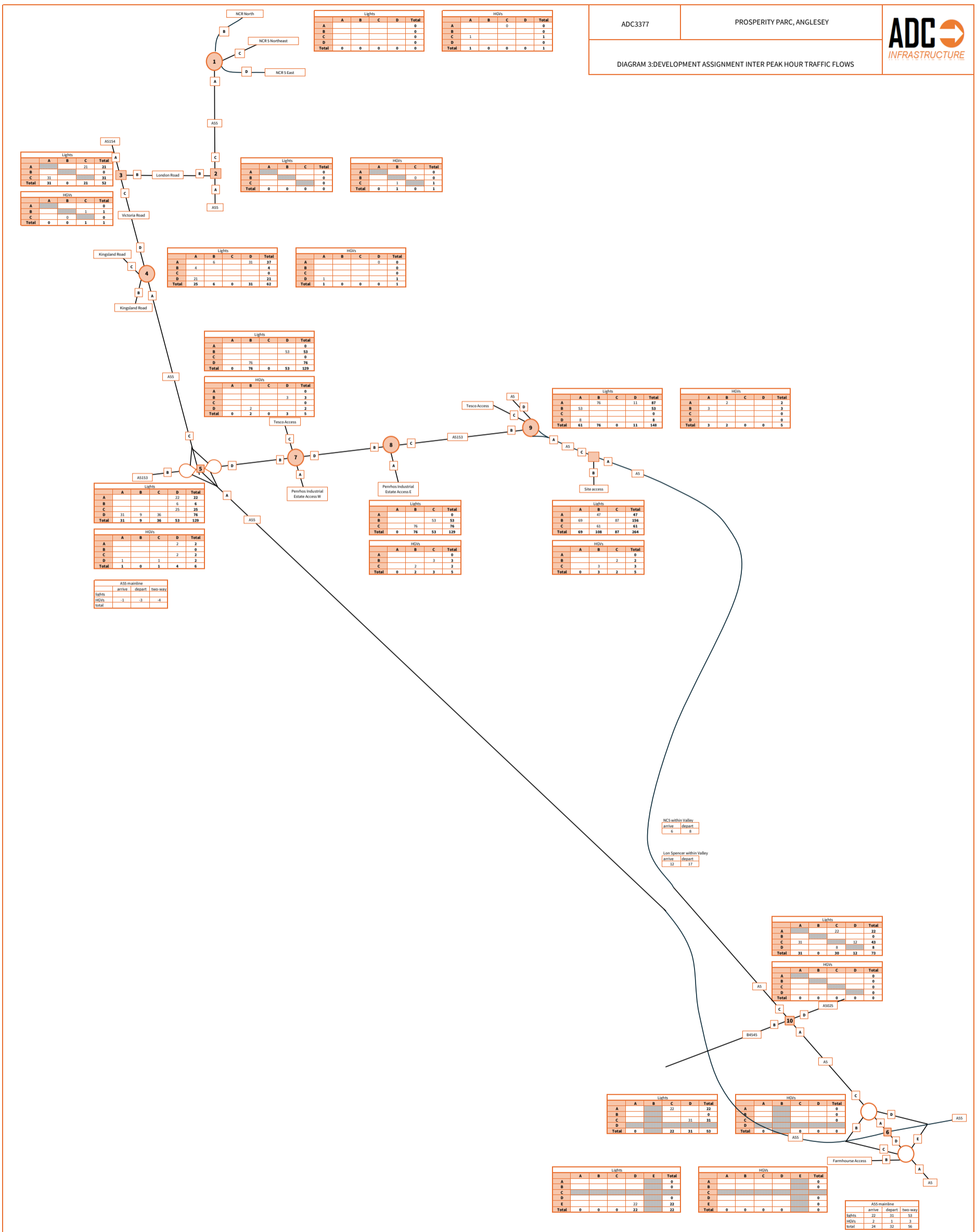


ADC3377

PROSPERITY PARC, ANGLESEY



DIAGRAM 3: DEVELOPMENT ASSIGNMENT INTER PEAK HOUR TRAFFIC FLOWS

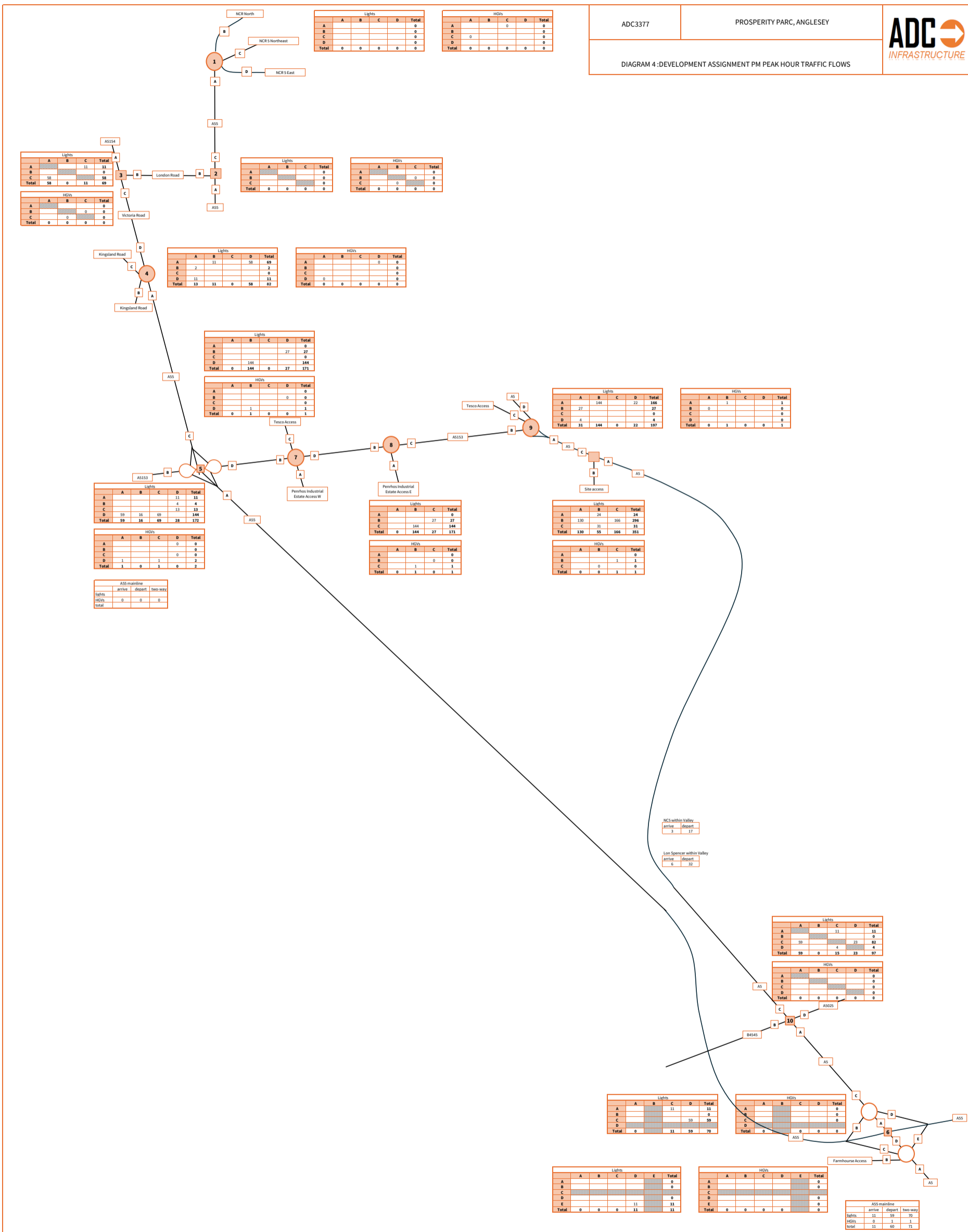


ADC3377

PROSPERITY PARC, ANGLESEY



DIAGRAM 4: DEVELOPMENT ASSIGNMENT PM PEAK HOUR TRAFFIC FLOWS



AS104

Lights				Total
A	B	C	D	
11	11			22
0	0			0
0	0			0
0	0			0
0	0			0
11	11			22

HGVs				Total
A	B	C	D	
0	0			0
0	0			0
0	0			0
0	0			0
0	0			0
0	0			0

London Road

Lights				Total
A	B	C	D	
0	0			0
0	0			0
0	0			0
0	0			0
0	0			0
0	0			0

HGVs				Total
A	B	C	D	
0	0			0
0	0			0
0	0			0
0	0			0
0	0			0
0	0			0

Kingland Road

Lights				Total
A	B	C	D	
11	11			22
2	2			4
0	0			0
0	0			0
13	13			26

HGVs				Total
A	B	C	D	
0	0			0
0	0			0
0	0			0
0	0			0
0	0			0
0	0			0

Tesco Access

Lights				Total
A	B	C	D	
0	0			0
0	0			0
0	0			0
0	0			0
0	0			0
0	0			0

HGVs				Total
A	B	C	D	
0	0			0
0	0			0
0	0			0
0	0			0
0	0			0
0	0			0

Tesco Access

Lights				Total
A	B	C	D	
144	22			166
27	27			54
4	4			8
175	53			228

HGVs				Total
A	B	C	D	
1	1			2
0	0			0
0	0			0
1	1			2

AS103

Lights				Total
A	B	C	D	
11	11			22
4	4			8
13	13			26
59	16	69	28	172

HGVs				Total
A	B	C	D	
0	0			0
0	0			0
0	0			0
1	1			2

Perreth Industrial Estate Access W

Lights				Total
A	B	C	D	
0	0			0
0	0			0
0	0			0
0	0			0
0	0			0
0	0			0

HGVs				Total
A	B	C	D	
0	0			0
0	0			0
0	0			0
0	0			0
0	0			0
0	0			0

Perreth Industrial Estate Access E

Lights				Total
A	B	C	D	
0	0			0
27	27			54
144	144			288
171	171			342

HGVs				Total
A	B	C	D	
0	0			0
0	0			0
0	0			0
1	1			2

Site access

Lights				Total
A	B	C	D	
24	24			48
130	130			260
31	31			62
185	185			370

HGVs				Total
A	B	C	D	
0	0			0
0	0			0
0	0			0
1	1			2

ASS mainline

lights	arrive	depart	two way
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0

NCR within Valley

lights	arrive	depart
0	0	0
0	0	0
0	0	0
0	0	0

Lon Spencer within Valley

lights	arrive	depart
0	0	0
0	0	0
0	0	0
0	0	0

AS102

Lights				Total
A	B	C	D	
11	11			22
0	0			0
0	0			0
0	0			0
11	11			22

HGVs				Total
A	B	C	D	
0	0			0
0	0			0
0	0			0
0	0			0
0	0			0
0	0			0

AS102

Lights				Total
A	B	C	D	
0	0			0
0	0			0
0	0			0
0	0			0
0	0			0
0	0			0

HGVs				Total
A	B	C	D	
0	0			0
0	0			0
0	0			0
0	0			0
0	0			0
0	0			0

AS101

Lights				Total
A	B	C	D	
11	11			22
0	0			0
0	0			0
0	0			0
11	11			22

HGVs				Total
A	B	C	D	
0	0			0
0	0			0
0	0			0
0	0			0
0	0			0
0	0			0

AS101

Lights				Total
A	B	C	D	
0	0			0
0	0			0
0	0			0
0	0			0
0	0			0
0	0			0

HGVs				Total
A	B	C	D	
0	0			0
0	0			0
0	0			0
0	0			0
0	0			0
0	0			0

AS101

Lights				Total
A	B	C	D	
0	0			0
0	0			0
0	0			0
0	0			0
0	0			0
0	0			0

HGVs				Total
A	B	C	D	
0	0			0
0	0			0
0	0			0
0	0			0
0	0			0
0	0			0

ASS mainline

lights	arrive	depart	two way
11	59	70	70
0	1	1	1
11	60	71	71

APPENDIX G

TEMPRO OUTPUT - IOACC

Dataset Version: 80
Dataset Scenario: Core
Result Type: Trip ends by time period
Base Year: 2024
Future Year: 2026
Trip Purpose Group: All purposes
Time Period: Weekday AM peak period (0700 - 0959)
Trip End Type: Origin/Destination
Alternative Assumptions Applied: No

Growth Factor (2026 Data/2024 Data)

Area Description		All purposes	
Level	Name	Origin	Destination
W02000004	Isle of Anglesey 004	1.0123	1.0150

Future Year (2026) - Base Year (2024)

Area Description		All purposes	
Level	Name	Origin	Destination
W02000004	Isle of Anglesey 004	23	20

Base Year (2024)

Area Description		All purposes	
Level	Name	Origin	Destination
W02000004	Isle of Anglesey 004	1,888	1,349

Future Year (2026)

Area Description		All purposes	
Level	Name	Origin	Destination
W02000004	Isle of Anglesey 004	1,911	1,369

Growth rate	Area	Local Growth Figure
W02000004	Isle of Anglesey 004	1.014

Dataset Version: 80
Dataset Scenario: Core
Result Type: Trip ends by time period
Base Year: 2024
Future Year: 2026
Trip Purpose Group: All purposes
Time Period: Weekday Inter peak period (1000 - 1559)
Trip End Type: Origin/Destination
Alternative Assumptions Applied: No

Growth Factor (2026 Data/2024 Data)

Area Description		All purposes	
Level	Name	Origin	Destination
W02000004	Isle of Anglesey 004	1.0090	1.0092

Future Year (2026) - Base Year (2024)

Area Description		All purposes	
Level	Name	Origin	Destination
W02000004	Isle of Anglesey 004	27	28

Base Year (2024)

Area Description		All purposes	
Level	Name	Origin	Destination
W02000004	Isle of Anglesey 004	2,957	3,007

Future Year (2026)

Area Description		All purposes	
Level	Name	Origin	Destination
W02000004	Isle of Anglesey 004	2,984	3,035

Growth rate	Area	Local Growth Figure
W02000004	Isle of Anglesey 004	1.009

Dataset Version: 80
Dataset Scenario: Core
Result Type: Trip ends by time period
Base Year: 2024
Future Year: 2026
Trip Purpose Group: All purposes
Time Period: Weekday PM peak period (1600 - 1859)
Trip End Type: Origin/Destination
Alternative Assumptions Applied: No

Growth Factor (2026 Data/2024 Data)

Area Description		All purposes	
Level	Name	Origin	Destination
W02000004	Isle of Anglesey 004	1.0129	1.0115

Future Year (2026) - Base Year (2024)

Area Description		All purposes	
Level	Name	Origin	Destination
W02000004	Isle of Anglesey 004	21	23

Base Year (2024)

Area Description		All purposes	
Level	Name	Origin	Destination
W02000004	Isle of Anglesey 004	1,607	1,964

Future Year (2026)

Area Description		All purposes	
Level	Name	Origin	Destination
W02000004	Isle of Anglesey 004	1,627	1,986

Growth rate	Area	Local Growth Figure
W02000004	Isle of Anglesey 004	1.012

Dataset Version: 80
Dataset Scenario: Core
Result Type: Trip ends by time period
Base Year: 2024
Future Year: 2031
Trip Purpose Group: All purposes
Time Period: Weekday AM peak period (0700 - 0959)
Trip End Type: Origin/Destination
Alternative Assumptions Applied: No

Growth Factor (2031 Data/2024 Data)

Area Description		All purposes	
Level	Name	Origin	Destination
W02000004	Isle of Anglesey 004	1.0292	1.0308

Future Year (2031) - Base Year (2024)

Area Description		All purposes	
Level	Name	Origin	Destination
W02000004	Isle of Anglesey 004	55	42

Base Year (2024)

Area Description		All purposes	
Level	Name	Origin	Destination
W02000004	Isle of Anglesey 004	1,888	1,349

Future Year (2031)

Area Description		All purposes	
Level	Name	Origin	Destination
W02000004	Isle of Anglesey 004	1,943	1,390

Growth rate		
Level	Area	Local Growth Figure
W02000004	Isle of Anglesey 004	1.060

Dataset Version: 80
Dataset Scenario: Core
Result Type: Trip ends by time period
Base Year: 2024
Future Year: 2031
Trip Purpose Group: All purposes
Time Period: Weekday Inter peak period (1000 - 1559)
Trip End Type: Origin/Destination
Alternative Assumptions Applied: No

Growth Factor (2031 Data/2024 Data)

Area Description		All purposes	
Level	Name	Origin	Destination
W02000004	Isle of Anglesey 004	1.0193	1.0200

Future Year (2031) - Base Year (2024)

Area Description		All purposes	
Level	Name	Origin	Destination
W02000004	Isle of Anglesey 004	57	60

Base Year (2024)

Area Description		All purposes	
Level	Name	Origin	Destination
W02000004	Isle of Anglesey 004	2,957	3,007

Future Year (2031)

Area Description		All purposes	
Level	Name	Origin	Destination
W02000004	Isle of Anglesey 004	3,014	3,067

Growth rate		
Level	Area	Local Growth Figure
W02000004	Isle of Anglesey 004	1.050

Dataset Version: 80
Dataset Scenario: Core
Result Type: Trip ends by time period
Base Year: 2024
Future Year: 2031
Trip Purpose Group: All purposes
Time Period: Weekday PM peak period (1600 - 1859)
Trip End Type: Origin/Destination
Alternative Assumptions Applied: No

Growth Factor (2031 Data/2024 Data)

Area Description		All purposes	
Level	Name	Origin	Destination
W02000004	Isle of Anglesey 004	1.0274	1.0269

Future Year (2031) - Base Year (2024)

Area Description		All purposes	
Level	Name	Origin	Destination
W02000004	Isle of Anglesey 004	44	53

Base Year (2024)

Area Description		All purposes	
Level	Name	Origin	Destination
W02000004	Isle of Anglesey 004	1,607	1,964

Future Year (2031)

Area Description		All purposes	
Level	Name	Origin	Destination
W02000004	Isle of Anglesey 004	1,651	2,017

Growth rate		
Level	Area	Local Growth Figure
W02000004	Isle of Anglesey 004	1.057

APPENDIX H

TEMPRO OUTPUT - WG

Dataset Version: 80
Dataset Scenario: Core
Result Type: Trip ends by time period
Base Year: 2024
Future Year: 2030
Trip Purpose Group: All purposes
Time Period: Weekday AM peak period (0700 - 0959)
Trip End Type: Origin/Destination
Alternative Assumptions Applied: No

Growth Factor (2030 Data/2024 Data)

Area Description		All purposes	
Level	Name	Origin	Destination
W02000004	Isle of Anglesey 004	1.0258	1.0277

Future Year (2030) - Base Year (2024)

Area Description		All purposes	
Level	Name	Origin	Destination
W02000004	Isle of Anglesey 004	49	37

Base Year (2024)

Area Description		All purposes	
Level	Name	Origin	Destination
W02000004	Isle of Anglesey 004	1,888	1,349

Future Year (2030)

Area Description		All purposes	
Level	Name	Origin	Destination
W02000004	Isle of Anglesey 004	1,936	1,386

Growth rate		
Level	Area	Local Growth Figure
W02000004	Isle of Anglesey 004	1.052907

Dataset Version: 80
Dataset Scenario: Core
Result Type: Trip ends by time period
Base Year: 2024
Future Year: 2030
Trip Purpose Group: All purposes
Time Period: Weekday Inter peak period (1000 - 1559)
Trip End Type: Origin/Destination
Alternative Assumptions Applied: No

Growth Factor (2030 Data/2024 Data)

Area Description		All purposes	
Level	Name	Origin	Destination
W02000004	Isle of Anglesey 004	1.0172	1.0178

Future Year (2030) - Base Year (2024)

Area Description		All purposes	
Level	Name	Origin	Destination
W02000004	Isle of Anglesey 004	51	54

Base Year (2024)

Area Description		All purposes	
Level	Name	Origin	Destination
W02000004	Isle of Anglesey 004	2,957	3,007

Future Year (2030)

Area Description		All purposes	
Level	Name	Origin	Destination
W02000004	Isle of Anglesey 004	3,008	3,061

Growth rate		
Level	Area	Local Growth Figure
W02000004	Isle of Anglesey 004	1.043421

Dataset Version: 80
Dataset Scenario: Core
Result Type: Trip ends by time period
Base Year: 2024
Future Year: 2030
Trip Purpose Group: All purposes
Time Period: Weekday PM peak period (1600 - 1859)
Trip End Type: Origin/Destination
Alternative Assumptions Applied: No

Growth Factor (2030 Data/2024 Data)

Area Description		All purposes	
Level	Name	Origin	Destination
W02000004	Isle of Anglesey 004	1.0245	1.0238

Future Year (2030) - Base Year (2024)

Area Description		All purposes	
Level	Name	Origin	Destination
W02000004	Isle of Anglesey 004	39	47

Base Year (2024)

Area Description		All purposes	
Level	Name	Origin	Destination
W02000004	Isle of Anglesey 004	1,607	1,964

Future Year (2030)

Area Description		All purposes	
Level	Name	Origin	Destination
W02000004	Isle of Anglesey 004	1,646	2,010

Growth rate		
Level	Area	Local Growth Figure
W02000004	Isle of Anglesey 004	1.050241

Dataset Version: 80
Dataset Scenario: Core
Result Type: Trip ends by time period
Base Year: 2024
Future Year: 2040
Trip Purpose Group: All purposes
Time Period: Weekday AM peak period (0700 - 0959)
Trip End Type: Origin/Destination
Alternative Assumptions Applied: No

Growth Factor (2040 Data/2024 Data)

Area Description		All purposes	
Level	Name	Origin	Destination
W02000004	Isle of Anglesey 004	1.0387	1.0430

Future Year (2040) - Base Year (2024)

Area Description		All purposes	
Level	Name	Origin	Destination
W02000004	Isle of Anglesey 004	73	58

Base Year (2024)

Area Description		All purposes	
Level	Name	Origin	Destination
W02000004	Isle of Anglesey 004	1,888	1,349

Future Year (2040)

Area Description		All purposes	
Level	Name	Origin	Destination
W02000004	Isle of Anglesey 004	1,961	1,406

Growth rate		
Level	Area	Local Growth Figure
W02000004	Isle of Anglesey 004	1.115311

Dataset Version: 80
Dataset Scenario: Core
Result Type: Trip ends by time period
Base Year: 2024
Future Year: 2040
Trip Purpose Group: All purposes
Time Period: Weekday Inter peak period (1000 - 1559)
Trip End Type: Origin/Destination
Alternative Assumptions Applied: No

Growth Factor (2040 Data/2024 Data)

Area Description		All purposes	
Level	Name	Origin	Destination
W02000004	Isle of Anglesey 004	1.0173	1.0191

Future Year (2040) - Base Year (2024)

Area Description		All purposes	
Level	Name	Origin	Destination
W02000004	Isle of Anglesey 004	51	57

Base Year (2024)

Area Description		All purposes	
Level	Name	Origin	Destination
W02000004	Isle of Anglesey 004	2,957	3,007

Future Year (2040)

Area Description		All purposes	
Level	Name	Origin	Destination
W02000004	Isle of Anglesey 004	3,008	3,065

Growth rate		
Level	Area	Local Growth Figure
W02000004	Isle of Anglesey 004	1.09104

Dataset Version: 80
Dataset Scenario: Core
Result Type: Trip ends by time period
Base Year: 2024
Future Year: 2040
Trip Purpose Group: All purposes
Time Period: Weekday PM peak period (1600 - 1859)
Trip End Type: Origin/Destination
Alternative Assumptions Applied: No

Growth Factor (2040 Data/2024 Data)

Area Description		All purposes	
Level	Name	Origin	Destination
W02000004	Isle of Anglesey 004	1.0332	1.0317

Future Year (2040) - Base Year (2024)

Area Description		All purposes	
Level	Name	Origin	Destination
W02000004	Isle of Anglesey 004	53	62

Base Year (2024)

Area Description		All purposes	
Level	Name	Origin	Destination
W02000004	Isle of Anglesey 004	1,607	1,964

Future Year (2040)

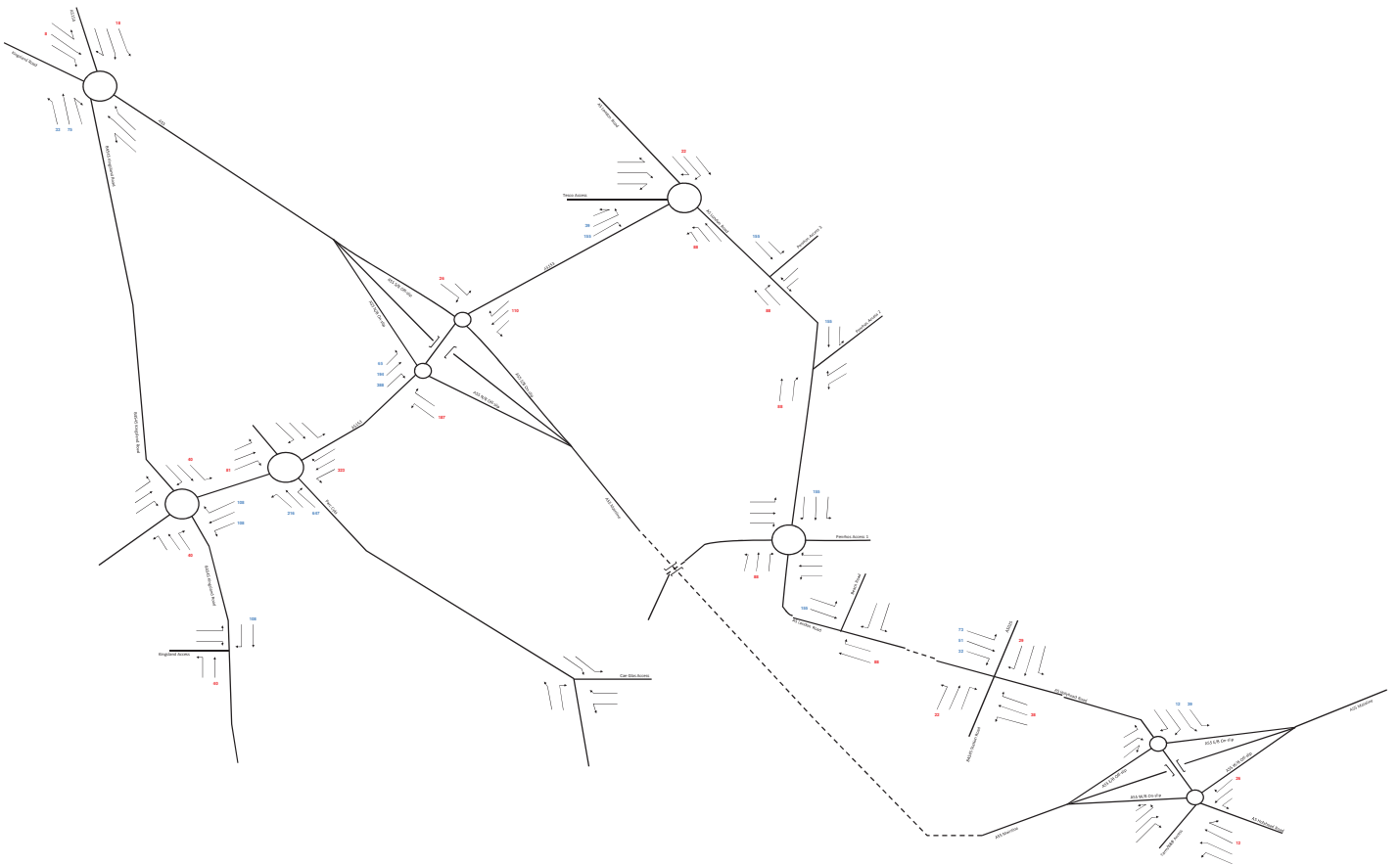
Area Description		All purposes	
Level	Name	Origin	Destination
W02000004	Isle of Anglesey 004	1,660	2,026

Growth rate		
Level	Area	Local Growth Figure
W02000004	Isle of Anglesey 004	1.10631

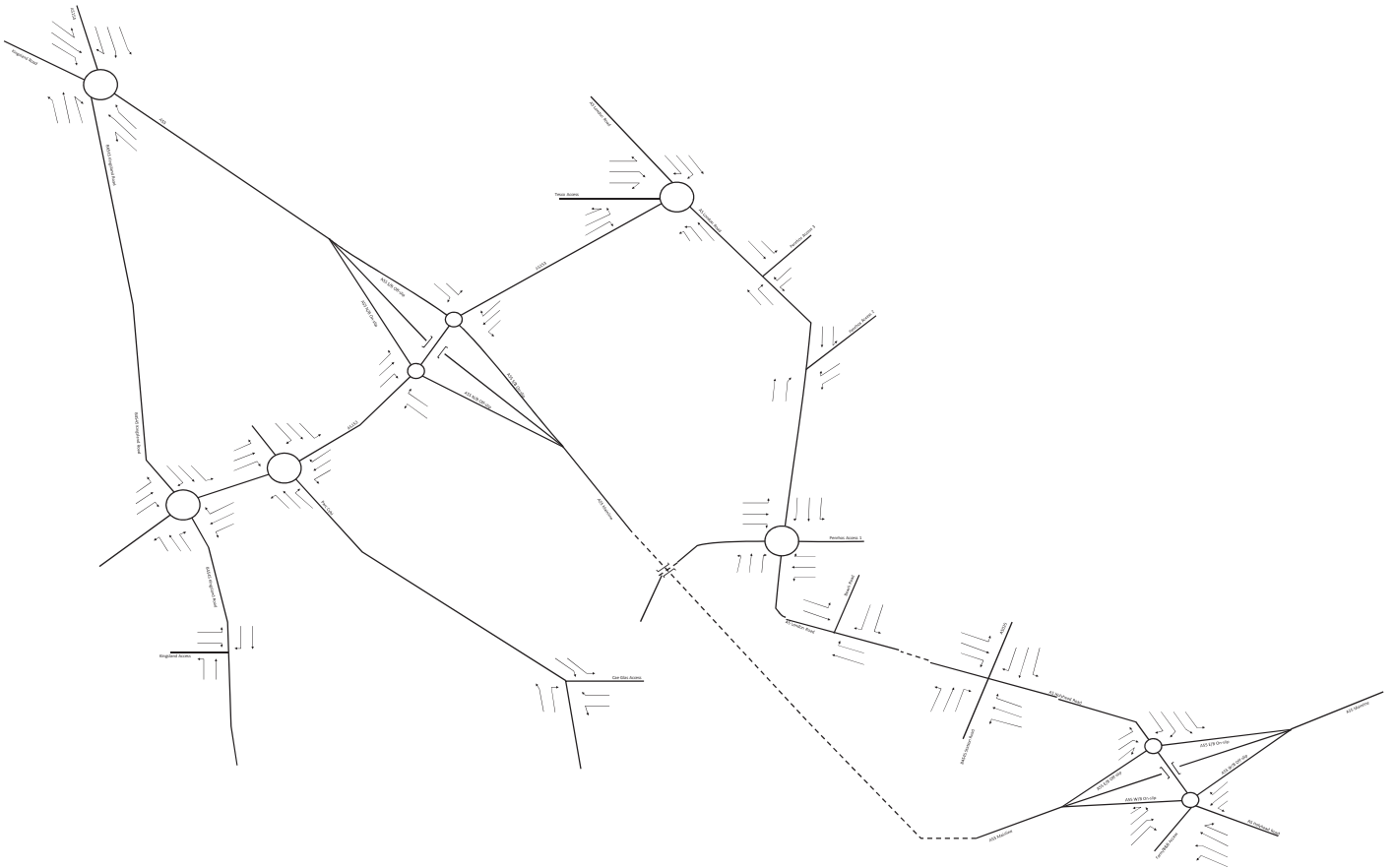
APPENDIX I

PARC CYBI TRAFFIC FLOWS

Project: Penrhos Leisure Village
Scenario: Figure 11: Committed Development Flows (Parc Cych) **Friday PM Peak (1545-1645)**
Peak: **Friday PM Peak (1545-1645)**
Notes: Flows taken from Ty Mearn Development TA
All flows assumed to be in vehicles
Arrivals: 468
Departures: 462



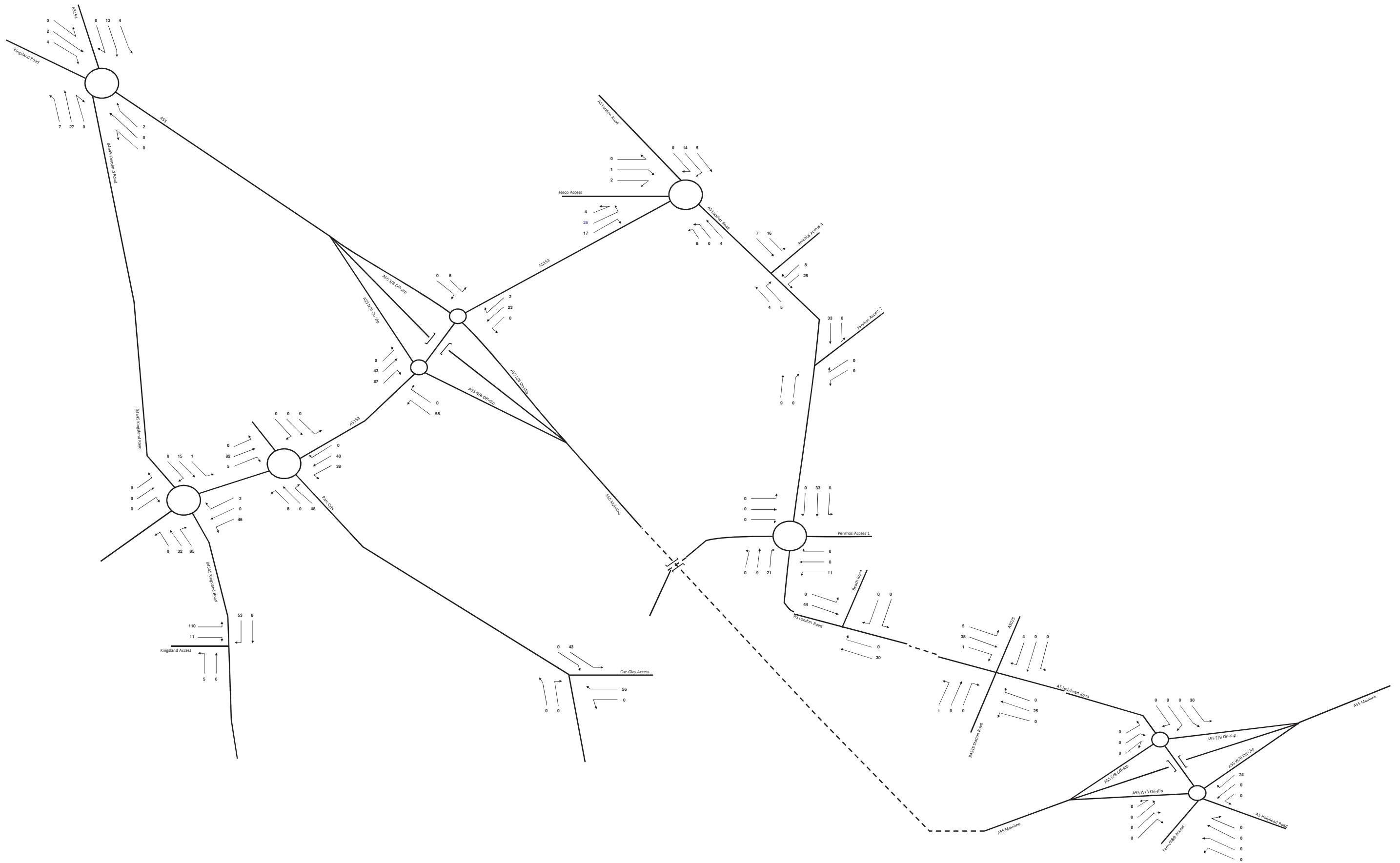
Project: Penrhos Leisure Village
Scenario: Figure 12: Committed Development Flows (Parc Cylb)
Peak: Saturday Peak (1215-1315)
Notes: Flows taken from '9' Main Development TA
All flows assumed to be in vehicles



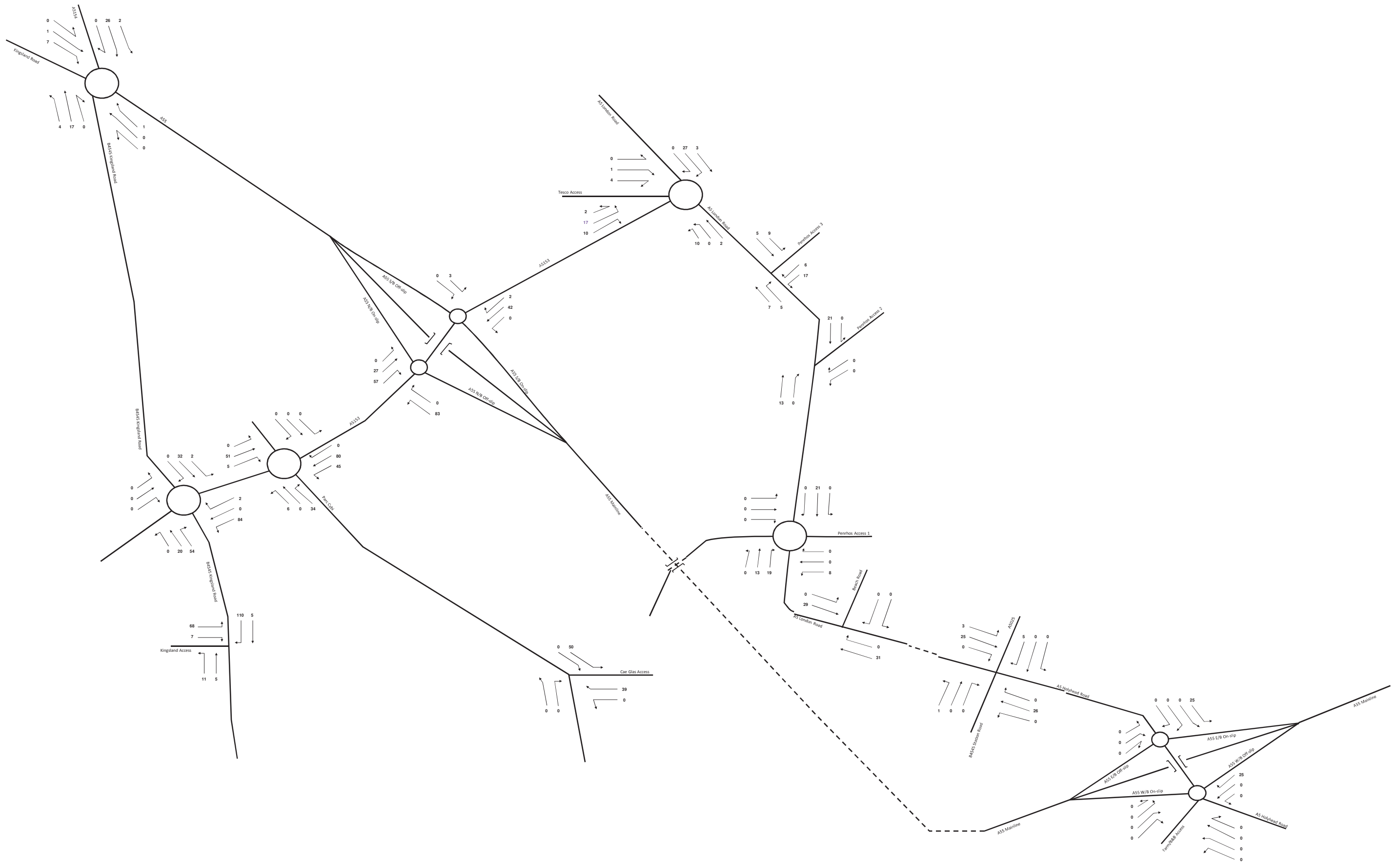
APPENDIX J

LAND AND LAKES TRAFFIC FLOWS

Project: Penrhos Leisure Village
 Scenario: Figure 36: 2022 Total Development Trips
 Peak: Friday AM Peak (0830-0930)



Project: Penrhos Leisure Village
 Scenario: Figure 37: 2022 Total Development Trips
 Peak: Friday PM Peak (1545-1645)



APPENDIX K

A5/SITE ACCESS PICADY OUTPUT

Junctions 9
PICADY 9 - Priority Intersection Module
Version: 9.5.0.6896 © Copyright TRL Limited, 2018
For sales and distribution information, program advice and maintenance, contact TRL: +44 (0)1344 379777 software@trl.co.uk www.trlsoftware.co.uk
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Filename: A5 Site access V8.j9
Path: C:\Users\ADC\OneDrive - ADC Infrastructure Limited\ADC Projects\ADC3377 Anglesey Freeport (Prosperity Parc)\Documents\reports\ADC\F. Transport Assessment\Junction Modelling
Report generation date: 14/10/2024 11:36:48

- »Traffic - 2026 WD, AM
- »Traffic - 2026 WD, PM
- »Traffic - 2031 WD, AM
- »Traffic - 2031 WD, PM

Summary of junction performance

	AM			PM		
	Queue (Veh)	Delay (s)	RFC	Queue (Veh)	Delay (s)	RFC
Traffic - 2026 WD						
Stream B-C	0.1	6.87	0.08	0.4	7.85	0.29
Stream B-A	0.1	11.29	0.11	0.5	12.80	0.34
Stream C-B	0.8	12.15	0.46	0.1	6.11	0.05
Traffic - 2031 WD						
Stream B-C	0.1	6.97	0.10	0.4	7.97	0.29
Stream B-A	0.1	11.69	0.11	0.5	13.21	0.34
Stream C-B	0.8	12.30	0.46	0.1	6.16	0.06

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

File summary

File Description

Title	A5/Site access
Location	Holyhead
Site number	
Date	29/08/2024
Version	v1
Status	preliminary
Identifier	
Client	Prosperity Parc
Jobnumber	ADC3377
Enumerator	ADC-TOSHIBA-AIO\ADC
Description	

Units

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

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2026 WD	AM	ONE HOUR	08:00	09:30	15
D2	2026 WD	PM	ONE HOUR	16:15	17:45	15
D3	2031 WD	AM	ONE HOUR	08:00	09:30	15
D4	2031 WD	PM	ONE HOUR	16:15	17:45	15

Analysis Set Details

ID	Name	Network flow scaling factor (%)
A1	Traffic	100.000

Traffic - 2026 WD, 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	A5/Site access	T-Junction	Two-way		3.16	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	A5 East		Major
B	Site access		Minor
C	A5 West		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Width for right turn (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - A5 West	6.79		✓	2.76	250.0		-

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

Minor Arm Geometry

Arm	Minor arm type	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	10.00	7.15	4.78	3.71	✓	2.00	123	244

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	689	0.121	0.306	0.193	0.438
1	B-C	877	0.130	0.328	-	-
1	C-B	763	0.285	0.285	-	-

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

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

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2026 WD	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A5 East		✓	594	100.000
B - Site access		✓	76	100.000
C - A5 West		✓	451	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - A5 East	B - Site access	C - A5 West
From	A - A5 East	0	169	425
	B - Site access	34	0	42
	C - A5 West	223	228	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - A5 East	B - Site access	C - A5 West
From	A - A5 East	0	0	1
	B - Site access	0	0	19
	C - A5 West	3	5	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-C	0.08	6.87	0.1	A
B-A	0.11	11.29	0.1	B
C-A				
C-B	0.46	12.15	0.8	B
A-B				
A-C				

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	32	625	0.051	31	0.1	6.063	A
B-A	26	463	0.055	25	0.1	8.230	A
C-A	168			168			
C-B	172	604	0.284	170	0.4	8.270	A
A-B	127			127			
A-C	320			320			

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	38	602	0.063	38	0.1	6.374	A
B-A	31	418	0.073	30	0.1	9.291	A
C-A	200			200			
C-B	205	580	0.353	204	0.5	9.566	A
A-B	152			152			
A-C	382			382			

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	46	571	0.081	46	0.1	6.865	A
B-A	37	357	0.105	37	0.1	11.264	B
C-A	246			246			
C-B	251	547	0.459	250	0.8	12.057	B
A-B	186			186			
A-C	468			468			

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	46	570	0.081	46	0.1	6.868	A
B-A	37	356	0.105	37	0.1	11.290	B
C-A	246			246			
C-B	251	547	0.459	251	0.8	12.147	B
A-B	186			186			
A-C	468			468			

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	38	602	0.063	38	0.1	6.379	A
B-A	31	417	0.073	31	0.1	9.320	A
C-A	200			200			
C-B	205	580	0.353	206	0.6	9.655	A
A-B	152			152			
A-C	382			382			

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	32	625	0.051	32	0.1	6.069	A
B-A	26	462	0.055	26	0.1	8.260	A
C-A	168			168			
C-B	172	604	0.284	172	0.4	8.354	A
A-B	127			127			
A-C	320			320			

Traffic - 2026 WD, 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	A5/Site access	T-Junction	Two-way		2.49	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2026 WD	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A5 East		✓	438	100.000
B - Site access		✓	297	100.000
C - A5 West		✓	529	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - A5 East	B - Site access	C - A5 West
From	A - A5 East	0	24	414
	B - Site access	130	0	167
	C - A5 West	498	31	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - A5 East	B - Site access	C - A5 West
From	A - A5 East	0	0	1
	B - Site access	0	0	1
	C - A5 West	1	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-C	0.29	7.85	0.4	A
B-A	0.34	12.80	0.5	B
C-A				
C-B	0.05	6.11	0.1	A
A-B				
A-C				

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	126	720	0.175	125	0.2	6.036	A
B-A	98	511	0.191	97	0.2	8.671	A
C-A	375			375			
C-B	23	668	0.035	23	0.0	5.585	A
A-B	18			18			
A-C	312			312			

16:30 - 16:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	150	690	0.218	150	0.3	6.667	A
B-A	117	475	0.246	117	0.3	10.028	B
C-A	448			448			
C-B	28	649	0.043	28	0.0	5.793	A
A-B	22			22			
A-C	372			372			

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	184	643	0.286	183	0.4	7.827	A
B-A	143	424	0.337	142	0.5	12.736	B
C-A	548			548			
C-B	34	624	0.055	34	0.1	6.105	A
A-B	26			26			
A-C	456			456			

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	184	642	0.286	184	0.4	7.851	A
B-A	143	424	0.337	143	0.5	12.799	B
C-A	548			548			
C-B	34	624	0.055	34	0.1	6.105	A
A-B	26			26			
A-C	456			456			

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	150	689	0.218	151	0.3	6.693	A
B-A	117	475	0.246	118	0.3	10.087	B
C-A	448			448			
C-B	28	649	0.043	28	0.0	5.797	A
A-B	22			22			
A-C	372			372			

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	126	720	0.175	126	0.2	6.068	A
B-A	98	511	0.191	98	0.2	8.724	A
C-A	375			375			
C-B	23	668	0.035	23	0.0	5.590	A
A-B	18			18			
A-C	312			312			

Traffic - 2031 WD, 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	A5/Site access	T-Junction	Two-way		3.18	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2031 WD	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A5 East		✓	606	100.000
B - Site access		✓	86	100.000
C - A5 West		✓	460	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - A5 East	B - Site access	C - A5 West
From	A - A5 East	0	169	437
	B - Site access	34	0	52
	C - A5 West	232	228	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - A5 East	B - Site access	C - A5 West
From	A - A5 East	0	0	1
	B - Site access	0	0	19
	C - A5 West	3	5	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-C	0.10	6.97	0.1	A
B-A	0.11	11.69	0.1	B
C-A				
C-B	0.46	12.30	0.8	B
A-B				
A-C				

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	39	631	0.062	39	0.1	6.080	A
B-A	26	452	0.057	25	0.1	8.434	A
C-A	175			175			
C-B	172	601	0.285	170	0.4	8.318	A
A-B	127			127			
A-C	329			329			

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	47	607	0.077	47	0.1	6.423	A
B-A	31	407	0.075	30	0.1	9.556	A
C-A	209			209			
C-B	205	577	0.355	204	0.5	9.642	A
A-B	152			152			
A-C	393			393			

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	57	574	0.100	57	0.1	6.963	A
B-A	37	346	0.108	37	0.1	11.664	B
C-A	255			255			
C-B	251	544	0.462	250	0.8	12.204	B
A-B	186			186			
A-C	481			481			

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	57	574	0.100	57	0.1	6.968	A
B-A	37	345	0.108	37	0.1	11.694	B
C-A	255			255			
C-B	251	544	0.462	251	0.8	12.297	B
A-B	186			186			
A-C	481			481			

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	47	607	0.077	47	0.1	6.431	A
B-A	31	406	0.075	31	0.1	9.587	A
C-A	209			209			
C-B	205	577	0.355	206	0.6	9.734	A
A-B	152			152			
A-C	393			393			

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	39	630	0.062	39	0.1	6.089	A
B-A	26	451	0.057	26	0.1	8.465	A
C-A	175			175			
C-B	172	601	0.285	172	0.4	8.403	A
A-B	127			127			
A-C	329			329			

Traffic - 2031 WD, 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	A5/Site access	T-Junction	Two-way		2.49	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2031 WD	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - A5 East		✓	453	100.000
B - Site access		✓	297	100.000
C - A5 West		✓	545	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - A5 East	B - Site access	C - A5 West
From	A - A5 East	0	24	429
	B - Site access	130	0	167
	C - A5 West	514	31	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - A5 East	B - Site access	C - A5 West
From	A - A5 East	0	0	1
	B - Site access	0	0	1
	C - A5 West	1	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-C	0.29	7.97	0.4	A
B-A	0.34	13.21	0.5	B
C-A				
C-B	0.06	6.16	0.1	A
A-B				
A-C				

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	126	716	0.175	125	0.2	6.076	A
B-A	98	505	0.194	97	0.2	8.794	A
C-A	387			387			
C-B	23	664	0.035	23	0.0	5.613	A
A-B	18			18			
A-C	323			323			

16:30 - 16:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	150	685	0.219	150	0.3	6.729	A
B-A	117	468	0.250	117	0.3	10.230	B
C-A	462			462			
C-B	28	645	0.043	28	0.0	5.830	A
A-B	22			22			
A-C	386			386			

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	184	636	0.289	183	0.4	7.940	A
B-A	143	416	0.344	142	0.5	13.137	B
C-A	566			566			
C-B	34	619	0.055	34	0.1	6.155	A
A-B	26			26			
A-C	472			472			

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	184	636	0.289	184	0.4	7.967	A
B-A	143	416	0.344	143	0.5	13.207	B
C-A	566			566			
C-B	34	619	0.055	34	0.1	6.155	A
A-B	26			26			
A-C	472			472			

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	150	684	0.220	151	0.3	6.755	A
B-A	117	468	0.250	118	0.3	10.292	B
C-A	462			462			
C-B	28	645	0.043	28	0.0	5.833	A
A-B	22			22			
A-C	386			386			

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	126	716	0.176	126	0.2	6.109	A
B-A	98	505	0.194	98	0.2	8.849	A
C-A	387			387			
C-B	23	664	0.035	23	0.0	5.618	A
A-B	18			18			
A-C	323			323			

APPENDIX L

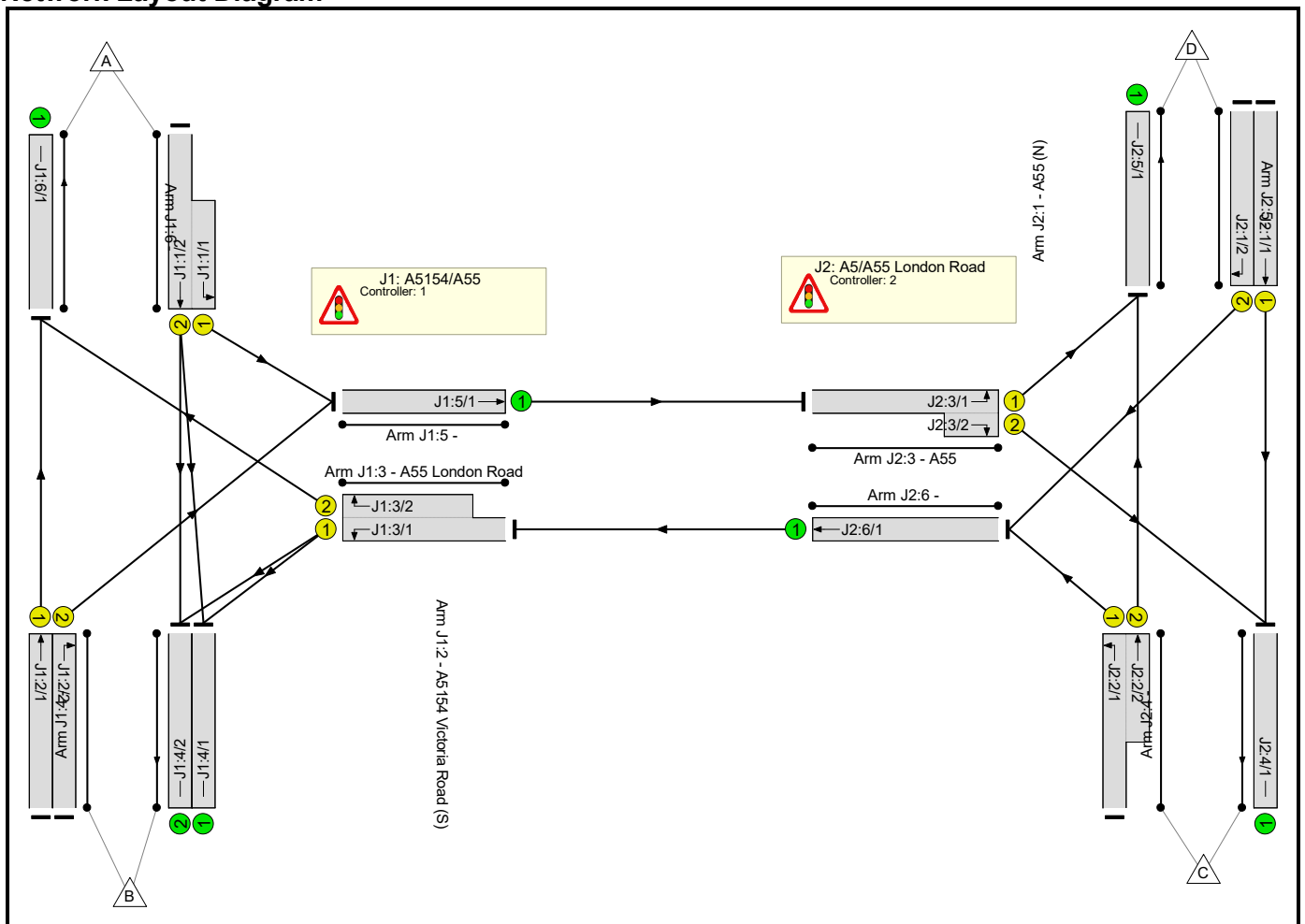
A55/A5154/LONDON ROAD SINGLE CONTROLLED T-JUNCTION LINSIG

Full Input Data And Results
Full Input Data And Results

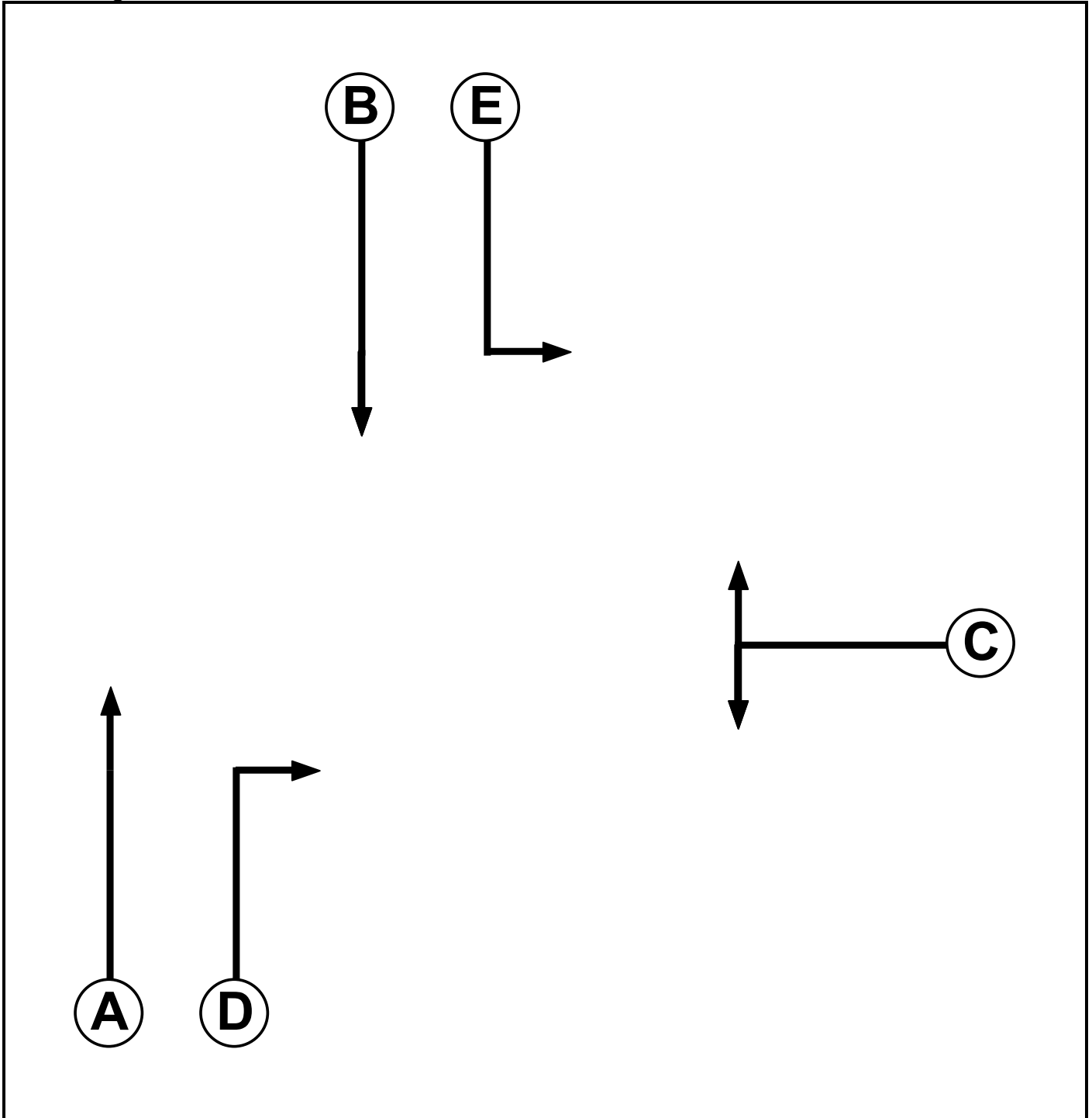
User and Project Details

Project:	
Title:	
Location:	
Additional detail:	
File name:	J2-3 Merged AM.lsg3x
Author:	
Company:	
Address:	

Network Layout Diagram



C1
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	Traffic		7	7
E	Traffic		7	7

Full Input Data And Results

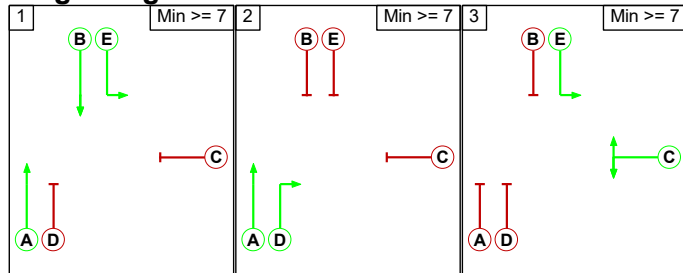
Phase Intergrens Matrix

Terminating Phase	Starting Phase					
		A	B	C	D	E
	A		-	6	-	-
	B	-		6	6	-
	C	6	6		6	-
	D	-	6	6		6
E	-	-	-	6		

Phases in Stage

Stage No.	Phases in Stage
1	A B E
2	A D
3	C E

Stage Diagram



Phase Delays

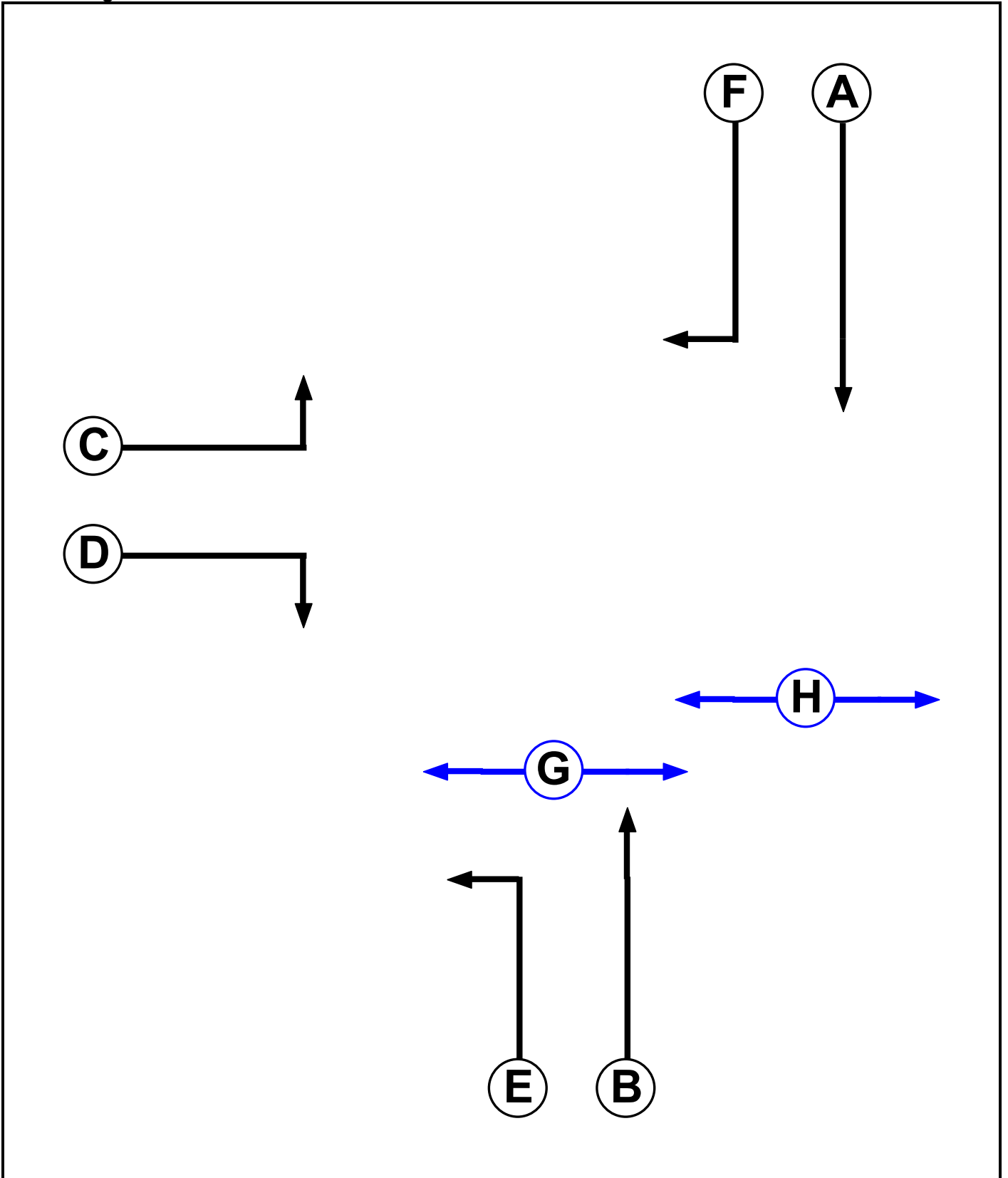
Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Prohibited Stage Change

From Stage	To Stage			
		1	2	3
	1		6	6
	2	6		6
3	6	6		

C2

Phase Diagram



Full Input Data And Results

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	Traffic		7	7
E	Traffic		7	7
F	Traffic		7	7
G	Pedestrian		4	4
H	Pedestrian		4	4

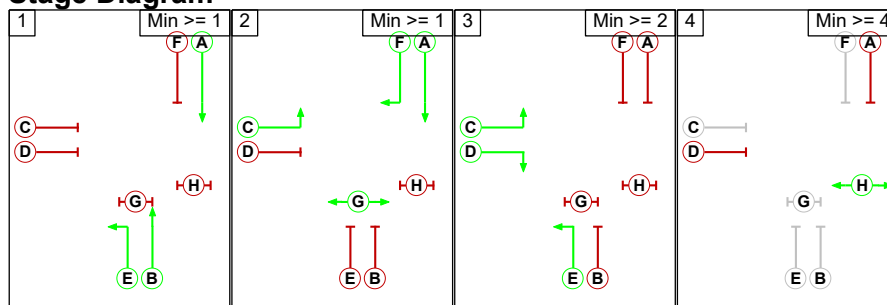
Phase Intergreens Matrix

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

Phases in Stage

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

Stage Diagram



Phase Delays

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

Full Input Data And Results

Prohibited Stage Change

From Stage	To Stage			
	1	2	3	4
1	■	5	5	7
2	10	■	10	7
3	5	5	■	5
4	8	8	8	■

Full Input Data And Results

Give-Way Lane Input Data

Junction: J1: A5154/A55

There are no Opposed Lanes in this Junction

Junction: J2: A5/A55 London Road

There are no Opposed Lanes in this Junction

Full Input Data And Results

Lane Input Data

Junction: J1: A5154/A55												
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 (A5154 Victoria Road (N))	U	E	2	3	7.0	User	1900	-	-	-	-	-
J1:1/2 (A5154 Victoria Road (N))	U	B	2	3	60.0	User	1900	-	-	-	-	-
J1:2/1 (A5154 Victoria Road (S))	U	A	2	3	60.0	User	1900	-	-	-	-	-
J1:2/2 (A5154 Victoria Road (S))	U	D	2	3	60.0	User	1900	-	-	-	-	-
J1:3/1 (A55 London Road)	U	C	2	3	60.0	User	1900	-	-	-	-	-
J1:3/2 (A55 London Road)	U	C	2	3	10.4	User	1900	-	-	-	-	-
J1:4/1	U		2	3	60.0	Inf	-	-	-	-	-	-
J1:4/2	U		2	3	60.0	Inf	-	-	-	-	-	-
J1:5/1	U		2	3	60.0	Inf	-	-	-	-	-	-
J1:6/1	U		2	3	60.0	Inf	-	-	-	-	-	-

Junction: J2: A5/A55 London Road												
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
J2:1/1 (A55 (N))	U	A	2	3	60.0	User	1900	-	-	-	-	-
J2:1/2 (A55 (N))	U	F	2	3	60.0	User	1900	-	-	-	-	-
J2:2/1 (A5 London Road)	U	E	2	3	60.0	User	1900	-	-	-	-	-
J2:2/2 (A5 London Road)	U	B	2	3	7.0	User	1900	-	-	-	-	-
J2:3/1 (A55)	U	C	2	3	60.0	User	1900	-	-	-	-	-
J2:3/2 (A55)	U	D	2	3	3.5	User	1900	-	-	-	-	-
J2:4/1	U		2	3	60.0	User	1900	-	-	-	-	-
J2:5/1	U		2	3	60.0	Inf	-	-	-	-	-	-
J2:6/1	U		2	3	60.0	Inf	-	-	-	-	-	-

Full Input Data And Results

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2024 Observed AM Peak'	08:15	09:15	01:00	
2: '2024 Observed Inter Peak'	12:30	13:30	01:00	
3: '2024 Observed PM Peak'	16:30	17:30	01:00	
4: '2030 Background AM Peak'	08:15	09:15	01:00	
5: '2030 Background Inter Peak'	12:30	13:30	01:00	
6: '2030 Background PM Peak'	16:30	17:30	01:00	
7: '2030 with development AM Peak'	08:15	09:15	01:00	
8: '2030 with development Inter Peak'	12:30	13:30	01:00	
9: '2030 with development PM Peak'	16:30	17:30	01:00	
10: '2040 Background AM Peak'	08:15	09:15	01:00	
11: '2040 Background Inter Peak'	12:30	13:30	01:00	
12: '2040 Background PM Peak'	16:30	17:30	01:00	
13: '2040 with development AM Peak'	08:15	09:15	01:00	
14: '2040 with development Inter Peak'	12:30	13:30	01:00	
15: '2040 with development PM Peak'	16:30	17:30	01:00	

Scenario 1: '2024 Observed AM Peak' (FG1: '2024 Observed AM Peak', Plan 1: '2024 Observed AM Peak')

Traffic Flows, Desired

Desired Flow :

	Destination						
	A	B	C	D	Tot.		
Origin	A	0	297	102	114	513	
	B	430	0	77	86	593	
	C	141	72	0	39	252	
	D	128	64	46	0	238	
	Tot.	699	433	225	239	1596	

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 1: 2024 Observed AM Peak
Junction: J1: A5154/A55	
J1:1/1 (short)	216
J1:1/2 (with short)	513(In) 297(Out)
J1:2/1	430
J1:2/2	163
J1:3/1 (with short)	405(In) 136(Out)
J1:3/2 (short)	269
J1:4/1	217
J1:4/2	216
J1:5/1	379
J1:6/1	699
Junction: J2: A5/A55 London Road	
J2:1/1	46
J2:1/2	192
J2:2/1 (with short)	252(In) 213(Out)
J2:2/2 (short)	39
J2:3/1 (with short)	379(In) 200(Out)
J2:3/2 (short)	179
J2:4/1	225
J2:5/1	239
J2:6/1	405

Full Input Data And Results

Lane Saturation Flows

Junction: J1: A5154/A55								
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 (A5154 Victoria Road (N) Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
J1:1/2 (A5154 Victoria Road (N) Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
J1:2/1 (A5154 Victoria Road (S) Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
J1:2/2 (A5154 Victoria Road (S) Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/1 (A55 London Road Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/2 (A55 London Road Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
J1:4/1	Infinite Saturation Flow						Inf	Inf
J1:4/2	Infinite Saturation Flow						Inf	Inf
J1:5/1	Infinite Saturation Flow						Inf	Inf
J1:6/1	Infinite Saturation Flow						Inf	Inf

Junction: J2: A5/A55 London Road								
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 (A55 (N) Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
J2:1/2 (A55 (N) Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
J2:2/1 (A5 London Road Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
J2:2/2 (A5 London Road Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
J2:3/1 (A55 Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
J2:3/2 (A55 Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
J2:4/1	This lane uses a directly entered Saturation Flow						1900	1900
J2:5/1	Infinite Saturation Flow						Inf	Inf
J2:6/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 2: '2024 Observed Inter Peak' (FG2: '2024 Observed Inter Peak', Plan 1: '2024 Observed AM Peak')

Traffic Flows, Desired

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	284	73	140	497
	B	252	0	121	218	591
	C	132	98	0	52	282
	D	112	81	51	0	244
	Tot.	496	463	245	410	1614

Traffic Lane Flows

Lane	Scenario 2: 2024 Observed Inter Peak
Junction: J1: A5154/A55	
J1:1/1 (short)	213
J1:1/2 (with short)	497(In) 284(Out)
J1:2/1	252
J1:2/2	339
J1:3/1 (with short)	423(In) 179(Out)
J1:3/2 (short)	244
J1:4/1	232
J1:4/2	231
J1:5/1	552
J1:6/1	496
Junction: J2: A5/A55 London Road	
J2:1/1	51
J2:1/2	193
J2:2/1 (with short)	282(In) 230(Out)
J2:2/2 (short)	52
J2:3/1 (with short)	552(In) 358(Out)
J2:3/2 (short)	194
J2:4/1	245
J2:5/1	410
J2:6/1	423

Full Input Data And Results

Lane Saturation Flows

Junction: J1: A5154/A55								
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 (A5154 Victoria Road (N) Lane 1)							This lane uses a directly entered Saturation Flow	
J1:1/2 (A5154 Victoria Road (N) Lane 2)							1900	1900
J1:2/1 (A5154 Victoria Road (S) Lane 1)							This lane uses a directly entered Saturation Flow	
J1:2/2 (A5154 Victoria Road (S) Lane 2)							1900	1900
J1:3/1 (A55 London Road Lane 1)							This lane uses a directly entered Saturation Flow	
J1:3/2 (A55 London Road Lane 2)							1900	1900
J1:4/1							Infinite Saturation Flow	
J1:4/2							Inf	Inf
J1:5/1							Infinite Saturation Flow	
J1:6/1							Inf	Inf

Junction: J2: A5/A55 London Road								
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 (A55 (N) Lane 1)							This lane uses a directly entered Saturation Flow	
J2:1/2 (A55 (N) Lane 2)							1900	1900
J2:2/1 (A5 London Road Lane 1)							This lane uses a directly entered Saturation Flow	
J2:2/2 (A5 London Road Lane 2)							1900	1900
J2:3/1 (A55 Lane 1)							This lane uses a directly entered Saturation Flow	
J2:3/2 (A55 Lane 2)							1900	1900
J2:4/1							This lane uses a directly entered Saturation Flow	
J2:5/1							1900	1900
J2:6/1							Infinite Saturation Flow	
							Inf	Inf

Full Input Data And Results

Scenario 3: '2024 Observed PM Peak' (FG3: '2024 Observed PM Peak', Plan 1: '2024 Observed AM Peak')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	340	114	140	594
	B	372	0	97	120	589
	C	168	84	0	36	288
	D	124	59	46	0	229
	Tot.	664	483	257	296	1700

Traffic Lane Flows

Lane	Scenario 3: 2024 Observed PM Peak
Junction: J1: A5154/A55	
J1:1/1 (short)	254
J1:1/2 (with short)	594(In) 340(Out)
J1:2/1	372
J1:2/2	217
J1:3/1 (with short)	435(In) 143(Out)
J1:3/2 (short)	292
J1:4/1	242
J1:4/2	241
J1:5/1	471
J1:6/1	664
Junction: J2: A5/A55 London Road	
J2:1/1	46
J2:1/2	183
J2:2/1 (with short)	288(In) 252(Out)
J2:2/2 (short)	36
J2:3/1 (with short)	471(In) 260(Out)
J2:3/2 (short)	211
J2:4/1	257
J2:5/1	296
J2:6/1	435

Full Input Data And Results

Lane Saturation Flows

Junction: J1: A5154/A55								
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 (A5154 Victoria Road (N) Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
J1:1/2 (A5154 Victoria Road (N) Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
J1:2/1 (A5154 Victoria Road (S) Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
J1:2/2 (A5154 Victoria Road (S) Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/1 (A55 London Road Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/2 (A55 London Road Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
J1:4/1	Infinite Saturation Flow						Inf	Inf
J1:4/2	Infinite Saturation Flow						Inf	Inf
J1:5/1	Infinite Saturation Flow						Inf	Inf
J1:6/1	Infinite Saturation Flow						Inf	Inf

Junction: J2: A5/A55 London Road								
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 (A55 (N) Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
J2:1/2 (A55 (N) Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
J2:2/1 (A5 London Road Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
J2:2/2 (A5 London Road Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
J2:3/1 (A55 Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
J2:3/2 (A55 Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
J2:4/1	This lane uses a directly entered Saturation Flow						1900	1900
J2:5/1	Infinite Saturation Flow						Inf	Inf
J2:6/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 4: '2030 Background AM Peak' (FG4: '2030 Background AM Peak', Plan 1: '2024 Observed AM Peak')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	350	108	120	578
	B	467	0	80	90	637
	C	148	76	0	41	265
	D	135	67	48	0	250
	Tot.	750	493	236	251	1730

Traffic Lane Flows

Lane	Scenario 4: 2030 Background AM Peak
Junction: J1: A5154/A55	
J1:1/1 (short)	228
J1:1/2 (with short)	578(In) 350(Out)
J1:2/1	467
J1:2/2	170
J1:3/1 (with short)	426(In) 143(Out)
J1:3/2 (short)	283
J1:4/1	247
J1:4/2	246
J1:5/1	398
J1:6/1	750
Junction: J2: A5/A55 London Road	
J2:1/1	48
J2:1/2	202
J2:2/1 (with short)	265(In) 224(Out)
J2:2/2 (short)	41
J2:3/1 (with short)	398(In) 210(Out)
J2:3/2 (short)	188
J2:4/1	236
J2:5/1	251
J2:6/1	426

Full Input Data And Results

Lane Saturation Flows

Junction: J1: A5154/A55								
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 (A5154 Victoria Road (N) Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
J1:1/2 (A5154 Victoria Road (N) Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
J1:2/1 (A5154 Victoria Road (S) Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
J1:2/2 (A5154 Victoria Road (S) Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/1 (A55 London Road Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/2 (A55 London Road Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
J1:4/1	Infinite Saturation Flow						Inf	Inf
J1:4/2	Infinite Saturation Flow						Inf	Inf
J1:5/1	Infinite Saturation Flow						Inf	Inf
J1:6/1	Infinite Saturation Flow						Inf	Inf

Junction: J2: A5/A55 London Road								
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 (A55 (N) Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
J2:1/2 (A55 (N) Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
J2:2/1 (A5 London Road Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
J2:2/2 (A5 London Road Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
J2:3/1 (A55 Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
J2:3/2 (A55 Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
J2:4/1	This lane uses a directly entered Saturation Flow						1900	1900
J2:5/1	Infinite Saturation Flow						Inf	Inf
J2:6/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 5: '2030 Background Inter Peak' (FG5: '2030 Background Inter Peak', Plan 1: '2024 Observed AM Peak')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	333	76	146	555
	B	276	0	126	228	630
	C	138	102	0	54	294
	D	117	85	53	0	255
	Tot.	531	520	255	428	1734

Traffic Lane Flows

Lane	Scenario 5: 2030 Background Inter Peak
Junction: J1: A5154/A55	
J1:1/1 (short)	222
J1:1/2 (with short)	555(In) 333(Out)
J1:2/1	276
J1:2/2	354
J1:3/1 (with short)	442(In) 187(Out)
J1:3/2 (short)	255
J1:4/1	261
J1:4/2	259
J1:5/1	576
J1:6/1	531
Junction: J2: A5/A55 London Road	
J2:1/1	53
J2:1/2	202
J2:2/1 (with short)	294(In) 240(Out)
J2:2/2 (short)	54
J2:3/1 (with short)	576(In) 374(Out)
J2:3/2 (short)	202
J2:4/1	255
J2:5/1	428
J2:6/1	442

Full Input Data And Results

Lane Saturation Flows

Junction: J1: A5154/A55								
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 (A5154 Victoria Road (N) Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
J1:1/2 (A5154 Victoria Road (N) Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
J1:2/1 (A5154 Victoria Road (S) Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
J1:2/2 (A5154 Victoria Road (S) Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/1 (A55 London Road Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/2 (A55 London Road Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
J1:4/1	Infinite Saturation Flow						Inf	Inf
J1:4/2	Infinite Saturation Flow						Inf	Inf
J1:5/1	Infinite Saturation Flow						Inf	Inf
J1:6/1	Infinite Saturation Flow						Inf	Inf

Junction: J2: A5/A55 London Road								
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 (A55 (N) Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
J2:1/2 (A55 (N) Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
J2:2/1 (A5 London Road Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
J2:2/2 (A5 London Road Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
J2:3/1 (A55 Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
J2:3/2 (A55 Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
J2:4/1	This lane uses a directly entered Saturation Flow						1900	1900
J2:5/1	Infinite Saturation Flow						Inf	Inf
J2:6/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 6: '2030 Background PM Peak' (FG6: '2030 Background PM Peak', Plan 1: '2024 Observed AM Peak')

Traffic Flows, Desired

Desired Flow :

	Destination					
	A	B	C	D	Tot.	
Origin	A	0	388	120	147	655
	B	479	0	101	126	706
	C	177	88	0	38	303
	D	130	61	48	0	239
	Tot.	786	537	269	311	1903

Traffic Lane Flows

Lane	Scenario 6: 2030 Background PM Peak
Junction: J1: A5154/A55	
J1:1/1 (short)	267
J1:1/2 (with short)	655(In) 388(Out)
J1:2/1	479
J1:2/2	227
J1:3/1 (with short)	456(In) 149(Out)
J1:3/2 (short)	307
J1:4/1	269
J1:4/2	268
J1:5/1	494
J1:6/1	786
Junction: J2: A5/A55 London Road	
J2:1/1	48
J2:1/2	191
J2:2/1 (with short)	303(In) 265(Out)
J2:2/2 (short)	38
J2:3/1 (with short)	494(In) 273(Out)
J2:3/2 (short)	221
J2:4/1	269
J2:5/1	311
J2:6/1	456

Full Input Data And Results

Lane Saturation Flows

Junction: J1: A5154/A55								
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 (A5154 Victoria Road (N) Lane 1)							This lane uses a directly entered Saturation Flow	
J1:1/2 (A5154 Victoria Road (N) Lane 2)							1900	1900
J1:2/1 (A5154 Victoria Road (S) Lane 1)							This lane uses a directly entered Saturation Flow	
J1:2/2 (A5154 Victoria Road (S) Lane 2)							1900	1900
J1:3/1 (A55 London Road Lane 1)							This lane uses a directly entered Saturation Flow	
J1:3/2 (A55 London Road Lane 2)							1900	1900
J1:4/1							Infinite Saturation Flow	
J1:4/2							Inf	Inf
J1:5/1							Infinite Saturation Flow	
J1:6/1							Inf	Inf

Junction: J2: A5/A55 London Road								
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 (A55 (N) Lane 1)							This lane uses a directly entered Saturation Flow	
J2:1/2 (A55 (N) Lane 2)							1900	1900
J2:2/1 (A5 London Road Lane 1)							This lane uses a directly entered Saturation Flow	
J2:2/2 (A5 London Road Lane 2)							1900	1900
J2:3/1 (A55 Lane 1)							This lane uses a directly entered Saturation Flow	
J2:3/2 (A55 Lane 2)							1900	1900
J2:4/1							This lane uses a directly entered Saturation Flow	
J2:5/1							1900	1900
J2:6/1							Infinite Saturation Flow	
							Inf	Inf
							Infinite Saturation Flow	
							Inf	Inf

Full Input Data And Results

Scenario 7: '2030 with development AM Peak' (FG7: '2030 with development AM Peak', Plan 1: '2024 Observed AM Peak')

Traffic Flows, Desired

Desired Flow :

	Destination					
	A	B	C	D	Tot.	
Origin	0	426	105	122	653	
A	482	0	83	98	663	
B	145	79	0	41	265	
C	139	76	48	0	263	
D	766	581	236	261	1844	
Tot.						

Traffic Lane Flows

Lane	Scenario 7: 2030 with development AM Peak
Junction: J1: A5154/A55	
J1:1/1 (short)	227
J1:1/2 (with short)	653(In) 426(Out)
J1:2/1	482
J1:2/2	181
J1:3/1 (with short)	439(In) 155(Out)
J1:3/2 (short)	284
J1:4/1	291
J1:4/2	290
J1:5/1	408
J1:6/1	766
Junction: J2: A5/A55 London Road	
J2:1/1	48
J2:1/2	215
J2:2/1 (with short)	265(In) 224(Out)
J2:2/2 (short)	41
J2:3/1 (with short)	408(In) 220(Out)
J2:3/2 (short)	188
J2:4/1	236
J2:5/1	261
J2:6/1	439

Full Input Data And Results

Lane Saturation Flows

Junction: J1: A5154/A55								
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 (A5154 Victoria Road (N) Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
J1:1/2 (A5154 Victoria Road (N) Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
J1:2/1 (A5154 Victoria Road (S) Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
J1:2/2 (A5154 Victoria Road (S) Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/1 (A55 London Road Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/2 (A55 London Road Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
J1:4/1	Infinite Saturation Flow						Inf	Inf
J1:4/2	Infinite Saturation Flow						Inf	Inf
J1:5/1	Infinite Saturation Flow						Inf	Inf
J1:6/1	Infinite Saturation Flow						Inf	Inf

Junction: J2: A5/A55 London Road								
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 (A55 (N) Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
J2:1/2 (A55 (N) Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
J2:2/1 (A5 London Road Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
J2:2/2 (A5 London Road Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
J2:3/1 (A55 Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
J2:3/2 (A55 Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
J2:4/1	This lane uses a directly entered Saturation Flow						1900	1900
J2:5/1	Infinite Saturation Flow						Inf	Inf
J2:6/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 8: '2030 with development Inter Peak' (FG8: '2030 with development Inter Peak', Plan 1: '2024 Observed AM Peak')

Traffic Flows, Desired

Desired Flow :

	Destination					
	A	B	C	D	Tot.	
Origin	A	0	354	75	146	575
	B	307	0	127	229	663
	C	137	103	0	54	294
	D	118	88	53	0	259
	Tot.	562	545	255	429	1791

Traffic Lane Flows

Lane	Scenario 8: 2030 with development Inter Peak
Junction: J1: A5154/A55	
J1:1/1 (short)	221
J1:1/2 (with short)	575(In) 354(Out)
J1:2/1	307
J1:2/2	356
J1:3/1 (with short)	446(In) 191(Out)
J1:3/2 (short)	255
J1:4/1	273
J1:4/2	272
J1:5/1	577
J1:6/1	562
Junction: J2: A5/A55 London Road	
J2:1/1	53
J2:1/2	206
J2:2/1 (with short)	294(In) 240(Out)
J2:2/2 (short)	54
J2:3/1 (with short)	577(In) 375(Out)
J2:3/2 (short)	202
J2:4/1	255
J2:5/1	429
J2:6/1	446

Full Input Data And Results

Lane Saturation Flows

Junction: J1: A5154/A55								
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 (A5154 Victoria Road (N) Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
J1:1/2 (A5154 Victoria Road (N) Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
J1:2/1 (A5154 Victoria Road (S) Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
J1:2/2 (A5154 Victoria Road (S) Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/1 (A55 London Road Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/2 (A55 London Road Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
J1:4/1	Infinite Saturation Flow						Inf	Inf
J1:4/2	Infinite Saturation Flow						Inf	Inf
J1:5/1	Infinite Saturation Flow						Inf	Inf
J1:6/1	Infinite Saturation Flow						Inf	Inf

Junction: J2: A5/A55 London Road								
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 (A55 (N) Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
J2:1/2 (A55 (N) Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
J2:2/1 (A5 London Road Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
J2:2/2 (A5 London Road Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
J2:3/1 (A55 Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
J2:3/2 (A55 Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
J2:4/1	This lane uses a directly entered Saturation Flow						1900	1900
J2:5/1	Infinite Saturation Flow						Inf	Inf
J2:6/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 9: '2030 with development PM Peak' (FG9: '2030 with development PM Peak', Plan 1: '2024 Observed AM Peak')

Traffic Flows, Desired

Desired Flow :

	Destination					
	A	B	C	D	Tot.	
Origin	A	0	399	119	148	666
	B	537	0	102	127	766
	C	177	88	0	38	303
	D	130	61	48	0	239
	Tot.	844	548	269	313	1974

Traffic Lane Flows

Lane	Scenario 9: 2030 with development PM Peak
Junction: J1: A5154/A55	
J1:1/1 (short)	267
J1:1/2 (with short)	666(In) 399(Out)
J1:2/1	537
J1:2/2	229
J1:3/1 (with short)	456(In) 149(Out)
J1:3/2 (short)	307
J1:4/1	275
J1:4/2	273
J1:5/1	496
J1:6/1	844
Junction: J2: A5/A55 London Road	
J2:1/1	48
J2:1/2	191
J2:2/1 (with short)	303(In) 265(Out)
J2:2/2 (short)	38
J2:3/1 (with short)	496(In) 275(Out)
J2:3/2 (short)	221
J2:4/1	269
J2:5/1	313
J2:6/1	456

Full Input Data And Results

Lane Saturation Flows

Junction: J1: A5154/A55								
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 (A5154 Victoria Road (N) Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
J1:1/2 (A5154 Victoria Road (N) Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
J1:2/1 (A5154 Victoria Road (S) Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
J1:2/2 (A5154 Victoria Road (S) Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/1 (A55 London Road Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/2 (A55 London Road Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
J1:4/1	Infinite Saturation Flow						Inf	Inf
J1:4/2	Infinite Saturation Flow						Inf	Inf
J1:5/1	Infinite Saturation Flow						Inf	Inf
J1:6/1	Infinite Saturation Flow						Inf	Inf

Junction: J2: A5/A55 London Road								
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 (A55 (N) Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
J2:1/2 (A55 (N) Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
J2:2/1 (A5 London Road Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
J2:2/2 (A5 London Road Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
J2:3/1 (A55 Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
J2:3/2 (A55 Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
J2:4/1	This lane uses a directly entered Saturation Flow						1900	1900
J2:5/1	Infinite Saturation Flow						Inf	Inf
J2:6/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 10: '2040 Background AM Peak' (FG10: '2040 Background AM Peak', Plan 1: '2024 Observed AM Peak')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	368	114	127	609
	B	493	0	86	96	675
	C	158	80	0	43	281
	D	143	71	51	0	265
	Tot.	794	519	251	266	1830

Traffic Lane Flows

Lane	Scenario 10: 2040 Background AM Peak
Junction: J1: A5154/A55	
J1:1/1 (short)	241
J1:1/2 (with short)	609(In) 368(Out)
J1:2/1	493
J1:2/2	182
J1:3/1 (with short)	452(In) 151(Out)
J1:3/2 (short)	301
J1:4/1	260
J1:4/2	259
J1:5/1	423
J1:6/1	794
Junction: J2: A5/A55 London Road	
J2:1/1	51
J2:1/2	214
J2:2/1 (with short)	281(In) 238(Out)
J2:2/2 (short)	43
J2:3/1 (with short)	423(In) 223(Out)
J2:3/2 (short)	200
J2:4/1	251
J2:5/1	266
J2:6/1	452

Full Input Data And Results

Lane Saturation Flows

Junction: J1: A5154/A55								
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 (A5154 Victoria Road (N) Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
J1:1/2 (A5154 Victoria Road (N) Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
J1:2/1 (A5154 Victoria Road (S) Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
J1:2/2 (A5154 Victoria Road (S) Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/1 (A55 London Road Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/2 (A55 London Road Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
J1:4/1	Infinite Saturation Flow						Inf	Inf
J1:4/2	Infinite Saturation Flow						Inf	Inf
J1:5/1	Infinite Saturation Flow						Inf	Inf
J1:6/1	Infinite Saturation Flow						Inf	Inf

Junction: J2: A5/A55 London Road								
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 (A55 (N) Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
J2:1/2 (A55 (N) Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
J2:2/1 (A5 London Road Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
J2:2/2 (A5 London Road Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
J2:3/1 (A55 Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
J2:3/2 (A55 Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
J2:4/1	This lane uses a directly entered Saturation Flow						1900	1900
J2:5/1	Infinite Saturation Flow						Inf	Inf
J2:6/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 11: '2040 Background Inter Peak' (FG11: '2040 Background Inter Peak', Plan 1: '2024 Observed AM Peak')

Traffic Flows, Desired

Desired Flow :

	Destination					
	A	B	C	D	Tot.	
Origin	0	346	79	153	578	
A	288	0	132	238	658	
B	144	106	0	57	307	
C	122	89	56	0	267	
D	554	541	267	448	1810	
Tot.						

Traffic Lane Flows

Lane	Scenario 11: 2040 Background Inter Peak
Junction: J1: A5154/A55	
J1:1/1 (short)	232
J1:1/2 (with short)	578(In) 346(Out)
J1:2/1	288
J1:2/2	370
J1:3/1 (with short)	461(In) 195(Out)
J1:3/2 (short)	266
J1:4/1	271
J1:4/2	270
J1:5/1	602
J1:6/1	554
Junction: J2: A5/A55 London Road	
J2:1/1	56
J2:1/2	211
J2:2/1 (with short)	307(In) 250(Out)
J2:2/2 (short)	57
J2:3/1 (with short)	602(In) 391(Out)
J2:3/2 (short)	211
J2:4/1	267
J2:5/1	448
J2:6/1	461

Full Input Data And Results

Lane Saturation Flows

Junction: J1: A5154/A55								
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 (A5154 Victoria Road (N) Lane 1)							This lane uses a directly entered Saturation Flow	
J1:1/2 (A5154 Victoria Road (N) Lane 2)							1900	1900
J1:2/1 (A5154 Victoria Road (S) Lane 1)							This lane uses a directly entered Saturation Flow	
J1:2/2 (A5154 Victoria Road (S) Lane 2)							1900	1900
J1:3/1 (A55 London Road Lane 1)							This lane uses a directly entered Saturation Flow	
J1:3/2 (A55 London Road Lane 2)							1900	1900
J1:4/1							Infinite Saturation Flow	
J1:4/2							Inf	Inf
J1:5/1							Infinite Saturation Flow	
J1:6/1							Inf	Inf

Junction: J2: A5/A55 London Road								
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 (A55 (N) Lane 1)							This lane uses a directly entered Saturation Flow	
J2:1/2 (A55 (N) Lane 2)							1900	1900
J2:2/1 (A5 London Road Lane 1)							This lane uses a directly entered Saturation Flow	
J2:2/2 (A5 London Road Lane 2)							1900	1900
J2:3/1 (A55 Lane 1)							This lane uses a directly entered Saturation Flow	
J2:3/2 (A55 Lane 2)							1900	1900
J2:4/1							This lane uses a directly entered Saturation Flow	
J2:5/1							1900	1900
J2:6/1							Infinite Saturation Flow	
							Inf	Inf
							Infinite Saturation Flow	
							Inf	Inf

Full Input Data And Results

Scenario 12: '2040 Background PM Peak' (FG12: '2040 Background PM Peak', Plan 1: '2024 Observed AM Peak')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	407	126	155	688
	B	500	0	107	133	740
	C	185	93	0	40	318
	D	137	65	51	0	253
	Tot.	822	565	284	328	1999

Traffic Lane Flows

Lane	Scenario 12: 2040 Background PM Peak
Junction: J1: A5154/A55	
J1:1/1 (short)	281
J1:1/2 (with short)	688(In) 407(Out)
J1:2/1	500
J1:2/2	240
J1:3/1 (with short)	480(In) 158(Out)
J1:3/2 (short)	322
J1:4/1	284
J1:4/2	281
J1:5/1	521
J1:6/1	822
Junction: J2: A5/A55 London Road	
J2:1/1	51
J2:1/2	202
J2:2/1 (with short)	318(In) 278(Out)
J2:2/2 (short)	40
J2:3/1 (with short)	521(In) 288(Out)
J2:3/2 (short)	233
J2:4/1	284
J2:5/1	328
J2:6/1	480

Full Input Data And Results

Lane Saturation Flows

Junction: J1: A5154/A55								
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 (A5154 Victoria Road (N) Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
J1:1/2 (A5154 Victoria Road (N) Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
J1:2/1 (A5154 Victoria Road (S) Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
J1:2/2 (A5154 Victoria Road (S) Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/1 (A55 London Road Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/2 (A55 London Road Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
J1:4/1	Infinite Saturation Flow						Inf	Inf
J1:4/2	Infinite Saturation Flow						Inf	Inf
J1:5/1	Infinite Saturation Flow						Inf	Inf
J1:6/1	Infinite Saturation Flow						Inf	Inf

Junction: J2: A5/A55 London Road								
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 (A55 (N) Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
J2:1/2 (A55 (N) Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
J2:2/1 (A5 London Road Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
J2:2/2 (A5 London Road Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
J2:3/1 (A55 Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
J2:3/2 (A55 Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
J2:4/1	This lane uses a directly entered Saturation Flow						1900	1900
J2:5/1	Infinite Saturation Flow						Inf	Inf
J2:6/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 13: '2040 with development AM Peak' (FG13: '2040 with development AM Peak', Plan 1: '2024 Observed AM Peak')

Traffic Flows, Desired

Desired Flow :

	Destination					
	A	B	C	D	Tot.	
Origin	A	0	443	112	130	685
	B	508	0	88	103	699
	C	154	84	0	43	281
	D	147	79	51	0	277
	Tot.	809	606	251	276	1942

Traffic Lane Flows

Lane	Scenario 13: 2040 with development AM Peak
Junction: J1: A5154/A55	
J1:1/1 (short)	242
J1:1/2 (with short)	685(In) 443(Out)
J1:2/1	508
J1:2/2	191
J1:3/1 (with short)	464(In) 163(Out)
J1:3/2 (short)	301
J1:4/1	304
J1:4/2	302
J1:5/1	433
J1:6/1	809
Junction: J2: A5/A55 London Road	
J2:1/1	51
J2:1/2	226
J2:2/1 (with short)	281(In) 238(Out)
J2:2/2 (short)	43
J2:3/1 (with short)	433(In) 233(Out)
J2:3/2 (short)	200
J2:4/1	251
J2:5/1	276
J2:6/1	464

Full Input Data And Results

Lane Saturation Flows

Junction: J1: A5154/A55								
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 (A5154 Victoria Road (N) Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
J1:1/2 (A5154 Victoria Road (N) Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
J1:2/1 (A5154 Victoria Road (S) Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
J1:2/2 (A5154 Victoria Road (S) Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/1 (A55 London Road Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/2 (A55 London Road Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
J1:4/1	Infinite Saturation Flow						Inf	Inf
J1:4/2	Infinite Saturation Flow						Inf	Inf
J1:5/1	Infinite Saturation Flow						Inf	Inf
J1:6/1	Infinite Saturation Flow						Inf	Inf

Junction: J2: A5/A55 London Road								
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 (A55 (N) Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
J2:1/2 (A55 (N) Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
J2:2/1 (A5 London Road Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
J2:2/2 (A5 London Road Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
J2:3/1 (A55 Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
J2:3/2 (A55 Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
J2:4/1	This lane uses a directly entered Saturation Flow						1900	1900
J2:5/1	Infinite Saturation Flow						Inf	Inf
J2:6/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 14: '2040 with development Inter Peak' (FG14: '2040 with development Inter Peak', Plan 1: '2024 Observed AM Peak')

Traffic Flows, Desired

Desired Flow :

	Destination					
	A	B	C	D	Tot.	
Origin	0	367	79	153	599	
A	319	0	133	240	692	
B	143	107	0	57	307	
C	123	92	56	0	271	
D	585	566	268	450	1869	
Tot.						

Traffic Lane Flows

Lane	Scenario 14: 2040 with development Inter Peak
Junction: J1: A5154/A55	
J1:1/1 (short)	232
J1:1/2 (with short)	599(In) 367(Out)
J1:2/1	319
J1:2/2	373
J1:3/1 (with short)	465(In) 199(Out)
J1:3/2 (short)	266
J1:4/1	284
J1:4/2	282
J1:5/1	605
J1:6/1	585
Junction: J2: A5/A55 London Road	
J2:1/1	56
J2:1/2	215
J2:2/1 (with short)	307(In) 250(Out)
J2:2/2 (short)	57
J2:3/1 (with short)	605(In) 393(Out)
J2:3/2 (short)	212
J2:4/1	268
J2:5/1	450
J2:6/1	465

Full Input Data And Results

Lane Saturation Flows

Junction: J1: A5154/A55								
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 (A5154 Victoria Road (N) Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
J1:1/2 (A5154 Victoria Road (N) Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
J1:2/1 (A5154 Victoria Road (S) Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
J1:2/2 (A5154 Victoria Road (S) Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/1 (A55 London Road Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/2 (A55 London Road Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
J1:4/1	Infinite Saturation Flow						Inf	Inf
J1:4/2	Infinite Saturation Flow						Inf	Inf
J1:5/1	Infinite Saturation Flow						Inf	Inf
J1:6/1	Infinite Saturation Flow						Inf	Inf

Junction: J2: A5/A55 London Road								
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 (A55 (N) Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
J2:1/2 (A55 (N) Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
J2:2/1 (A5 London Road Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
J2:2/2 (A5 London Road Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
J2:3/1 (A55 Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
J2:3/2 (A55 Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
J2:4/1	This lane uses a directly entered Saturation Flow						1900	1900
J2:5/1	Infinite Saturation Flow						Inf	Inf
J2:6/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 15: '2040 with development PM Peak' (FG15: '2040 with development PM Peak', Plan 1: '2024 Observed AM Peak')

Traffic Flows, Desired

Desired Flow :

	Destination					
	A	B	C	D	Tot.	
Origin	A	0	418	126	156	700
	B	558	0	108	135	801
	C	185	93	0	40	318
	D	137	65	51	0	253
	Tot.	880	576	285	331	2072

Traffic Lane Flows

Lane	Scenario 15: 2040 with development PM Peak
Junction: J1: A5154/A55	
J1:1/1 (short)	282
J1:1/2 (with short)	700(In) 418(Out)
J1:2/1	558
J1:2/2	243
J1:3/1 (with short)	480(In) 158(Out)
J1:3/2 (short)	322
J1:4/1	289
J1:4/2	287
J1:5/1	525
J1:6/1	880
Junction: J2: A5/A55 London Road	
J2:1/1	51
J2:1/2	202
J2:2/1 (with short)	318(In) 278(Out)
J2:2/2 (short)	40
J2:3/1 (with short)	525(In) 291(Out)
J2:3/2 (short)	234
J2:4/1	285
J2:5/1	331
J2:6/1	480

Full Input Data And Results

Lane Saturation Flows

Junction: J1: A5154/A55								
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 (A5154 Victoria Road (N) Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
J1:1/2 (A5154 Victoria Road (N) Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
J1:2/1 (A5154 Victoria Road (S) Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
J1:2/2 (A5154 Victoria Road (S) Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/1 (A55 London Road Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
J1:3/2 (A55 London Road Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
J1:4/1	Infinite Saturation Flow						Inf	Inf
J1:4/2	Infinite Saturation Flow						Inf	Inf
J1:5/1	Infinite Saturation Flow						Inf	Inf
J1:6/1	Infinite Saturation Flow						Inf	Inf

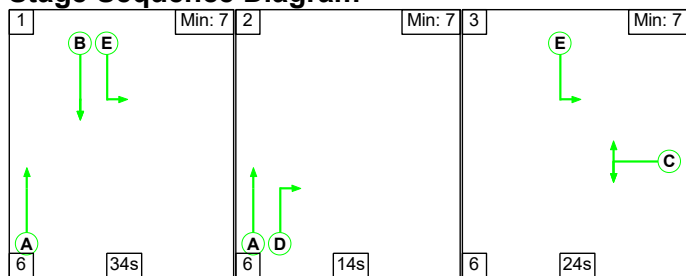
Junction: J2: A5/A55 London Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1 (A55 (N) Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
J2:1/2 (A55 (N) Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
J2:2/1 (A5 London Road Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
J2:2/2 (A5 London Road Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
J2:3/1 (A55 Lane 1)	This lane uses a directly entered Saturation Flow						1900	1900
J2:3/2 (A55 Lane 2)	This lane uses a directly entered Saturation Flow						1900	1900
J2:4/1	This lane uses a directly entered Saturation Flow						1900	1900
J2:5/1	Infinite Saturation Flow						Inf	Inf
J2:6/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 1: '2024 Observed AM Peak' (FG1: '2024 Observed AM Peak', Plan 1: '2024 Observed AM Peak')

C1

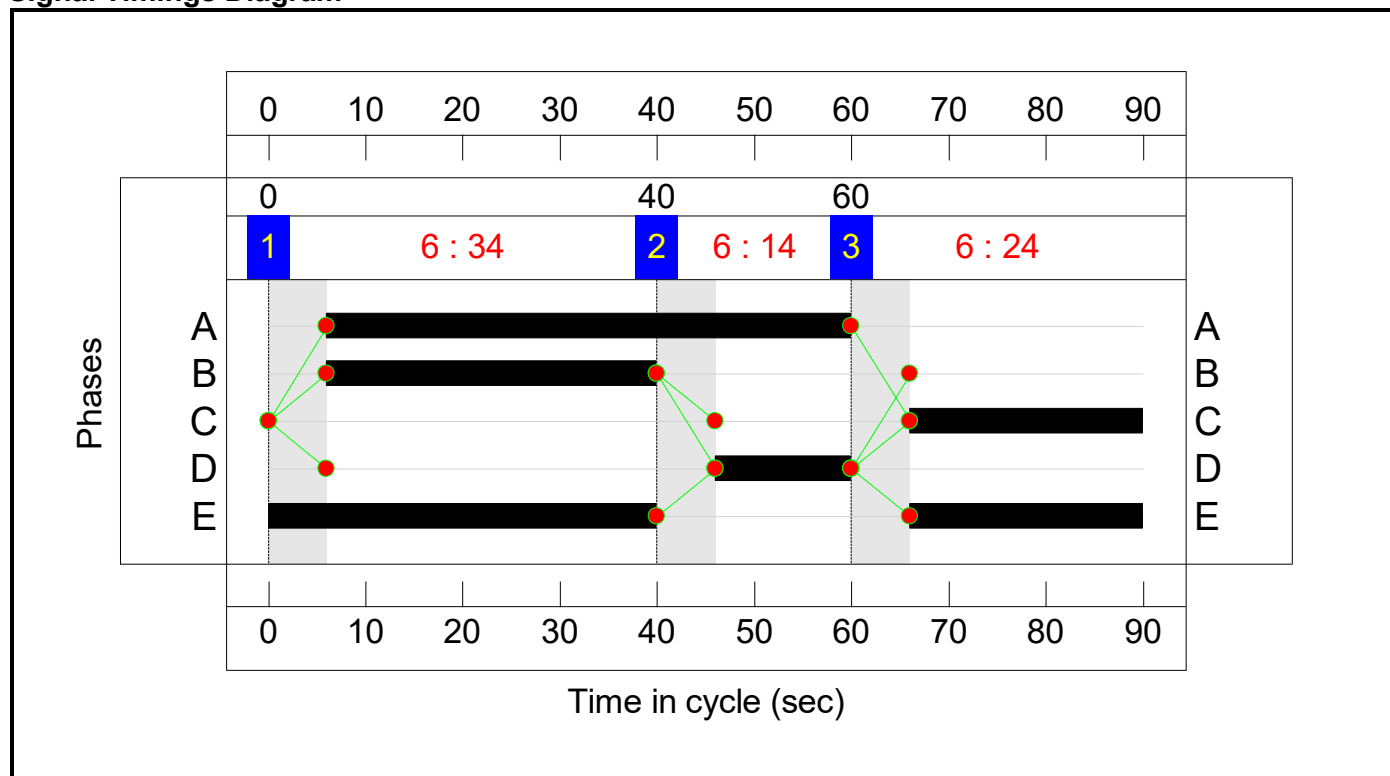
Stage Sequence Diagram



Stage Timings

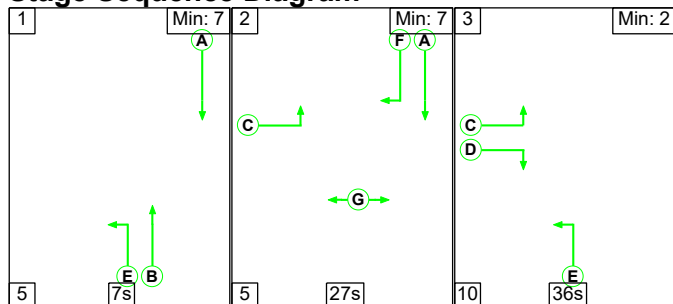
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Duration	34	14	24
Change Point	0	40	60

Signal Timings Diagram



C2

Stage Sequence Diagram

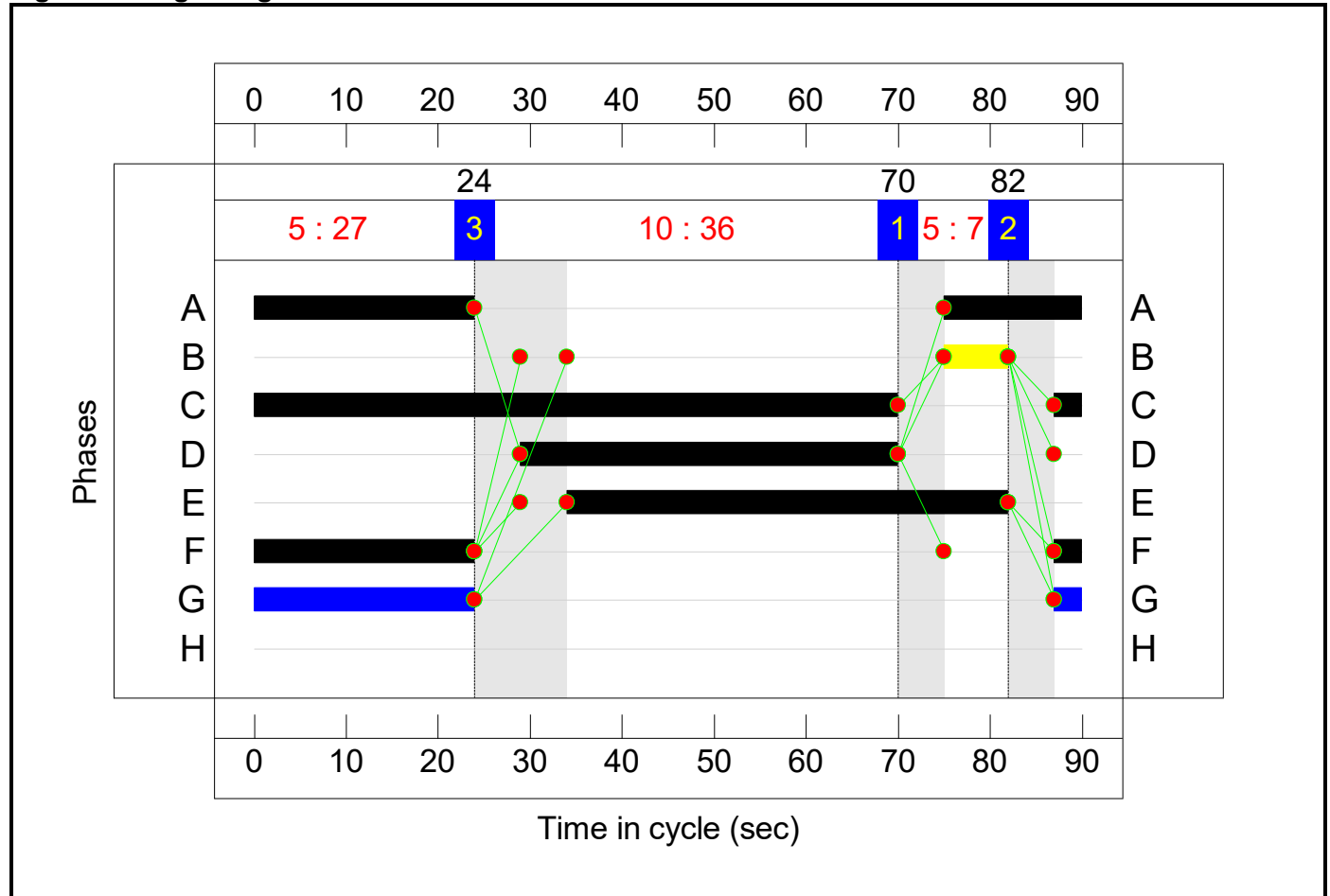


Full Input Data And Results

Stage Timings

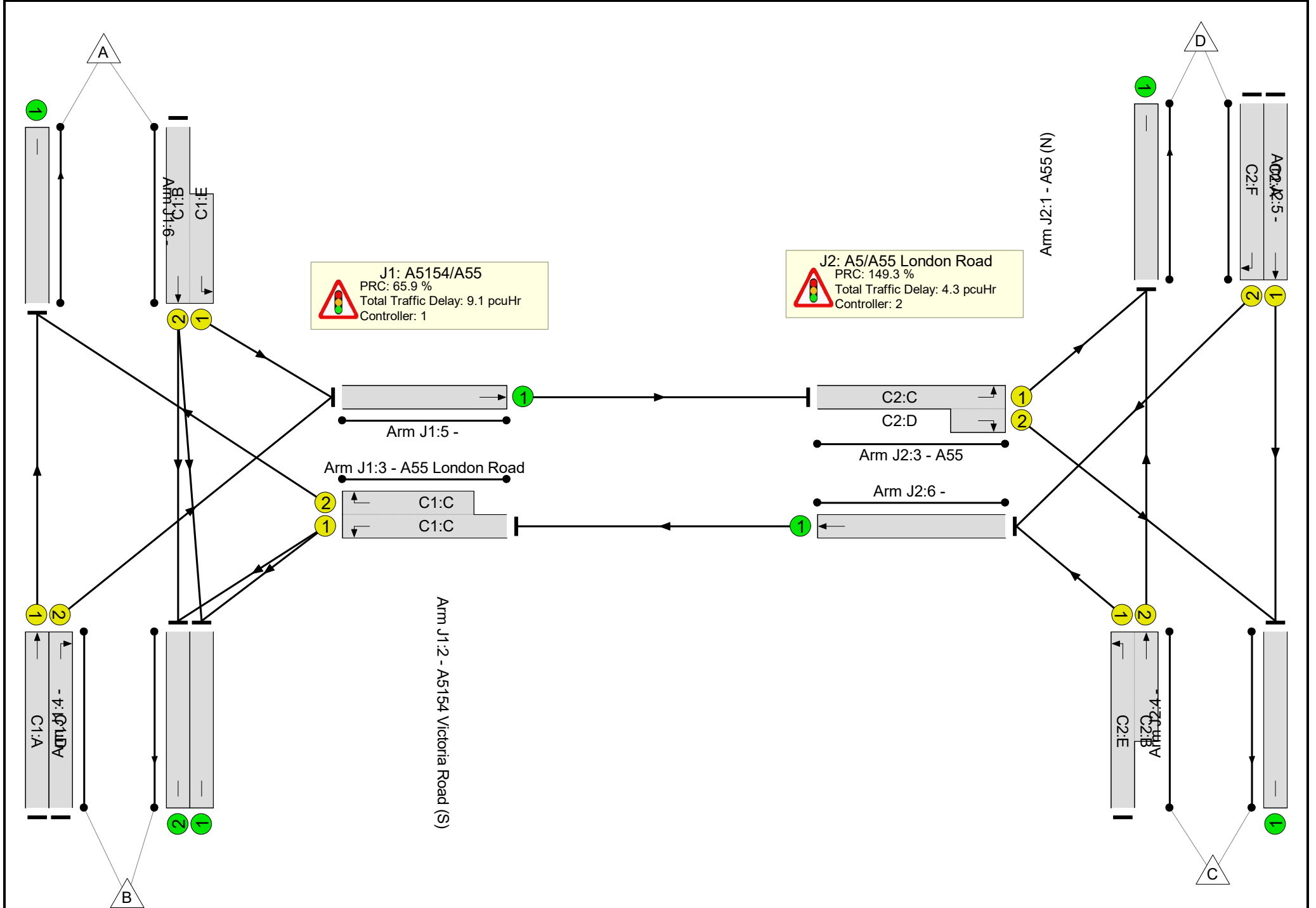
Stage	1	2	3
Duration	7	27	36
Change Point	70	82	24

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

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	-	-	N/A	-	-		-	-	-	-	-	-	54.3%
J1: A5154/A55	-	-	N/A	-	-		-	-	-	-	-	-	54.3%
1/2+1/1	A5154 Victoria Road (N) Ahead Left	U	N/A	N/A	C1:B C1:E		1	34:64	-	513	1900:1900	549+399	54.1 : 54.1%
2/1	A5154 Victoria Road (S) Ahead	U	N/A	N/A	C1:A		1	54	-	430	1900	1161	37.0%
2/2	A5154 Victoria Road (S) Right	U	N/A	N/A	C1:D		1	14	-	163	1900	317	51.5%
3/1+3/2	A55 London Road Left Right	U	N/A	N/A	C1:C		1	24	-	405	1900:1900	251+496	54.3 : 54.3%
4/1		U	N/A	N/A	-		-	-	-	217	Inf	Inf	0.0%
4/2		U	N/A	N/A	-		-	-	-	216	Inf	Inf	0.0%
5/1	Ahead	U	N/A	N/A	-		-	-	-	379	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	699	Inf	Inf	0.0%
J2: A5/A55 London Road	-	-	N/A	-	-		-	-	-	-	-	-	36.1%
1/1	A55 (N) Ahead	U	N/A	N/A	C2:A		1	39	-	46	1900	844	5.4%
1/2	A55 (N) Right	U	N/A	N/A	C2:F		1	27	-	192	1900	591	32.5%
2/1+2/2	A5 London Road Ahead Left	U	N/A	N/A	C2:E C2:B		1	48:7	-	252	1900:1900	922+169	23.1 : 23.1%
3/1+3/2	A55 Right Left	U	N/A	N/A	C2:C C2:D		1	73:41	-	379	1900:1900	554+496	36.1 : 36.1%
4/1		U	N/A	N/A	-		-	-	-	225	1900	1900	11.8%
5/1		U	N/A	N/A	-		-	-	-	239	Inf	Inf	0.0%
6/1	Ahead	U	N/A	N/A	-		-	-	-	405	Inf	Inf	0.0%

Full Input Data And Results

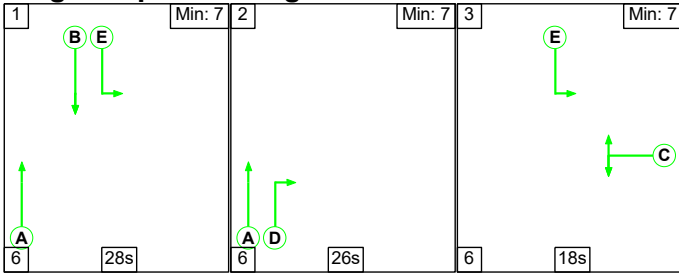
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	10.6	2.8	0.0	13.4	-	-	-	-
J1: A5154/A55	-	-	0	0	0	7.1	2.0	0.0	9.1	-	-	-	-
1/2+1/1	513	513	-	-	-	1.9	0.6	-	2.5 (2.0+0.5)	17.3 (24.0:8.1)	5.4	0.6	6.0
2/1	430	430	-	-	-	1.1	0.3	-	1.3	11.3	5.4	0.3	5.7
2/2	163	163	-	-	-	1.5	0.5	-	2.1	45.8	3.7	0.5	4.2
3/1+3/2	405	405	-	-	-	2.6	0.6	-	3.2 (1.0+2.2)	28.5 (27.2:29.2)	5.6	0.6	6.2
4/1	217	217	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	216	216	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	379	379	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	699	699	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: A5/A55 London Road	-	-	0	0	0	3.5	0.8	0.0	4.3	-	-	-	-
1/1	46	46	-	-	-	0.2	0.0	-	0.2	16.5	0.7	0.0	0.7
1/2	192	192	-	-	-	1.3	0.2	-	1.5	28.3	3.6	0.2	3.9
2/1+2/2	252	252	-	-	-	1.0	0.2	-	1.2 (0.7+0.4)	17.0 (12.7:40.3)	2.7	0.2	2.9
3/1+3/2	379	379	-	-	-	1.1	0.3	-	1.3 (0.2+1.1)	12.7 (4.2:22.3)	3.4	0.3	3.7
4/1	225	225	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
5/1	239	239	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	405	405	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1			PRC for Signalled Lanes (%):		65.9	Total Delay for Signalled Lanes (pcuHr):			9.10	Cycle Time (s):		90	
C2			PRC for Signalled Lanes (%):		149.3	Total Delay for Signalled Lanes (pcuHr):			4.25	Cycle Time (s):		90	
			PRC Over All Lanes (%):		65.9	Total Delay Over All Lanes(pcuHr):			13.41				

Full Input Data And Results

Scenario 2: '2024 Observed Inter Peak' (FG2: '2024 Observed Inter Peak', Plan 1: '2024 Observed AM Peak')

C1

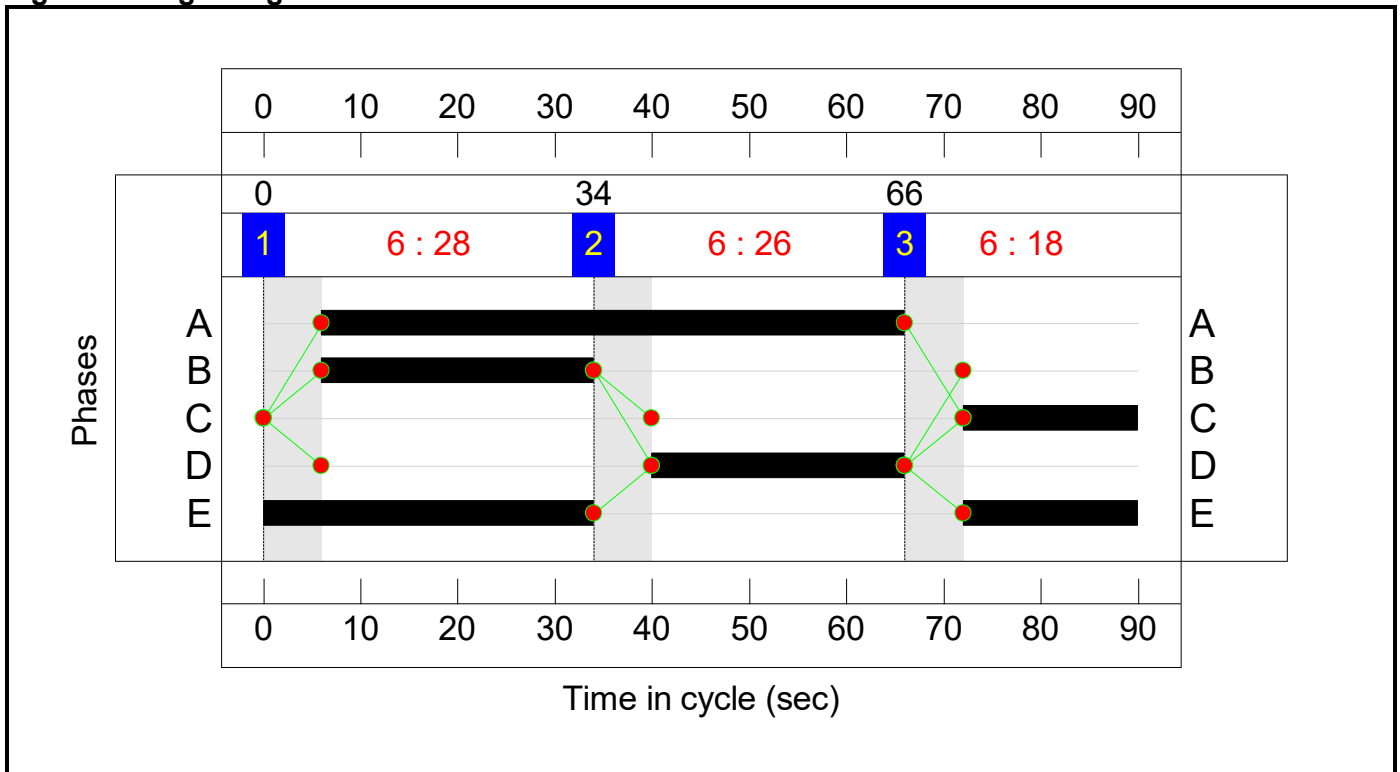
Stage Sequence Diagram



Stage Timings

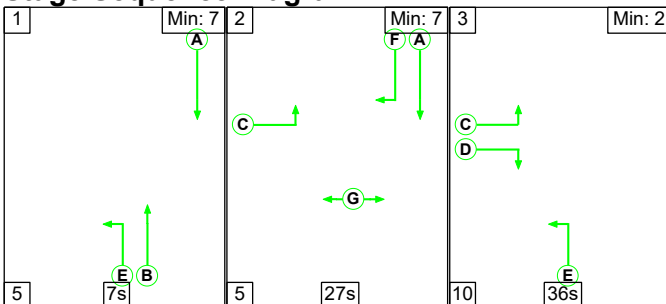
Stage	1	2	3
Duration	28	26	18
Change Point	0	34	66

Signal Timings Diagram



C2

Stage Sequence Diagram

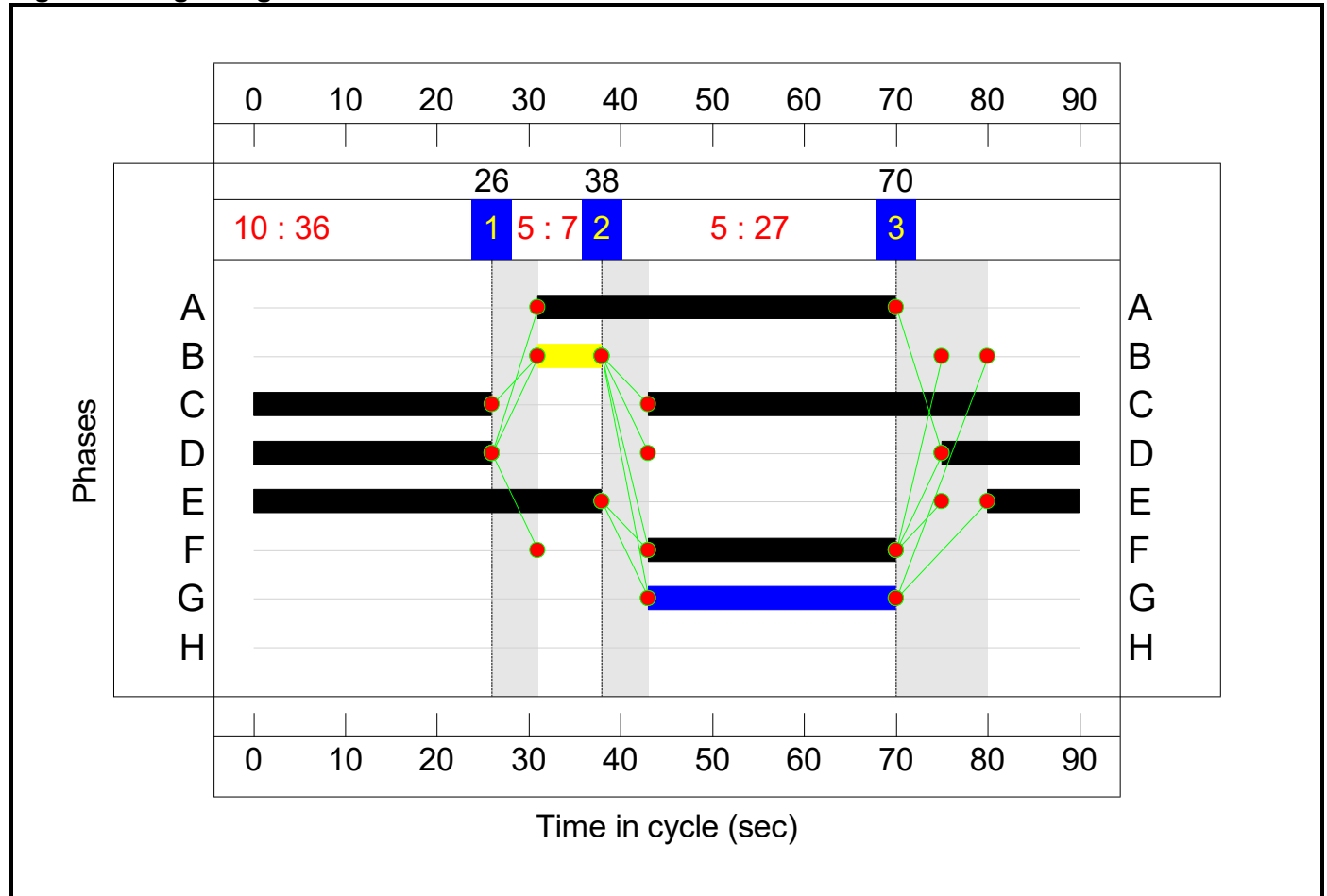


Full Input Data And Results

Stage Timings

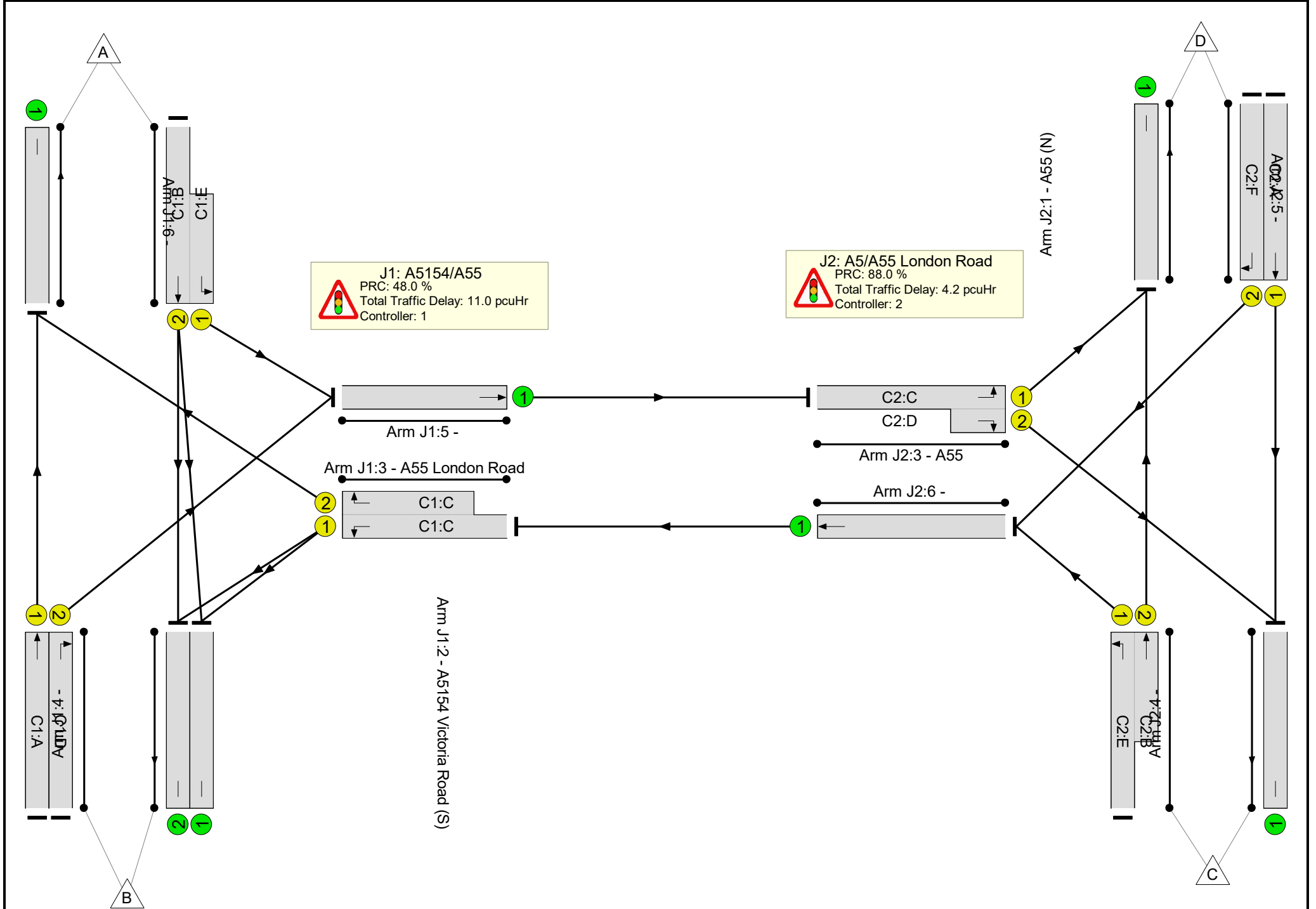
Stage	1	2	3
Duration	7	27	36
Change Point	26	38	70

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

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	-	-	N/A	-	-		-	-	-	-	-	-	60.8%
J1: A5154/A55	-	-	N/A	-	-		-	-	-	-	-	-	60.8%
1/2+1/1	A5154 Victoria Road (N) Ahead Left	U	N/A	N/A	C1:B C1:E		1	28:52	-	497	1900:1900	473+355	60.0 : 60.0%
2/1	A5154 Victoria Road (S) Ahead	U	N/A	N/A	C1:A		1	60	-	252	1900	1288	19.6%
2/2	A5154 Victoria Road (S) Right	U	N/A	N/A	C1:D		1	26	-	339	1900	570	59.5%
3/1+3/2	A55 London Road Left Right	U	N/A	N/A	C1:C		1	18	-	423	1900:1900	294+401	60.8 : 60.8%
4/1		U	N/A	N/A	-		-	-	-	232	Inf	Inf	0.0%
4/2		U	N/A	N/A	-		-	-	-	231	Inf	Inf	0.0%
5/1	Ahead	U	N/A	N/A	-		-	-	-	552	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	496	Inf	Inf	0.0%
J2: A5/A55 London Road	-	-	N/A	-	-		-	-	-	-	-	-	47.9%
1/1	A55 (N) Ahead	U	N/A	N/A	C2:A		1	39	-	51	1900	844	6.0%
1/2	A55 (N) Right	U	N/A	N/A	C2:F		1	27	-	193	1900	591	32.7%
2/1+2/2	A5 London Road Ahead Left	U	N/A	N/A	C2:E C2:B		1	48:7	-	282	1900:1900	900+169	25.6 : 30.8%
3/1+3/2	A55 Right Left	U	N/A	N/A	C2:C C2:D		1	73:41	-	552	1900:1900	748+405	47.9 : 47.9%
4/1		U	N/A	N/A	-		-	-	-	245	1900	1900	12.9%
5/1		U	N/A	N/A	-		-	-	-	410	Inf	Inf	0.0%
6/1	Ahead	U	N/A	N/A	-		-	-	-	423	Inf	Inf	0.0%

Full Input Data And Results

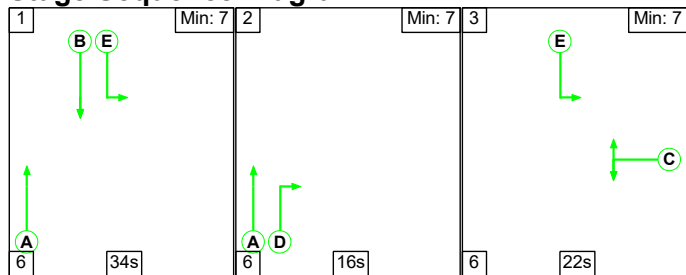
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)	
Network	-	-	0	0	0	11.8	3.4	0.0	15.2	-	-	-	-	
J1: A5154/A55	-	-	0	0	0	8.6	2.4	0.0	11.0	-	-	-	-	
1/2+1/1	497	497	-	-	-	2.4	0.7	-	3.2 (2.3+0.8)	23.0 (29.7:14.0)	5.6	0.7	6.3	
2/1	252	252	-	-	-	0.4	0.1	-	0.5	7.1	2.3	0.1	2.4	
2/2	339	339	-	-	-	2.5	0.7	-	3.3	34.6	7.2	0.7	7.9	
3/1+3/2	423	423	-	-	-	3.3	0.8	-	4.1 (1.7+2.4)	34.6 (34.1:34.9)	4.8	0.8	5.6	
4/1	232	232	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
4/2	231	231	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/1	552	552	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
6/1	496	496	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
J2: A5/A55 London Road	-	-	0	0	0	3.2	1.0	0.0	4.2	-	-	-	-	
1/1	51	51	-	-	-	0.2	0.0	-	0.2	16.6	0.7	0.0	0.8	
1/2	193	193	-	-	-	1.3	0.2	-	1.5	28.3	3.7	0.2	3.9	
2/1+2/2	282	282	-	-	-	1.2	0.2	-	1.4 (0.8+0.6)	18.1 (12.9:40.7)	2.9	0.2	3.1	
3/1+3/2	552	552	-	-	-	0.5	0.5	-	1.0 (0.4+0.6)	6.3 (4.2:10.3)	1.4	0.5	1.9	
4/1	245	245	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1	
5/1	410	410	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
6/1	423	423	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
			C1	PRC for Signalled Lanes (%):		48.0	Total Delay for Signalled Lanes (pcuHr):		10.99	Cycle Time (s):		90		
			C2	PRC for Signalled Lanes (%):		88.0	Total Delay for Signalled Lanes (pcuHr):		4.13	Cycle Time (s):		90		
				PRC Over All Lanes (%):		48.0	Total Delay Over All Lanes(pcuHr):		15.20					

Full Input Data And Results

Scenario 3: '2024 Observed PM Peak' (FG3: '2024 Observed PM Peak', Plan 1: '2024 Observed AM Peak')

C1

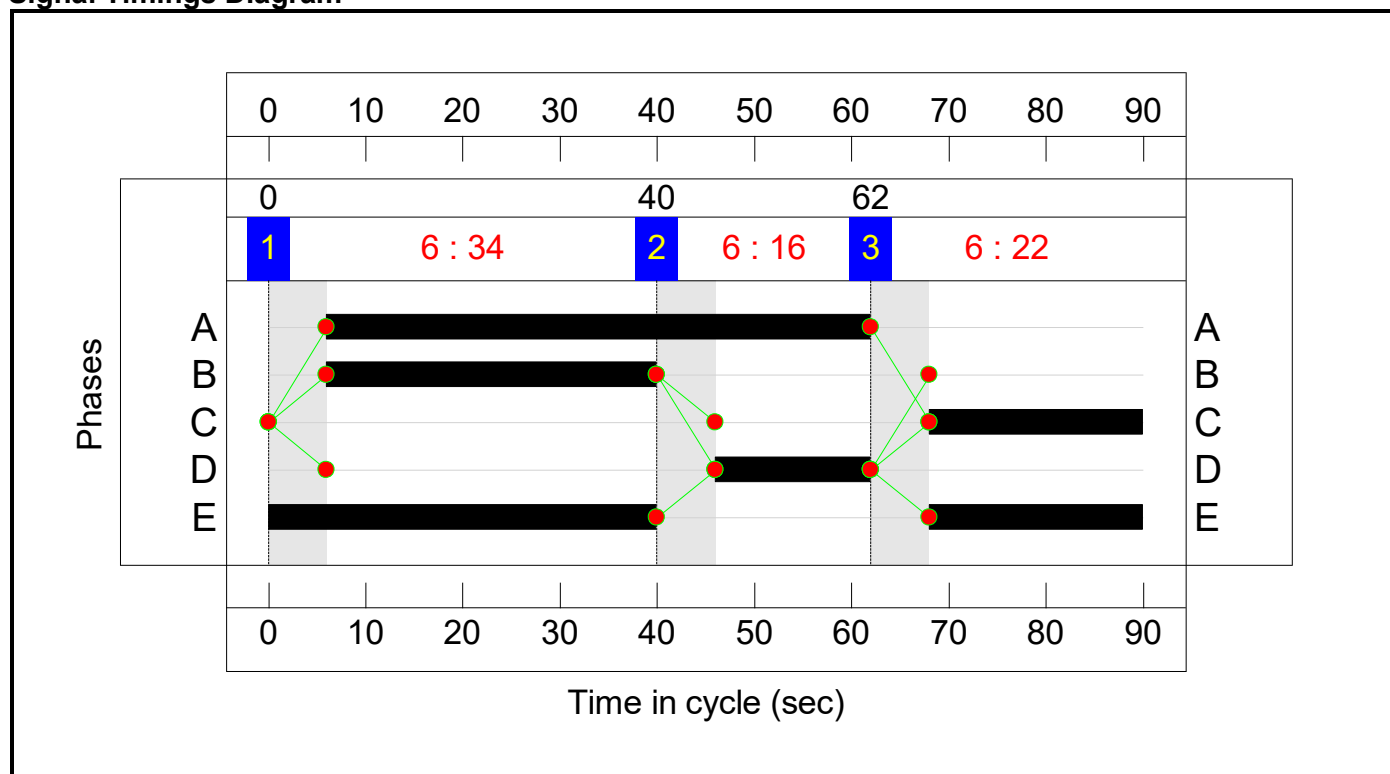
Stage Sequence Diagram



Stage Timings

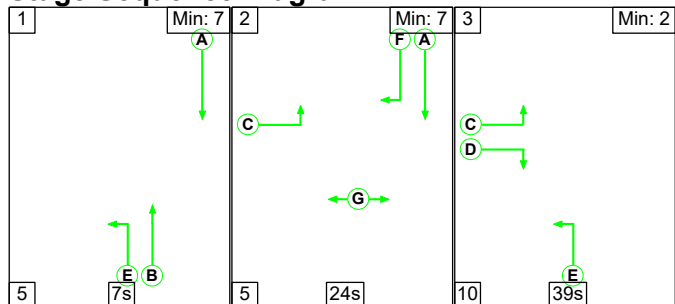
Stage	1	2	3
Duration	34	16	22
Change Point	0	40	62

Signal Timings Diagram



C2

Stage Sequence Diagram

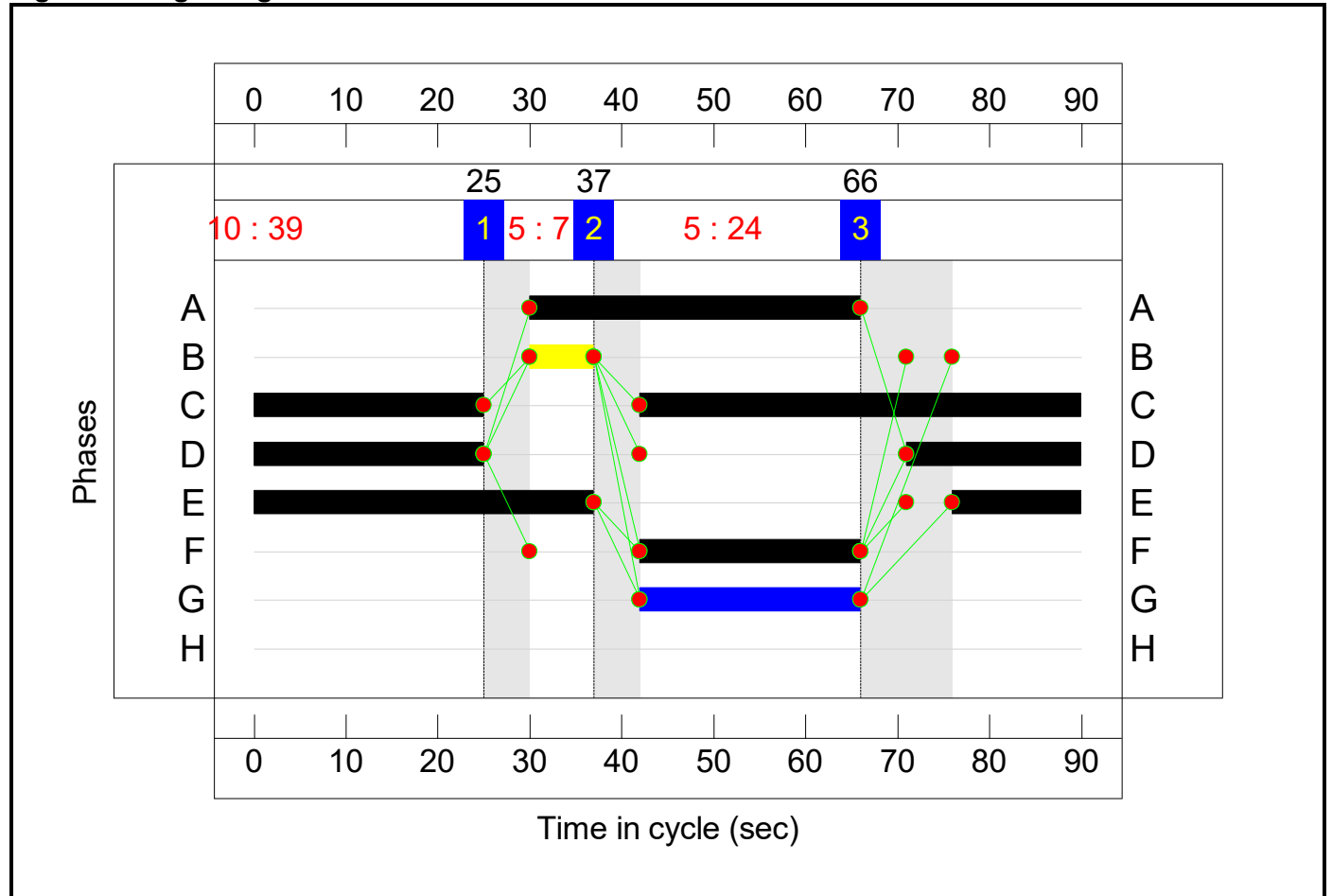


Full Input Data And Results

Stage Timings

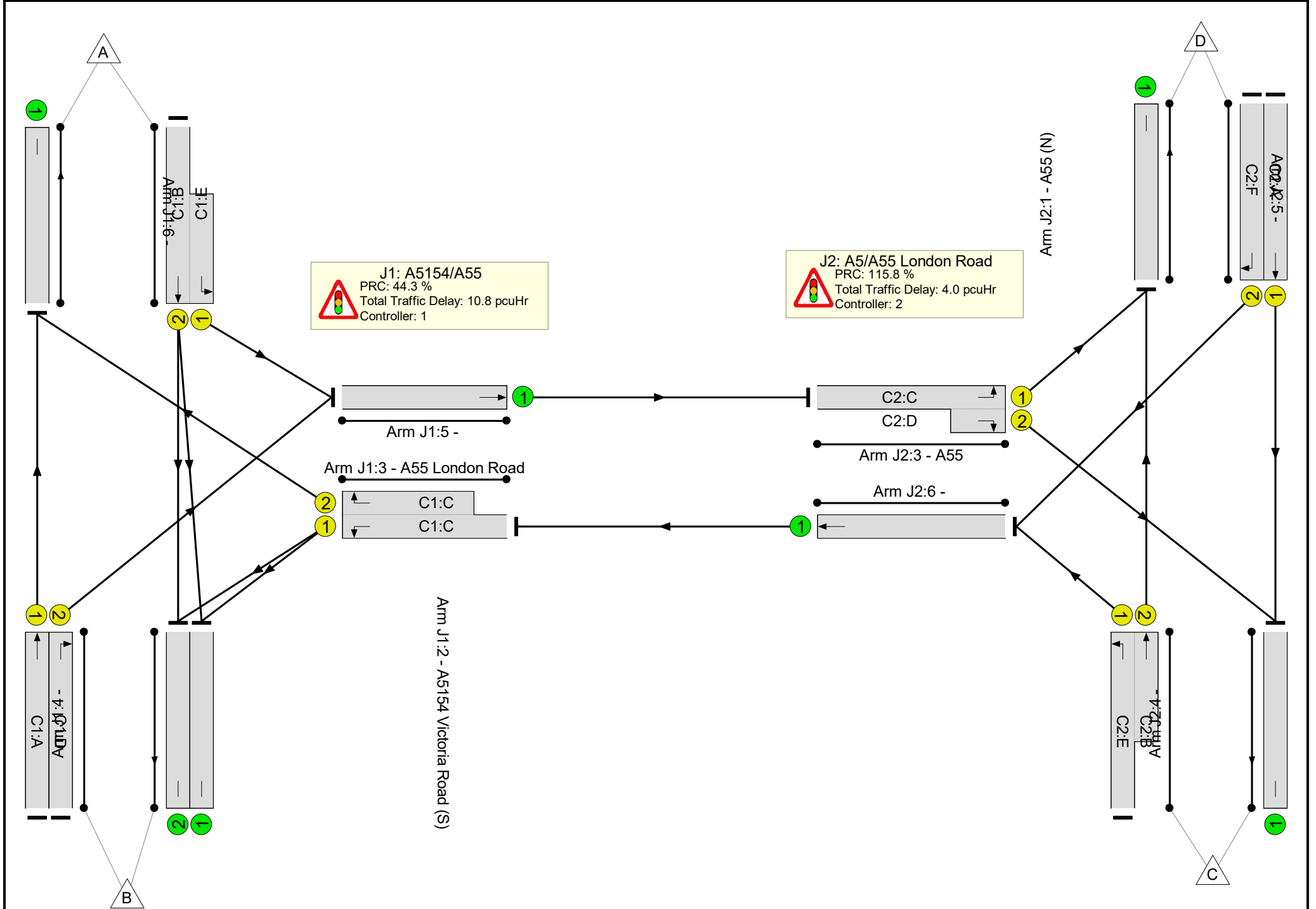
Stage	1	2	3
Duration	7	24	39
Change Point	25	37	66

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

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	-	-	N/A	-	-		-	-	-	-	-	-	62.4%
J1: A5154/A55	-	-	N/A	-	-		-	-	-	-	-	-	62.4%
1/2+1/1	A5154 Victoria Road (N) Ahead Left	U	N/A	N/A	C1:B C1:E		1	34:62	-	594	1900:1900	546+408	62.3 : 62.3%
2/1	A5154 Victoria Road (S) Ahead	U	N/A	N/A	C1:A		1	56	-	372	1900	1203	30.9%
2/2	A5154 Victoria Road (S) Right	U	N/A	N/A	C1:D		1	16	-	217	1900	359	60.5%
3/1+3/2	A55 London Road Left Right	U	N/A	N/A	C1:C		1	22	-	435	1900:1900	229+468	62.4 : 62.4%
4/1		U	N/A	N/A	-		-	-	-	242	Inf	Inf	0.0%
4/2		U	N/A	N/A	-		-	-	-	241	Inf	Inf	0.0%
5/1	Ahead	U	N/A	N/A	-		-	-	-	471	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	664	Inf	Inf	0.0%
J2: A5/A55 London Road	-	-	N/A	-	-		-	-	-	-	-	-	41.7%
1/1	A55 (N) Ahead	U	N/A	N/A	C2:A		1	36	-	46	1900	781	5.9%
1/2	A55 (N) Right	U	N/A	N/A	C2:F		1	24	-	183	1900	528	34.7%
2/1+2/2	A5 London Road Ahead Left	U	N/A	N/A	C2:E C2:B		1	51:7	-	288	1900:1900	1000+143	25.2 : 25.2%
3/1+3/2	A55 Right Left	U	N/A	N/A	C2:C C2:D		1	73:44	-	471	1900:1900	623+506	41.7 : 41.7%
4/1		U	N/A	N/A	-		-	-	-	257	1900	1900	13.5%
5/1		U	N/A	N/A	-		-	-	-	296	Inf	Inf	0.0%
6/1	Ahead	U	N/A	N/A	-		-	-	-	435	Inf	Inf	0.0%

Full Input Data And Results

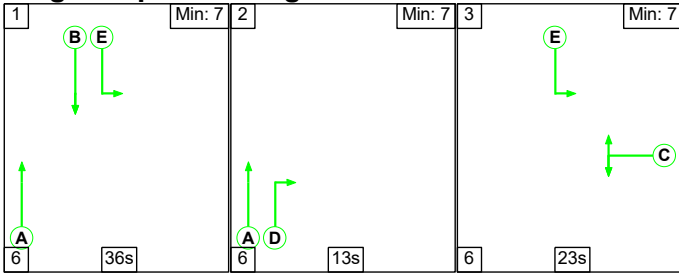
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	11.3	3.5	0.0	14.8	-	-	-	-
J1: A5154/A55	-	-	0	0	0	8.2	2.6	0.0	10.8	-	-	-	-
1/2+1/1	594	594	-	-	-	2.3	0.8	-	3.1 (2.4+0.7)	18.7 (25.5:9.7)	6.2	0.8	7.1
2/1	372	372	-	-	-	0.8	0.2	-	1.0	9.7	4.2	0.2	4.5
2/2	217	217	-	-	-	2.0	0.8	-	2.8	46.0	4.9	0.8	5.7
3/1+3/2	435	435	-	-	-	3.1	0.8	-	3.9 (1.3+2.7)	32.6 (31.5:33.1)	5.4	0.8	6.2
4/1	242	242	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	241	241	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	471	471	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	664	664	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: A5/A55 London Road	-	-	0	0	0	3.1	0.9	0.0	4.0	-	-	-	-
1/1	46	46	-	-	-	0.2	0.0	-	0.2	18.5	0.7	0.0	0.7
1/2	183	183	-	-	-	1.3	0.3	-	1.6	31.2	3.6	0.3	3.9
2/1+2/2	288	288	-	-	-	1.0	0.2	-	1.2 (0.8+0.4)	15.0 (11.4:40.3)	3.0	0.2	3.2
3/1+3/2	471	471	-	-	-	0.6	0.4	-	0.9 (0.3+0.6)	7.0 (3.9:10.7)	1.7	0.4	2.1
4/1	257	257	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
5/1	296	296	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	435	435	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1			PRC for Signalled Lanes (%):		44.3	Total Delay for Signalled Lanes (pcuHr):			10.79	Cycle Time (s):		90	
C2			PRC for Signalled Lanes (%):		115.8	Total Delay for Signalled Lanes (pcuHr):			3.93	Cycle Time (s):		90	
			PRC Over All Lanes (%):		44.3	Total Delay Over All Lanes (pcuHr):			14.80				

Full Input Data And Results

Scenario 4: '2030 Background AM Peak' (FG4: '2030 Background AM Peak', Plan 1: '2024 Observed AM Peak')

C1

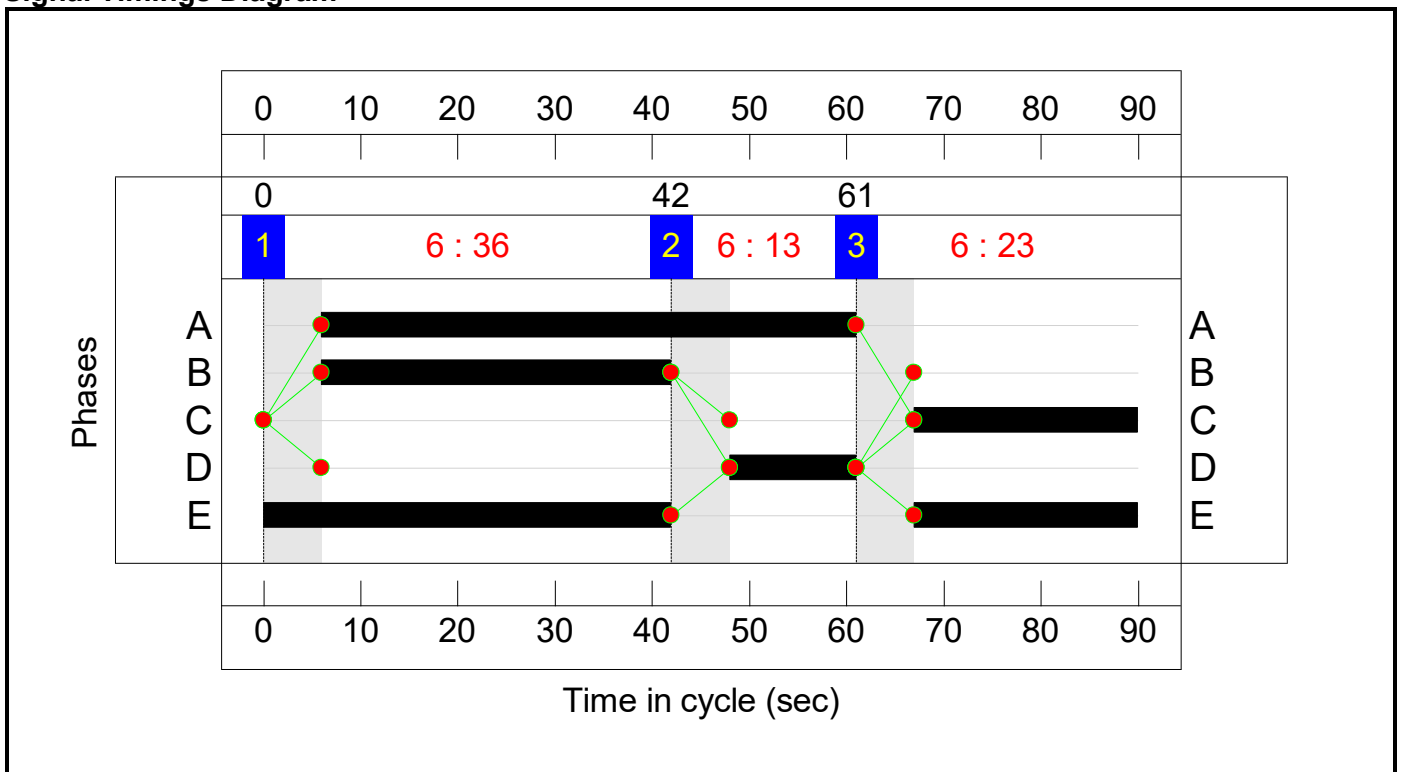
Stage Sequence Diagram



Stage Timings

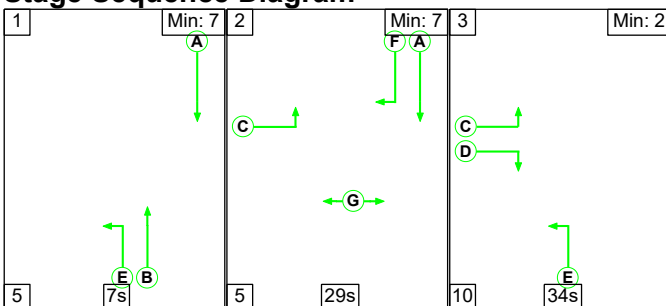
Stage	1	2	3
Duration	36	13	23
Change Point	0	42	61

Signal Timings Diagram



C2

Stage Sequence Diagram

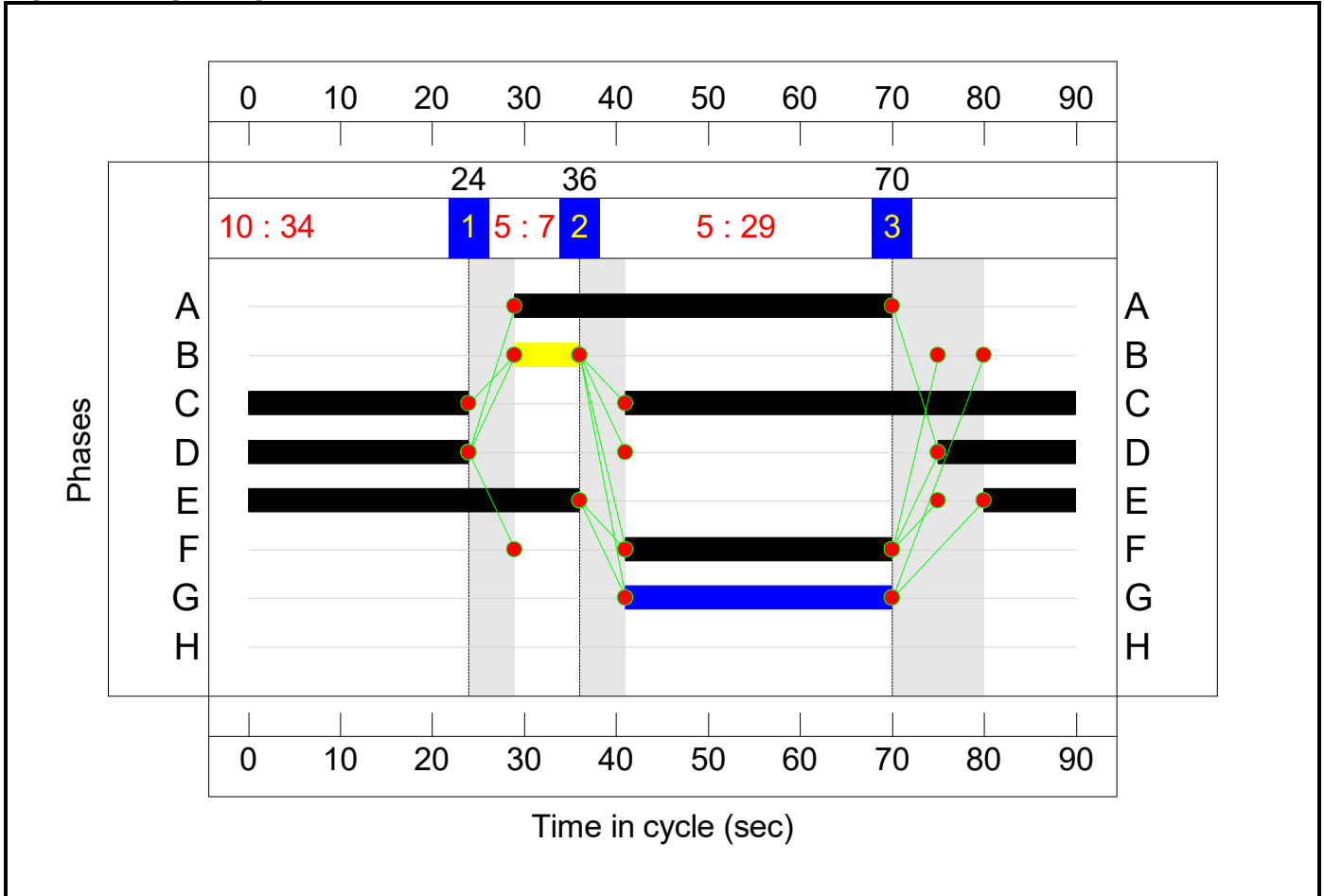


Full Input Data And Results

Stage Timings

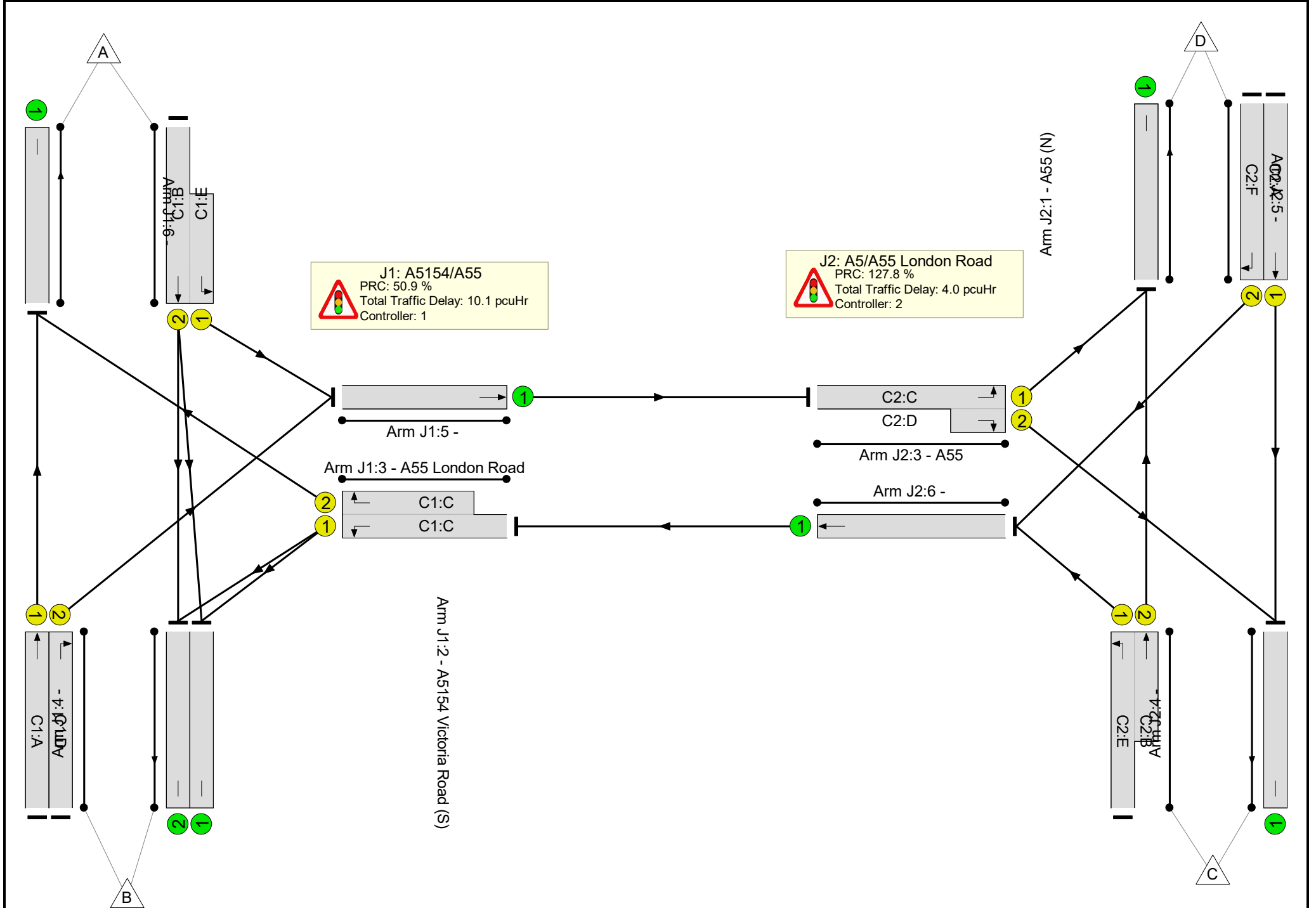
Stage	1	2	3
Duration	7	29	34
Change Point	24	36	70

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

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	-	-	N/A	-	-		-	-	-	-	-	-	59.6%
J1: A5154/A55	-	-	N/A	-	-		-	-	-	-	-	-	59.6%
1/2+1/1	A5154 Victoria Road (N) Ahead Left	U	N/A	N/A	C1:B C1:E		1	36:65	-	578	1900:1900	587+382	59.6 : 59.6%
2/1	A5154 Victoria Road (S) Ahead	U	N/A	N/A	C1:A		1	55	-	467	1900	1182	39.5%
2/2	A5154 Victoria Road (S) Right	U	N/A	N/A	C1:D		1	13	-	170	1900	296	57.5%
3/1+3/2	A55 London Road Left Right	U	N/A	N/A	C1:C		1	23	-	426	1900:1900	243+482	58.7 : 58.7%
4/1		U	N/A	N/A	-		-	-	-	247	Inf	Inf	0.0%
4/2		U	N/A	N/A	-		-	-	-	246	Inf	Inf	0.0%
5/1	Ahead	U	N/A	N/A	-		-	-	-	398	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	750	Inf	Inf	0.0%
J2: A5/A55 London Road	-	-	N/A	-	-		-	-	-	-	-	-	39.5%
1/1	A55 (N) Ahead	U	N/A	N/A	C2:A		1	41	-	48	1900	887	5.4%
1/2	A55 (N) Right	U	N/A	N/A	C2:F		1	29	-	202	1900	633	31.9%
2/1+2/2	A5 London Road Ahead Left	U	N/A	N/A	C2:E C2:B		1	46:7	-	265	1900:1900	887+162	25.3 : 25.3%
3/1+3/2	A55 Right Left	U	N/A	N/A	C2:C C2:D		1	73:39	-	398	1900:1900	532+476	39.5 : 39.5%
4/1		U	N/A	N/A	-		-	-	-	236	1900	1900	12.4%
5/1		U	N/A	N/A	-		-	-	-	251	Inf	Inf	0.0%
6/1	Ahead	U	N/A	N/A	-		-	-	-	426	Inf	Inf	0.0%

Full Input Data And Results

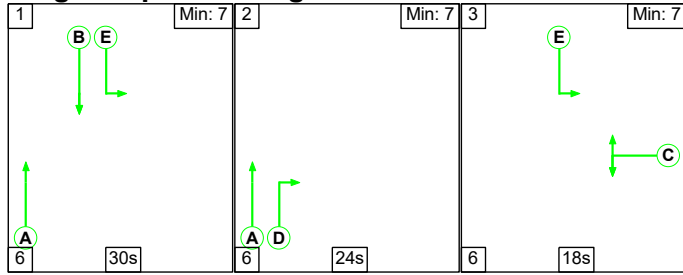
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	10.9	3.3	0.0	14.2	-	-	-	-
J1: A5154/A55	-	-	0	0	0	7.7	2.4	0.0	10.1	-	-	-	-
1/2+1/1	578	578	-	-	-	2.1	0.7	-	2.8 (2.3+0.5)	17.6 (23.7:8.2)	6.2	0.7	7.0
2/1	467	467	-	-	-	1.1	0.3	-	1.4	11.0	5.8	0.3	6.2
2/2	170	170	-	-	-	1.7	0.7	-	2.3	49.4	3.9	0.7	4.6
3/1+3/2	426	426	-	-	-	2.8	0.7	-	3.5 (1.2+2.4)	29.9 (29.0:30.4)	4.9	0.7	5.6
4/1	247	247	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	246	246	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	398	398	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	750	750	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: A5/A55 London Road	-	-	0	0	0	3.2	0.8	0.0	4.0	-	-	-	-
1/1	48	48	-	-	-	0.2	0.0	-	0.2	15.3	0.7	0.0	0.7
1/2	202	202	-	-	-	1.3	0.2	-	1.5	26.6	3.8	0.2	4.0
2/1+2/2	265	265	-	-	-	1.2	0.2	-	1.3 (0.9+0.5)	18.1 (13.9:40.5)	3.0	0.2	3.2
3/1+3/2	398	398	-	-	-	0.6	0.3	-	0.9 (0.2+0.7)	8.3 (4.2:13.0)	1.7	0.3	2.1
4/1	236	236	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
5/1	251	251	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	426	426	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1			PRC for Signalled Lanes (%):		50.9	Total Delay for Signalled Lanes (pcuHr):		10.14	Cycle Time (s):		90		
C2			PRC for Signalled Lanes (%):		127.8	Total Delay for Signalled Lanes (pcuHr):		3.94	Cycle Time (s):		90		
			PRC Over All Lanes (%):		50.9	Total Delay Over All Lanes (pcuHr):		14.15					

Full Input Data And Results

Scenario 5: '2030 Background Inter Peak' (FG5: '2030 Background Inter Peak', Plan 1: '2024 Observed AM Peak')

C1

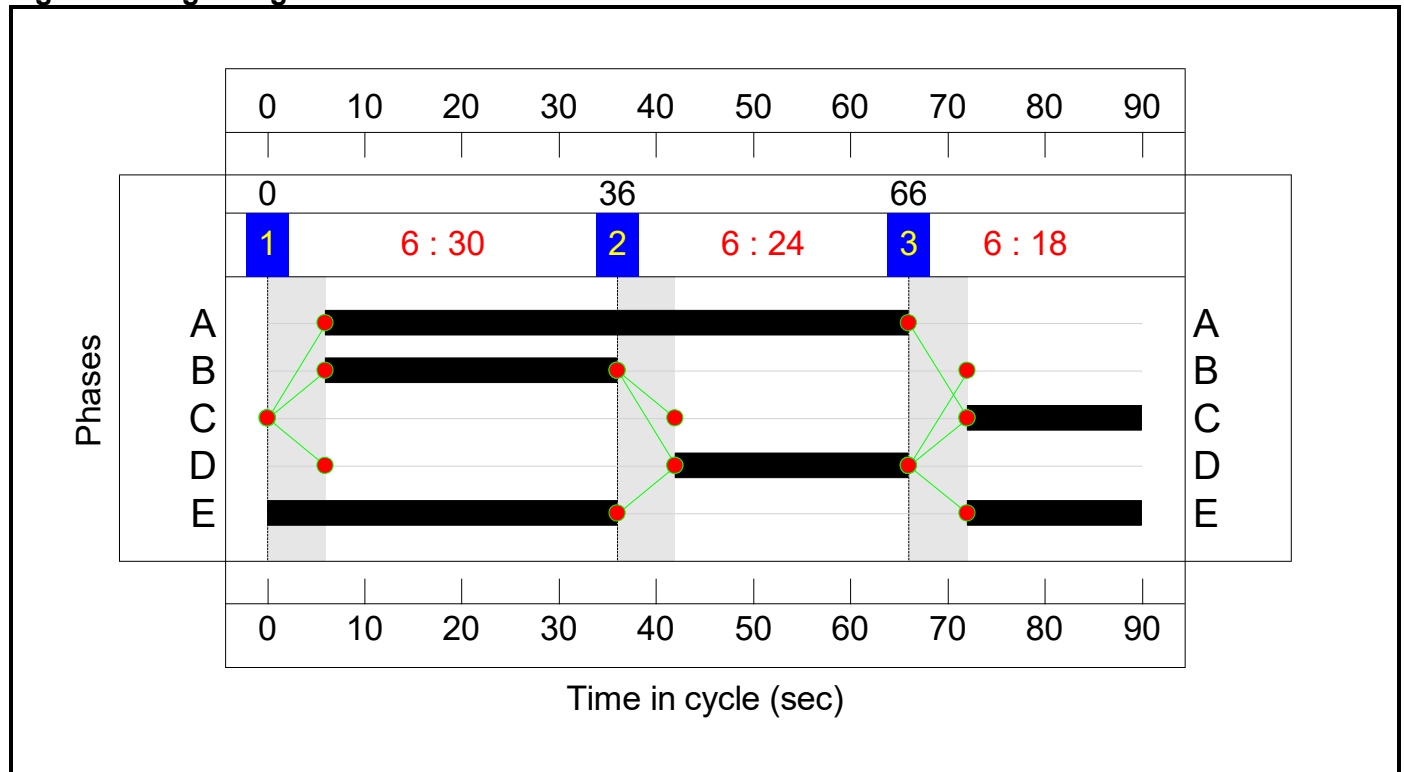
Stage Sequence Diagram



Stage Timings

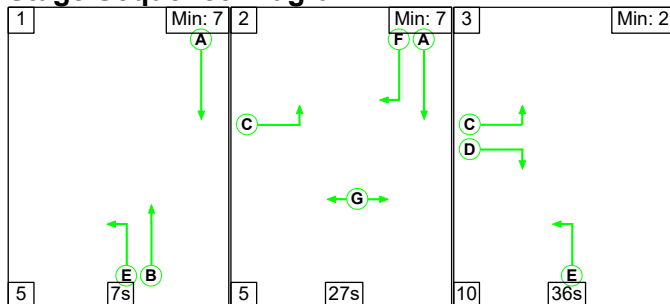
Stage	1	2	3
Duration	30	24	18
Change Point	0	36	66

Signal Timings Diagram



C2

Stage Sequence Diagram

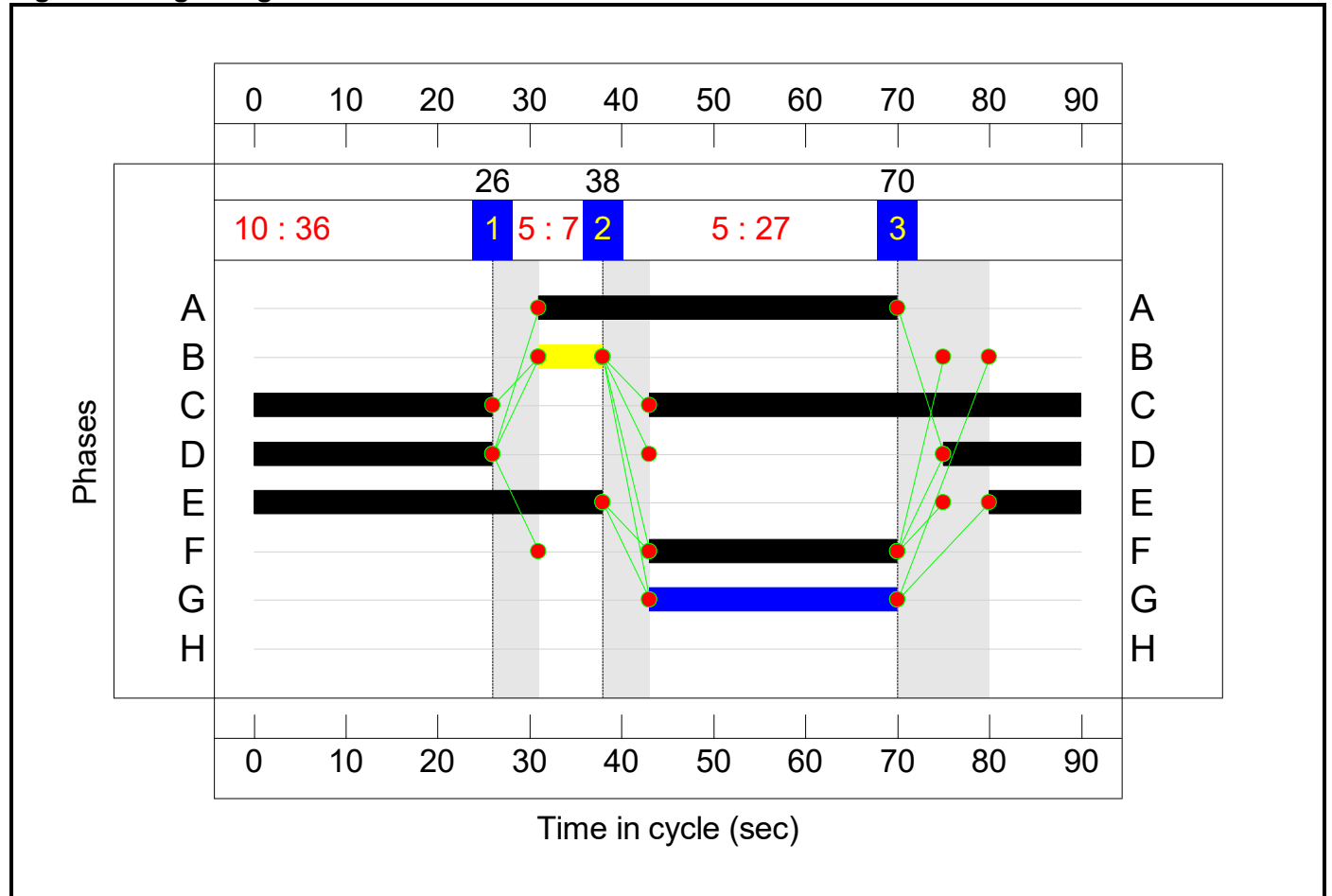


Full Input Data And Results

Stage Timings

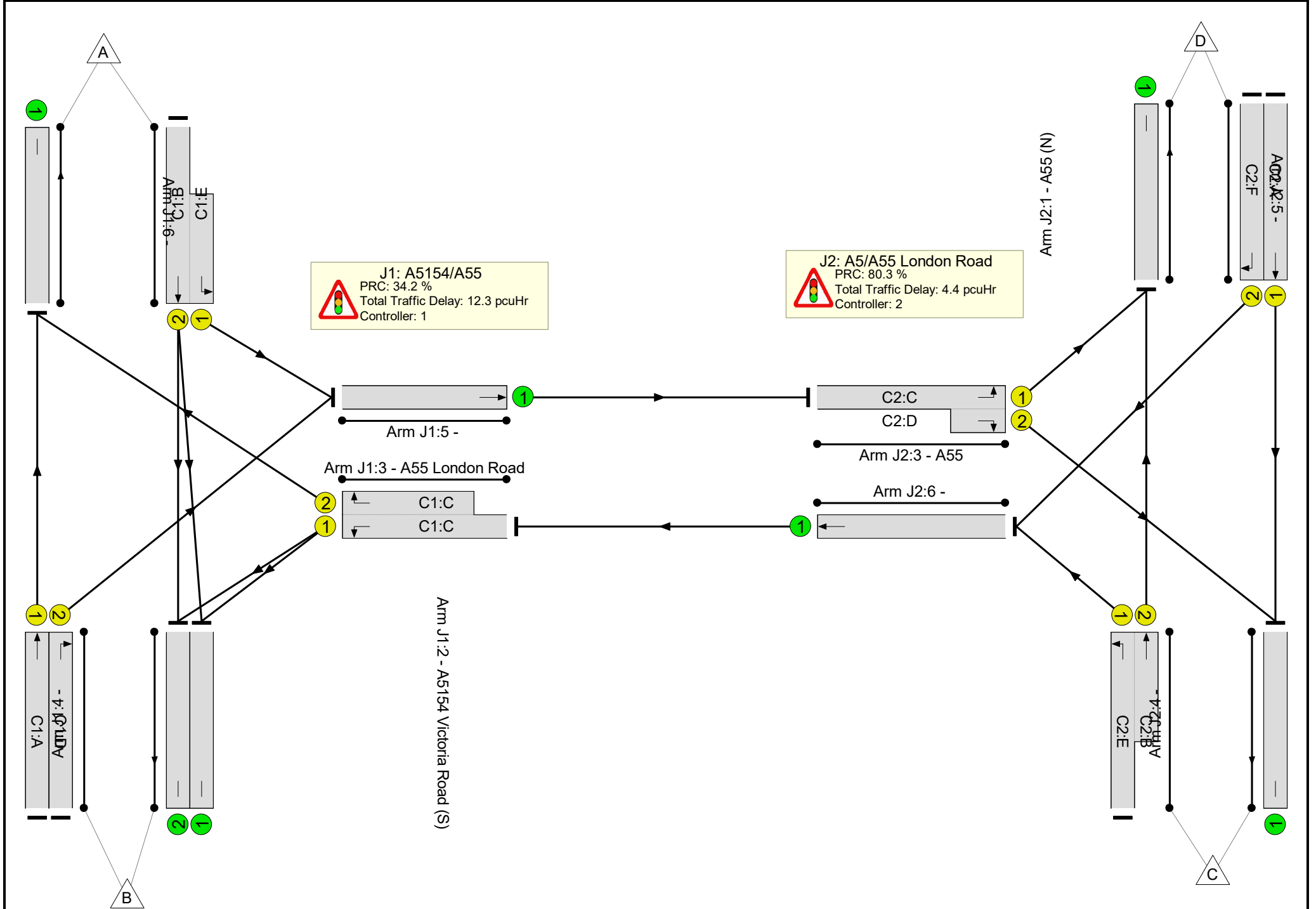
Stage	1	2	3
Duration	7	27	36
Change Point	26	38	70

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

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	-	-	N/A	-	-		-	-	-	-	-	-	67.1%
J1: A5154/A55	-	-	N/A	-	-		-	-	-	-	-	-	67.1%
1/2+1/1	A5154 Victoria Road (N) Ahead Left	U	N/A	N/A	C1:B C1:E		1	30:54	-	555	1900:1900	508+339	65.6 : 65.6%
2/1	A5154 Victoria Road (S) Ahead	U	N/A	N/A	C1:A		1	60	-	276	1900	1288	21.4%
2/2	A5154 Victoria Road (S) Right	U	N/A	N/A	C1:D		1	24	-	354	1900	528	67.1%
3/1+3/2	A55 London Road Left Right	U	N/A	N/A	C1:C		1	18	-	442	1900:1900	294+401	63.6 : 63.6%
4/1		U	N/A	N/A	-		-	-	-	261	Inf	Inf	0.0%
4/2		U	N/A	N/A	-		-	-	-	259	Inf	Inf	0.0%
5/1	Ahead	U	N/A	N/A	-		-	-	-	576	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	531	Inf	Inf	0.0%
J2: A5/A55 London Road	-	-	N/A	-	-		-	-	-	-	-	-	49.9%
1/1	A55 (N) Ahead	U	N/A	N/A	C2:A		1	39	-	53	1900	844	6.3%
1/2	A55 (N) Right	U	N/A	N/A	C2:F		1	27	-	202	1900	591	34.2%
2/1+2/2	A5 London Road Ahead Left	U	N/A	N/A	C2:E C2:B		1	48:7	-	294	1900:1900	900+169	26.7 : 32.0%
3/1+3/2	A55 Right Left	U	N/A	N/A	C2:C C2:D		1	73:41	-	576	1900:1900	749+405	49.9 : 49.9%
4/1		U	N/A	N/A	-		-	-	-	255	1900	1900	13.4%
5/1		U	N/A	N/A	-		-	-	-	428	Inf	Inf	0.0%
6/1	Ahead	U	N/A	N/A	-		-	-	-	442	Inf	Inf	0.0%

Full Input Data And Results

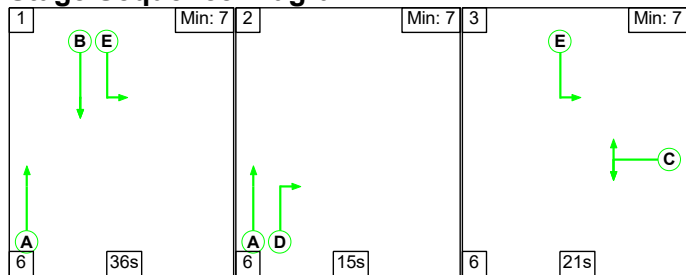
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	12.7	4.0	0.0	16.8	-	-	-	-
J1: A5154/A55	-	-	0	0	0	9.4	3.0	0.0	12.3	-	-	-	-
1/2+1/1	555	555	-	-	-	2.6	0.9	-	3.6 (2.7+0.9)	23.3 (29.6:13.8)	6.6	0.9	7.5
2/1	276	276	-	-	-	0.4	0.1	-	0.6	7.2	2.5	0.1	2.7
2/2	354	354	-	-	-	2.8	1.0	-	3.8	39.1	7.8	1.0	8.8
3/1+3/2	442	442	-	-	-	3.5	0.9	-	4.3 (1.8+2.5)	35.3 (34.8:35.7)	5.0	0.9	5.9
4/1	261	261	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	259	259	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	576	576	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	531	531	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: A5/A55 London Road	-	-	0	0	0	3.4	1.1	0.0	4.4	-	-	-	-
1/1	53	53	-	-	-	0.2	0.0	-	0.2	16.6	0.8	0.0	0.8
1/2	202	202	-	-	-	1.3	0.3	-	1.6	28.5	3.9	0.3	4.1
2/1+2/2	294	294	-	-	-	1.3	0.2	-	1.5 (0.9+0.6)	18.1 (13.0:40.8)	3.1	0.2	3.3
3/1+3/2	576	576	-	-	-	0.5	0.5	-	1.0 (0.4+0.6)	6.4 (4.3:10.3)	1.4	0.5	1.9
4/1	255	255	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
5/1	428	428	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	442	442	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1			PRC for Signalled Lanes (%):		34.2	Total Delay for Signalled Lanes (pcuHr):			12.33	Cycle Time (s):		90	
C2			PRC for Signalled Lanes (%):		80.3	Total Delay for Signalled Lanes (pcuHr):			4.35	Cycle Time (s):		90	
			PRC Over All Lanes (%):		34.2	Total Delay Over All Lanes(pcuHr):			16.75				

Full Input Data And Results

Scenario 6: '2030 Background PM Peak' (FG6: '2030 Background PM Peak', Plan 1: '2024 Observed AM Peak')

C1

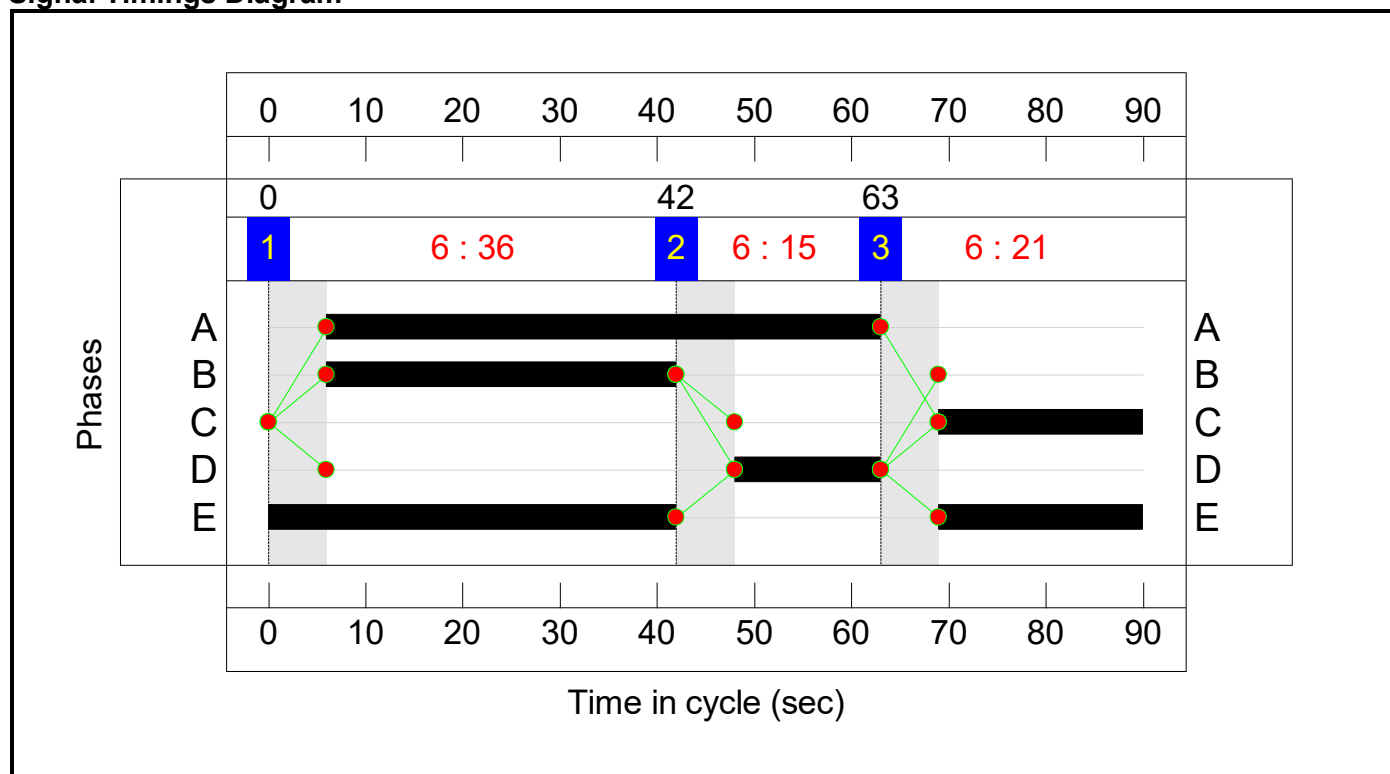
Stage Sequence Diagram



Stage Timings

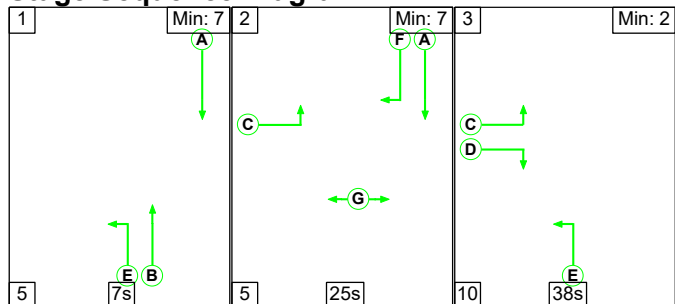
Stage	1	2	3
Duration	36	15	21
Change Point	0	42	63

Signal Timings Diagram



C2

Stage Sequence Diagram

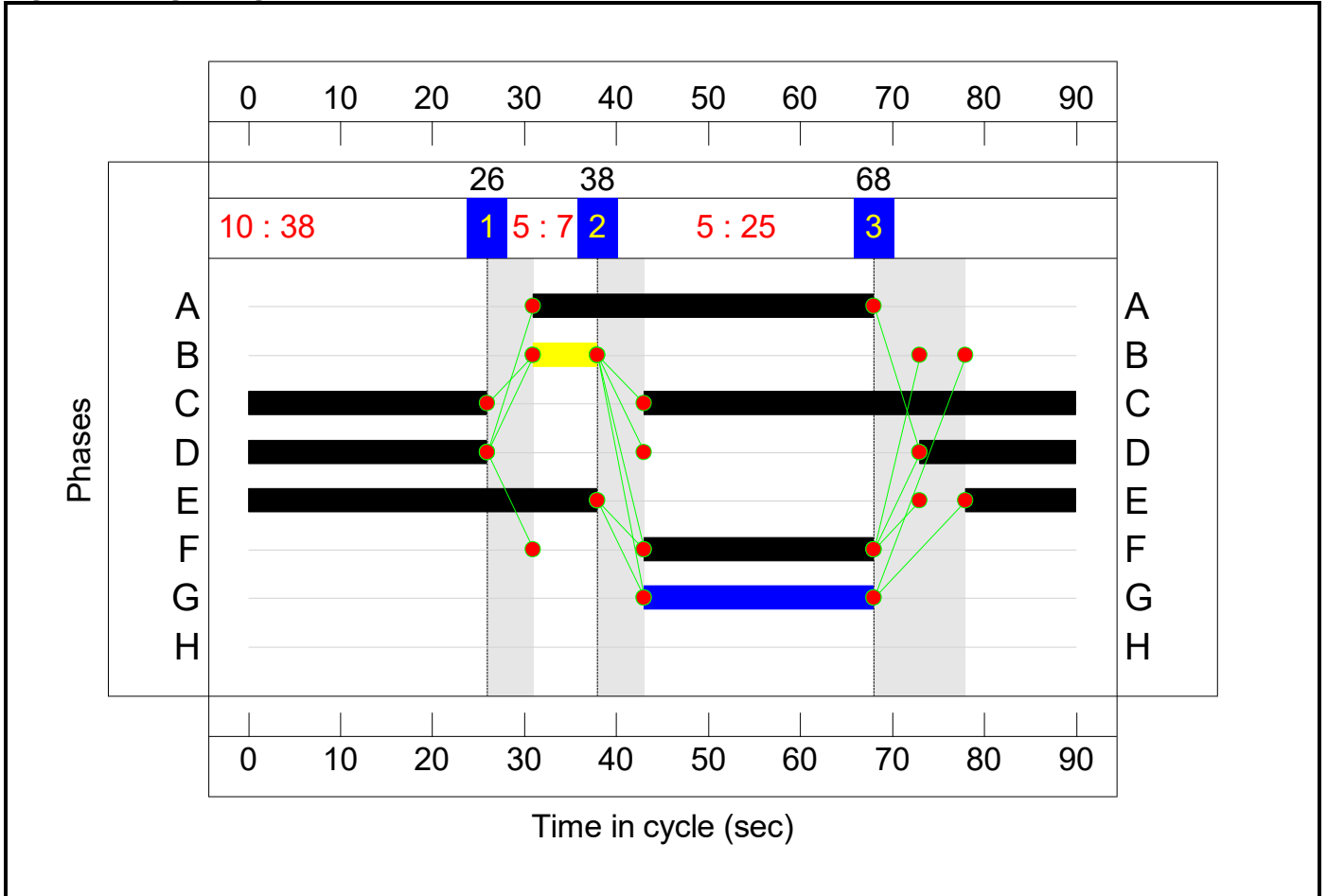


Full Input Data And Results

Stage Timings

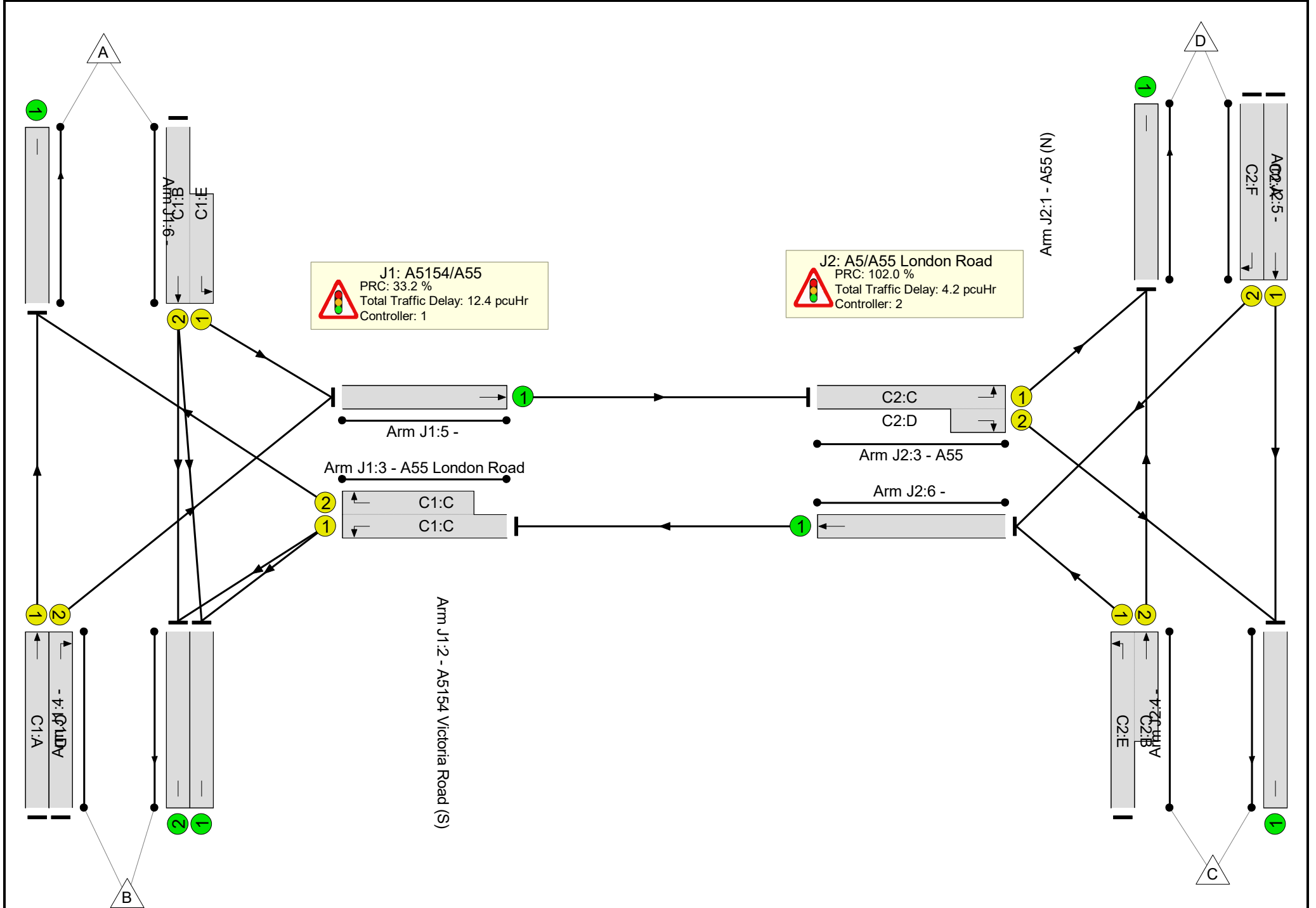
Stage	1	2	3
Duration	7	25	38
Change Point	26	38	68

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

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	-	-	N/A	-	-		-	-	-	-	-	-	67.6%
J1: A5154/A55	-	-	N/A	-	-		-	-	-	-	-	-	67.6%
1/2+1/1	A5154 Victoria Road (N) Ahead Left	U	N/A	N/A	C1:B C1:E		1	36:63	-	655	1900:1900	580+399	66.9 : 66.9%
2/1	A5154 Victoria Road (S) Ahead	U	N/A	N/A	C1:A		1	57	-	479	1900	1224	39.1%
2/2	A5154 Victoria Road (S) Right	U	N/A	N/A	C1:D		1	15	-	227	1900	338	67.2%
3/1+3/2	A55 London Road Left Right	U	N/A	N/A	C1:C		1	21	-	456	1900:1900	220+454	67.6 : 67.6%
4/1		U	N/A	N/A	-		-	-	-	269	Inf	Inf	0.0%
4/2		U	N/A	N/A	-		-	-	-	268	Inf	Inf	0.0%
5/1	Ahead	U	N/A	N/A	-		-	-	-	494	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	786	Inf	Inf	0.0%
J2: A5/A55 London Road	-	-	N/A	-	-		-	-	-	-	-	-	44.6%
1/1	A55 (N) Ahead	U	N/A	N/A	C2:A		1	37	-	48	1900	802	6.0%
1/2	A55 (N) Right	U	N/A	N/A	C2:F		1	25	-	191	1900	549	34.8%
2/1+2/2	A5 London Road Ahead Left	U	N/A	N/A	C2:E C2:B		1	50:7	-	303	1900:1900	982+141	27.0 : 27.0%
3/1+3/2	A55 Right Left	U	N/A	N/A	C2:C C2:D		1	73:43	-	494	1900:1900	613+496	44.6 : 44.6%
4/1		U	N/A	N/A	-		-	-	-	269	1900	1900	14.2%
5/1		U	N/A	N/A	-		-	-	-	311	Inf	Inf	0.0%
6/1	Ahead	U	N/A	N/A	-		-	-	-	456	Inf	Inf	0.0%

Full Input Data And Results

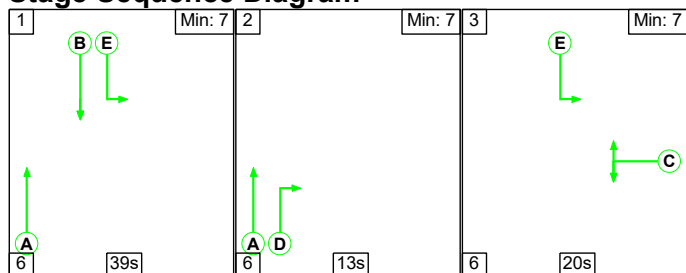
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	12.3	4.3	0.0	16.6	-	-	-	-
J1: A5154/A55	-	-	0	0	0	9.0	3.4	0.0	12.4	-	-	-	-
1/2+1/1	655	655	-	-	-	2.4	1.0	-	3.4 (2.7+0.7)	18.9 (25.1:9.9)	7.4	1.0	8.4
2/1	479	479	-	-	-	1.0	0.3	-	1.3	10.0	5.6	0.3	5.9
2/2	227	227	-	-	-	2.2	1.0	-	3.2	50.5	5.3	1.0	6.3
3/1+3/2	456	456	-	-	-	3.4	1.0	-	4.4 (1.4+3.0)	35.0 (33.8:35.6)	5.9	1.0	7.0
4/1	269	269	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	268	268	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	494	494	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	786	786	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: A5/A55 London Road	-	-	0	0	0	3.3	1.0	0.0	4.2	-	-	-	-
1/1	48	48	-	-	-	0.2	0.0	-	0.2	17.8	0.7	0.0	0.7
1/2	191	191	-	-	-	1.3	0.3	-	1.6	30.3	3.8	0.3	4.0
2/1+2/2	303	303	-	-	-	1.1	0.2	-	1.3 (0.9+0.4)	15.6 (12.0:40.4)	3.3	0.2	3.5
3/1+3/2	494	494	-	-	-	0.6	0.4	-	1.0 (0.3+0.7)	7.4 (4.2:11.3)	1.8	0.4	2.2
4/1	269	269	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
5/1	311	311	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	456	456	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1			PRC for Signalled Lanes (%):		33.2	Total Delay for Signalled Lanes (pcuHr):		12.39	Cycle Time (s):		90		
C2			PRC for Signalled Lanes (%):		102.0	Total Delay for Signalled Lanes (pcuHr):		4.17	Cycle Time (s):		90		
			PRC Over All Lanes (%):		33.2	Total Delay Over All Lanes (pcuHr):		16.64					

Full Input Data And Results

Scenario 7: '2030 with development AM Peak' (FG7: '2030 with development AM Peak', Plan 1: '2024 Observed AM Peak')

C1

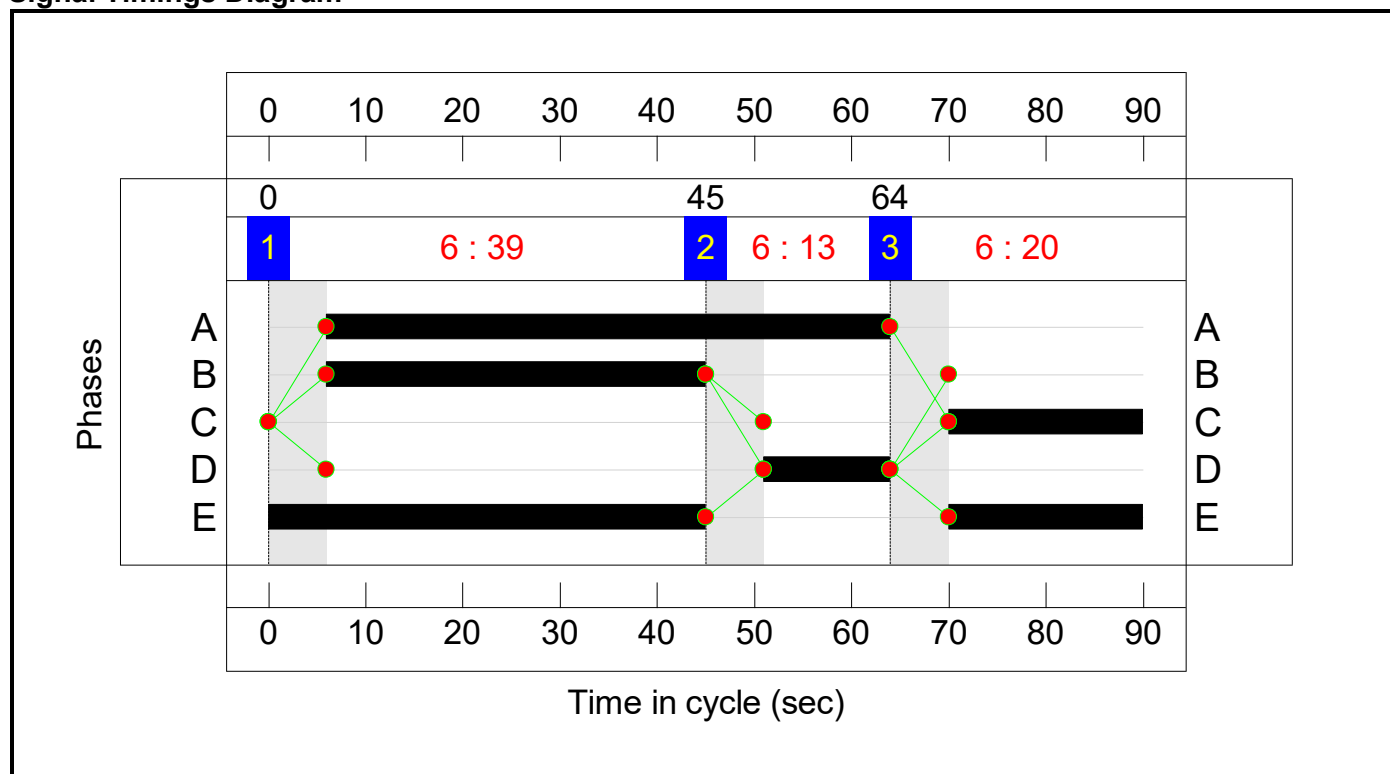
Stage Sequence Diagram



Stage Timings

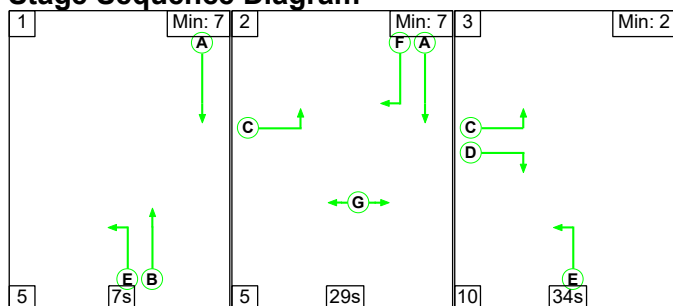
Stage	1	2	3
Duration	39	13	20
Change Point	0	45	64

Signal Timings Diagram



C2

Stage Sequence Diagram

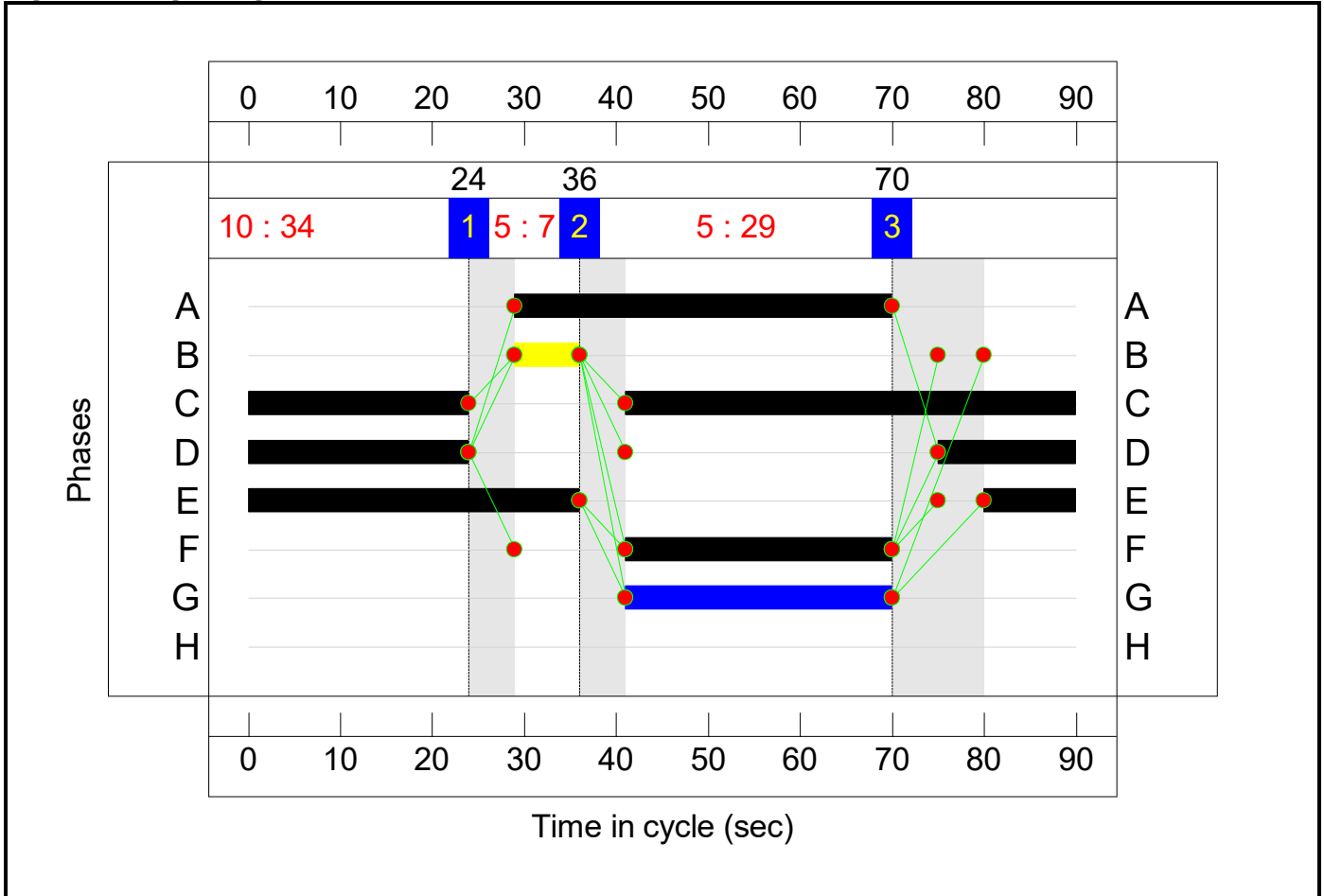


Full Input Data And Results

Stage Timings

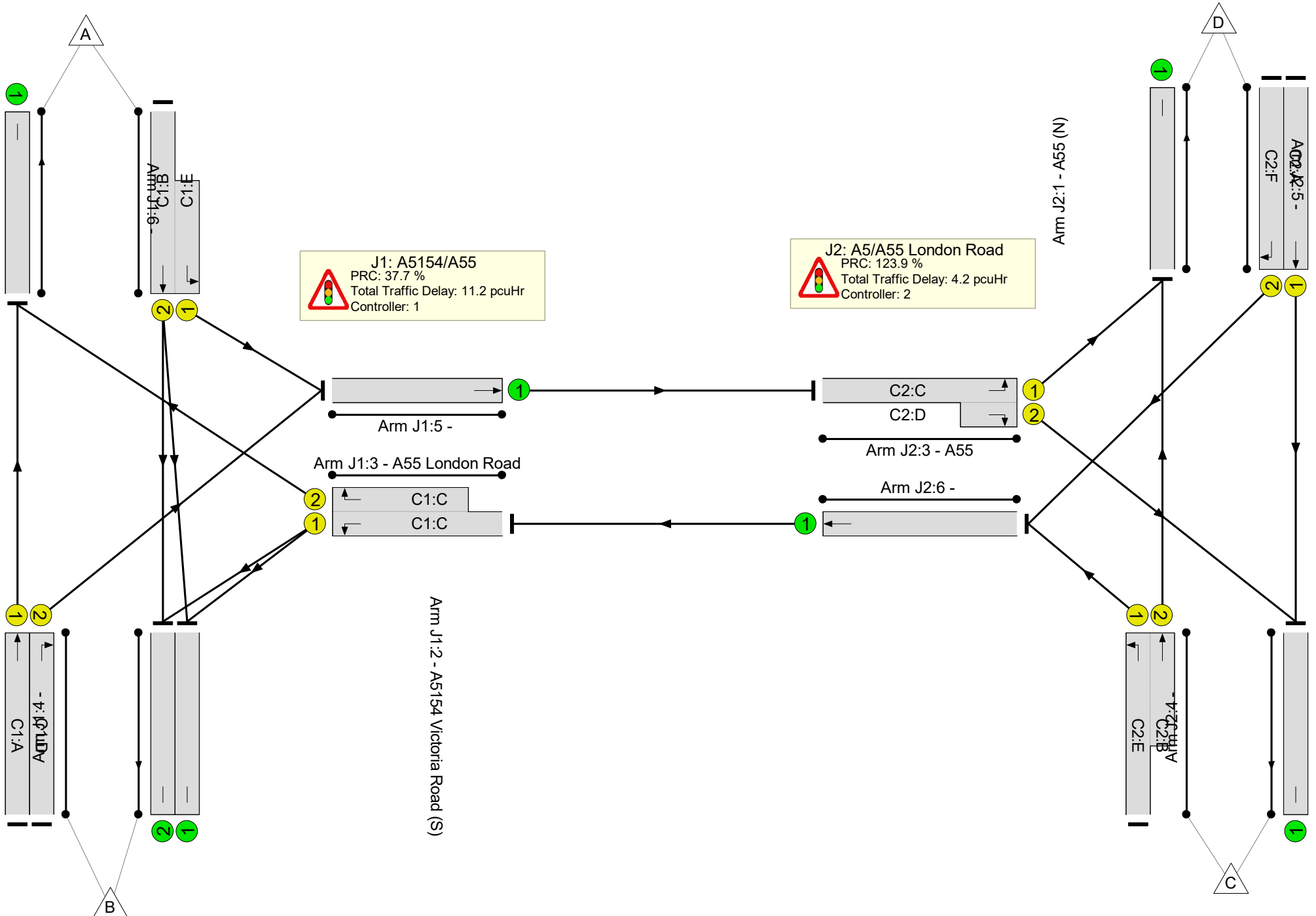
Stage	1	2	3
Duration	7	29	34
Change Point	24	36	70

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

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	-	-	N/A	-	-		-	-	-	-	-	-	65.4%
J1: A5154/A55	-	-	N/A	-	-		-	-	-	-	-	-	65.4%
1/2+1/1	A5154 Victoria Road (N) Ahead Left	U	N/A	N/A	C1:B C1:E		1	39:65	-	653	1900:1900	652+347	65.4 : 65.4%
2/1	A5154 Victoria Road (S) Ahead	U	N/A	N/A	C1:A		1	58	-	482	1900	1246	38.7%
2/2	A5154 Victoria Road (S) Right	U	N/A	N/A	C1:D		1	13	-	181	1900	296	61.2%
3/1+3/2	A55 London Road Left Right	U	N/A	N/A	C1:C		1	20	-	439	1900:1900	240+439	64.7 : 64.7%
4/1		U	N/A	N/A	-		-	-	-	291	Inf	Inf	0.0%
4/2		U	N/A	N/A	-		-	-	-	290	Inf	Inf	0.0%
5/1	Ahead	U	N/A	N/A	-		-	-	-	408	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	766	Inf	Inf	0.0%
J2: A5/A55 London Road	-	-	N/A	-	-		-	-	-	-	-	-	40.2%
1/1	A55 (N) Ahead	U	N/A	N/A	C2:A		1	41	-	48	1900	887	5.4%
1/2	A55 (N) Right	U	N/A	N/A	C2:F		1	29	-	215	1900	633	33.9%
2/1+2/2	A5 London Road Ahead Left	U	N/A	N/A	C2:E C2:B		1	46:7	-	265	1900:1900	887+162	25.3 : 25.3%
3/1+3/2	A55 Right Left	U	N/A	N/A	C2:C C2:D		1	73:39	-	408	1900:1900	547+468	40.2 : 40.2%
4/1		U	N/A	N/A	-		-	-	-	236	1900	1900	12.4%
5/1		U	N/A	N/A	-		-	-	-	261	Inf	Inf	0.0%
6/1	Ahead	U	N/A	N/A	-		-	-	-	439	Inf	Inf	0.0%

Full Input Data And Results

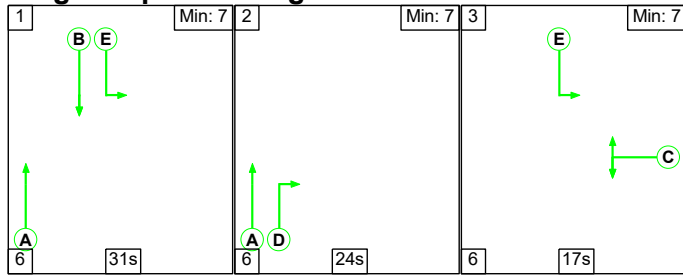
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	11.6	3.8	0.0	15.4	-	-	-	-
J1: A5154/A55	-	-	0	0	0	8.3	2.9	0.0	11.2	-	-	-	-
1/2+1/1	653	653	-	-	-	2.4	0.9	-	3.3 (2.7+0.6)	18.2 (23.1:8.9)	8.1	0.9	9.0
2/1	482	482	-	-	-	1.0	0.3	-	1.3	9.5	5.5	0.3	5.8
2/2	181	181	-	-	-	1.8	0.8	-	2.6	51.0	4.2	0.8	5.0
3/1+3/2	439	439	-	-	-	3.2	0.9	-	4.1 (1.4+2.7)	33.5 (32.5:34.1)	5.5	0.9	6.4
4/1	291	291	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	290	290	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	408	408	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	766	766	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: A5/A55 London Road	-	-	0	0	0	3.3	0.9	0.0	4.2	-	-	-	-
1/1	48	48	-	-	-	0.2	0.0	-	0.2	15.3	0.7	0.0	0.7
1/2	215	215	-	-	-	1.3	0.3	-	1.6	26.9	4.0	0.3	4.3
2/1+2/2	265	265	-	-	-	1.2	0.2	-	1.3 (0.9+0.5)	18.1 (13.9:40.5)	3.0	0.2	3.2
3/1+3/2	408	408	-	-	-	0.6	0.3	-	1.0 (0.3+0.7)	8.5 (4.3:13.4)	1.8	0.3	2.1
4/1	236	236	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
5/1	261	261	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	439	439	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1			PRC for Signalled Lanes (%):		37.7	Total Delay for Signalled Lanes (pcuHr):		11.22	Cycle Time (s):		90		
C2			PRC for Signalled Lanes (%):		123.9	Total Delay for Signalled Lanes (pcuHr):		4.10	Cycle Time (s):		90		
			PRC Over All Lanes (%):		37.7	Total Delay Over All Lanes (pcuHr):		15.39					

Full Input Data And Results

Scenario 8: '2030 with development Inter Peak' (FG8: '2030 with development Inter Peak', Plan 1: '2024 Observed AM Peak')

C1

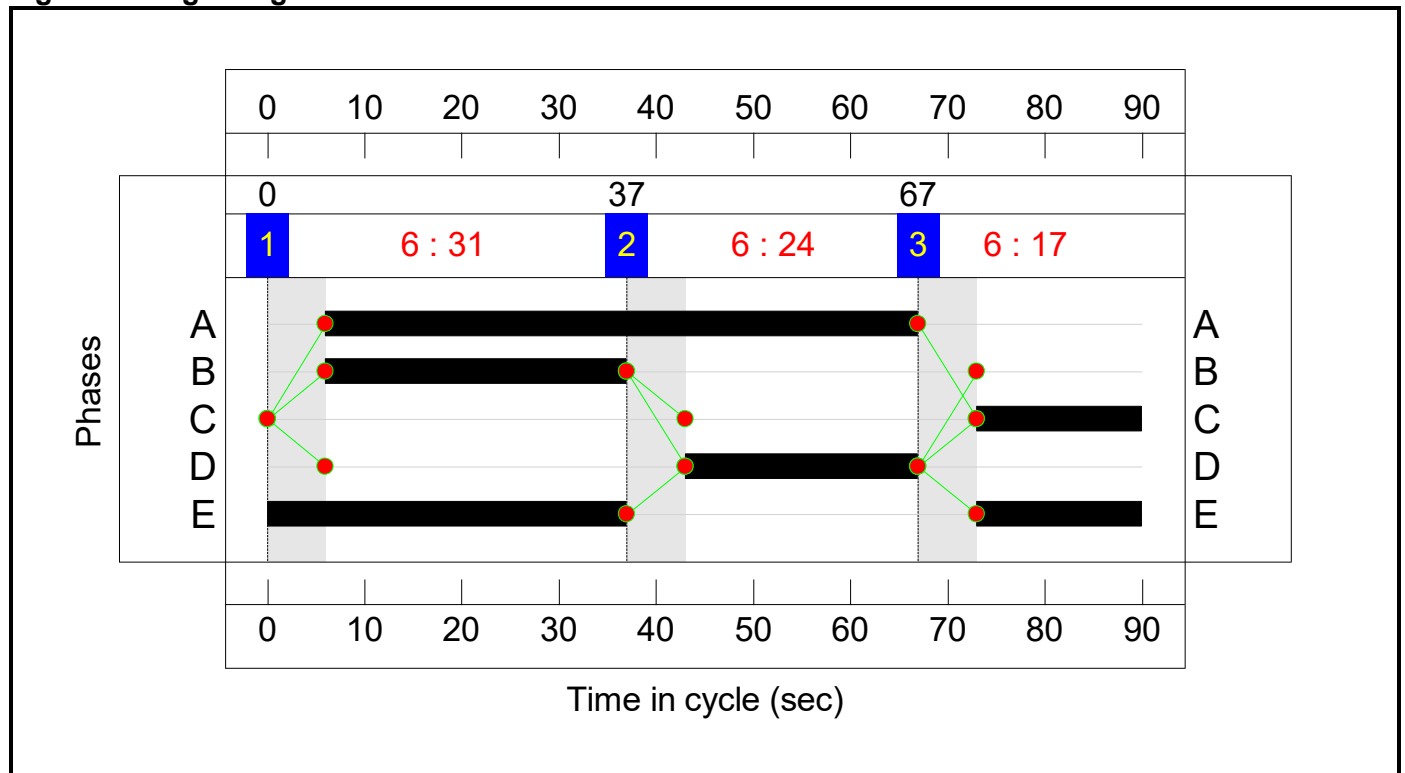
Stage Sequence Diagram



Stage Timings

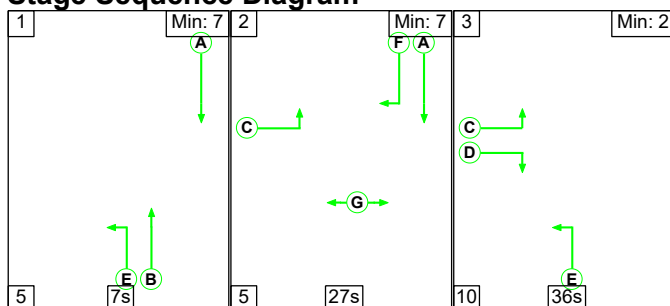
Stage	1	2	3
Duration	31	24	17
Change Point	0	37	67

Signal Timings Diagram



C2

Stage Sequence Diagram

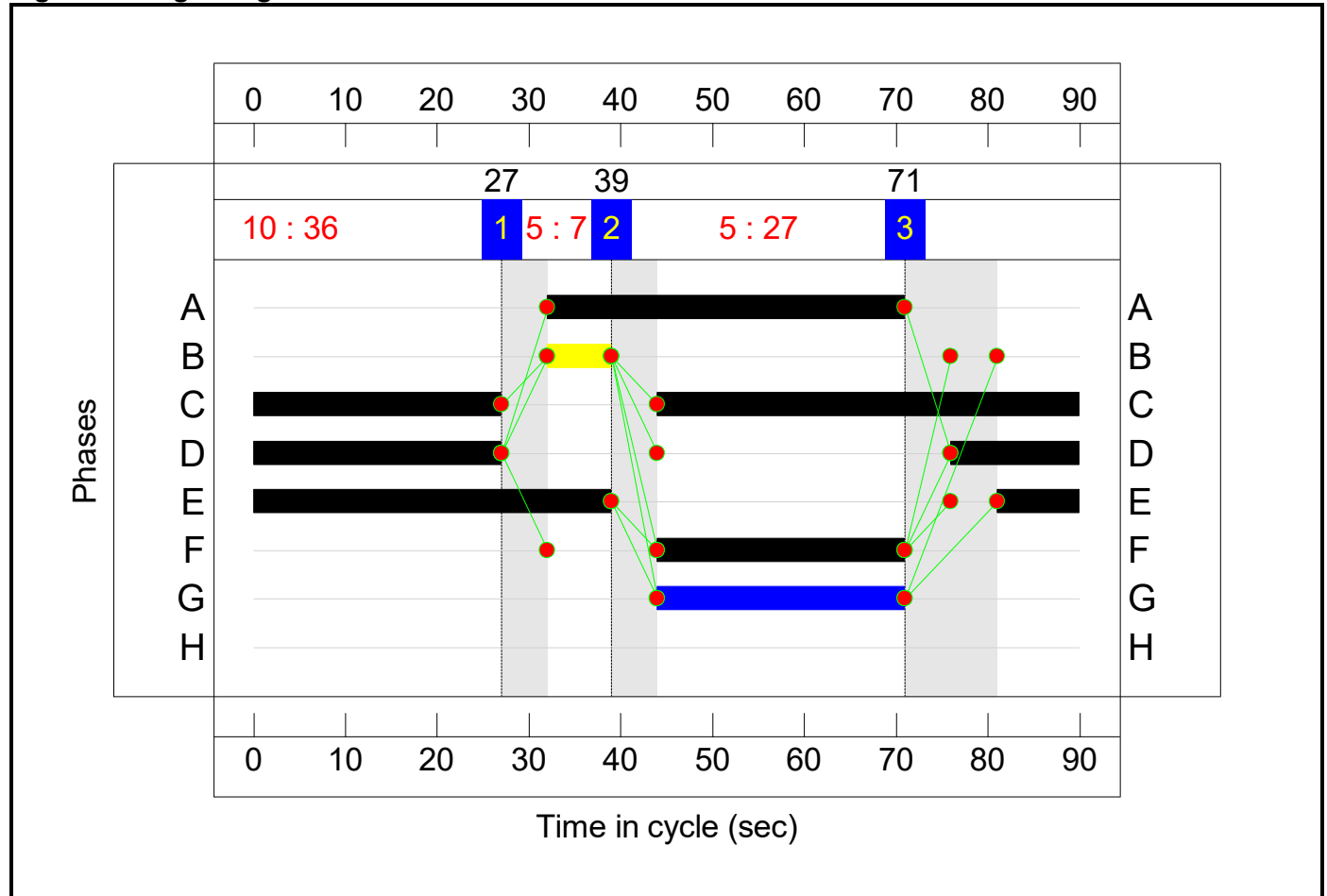


Full Input Data And Results

Stage Timings

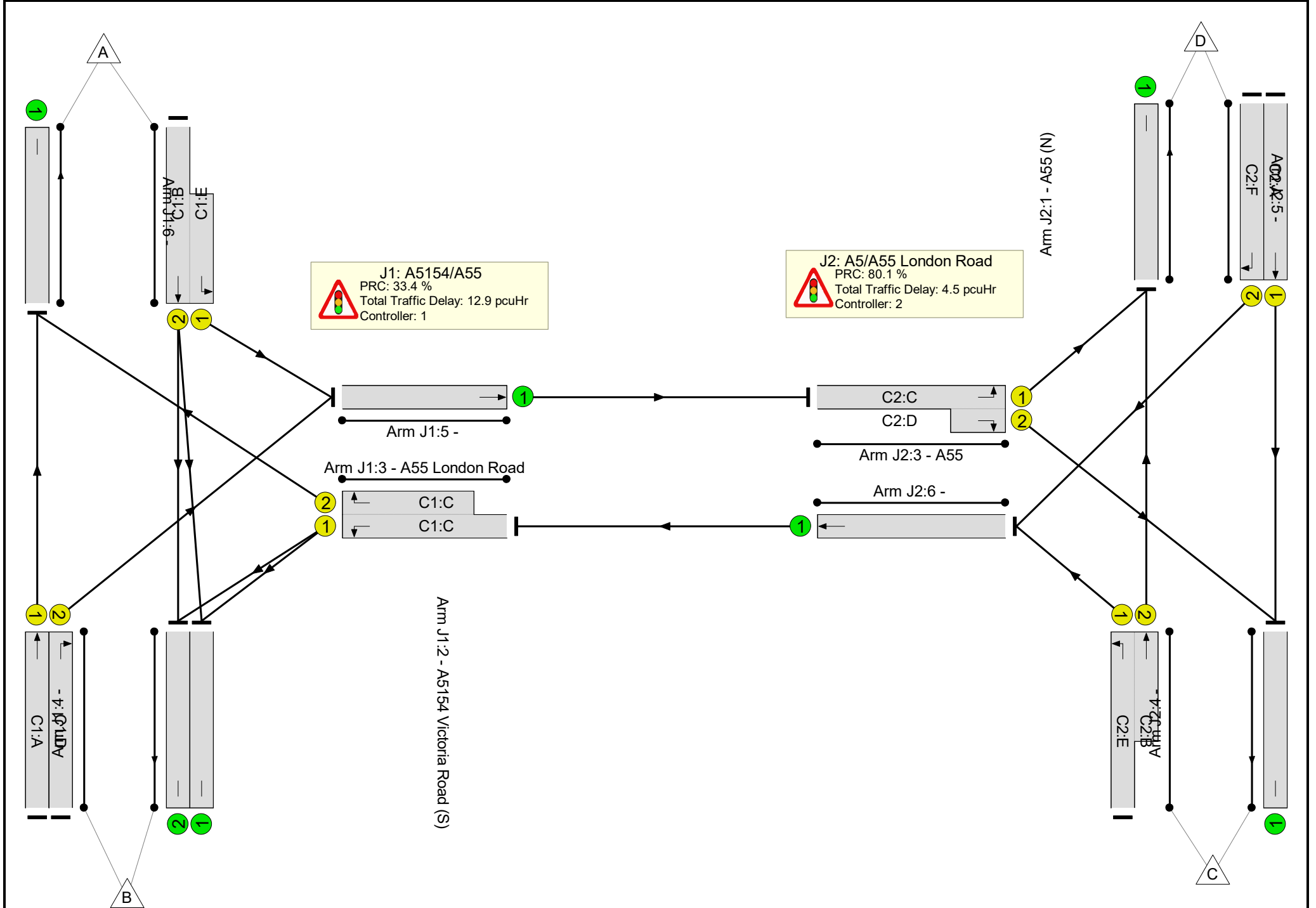
Stage	1	2	3
Duration	7	27	36
Change Point	27	39	71

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

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	-	-	N/A	-	-		-	-	-	-	-	-	67.5%
J1: A5154/A55	-	-	N/A	-	-		-	-	-	-	-	-	67.5%
1/2+1/1	A5154 Victoria Road (N) Ahead Left	U	N/A	N/A	C1:B C1:E		1	31:54	-	575	1900:1900	527+329	67.2 : 67.2%
2/1	A5154 Victoria Road (S) Ahead	U	N/A	N/A	C1:A		1	61	-	307	1900	1309	23.5%
2/2	A5154 Victoria Road (S) Right	U	N/A	N/A	C1:D		1	24	-	356	1900	528	67.5%
3/1+3/2	A55 London Road Left Right	U	N/A	N/A	C1:C		1	17	-	446	1900:1900	285+380	67.1 : 67.1%
4/1		U	N/A	N/A	-		-	-	-	273	Inf	Inf	0.0%
4/2		U	N/A	N/A	-		-	-	-	272	Inf	Inf	0.0%
5/1	Ahead	U	N/A	N/A	-		-	-	-	577	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	562	Inf	Inf	0.0%
J2: A5/A55 London Road	-	-	N/A	-	-		-	-	-	-	-	-	50.0%
1/1	A55 (N) Ahead	U	N/A	N/A	C2:A		1	39	-	53	1900	844	6.3%
1/2	A55 (N) Right	U	N/A	N/A	C2:F		1	27	-	206	1900	591	34.8%
2/1+2/2	A5 London Road Ahead Left	U	N/A	N/A	C2:E C2:B		1	48:7	-	294	1900:1900	900+169	26.7 : 32.0%
3/1+3/2	A55 Right Left	U	N/A	N/A	C2:C C2:D		1	73:41	-	577	1900:1900	750+404	50.0 : 50.0%
4/1		U	N/A	N/A	-		-	-	-	255	1900	1900	13.4%
5/1		U	N/A	N/A	-		-	-	-	429	Inf	Inf	0.0%
6/1	Ahead	U	N/A	N/A	-		-	-	-	446	Inf	Inf	0.0%

Full Input Data And Results

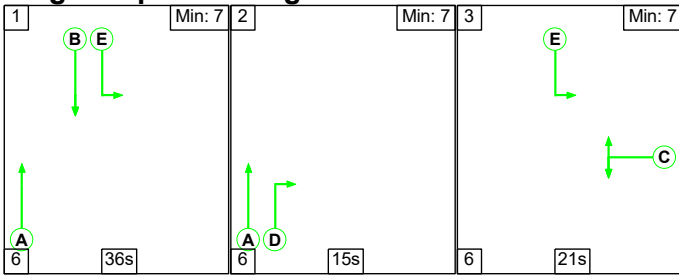
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	13.1	4.3	0.0	17.3	-	-	-	-
J1: A5154/A55	-	-	0	0	0	9.7	3.2	0.0	12.9	-	-	-	-
1/2+1/1	575	575	-	-	-	2.7	1.0	-	3.7 (2.9+0.9)	23.5 (29.3:14.1)	7.0	1.0	8.0
2/1	307	307	-	-	-	0.4	0.2	-	0.6	7.0	2.8	0.2	3.0
2/2	356	356	-	-	-	2.9	1.0	-	3.9	39.2	7.8	1.0	8.8
3/1+3/2	446	446	-	-	-	3.6	1.0	-	4.7 (2.0+2.7)	37.6 (37.1:38.0)	5.1	1.0	6.1
4/1	273	273	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	272	272	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	577	577	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	562	562	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: A5/A55 London Road	-	-	0	0	0	3.4	1.1	0.0	4.5	-	-	-	-
1/1	53	53	-	-	-	0.2	0.0	-	0.2	16.6	0.8	0.0	0.8
1/2	206	206	-	-	-	1.4	0.3	-	1.6	28.6	3.9	0.3	4.2
2/1+2/2	294	294	-	-	-	1.3	0.2	-	1.5 (0.9+0.6)	18.1 (13.0:40.8)	3.1	0.2	3.3
3/1+3/2	577	577	-	-	-	0.5	0.5	-	1.0 (0.4+0.6)	6.4 (4.3:10.3)	1.3	0.5	1.8
4/1	255	255	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
5/1	429	429	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	446	446	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1			PRC for Signalled Lanes (%):		33.4	Total Delay for Signalled Lanes (pcuHr):		12.88	Cycle Time (s):		90		
C2			PRC for Signalled Lanes (%):		80.1	Total Delay for Signalled Lanes (pcuHr):		4.38	Cycle Time (s):		90		
			PRC Over All Lanes (%):		33.4	Total Delay Over All Lanes (pcuHr):		17.34					

Full Input Data And Results

Scenario 9: '2030 with development PM Peak' (FG9: '2030 with development PM Peak', Plan 1: '2024 Observed AM Peak')

C1

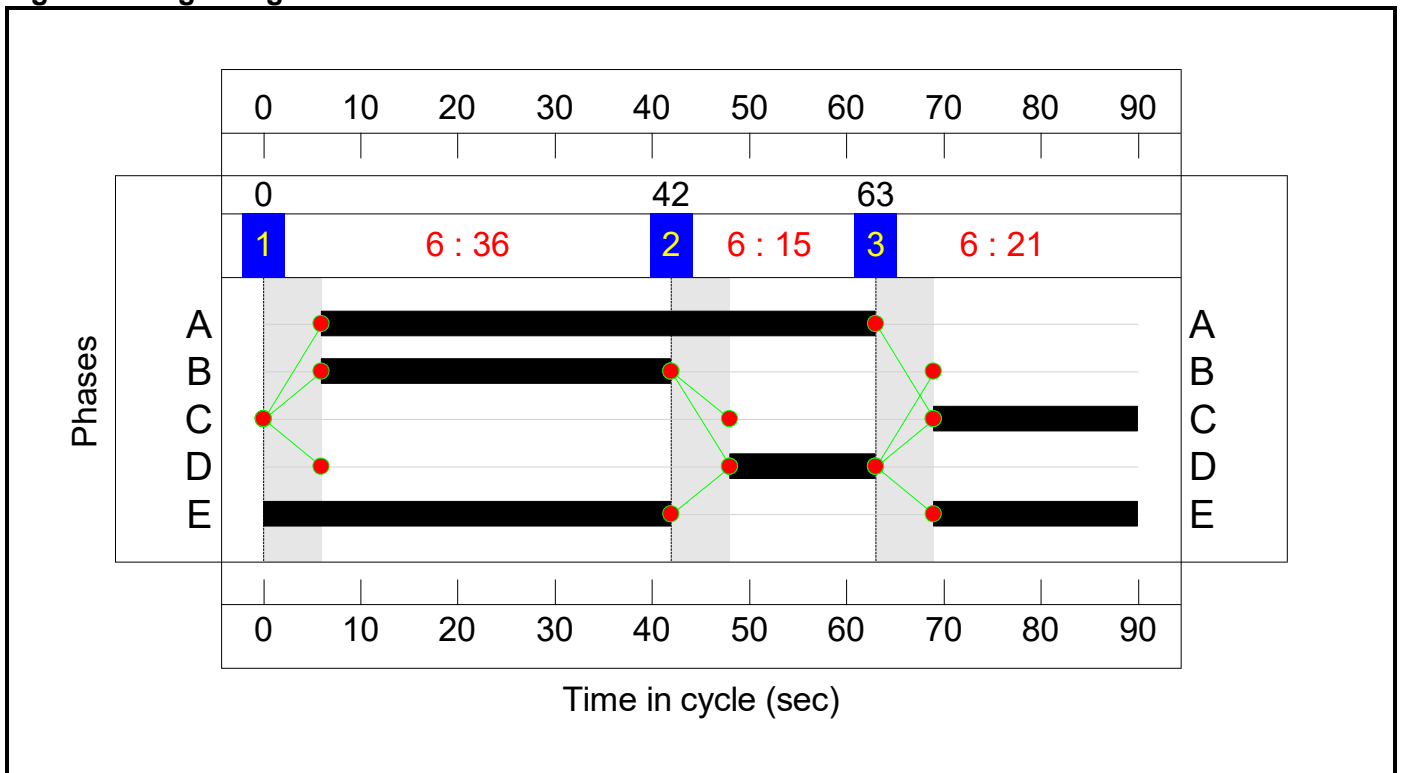
Stage Sequence Diagram



Stage Timings

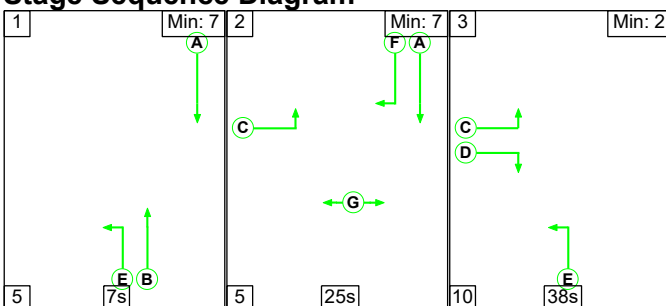
Stage	1	2	3
Duration	36	15	21
Change Point	0	42	63

Signal Timings Diagram



C2

Stage Sequence Diagram

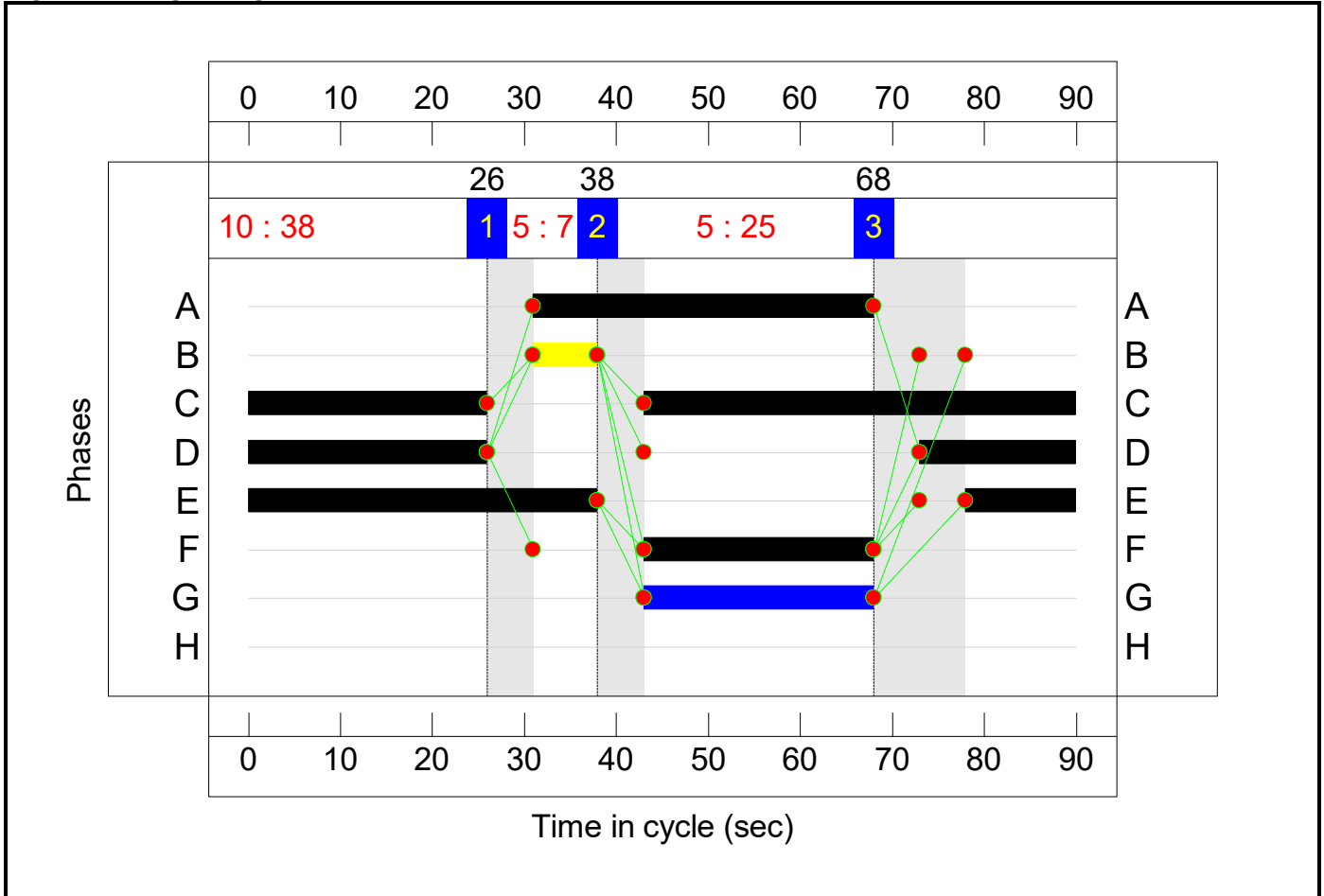


Full Input Data And Results

Stage Timings

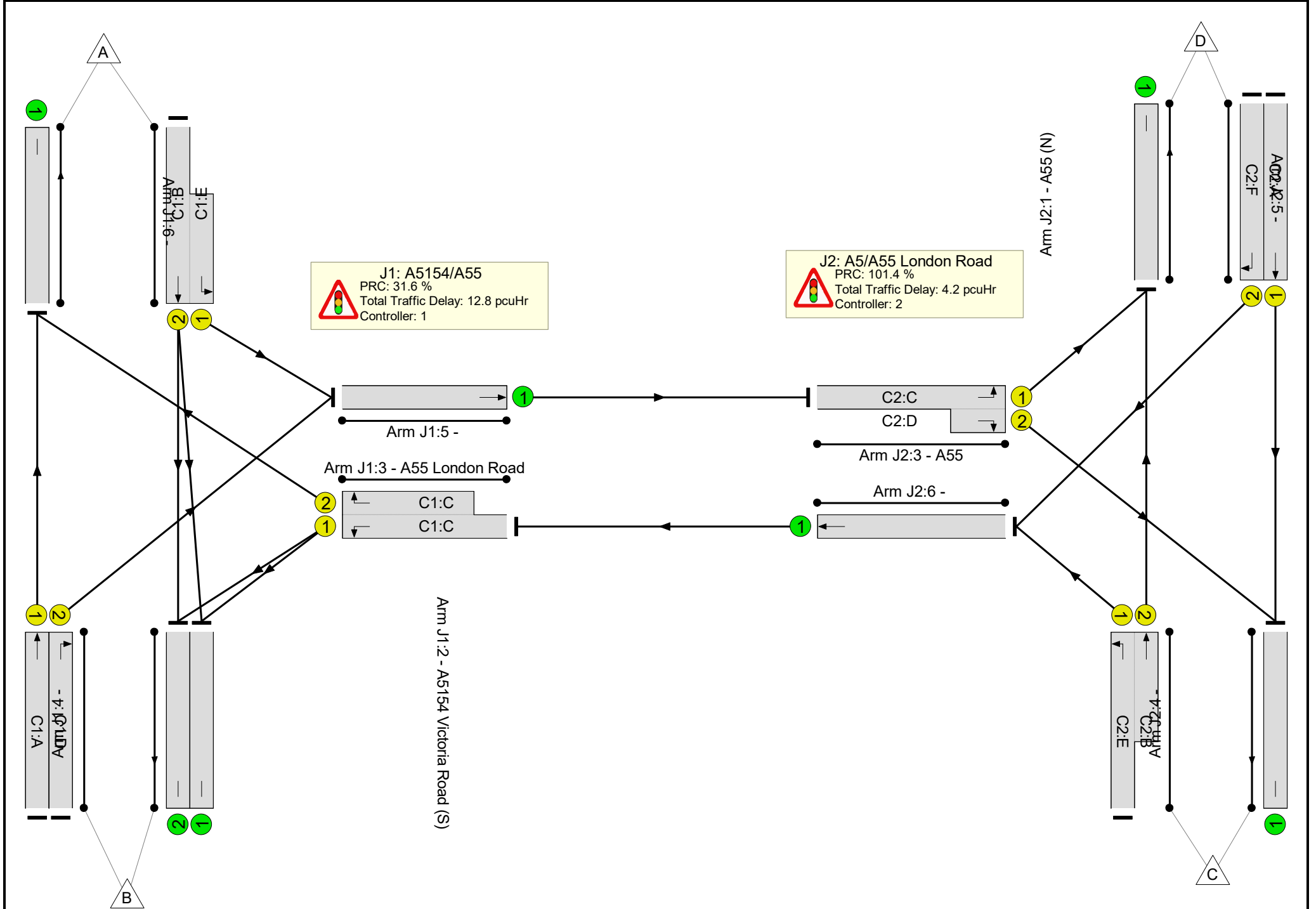
Stage	1	2	3
Duration	7	25	38
Change Point	26	38	68

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

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	-	-	N/A	-	-		-	-	-	-	-	-	68.4%
J1: A5154/A55	-	-	N/A	-	-		-	-	-	-	-	-	68.4%
1/2+1/1	A5154 Victoria Road (N) Ahead Left	U	N/A	N/A	C1:B C1:E		1	36:63	-	666	1900:1900	584+390	68.4 : 68.4%
2/1	A5154 Victoria Road (S) Ahead	U	N/A	N/A	C1:A		1	57	-	537	1900	1224	43.9%
2/2	A5154 Victoria Road (S) Right	U	N/A	N/A	C1:D		1	15	-	229	1900	338	67.8%
3/1+3/2	A55 London Road Left Right	U	N/A	N/A	C1:C		1	21	-	456	1900:1900	220+454	67.6 : 67.6%
4/1		U	N/A	N/A	-		-	-	-	275	Inf	Inf	0.0%
4/2		U	N/A	N/A	-		-	-	-	273	Inf	Inf	0.0%
5/1	Ahead	U	N/A	N/A	-		-	-	-	496	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	844	Inf	Inf	0.0%
J2: A5/A55 London Road	-	-	N/A	-	-		-	-	-	-	-	-	44.7%
1/1	A55 (N) Ahead	U	N/A	N/A	C2:A		1	37	-	48	1900	802	6.0%
1/2	A55 (N) Right	U	N/A	N/A	C2:F		1	25	-	191	1900	549	34.8%
2/1+2/2	A5 London Road Ahead Left	U	N/A	N/A	C2:E C2:B		1	50:7	-	303	1900:1900	982+141	27.0 : 27.0%
3/1+3/2	A55 Right Left	U	N/A	N/A	C2:C C2:D		1	73:43	-	496	1900:1900	615+495	44.7 : 44.7%
4/1		U	N/A	N/A	-		-	-	-	269	1900	1900	14.2%
5/1		U	N/A	N/A	-		-	-	-	313	Inf	Inf	0.0%
6/1	Ahead	U	N/A	N/A	-		-	-	-	456	Inf	Inf	0.0%

Full Input Data And Results

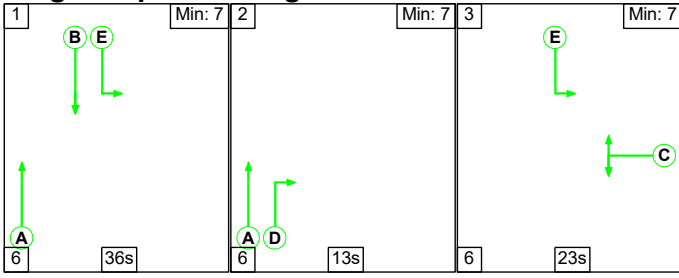
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	12.6	4.5	0.0	17.1	-	-	-	-
J1: A5154/A55	-	-	0	0	0	9.3	3.5	0.0	12.8	-	-	-	-
1/2+1/1	666	666	-	-	-	2.5	1.1	-	3.6 (2.8+0.8)	19.4 (25.6:10.3)	7.9	1.1	9.0
2/1	537	537	-	-	-	1.2	0.4	-	1.6	10.5	6.6	0.4	7.0
2/2	229	229	-	-	-	2.2	1.0	-	3.2	50.8	5.3	1.0	6.4
3/1+3/2	456	456	-	-	-	3.4	1.0	-	4.4 (1.4+3.0)	35.0 (33.8:35.6)	5.9	1.0	7.0
4/1	275	275	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	273	273	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	496	496	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	844	844	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: A5/A55 London Road	-	-	0	0	0	3.3	1.0	0.0	4.2	-	-	-	-
1/1	48	48	-	-	-	0.2	0.0	-	0.2	17.8	0.7	0.0	0.7
1/2	191	191	-	-	-	1.3	0.3	-	1.6	30.3	3.8	0.3	4.0
2/1+2/2	303	303	-	-	-	1.1	0.2	-	1.3 (0.9+0.4)	15.6 (12.0:40.4)	3.3	0.2	3.5
3/1+3/2	496	496	-	-	-	0.6	0.4	-	1.0 (0.3+0.7)	7.3 (4.2:11.2)	1.8	0.4	2.2
4/1	269	269	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
5/1	313	313	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	456	456	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1			PRC for Signalled Lanes (%):		31.6	Total Delay for Signalled Lanes (pcuHr):			12.83	Cycle Time (s):		90	
C2			PRC for Signalled Lanes (%):		101.4	Total Delay for Signalled Lanes (pcuHr):			4.16	Cycle Time (s):		90	
			PRC Over All Lanes (%):		31.6	Total Delay Over All Lanes(pcuHr):			17.08				

Full Input Data And Results

Scenario 10: '2040 Background AM Peak' (FG10: '2040 Background AM Peak', Plan 1: '2024 Observed AM Peak')

C1

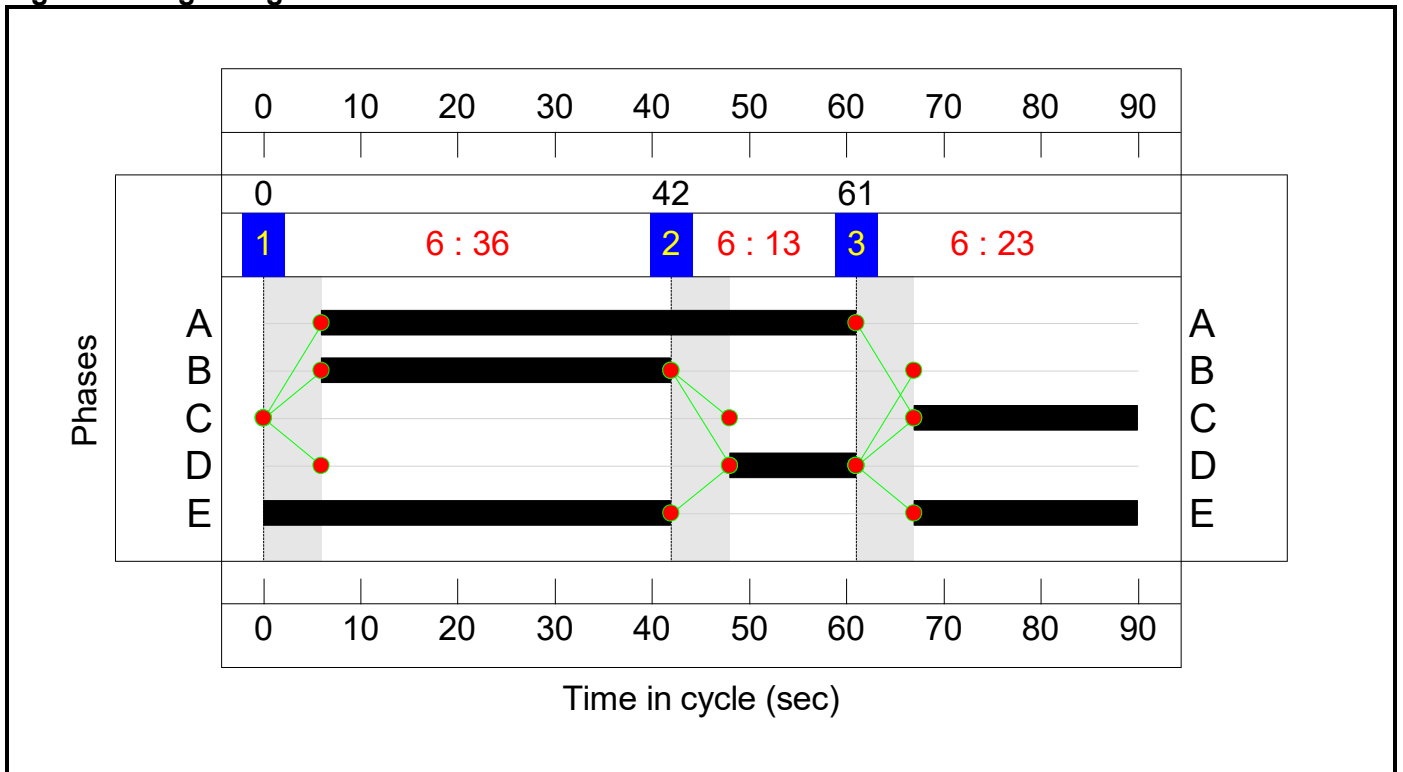
Stage Sequence Diagram



Stage Timings

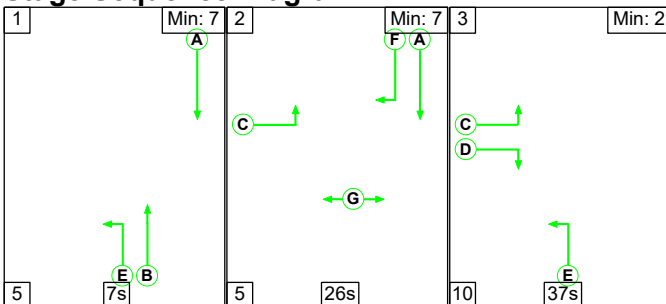
Stage	1	2	3
Duration	36	13	23
Change Point	0	42	61

Signal Timings Diagram



C2

Stage Sequence Diagram

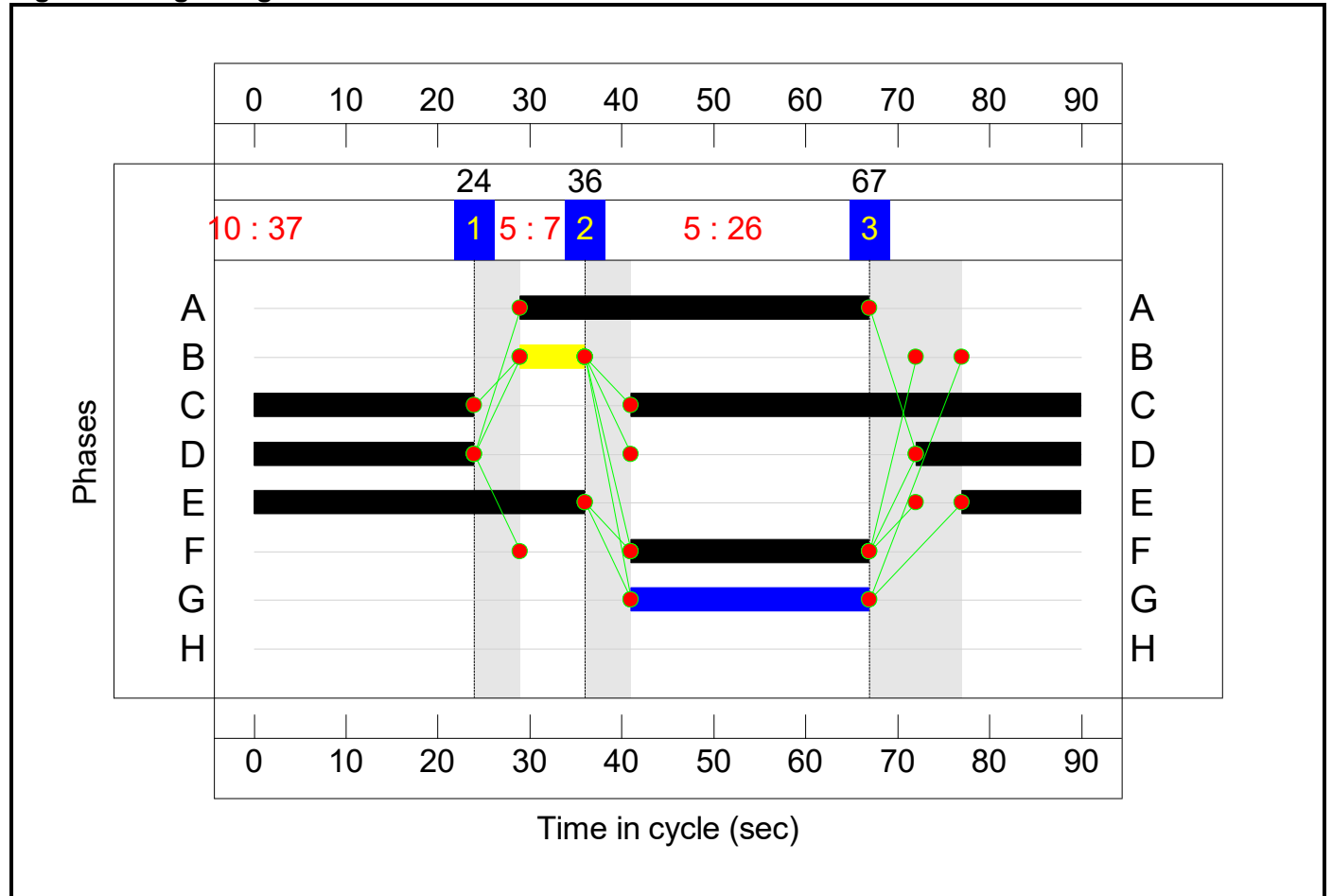


Full Input Data And Results

Stage Timings

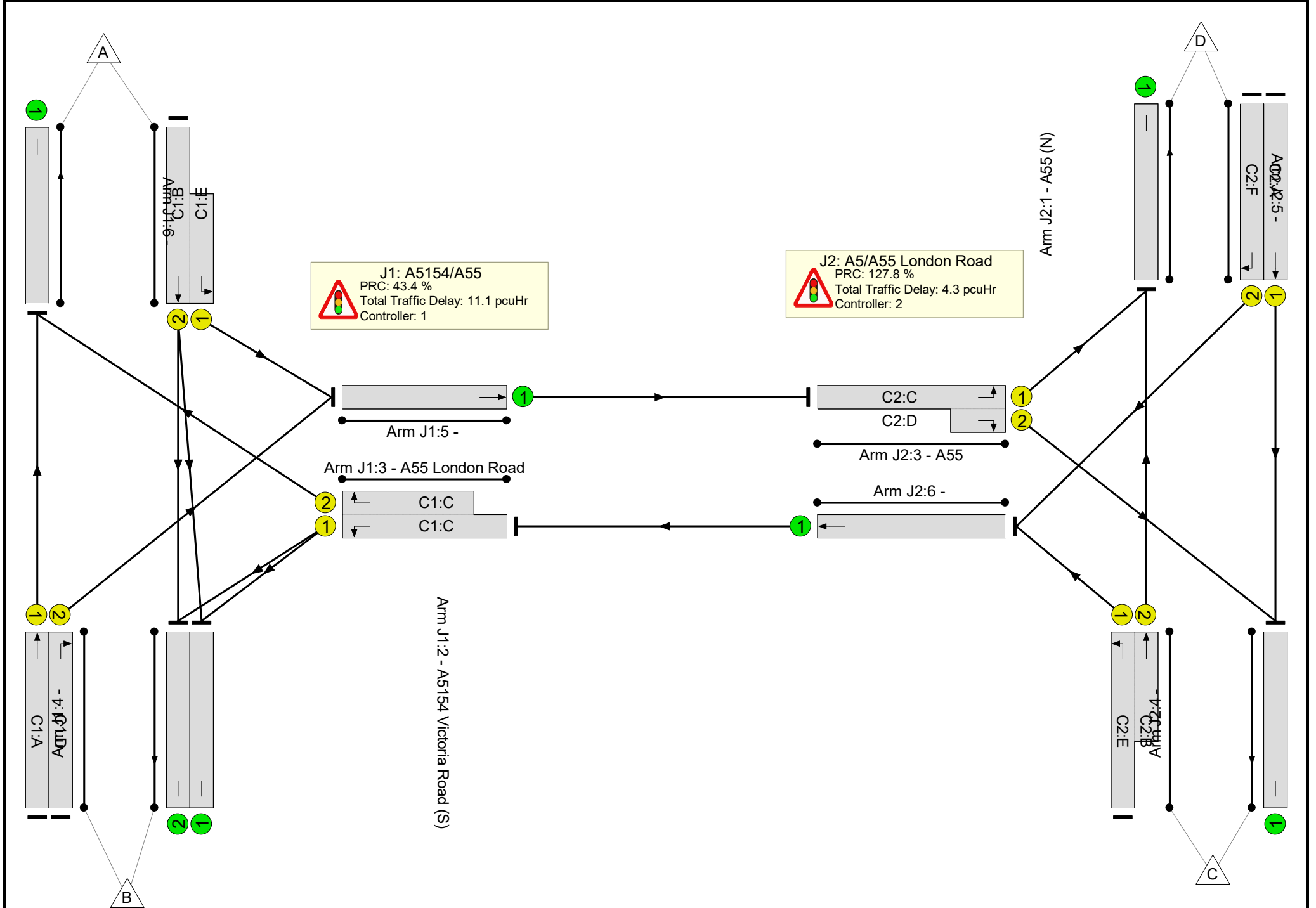
Stage	1	2	3
Duration	7	26	37
Change Point	24	36	67

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

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	-	-	N/A	-	-		-	-	-	-	-	-	62.8%
J1: A5154/A55	-	-	N/A	-	-		-	-	-	-	-	-	62.8%
1/2+1/1	A5154 Victoria Road (N) Ahead Left	U	N/A	N/A	C1:B C1:E		1	36:65	-	609	1900:1900	586+384	62.8 : 62.8%
2/1	A5154 Victoria Road (S) Ahead	U	N/A	N/A	C1:A		1	55	-	493	1900	1182	41.7%
2/2	A5154 Victoria Road (S) Right	U	N/A	N/A	C1:D		1	13	-	182	1900	296	61.6%
3/1+3/2	A55 London Road Left Right	U	N/A	N/A	C1:C		1	23	-	452	1900:1900	242+482	62.5 : 62.5%
4/1		U	N/A	N/A	-		-	-	-	260	Inf	Inf	0.0%
4/2		U	N/A	N/A	-		-	-	-	259	Inf	Inf	0.0%
5/1	Ahead	U	N/A	N/A	-		-	-	-	423	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	794	Inf	Inf	0.0%
J2: A5/A55 London Road	-	-	N/A	-	-		-	-	-	-	-	-	39.5%
1/1	A55 (N) Ahead	U	N/A	N/A	C2:A		1	38	-	51	1900	823	6.2%
1/2	A55 (N) Right	U	N/A	N/A	C2:F		1	26	-	214	1900	570	37.5%
2/1+2/2	A5 London Road Ahead Left	U	N/A	N/A	C2:E C2:B		1	49:7	-	281	1900:1900	942+169	25.3 : 25.5%
3/1+3/2	A55 Right Left	U	N/A	N/A	C2:C C2:D		1	73:42	-	423	1900:1900	564+506	39.5 : 39.5%
4/1		U	N/A	N/A	-		-	-	-	251	1900	1900	13.2%
5/1		U	N/A	N/A	-		-	-	-	266	Inf	Inf	0.0%
6/1	Ahead	U	N/A	N/A	-		-	-	-	452	Inf	Inf	0.0%

Full Input Data And Results

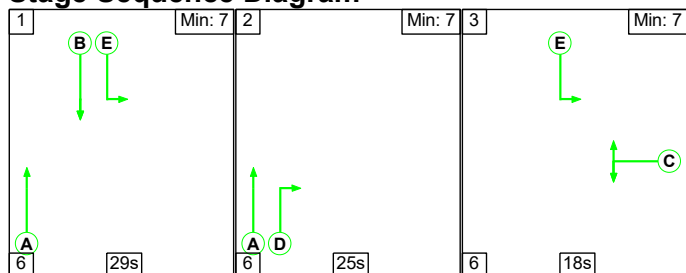
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)	
Network	-	-	0	0	0	11.7	3.7	0.0	15.4	-	-	-	-	
J1: A5154/A55	-	-	0	0	0	8.3	2.8	0.0	11.1	-	-	-	-	
1/2+1/1	609	609	-	-	-	2.2	0.8	-	3.1 (2.5+0.6)	18.1 (24.3:8.6)	6.6	0.8	7.5	
2/1	493	493	-	-	-	1.2	0.4	-	1.5	11.3	6.2	0.4	6.5	
2/2	182	182	-	-	-	1.8	0.8	-	2.6	51.1	4.2	0.8	5.0	
3/1+3/2	452	452	-	-	-	3.1	0.8	-	3.9 (1.3+2.6)	31.0 (30.0:31.5)	5.1	0.8	5.9	
4/1	260	260	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
4/2	259	259	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/1	423	423	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
6/1	794	794	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
J2: A5/A55 London Road	-	-	0	0	0	3.4	0.9	0.0	4.3	-	-	-	-	
1/1	51	51	-	-	-	0.2	0.0	-	0.2	17.2	0.7	0.0	0.8	
1/2	214	214	-	-	-	1.5	0.3	-	1.8	29.9	4.2	0.3	4.5	
2/1+2/2	281	281	-	-	-	1.1	0.2	-	1.3 (0.8+0.5)	16.6 (12.3:40.4)	3.0	0.2	3.1	
3/1+3/2	423	423	-	-	-	0.6	0.3	-	0.9 (0.2+0.7)	7.7 (4.0:11.7)	1.8	0.3	2.1	
4/1	251	251	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1	
5/1	266	266	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
6/1	452	452	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
			C1	PRC for Signalled Lanes (%):		43.4	Total Delay for Signalled Lanes (pcuHr):		11.09	Cycle Time (s):		90		
			C2	PRC for Signalled Lanes (%):		127.8	Total Delay for Signalled Lanes (pcuHr):		4.22	Cycle Time (s):		90		
				PRC Over All Lanes (%):		43.4	Total Delay Over All Lanes(pcuHr):		15.39					

Full Input Data And Results

Scenario 11: '2040 Background Inter Peak' (FG11: '2040 Background Inter Peak', Plan 1: '2024 Observed AM Peak')

C1

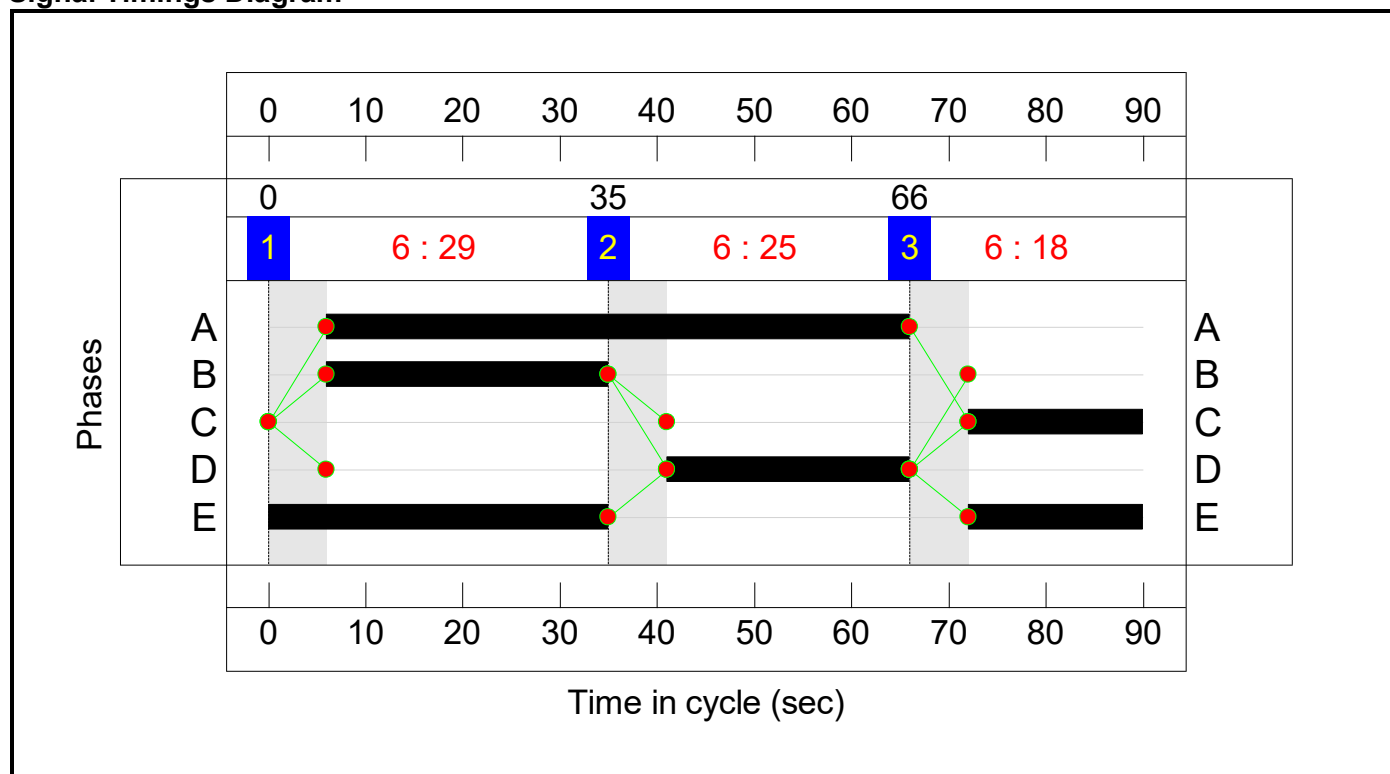
Stage Sequence Diagram



Stage Timings

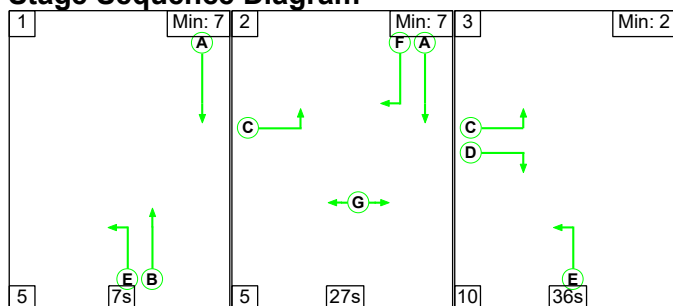
Stage	1	2	3
Duration	29	25	18
Change Point	0	35	66

Signal Timings Diagram



C2

Stage Sequence Diagram

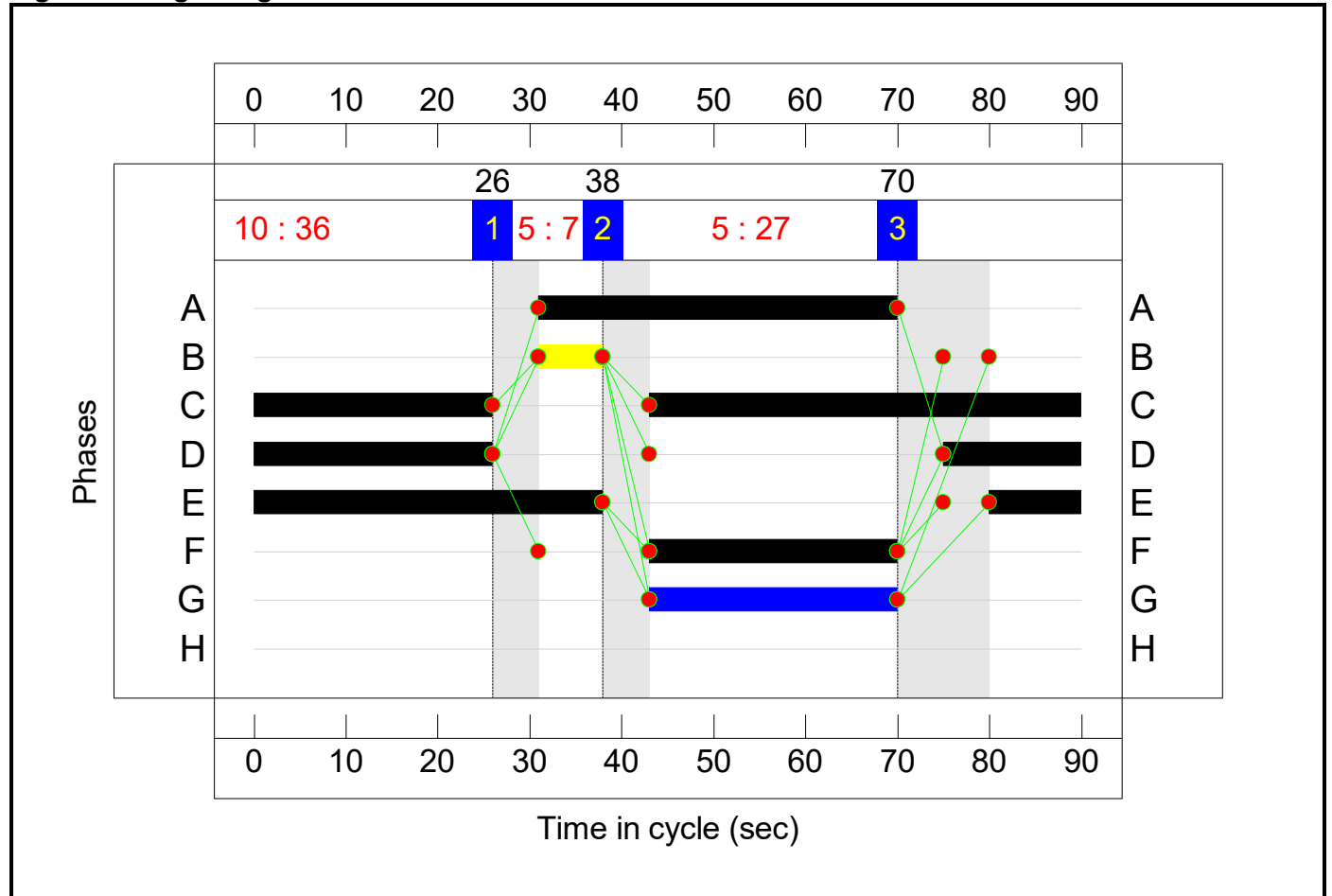


Full Input Data And Results

Stage Timings

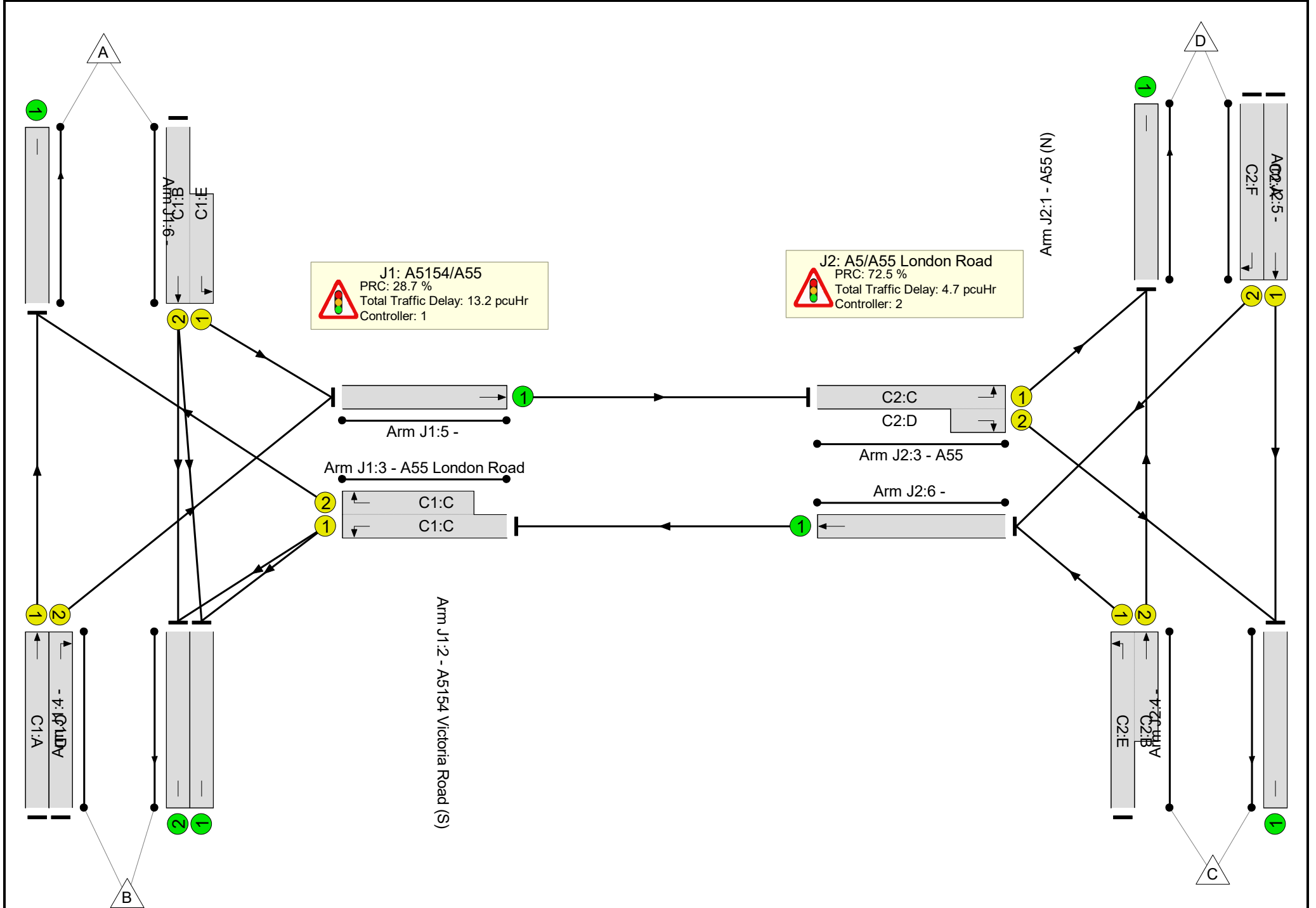
Stage	1	2	3
Duration	7	27	36
Change Point	26	38	70

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

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	-	-	N/A	-	-		-	-	-	-	-	-	69.9%
J1: A5154/A55	-	-	N/A	-	-		-	-	-	-	-	-	69.9%
1/2+1/1	A5154 Victoria Road (N) Ahead Left	U	N/A	N/A	C1:B C1:E		1	29:53	-	578	1900:1900	495+332	69.9 : 69.9%
2/1	A5154 Victoria Road (S) Ahead	U	N/A	N/A	C1:A		1	60	-	288	1900	1288	22.4%
2/2	A5154 Victoria Road (S) Right	U	N/A	N/A	C1:D		1	25	-	370	1900	549	67.4%
3/1+3/2	A55 London Road Left Right	U	N/A	N/A	C1:C		1	18	-	461	1900:1900	294+401	66.3 : 66.3%
4/1		U	N/A	N/A	-		-	-	-	271	Inf	Inf	0.0%
4/2		U	N/A	N/A	-		-	-	-	270	Inf	Inf	0.0%
5/1	Ahead	U	N/A	N/A	-		-	-	-	602	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	554	Inf	Inf	0.0%
J2: A5/A55 London Road	-	-	N/A	-	-		-	-	-	-	-	-	52.2%
1/1	A55 (N) Ahead	U	N/A	N/A	C2:A		1	39	-	56	1900	844	6.6%
1/2	A55 (N) Right	U	N/A	N/A	C2:F		1	27	-	211	1900	591	35.7%
2/1+2/2	A5 London Road Ahead Left	U	N/A	N/A	C2:E C2:B		1	48:7	-	307	1900:1900	899+169	27.8 : 33.8%
3/1+3/2	A55 Right Left	U	N/A	N/A	C2:C C2:D		1	73:41	-	602	1900:1900	749+404	52.2 : 52.2%
4/1		U	N/A	N/A	-		-	-	-	267	1900	1900	14.1%
5/1		U	N/A	N/A	-		-	-	-	448	Inf	Inf	0.0%
6/1	Ahead	U	N/A	N/A	-		-	-	-	461	Inf	Inf	0.0%

Full Input Data And Results

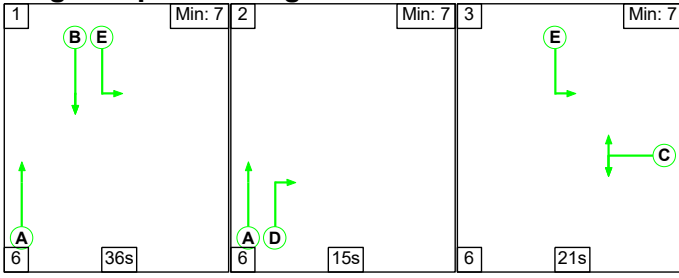
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	13.4	4.4	0.0	17.9	-	-	-	-
J1: A5154/A55	-	-	0	0	0	9.9	3.3	0.0	13.2	-	-	-	-
1/2+1/1	578	578	-	-	-	2.9	1.2	-	4.0 (3.0+1.0)	25.1 (31.6:15.4)	7.0	1.2	8.2
2/1	288	288	-	-	-	0.4	0.1	-	0.6	7.3	2.7	0.1	2.9
2/2	370	370	-	-	-	2.9	1.0	-	3.9	38.2	8.1	1.0	9.1
3/1+3/2	461	461	-	-	-	3.6	1.0	-	4.6 (1.9+2.7)	36.1 (35.5:36.5)	5.4	1.0	6.4
4/1	271	271	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	270	270	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	602	602	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	554	554	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: A5/A55 London Road	-	-	0	0	0	3.5	1.1	0.0	4.7	-	-	-	-
1/1	56	56	-	-	-	0.2	0.0	-	0.3	16.6	0.8	0.0	0.8
1/2	211	211	-	-	-	1.4	0.3	-	1.7	28.8	4.0	0.3	4.3
2/1+2/2	307	307	-	-	-	1.4	0.2	-	1.6 (0.9+0.6)	18.3 (13.1:40.9)	3.3	0.2	3.5
3/1+3/2	602	602	-	-	-	0.6	0.5	-	1.1 (0.5+0.6)	6.6 (4.4:10.5)	1.5	0.5	2.0
4/1	267	267	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
5/1	448	448	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	461	461	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1			PRC for Signalled Lanes (%):		28.7	Total Delay for Signalled Lanes (pcuHr):			13.17	Cycle Time (s):		90	
C2			PRC for Signalled Lanes (%):		72.5	Total Delay for Signalled Lanes (pcuHr):			4.61	Cycle Time (s):		90	
			PRC Over All Lanes (%):		28.7	Total Delay Over All Lanes(pcuHr):			17.85				

Full Input Data And Results

Scenario 12: '2040 Background PM Peak' (FG12: '2040 Background PM Peak', Plan 1: '2024 Observed AM Peak')

C1

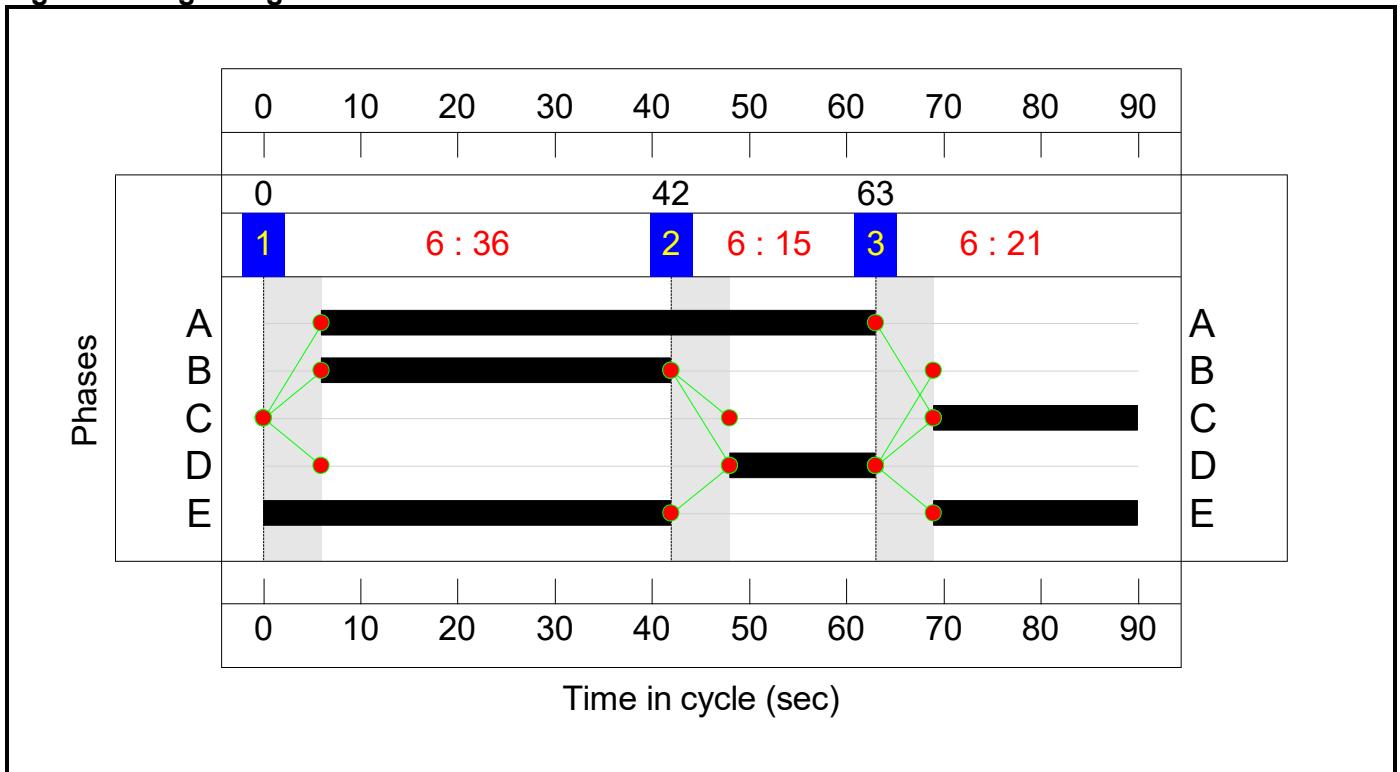
Stage Sequence Diagram



Stage Timings

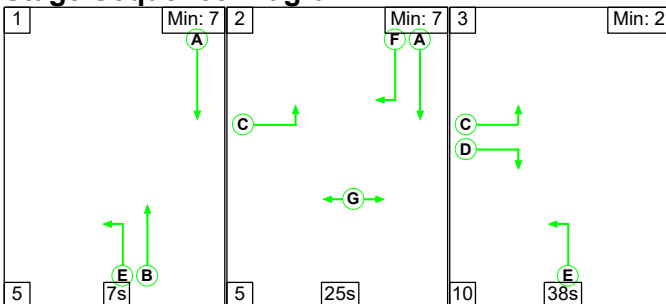
Stage	1	2	3
Duration	36	15	21
Change Point	0	42	63

Signal Timings Diagram



C2

Stage Sequence Diagram

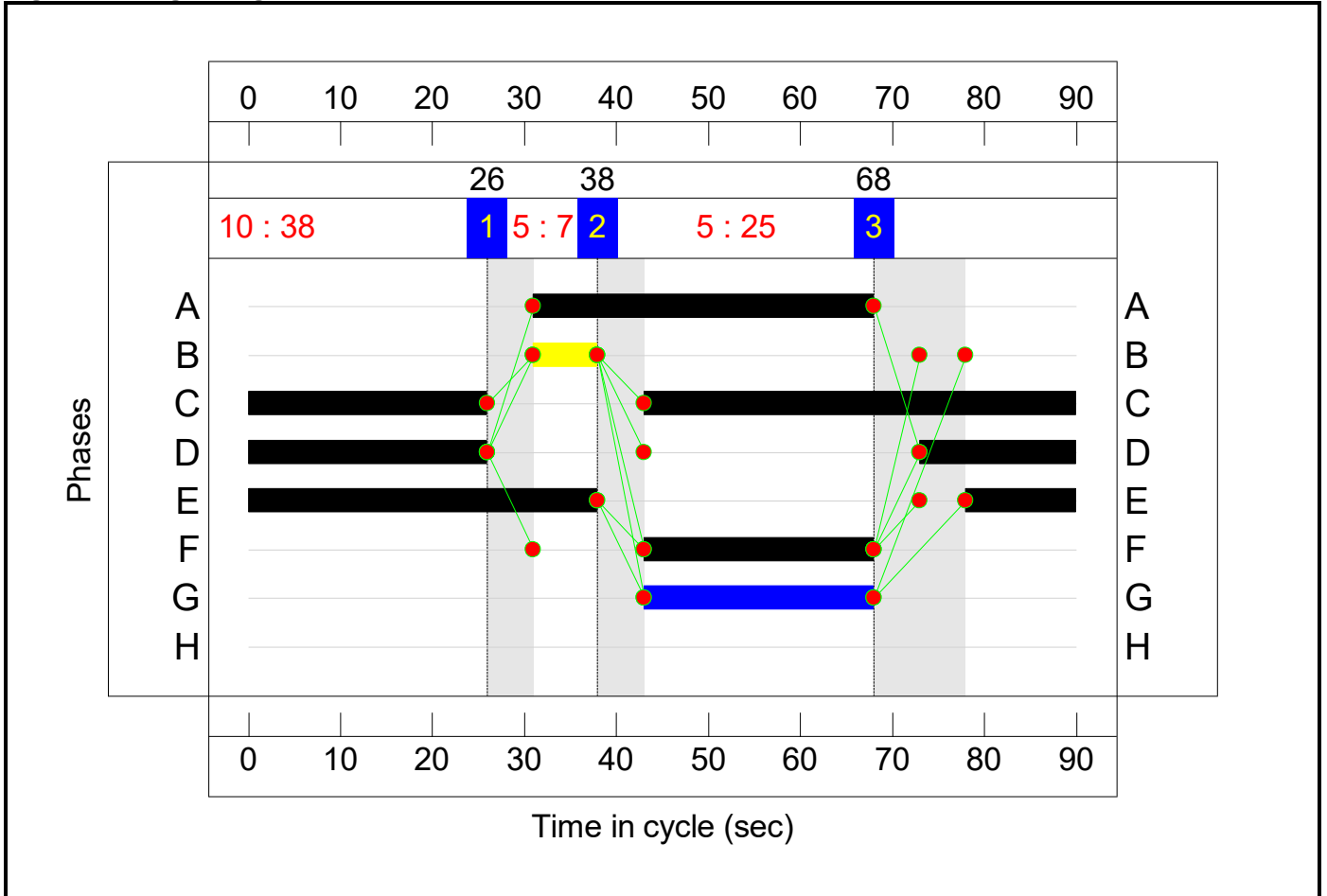


Full Input Data And Results

Stage Timings

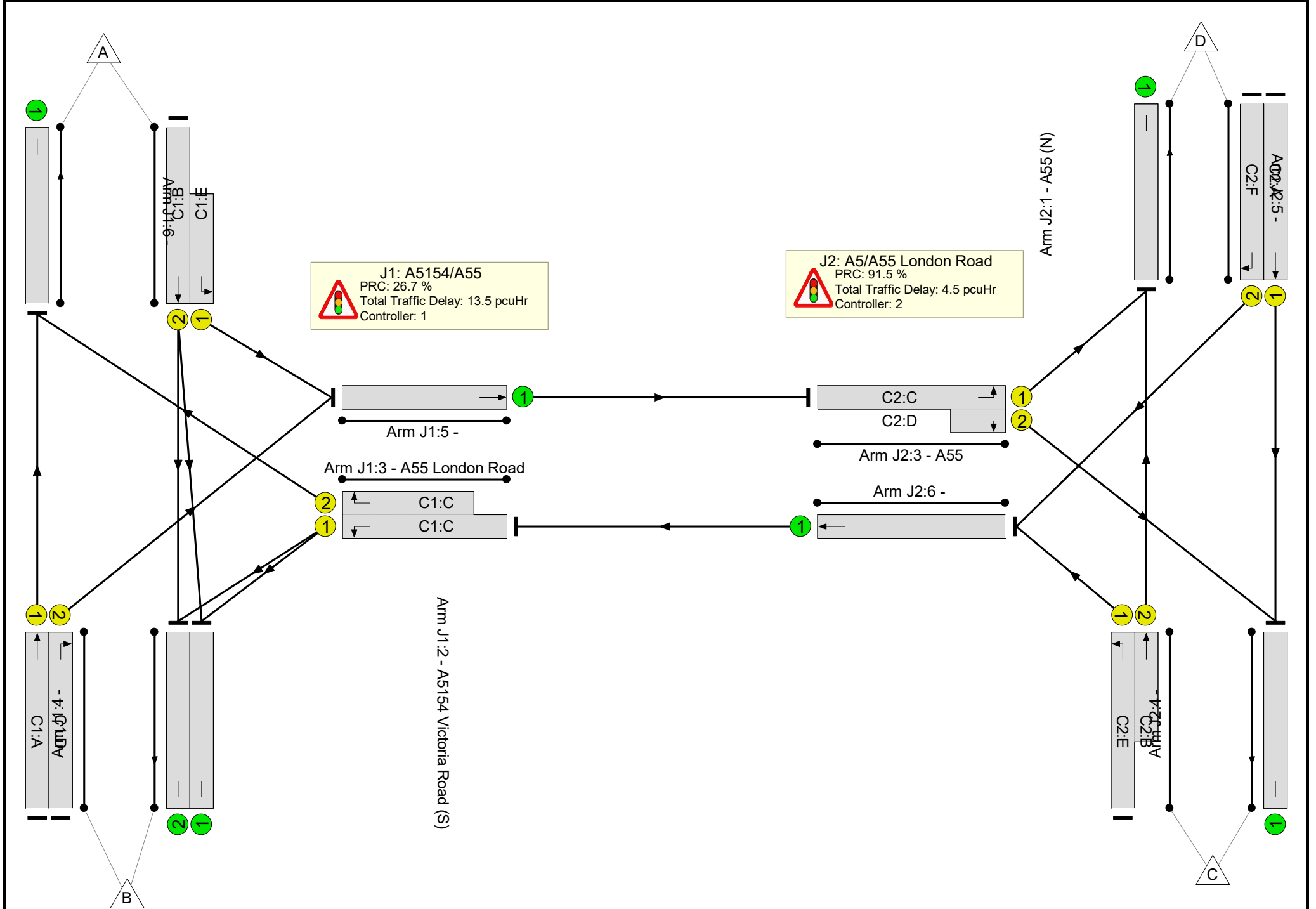
Stage	1	2	3
Duration	7	25	38
Change Point	26	38	68

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

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	-	-	N/A	-	-		-	-	-	-	-	-	71.1%
J1: A5154/A55	-	-	N/A	-	-		-	-	-	-	-	-	71.1%
1/2+1/1	A5154 Victoria Road (N) Ahead Left	U	N/A	N/A	C1:B C1:E		1	36:63	-	688	1900:1900	580+400	70.2 : 70.2%
2/1	A5154 Victoria Road (S) Ahead	U	N/A	N/A	C1:A		1	57	-	500	1900	1224	40.8%
2/2	A5154 Victoria Road (S) Right	U	N/A	N/A	C1:D		1	15	-	240	1900	338	71.1%
3/1+3/2	A55 London Road Left Right	U	N/A	N/A	C1:C		1	21	-	480	1900:1900	223+454	70.9 : 70.9%
4/1		U	N/A	N/A	-		-	-	-	284	Inf	Inf	0.0%
4/2		U	N/A	N/A	-		-	-	-	281	Inf	Inf	0.0%
5/1	Ahead	U	N/A	N/A	-		-	-	-	521	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	822	Inf	Inf	0.0%
J2: A5/A55 London Road	-	-	N/A	-	-		-	-	-	-	-	-	47.0%
1/1	A55 (N) Ahead	U	N/A	N/A	C2:A		1	37	-	51	1900	802	6.4%
1/2	A55 (N) Right	U	N/A	N/A	C2:F		1	25	-	202	1900	549	36.8%
2/1+2/2	A5 London Road Ahead Left	U	N/A	N/A	C2:E C2:B		1	50:7	-	318	1900:1900	981+141	28.3 : 28.3%
3/1+3/2	A55 Right Left	U	N/A	N/A	C2:C C2:D		1	73:43	-	521	1900:1900	613+496	47.0 : 47.0%
4/1		U	N/A	N/A	-		-	-	-	284	1900	1900	14.9%
5/1		U	N/A	N/A	-		-	-	-	328	Inf	Inf	0.0%
6/1	Ahead	U	N/A	N/A	-		-	-	-	480	Inf	Inf	0.0%

Full Input Data And Results

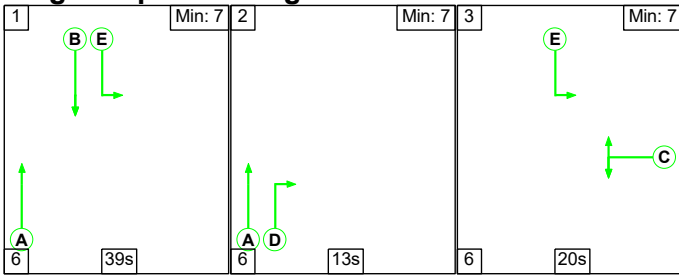
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	13.1	5.0	0.0	18.1	-	-	-	-
J1: A5154/A55	-	-	0	0	0	9.6	3.9	0.0	13.5	-	-	-	-
1/2+1/1	688	688	-	-	-	2.6	1.2	-	3.8 (2.9+0.8)	19.7 (26.0:10.7)	8.3	1.2	9.5
2/1	500	500	-	-	-	1.1	0.3	-	1.4	10.2	6.0	0.3	6.3
2/2	240	240	-	-	-	2.3	1.2	-	3.5	52.8	5.6	1.2	6.8
3/1+3/2	480	480	-	-	-	3.6	1.2	-	4.8 (1.5+3.3)	36.1 (34.8:36.8)	6.4	1.2	7.6
4/1	284	284	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	281	281	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	521	521	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	822	822	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: A5/A55 London Road	-	-	0	0	0	3.5	1.1	0.0	4.5	-	-	-	-
1/1	51	51	-	-	-	0.2	0.0	-	0.3	17.9	0.8	0.0	0.8
1/2	202	202	-	-	-	1.4	0.3	-	1.7	30.7	4.0	0.3	4.3
2/1+2/2	318	318	-	-	-	1.2	0.2	-	1.4 (0.9+0.4)	15.7 (12.1:40.4)	3.5	0.2	3.7
3/1+3/2	521	521	-	-	-	0.6	0.4	-	1.1 (0.3+0.7)	7.5 (4.3:11.4)	1.9	0.4	2.4
4/1	284	284	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
5/1	328	328	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	480	480	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1			PRC for Signalled Lanes (%):		26.7	Total Delay for Signalled Lanes (pcuHr):		13.53	Cycle Time (s):		90		
C2			PRC for Signalled Lanes (%):		91.5	Total Delay for Signalled Lanes (pcuHr):		4.44	Cycle Time (s):		90		
			PRC Over All Lanes (%):		26.7	Total Delay Over All Lanes (pcuHr):		18.06					

Full Input Data And Results

Scenario 13: '2040 with development AM Peak' (FG13: '2040 with development AM Peak', Plan 1: '2024 Observed AM Peak')

C1

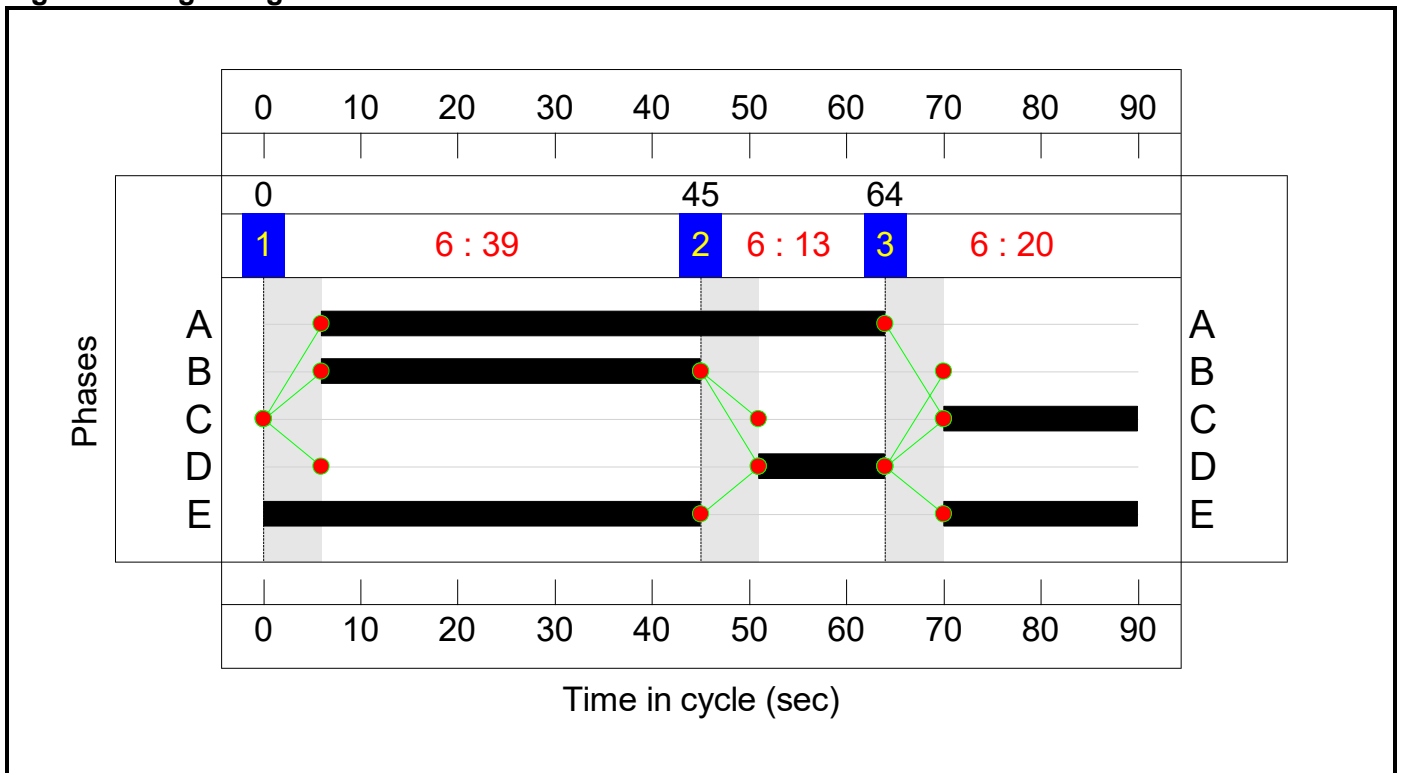
Stage Sequence Diagram



Stage Timings

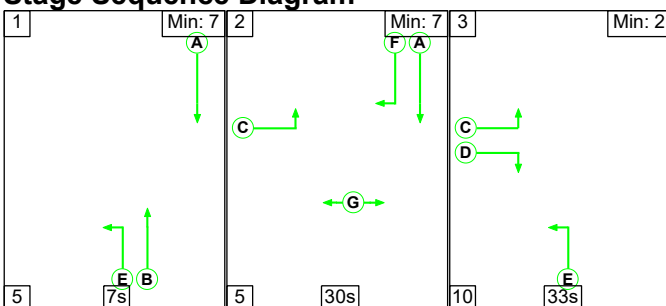
Stage	1	2	3
Duration	39	13	20
Change Point	0	45	64

Signal Timings Diagram



C2

Stage Sequence Diagram

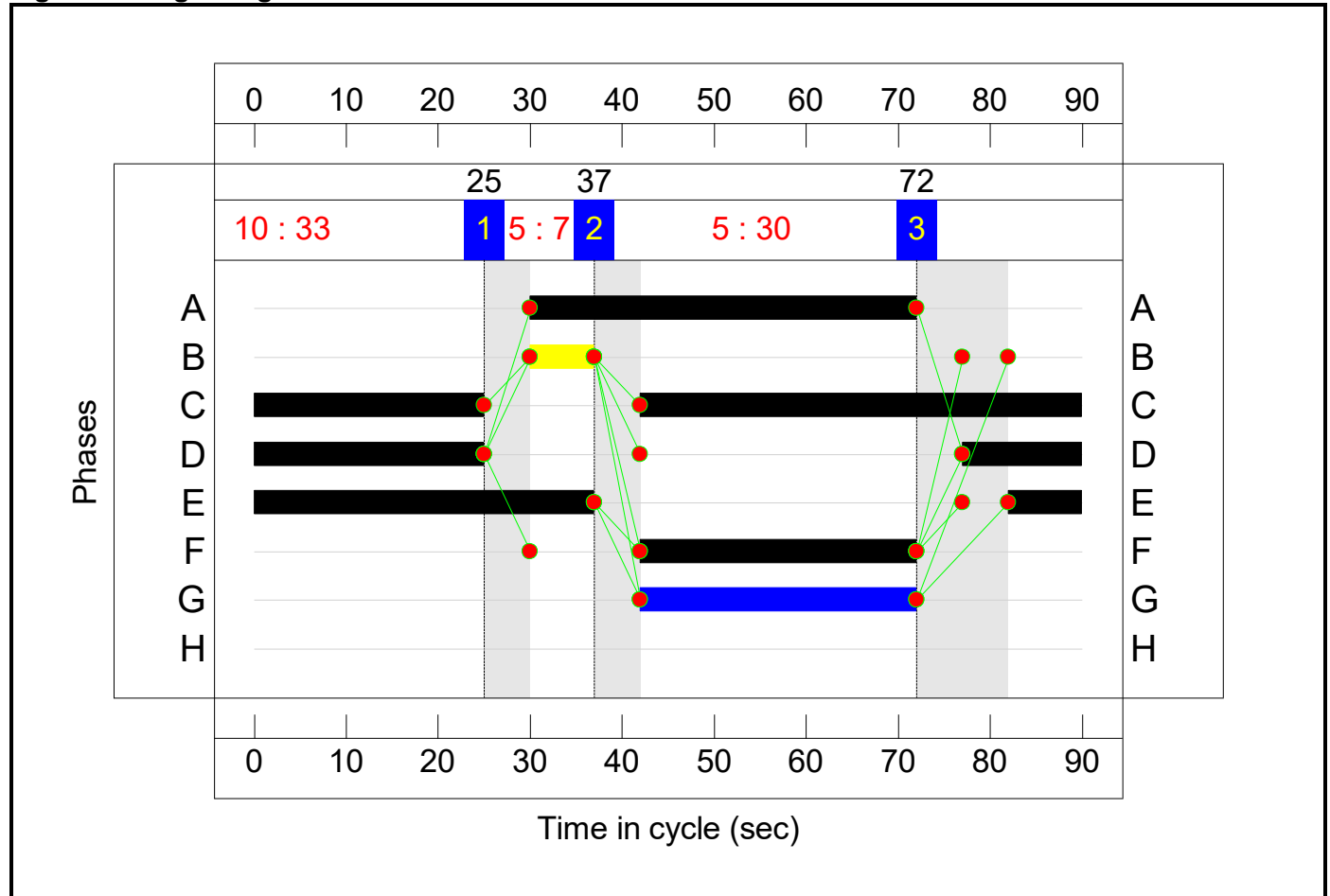


Full Input Data And Results

Stage Timings

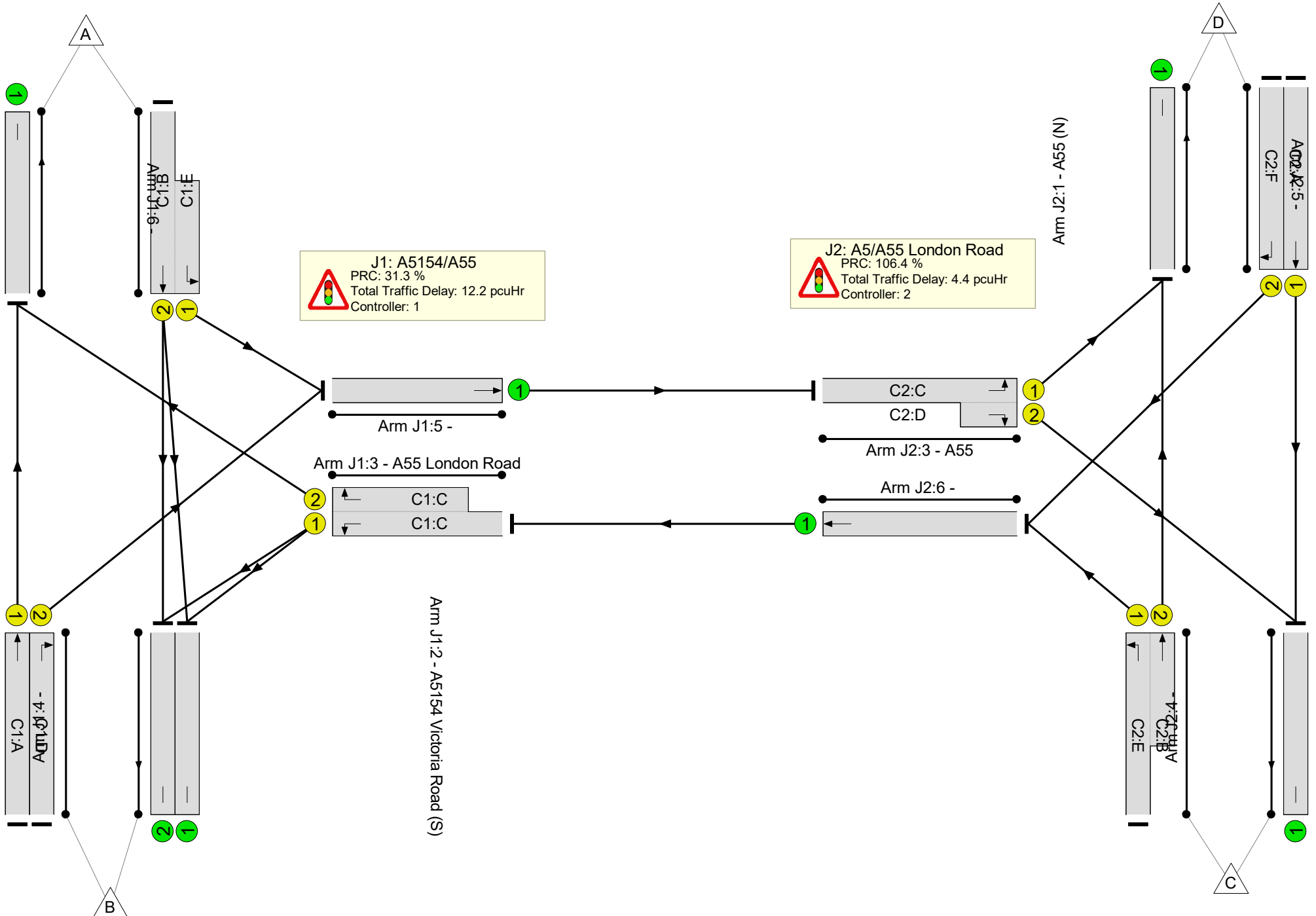
Stage	1	2	3
Duration	7	30	33
Change Point	25	37	72

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

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	-	-	N/A	-	-		-	-	-	-	-	-	68.5%
J1: A5154/A55	-	-	N/A	-	-		-	-	-	-	-	-	68.5%
1/2+1/1	A5154 Victoria Road (N) Ahead Left	U	N/A	N/A	C1:B C1:E		1	39:65	-	685	1900:1900	649+354	68.3 : 68.3%
2/1	A5154 Victoria Road (S) Ahead	U	N/A	N/A	C1:A		1	58	-	508	1900	1246	40.8%
2/2	A5154 Victoria Road (S) Right	U	N/A	N/A	C1:D		1	13	-	191	1900	296	64.6%
3/1+3/2	A55 London Road Left Right	U	N/A	N/A	C1:C		1	20	-	464	1900:1900	238+439	68.5 : 68.5%
4/1		U	N/A	N/A	-		-	-	-	304	Inf	Inf	0.0%
4/2		U	N/A	N/A	-		-	-	-	302	Inf	Inf	0.0%
5/1	Ahead	U	N/A	N/A	-		-	-	-	433	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	809	Inf	Inf	0.0%
J2: A5/A55 London Road	-	-	N/A	-	-		-	-	-	-	-	-	43.6%
1/1	A55 (N) Ahead	U	N/A	N/A	C2:A		1	42	-	51	1900	908	5.6%
1/2	A55 (N) Right	U	N/A	N/A	C2:F		1	30	-	226	1900	654	34.5%
2/1+2/2	A5 London Road Ahead Left	U	N/A	N/A	C2:E C2:B		1	45:7	-	281	1900:1900	870+157	27.4 : 27.4%
3/1+3/2	A55 Right Left	U	N/A	N/A	C2:C C2:D		1	73:38	-	433	1900:1900	534+459	43.6 : 43.6%
4/1		U	N/A	N/A	-		-	-	-	251	1900	1900	13.2%
5/1		U	N/A	N/A	-		-	-	-	276	Inf	Inf	0.0%
6/1	Ahead	U	N/A	N/A	-		-	-	-	464	Inf	Inf	0.0%

Full Input Data And Results

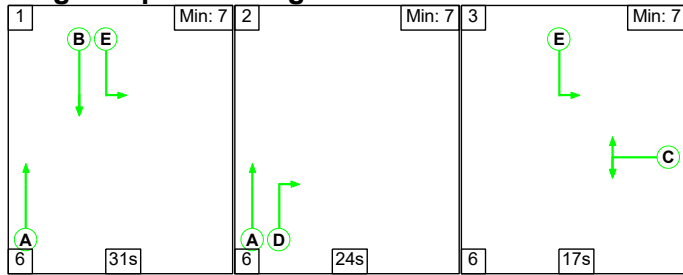
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	12.3	4.3	0.0	16.7	-	-	-	-
J1: A5154/A55	-	-	0	0	0	8.8	3.4	0.0	12.2	-	-	-	-
1/2+1/1	685	685	-	-	-	2.5	1.1	-	3.6 (2.9+0.6)	18.8 (23.8:9.6)	8.9	1.1	10.0
2/1	508	508	-	-	-	1.0	0.3	-	1.4	9.7	5.9	0.3	6.3
2/2	191	191	-	-	-	1.9	0.9	-	2.8	52.6	4.5	0.9	5.4
3/1+3/2	464	464	-	-	-	3.4	1.1	-	4.5 (1.5+3.0)	34.9 (33.8:35.5)	6.0	1.1	7.0
4/1	304	304	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	302	302	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	433	433	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	809	809	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: A5/A55 London Road	-	-	0	0	0	3.5	0.9	0.0	4.4	-	-	-	-
1/1	51	51	-	-	-	0.2	0.0	-	0.2	14.8	0.7	0.0	0.7
1/2	226	226	-	-	-	1.4	0.3	-	1.6	26.1	4.1	0.3	4.4
2/1+2/2	281	281	-	-	-	1.3	0.2	-	1.5 (1.0+0.5)	18.7 (14.7:40.7)	3.3	0.2	3.5
3/1+3/2	433	433	-	-	-	0.7	0.4	-	1.1 (0.3+0.8)	8.8 (4.5:13.7)	1.9	0.4	2.3
4/1	251	251	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
5/1	276	276	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	464	464	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1			PRC for Signalled Lanes (%):		31.3	Total Delay for Signalled Lanes (pcuHr):		12.23	Cycle Time (s):		90		
C2			PRC for Signalled Lanes (%):		106.4	Total Delay for Signalled Lanes (pcuHr):		4.37	Cycle Time (s):		90		
			PRC Over All Lanes (%):		31.3	Total Delay Over All Lanes (pcuHr):		16.68					

Full Input Data And Results

Scenario 14: '2040 with development Inter Peak' (FG14: '2040 with development Inter Peak', Plan 1: '2024 Observed AM Peak')

C1

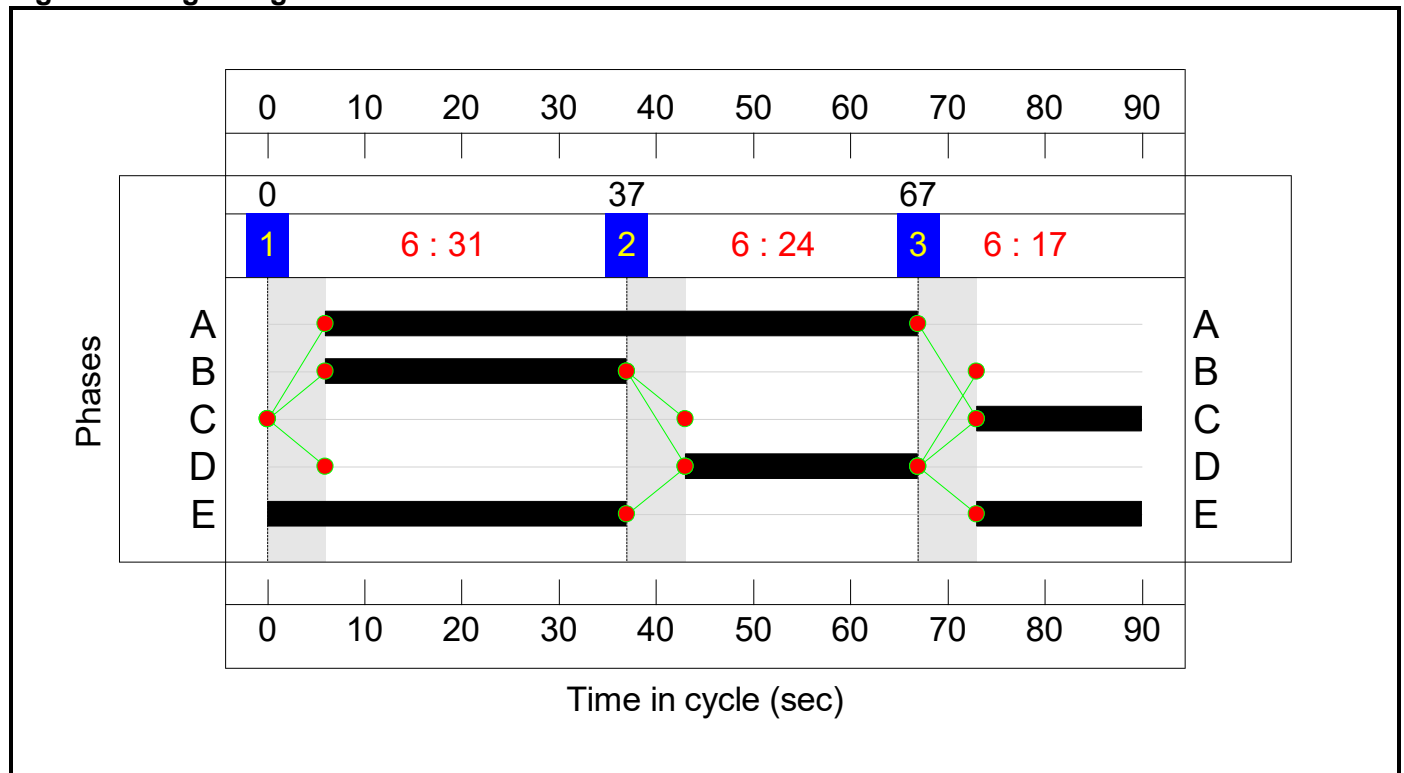
Stage Sequence Diagram



Stage Timings

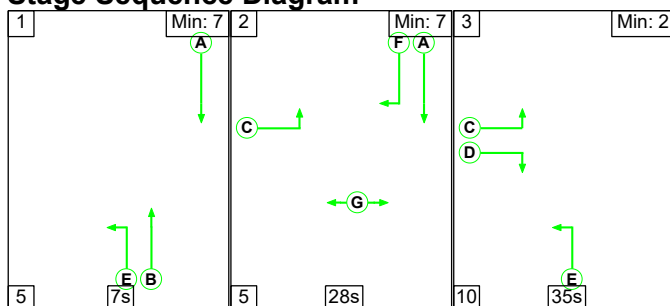
Stage	1	2	3
Duration	31	24	17
Change Point	0	37	67

Signal Timings Diagram



C2

Stage Sequence Diagram

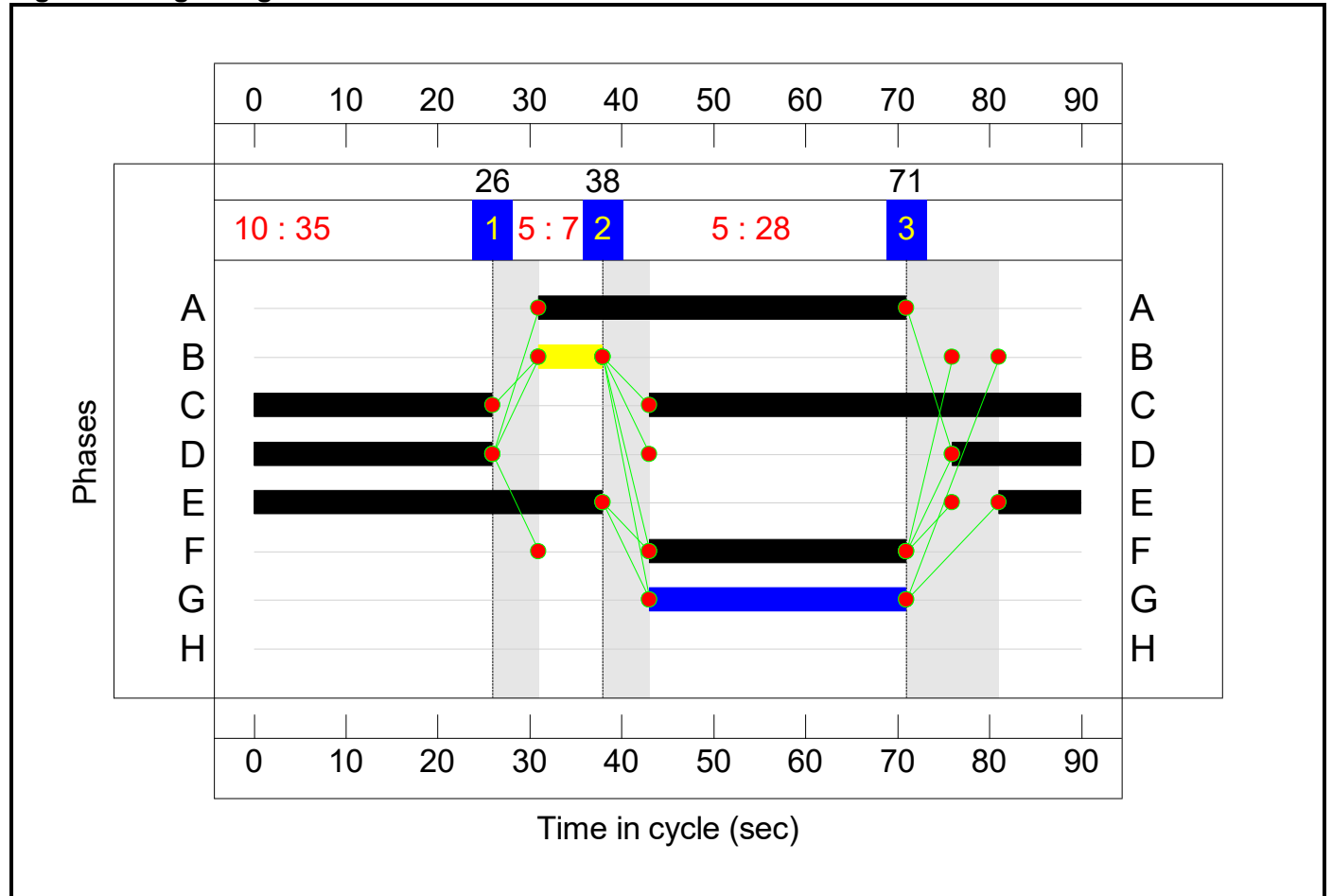


Full Input Data And Results

Stage Timings

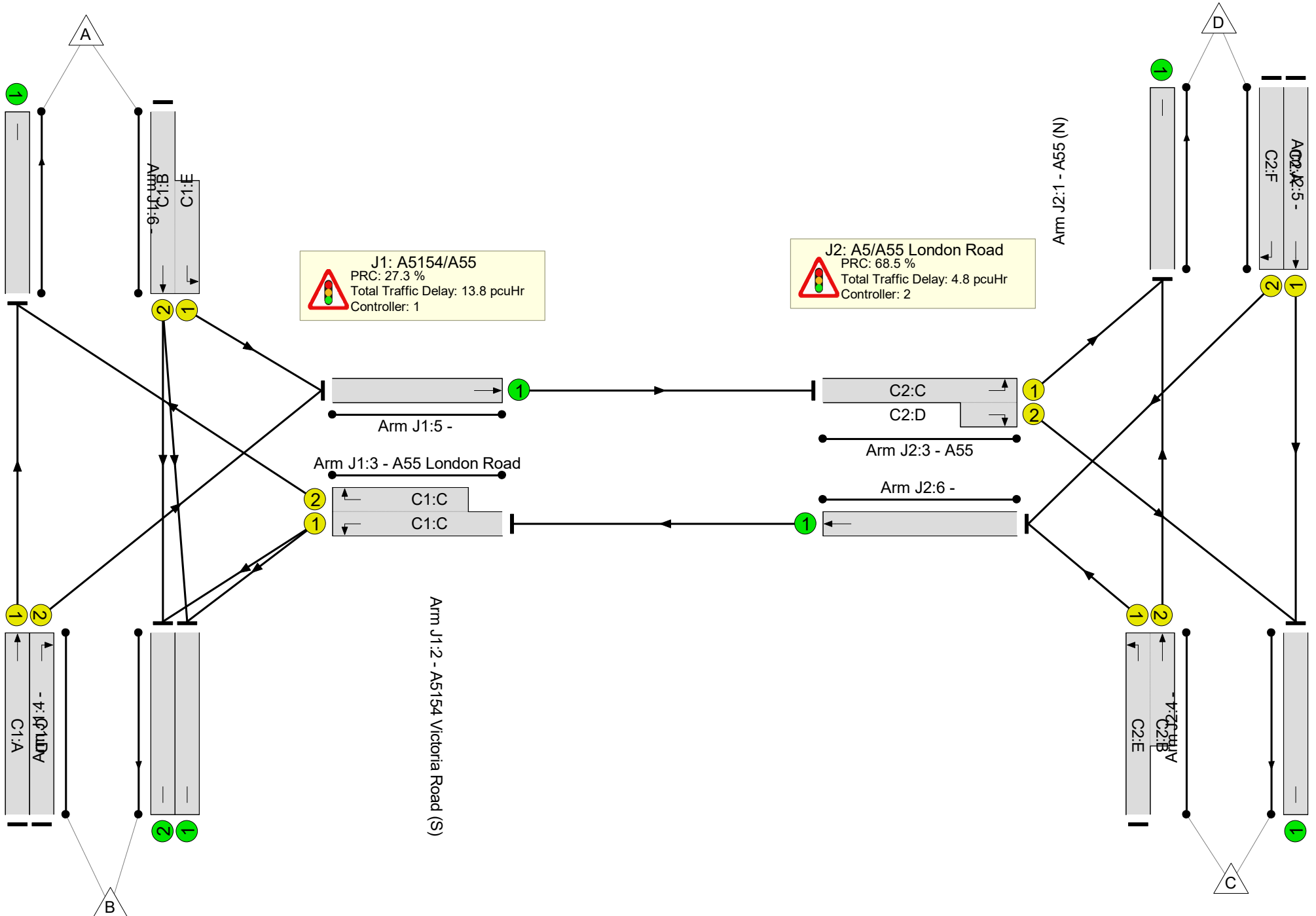
Stage	1	2	3
Duration	7	28	35
Change Point	26	38	71

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

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	-	-	N/A	-	-		-	-	-	-	-	-	70.7%
J1: A5154/A55	-	-	N/A	-	-		-	-	-	-	-	-	70.7%
1/2+1/1	A5154 Victoria Road (N) Ahead Left	U	N/A	N/A	C1:B C1:E		1	31:54	-	599	1900:1900	526+332	69.8 : 69.8%
2/1	A5154 Victoria Road (S) Ahead	U	N/A	N/A	C1:A		1	61	-	319	1900	1309	24.4%
2/2	A5154 Victoria Road (S) Right	U	N/A	N/A	C1:D		1	24	-	373	1900	528	70.7%
3/1+3/2	A55 London Road Left Right	U	N/A	N/A	C1:C		1	17	-	465	1900:1900	284+380	70.0 : 70.0%
4/1		U	N/A	N/A	-		-	-	-	284	Inf	Inf	0.0%
4/2		U	N/A	N/A	-		-	-	-	282	Inf	Inf	0.0%
5/1	Ahead	U	N/A	N/A	-		-	-	-	605	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	585	Inf	Inf	0.0%
J2: A5/A55 London Road	-	-	N/A	-	-		-	-	-	-	-	-	53.4%
1/1	A55 (N) Ahead	U	N/A	N/A	C2:A		1	40	-	56	1900	866	6.5%
1/2	A55 (N) Right	U	N/A	N/A	C2:F		1	28	-	215	1900	612	35.1%
2/1+2/2	A5 London Road Ahead Left	U	N/A	N/A	C2:E C2:B		1	47:7	-	307	1900:1900	882+169	28.4 : 33.8%
3/1+3/2	A55 Right Left	U	N/A	N/A	C2:C C2:D		1	73:40	-	605	1900:1900	736+397	53.4 : 53.4%
4/1		U	N/A	N/A	-		-	-	-	268	1900	1900	14.1%
5/1		U	N/A	N/A	-		-	-	-	450	Inf	Inf	0.0%
6/1	Ahead	U	N/A	N/A	-		-	-	-	465	Inf	Inf	0.0%

Full Input Data And Results

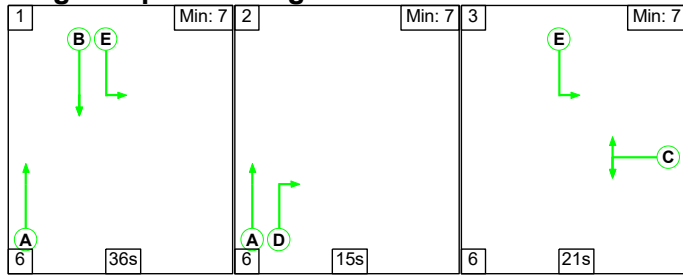
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	0	0	0	13.7	4.8	0.0	18.5	-	-	-	-
J1: A5154/A55	-	-	0	0	0	10.1	3.6	0.0	13.8	-	-	-	-
1/2+1/1	599	599	-	-	-	2.9	1.1	-	4.0 (3.1+0.9)	24.1 (30.1:14.7)	7.7	1.1	8.8
2/1	319	319	-	-	-	0.5	0.2	-	0.6	7.1	2.9	0.2	3.1
2/2	373	373	-	-	-	3.0	1.2	-	4.2	40.7	8.3	1.2	9.5
3/1+3/2	465	465	-	-	-	3.8	1.2	-	4.9 (2.1+2.8)	38.1 (37.5:38.6)	5.6	1.2	6.7
4/1	284	284	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/2	282	282	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	605	605	-	-	-	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
J2: A5/A55 London Road	-	-	0	0	0	3.6	1.2	0.0	4.8	-	-	-	-
1/1	56	56	-	-	-	0.2	0.0	-	0.2	16.0	0.8	0.0	0.8
1/2	215	215	-	-	-	1.4	0.3	-	1.7	27.8	4.1	0.3	4.3
2/1+2/2	307	307	-	-	-	1.4	0.2	-	1.6 (1.0+0.6)	18.8 (13.7:41.0)	3.3	0.2	3.5
3/1+3/2	605	605	-	-	-	0.6	0.6	-	1.2 (0.5+0.7)	6.9 (4.7:11.2)	1.5	0.6	2.0
4/1	268	268	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1
5/1	450	450	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	465	465	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1			PRC for Signalled Lanes (%):		27.3	Total Delay for Signalled Lanes (pcuHr):		13.77	Cycle Time (s):		90		
C2			PRC for Signalled Lanes (%):		68.5	Total Delay for Signalled Lanes (pcuHr):		4.68	Cycle Time (s):		90		
			PRC Over All Lanes (%):		27.3	Total Delay Over All Lanes (pcuHr):		18.53					

Full Input Data And Results

Scenario 15: '2040 with development PM Peak' (FG15: '2040 with development PM Peak', Plan 1: '2024 Observed AM Peak')

C1

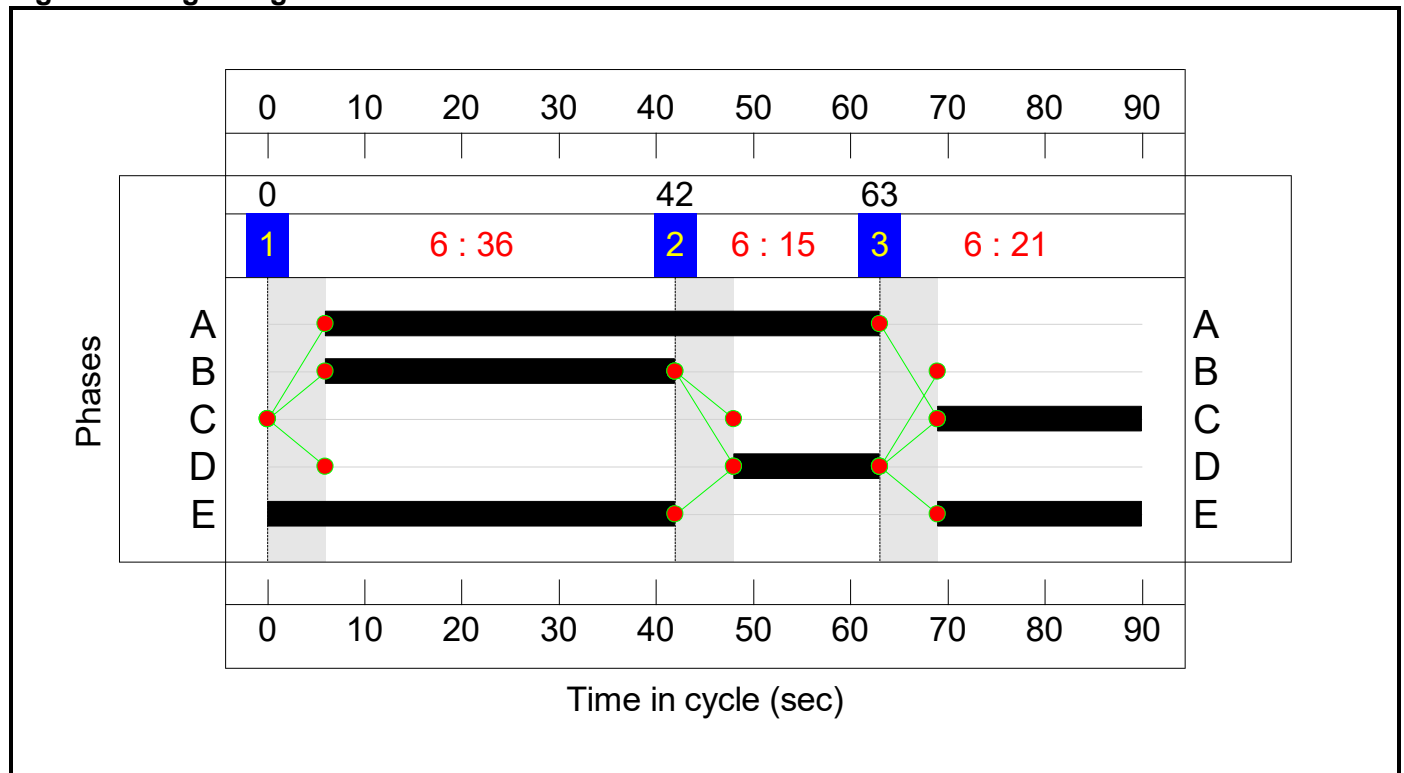
Stage Sequence Diagram



Stage Timings

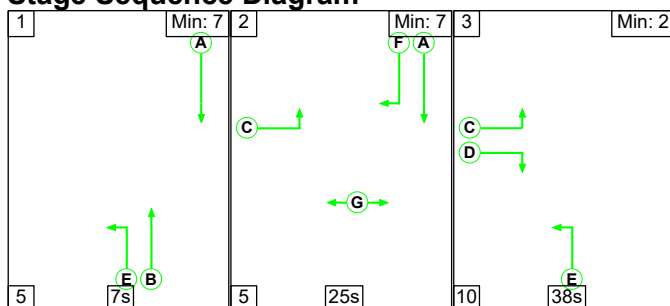
Stage	1	2	3
Duration	36	15	21
Change Point	0	42	63

Signal Timings Diagram



C2

Stage Sequence Diagram

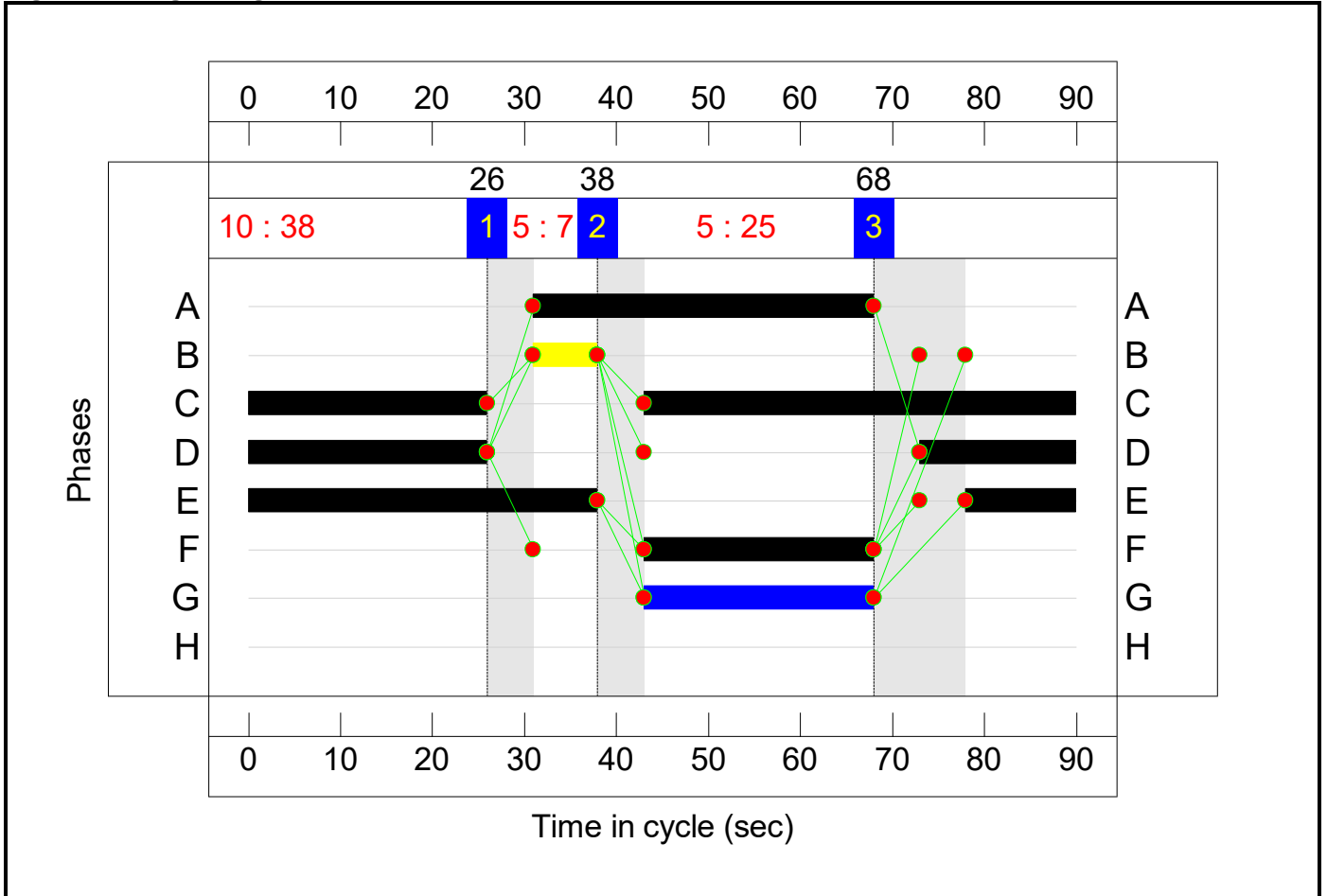


Full Input Data And Results

Stage Timings

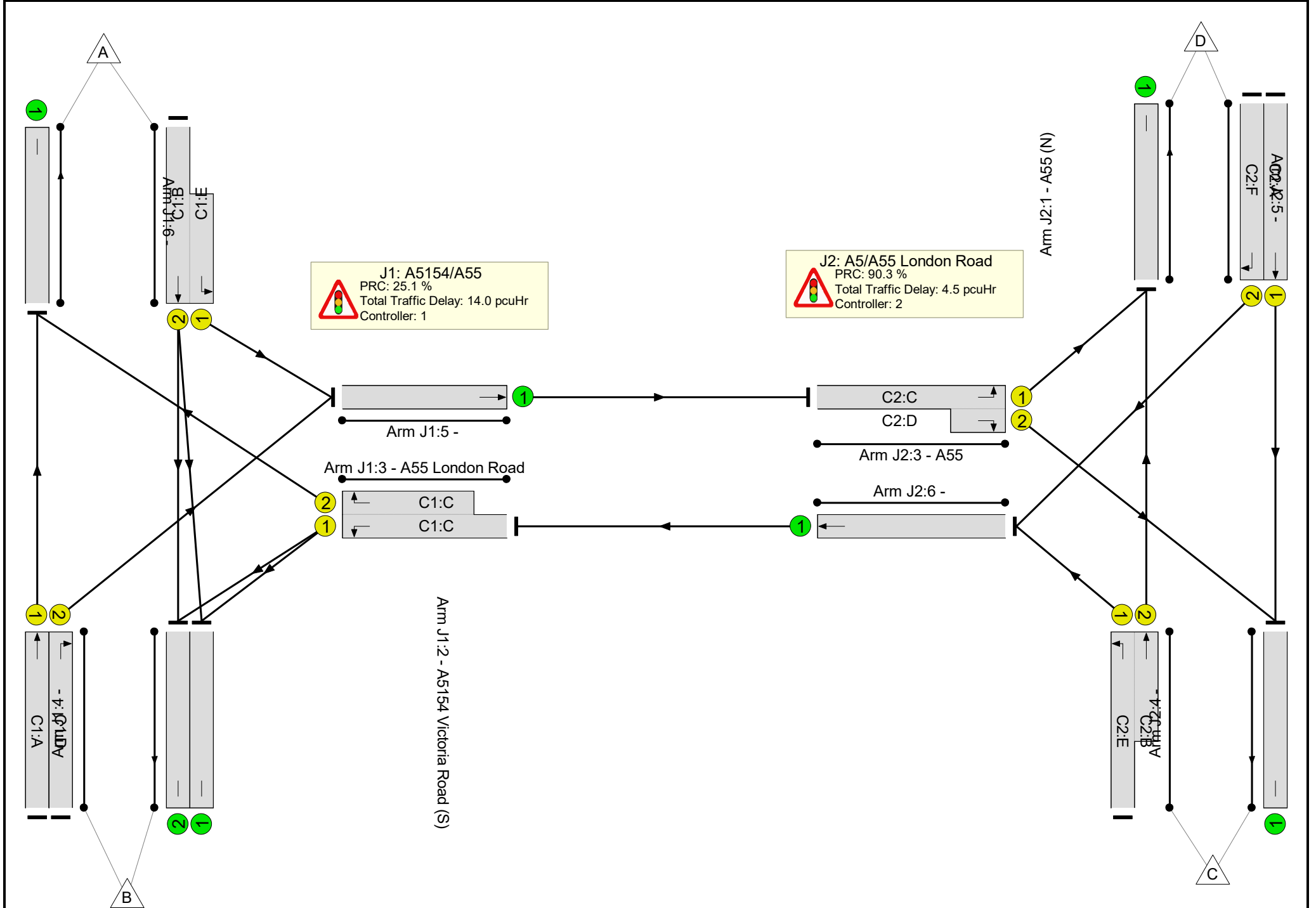
Stage	1	2	3
Duration	7	25	38
Change Point	26	38	68

Signal Timings Diagram



Full Input Data And Results
Network Layout Diagram

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	-	-	N/A	-	-		-	-	-	-	-	-	71.9%
J1: A5154/A55	-	-	N/A	-	-		-	-	-	-	-	-	71.9%
1/2+1/1	A5154 Victoria Road (N) Ahead Left	U	N/A	N/A	C1:B C1:E		1	36:63	-	700	1900:1900	583+393	71.8 : 71.8%
2/1	A5154 Victoria Road (S) Ahead	U	N/A	N/A	C1:A		1	57	-	558	1900	1224	45.6%
2/2	A5154 Victoria Road (S) Right	U	N/A	N/A	C1:D		1	15	-	243	1900	338	71.9%
3/1+3/2	A55 London Road Left Right	U	N/A	N/A	C1:C		1	21	-	480	1900:1900	223+454	70.9 : 70.9%
4/1		U	N/A	N/A	-		-	-	-	289	Inf	Inf	0.0%
4/2		U	N/A	N/A	-		-	-	-	287	Inf	Inf	0.0%
5/1	Ahead	U	N/A	N/A	-		-	-	-	525	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	880	Inf	Inf	0.0%
J2: A5/A55 London Road	-	-	N/A	-	-		-	-	-	-	-	-	47.3%
1/1	A55 (N) Ahead	U	N/A	N/A	C2:A		1	37	-	51	1900	802	6.4%
1/2	A55 (N) Right	U	N/A	N/A	C2:F		1	25	-	202	1900	549	36.8%
2/1+2/2	A5 London Road Ahead Left	U	N/A	N/A	C2:E C2:B		1	50:7	-	318	1900:1900	981+141	28.3 : 28.3%
3/1+3/2	A55 Right Left	U	N/A	N/A	C2:C C2:D		1	73:43	-	525	1900:1900	615+495	47.3 : 47.3%
4/1		U	N/A	N/A	-		-	-	-	285	1900	1900	15.0%
5/1		U	N/A	N/A	-		-	-	-	331	Inf	Inf	0.0%
6/1	Ahead	U	N/A	N/A	-		-	-	-	480	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	-	-	0	0	0	13.4	5.2	0.0	18.6	-	-	-	-	
J1: A5154/A55	-	-	0	0	0	9.9	4.1	0.0	14.0	-	-	-	-	
1/2+1/1	700	700	-	-	-	2.7	1.3	-	4.0 (3.1+0.9)	20.3 (26.5:11.2)	8.7	1.3	10.0	
2/1	558	558	-	-	-	1.2	0.4	-	1.7	10.8	7.0	0.4	7.4	
2/2	243	243	-	-	-	2.4	1.2	-	3.6	53.4	5.7	1.2	6.9	
3/1+3/2	480	480	-	-	-	3.6	1.2	-	4.8 (1.5+3.3)	36.1 (34.8:36.8)	6.4	1.2	7.6	
4/1	289	289	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
4/2	287	287	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
5/1	525	525	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
6/1	880	880	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
J2: A5/A55 London Road	-	-	0	0	0	3.5	1.1	0.0	4.5	-	-	-	-	
1/1	51	51	-	-	-	0.2	0.0	-	0.3	17.9	0.8	0.0	0.8	
1/2	202	202	-	-	-	1.4	0.3	-	1.7	30.7	4.0	0.3	4.3	
2/1+2/2	318	318	-	-	-	1.2	0.2	-	1.4 (0.9+0.4)	15.7 (12.1:40.4)	3.5	0.2	3.7	
3/1+3/2	525	525	-	-	-	0.6	0.4	-	1.1 (0.3+0.7)	7.4 (4.3:11.3)	1.9	0.4	2.4	
4/1	285	285	-	-	-	0.0	0.1	-	0.1	1.1	0.0	0.1	0.1	
5/1	331	331	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
6/1	480	480	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
			C1	PRC for Signalled Lanes (%):		25.1	Total Delay for Signalled Lanes (pcuHr):		14.04	Cycle Time (s):		90		
			C2	PRC for Signalled Lanes (%):		90.3	Total Delay for Signalled Lanes (pcuHr):		4.45	Cycle Time (s):		90		
				PRC Over All Lanes (%):		25.1	Total Delay Over All Lanes(pcuHr):		18.58					

APPENDIX M

A55 JUNCTION 1 KINGSLAND ROUNDABOUT ARCADY

<h1>Junctions 9</h1>
<h2>ARCADY 9 - Roundabout Module</h2>
Version: 9.5.0.6896 © Copyright TRL Limited, 2018
For sales and distribution information, program advice and maintenance, contact TRL: +44 (0)1344 379777 software@trl.co.uk www.trlsoftware.co.uk
The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution

Filename: A55 J1 - Kingsland roundabout.j9

Path: C:\Users\ADC\OneDrive - ADC Infrastructure Limited\ADC Projects\ADC3377 Anglesey Freeport (Prosperity Parc) \Documents\reports\ADC\F. Transport Assessment\Junction Modelling

Report generation date: 14/10/2024 10:38:10

-
- »Traffic - 2024 Observed, AM
 - »Traffic - 2024 Observed, IP
 - »Traffic - 2024 Observed, PM
 - »Traffic - 2030 background, AM
 - »Traffic - 2030 background, IP
 - »Traffic - 2030 background, PM
 - »Traffic - 2030 with dev, AM
 - »Traffic - 2030 with dev, IP
 - »Traffic - 2030 with dev, PM
 - »Traffic - 2040 background, AM
 - »Traffic - 2040 background, IP
 - »Traffic - 2040 background , PM
 - »Traffic - 2040 with dev, AM
 - »Traffic - 2040 with dev, IP
 - »Traffic - 2040 with dev, PM

Summary of junction performance

	AM			IP			PM		
	Queue (Veh)	Delay (s)	RFC	Queue (Veh)	Delay (s)	RFC	Queue (Veh)	Delay (s)	RFC
Traffic - 2024 Observed									
Arm A	0.4	2.67	0.27	0.4	3.01	0.29	0.4	2.87	0.30
Arm B	0.5	3.81	0.31	0.3	3.41	0.23	0.3	3.39	0.24
Arm C	1.0	9.78	0.51	0.5	7.24	0.34	0.6	7.75	0.39
Arm D	0.3	2.08	0.20	0.3	2.07	0.21	0.3	2.01	0.22
Traffic - 2030 background									
Arm A	0.4	2.72	0.28	0.4	3.07	0.30	0.5	2.95	0.32
Arm B	0.5	4.01	0.35	0.4	3.55	0.26	0.6	4.03	0.36
Arm C	1.4	11.92	0.58	0.7	8.20	0.40	0.8	9.33	0.46
Arm D	0.3	2.17	0.23	0.3	2.17	0.24	0.3	2.10	0.25
Traffic - 2030 with dev									
Arm A	0.4	2.80	0.29	0.5	3.13	0.32	0.5	3.08	0.35
Arm B	0.6	4.13	0.36	0.4	3.63	0.27	0.6	4.19	0.37
Arm C	1.5	12.58	0.60	0.7	8.54	0.41	0.9	9.98	0.47
Arm D	0.4	2.32	0.28	0.3	2.20	0.25	0.3	2.11	0.25
Traffic - 2040 background									
Arm A	0.4	2.81	0.30	0.5	3.15	0.32	0.5	3.05	0.33
Arm B	0.6	4.24	0.37	0.4	3.65	0.27	0.6	4.18	0.37
Arm C	1.7	13.72	0.63	0.7	8.65	0.42	0.9	10.13	0.49
Arm D	0.3	2.24	0.25	0.3	2.20	0.25	0.4	2.15	0.26
Traffic - 2040 with dev									
Arm A	0.5	2.89	0.31	0.5	3.22	0.34	0.6	3.19	0.37
Arm B	0.6	4.37	0.39	0.4	3.73	0.28	0.6	4.34	0.38
Arm C	1.8	14.60	0.65	0.8	8.98	0.43	1.0	10.88	0.51
Arm D	0.4	2.39	0.29	0.4	2.25	0.26	0.4	2.16	0.27

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

File summary

File Description

Title	A55 Junction 1 (Kingsland roundabout)
Location	Holuhead
Site number	
Date	08/09/2024
Version	v 1
Status	preliminary
Identifier	
Client	Prosperity Parc
Jobnumber	ADC3377
Enumerator	ADC-TOSHIBA-AIO\ADC
Description	

Units

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

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2024 Observed	AM	ONE HOUR	08:00	09:30	15
D2	2024 Observed	IP	ONE HOUR	11:45	13:15	15
D3	2024 Observed	PM	ONE HOUR	16:15	17:45	15
D4	2030 background	AM	ONE HOUR	08:00	09:30	15
D5	2030 background	IP	ONE HOUR	11:45	13:15	15
D6	2030 background	PM	ONE HOUR	16:15	17:45	15
D7	2030 with dev	AM	ONE HOUR	08:00	09:30	15
D8	2030 with dev	IP	ONE HOUR	11:45	13:15	15
D9	2030 with dev	PM	ONE HOUR	16:15	17:45	15
D10	2040 background	AM	ONE HOUR	08:00	09:30	15
D11	2040 background	IP	ONE HOUR	11:45	13:15	15
D12	2040 background	PM	ONE HOUR	16:15	17:45	15
D13	2040 with dev	AM	ONE HOUR	08:00	09:30	15
D14	2040 with dev	IP	ONE HOUR	11:45	13:15	15
D15	2040 with dev	PM	ONE HOUR	16:15	17:45	15

Analysis Set Details

ID	Name	Network flow scaling factor (%)
A1	Traffic	100.000

Traffic - 2024 Observed, 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	A55 Junction 1 (Kingsland roundabout)	Standard Roundabout		A, B, C, D	4.28	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	A55 South	
B	Kingsland Road South	
C	Kingsland Road North	
D	A55 North	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A	7.30	7.30	0.0	16.2	70.2	30.5	
B	4.83	6.31	20.1	10.8	70.2	43.0	
C	2.39	4.93	7.7	8.2	70.2	32.0	
D	7.30	9.00	8.1	51.3	70.2	28.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A	0.577	2182
B	0.479	1667
C	0.379	1014
D	0.657	2613

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)
D1	2024 Observed	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	442	100.000
B		✓	391	100.000
C		✓	341	100.000
D		✓	397	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To			
	A	B	C	D
A	1	58	100	283
B	75	2	99	215
C	144	134	0	63
D	211	138	48	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
	A	B	C	D
A	0	3	3	10
B	5	0	1	4
C	2	1	0	3
D	12	4	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
A	0.27	2.67	0.4	A
B	0.31	3.81	0.5	A
C	0.51	9.78	1.0	A
D	0.20	2.08	0.3	A

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	333	241	1897	0.175	332	0.2	2.298	A
B	294	324	1450	0.203	293	0.3	3.108	A
C	257	432	824	0.312	255	0.4	6.310	A
D	299	266	2249	0.133	298	0.2	1.845	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	397	289	1871	0.212	397	0.3	2.442	A
B	352	388	1419	0.248	351	0.3	3.372	A
C	307	517	790	0.388	306	0.6	7.427	A
D	357	319	2216	0.161	357	0.2	1.936	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	487	354	1835	0.265	486	0.4	2.668	A
B	430	475	1375	0.313	430	0.5	3.807	A
C	375	634	744	0.505	374	1.0	9.699	A
D	437	391	2172	0.201	437	0.3	2.075	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	487	355	1835	0.265	487	0.4	2.669	A
B	430	476	1375	0.313	430	0.5	3.810	A
C	375	634	743	0.505	375	1.0	9.780	A
D	437	392	2171	0.201	437	0.3	2.076	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	397	290	1870	0.212	398	0.3	2.446	A
B	352	389	1418	0.248	352	0.3	3.379	A
C	307	518	789	0.388	308	0.6	7.501	A
D	357	321	2215	0.161	357	0.2	1.939	A

09:15 - 09:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	333	243	1897	0.175	333	0.2	2.302	A
B	294	325	1450	0.203	295	0.3	3.116	A
C	257	434	823	0.312	257	0.5	6.372	A
D	299	269	2247	0.133	299	0.2	1.849	A

Traffic - 2024 Observed, IP

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	A55 Junction 1 (Kingsland roundabout)	Standard Roundabout		A, B, C, D	3.44	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2024 Observed	IP	ONE HOUR	11:45	13:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	444	100.000
B		✓	292	100.000
C		✓	229	100.000
D		✓	419	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A	B	C	D
From	A	0	66	58	320
	B	69	1	79	143
	C	105	77	0	47
	D	234	140	45	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	2	3	26
	B	1	0	3	1
	C	1	0	0	2
	D	18	1	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
A	0.29	3.01	0.4	A
B	0.23	3.41	0.3	A
C	0.34	7.24	0.5	A
D	0.21	2.07	0.3	A

Main Results for each time segment

11:45 - 12:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	334	197	1731	0.193	333	0.2	2.574	A
B	220	318	1462	0.150	219	0.2	2.895	A
C	172	400	831	0.208	171	0.3	5.459	A
D	315	189	2250	0.140	315	0.2	1.860	A

12:00 - 12:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	399	236	1712	0.233	399	0.3	2.741	A
B	263	380	1426	0.184	262	0.2	3.092	A
C	206	479	797	0.258	206	0.3	6.087	A
D	377	226	2227	0.169	377	0.2	1.944	A

12:15 - 12:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	489	289	1686	0.290	488	0.4	3.005	A
B	321	465	1378	0.233	321	0.3	3.406	A
C	252	586	750	0.336	252	0.5	7.217	A
D	461	277	2197	0.210	461	0.3	2.073	A

12:30 - 12:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	489	290	1686	0.290	489	0.4	3.006	A
B	321	466	1378	0.233	321	0.3	3.407	A
C	252	587	749	0.336	252	0.5	7.237	A
D	461	277	2197	0.210	461	0.3	2.074	A

12:45 - 13:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	399	237	1712	0.233	400	0.3	2.745	A
B	263	381	1426	0.184	263	0.2	3.095	A
C	206	480	796	0.259	206	0.4	6.110	A
D	377	227	2227	0.169	377	0.2	1.947	A

13:00 - 13:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	334	198	1731	0.193	335	0.2	2.580	A
B	220	319	1461	0.150	220	0.2	2.900	A
C	172	402	830	0.208	173	0.3	5.480	A
D	315	190	2249	0.140	316	0.2	1.864	A

Traffic - 2024 Observed, 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	A55 Junction 1 (Kingsland roundabout)	Standard Roundabout		A, B, C, D	3.53	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)
D3	2024 Observed	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	486	100.000
B		✓	305	100.000
C		✓	267	100.000
D		✓	460	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A	B	C	D
From	A	1	95	80	310
	B	73	2	70	160
	C	125	86	0	56
	D	262	158	39	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	1	18
	B	1	0	0	1
	C	0	0	0	2
	D	7	1	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
A	0.30	2.87	0.4	A
B	0.24	3.39	0.3	A
C	0.39	7.75	0.6	A
D	0.22	2.01	0.3	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	366	215	1842	0.199	365	0.2	2.435	A
B	230	324	1480	0.155	229	0.2	2.876	A
C	201	411	838	0.240	200	0.3	5.628	A
D	346	215	2359	0.147	346	0.2	1.787	A

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	437	257	1820	0.240	437	0.3	2.601	A
B	274	387	1446	0.190	274	0.2	3.072	A
C	240	491	805	0.298	240	0.4	6.372	A
D	414	258	2333	0.177	413	0.2	1.874	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	535	315	1790	0.299	535	0.4	2.868	A
B	336	474	1399	0.240	335	0.3	3.386	A
C	294	602	759	0.388	293	0.6	7.721	A
D	506	315	2296	0.221	506	0.3	2.011	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	535	315	1790	0.299	535	0.4	2.868	A
B	336	475	1398	0.240	336	0.3	3.387	A
C	294	602	758	0.388	294	0.6	7.752	A
D	506	316	2296	0.221	506	0.3	2.011	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	437	257	1820	0.240	437	0.3	2.606	A
B	274	388	1445	0.190	275	0.2	3.075	A
C	240	492	804	0.298	241	0.4	6.398	A
D	414	259	2332	0.177	414	0.2	1.876	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	366	216	1842	0.199	366	0.2	2.441	A
B	230	325	1479	0.155	230	0.2	2.883	A
C	201	412	838	0.240	201	0.3	5.662	A
D	346	216	2358	0.147	346	0.2	1.791	A

Traffic - 2030 background, 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	A55 Junction 1 (Kingsland roundabout)	Standard Roundabout		A, B, C, D	4.87	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2030 background	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	465	100.000
B		✓	431	100.000
C		✓	386	100.000
D		✓	458	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A	B	C	D
From	A	1	61	105	298
	B	79	2	111	239
	C	179	141	0	66
	D	259	149	50	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	3	3	9
	B	5	0	1	3
	C	2	1	0	3
	D	10	3	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
A	0.28	2.72	0.4	A
B	0.35	4.01	0.5	A
C	0.58	11.92	1.4	B
D	0.23	2.17	0.3	A

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	350	256	1901	0.184	349	0.2	2.319	A
B	324	341	1451	0.224	323	0.3	3.189	A
C	291	465	812	0.358	288	0.6	6.841	A
D	345	301	2252	0.153	344	0.2	1.886	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	418	307	1873	0.223	418	0.3	2.473	A
B	387	408	1418	0.273	387	0.4	3.492	A
C	347	556	776	0.447	346	0.8	8.347	A
D	412	361	2215	0.186	412	0.2	1.996	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	512	376	1835	0.279	512	0.4	2.720	A
B	475	499	1372	0.346	474	0.5	4.005	A
C	425	681	727	0.585	423	1.4	11.741	B
D	504	441	2164	0.233	504	0.3	2.168	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	512	377	1834	0.279	512	0.4	2.721	A
B	475	500	1372	0.346	475	0.5	4.011	A
C	425	682	727	0.585	425	1.4	11.917	B
D	504	443	2163	0.233	504	0.3	2.169	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	418	308	1872	0.223	418	0.3	2.476	A
B	387	409	1418	0.273	388	0.4	3.498	A
C	347	557	776	0.447	349	0.8	8.482	A
D	412	363	2213	0.186	412	0.2	1.999	A

09:15 - 09:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	350	258	1900	0.184	350	0.2	2.322	A
B	324	342	1451	0.224	325	0.3	3.200	A
C	291	466	812	0.358	292	0.6	6.938	A
D	345	304	2250	0.153	345	0.2	1.891	A

Traffic - 2030 background, IP

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	A55 Junction 1 (Kingsland roundabout)	Standard Roundabout		A, B, C, D	3.71	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2030 background	IP	ONE HOUR	11:45	13:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	463	100.000
B		✓	324	100.000
C		✓	267	100.000
D		✓	474	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A	B	C	D
From	A	0	69	60	334
	B	72	1	89	162
	C	138	80	0	49
	D	281	146	47	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	1	3	26
	B	1	0	2	1
	C	1	0	0	2
	D	16	1	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
A	0.30	3.07	0.4	A
B	0.26	3.55	0.4	A
C	0.40	8.20	0.7	A
D	0.24	2.17	0.3	A

Main Results for each time segment

11:45 - 12:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	349	206	1729	0.202	348	0.3	2.605	A
B	244	331	1458	0.167	243	0.2	2.962	A
C	201	427	819	0.245	200	0.3	5.797	A
D	357	218	2245	0.159	356	0.2	1.905	A

12:00 - 12:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	416	246	1709	0.244	416	0.3	2.783	A
B	291	396	1421	0.205	291	0.3	3.186	A
C	240	511	783	0.307	240	0.4	6.619	A
D	426	261	2219	0.192	426	0.2	2.008	A

12:15 - 12:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	510	301	1682	0.303	509	0.4	3.069	A
B	357	485	1370	0.260	356	0.4	3.551	A
C	294	626	733	0.401	293	0.7	8.164	A
D	522	320	2184	0.239	522	0.3	2.166	A

12:30 - 12:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	510	302	1682	0.303	510	0.4	3.070	A
B	357	486	1370	0.260	357	0.4	3.552	A
C	294	626	733	0.401	294	0.7	8.201	A
D	522	320	2183	0.239	522	0.3	2.166	A

12:45 - 13:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	416	247	1709	0.244	417	0.3	2.786	A
B	291	397	1420	0.205	292	0.3	3.191	A
C	240	512	783	0.307	241	0.4	6.658	A
D	426	262	2218	0.192	426	0.2	2.009	A

13:00 - 13:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	349	207	1729	0.202	349	0.3	2.611	A
B	244	332	1457	0.167	244	0.2	2.967	A
C	201	429	819	0.246	201	0.3	5.838	A
D	357	220	2244	0.159	357	0.2	1.907	A

Traffic - 2030 background, 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	A55 Junction 1 (Kingsland roundabout)	Standard Roundabout		A, B, C, D	3.98	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2030 background	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	511	100.000
B		✓	448	100.000
C		✓	293	100.000
D		✓	513	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A	B	C	D
From	A	1	100	84	326
	B	77	2	112	257
	C	144	90	0	59
	D	305	166	41	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	1	18
	B	1	0	0	1
	C	0	0	0	2
	D	7	1	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
A	0.32	2.95	0.5	A
B	0.36	4.03	0.6	A
C	0.46	9.33	0.8	A
D	0.25	2.10	0.3	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	385	225	1837	0.209	384	0.3	2.476	A
B	337	340	1471	0.229	336	0.3	3.169	A
C	221	498	804	0.274	219	0.4	6.138	A
D	386	235	2344	0.165	385	0.2	1.837	A

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	459	269	1814	0.253	459	0.3	2.657	A
B	403	407	1435	0.281	402	0.4	3.486	A
C	263	596	764	0.345	263	0.5	7.177	A
D	461	282	2315	0.199	461	0.2	1.942	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	563	330	1782	0.316	562	0.5	2.949	A
B	493	498	1386	0.356	493	0.5	4.028	A
C	323	730	709	0.455	321	0.8	9.268	A
D	565	345	2275	0.248	564	0.3	2.104	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	563	330	1782	0.316	563	0.5	2.952	A
B	493	499	1386	0.356	493	0.6	4.034	A
C	323	731	708	0.456	323	0.8	9.333	A
D	565	346	2274	0.248	565	0.3	2.105	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	459	270	1813	0.253	460	0.3	2.660	A
B	403	408	1435	0.281	403	0.4	3.494	A
C	263	598	763	0.345	265	0.5	7.238	A
D	461	283	2314	0.199	461	0.2	1.943	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	385	226	1836	0.210	385	0.3	2.482	A
B	337	341	1471	0.229	338	0.3	3.177	A
C	221	500	803	0.275	221	0.4	6.189	A
D	386	237	2343	0.165	386	0.2	1.842	A

Traffic - 2030 with 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	A55 Junction 1 (Kingsland roundabout)	Standard Roundabout		A, B, C, D	4.94	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)
D7	2030 with dev	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	488	100.000
B		✓	445	100.000
C		✓	386	100.000
D		✓	536	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A	B	C	D
From	A	1	64	105	318
	B	93	2	111	239
	C	179	141	0	66
	D	341	145	50	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	3	3	10
	B	4	0	1	3
	C	2	1	0	3
	D	10	3	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
A	0.29	2.80	0.4	A
B	0.36	4.13	0.6	A
C	0.60	12.58	1.5	B
D	0.28	2.32	0.4	A

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	367	253	1890	0.194	366	0.2	2.362	A
B	335	356	1444	0.232	334	0.3	3.238	A
C	291	490	802	0.363	288	0.6	6.983	A
D	404	311	2236	0.180	403	0.2	1.962	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	439	303	1862	0.236	438	0.3	2.528	A
B	400	426	1409	0.284	400	0.4	3.565	A
C	347	587	763	0.455	346	0.8	8.604	A
D	482	373	2197	0.219	482	0.3	2.098	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	537	371	1825	0.294	537	0.4	2.794	A
B	490	521	1361	0.360	489	0.6	4.126	A
C	425	718	711	0.598	423	1.4	12.364	B
D	590	456	2145	0.275	590	0.4	2.314	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	537	372	1825	0.294	537	0.4	2.795	A
B	490	522	1361	0.360	490	0.6	4.132	A
C	425	719	711	0.598	425	1.5	12.576	B
D	590	458	2144	0.275	590	0.4	2.316	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	439	305	1862	0.236	439	0.3	2.531	A
B	400	427	1409	0.284	401	0.4	3.571	A
C	347	588	763	0.455	349	0.8	8.758	A
D	482	376	2195	0.220	482	0.3	2.103	A

09:15 - 09:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	367	255	1889	0.194	368	0.2	2.368	A
B	335	357	1444	0.232	335	0.3	3.250	A
C	291	492	801	0.363	292	0.6	7.088	A
D	404	314	2234	0.181	404	0.2	1.968	A

Traffic - 2030 with dev, IP

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	A55 Junction 1 (Kingsland roundabout)	Standard Roundabout		A, B, C, D	3.77	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D8	2030 with dev	IP	ONE HOUR	11:45	13:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	501	100.000
B		✓	328	100.000
C		✓	267	100.000
D		✓	497	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A	B	C	D
From	A	0	75	60	366
	B	76	1	89	162
	C	138	80	0	49
	D	304	146	47	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	1	3	24
	B	1	0	2	1
	C	1	1	0	2
	D	15	1	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
A	0.32	3.13	0.5	A
B	0.27	3.63	0.4	A
C	0.41	8.54	0.7	A
D	0.25	2.20	0.3	A

Main Results for each time segment

11:45 - 12:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	377	206	1747	0.216	376	0.3	2.623	A
B	247	355	1446	0.171	246	0.2	2.998	A
C	201	454	807	0.249	200	0.3	5.920	A
D	374	221	2249	0.166	373	0.2	1.918	A

12:00 - 12:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	450	246	1727	0.261	450	0.4	2.819	A
B	295	425	1407	0.210	295	0.3	3.236	A
C	240	543	768	0.312	240	0.4	6.804	A
D	447	265	2223	0.201	447	0.3	2.026	A

12:15 - 12:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	552	301	1700	0.325	551	0.5	3.132	A
B	361	520	1353	0.267	361	0.4	3.625	A
C	294	665	716	0.411	293	0.7	8.496	A
D	547	324	2187	0.250	547	0.3	2.195	A

12:30 - 12:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	552	302	1699	0.325	552	0.5	3.135	A
B	361	521	1353	0.267	361	0.4	3.629	A
C	294	666	715	0.411	294	0.7	8.539	A
D	547	325	2186	0.250	547	0.3	2.195	A

12:45 - 13:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	450	247	1727	0.261	451	0.4	2.822	A
B	295	426	1406	0.210	295	0.3	3.242	A
C	240	545	768	0.313	241	0.5	6.845	A
D	447	266	2222	0.201	447	0.3	2.028	A

13:00 - 13:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	377	207	1747	0.216	377	0.3	2.629	A
B	247	356	1445	0.171	247	0.2	3.006	A
C	201	456	806	0.249	202	0.3	5.960	A
D	374	223	2248	0.166	374	0.2	1.922	A

Traffic - 2030 with 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	A55 Junction 1 (Kingsland roundabout)	Standard Roundabout		A, B, C, D	4.11	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D9	2030 with dev	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	581	100.000
B		✓	450	100.000
C		✓	293	100.000
D		✓	524	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A	B	C	D
From	A	1	111	84	385
	B	79	2	112	257
	C	144	90	0	59
	D	316	166	41	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	1	15
	B	1	0	0	1
	C	0	0	0	2
	D	6	1	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
A	0.35	3.08	0.5	A
B	0.37	4.19	0.6	A
C	0.47	9.98	0.9	A
D	0.25	2.11	0.3	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	437	225	1863	0.235	436	0.3	2.520	A
B	339	384	1450	0.234	338	0.3	3.232	A
C	221	544	787	0.280	219	0.4	6.320	A
D	394	236	2356	0.167	394	0.2	1.834	A

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	522	269	1839	0.284	522	0.4	2.732	A
B	405	460	1410	0.287	404	0.4	3.578	A
C	263	651	743	0.354	263	0.5	7.481	A
D	471	284	2326	0.203	471	0.3	1.940	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	640	330	1807	0.354	639	0.5	3.080	A
B	495	563	1355	0.366	495	0.6	4.179	A
C	323	797	684	0.472	321	0.9	9.895	A
D	577	347	2286	0.252	577	0.3	2.106	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	640	330	1807	0.354	640	0.5	3.083	A
B	495	564	1355	0.366	495	0.6	4.187	A
C	323	798	683	0.472	323	0.9	9.975	A
D	577	348	2285	0.252	577	0.3	2.107	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	522	270	1839	0.284	523	0.4	2.736	A
B	405	461	1410	0.287	405	0.4	3.584	A
C	263	653	743	0.355	265	0.6	7.552	A
D	471	285	2325	0.203	471	0.3	1.944	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	437	226	1862	0.235	438	0.3	2.529	A
B	339	386	1450	0.234	339	0.3	3.242	A
C	221	546	786	0.281	221	0.4	6.377	A
D	394	238	2354	0.168	395	0.2	1.839	A

Traffic - 2040 background, 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	A55 Junction 1 (Kingsland roundabout)	Standard Roundabout		A, B, C, D	5.35	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D10	2040 background	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	492	100.000
B		✓	455	100.000
C		✓	407	100.000
D		✓	479	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A	B	C	D
From	A	1	64	111	316
	B	83	2	117	253
	C	188	149	0	70
	D	272	154	53	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	3	3	9
	B	5	0	1	4
	C	2	1	0	3
	D	11	4	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
A	0.30	2.81	0.4	A
B	0.37	4.24	0.6	A
C	0.63	13.72	1.7	B
D	0.25	2.24	0.3	A

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	370	268	1894	0.196	369	0.2	2.361	A
B	343	361	1433	0.239	341	0.3	3.294	A
C	306	492	801	0.383	304	0.6	7.209	A
D	361	316	2223	0.162	360	0.2	1.930	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	442	321	1864	0.237	442	0.3	2.531	A
B	409	432	1398	0.293	409	0.4	3.635	A
C	366	588	763	0.480	365	0.9	9.019	A
D	431	379	2184	0.197	430	0.2	2.052	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	542	393	1824	0.297	541	0.4	2.806	A
B	501	529	1350	0.371	500	0.6	4.232	A
C	448	720	710	0.631	445	1.6	13.422	B
D	527	463	2132	0.247	527	0.3	2.243	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	542	394	1824	0.297	542	0.4	2.807	A
B	501	530	1350	0.371	501	0.6	4.240	A
C	448	721	710	0.631	448	1.7	13.718	B
D	527	466	2131	0.248	527	0.3	2.245	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	442	323	1863	0.237	443	0.3	2.536	A
B	409	433	1398	0.293	410	0.4	3.644	A
C	366	590	762	0.480	369	0.9	9.218	A
D	431	383	2182	0.197	431	0.2	2.055	A

09:15 - 09:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	370	270	1893	0.196	371	0.2	2.365	A
B	343	362	1433	0.239	343	0.3	3.306	A
C	306	494	800	0.383	308	0.6	7.326	A
D	361	320	2221	0.162	361	0.2	1.936	A

Traffic - 2040 background, IP

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	A55 Junction 1 (Kingsland roundabout)	Standard Roundabout		A, B, C, D	3.84	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)
D11	2040 background	IP	ONE HOUR	11:45	13:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	484	100.000
B		✓	338	100.000
C		✓	277	100.000
D		✓	494	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A	B	C	D
From	A	0	72	63	349
	B	75	1	93	169
	C	142	84	0	51
	D	292	153	49	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	1	3	26
	B	1	0	2	1
	C	1	0	0	2
	D	16	1	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
A	0.32	3.15	0.5	A
B	0.27	3.65	0.4	A
C	0.42	8.65	0.7	A
D	0.25	2.20	0.3	A

Main Results for each time segment

11:45 - 12:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	364	215	1724	0.211	363	0.3	2.645	A
B	254	346	1449	0.176	254	0.2	3.009	A
C	209	446	811	0.257	207	0.3	5.945	A
D	372	226	2240	0.166	371	0.2	1.925	A

12:00 - 12:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	435	258	1704	0.255	435	0.3	2.837	A
B	304	414	1411	0.215	304	0.3	3.251	A
C	249	534	773	0.322	249	0.5	6.853	A
D	444	271	2213	0.201	444	0.3	2.034	A

12:15 - 12:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	533	316	1675	0.318	532	0.5	3.147	A
B	372	507	1358	0.274	372	0.4	3.648	A
C	305	653	721	0.423	304	0.7	8.608	A
D	544	332	2177	0.250	544	0.3	2.204	A

12:30 - 12:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	533	316	1675	0.318	533	0.5	3.150	A
B	372	508	1357	0.274	372	0.4	3.652	A
C	305	654	721	0.423	305	0.7	8.652	A
D	544	332	2176	0.250	544	0.3	2.205	A

12:45 - 13:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	435	258	1703	0.255	436	0.3	2.840	A
B	304	415	1410	0.215	304	0.3	3.255	A
C	249	535	773	0.322	250	0.5	6.898	A
D	444	272	2212	0.201	444	0.3	2.037	A

13:00 - 13:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	364	216	1724	0.211	365	0.3	2.648	A
B	254	347	1449	0.176	255	0.2	3.017	A
C	209	448	811	0.257	209	0.3	5.992	A
D	372	228	2239	0.166	372	0.2	1.929	A

Traffic - 2040 background , 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	A55 Junction 1 (Kingsland roundabout)	Standard Roundabout		A, B, C, D	4.19	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)
D12	2040 background	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	537	100.000
B		✓	464	100.000
C		✓	308	100.000
D		✓	539	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A	B	C	D
From	A	1	105	88	343
	B	81	2	115	266
	C	151	95	0	62
	D	320	175	43	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	1	18
	B	1	0	0	1
	C	0	0	0	2
	D	7	1	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
A	0.33	3.05	0.5	A
B	0.37	4.18	0.6	A
C	0.49	10.13	0.9	B
D	0.26	2.15	0.4	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	404	237	1830	0.221	403	0.3	2.519	A
B	349	357	1462	0.239	348	0.3	3.230	A
C	232	521	795	0.292	230	0.4	6.359	A
D	406	247	2337	0.174	405	0.2	1.863	A

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	483	284	1806	0.267	482	0.4	2.720	A
B	417	428	1424	0.293	417	0.4	3.572	A
C	277	623	753	0.368	276	0.6	7.547	A
D	485	296	2306	0.210	484	0.3	1.976	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	591	347	1773	0.334	591	0.5	3.044	A
B	511	524	1372	0.372	510	0.6	4.173	A
C	339	763	695	0.488	338	0.9	10.039	B
D	593	362	2264	0.262	593	0.4	2.154	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	591	348	1772	0.334	591	0.5	3.047	A
B	511	524	1372	0.372	511	0.6	4.181	A
C	339	764	694	0.488	339	0.9	10.126	B
D	593	363	2263	0.262	593	0.4	2.155	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	483	285	1805	0.267	483	0.4	2.723	A
B	417	428	1423	0.293	418	0.4	3.584	A
C	277	625	752	0.368	278	0.6	7.625	A
D	485	298	2305	0.210	485	0.3	1.980	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	404	238	1830	0.221	405	0.3	2.526	A
B	349	359	1461	0.239	350	0.3	3.239	A
C	232	523	794	0.292	233	0.4	6.422	A
D	406	249	2335	0.174	406	0.2	1.868	A

Traffic - 2040 with 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	A55 Junction 1 (Kingsland roundabout)	Standard Roundabout		A, B, C, D	5.45	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)
D13	2040 with dev	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	515	100.000
B		✓	469	100.000
C		✓	407	100.000
D		✓	561	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A	B	C	D
From	A	1	67	111	336
	B	97	2	117	253
	C	188	149	0	70
	D	354	154	53	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	3	3	10
	B	4	0	1	4
	C	2	1	0	3
	D	10	4	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
A	0.31	2.89	0.5	A
B	0.39	4.37	0.6	A
C	0.65	14.60	1.8	B
D	0.29	2.39	0.4	A

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	388	268	1881	0.206	387	0.3	2.408	A
B	353	376	1427	0.247	352	0.3	3.344	A
C	306	517	790	0.388	304	0.6	7.367	A
D	422	327	2221	0.190	421	0.2	1.999	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	463	321	1852	0.250	463	0.3	2.591	A
B	422	450	1390	0.303	421	0.4	3.714	A
C	366	619	750	0.488	365	0.9	9.318	A
D	504	392	2181	0.231	504	0.3	2.147	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	567	393	1812	0.313	567	0.5	2.888	A
B	516	551	1339	0.386	516	0.6	4.367	A
C	448	758	694	0.645	445	1.7	14.237	B
D	618	478	2127	0.290	617	0.4	2.385	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	567	394	1812	0.313	567	0.5	2.891	A
B	516	552	1339	0.386	516	0.6	4.375	A
C	448	759	694	0.646	448	1.8	14.600	B
D	618	481	2125	0.291	618	0.4	2.387	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	463	323	1851	0.250	463	0.3	2.597	A
B	422	451	1389	0.303	422	0.4	3.724	A
C	366	620	749	0.488	369	1.0	9.552	A
D	504	396	2178	0.232	505	0.3	2.153	A

09:15 - 09:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	388	270	1880	0.206	388	0.3	2.412	A
B	353	377	1426	0.248	354	0.3	3.359	A
C	306	519	789	0.388	308	0.6	7.494	A
D	422	330	2219	0.190	423	0.2	2.005	A

Traffic - 2040 with dev, IP

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	A55 Junction 1 (Kingsland roundabout)	Standard Roundabout		A, B, C, D	3.90	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D14	2040 with dev	IP	ONE HOUR	11:45	13:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	522	100.000
B		✓	342	100.000
C		✓	277	100.000
D		✓	517	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A	B	C	D
From	A	0	78	63	381
	B	79	1	93	169
	C	142	84	0	51
	D	315	153	49	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	1	3	24
	B	1	0	2	1
	C	1	0	0	2
	D	16	1	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
A	0.34	3.22	0.5	A
B	0.28	3.73	0.4	A
C	0.43	8.98	0.8	A
D	0.26	2.25	0.4	A

Main Results for each time segment

11:45 - 12:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	393	215	1743	0.226	392	0.3	2.662	A
B	257	370	1438	0.179	257	0.2	3.046	A
C	209	473	801	0.260	207	0.3	6.049	A
D	389	229	2233	0.174	388	0.2	1.950	A

12:00 - 12:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	469	258	1722	0.273	469	0.4	2.873	A
B	307	443	1397	0.220	307	0.3	3.304	A
C	249	566	761	0.327	248	0.5	7.019	A
D	465	275	2206	0.211	465	0.3	2.067	A

12:15 - 12:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	575	316	1693	0.339	574	0.5	3.215	A
B	377	542	1341	0.281	376	0.4	3.729	A
C	305	693	706	0.432	304	0.7	8.928	A
D	569	336	2169	0.262	569	0.4	2.250	A

12:30 - 12:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	575	316	1693	0.339	575	0.5	3.218	A
B	377	543	1340	0.281	377	0.4	3.733	A
C	305	694	706	0.432	305	0.8	8.980	A
D	569	337	2168	0.263	569	0.4	2.250	A

12:45 - 13:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	469	258	1721	0.273	470	0.4	2.876	A
B	307	444	1396	0.220	308	0.3	3.310	A
C	249	567	760	0.328	250	0.5	7.071	A
D	465	276	2205	0.211	465	0.3	2.071	A

13:00 - 13:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	393	216	1742	0.226	393	0.3	2.668	A
B	257	371	1437	0.179	258	0.2	3.055	A
C	209	475	800	0.261	209	0.4	6.097	A
D	389	231	2232	0.174	389	0.2	1.953	A

Traffic - 2040 with 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	A55 Junction 1 (Kingsland roundabout)	Standard Roundabout		A, B, C, D	4.34	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D15	2040 with dev	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	607	100.000
B		✓	466	100.000
C		✓	308	100.000
D		✓	550	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A	B	C	D
From	A	1	116	88	402
	B	83	2	115	266
	C	151	95	0	62
	D	331	175	43	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	1	15
	B	1	0	0	1
	C	0	0	0	2
	D	6	1	5	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
A	0.37	3.19	0.6	A
B	0.38	4.34	0.6	A
C	0.51	10.88	1.0	B
D	0.27	2.16	0.4	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	457	237	1857	0.246	456	0.3	2.567	A
B	351	402	1441	0.243	350	0.3	3.295	A
C	232	567	778	0.298	230	0.4	6.552	A
D	414	248	2348	0.176	413	0.2	1.860	A

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	546	284	1832	0.298	545	0.4	2.798	A
B	419	481	1399	0.299	419	0.4	3.668	A
C	277	678	732	0.378	276	0.6	7.879	A
D	494	298	2317	0.213	494	0.3	1.975	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	668	347	1798	0.372	668	0.6	3.183	A
B	513	588	1342	0.382	512	0.6	4.336	A
C	339	830	670	0.506	338	1.0	10.771	B
D	606	364	2275	0.266	605	0.4	2.155	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	668	348	1798	0.372	668	0.6	3.186	A
B	513	589	1342	0.382	513	0.6	4.344	A
C	339	831	670	0.506	339	1.0	10.884	B
D	606	365	2274	0.266	606	0.4	2.157	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	546	285	1831	0.298	546	0.4	2.802	A
B	419	482	1399	0.299	420	0.4	3.678	A
C	277	680	732	0.378	278	0.6	7.970	A
D	494	300	2316	0.214	495	0.3	1.977	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	457	238	1856	0.246	457	0.3	2.576	A
B	351	403	1440	0.244	351	0.3	3.305	A
C	232	569	777	0.298	233	0.4	6.624	A
D	414	251	2347	0.176	414	0.2	1.862	A

APPENDIX N

A55 JUNCITON 2 TY MAWR INTERCHANGE ARCADY

<h1>Junctions 9</h1>
<h2>ARCADY 9 - Roundabout Module</h2>
Version: 9.5.0.6896 © Copyright TRL Limited, 2018
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Filename: A55 J2 - traffic flows V8.j9

Path: C:\Users\ADC\OneDrive - ADC Infrastructure Limited\ADC Projects\ADC3377 Anglesey Freeport (Prosperity Parc) \Documents\reports\ADC\F. Transport Assessment\Junction Modelling

Report generation date: 14/10/2024 10:11:18

-
- »Traffic - 2024 Observed, AM
 - »Traffic - 2024 Observed, IP
 - »Traffic - 2024 Observed, PM
 - »Traffic - 2030 Background, AM
 - »Traffic - 2030 Background, IP
 - »Traffic - 2030 Background, PM
 - »Traffic - 2030 WD , AM
 - »Traffic - 2030 WD, IP
 - »Traffic - 2030 WD, PM
 - »Traffic - 2040 Background, AM
 - »Traffic - 2040 Background , IP
 - »Traffic - 2040 Background, PM
 - »Traffic - 2040 WD, AM
 - »Traffic - 2040 WD, IP
 - »Traffic - 2040 WD , PM

Summary of junction performance

	AM			IP			PM		
	Queue (Veh)	Delay (s)	RFC	Queue (Veh)	Delay (s)	RFC	Queue (Veh)	Delay (s)	RFC
Traffic - 2024 Observed									
Arm A	0.2	2.47	0.14	0.2	2.88	0.18	0.3	3.18	0.22
Arm B	0.1	2.27	0.11	0.1	2.41	0.11	0.2	2.57	0.15
Arm C	0.1	2.91	0.12	0.3	3.47	0.21	0.2	3.54	0.18
Arm D	0.2	2.34	0.17	0.3	2.54	0.23	0.4	2.68	0.28
Traffic - 2030 Background									
Arm A	0.8	4.70	0.44	1.1	6.14	0.52	0.7	4.77	0.41
Arm B	0.5	2.95	0.33	0.5	3.22	0.34	1.3	4.98	0.56
Arm C	0.3	5.05	0.24	0.6	6.63	0.38	0.9	12.78	0.48
Arm D	0.6	4.06	0.38	0.8	4.61	0.46	0.9	5.06	0.48
Traffic - 2030 WD									
Arm A	1.1	5.86	0.53	1.3	7.30	0.58	0.9	5.79	0.46
Arm B	0.6	3.48	0.38	0.6	3.49	0.36	1.5	5.96	0.61
Arm C	0.7	7.91	0.42	0.8	7.61	0.43	1.1	14.39	0.52
Arm D	0.7	4.40	0.42	1.1	5.15	0.51	1.5	6.51	0.60
Traffic - 2040 Background									
Arm A	0.8	4.90	0.45	1.2	6.73	0.55	0.8	5.05	0.43
Arm B	0.5	3.02	0.34	0.5	3.29	0.35	1.4	5.27	0.58
Arm C	0.4	5.36	0.26	0.7	7.10	0.40	1.1	14.75	0.52
Arm D	0.7	4.21	0.40	0.9	4.82	0.47	1.0	5.32	0.50
Traffic - 2040 WD									
Arm A	1.2	6.12	0.54	1.5	8.10	0.61	1.0	6.21	0.49
Arm B	0.6	3.56	0.39	0.6	3.58	0.37	1.7	6.36	0.63
Arm C	0.8	8.61	0.45	0.8	8.22	0.46	1.3	16.93	0.57
Arm D	0.8	4.60	0.44	1.1	5.44	0.53	1.6	6.94	0.62

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

File summary

File Description

Title	A55 Junction 2 (Ty Mawr Interchange)
Location	Holyhead
Site number	
Date	05/07/2024
Version	v1
Status	preliminary
Identifier	
Client	Anglesey Freeport
Jobnumber	ADC3377
Enumerator	AM
Description	

Units

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

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2024 Observed	AM	ONE HOUR	08:00	09:30	15	✓
D2	2024 Observed	IP	ONE HOUR	11:45	13:15	15	✓
D3	2024 Observed	PM	ONE HOUR	16:15	17:45	15	✓
D4	2030 Background	AM	ONE HOUR	08:00	09:30	15	✓
D5	2030 Background	IP	ONE HOUR	11:45	13:15	15	✓
D6	2030 Background	PM	ONE HOUR	16:15	17:45	15	✓
D7	2030 WD	AM	ONE HOUR	08:00	09:30	15	✓
D8	2030 WD	IP	ONE HOUR	11:45	13:15	15	✓
D9	2030 WD	PM	ONE HOUR	16:15	17:45	15	✓
D10	2040 Background	AM	ONE HOUR	08:00	09:30	15	✓
D11	2040 Background	IP	ONE HOUR	11:45	13:15	15	✓
D12	2040 Background	PM	ONE HOUR	16:15	17:45	15	✓
D13	2040 WD	AM	ONE HOUR	08:00	09:30	15	✓
D14	2040 WD	IP	ONE HOUR	11:45	13:15	15	✓
D15	2040 WD	PM	ONE HOUR	16:15	17:45	15	✓

Analysis Set Details

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

Traffic - 2024 Observed, 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	A55 J2	Large Roundabout		A, B, C, D	2.46	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	A55 South (northbound off-slip)	
B	A5153 West	
C	A55 North (southbound off-slip)	
D	A5153 East	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A	4.18	4.32	5.2	24.5	38.6	13.5	
B	3.62	6.23	5.3	19.8	38.6	44.0	
C	3.80	3.93	9.0	16.2	40.0	8.5	
D	3.42	5.79	3.7	19.2	40.0	47.0	

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Entry-to-exit separation (m)
A	96	118.76
B	121	11.23
C	165	113.53
D	42	9.57

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A	1.269	1980
B	1.166	2149
C	1.192	1847
D	1.110	2029

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	2024 Observed	AM	ONE HOUR	08:00	09:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	207	100.000
B		ONE HOUR	✓	175	100.000
C		ONE HOUR	✓	155	100.000
D		ONE HOUR	✓	288	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A	B	C	D
From	A	1	73	1	132
	B	62	0	14	99
	C	0	10	0	145
	D	128	74	84	2

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	4	0	2
	B	5	0	14	3
	C	0	0	0	3
	D	4	8	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A	0.14	2.47	0.2	A	190	285
B	0.11	2.27	0.1	A	161	241
C	0.12	2.91	0.1	A	142	213
D	0.17	2.34	0.2	A	264	396

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	156	39	128	1763	0.088	155	143	0.0	0.1	2.239	A
B	132	33	165	1867	0.071	131	118	0.0	0.1	2.074	A
C	117	29	222	1531	0.076	116	74	0.0	0.1	2.544	A
D	217	54	55	1883	0.115	216	284	0.0	0.1	2.160	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	186	47	153	1731	0.108	186	172	0.1	0.1	2.330	A
B	157	39	198	1830	0.086	157	141	0.1	0.1	2.151	A
C	139	35	266	1479	0.094	139	89	0.1	0.1	2.686	A
D	259	65	66	1871	0.138	259	340	0.1	0.2	2.232	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	228	57	187	1687	0.135	228	210	0.1	0.2	2.467	A
B	193	48	242	1780	0.108	193	173	0.1	0.1	2.268	A
C	171	43	326	1408	0.121	171	109	0.1	0.1	2.909	A
D	317	79	80	1855	0.171	317	416	0.2	0.2	2.340	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	228	57	187	1686	0.135	228	210	0.2	0.2	2.467	A
B	193	48	242	1779	0.108	193	173	0.1	0.1	2.268	A
C	171	43	326	1407	0.121	171	109	0.1	0.1	2.910	A
D	317	79	80	1855	0.171	317	416	0.2	0.2	2.341	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	186	47	153	1731	0.108	186	172	0.2	0.1	2.330	A
B	157	39	198	1830	0.086	157	141	0.1	0.1	2.152	A
C	139	35	266	1479	0.094	139	89	0.1	0.1	2.688	A
D	259	65	66	1871	0.138	259	340	0.2	0.2	2.235	A

09:15 - 09:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	156	39	128	1763	0.088	156	144	0.1	0.1	2.241	A
B	132	33	166	1866	0.071	132	118	0.1	0.1	2.076	A
C	117	29	223	1530	0.076	117	75	0.1	0.1	2.548	A
D	217	54	55	1883	0.115	217	285	0.2	0.1	2.160	A

Traffic - 2024 Observed, IP

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	A55 J2	Large Roundabout		A, B, C, D	2.82	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Entry-to-exit separation (m)
A	96	118.76
B	121	11.23
C	165	113.53
D	42	9.57

Slope / Intercept / Capacity

[same as above]

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	2024 Observed	IP	ONE HOUR	11:45	13:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	248	100.000
B		ONE HOUR	✓	164	100.000
C		ONE HOUR	✓	245	100.000
D		ONE HOUR	✓	388	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A	B	C	D
From	A	2	89	1	156
	B	44	0	1	119
	C	1	15	1	228
	D	148	113	126	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	7	100	3
	B	7	0	100	3
	C	0	20	0	7
	D	3	0	13	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A	0.18	2.88	0.2	A	228	341
B	0.11	2.41	0.1	A	150	226
C	0.21	3.47	0.3	A	225	337
D	0.23	2.54	0.3	A	356	534

Main Results for each time segment

11:45 - 12:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	187	47	192	1639	0.114	186	146	0.0	0.1	2.478	A
B	123	31	215	1795	0.069	123	163	0.0	0.1	2.153	A
C	184	46	242	1437	0.128	184	97	0.0	0.1	2.870	A
D	292	73	47	1871	0.156	291	378	0.0	0.2	2.277	A

12:00 - 12:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	223	56	230	1590	0.140	223	175	0.1	0.2	2.633	A
B	147	37	258	1744	0.085	147	195	0.1	0.1	2.254	A
C	220	55	289	1383	0.159	220	116	0.1	0.2	3.096	A
D	349	87	57	1861	0.187	349	453	0.2	0.2	2.380	A

12:15 - 12:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	273	68	282	1522	0.179	273	215	0.2	0.2	2.881	A
B	181	45	316	1674	0.108	180	239	0.1	0.1	2.409	A
C	270	67	354	1308	0.206	269	142	0.2	0.3	3.465	A
D	427	107	69	1846	0.231	427	554	0.2	0.3	2.536	A

12:30 - 12:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	273	68	282	1522	0.179	273	215	0.2	0.2	2.881	A
B	181	45	316	1674	0.108	181	239	0.1	0.1	2.409	A
C	270	67	355	1308	0.206	270	142	0.3	0.3	3.466	A
D	427	107	69	1846	0.231	427	555	0.3	0.3	2.536	A

12:45 - 13:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	223	56	230	1589	0.140	223	175	0.2	0.2	2.635	A
B	147	37	258	1743	0.085	148	195	0.1	0.1	2.255	A
C	220	55	290	1382	0.159	221	116	0.3	0.2	3.101	A
D	349	87	57	1861	0.187	349	454	0.3	0.2	2.383	A

13:00 - 13:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	187	47	193	1638	0.114	187	147	0.2	0.1	2.480	A
B	123	31	216	1794	0.069	124	163	0.1	0.1	2.155	A
C	184	46	243	1436	0.128	185	97	0.2	0.1	2.875	A
D	292	73	47	1871	0.156	292	380	0.2	0.2	2.281	A

Traffic - 2024 Observed, 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	A55 J2	Large Roundabout		A, B, C, D	2.93	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Entry-to-exit separation (m)
A	180	118.76
B	193	11.23
C	223	113.53
D	50	9.57

Slope / Intercept / Capacity

[same as above]

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	2024 Observed	PM	ONE HOUR	16:15	17:45	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	296	100.000
B		ONE HOUR	✓	223	100.000
C		ONE HOUR	✓	200	100.000
D		ONE HOUR	✓	475	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A	B	C	D
From	A	2	103	2	189
	B	73	1	12	137
	C	1	14	2	183
	D	173	154	148	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	4	0	3
	B	1	0	25	1
	C	0	21	0	4
	D	2	1	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A	0.22	3.18	0.3	A	272	407
B	0.15	2.57	0.2	A	205	307
C	0.18	3.54	0.2	A	184	275
D	0.28	2.68	0.4	A	436	654

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	223	56	240	1598	0.139	222	187	0.0	0.2	2.614	A
B	168	42	258	1785	0.094	167	204	0.0	0.1	2.225	A
C	151	38	302	1399	0.108	150	123	0.0	0.1	2.883	A
D	358	89	70	1903	0.188	357	382	0.0	0.2	2.326	A

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	266	67	287	1540	0.173	266	224	0.2	0.2	2.826	A
B	200	50	308	1726	0.116	200	244	0.1	0.1	2.358	A
C	180	45	361	1331	0.135	180	147	0.1	0.2	3.126	A
D	427	107	84	1888	0.226	427	457	0.2	0.3	2.463	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	326	81	351	1459	0.223	326	274	0.2	0.3	3.175	A
B	246	61	377	1646	0.149	245	299	0.1	0.2	2.570	A
C	220	55	442	1238	0.178	220	180	0.2	0.2	3.535	A
D	523	131	102	1867	0.280	523	560	0.3	0.4	2.678	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	326	81	351	1459	0.223	326	274	0.3	0.3	3.176	A
B	246	61	378	1645	0.149	246	299	0.2	0.2	2.570	A
C	220	55	443	1238	0.178	220	181	0.2	0.2	3.536	A
D	523	131	102	1867	0.280	523	560	0.4	0.4	2.678	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	266	67	287	1539	0.173	266	224	0.3	0.2	2.830	A
B	200	50	309	1726	0.116	201	245	0.2	0.1	2.362	A
C	180	45	362	1330	0.135	180	148	0.2	0.2	3.129	A
D	427	107	84	1888	0.226	427	458	0.4	0.3	2.467	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	223	56	240	1597	0.140	223	188	0.2	0.2	2.621	A
B	168	42	258	1784	0.094	168	205	0.1	0.1	2.227	A
C	151	38	303	1398	0.108	151	124	0.2	0.1	2.889	A
D	358	89	70	1903	0.188	358	384	0.3	0.2	2.331	A

Traffic - 2030 Background, 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	A55 J2	Large Roundabout		A, B, C, D	4.03	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Entry-to-exit separation (m)
A	240	118.76
B	124	11.23
C	297	113.53
D	159	9.57

Slope / Intercept / Capacity

[same as above]

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	2030 Background	AM	ONE HOUR	08:00	09:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	541	100.000
B		ONE HOUR	✓	544	100.000
C		ONE HOUR	✓	208	100.000
D		ONE HOUR	✓	492	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A	B	C	D
From	A	1	400	1	139
	B	388	0	27	129
	C	0	56	0	152
	D	135	267	88	2

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	1	0	1
	B	1	0	7	2
	C	0	0	0	3
	D	4	2	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A	0.44	4.70	0.8	A	496	745
B	0.33	2.95	0.5	A	499	749
C	0.24	5.05	0.3	A	191	286
D	0.38	4.06	0.6	A	451	677

Main Results for each time segment
08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	407	102	310	1542	0.264	406	393	0.0	0.4	3.165	A
B	410	102	173	1914	0.214	408	542	0.0	0.3	2.390	A
C	157	39	495	1207	0.130	156	87	0.0	0.1	3.422	A
D	370	93	334	1596	0.232	369	317	0.0	0.3	2.932	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	486	122	371	1466	0.332	486	471	0.4	0.5	3.672	A
B	489	122	207	1875	0.261	489	649	0.3	0.4	2.597	A
C	187	47	592	1095	0.171	187	104	0.1	0.2	3.960	A
D	442	111	400	1526	0.290	442	379	0.3	0.4	3.319	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	596	149	454	1362	0.437	595	576	0.5	0.8	4.683	A
B	599	150	254	1820	0.329	598	795	0.4	0.5	2.944	A
C	229	57	725	943	0.243	229	128	0.2	0.3	5.039	A
D	542	135	489	1430	0.379	541	464	0.4	0.6	4.047	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	596	149	455	1361	0.438	596	577	0.8	0.8	4.701	A
B	599	150	254	1820	0.329	599	796	0.5	0.5	2.947	A
C	229	57	726	942	0.243	229	128	0.3	0.3	5.051	A
D	542	135	490	1429	0.379	542	465	0.6	0.6	4.056	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	486	122	372	1464	0.332	487	472	0.8	0.5	3.688	A
B	489	122	208	1874	0.261	490	651	0.5	0.4	2.603	A
C	187	47	593	1094	0.171	187	104	0.3	0.2	3.972	A
D	442	111	401	1525	0.290	443	380	0.6	0.4	3.329	A

09:15 - 09:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	407	102	311	1540	0.265	408	395	0.5	0.4	3.183	A
B	410	102	174	1913	0.214	410	545	0.4	0.3	2.396	A
C	157	39	497	1205	0.130	157	87	0.2	0.1	3.433	A
D	370	93	335	1594	0.232	371	318	0.4	0.3	2.942	A

Traffic - 2030 Background, IP

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	A55 J2	Large Roundabout		A, B, C, D	5.00	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Entry-to-exit separation (m)
A	96	118.76
B	121	11.23
C	165	113.53
D	42	9.57

Slope / Intercept / Capacity

[same as above]

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	2030 Background	IP	ONE HOUR	11:45	13:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	582	100.000
B		ONE HOUR	✓	531	100.000
C		ONE HOUR	✓	301	100.000
D		ONE HOUR	✓	594	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A	B	C	D
From	A	2	416	1	163
	B	369	0	13	149
	C	1	61	1	238
	D	154	307	132	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	1	100	3
	B	1	0	8	3
	C	0	5	0	7
	D	3	0	14	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A	0.52	6.14	1.1	A	534	801
B	0.34	3.22	0.5	A	487	731
C	0.38	6.63	0.6	A	276	414
D	0.46	4.61	0.8	A	545	818

Main Results for each time segment

11:45 - 12:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	438	110	377	1456	0.301	436	395	0.0	0.4	3.523	A
B	400	100	225	1834	0.218	399	588	0.0	0.3	2.508	A
C	227	57	513	1148	0.197	226	110	0.0	0.2	3.899	A
D	447	112	326	1600	0.279	446	413	0.0	0.4	3.114	A

12:00 - 12:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	523	131	451	1360	0.385	522	472	0.4	0.6	4.296	A
B	477	119	269	1779	0.268	477	704	0.3	0.4	2.765	A
C	271	68	614	1033	0.262	270	132	0.2	0.4	4.718	A
D	534	133	390	1531	0.349	533	495	0.4	0.5	3.608	A

12:15 - 12:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	641	160	552	1229	0.522	639	578	0.6	1.1	6.087	A
B	585	146	330	1704	0.343	584	861	0.4	0.5	3.212	A
C	331	83	752	876	0.378	330	162	0.4	0.6	6.587	A
D	654	164	477	1436	0.455	653	605	0.5	0.8	4.591	A

12:30 - 12:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	641	160	553	1227	0.522	641	579	1.1	1.1	6.138	A
B	585	146	330	1703	0.343	585	863	0.5	0.5	3.217	A
C	331	83	753	875	0.379	331	162	0.6	0.6	6.626	A
D	654	164	478	1435	0.456	654	607	0.8	0.8	4.607	A

12:45 - 13:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	523	131	452	1358	0.385	525	474	1.1	0.6	4.332	A
B	477	119	270	1777	0.269	478	707	0.5	0.4	2.771	A
C	271	68	616	1031	0.262	272	132	0.6	0.4	4.746	A
D	534	133	391	1530	0.349	535	497	0.8	0.5	3.623	A

13:00 - 13:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	438	110	378	1454	0.301	439	396	0.6	0.4	3.551	A
B	400	100	226	1832	0.218	400	591	0.4	0.3	2.516	A
C	227	57	516	1146	0.198	227	111	0.4	0.2	3.922	A
D	447	112	327	1599	0.280	448	415	0.5	0.4	3.131	A

Traffic - 2030 Background, 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	A55 J2	Large Roundabout		A, B, C, D	5.82	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Entry-to-exit separation (m)
A	273	118.76
B	197	11.23
C	576	113.53
D	297	9.57

Slope / Intercept / Capacity

[same as above]

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	2030 Background	PM	ONE HOUR	16:15	17:45	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	478	100.000
B		ONE HOUR	✓	848	100.000
C		ONE HOUR	✓	233	100.000
D		ONE HOUR	✓	597	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A	B	C	D
From	A	2	276	2	198
	B	445	1	74	328
	C	1	38	2	192
	D	181	261	155	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	1	0	3
	B	0	0	4	0
	C	0	8	0	4
	D	2	1	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A	0.41	4.77	0.7	A	439	658
B	0.56	4.98	1.3	A	778	1167
C	0.48	12.78	0.9	B	214	321
D	0.48	5.06	0.9	A	548	822

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	360	90	343	1480	0.243	359	472	0.0	0.3	3.208	A
B	638	160	269	1805	0.354	636	432	0.0	0.5	3.075	A
C	175	44	731	900	0.195	174	175	0.0	0.2	4.955	A
D	449	112	367	1547	0.290	448	538	0.0	0.4	3.270	A

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	430	107	410	1396	0.308	429	565	0.3	0.4	3.719	A
B	762	191	322	1742	0.438	761	517	0.5	0.8	3.667	A
C	209	52	875	748	0.280	209	209	0.2	0.4	6.674	A
D	537	134	439	1472	0.365	536	644	0.4	0.6	3.843	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	526	132	502	1283	0.410	525	691	0.4	0.7	4.744	A
B	934	233	394	1657	0.564	932	633	0.8	1.3	4.951	A
C	257	64	1070	540	0.475	255	256	0.4	0.9	12.506	B
D	657	164	537	1370	0.480	656	788	0.6	0.9	5.034	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	526	132	503	1282	0.411	526	693	0.7	0.7	4.766	A
B	934	233	395	1656	0.564	934	634	1.3	1.3	4.984	A
C	257	64	1072	538	0.477	256	257	0.9	0.9	12.775	B
D	657	164	538	1368	0.480	657	790	0.9	0.9	5.062	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	430	107	412	1394	0.308	431	567	0.7	0.4	3.739	A
B	762	191	324	1741	0.438	764	519	1.3	0.8	3.696	A
C	209	52	878	744	0.281	211	210	0.9	0.4	6.781	A
D	537	134	441	1470	0.365	538	648	0.9	0.6	3.869	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	360	90	345	1478	0.244	360	474	0.4	0.3	3.225	A
B	638	160	271	1803	0.354	639	434	0.8	0.6	3.094	A
C	175	44	734	896	0.196	176	176	0.4	0.2	5.003	A
D	449	112	369	1545	0.291	450	542	0.6	0.4	3.288	A

Traffic - 2030 WD , 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	A55 J2	Large Roundabout		A, B, C, D	5.12	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Entry-to-exit separation (m)
A	279	118.76
B	224	11.23
C	375	113.53
D	159	9.57

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2030 WD	AM	ONE HOUR	08:00	09:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	624	100.000
B		ONE HOUR	✓	565	100.000
C		ONE HOUR	✓	304	100.000
D		ONE HOUR	✓	538	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A	B	C	D
From	A	1	400	1	222
	B	388	0	27	150
	C	0	56	0	248
	D	155	271	110	2

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	1	0	4
	B	1	0	7	2
	C	0	0	0	4
	D	6	2	6	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A	0.53	5.86	1.1	A	573	859
B	0.38	3.48	0.6	A	518	778
C	0.42	7.91	0.7	A	279	418
D	0.42	4.40	0.7	A	494	741

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	470	117	329	1492	0.315	468	408	0.0	0.5	3.511	A
B	425	106	252	1796	0.237	424	545	0.0	0.3	2.622	A
C	229	57	573	1093	0.209	228	104	0.0	0.3	4.157	A
D	405	101	334	1574	0.257	404	466	0.0	0.3	3.071	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	561	140	394	1411	0.397	560	489	0.5	0.7	4.225	A
B	508	127	302	1737	0.292	508	653	0.3	0.4	2.927	A
C	273	68	685	965	0.283	273	124	0.3	0.4	5.196	A
D	484	121	400	1505	0.321	483	558	0.3	0.5	3.521	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	687	172	482	1303	0.527	685	598	0.7	1.1	5.816	A
B	622	156	369	1658	0.375	621	799	0.4	0.6	3.472	A
C	335	84	839	791	0.423	333	152	0.4	0.7	7.839	A
D	592	148	489	1410	0.420	591	683	0.5	0.7	4.389	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	687	172	483	1301	0.528	687	599	1.1	1.1	5.859	A
B	622	156	370	1657	0.375	622	800	0.6	0.6	3.478	A
C	335	84	840	790	0.424	335	152	0.7	0.7	7.908	A
D	592	148	490	1410	0.420	592	685	0.7	0.7	4.404	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	561	140	396	1410	0.398	563	490	1.1	0.7	4.258	A
B	508	127	303	1736	0.293	509	655	0.6	0.4	2.934	A
C	273	68	687	963	0.284	275	124	0.7	0.4	5.242	A
D	484	121	401	1504	0.322	485	561	0.7	0.5	3.535	A

09:15 - 09:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	470	117	331	1490	0.315	471	410	0.7	0.5	3.537	A
B	425	106	253	1794	0.237	426	548	0.4	0.3	2.631	A
C	229	57	575	1090	0.210	229	104	0.4	0.3	4.185	A
D	405	101	335	1573	0.258	406	469	0.5	0.3	3.087	A

Traffic - 2030 WD, IP

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	A55 J2	Large Roundabout		A, B, C, D	5.73	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Entry-to-exit separation (m)
A	96	118.76
B	121	11.23
C	165	113.53
D	42	9.57

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2030 WD	IP	ONE HOUR	11:45	13:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	606	100.000
B		ONE HOUR	✓	537	100.000
C		ONE HOUR	✓	328	100.000
D		ONE HOUR	✓	672	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A	B	C	D
From	A	2	416	1	187
	B	369	0	13	155
	C	1	61	1	265
	D	186	316	169	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	1	100	4
	B	1	0	8	3
	C	0	5	0	7
	D	3	0	11	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A	0.58	7.30	1.3	A	556	834
B	0.36	3.49	0.6	A	493	739
C	0.43	7.61	0.8	A	301	451
D	0.51	5.15	1.1	A	617	925

Main Results for each time segment

11:45 - 12:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	456	114	411	1408	0.324	454	419	0.0	0.5	3.765	A
B	404	101	271	1779	0.227	403	595	0.0	0.3	2.614	A
C	247	62	536	1120	0.220	246	138	0.0	0.3	4.112	A
D	506	126	326	1605	0.315	504	456	0.0	0.5	3.265	A

12:00 - 12:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	545	136	492	1304	0.418	544	501	0.5	0.7	4.732	A
B	483	121	324	1713	0.282	482	712	0.3	0.4	2.925	A
C	295	74	641	1000	0.295	294	165	0.3	0.4	5.101	A
D	604	151	390	1535	0.394	603	546	0.5	0.6	3.860	A

12:15 - 12:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	667	167	602	1162	0.574	665	613	0.7	1.3	7.209	A
B	591	148	396	1624	0.364	591	870	0.4	0.6	3.482	A
C	361	90	785	836	0.432	360	202	0.4	0.8	7.544	A
D	740	185	477	1440	0.514	738	667	0.6	1.0	5.118	A

12:30 - 12:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	667	167	603	1160	0.575	667	614	1.3	1.3	7.304	A
B	591	148	397	1623	0.364	591	873	0.6	0.6	3.489	A
C	361	90	786	834	0.433	361	203	0.8	0.8	7.612	A
D	740	185	478	1439	0.514	740	669	1.0	1.1	5.146	A

12:45 - 13:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	545	136	494	1301	0.419	547	503	1.3	0.7	4.792	A
B	483	121	326	1711	0.282	483	716	0.6	0.4	2.936	A
C	295	74	643	997	0.296	296	166	0.8	0.4	5.146	A
D	604	151	391	1534	0.394	606	549	1.1	0.7	3.886	A

13:00 - 13:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	456	114	413	1405	0.325	457	421	0.7	0.5	3.802	A
B	404	101	272	1777	0.228	405	598	0.4	0.3	2.626	A
C	247	62	538	1117	0.221	247	139	0.4	0.3	4.140	A
D	506	126	327	1603	0.316	507	459	0.7	0.5	3.284	A

Traffic - 2030 WD, 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	A55 J2	Large Roundabout		A, B, C, D	7.02	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Entry-to-exit separation (m)
A	345	118.76
B	279	11.23
C	601	113.53
D	297	9.57

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D9	2030 WD	PM	ONE HOUR	16:15	17:45	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	489	100.000
B		ONE HOUR	✓	852	100.000
C		ONE HOUR	✓	246	100.000
D		ONE HOUR	✓	743	100.000

Origin-Destination Data

Demand (Veh/hr)

		To				
		A	B	C	D	
From	A	2	276	2	209	
	B	445	1	74	332	
	C	1	38	2	205	
	D	241	277	225	0	

Vehicle Mix

Heavy Vehicle Percentages

		To				
		A	B	C	D	
From	A	0	1	0	3	
	B	0	0	4	0	
	C	0	8	0	4	
	D	2	1	3	0	

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A	0.46	5.79	0.9	A	449	673
B	0.61	5.96	1.5	A	782	1173
C	0.52	14.39	1.1	B	226	339
D	0.60	6.51	1.5	A	682	1023

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	368	92	407	1392	0.265	367	517	0.0	0.4	3.507	A
B	641	160	330	1722	0.373	639	444	0.0	0.6	3.318	A
C	185	46	742	887	0.209	184	227	0.0	0.3	5.116	A
D	559	140	367	1550	0.361	557	559	0.0	0.6	3.619	A

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	440	110	487	1294	0.340	439	618	0.4	0.5	4.207	A
B	766	191	395	1646	0.465	765	531	0.6	0.9	4.079	A
C	221	55	888	733	0.302	220	272	0.3	0.4	7.019	A
D	668	167	439	1474	0.453	667	669	0.6	0.8	4.453	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	538	135	596	1162	0.463	537	756	0.5	0.9	5.745	A
B	938	235	483	1544	0.608	935	650	0.9	1.5	5.890	A
C	271	68	1086	524	0.517	268	333	0.4	1.0	13.920	B
D	818	205	537	1372	0.596	816	818	0.8	1.5	6.436	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	538	135	598	1160	0.464	538	759	0.9	0.9	5.793	A
B	938	235	484	1542	0.608	938	652	1.5	1.5	5.957	A
C	271	68	1089	521	0.520	271	334	1.0	1.1	14.387	B
D	818	205	538	1370	0.597	818	821	1.5	1.5	6.513	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	440	110	490	1291	0.341	441	622	0.9	0.5	4.243	A
B	766	191	397	1644	0.466	769	534	1.5	0.9	4.124	A
C	221	55	892	728	0.304	224	273	1.1	0.4	7.169	A
D	668	167	441	1472	0.454	670	674	1.5	0.8	4.508	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	368	92	410	1389	0.265	369	520	0.5	0.4	3.533	A
B	641	160	332	1720	0.373	643	447	0.9	0.6	3.345	A
C	185	46	746	883	0.210	186	229	0.4	0.3	5.174	A
D	559	140	369	1548	0.361	560	563	0.8	0.6	3.652	A

Traffic - 2040 Background, 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	A55 J2	Large Roundabout		A, B, C, D	4.19	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Entry-to-exit separation (m)
A	240	118.76
B	124	11.23
C	297	113.53
D	159	9.57

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D10	2040 Background	AM	ONE HOUR	08:00	09:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	553	100.000
B		ONE HOUR	✓	554	100.000
C		ONE HOUR	✓	218	100.000
D		ONE HOUR	✓	510	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A	B	C	D
From	A	1	404	1	147
	B	392	0	27	135
	C	0	56	0	162
	D	143	272	93	2

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	1	0	1
	B	1	0	7	2
	C	0	0	0	4
	D	4	3	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A	0.45	4.90	0.8	A	507	761
B	0.34	3.02	0.5	A	508	763
C	0.26	5.36	0.4	A	200	300
D	0.40	4.21	0.7	A	468	702

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	416	104	317	1530	0.272	415	402	0.0	0.4	3.224	A
B	417	104	183	1903	0.219	416	549	0.0	0.3	2.420	A
C	164	41	508	1183	0.139	163	91	0.0	0.2	3.530	A
D	384	96	337	1584	0.242	383	335	0.0	0.3	2.994	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	497	124	380	1451	0.343	497	481	0.4	0.5	3.768	A
B	498	125	219	1861	0.268	498	657	0.3	0.4	2.640	A
C	196	49	608	1069	0.183	196	109	0.2	0.2	4.123	A
D	458	115	403	1514	0.303	458	401	0.3	0.4	3.408	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	609	152	465	1345	0.453	608	589	0.5	0.8	4.875	A
B	610	152	268	1804	0.338	609	804	0.4	0.5	3.012	A
C	240	60	745	913	0.263	240	133	0.2	0.4	5.347	A
D	562	140	494	1418	0.396	561	490	0.4	0.7	4.197	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	609	152	466	1344	0.453	609	590	0.8	0.8	4.897	A
B	610	152	269	1803	0.338	610	806	0.5	0.5	3.016	A
C	240	60	745	912	0.263	240	133	0.4	0.4	5.358	A
D	562	140	494	1417	0.396	562	491	0.7	0.7	4.208	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	497	124	381	1450	0.343	498	483	0.8	0.5	3.789	A
B	498	125	220	1860	0.268	499	660	0.5	0.4	2.644	A
C	196	49	609	1067	0.184	196	109	0.4	0.2	4.138	A
D	458	115	404	1513	0.303	459	402	0.7	0.4	3.419	A

09:15 - 09:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	416	104	319	1528	0.272	417	404	0.5	0.4	3.241	A
B	417	104	184	1902	0.219	417	552	0.4	0.3	2.425	A
C	164	41	510	1181	0.139	164	91	0.2	0.2	3.542	A
D	384	96	338	1583	0.243	384	336	0.4	0.3	3.004	A

Traffic - 2040 Background , IP

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	A55 J2	Large Roundabout		A, B, C, D	5.33	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Entry-to-exit separation (m)
A	240	118.76
B	124	11.23
C	297	113.53
D	159	9.57

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D11	2040 Background	IP	ONE HOUR	11:45	13:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	594	100.000
B		ONE HOUR	✓	538	100.000
C		ONE HOUR	✓	311	100.000
D		ONE HOUR	✓	612	100.000

Origin-Destination Data

Demand (Veh/hr)

		To				
		A	B	C	D	
From	A	2	421	1	170	
	B	371	0	13	154	
	C	1	61	1	248	
	D	161	312	138	1	

Vehicle Mix

Heavy Vehicle Percentages

		To				
		A	B	C	D	
From	A	0	2	100	3	
	B	1	0	8	3	
	C	0	5	0	7	
	D	2	0	14	0	

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A	0.55	6.73	1.2	A	545	818
B	0.35	3.29	0.5	A	494	741
C	0.40	7.10	0.7	A	285	428
D	0.47	4.82	0.9	A	562	842

Main Results for each time segment

11:45 - 12:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	447	112	385	1416	0.316	445	402	0.0	0.5	3.704	A
B	405	101	235	1821	0.222	404	595	0.0	0.3	2.538	A
C	234	59	524	1122	0.209	233	115	0.0	0.3	4.046	A
D	461	115	327	1583	0.291	459	430	0.0	0.4	3.199	A

12:00 - 12:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	534	133	461	1320	0.404	533	481	0.5	0.7	4.569	A
B	484	121	281	1764	0.274	483	713	0.3	0.4	2.812	A
C	280	70	627	1007	0.278	279	137	0.3	0.4	4.943	A
D	550	138	392	1515	0.363	550	514	0.4	0.6	3.728	A

12:15 - 12:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	654	164	564	1190	0.549	652	588	0.7	1.2	6.653	A
B	592	148	344	1686	0.351	592	872	0.4	0.5	3.288	A
C	342	86	767	851	0.402	341	168	0.4	0.7	7.050	A
D	674	168	479	1421	0.474	673	629	0.6	0.9	4.801	A

12:30 - 12:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	654	164	565	1189	0.550	654	589	1.2	1.2	6.728	A
B	592	148	345	1685	0.352	592	874	0.5	0.5	3.294	A
C	342	86	768	849	0.403	342	168	0.7	0.7	7.099	A
D	674	168	480	1421	0.474	674	631	0.9	0.9	4.820	A

12:45 - 13:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	534	133	462	1318	0.405	536	482	1.2	0.7	4.617	A
B	484	121	282	1762	0.274	484	716	0.5	0.4	2.818	A
C	280	70	629	1005	0.278	281	138	0.7	0.4	4.980	A
D	550	138	393	1514	0.364	551	517	0.9	0.6	3.749	A

13:00 - 13:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	447	112	387	1413	0.316	448	403	0.7	0.5	3.735	A
B	405	101	236	1819	0.223	405	599	0.4	0.3	2.546	A
C	234	59	526	1119	0.209	235	115	0.4	0.3	4.072	A
D	461	115	329	1582	0.291	461	432	0.6	0.4	3.214	A

Traffic - 2040 Background, 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	A55 J2	Large Roundabout		A, B, C, D	6.31	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Entry-to-exit separation (m)
A	273	118.76
B	197	11.23
C	576	113.53
D	297	9.57

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D12	2040 Background	PM	ONE HOUR	16:15	17:45	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	495	100.000
B		ONE HOUR	✓	860	100.000
C		ONE HOUR	✓	244	100.000
D		ONE HOUR	✓	624	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To				
	A	B	C	D	
A	2	282	2	209	
B	449	1	75	335	
C	1	38	2	203	
D	191	269	164	0	

Vehicle Mix

Heavy Vehicle Percentages

From	To				
	A	B	C	D	
A	0	1	0	3	
B	0	0	4	0	
C	0	8	0	4	
D	2	1	4	0	

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A	0.43	5.05	0.8	A	454	681
B	0.58	5.27	1.4	A	789	1184
C	0.52	14.75	1.1	B	224	336
D	0.50	5.32	1.0	A	573	859

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	373	93	355	1464	0.255	371	482	0.0	0.3	3.290	A
B	647	162	284	1787	0.362	645	442	0.0	0.6	3.145	A
C	184	46	747	883	0.208	183	182	0.0	0.3	5.135	A
D	470	117	370	1544	0.304	468	560	0.0	0.4	3.339	A

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	445	111	426	1377	0.323	444	577	0.3	0.5	3.857	A
B	773	193	340	1721	0.449	772	530	0.6	0.8	3.791	A
C	219	55	894	727	0.302	219	218	0.3	0.4	7.076	A
D	561	140	443	1468	0.382	560	670	0.4	0.6	3.961	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	545	136	520	1260	0.433	544	706	0.5	0.8	5.018	A
B	947	237	416	1631	0.581	945	648	0.8	1.4	5.230	A
C	269	67	1094	515	0.522	266	267	0.4	1.1	14.327	B
D	687	172	541	1365	0.503	685	819	0.6	1.0	5.284	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	545	136	522	1258	0.433	545	708	0.8	0.8	5.047	A
B	947	237	417	1630	0.581	947	650	1.4	1.4	5.271	A
C	269	67	1097	512	0.524	269	268	1.1	1.1	14.751	B
D	687	172	543	1364	0.504	687	822	1.0	1.0	5.319	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	445	111	428	1375	0.324	446	580	0.8	0.5	3.880	A
B	773	193	342	1719	0.450	775	532	1.4	0.8	3.824	A
C	219	55	898	723	0.303	222	219	1.1	0.4	7.222	A
D	561	140	445	1466	0.383	562	675	1.0	0.6	3.991	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	373	93	357	1462	0.255	373	485	0.5	0.3	3.311	A
B	647	162	286	1785	0.363	648	445	0.8	0.6	3.170	A
C	184	46	751	879	0.209	184	183	0.4	0.3	5.191	A
D	470	117	372	1542	0.305	471	564	0.6	0.4	3.363	A

Traffic - 2040 WD, 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	A55 J2	Large Roundabout		A, B, C, D	5.39	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Entry-to-exit separation (m)
A	279	118.76
B	224	11.23
C	375	113.53
D	159	9.57

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D13	2040 WD	AM	ONE HOUR	08:00	09:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	636	100.000
B		ONE HOUR	✓	575	100.000
C		ONE HOUR	✓	314	100.000
D		ONE HOUR	✓	556	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A	B	C	D
From	A	1	404	1	230
	B	392	0	27	156
	C	0	56	0	258
	D	163	276	115	2

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	1	0	3
	B	1	0	7	2
	C	0	0	0	5
	D	7	3	6	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A	0.54	6.12	1.2	A	584	875
B	0.39	3.56	0.6	A	528	791
C	0.45	8.61	0.8	A	288	432
D	0.44	4.60	0.8	A	510	765

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	479	120	337	1485	0.322	477	417	0.0	0.5	3.566	A
B	433	108	262	1786	0.242	432	552	0.0	0.3	2.655	A
C	236	59	586	1071	0.221	235	107	0.0	0.3	4.305	A
D	419	105	337	1559	0.269	417	484	0.0	0.4	3.149	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	572	143	403	1402	0.408	571	499	0.5	0.7	4.327	A
B	517	129	313	1726	0.300	516	661	0.3	0.4	2.977	A
C	282	71	701	941	0.300	282	128	0.3	0.4	5.453	A
D	500	125	403	1489	0.336	499	580	0.4	0.5	3.634	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	700	175	493	1290	0.543	698	611	0.7	1.2	6.069	A
B	633	158	383	1644	0.385	632	808	0.4	0.6	3.554	A
C	346	86	858	765	0.452	344	157	0.4	0.8	8.515	A
D	612	153	494	1395	0.439	611	709	0.5	0.8	4.586	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	700	175	494	1288	0.544	700	612	1.2	1.2	6.120	A
B	633	158	384	1643	0.385	633	810	0.6	0.6	3.564	A
C	346	86	860	764	0.453	346	157	0.8	0.8	8.609	A
D	612	153	494	1394	0.439	612	711	0.8	0.8	4.603	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	572	143	405	1400	0.408	574	501	1.2	0.7	4.367	A
B	517	129	315	1724	0.300	518	664	0.6	0.4	2.985	A
C	282	71	704	939	0.301	284	129	0.8	0.4	5.509	A
D	500	125	404	1488	0.336	501	583	0.8	0.5	3.652	A

09:15 - 09:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	479	120	339	1483	0.323	480	419	0.7	0.5	3.594	A
B	433	108	263	1784	0.243	433	555	0.4	0.3	2.664	A
C	236	59	589	1068	0.221	237	108	0.4	0.3	4.338	A
D	419	105	338	1557	0.269	419	487	0.5	0.4	3.164	A

Traffic - 2040 WD, IP

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	A55 J2	Large Roundabout		A, B, C, D	6.18	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Entry-to-exit separation (m)
A	240	118.76
B	124	11.23
C	297	113.53
D	159	9.57

Slope / Intercept / Capacity

[same as above]

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D14	2040 WD	IP	ONE HOUR	11:45	13:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	618	100.000
B		ONE HOUR	✓	544	100.000
C		ONE HOUR	✓	338	100.000
D		ONE HOUR	✓	690	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A	B	C	D
From	A	2	421	1	194
	B	371	0	13	160
	C	1	61	1	275
	D	193	321	175	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	2	100	4
	B	1	0	8	3
	C	0	5	0	7
	D	3	0	11	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A	0.61	8.10	1.5	A	567	851
B	0.37	3.58	0.6	A	499	749
C	0.46	8.22	0.8	A	310	465
D	0.53	5.44	1.1	A	633	950

Main Results for each time segment

11:45 - 12:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	465	116	419	1370	0.340	463	425	0.0	0.5	3.963	A
B	410	102	280	1766	0.232	408	602	0.0	0.3	2.649	A
C	254	64	546	1094	0.233	253	143	0.0	0.3	4.273	A
D	519	130	327	1584	0.328	518	472	0.0	0.5	3.370	A

12:00 - 12:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	556	139	502	1266	0.439	555	509	0.5	0.8	5.050	A
B	489	122	336	1698	0.288	489	721	0.3	0.4	2.976	A
C	304	76	654	975	0.312	303	171	0.3	0.4	5.358	A
D	620	155	392	1515	0.409	619	565	0.5	0.7	4.015	A

12:15 - 12:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	680	170	614	1126	0.604	678	623	0.8	1.5	7.971	A
B	599	150	410	1606	0.373	598	881	0.4	0.6	3.570	A
C	372	93	800	812	0.459	371	209	0.4	0.8	8.137	A
D	760	190	479	1422	0.534	758	691	0.7	1.1	5.406	A

12:30 - 12:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	680	170	615	1124	0.605	680	624	1.5	1.5	8.104	A
B	599	150	412	1604	0.373	599	884	0.6	0.6	3.579	A
C	372	93	802	810	0.460	372	209	0.8	0.8	8.225	A
D	760	190	480	1421	0.535	760	694	1.1	1.1	5.441	A

12:45 - 13:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	556	139	504	1264	0.440	558	511	1.5	0.8	5.125	A
B	489	122	338	1696	0.288	490	725	0.6	0.4	2.986	A
C	304	76	656	972	0.313	305	171	0.8	0.5	5.415	A
D	620	155	393	1514	0.410	622	569	1.1	0.7	4.043	A

13:00 - 13:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	465	116	422	1367	0.340	466	427	0.8	0.5	4.004	A
B	410	102	282	1764	0.232	410	606	0.4	0.3	2.661	A
C	254	64	549	1092	0.233	255	143	0.5	0.3	4.308	A
D	519	130	329	1582	0.328	520	475	0.7	0.5	3.391	A

Traffic - 2040 WD , 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	A55 J2	Large Roundabout		A, B, C, D	7.68	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

[same as above]

Roundabout Geometry

[same as above]

Large Roundabout Data

Arm	Circulating flow (PCU/hr)	Entry-to-exit separation (m)
A	345	118.76
B	279	11.23
C	601	113.53
D	297	9.57

Slope / Intercept / Capacity

[same as above]

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
D15	2040 WD	PM	ONE HOUR	16:15	17:45	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	506	100.000
B		ONE HOUR	✓	864	100.000
C		ONE HOUR	✓	257	100.000
D		ONE HOUR	✓	770	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To				
	A	B	C	D	
A	2	282	2	220	
B	449	1	75	339	
C	1	38	2	216	
D	251	285	234	0	

Vehicle Mix

Heavy Vehicle Percentages

From	To				
	A	B	C	D	
A	0	1	0	3	
B	0	0	4	0	
C	0	8	0	4	
D	2	1	3	0	

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A	0.49	6.21	1.0	A	464	696
B	0.63	6.36	1.7	A	793	1189
C	0.57	16.93	1.3	C	236	354
D	0.62	6.94	1.6	A	707	1060

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	381	95	420	1376	0.277	379	527	0.0	0.4	3.607	A
B	650	163	345	1704	0.382	648	454	0.0	0.6	3.401	A
C	193	48	758	870	0.223	192	235	0.0	0.3	5.307	A
D	580	145	370	1547	0.375	577	581	0.0	0.6	3.704	A

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	455	114	503	1276	0.357	454	631	0.4	0.6	4.379	A
B	777	194	413	1625	0.478	776	544	0.6	0.9	4.229	A
C	231	58	907	712	0.324	230	281	0.3	0.5	7.460	A
D	692	173	442	1471	0.471	691	695	0.6	0.9	4.611	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	557	139	614	1140	0.489	556	772	0.6	0.9	6.146	A
B	951	238	505	1519	0.626	948	665	0.9	1.6	6.280	A
C	283	71	1110	499	0.568	280	343	0.5	1.3	16.232	C
D	848	212	541	1368	0.620	845	849	0.9	1.6	6.844	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	557	139	616	1137	0.490	557	774	0.9	1.0	6.208	A
B	951	238	506	1517	0.627	951	667	1.6	1.7	6.363	A
C	283	71	1113	495	0.572	283	345	1.3	1.3	16.927	C
D	848	212	543	1366	0.621	848	853	1.6	1.6	6.945	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	455	114	506	1271	0.358	456	634	1.0	0.6	4.427	A
B	777	194	415	1623	0.479	780	547	1.7	0.9	4.284	A
C	231	58	912	707	0.327	234	283	1.3	0.5	7.668	A
D	692	173	445	1468	0.472	695	701	1.6	0.9	4.676	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	381	95	423	1373	0.277	382	530	0.6	0.4	3.633	A
B	650	163	347	1702	0.382	652	457	0.9	0.6	3.430	A
C	193	48	763	865	0.224	194	236	0.5	0.3	5.375	A
D	580	145	372	1544	0.375	581	585	0.9	0.6	3.743	A

APPENDIX O

A55 JUNCTION 3 PENCALEGOD INTERCHANGE ARCADY

<h1>Junctions 9</h1>
<h2>ARCADY 9 - Roundabout Module</h2>
Version: 9.5.0.6896 © Copyright TRL Limited, 2018
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Filename: A55 J3 Northern roundabout V8.j9

Path: C:\Users\ADC\OneDrive - ADC Infrastructure Limited\ADC Projects\ADC3377 Anglesey Freeport (Prosperity Parc) \Documents\reports\ADC\F. Transport Assessment\Junction Modelling

Report generation date: 14/10/2024 11:17:12

-
- »Traffic - 2024, AM
 - »Traffic - 2024, IP
 - »Traffic - 2024, PM
 - »Traffic - 2030 background, AM
 - »Traffic - 2030 background, IP
 - »Traffic - 2030 background, PM
 - »Traffic - 2030 with dev, AM
 - »Traffic - 2030 with dev, IP
 - »Traffic - 2030 with dev, PM
 - »Traffic - 2040 background, AM
 - »Traffic - 2040 background , IP
 - »Traffic - 2040 background, PM
 - »Traffic - 2040 with dev, AM
 - »Traffic - 2040 with dev, IP
 - »Traffic - 2040 with dev, PM

Summary of junction performance

	AM			IP			PM		
	Queue (Veh)	Delay (s)	RFC	Queue (Veh)	Delay (s)	RFC	Queue (Veh)	Delay (s)	RFC
Traffic - 2024									
Arm A	0.3	3.66	0.20	0.3	3.70	0.21	0.5	4.16	0.32
Arm B	0.1	3.18	0.09	0.1	3.09	0.06	0.1	3.28	0.06
Arm C	0.7	6.76	0.42	0.6	6.05	0.37	0.4	5.26	0.29
Traffic - 2030 background									
Arm A	0.3	3.82	0.24	0.3	3.85	0.24	0.7	4.72	0.40
Arm B	0.1	3.27	0.10	0.1	3.16	0.06	0.1	3.44	0.06
Arm C	1.1	8.02	0.52	0.8	6.98	0.46	0.7	6.24	0.41
Traffic - 2030 with dev									
Arm A	0.5	4.19	0.31	0.4	3.90	0.26	0.7	4.80	0.41
Arm B	0.1	3.41	0.10	0.1	3.19	0.06	0.1	3.46	0.06
Arm C	1.1	8.33	0.53	0.9	7.36	0.49	0.9	7.01	0.48
Traffic - 2040 background									
Arm A	0.3	3.93	0.26	0.3	3.90	0.25	0.7	4.87	0.42
Arm B	0.1	3.32	0.10	0.1	3.19	0.07	0.1	3.49	0.07
Arm C	1.2	8.54	0.54	0.9	7.21	0.47	0.7	6.40	0.43
Traffic - 2040 with dev									
Arm A	0.5	4.27	0.32	0.4	4.01	0.27	0.7	4.95	0.43
Arm B	0.1	3.45	0.11	0.1	3.23	0.07	0.1	3.51	0.07
Arm C	1.3	8.89	0.56	1.0	7.62	0.51	1.0	7.23	0.49

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

File summary

File Description

Title	A55 Junction 3 northern roundabout
Location	Anglesey
Site number	
Date	13/09/2024
Version	v1
Status	preliminary
Identifier	
Client	Prosperoty Parc
Jobnumber	ADC3377
Enumerator	ADC-TOSHIBA-AIO\ADC
Description	

Units

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

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2024	AM	ONE HOUR	08:00	09:30	15
D2	2024	IP	ONE HOUR	11:45	13:15	15
D3	2024	PM	ONE HOUR	16:15	17:45	15
D4	2030 background	AM	ONE HOUR	08:00	09:30	15
D5	2030 background	IP	ONE HOUR	11:45	13:15	15
D6	2030 background	PM	ONE HOUR	16:15	17:45	15
D7	2030 with dev	AM	ONE HOUR	08:00	09:30	15
D8	2030 with dev	IP	ONE HOUR	11:45	13:15	15
D9	2030 with dev	PM	ONE HOUR	16:15	17:45	15
D10	2040 background	AM	ONE HOUR	08:00	09:30	15
D11	2040 background	IP	ONE HOUR	11:45	13:15	15
D12	2040 background	PM	ONE HOUR	16:15	17:45	15
D13	2040 with dev	AM	ONE HOUR	08:00	09:30	15
D14	2040 with dev	IP	ONE HOUR	11:45	13:15	15
D15	2040 with dev	PM	ONE HOUR	16:15	17:45	15

Analysis Set Details

ID	Name	Network flow scaling factor (%)
A1	Traffic	100.000

Traffic - 2024, 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	A55 Junction 3 northern roundabout	Standard Roundabout		A, B, C, D	5.21	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	A5 Bridge	
B	A55 eastbound off-slip	
C	A5 North	
D	A55 eastbound on-slip	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A	3.60	5.00	3.3	47.0	59.5	35.0	
B	4.01	4.75	4.5	20.6	59.5	23.0	
C	3.51	3.51	0.0	20.4	59.5	43.0	
D							✓

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A	0.490	1284
B	0.514	1397
C	0.429	1016
D		

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)
D1	2024	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	230	100.000
B		✓	100	100.000
C		✓	351	100.000
D				

Origin-Destination Data

Demand (Veh/hr)

		To			
		A	B	C	D
From	A	0	0	217	13
	B	71	0	29	0
	C	106	0	0	245
	D	Exit-only	Exit-only	Exit-only	Exit-only

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	4	0
	B	1	0	3	0
	C	7	0	0	6
	D	Exit-only	Exit-only	Exit-only	Exit-only

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
A	0.20	3.66	0.3	A
B	0.09	3.18	0.1	A
C	0.42	6.76	0.7	A
D				

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	173	0	1237	0.140	173	0.2	3.380	A
B	75	173	1284	0.059	75	0.1	2.977	A
C	264	63	931	0.284	263	0.4	5.379	A
D		133						

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	207	0	1237	0.167	207	0.2	3.493	A
B	90	207	1266	0.071	90	0.1	3.059	A
C	316	75	925	0.341	315	0.5	5.892	A
D		159						

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	253	0	1237	0.205	253	0.3	3.658	A
B	110	253	1242	0.089	110	0.1	3.179	A
C	386	92	919	0.421	386	0.7	6.755	A
D		195						

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	253	0	1237	0.205	253	0.3	3.658	A
B	110	253	1242	0.089	110	0.1	3.180	A
C	386	92	919	0.421	386	0.7	6.765	A
D		195						

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	207	0	1237	0.167	207	0.2	3.494	A
B	90	207	1266	0.071	90	0.1	3.060	A
C	316	76	925	0.341	316	0.5	5.920	A
D		159						

09:15 - 09:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	173	0	1237	0.140	173	0.2	3.383	A
B	75	173	1284	0.059	75	0.1	2.980	A
C	264	63	930	0.284	265	0.4	5.413	A
D		133						

Traffic - 2024, IP

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	A55 Junction 3 northern roundabout	Standard Roundabout		A, B, C, D	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)
D2	2024	IP	ONE HOUR	11:45	13:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	229	100.000
B		✓	68	100.000
C		✓	316	100.000
D				

Origin-Destination Data

Demand (Veh/hr)

		To			
		A	B	C	D
From	A	0	0	221	8
	B	31	0	36	1
	C	74	0	0	242
	D	Exit-only	Exit-only	Exit-only	Exit-only

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	5	0
	B	0	0	3	0
	C	5	0	0	6
	D	Exit-only	Exit-only	Exit-only	Exit-only

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
A	0.21	3.70	0.3	A
B	0.06	3.09	0.1	A
C	0.37	6.05	0.6	A
D				

Main Results for each time segment

11:45 - 12:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	172	0	1225	0.141	172	0.2	3.417	A
B	51	172	1284	0.040	51	0.0	2.920	A
C	238	30	949	0.251	237	0.3	5.045	A
D		79						

12:00 - 12:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	206	0	1225	0.168	206	0.2	3.532	A
B	61	206	1266	0.048	61	0.1	2.988	A
C	284	36	946	0.300	284	0.4	5.430	A
D		94						

12:15 - 12:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	252	0	1225	0.206	252	0.3	3.700	A
B	75	252	1241	0.060	75	0.1	3.086	A
C	348	44	943	0.369	347	0.6	6.035	A
D		115						

12:30 - 12:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	252	0	1225	0.206	252	0.3	3.700	A
B	75	252	1241	0.060	75	0.1	3.086	A
C	348	44	943	0.369	348	0.6	6.047	A
D		116						

12:45 - 13:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	206	0	1225	0.168	206	0.2	3.534	A
B	61	206	1265	0.048	61	0.1	2.991	A
C	284	36	946	0.300	285	0.4	5.446	A
D		95						

13:00 - 13:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	172	0	1225	0.141	173	0.2	3.424	A
B	51	173	1283	0.040	51	0.0	2.923	A
C	238	30	949	0.251	238	0.3	5.069	A
D		79						

Traffic - 2024, 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	A55 Junction 3 northern roundabout	Standard Roundabout		A, B, C, D	4.50	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2024	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	368	100.000
B		✓	61	100.000
C		✓	260	100.000
D				

Origin-Destination Data

Demand (Veh/hr)

		To			
		A	B	C	D
From	A	0	0	359	9
	B	22	0	38	1
	C	69	0	0	191
	D	Exit-only	Exit-only	Exit-only	Exit-only

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	1	0
	B	5	0	0	0
	C	6	0	0	2
	D	Exit-only	Exit-only	Exit-only	Exit-only

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
A	0.32	4.16	0.5	A
B	0.06	3.28	0.1	A
C	0.29	5.26	0.4	A
D				

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	277	0	1271	0.218	276	0.3	3.614	A
B	46	276	1231	0.037	46	0.0	3.036	A
C	196	24	976	0.201	195	0.2	4.603	A
D		68						

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	331	0	1271	0.260	331	0.3	3.826	A
B	55	331	1203	0.046	55	0.0	3.133	A
C	234	29	974	0.240	233	0.3	4.861	A
D		82						

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	405	0	1271	0.319	405	0.5	4.152	A
B	67	405	1165	0.058	67	0.1	3.277	A
C	286	35	971	0.295	286	0.4	5.250	A
D		100						

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	405	0	1271	0.319	405	0.5	4.155	A
B	67	405	1165	0.058	67	0.1	3.277	A
C	286	35	971	0.295	286	0.4	5.256	A
D		100						

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	331	0	1271	0.260	331	0.4	3.833	A
B	55	331	1203	0.046	55	0.0	3.137	A
C	234	29	974	0.240	234	0.3	4.868	A
D		82						

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	277	0	1271	0.218	277	0.3	3.624	A
B	46	277	1230	0.037	46	0.0	3.038	A
C	196	24	976	0.201	196	0.3	4.617	A
D		69						

Traffic - 2030 background, 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	A55 Junction 3 northern roundabout	Standard Roundabout		A, B, C, D	6.01	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2030 background	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	277	100.000
B		✓	105	100.000
C		✓	433	100.000
D				

Origin-Destination Data

Demand (Veh/hr)

		To			
		A	B	C	D
From	A	0	0	263	14
	B	75	0	30	0
	C	118	0	0	315
	D	Exit-only	Exit-only	Exit-only	Exit-only

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	3	0
	B	1	0	3	0
	C	6	0	0	5
	D	Exit-only	Exit-only	Exit-only	Exit-only

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
A	0.24	3.82	0.3	A
B	0.10	3.27	0.1	A
C	0.52	8.02	1.1	A
D				

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	209	0	1248	0.167	208	0.2	3.459	A
B	79	208	1267	0.062	79	0.1	3.030	A
C	326	67	938	0.348	324	0.5	5.841	A
D		145						

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	249	0	1248	0.200	249	0.2	3.601	A
B	94	249	1245	0.076	94	0.1	3.126	A
C	389	80	933	0.417	389	0.7	6.608	A
D		173						

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	305	0	1248	0.244	305	0.3	3.815	A
B	116	305	1216	0.095	116	0.1	3.269	A
C	477	98	925	0.515	475	1.0	7.977	A
D		212						

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	305	0	1248	0.244	305	0.3	3.815	A
B	116	305	1216	0.095	116	0.1	3.270	A
C	477	98	925	0.515	477	1.1	8.024	A
D		212						

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	249	0	1248	0.200	249	0.3	3.606	A
B	94	249	1245	0.076	94	0.1	3.130	A
C	389	80	933	0.417	391	0.7	6.657	A
D		174						

09:15 - 09:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	209	0	1248	0.167	209	0.2	3.463	A
B	79	209	1266	0.062	79	0.1	3.031	A
C	326	67	938	0.348	327	0.5	5.896	A
D		146						

Traffic - 2030 background, IP

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	A55 Junction 3 northern roundabout	Standard Roundabout		A, B, C, D	5.47	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2030 background	IP	ONE HOUR	11:45	13:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	273	100.000
B		✓	71	100.000
C		✓	394	100.000
D				

Origin-Destination Data

Demand (Veh/hr)

		To			
		A	B	C	D
From	A	0	0	265	8
	B	32	0	38	1
	C	84	0	0	310
	D	Exit-only	Exit-only	Exit-only	Exit-only

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	4	0
	B	0	0	3	0
	C	5	0	0	5
	D	Exit-only	Exit-only	Exit-only	Exit-only

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
A	0.24	3.85	0.3	A
B	0.06	3.16	0.1	A
C	0.46	6.98	0.8	A
D				

Main Results for each time segment

11:45 - 12:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	206	0	1236	0.166	205	0.2	3.490	A
B	53	205	1267	0.042	53	0.0	2.966	A
C	297	31	955	0.310	295	0.4	5.435	A
D		87						

12:00 - 12:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	245	0	1236	0.199	245	0.2	3.634	A
B	64	245	1246	0.051	64	0.1	3.045	A
C	354	37	953	0.372	354	0.6	6.002	A
D		104						

12:15 - 12:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	301	0	1236	0.243	300	0.3	3.847	A
B	78	300	1217	0.064	78	0.1	3.161	A
C	434	45	950	0.457	433	0.8	6.954	A
D		127						

12:30 - 12:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	301	0	1236	0.243	301	0.3	3.849	A
B	78	301	1216	0.064	78	0.1	3.161	A
C	434	45	950	0.457	434	0.8	6.978	A
D		128						

12:45 - 13:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	245	0	1236	0.199	246	0.2	3.636	A
B	64	246	1245	0.051	64	0.1	3.048	A
C	354	37	953	0.372	355	0.6	6.030	A
D		105						

13:00 - 13:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	206	0	1236	0.166	206	0.2	3.494	A
B	53	206	1266	0.042	53	0.0	2.967	A
C	297	31	955	0.310	297	0.5	5.473	A
D		87						

Traffic - 2030 background, 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	A55 Junction 3 northern roundabout	Standard Roundabout		A, B, C, D	5.25	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2030 background	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	462	100.000
B		✓	64	100.000
C		✓	367	100.000
D				

Origin-Destination Data

Demand (Veh/hr)

		To			
		A	B	C	D
From	A	0	0	453	9
	B	23	0	40	1
	C	87	0	0	280
	D	Exit-only	Exit-only	Exit-only	Exit-only

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	1	0
	B	4	0	0	0
	C	5	0	0	1
	D	Exit-only	Exit-only	Exit-only	Exit-only

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
A	0.40	4.72	0.7	A
B	0.06	3.44	0.1	A
C	0.41	6.24	0.7	A
D				

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	348	0	1271	0.274	346	0.4	3.885	A
B	48	346	1200	0.040	48	0.0	3.126	A
C	276	25	986	0.280	275	0.4	5.048	A
D		82						

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	415	0	1271	0.327	415	0.5	4.202	A
B	58	415	1164	0.049	57	0.1	3.251	A
C	330	30	984	0.335	329	0.5	5.495	A
D		99						

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	509	0	1271	0.400	508	0.7	4.712	A
B	70	508	1117	0.063	70	0.1	3.439	A
C	404	36	981	0.412	403	0.7	6.221	A
D		121						

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	509	0	1271	0.400	509	0.7	4.720	A
B	70	509	1116	0.063	70	0.1	3.440	A
C	404	36	981	0.412	404	0.7	6.236	A
D		121						

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	415	0	1271	0.327	416	0.5	4.212	A
B	58	416	1164	0.049	58	0.1	3.256	A
C	330	30	984	0.335	331	0.5	5.516	A
D		99						

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	348	0	1271	0.274	348	0.4	3.901	A
B	48	348	1199	0.040	48	0.0	3.131	A
C	276	25	986	0.280	277	0.4	5.076	A
D		83						

Traffic - 2030 with 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	A55 Junction 3 northern roundabout	Standard Roundabout		A, B, C, D	6.18	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)
D7	2030 with dev	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	354	100.000
B		✓	105	100.000
C		✓	448	100.000
D				

Origin-Destination Data

Demand (Veh/hr)

		To			
		A	B	C	D
From	A	0	0	340	14
	B	75	0	30	0
	C	118	0	0	330
	D	Exit-only	Exit-only	Exit-only	Exit-only

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	3	0
	B	1	0	3	0
	C	6	0	0	5
	D	Exit-only	Exit-only	Exit-only	Exit-only

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
A	0.31	4.19	0.5	A
B	0.10	3.41	0.1	A
C	0.53	8.33	1.1	A
D				

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	267	0	1248	0.214	265	0.3	3.661	A
B	79	265	1237	0.064	79	0.1	3.108	A
C	337	67	938	0.360	335	0.6	5.948	A
D		145						

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	318	0	1248	0.255	318	0.3	3.870	A
B	94	318	1209	0.078	94	0.1	3.227	A
C	403	80	933	0.432	402	0.8	6.773	A
D		173						

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	390	0	1248	0.312	389	0.5	4.191	A
B	116	389	1172	0.099	116	0.1	3.406	A
C	493	98	925	0.533	492	1.1	8.274	A
D		212						

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	390	0	1248	0.312	390	0.5	4.195	A
B	116	390	1172	0.099	116	0.1	3.407	A
C	493	98	925	0.533	493	1.1	8.331	A
D		212						

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	318	0	1248	0.255	319	0.3	3.876	A
B	94	319	1209	0.078	94	0.1	3.232	A
C	403	80	933	0.432	404	0.8	6.829	A
D		174						

09:15 - 09:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	267	0	1248	0.214	267	0.3	3.669	A
B	79	267	1236	0.064	79	0.1	3.113	A
C	337	67	938	0.360	338	0.6	6.008	A
D		146						

Traffic - 2030 with dev, IP

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	A55 Junction 3 northern roundabout	Standard Roundabout		A, B, C, D	5.71	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D8	2030 with dev	IP	ONE HOUR	11:45	13:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	295	100.000
B		✓	71	100.000
C		✓	425	100.000
D				

Origin-Destination Data

Demand (Veh/hr)

		To			
		A	B	C	D
From	A	0	0	287	8
	B	32	0	38	1
	C	84	0	0	341
	D	Exit-only	Exit-only	Exit-only	Exit-only

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	3	0
	B	0	0	3	0
	C	5	0	0	4
	D	Exit-only	Exit-only	Exit-only	Exit-only

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
A	0.26	3.90	0.4	A
B	0.06	3.19	0.1	A
C	0.49	7.36	0.9	A
D				

Main Results for each time segment

11:45 - 12:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	222	0	1247	0.178	221	0.2	3.504	A
B	53	221	1259	0.042	53	0.0	2.984	A
C	320	31	963	0.332	318	0.5	5.566	A
D		87						

12:00 - 12:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	265	0	1247	0.213	265	0.3	3.664	A
B	64	265	1236	0.052	64	0.1	3.069	A
C	382	37	960	0.398	381	0.7	6.212	A
D		104						

12:15 - 12:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	325	0	1247	0.260	324	0.4	3.900	A
B	78	324	1206	0.065	78	0.1	3.192	A
C	468	45	957	0.489	467	0.9	7.326	A
D		127						

12:30 - 12:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	325	0	1247	0.260	325	0.4	3.901	A
B	78	325	1205	0.065	78	0.1	3.193	A
C	468	45	957	0.489	468	0.9	7.361	A
D		128						

12:45 - 13:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	265	0	1247	0.213	266	0.3	3.666	A
B	64	266	1236	0.052	64	0.1	3.072	A
C	382	37	960	0.398	383	0.7	6.252	A
D		105						

13:00 - 13:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	222	0	1247	0.178	222	0.2	3.511	A
B	53	222	1259	0.042	53	0.0	2.986	A
C	320	31	963	0.332	321	0.5	5.613	A
D		87						

Traffic - 2030 with 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	A55 Junction 3 northern roundabout	Standard Roundabout		A, B, C, D	5.69	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D9	2030 with dev	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	473	100.000
B		✓	64	100.000
C		✓	426	100.000
D				

Origin-Destination Data

Demand (Veh/hr)

		To			
		A	B	C	D
From	A	0	0	464	9
	B	23	0	40	1
	C	87	0	0	339
	D	Exit-only	Exit-only	Exit-only	Exit-only

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	1	0
	B	4	0	0	0
	C	5	0	0	1
	D	Exit-only	Exit-only	Exit-only	Exit-only

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
A	0.41	4.80	0.7	A
B	0.06	3.46	0.1	A
C	0.48	7.01	0.9	A
D				

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	356	0	1271	0.280	355	0.4	3.921	A
B	48	355	1195	0.040	48	0.0	3.137	A
C	321	25	988	0.325	319	0.5	5.368	A
D		82						

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	425	0	1271	0.334	425	0.5	4.251	A
B	58	425	1159	0.050	57	0.1	3.266	A
C	383	30	985	0.389	382	0.6	5.962	A
D		99						

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	521	0	1271	0.410	520	0.7	4.786	A
B	70	520	1111	0.063	70	0.1	3.460	A
C	469	36	983	0.477	468	0.9	6.981	A
D		121						

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	521	0	1271	0.410	521	0.7	4.796	A
B	70	521	1110	0.063	70	0.1	3.461	A
C	469	36	983	0.477	469	0.9	7.009	A
D		121						

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	425	0	1271	0.334	426	0.5	4.262	A
B	58	426	1159	0.050	58	0.1	3.268	A
C	383	30	985	0.389	384	0.6	5.995	A
D		99						

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	356	0	1271	0.280	357	0.4	3.937	A
B	48	357	1194	0.040	48	0.0	3.140	A
C	321	25	988	0.325	321	0.5	5.408	A
D		83						

Traffic - 2040 background, 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	A55 Junction 3 northern roundabout	Standard Roundabout		A, B, C, D	6.33	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D10	2040 background	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	291	100.000
B		✓	111	100.000
C		✓	456	100.000
D				

Origin-Destination Data

Demand (Veh/hr)

		To			
		A	B	C	D
From	A	0	0	277	14
	B	79	0	32	0
	C	125	0	0	331
	D	Exit-only	Exit-only	Exit-only	Exit-only

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	4	0
	B	1	0	3	0
	C	6	0	0	5
	D	Exit-only	Exit-only	Exit-only	Exit-only

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
A	0.26	3.93	0.3	A
B	0.10	3.32	0.1	A
C	0.54	8.54	1.2	A
D				

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	219	0	1237	0.177	218	0.2	3.531	A
B	84	218	1260	0.066	83	0.1	3.058	A
C	343	70	937	0.366	341	0.6	6.019	A
D		153						

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	262	0	1237	0.212	261	0.3	3.691	A
B	100	261	1238	0.081	100	0.1	3.163	A
C	410	84	931	0.440	409	0.8	6.884	A
D		183						

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	320	0	1237	0.259	320	0.3	3.927	A
B	122	320	1207	0.101	122	0.1	3.318	A
C	502	102	923	0.544	500	1.2	8.479	A
D		224						

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	320	0	1237	0.259	320	0.3	3.928	A
B	122	320	1207	0.101	122	0.1	3.319	A
C	502	102	923	0.544	502	1.2	8.540	A
D		225						

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	262	0	1237	0.212	262	0.3	3.693	A
B	100	262	1237	0.081	100	0.1	3.167	A
C	410	84	931	0.440	411	0.8	6.950	A
D		184						

09:15 - 09:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	219	0	1237	0.177	219	0.2	3.538	A
B	84	219	1260	0.066	84	0.1	3.063	A
C	343	70	937	0.367	344	0.6	6.085	A
D		154						

Traffic - 2040 background , IP

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	A55 Junction 3 northern roundabout	Standard Roundabout		A, B, C, D	5.61	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)
D11	2040 background	IP	ONE HOUR	11:45	13:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	285	100.000
B		✓	74	100.000
C		✓	408	100.000
D				

Origin-Destination Data

Demand (Veh/hr)

		To			
		A	B	C	D
From	A	0	0	276	9
	B	34	0	39	1
	C	87	0	0	321
	D	Exit-only	Exit-only	Exit-only	Exit-only

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	4	0
	B	0	0	3	0
	C	5	0	0	5
	D	Exit-only	Exit-only	Exit-only	Exit-only

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
A	0.25	3.90	0.3	A
B	0.07	3.19	0.1	A
C	0.47	7.21	0.9	A
D				

Main Results for each time segment

11:45 - 12:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	215	0	1236	0.174	214	0.2	3.518	A
B	56	214	1262	0.044	56	0.0	2.982	A
C	307	33	955	0.322	305	0.5	5.529	A
D		91						

12:00 - 12:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	256	0	1236	0.207	256	0.3	3.673	A
B	67	256	1240	0.054	66	0.1	3.066	A
C	367	40	952	0.385	366	0.6	6.140	A
D		109						

12:15 - 12:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	314	0	1236	0.254	313	0.3	3.902	A
B	81	313	1210	0.067	81	0.1	3.189	A
C	449	48	948	0.474	448	0.9	7.181	A
D		133						

12:30 - 12:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	314	0	1236	0.254	314	0.3	3.903	A
B	81	314	1210	0.067	81	0.1	3.189	A
C	449	48	948	0.474	449	0.9	7.213	A
D		133						

12:45 - 13:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	256	0	1236	0.207	257	0.3	3.676	A
B	67	257	1240	0.054	67	0.1	3.067	A
C	367	40	952	0.385	368	0.6	6.176	A
D		109						

13:00 - 13:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	215	0	1236	0.174	215	0.2	3.525	A
B	56	215	1262	0.044	56	0.0	2.984	A
C	307	33	954	0.322	308	0.5	5.571	A
D		91						

Traffic - 2040 background, 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	A55 Junction 3 northern roundabout	Standard Roundabout		A, B, C, D	5.40	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)
D12	2040 background	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	483	100.000
B		✓	67	100.000
C		✓	382	100.000
D				

Origin-Destination Data

Demand (Veh/hr)

		To			
		A	B	C	D
From	A	0	0	473	10
	B	24	0	42	1
	C	91	0	0	291
	D	Exit-only	Exit-only	Exit-only	Exit-only

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	1	0
	B	4	0	0	0
	C	4	0	0	1
	D	Exit-only	Exit-only	Exit-only	Exit-only

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
A	0.42	4.87	0.7	A
B	0.07	3.49	0.1	A
C	0.43	6.40	0.7	A
D				

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	364	0	1271	0.286	362	0.4	3.953	A
B	50	362	1192	0.042	50	0.0	3.154	A
C	288	26	988	0.291	286	0.4	5.117	A
D		86						

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	434	0	1271	0.342	434	0.5	4.296	A
B	60	434	1155	0.052	60	0.1	3.288	A
C	343	31	986	0.348	343	0.5	5.601	A
D		103						

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	532	0	1271	0.418	531	0.7	4.858	A
B	74	531	1105	0.067	74	0.1	3.489	A
C	421	38	983	0.428	420	0.7	6.387	A
D		126						

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	532	0	1271	0.418	532	0.7	4.867	A
B	74	532	1105	0.067	74	0.1	3.491	A
C	421	39	983	0.428	421	0.7	6.404	A
D		127						

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	434	0	1271	0.342	435	0.5	4.309	A
B	60	435	1154	0.052	60	0.1	3.292	A
C	343	32	986	0.348	344	0.5	5.621	A
D		104						

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	364	0	1271	0.286	364	0.4	3.971	A
B	50	364	1190	0.042	50	0.0	3.159	A
C	288	26	988	0.291	288	0.4	5.149	A
D		87						

Traffic - 2040 with 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	A55 Junction 3 northern roundabout	Standard Roundabout		A, B, C, D	6.50	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D13	2040 with dev	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	368	100.000
B		✓	111	100.000
C		✓	471	100.000
D				

Origin-Destination Data

Demand (Veh/hr)

		To			
		A	B	C	D
From	A	0	0	354	14
	B	79	0	32	0
	C	125	0	0	346
	D	Exit-only	Exit-only	Exit-only	Exit-only

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	3	0
	B	1	0	3	0
	C	6	0	0	5
	D	Exit-only	Exit-only	Exit-only	Exit-only

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
A	0.32	4.27	0.5	A
B	0.11	3.45	0.1	A
C	0.56	8.89	1.3	A
D				

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	277	0	1248	0.222	276	0.3	3.701	A
B	84	276	1231	0.068	83	0.1	3.136	A
C	355	70	937	0.378	352	0.6	6.133	A
D		153						

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	331	0	1248	0.265	331	0.4	3.924	A
B	100	331	1203	0.083	100	0.1	3.263	A
C	423	84	931	0.455	423	0.8	7.063	A
D		183						

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	405	0	1248	0.325	405	0.5	4.268	A
B	122	405	1164	0.105	122	0.1	3.454	A
C	519	102	924	0.562	517	1.3	8.817	A
D		224						

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	405	0	1248	0.325	405	0.5	4.272	A
B	122	405	1164	0.105	122	0.1	3.455	A
C	519	102	923	0.562	519	1.3	8.887	A
D		225						

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	331	0	1248	0.265	331	0.4	3.929	A
B	100	331	1202	0.083	100	0.1	3.264	A
C	423	84	931	0.455	425	0.8	7.139	A
D		184						

09:15 - 09:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	277	0	1248	0.222	277	0.3	3.710	A
B	84	277	1230	0.068	84	0.1	3.141	A
C	355	70	937	0.379	356	0.6	6.202	A
D		154						

Traffic - 2040 with dev, IP

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	A55 Junction 3 northern roundabout	Standard Roundabout		A, B, C, D	5.88	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D14	2040 with dev	IP	ONE HOUR	11:45	13:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	307	100.000
B		✓	74	100.000
C		✓	439	100.000
D				

Origin-Destination Data

Demand (Veh/hr)

		To			
		A	B	C	D
From	A	0	0	298	9
	B	34	0	39	1
	C	87	0	0	352
	D	Exit-only	Exit-only	Exit-only	Exit-only

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	4	0
	B	0	0	3	0
	C	5	0	0	4
	D	Exit-only	Exit-only	Exit-only	Exit-only

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
A	0.27	4.01	0.4	A
B	0.07	3.23	0.1	A
C	0.51	7.62	1.0	A
D				

Main Results for each time segment

11:45 - 12:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	231	0	1236	0.187	230	0.2	3.576	A
B	56	230	1254	0.044	56	0.0	3.004	A
C	331	33	962	0.344	328	0.5	5.665	A
D		91						

12:00 - 12:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	276	0	1236	0.223	276	0.3	3.749	A
B	67	276	1230	0.054	66	0.1	3.093	A
C	395	40	959	0.411	394	0.7	6.361	A
D		109						

12:15 - 12:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	338	0	1236	0.274	338	0.4	4.005	A
B	81	338	1197	0.068	81	0.1	3.225	A
C	483	48	956	0.506	482	1.0	7.584	A
D		133						

12:30 - 12:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	338	0	1236	0.274	338	0.4	4.009	A
B	81	338	1197	0.068	81	0.1	3.226	A
C	483	48	956	0.506	483	1.0	7.623	A
D		133						

12:45 - 13:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	276	0	1236	0.223	276	0.3	3.752	A
B	67	276	1230	0.054	67	0.1	3.097	A
C	395	40	959	0.411	396	0.7	6.404	A
D		109						

13:00 - 13:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	231	0	1236	0.187	231	0.2	3.586	A
B	56	231	1253	0.044	56	0.0	3.008	A
C	331	33	962	0.344	331	0.5	5.714	A
D		91						

Traffic - 2040 with 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	A55 Junction 3 northern roundabout	Standard Roundabout		A, B, C, D	5.86	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)
D15	2040 with dev	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	494	100.000
B		✓	67	100.000
C		✓	441	100.000
D				

Origin-Destination Data

Demand (Veh/hr)

		To			
		A	B	C	D
From	A	0	0	484	10
	B	24	0	42	1
	C	91	0	0	350
	D	Exit-only	Exit-only	Exit-only	Exit-only

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	0	1	0
	B	4	0	0	0
	C	4	0	0	1
	D	Exit-only	Exit-only	Exit-only	Exit-only

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
A	0.43	4.95	0.7	A
B	0.07	3.51	0.1	A
C	0.49	7.23	1.0	A
D				

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	372	0	1271	0.293	370	0.4	3.988	A
B	50	370	1187	0.042	50	0.0	3.165	A
C	332	26	989	0.336	330	0.5	5.448	A
D		86						

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	444	0	1271	0.349	444	0.5	4.346	A
B	60	444	1150	0.052	60	0.1	3.303	A
C	396	31	987	0.402	396	0.7	6.087	A
D		103						

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	544	0	1271	0.428	543	0.7	4.938	A
B	74	543	1099	0.067	74	0.1	3.510	A
C	486	38	984	0.494	484	1.0	7.194	A
D		126						

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	544	0	1271	0.428	544	0.7	4.948	A
B	74	544	1098	0.067	74	0.1	3.512	A
C	486	39	984	0.494	486	1.0	7.228	A
D		127						

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	444	0	1271	0.349	445	0.5	4.360	A
B	60	445	1149	0.052	60	0.1	3.305	A
C	396	32	987	0.402	398	0.7	6.123	A
D		104						

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	372	0	1271	0.293	372	0.4	4.006	A
B	50	372	1186	0.043	50	0.0	3.171	A
C	332	26	989	0.336	333	0.5	5.491	A
D		87						

<h1>Junctions 9</h1>
<h2>ARCADY 9 - Roundabout Module</h2>
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Filename: A55 J3 Southern roundabout V8.j9

Path: C:\Users\ADC\OneDrive - ADC Infrastructure Limited\ADC Projects\ADC3377 Anglesey Freeport (Prosperity Parc) \Documents\reports\ADC\F. Transport Assessment\Junction Modelling

Report generation date: 14/10/2024 11:34:01

-
- »Traffic - 2024, AM
 - »Traffic - 2024, IP
 - »Traffic - 2024, PM
 - »Traffic - 2030 background, AM
 - »Traffic - 2030 background , IP
 - »Traffic - 2030 background, PM
 - »Traffic - 2030 with dev, AM
 - »Traffic - 2030 with dev, IP
 - »Traffic - 2030 with dev, PM
 - »Traffic - 2040 background, AM
 - »Traffic - 2040 background , IP
 - »Traffic - 2040 background, PM
 - »Traffic - 2040 with dev, AM
 - »Traffic - 2040 with dev, IP
 - »Traffic - 2040 with dev, PM

Summary of junction performance

	AM			IP			PM		
	Queue (Veh)	Delay (s)	RFC	Queue (Veh)	Delay (s)	RFC	Queue (Veh)	Delay (s)	RFC
Traffic - 2024									
Arm A	0.2	4.33	0.14	0.1	4.17	0.09	0.3	4.77	0.20
Arm B	0.0	0.00	0.00	0.0	0.00	0.00	0.0	0.00	0.00
Arm D	0.2	4.13	0.18	0.1	3.76	0.11	0.1	3.77	0.09
Arm E	0.1	2.54	0.12	0.1	2.45	0.12	0.2	2.58	0.18
Traffic - 2030 background									
Arm A	0.2	4.80	0.20	0.2	4.52	0.14	0.3	5.18	0.23
Arm B	0.0	0.00	0.00	0.0	0.00	0.00	0.0	0.00	0.00
Arm D	0.2	4.21	0.20	0.1	3.81	0.12	0.1	3.83	0.11
Arm E	0.2	2.72	0.18	0.2	2.61	0.18	0.3	2.78	0.24
Traffic - 2030 with dev									
Arm A	0.3	5.04	0.20	0.2	4.58	0.14	0.3	5.22	0.24
Arm B	0.0	0.00	0.00	0.0	0.00	0.00	0.0	0.00	0.00
Arm D	0.2	4.21	0.20	0.1	3.81	0.12	0.1	3.83	0.11
Arm E	0.3	2.87	0.23	0.2	2.66	0.19	0.3	2.81	0.24
Traffic - 2040 background									
Arm A	0.3	4.89	0.21	0.2	4.58	0.15	0.3	5.32	0.25
Arm B	0.0	0.00	0.00	0.0	0.00	0.00	0.0	0.00	0.00
Arm D	0.3	4.27	0.21	0.1	3.83	0.13	0.1	3.86	0.12
Arm E	0.2	2.76	0.19	0.2	2.66	0.18	0.3	2.83	0.25
Traffic - 2040 with dev									
Arm A	0.3	5.15	0.22	0.2	4.55	0.15	0.3	5.36	0.25
Arm B	0.0	0.00	0.00	0.0	0.00	0.00	0.0	0.00	0.00
Arm D	0.3	4.27	0.21	0.1	3.83	0.13	0.1	3.86	0.12
Arm E	0.3	2.92	0.24	0.2	2.68	0.20	0.3	2.86	0.26

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

File summary

File Description

Title	A55 Junction 3 southern roundabout
Location	Anglesey
Site number	
Date	13/09/2024
Version	v1
Status	preliminary
Identifier	
Client	Prosperoty Parc
Jobnumber	ADC3377
Enumerator	ADC-TOSHIBA-AIO\ADC
Description	

Units

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

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2024	AM	ONE HOUR	08:00	09:30	15
D2	2024	IP	ONE HOUR	11:45	13:15	15
D3	2024	PM	ONE HOUR	16:15	17:45	15
D4	2030 background	AM	ONE HOUR	08:00	09:30	15
D5	2030 background	IP	ONE HOUR	11:45	13:15	15
D6	2030 background	PM	ONE HOUR	16:15	17:45	15
D7	2030 with dev	AM	ONE HOUR	08:00	09:30	15
D8	2030 with dev	IP	ONE HOUR	11:45	13:15	15
D9	2030 with dev	PM	ONE HOUR	16:15	17:45	15
D10	2040 background	AM	ONE HOUR	08:00	09:30	15
D11	2040 background	IP	ONE HOUR	11:45	13:15	15
D12	2040 background	PM	ONE HOUR	16:15	17:45	15
D13	2040 with dev	AM	ONE HOUR	08:00	09:30	15
D14	2040 with dev	IP	ONE HOUR	11:45	13:15	15
D15	2040 with dev	PM	ONE HOUR	16:15	17:45	15

Analysis Set Details

ID	Name	Network flow scaling factor (%)
A1	Traffic	100.000

Traffic - 2024, 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	A55 Junction 3 southern roundabout	Standard Roundabout		A, B, C, D, E	3.61	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	A5 South	
B	Farmhouse access	
C	A55 westbound on-slip	
D	A5 Bridge	
E	A55 westbound off-slip	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A	3.75	3.75	0.0	35.2	59.7	47.0	
B	2.49	5.76	3.9	4.5	59.7	69.0	
C							✓
D	3.90	3.90	0.0	33.8	59.7	53.0	
E	5.00	6.08	4.6	21.5	59.7	17.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A	0.443	1093
B	0.308	715
C		
D	0.441	1111
E	0.586	1785

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)
D1	2024	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	127	100.000
B		✓	3	100.000
C				
D		✓	176	100.000
E		✓	170	100.000

Origin-Destination Data

Demand (Veh/hr)

		To				
		A	B	C	D	E
From	A	0	0	61	66	0
	B	0	0	1	2	0
	C	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	D	158	0	18	0	0
	E	6	2	1	161	0

Vehicle Mix

Heavy Vehicle Percentages

		To				
		A	B	C	D	E
From	A	0	0	3	3	0
	B	0	0	0	0	0
	C	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	D	4	0	6	0	0
	E	0	0	0	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
A	0.14	4.33	0.2	A
B	0.00	0.00	0.0	A
C				
D	0.18	4.13	0.2	A
E	0.12	2.54	0.1	A

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	96	137	1000	0.096	95	0.1	3.976	A
B	0	230	642	0.000	0	0.0	0.000	A
C		170						
D	133	0	1066	0.124	132	0.1	3.850	A
E	128	132	1642	0.078	128	0.1	2.377	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	114	164	988	0.116	114	0.1	4.119	A
B	0	276	627	0.000	0	0.0	0.000	A
C		204						
D	158	0	1066	0.148	158	0.2	3.964	A
E	153	158	1627	0.094	153	0.1	2.442	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	140	200	972	0.144	140	0.2	4.327	A
B	0	338	607	0.000	0	0.0	0.000	A
C		250						
D	194	0	1066	0.182	194	0.2	4.124	A
E	187	194	1606	0.117	187	0.1	2.537	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	140	200	972	0.144	140	0.2	4.328	A
B	0	338	607	0.000	0	0.0	0.000	A
C		250						
D	194	0	1066	0.182	194	0.2	4.126	A
E	187	194	1606	0.117	187	0.1	2.537	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	114	164	988	0.116	114	0.1	4.120	A
B	0	276	627	0.000	0	0.0	0.000	A
C		204						
D	158	0	1066	0.148	158	0.2	3.966	A
E	153	158	1627	0.094	153	0.1	2.444	A

09:15 - 09:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	96	137	1000	0.096	96	0.1	3.983	A
B	0	231	641	0.000	0	0.0	0.000	A
C		171						
D	133	0	1066	0.124	133	0.1	3.858	A
E	128	133	1642	0.078	128	0.1	2.379	A

Traffic - 2024, IP

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	A55 Junction 3 southern roundabout	Standard Roundabout		A, B, C, D, E	3.22	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2024	IP	ONE HOUR	11:45	13:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	81	100.000
B		✓	0	100.000
C				
D		✓	106	100.000
E		✓	179	100.000

Origin-Destination Data

Demand (Veh/hr)

		To				
		A	B	C	D	E
From	A	1	0	24	56	0
	B	0	0	0	0	0
	C	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	D	90	0	15	1	0
	E	5	1	0	173	0

Vehicle Mix

Heavy Vehicle Percentages

From	To				
	A	B	C	D	E
A	0	0	0	7	0
B	0	0	0	0	0
C	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
D	4	0	0	0	0
E	0	0	0	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
A	0.09	4.17	0.1	A
B	0.00	0.00	0.0	A
C				
D	0.11	3.76	0.1	A
E	0.12	2.45	0.1	A

Main Results for each time segment

11:45 - 12:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	61	143	981	0.062	61	0.1	3.912	A
B	0	203	651	0.000	0	0.0	0.000	A
C		173						
D	80	0.75	1074	0.074	79	0.1	3.619	A
E	135	80	1687	0.080	134	0.1	2.318	A

12:00 - 12:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	73	171	969	0.075	73	0.1	4.018	A
B	0	243	638	0.000	0	0.0	0.000	A
C		208						
D	95	0.90	1074	0.089	95	0.1	3.676	A
E	161	96	1678	0.096	161	0.1	2.372	A

12:15 - 12:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	89	209	952	0.094	89	0.1	4.172	A
B	0	297	621	0.000	0	0.0	0.000	A
C		254						
D	117	1	1074	0.109	117	0.1	3.759	A
E	197	118	1665	0.118	197	0.1	2.451	A

12:30 - 12:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	89	209	952	0.094	89	0.1	4.172	A
B	0	297	620	0.000	0	0.0	0.000	A
C		254						
D	117	1	1074	0.109	117	0.1	3.759	A
E	197	118	1665	0.118	197	0.1	2.451	A

12:45 - 13:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	73	171	968	0.075	73	0.1	4.021	A
B	0	243	638	0.000	0	0.0	0.000	A
C		208						
D	95	0.90	1074	0.089	95	0.1	3.677	A
E	161	96	1678	0.096	161	0.1	2.372	A

13:00 - 13:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	61	143	981	0.062	61	0.1	3.915	A
B	0	203	650	0.000	0	0.0	0.000	A
C		174						
D	80	0.75	1074	0.074	80	0.1	3.622	A
E	135	81	1687	0.080	135	0.1	2.318	A

Traffic - 2024, 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	A55 Junction 3 southern roundabout	Standard Roundabout		A, B, C, D, E	3.47	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2024	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	175	100.000
B		✓	0	100.000
C				
D		✓	90	100.000
E		✓	284	100.000

Origin-Destination Data

Demand (Veh/hr)

		To				
		A	B	C	D	E
From	A	0	0	79	96	0
	B	0	0	0	0	0
	C	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	D	71	0	19	0	0
	E	8	1	1	274	0

Vehicle Mix

Heavy Vehicle Percentages

From	To				
	A	B	C	D	E
A	0	0	0	0	0
B	0	0	0	0	0
C	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
D	7	0	0	0	0
E	0	0	0	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
A	0.20	4.77	0.3	A
B	0.00	0.00	0.0	A
C				
D	0.09	3.77	0.1	A
E	0.18	2.58	0.2	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	132	221	994	0.133	131	0.2	4.169	A
B	0	352	606	0.000	0	0.0	0.000	A
C		278						
D	68	0	1053	0.064	67	0.1	3.653	A
E	214	67	1727	0.124	213	0.1	2.379	A

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	157	265	975	0.161	157	0.2	4.402	A
B	0	421	585	0.000	0	0.0	0.000	A
C		332						
D	81	0	1053	0.077	81	0.1	3.702	A
E	255	81	1718	0.149	255	0.2	2.460	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	193	325	948	0.203	192	0.3	4.764	A
B	0	516	555	0.000	0	0.0	0.000	A
C		407						
D	99	0	1053	0.094	99	0.1	3.773	A
E	313	99	1707	0.183	312	0.2	2.580	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	193	325	948	0.203	193	0.3	4.766	A
B	0	516	555	0.000	0	0.0	0.000	A
C		407						
D	99	0	1053	0.094	99	0.1	3.773	A
E	313	99	1707	0.183	313	0.2	2.581	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	157	265	974	0.161	158	0.2	4.409	A
B	0	422	584	0.000	0	0.0	0.000	A
C		333						
D	81	0	1053	0.077	81	0.1	3.703	A
E	255	81	1718	0.149	256	0.2	2.462	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	132	222	994	0.133	132	0.2	4.179	A
B	0	353	606	0.000	0	0.0	0.000	A
C		279						
D	68	0	1053	0.064	68	0.1	3.656	A
E	214	68	1726	0.124	214	0.1	2.380	A

Traffic - 2030 background, 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	A55 Junction 3 southern roundabout	Standard Roundabout		A, B, C, D, E	3.74	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2030 background	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	167	100.000
B		✓	3	100.000
C				
D		✓	192	100.000
E		✓	259	100.000

Origin-Destination Data

Demand (Veh/hr)

		To				
		A	B	C	D	E
From	A	0	0	64	103	0
	B	0	0	1	2	0
	C	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	D	173	0	19	0	0
	E	6	2	1	250	0

Vehicle Mix

Heavy Vehicle Percentages

From	To				
	A	B	C	D	E
A	0	0	3	2	0
B	0	0	0	0	0
C	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
D	4	0	5	0	0
E	0	0	0	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
A	0.20	4.80	0.2	A
B	0.00	0.00	0.0	A
C				
D	0.20	4.21	0.2	A
E	0.18	2.72	0.2	A

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	126	204	977	0.129	125	0.1	4.225	A
B	0	328	611	0.000	0	0.0	0.000	A
C		265						
D	145	0	1067	0.135	144	0.2	3.896	A
E	195	144	1649	0.118	194	0.1	2.474	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	150	244	959	0.157	150	0.2	4.452	A
B	0	393	591	0.000	0	0.0	0.000	A
C		317						
D	173	0	1067	0.162	172	0.2	4.023	A
E	233	172	1632	0.143	233	0.2	2.571	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	184	299	934	0.197	184	0.2	4.796	A
B	0	481	563	0.000	0	0.0	0.000	A
C		388						
D	211	0	1067	0.198	211	0.2	4.204	A
E	285	211	1609	0.177	285	0.2	2.717	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	184	299	934	0.197	184	0.2	4.798	A
B	0	481	563	0.000	0	0.0	0.000	A
C		389						
D	211	0	1067	0.198	211	0.2	4.205	A
E	285	211	1609	0.177	285	0.2	2.718	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	150	245	958	0.157	150	0.2	4.457	A
B	0	393	591	0.000	0	0.0	0.000	A
C		318						
D	173	0	1067	0.162	173	0.2	4.027	A
E	233	173	1632	0.143	233	0.2	2.572	A

09:15 - 09:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	126	205	976	0.129	126	0.1	4.235	A
B	0	329	611	0.000	0	0.0	0.000	A
C		266						
D	145	0	1067	0.135	145	0.2	3.904	A
E	195	145	1649	0.118	195	0.1	2.476	A

Traffic - 2030 background , IP

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	A55 Junction 3 southern roundabout	Standard Roundabout		A, B, C, D, E	3.35	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2030 background	IP	ONE HOUR	11:45	13:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	118	100.000
B		✓	0	100.000
C				
D		✓	118	100.000
E		✓	267	100.000

Origin-Destination Data

Demand (Veh/hr)

		To				
		A	B	C	D	E
From	A	1	0	25	92	0
	B	0	0	0	0	0
	C	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	D	101	0	16	1	0
	E	5	1	0	261	0

Vehicle Mix

Heavy Vehicle Percentages

From	To				
	A	B	C	D	E
A	0	0	0	4	0
B	0	0	0	0	0
C	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
D	4	0	0	0	0
E	0	0	0	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
A	0.14	4.52	0.2	A
B	0.00	0.00	0.0	A
C				
D	0.12	3.81	0.1	A
E	0.18	2.61	0.2	A

Main Results for each time segment

11:45 - 12:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	89	209	968	0.092	88	0.1	4.089	A
B	0	297	622	0.000	0	0.0	0.000	A
C		266						
D	89	0.75	1074	0.083	88	0.1	3.653	A
E	201	89	1698	0.118	200	0.1	2.404	A

12:00 - 12:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	106	251	950	0.112	106	0.1	4.263	A
B	0	356	603	0.000	0	0.0	0.000	A
C		319						
D	106	0.90	1074	0.099	106	0.1	3.718	A
E	240	107	1687	0.142	240	0.2	2.487	A

12:15 - 12:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	130	307	926	0.140	130	0.2	4.523	A
B	0	436	578	0.000	0	0.0	0.000	A
C		391						
D	130	1	1074	0.121	130	0.1	3.813	A
E	294	131	1673	0.176	294	0.2	2.610	A

12:30 - 12:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	130	307	926	0.140	130	0.2	4.524	A
B	0	436	578	0.000	0	0.0	0.000	A
C		391						
D	130	1	1074	0.121	130	0.1	3.813	A
E	294	131	1673	0.176	294	0.2	2.610	A

12:45 - 13:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	106	251	950	0.112	106	0.1	4.265	A
B	0	356	603	0.000	0	0.0	0.000	A
C		319						
D	106	0.90	1074	0.099	106	0.1	3.722	A
E	240	107	1687	0.142	240	0.2	2.488	A

13:00 - 13:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	89	210	968	0.092	89	0.1	4.095	A
B	0	298	621	0.000	0	0.0	0.000	A
C		267						
D	89	0.75	1074	0.083	89	0.1	3.657	A
E	201	90	1697	0.118	201	0.1	2.407	A

Traffic - 2030 background, 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	A55 Junction 3 southern roundabout	Standard Roundabout		A, B, C, D, E	3.65	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2030 background	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	193	100.000
B		✓	0	100.000
C				
D		✓	109	100.000
E		✓	365	100.000

Origin-Destination Data

Demand (Veh/hr)

		To				
		A	B	C	D	E
From	A	0	0	83	110	0
	B	0	0	0	0	0
	C	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	D	89	0	20	0	0
	E	8	1	1	355	0

Vehicle Mix

Heavy Vehicle Percentages

From	To				
	A	B	C	D	E
A	0	0	0	0	0
B	0	0	0	0	0
C	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
D	6	0	0	0	0
E	0	0	0	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
A	0.23	5.18	0.3	A
B	0.00	0.00	0.0	A
C				
D	0.11	3.83	0.1	A
E	0.24	2.78	0.3	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	145	283	967	0.150	145	0.2	4.376	A
B	0	427	583	0.000	0	0.0	0.000	A
C		349						
D	82	0	1059	0.077	82	0.1	3.683	A
E	275	82	1718	0.160	274	0.2	2.492	A

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	174	339	942	0.184	173	0.2	4.684	A
B	0	511	557	0.000	0	0.0	0.000	A
C		418						
D	98	0	1059	0.093	98	0.1	3.744	A
E	328	98	1708	0.192	328	0.2	2.608	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	212	415	908	0.234	212	0.3	5.174	A
B	0	626	521	0.000	0	0.0	0.000	A
C		512						
D	120	0	1059	0.113	120	0.1	3.832	A
E	402	120	1695	0.237	402	0.3	2.783	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	212	415	907	0.234	212	0.3	5.179	A
B	0	626	521	0.000	0	0.0	0.000	A
C		512						
D	120	0	1059	0.113	120	0.1	3.832	A
E	402	120	1695	0.237	402	0.3	2.784	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	174	339	941	0.184	174	0.2	4.693	A
B	0	512	556	0.000	0	0.0	0.000	A
C		418						
D	98	0	1059	0.093	98	0.1	3.745	A
E	328	98	1708	0.192	328	0.2	2.609	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	145	284	966	0.150	145	0.2	4.387	A
B	0	429	582	0.000	0	0.0	0.000	A
C		350						
D	82	0	1059	0.077	82	0.1	3.684	A
E	275	82	1718	0.160	275	0.2	2.495	A

Traffic - 2030 with 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	A55 Junction 3 southern roundabout	Standard Roundabout		A, B, C, D, E	3.76	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D7	2030 with dev	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	167	100.000
B		✓	3	100.000
C				
D		✓	192	100.000
E		✓	336	100.000

Origin-Destination Data

Demand (Veh/hr)

		To				
		A	B	C	D	E
From	A	0	0	64	103	0
	B	0	0	1	2	0
	C	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	D	173	0	19	0	0
	E	6	2	1	327	0

Vehicle Mix

Heavy Vehicle Percentages

From	To				
	A	B	C	D	E
A	0	0	3	2	0
B	0	0	0	0	0
C	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
D	4	0	5	0	0
E	0	0	0	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
A	0.20	5.04	0.3	A
B	0.00	0.00	0.0	A
C				
D	0.20	4.21	0.2	A
E	0.23	2.87	0.3	A

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	126	262	952	0.132	125	0.2	4.352	A
B	0	386	594	0.000	0	0.0	0.000	A
C		323						
D	145	0	1067	0.135	144	0.2	3.896	A
E	253	144	1665	0.152	252	0.2	2.547	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	150	314	929	0.162	150	0.2	4.619	A
B	0	462	570	0.000	0	0.0	0.000	A
C		386						
D	173	0	1067	0.162	172	0.2	4.023	A
E	302	172	1648	0.183	302	0.2	2.674	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	184	384	898	0.205	184	0.3	5.039	A
B	0	565	537	0.000	0	0.0	0.000	A
C		473						
D	211	0	1067	0.198	211	0.2	4.204	A
E	370	211	1624	0.228	370	0.3	2.869	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	184	384	898	0.205	184	0.3	5.042	A
B	0	566	537	0.000	0	0.0	0.000	A
C		473						
D	211	0	1067	0.198	211	0.2	4.205	A
E	370	211	1624	0.228	370	0.3	2.869	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	150	314	929	0.162	150	0.2	4.627	A
B	0	463	569	0.000	0	0.0	0.000	A
C		387						
D	173	0	1067	0.162	173	0.2	4.027	A
E	302	173	1647	0.183	302	0.2	2.676	A

09:15 - 09:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	126	263	951	0.132	126	0.2	4.361	A
B	0	387	593	0.000	0	0.0	0.000	A
C		324						
D	145	0	1067	0.135	145	0.2	3.904	A
E	253	145	1664	0.152	253	0.2	2.551	A

Traffic - 2030 with dev, IP

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	A55 Junction 3 southern roundabout	Standard Roundabout		A, B, C, D, E	3.35	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D8	2030 with dev	IP	ONE HOUR	11:45	13:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	118	100.000
B		✓	0	100.000
C				
D		✓	118	100.000
E		✓	289	100.000

Origin-Destination Data

Demand (Veh/hr)

		To				
		A	B	C	D	E
From	A	1	0	25	92	0
	B	0	0	0	0	0
	C	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	D	101	0	16	1	0
	E	5	1	0	283	0

Vehicle Mix

Heavy Vehicle Percentages

From	To				
	A	B	C	D	E
A	0	0	0	4	0
B	0	0	0	0	0
C	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
D	4	0	0	0	0
E	0	0	0	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
A	0.14	4.58	0.2	A
B	0.00	0.00	0.0	A
C				
D	0.12	3.81	0.1	A
E	0.19	2.66	0.2	A

Main Results for each time segment

11:45 - 12:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	89	226	961	0.092	88	0.1	4.123	A
B	0	314	616	0.000	0	0.0	0.000	A
C		283						
D	89	0.75	1074	0.083	88	0.1	3.653	A
E	218	89	1698	0.128	217	0.1	2.429	A

12:00 - 12:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	106	270	942	0.113	106	0.1	4.307	A
B	0	376	597	0.000	0	0.0	0.000	A
C		339						
D	106	0.90	1074	0.099	106	0.1	3.718	A
E	260	107	1687	0.154	260	0.2	2.521	A

12:15 - 12:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	130	331	915	0.142	130	0.2	4.582	A
B	0	460	570	0.000	0	0.0	0.000	A
C		415						
D	130	1	1074	0.121	130	0.1	3.813	A
E	318	131	1673	0.190	318	0.2	2.656	A

12:30 - 12:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	130	331	915	0.142	130	0.2	4.585	A
B	0	460	570	0.000	0	0.0	0.000	A
C		415						
D	130	1	1074	0.121	130	0.1	3.813	A
E	318	131	1673	0.190	318	0.2	2.657	A

12:45 - 13:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	106	271	942	0.113	106	0.1	4.312	A
B	0	376	597	0.000	0	0.0	0.000	A
C		339						
D	106	0.90	1074	0.099	106	0.1	3.722	A
E	260	107	1687	0.154	260	0.2	2.522	A

13:00 - 13:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	89	227	961	0.092	89	0.1	4.130	A
B	0	315	616	0.000	0	0.0	0.000	A
C		284						
D	89	0.75	1074	0.083	89	0.1	3.654	A
E	218	90	1697	0.128	218	0.1	2.434	A

Traffic - 2030 with 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	A55 Junction 3 southern roundabout	Standard Roundabout		A, B, C, D, E	3.66	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D9	2030 with dev	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	193	100.000
B		✓	0	100.000
C				
D		✓	109	100.000
E		✓	376	100.000

Origin-Destination Data

Demand (Veh/hr)

		To				
		A	B	C	D	E
From	A	0	0	83	110	0
	B	0	0	0	0	0
	C	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	D	89	0	20	0	0
	E	8	1	1	366	0

Vehicle Mix

Heavy Vehicle Percentages

From	To				
	A	B	C	D	E
A	0	0	0	0	0
B	0	0	0	0	0
C	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
D	6	0	0	0	0
E	0	0	0	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
A	0.24	5.22	0.3	A
B	0.00	0.00	0.0	A
C				
D	0.11	3.83	0.1	A
E	0.24	2.81	0.3	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	145	291	963	0.151	145	0.2	4.396	A
B	0	435	580	0.000	0	0.0	0.000	A
C		357						
D	82	0	1059	0.077	82	0.1	3.683	A
E	283	82	1718	0.165	282	0.2	2.506	A

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	174	349	937	0.185	173	0.2	4.711	A
B	0	521	554	0.000	0	0.0	0.000	A
C		428						
D	98	0	1059	0.093	98	0.1	3.744	A
E	338	98	1708	0.198	338	0.2	2.627	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	212	427	902	0.236	212	0.3	5.215	A
B	0	638	517	0.000	0	0.0	0.000	A
C		524						
D	120	0	1059	0.113	120	0.1	3.832	A
E	414	120	1695	0.244	414	0.3	2.810	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	212	427	902	0.236	212	0.3	5.220	A
B	0	639	517	0.000	0	0.0	0.000	A
C		524						
D	120	0	1059	0.113	120	0.1	3.832	A
E	414	120	1695	0.244	414	0.3	2.810	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	174	349	937	0.185	174	0.2	4.720	A
B	0	522	553	0.000	0	0.0	0.000	A
C		428						
D	98	0	1059	0.093	98	0.1	3.745	A
E	338	98	1708	0.198	338	0.2	2.628	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	145	292	962	0.151	145	0.2	4.407	A
B	0	437	580	0.000	0	0.0	0.000	A
C		359						
D	82	0	1059	0.077	82	0.1	3.684	A
E	283	82	1718	0.165	283	0.2	2.511	A

Traffic - 2040 background, 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	A55 Junction 3 southern roundabout	Standard Roundabout		A, B, C, D, E	3.81	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D10	2040 background	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	175	100.000
B		✓	3	100.000
C				
D		✓	203	100.000
E		✓	271	100.000

Origin-Destination Data

Demand (Veh/hr)

		To				
		A	B	C	D	E
From	A	0	0	68	107	0
	B	0	0	1	2	0
	C	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	D	183	0	20	0	0
	E	7	2	1	261	0

Vehicle Mix

Heavy Vehicle Percentages

From	To				
	A	B	C	D	E
A	0	0	3	2	0
B	0	0	0	0	0
C	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
D	4	0	5	0	0
E	0	0	0	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
A	0.21	4.89	0.3	A
B	0.00	0.00	0.0	A
C				
D	0.21	4.27	0.3	A
E	0.19	2.76	0.2	A

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	132	213	973	0.135	131	0.2	4.276	A
B	0	343	606	0.000	0	0.0	0.000	A
C		276						
D	153	0	1067	0.143	152	0.2	3.931	A
E	204	152	1645	0.124	203	0.1	2.498	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	157	255	954	0.165	157	0.2	4.517	A
B	0	411	585	0.000	0	0.0	0.000	A
C		331						
D	182	0	1067	0.171	182	0.2	4.068	A
E	244	182	1627	0.150	243	0.2	2.602	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	193	312	928	0.208	192	0.3	4.892	A
B	0	503	556	0.000	0	0.0	0.000	A
C		405						
D	224	0	1067	0.209	223	0.3	4.264	A
E	298	223	1602	0.186	298	0.2	2.760	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	193	313	928	0.208	193	0.3	4.894	A
B	0	503	556	0.000	0	0.0	0.000	A
C		405						
D	224	0	1067	0.209	224	0.3	4.266	A
E	298	224	1602	0.186	298	0.2	2.760	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	157	256	954	0.165	158	0.2	4.523	A
B	0	411	585	0.000	0	0.0	0.000	A
C		331						
D	182	0	1067	0.171	183	0.2	4.070	A
E	244	183	1626	0.150	244	0.2	2.605	A

09:15 - 09:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	132	214	972	0.136	132	0.2	4.286	A
B	0	344	606	0.000	0	0.0	0.000	A
C		277						
D	153	0	1067	0.143	153	0.2	3.937	A
E	204	153	1644	0.124	204	0.1	2.501	A

Traffic - 2040 background , IP

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	A55 Junction 3 southern roundabout	Standard Roundabout		A, B, C, D, E	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)
D11	2040 background	IP	ONE HOUR	11:45	13:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	122	100.000
B		✓	0	100.000
C				
D		✓	122	100.000
E		✓	276	100.000

Origin-Destination Data

Demand (Veh/hr)

		To				
		A	B	C	D	E
From	A	1	0	26	95	0
	B	0	0	0	0	0
	C	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	D	105	0	16	1	0
	E	5	1	0	270	0

Vehicle Mix

Heavy Vehicle Percentages

From	To				
	A	B	C	D	E
A	0	0	0	4	0
B	0	0	0	0	0
C	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
D	4	0	0	0	0
E	0	0	0	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
A	0.15	4.58	0.2	A
B	0.00	0.00	0.0	A
C				
D	0.13	3.83	0.1	A
E	0.18	2.66	0.2	A

Main Results for each time segment

11:45 - 12:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	92	216	965	0.095	91	0.1	4.121	A
B	0	307	618	0.000	0	0.0	0.000	A
C		275						
D	92	0.75	1074	0.086	91	0.1	3.665	A
E	208	92	1680	0.124	207	0.1	2.445	A

12:00 - 12:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	110	259	946	0.116	110	0.1	4.305	A
B	0	367	599	0.000	0	0.0	0.000	A
C		330						
D	110	0.90	1074	0.102	110	0.1	3.733	A
E	248	110	1669	0.149	248	0.2	2.533	A

12:15 - 12:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	134	317	920	0.146	134	0.2	4.579	A
B	0	450	572	0.000	0	0.0	0.000	A
C		404						
D	134	1	1074	0.125	134	0.1	3.831	A
E	304	135	1654	0.184	304	0.2	2.665	A

12:30 - 12:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	134	317	920	0.146	134	0.2	4.581	A
B	0	450	572	0.000	0	0.0	0.000	A
C		404						
D	134	1	1074	0.125	134	0.1	3.831	A
E	304	135	1654	0.184	304	0.2	2.665	A

12:45 - 13:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	110	259	946	0.116	110	0.1	4.307	A
B	0	368	598	0.000	0	0.0	0.000	A
C		330						
D	110	0.90	1074	0.102	110	0.1	3.734	A
E	248	111	1669	0.149	248	0.2	2.536	A

13:00 - 13:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	92	217	964	0.095	92	0.1	4.128	A
B	0	308	617	0.000	0	0.0	0.000	A
C		277						
D	92	0.75	1074	0.086	92	0.1	3.666	A
E	208	93	1679	0.124	208	0.1	2.446	A

Traffic - 2040 background, 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	A55 Junction 3 southern roundabout	Standard Roundabout		A, B, C, D, E	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)
D12	2040 background	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	202	100.000
B		✓	0	100.000
C				
D		✓	115	100.000
E		✓	381	100.000

Origin-Destination Data

Demand (Veh/hr)

		To				
		A	B	C	D	E
From	A	0	0	87	115	0
	B	0	0	0	0	0
	C	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	D	94	0	21	0	0
	E	9	1	1	370	0

Vehicle Mix

Heavy Vehicle Percentages

From	To				
	A	B	C	D	E
A	0	0	0	0	0
B	0	0	0	0	0
C	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
D	6	0	0	0	0
E	0	0	0	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
A	0.25	5.32	0.3	A
B	0.00	0.00	0.0	A
C				
D	0.12	3.86	0.1	A
E	0.25	2.83	0.3	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	152	295	961	0.158	151	0.2	4.442	A
B	0	446	577	0.000	0	0.0	0.000	A
C		364						
D	87	0	1059	0.082	86	0.1	3.700	A
E	287	86	1715	0.167	286	0.2	2.517	A

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	182	353	935	0.194	181	0.2	4.774	A
B	0	534	550	0.000	0	0.0	0.000	A
C		436						
D	103	0	1059	0.098	103	0.1	3.765	A
E	343	103	1705	0.201	342	0.3	2.641	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	222	432	900	0.247	222	0.3	5.310	A
B	0	653	513	0.000	0	0.0	0.000	A
C		533						
D	127	0	1059	0.120	127	0.1	3.860	A
E	419	127	1691	0.248	419	0.3	2.831	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	222	433	900	0.247	222	0.3	5.315	A
B	0	654	512	0.000	0	0.0	0.000	A
C		534						
D	127	0	1059	0.120	127	0.1	3.860	A
E	419	127	1691	0.248	419	0.3	2.831	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	182	354	935	0.194	182	0.2	4.784	A
B	0	535	549	0.000	0	0.0	0.000	A
C		436						
D	103	0	1059	0.098	103	0.1	3.769	A
E	343	103	1705	0.201	343	0.3	2.645	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	152	296	961	0.158	152	0.2	4.454	A
B	0	448	576	0.000	0	0.0	0.000	A
C		365						
D	87	0	1059	0.082	87	0.1	3.704	A
E	287	87	1715	0.167	287	0.2	2.522	A

Traffic - 2040 with 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	A55 Junction 3 southern roundabout	Standard Roundabout		A, B, C, D, E	3.84	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)
D13	2040 with dev	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	175	100.000
B		✓	3	100.000
C				
D		✓	203	100.000
E		✓	348	100.000

Origin-Destination Data

Demand (Veh/hr)

		To				
		A	B	C	D	E
From	A	0	0	68	107	0
	B	0	0	1	2	0
	C	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	D	183	0	20	0	0
	E	7	2	1	338	0

Vehicle Mix

Heavy Vehicle Percentages

From	To				
	A	B	C	D	E
A	0	0	3	2	0
B	0	0	0	0	0
C	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
D	4	0	5	0	0
E	0	0	0	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
A	0.22	5.15	0.3	A
B	0.00	0.00	0.0	A
C				
D	0.21	4.27	0.3	A
E	0.24	2.92	0.3	A

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	132	271	948	0.139	131	0.2	4.408	A
B	0	401	589	0.000	0	0.0	0.000	A
C		334						
D	153	0	1067	0.143	152	0.2	3.931	A
E	262	152	1660	0.158	261	0.2	2.572	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	157	324	924	0.170	157	0.2	4.691	A
B	0	480	564	0.000	0	0.0	0.000	A
C		400						
D	182	0	1067	0.171	182	0.2	4.068	A
E	313	182	1642	0.191	313	0.2	2.708	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	193	397	892	0.216	192	0.3	5.143	A
B	0	587	530	0.000	0	0.0	0.000	A
C		489						
D	224	0	1067	0.209	223	0.3	4.264	A
E	383	223	1617	0.237	383	0.3	2.916	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	193	397	892	0.216	193	0.3	5.148	A
B	0	588	530	0.000	0	0.0	0.000	A
C		490						
D	224	0	1067	0.209	224	0.3	4.266	A
E	383	224	1617	0.237	383	0.3	2.916	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	157	325	924	0.170	158	0.2	4.700	A
B	0	481	564	0.000	0	0.0	0.000	A
C		400						
D	182	0	1067	0.171	183	0.2	4.070	A
E	313	183	1642	0.191	313	0.2	2.710	A

09:15 - 09:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	132	272	947	0.139	132	0.2	4.416	A
B	0	402	588	0.000	0	0.0	0.000	A
C		335						
D	153	0	1067	0.143	153	0.2	3.937	A
E	262	153	1659	0.158	262	0.2	2.578	A

Traffic - 2040 with dev, IP

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	A55 Junction 3 southern roundabout	Standard Roundabout		A, B, C, D, E	3.36	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D14	2040 with dev	IP	ONE HOUR	11:45	13:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	122	100.000
B		✓	0	100.000
C				
D		✓	122	100.000
E		✓	298	100.000

Origin-Destination Data

Demand (Veh/hr)

		To				
		A	B	C	D	E
From	A	1	0	26	95	0
	B	0	0	0	0	0
	C	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	D	105	0	16	1	0
	E	5	1	0	292	0

Vehicle Mix

Heavy Vehicle Percentages

From	To				
	A	B	C	D	E
A	0	0	0	2	0
B	0	0	0	0	0
C	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
D	4	0	0	0	0
E	0	0	0	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
A	0.15	4.55	0.2	A
B	0.00	0.00	0.0	A
C				
D	0.13	3.83	0.1	A
E	0.20	2.68	0.2	A

Main Results for each time segment

11:45 - 12:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	92	233	973	0.094	91	0.1	4.082	A
B	0	323	614	0.000	0	0.0	0.000	A
C		292						
D	92	0.75	1074	0.086	91	0.1	3.665	A
E	224	92	1696	0.132	224	0.2	2.444	A

12:00 - 12:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	110	279	953	0.115	110	0.1	4.270	A
B	0	387	594	0.000	0	0.0	0.000	A
C		349						
D	110	0.90	1074	0.102	110	0.1	3.733	A
E	268	110	1685	0.159	268	0.2	2.539	A

12:15 - 12:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	134	341	925	0.145	134	0.2	4.552	A
B	0	474	566	0.000	0	0.0	0.000	A
C		428						
D	134	1	1074	0.125	134	0.1	3.831	A
E	328	135	1670	0.196	328	0.2	2.681	A

12:30 - 12:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	134	341	925	0.145	134	0.2	4.554	A
B	0	475	566	0.000	0	0.0	0.000	A
C		428						
D	134	1	1074	0.125	134	0.1	3.831	A
E	328	135	1670	0.196	328	0.2	2.681	A

12:45 - 13:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	110	279	952	0.115	110	0.1	4.273	A
B	0	388	593	0.000	0	0.0	0.000	A
C		350						
D	110	0.90	1074	0.102	110	0.1	3.737	A
E	268	111	1685	0.159	268	0.2	2.542	A

13:00 - 13:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	92	234	973	0.094	92	0.1	4.089	A
B	0	325	613	0.000	0	0.0	0.000	A
C		293						
D	92	0.75	1074	0.086	92	0.1	3.669	A
E	224	93	1696	0.132	224	0.2	2.448	A

Traffic - 2040 with 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	A55 Junction 3 southern roundabout	Standard Roundabout		A, B, C, D, E	3.73	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)
D15	2040 with dev	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	202	100.000
B		✓	0	100.000
C				
D		✓	115	100.000
E		✓	392	100.000

Origin-Destination Data

Demand (Veh/hr)

		To				
		A	B	C	D	E
From	A	0	0	87	115	0
	B	0	0	0	0	0
	C	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
	D	94	0	21	0	0
	E	9	1	1	381	0

Vehicle Mix

Heavy Vehicle Percentages

From	To				
	A	B	C	D	E
A	0	0	0	0	0
B	0	0	0	0	0
C	Exit-only	Exit-only	Exit-only	Exit-only	Exit-only
D	6	0	0	0	0
E	0	0	0	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
A	0.25	5.36	0.3	A
B	0.00	0.00	0.0	A
C				
D	0.12	3.86	0.1	A
E	0.26	2.86	0.3	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	152	303	957	0.159	151	0.2	4.462	A
B	0	454	574	0.000	0	0.0	0.000	A
C		372						
D	87	0	1059	0.082	86	0.1	3.700	A
E	295	86	1715	0.172	294	0.2	2.532	A

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	182	363	931	0.195	181	0.2	4.803	A
B	0	543	547	0.000	0	0.0	0.000	A
C		446						
D	103	0	1059	0.098	103	0.1	3.765	A
E	352	103	1705	0.207	352	0.3	2.661	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	222	444	894	0.249	222	0.3	5.353	A
B	0	665	509	0.000	0	0.0	0.000	A
C		546						
D	127	0	1059	0.120	127	0.1	3.860	A
E	432	127	1691	0.255	431	0.3	2.858	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	222	445	894	0.249	222	0.3	5.358	A
B	0	666	509	0.000	0	0.0	0.000	A
C		546						
D	127	0	1059	0.120	127	0.1	3.860	A
E	432	127	1691	0.255	432	0.3	2.858	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	182	364	931	0.195	182	0.2	4.812	A
B	0	545	546	0.000	0	0.0	0.000	A
C		446						
D	103	0	1059	0.098	103	0.1	3.769	A
E	352	103	1705	0.207	353	0.3	2.664	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	152	304	957	0.159	152	0.2	4.474	A
B	0	456	574	0.000	0	0.0	0.000	A
C		374						
D	87	0	1059	0.082	87	0.1	3.704	A
E	295	87	1715	0.172	295	0.2	2.535	A

APPENDIX P

A5153/PENRHOS INDUSTRIAL ESTATE WESTERN
ROUNDBOUT ARCADY

Junctions 9
ARCADY 9 - Roundabout Module
Version: 9.5.0.6896 © Copyright TRL Limited, 2018
For sales and distribution information, program advice and maintenance, contact TRL: +44 (0)1344 379777 software@trl.co.uk www.trlsoftware.co.uk
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Filename: A5153-Penrhos Industrial Estate East V8 Unequal lane.j9
Path: C:\Users\ADC\OneDrive - ADC Infrastructure Limited\ADC Projects\ADC3377 Anglesey Freeport (Prosperity Parc) \Documents\reports\ADC\F. Transport Assessment\Junction Modelling\J8 - Penrhos East Access
Report generation date: 21/10/2024 14:23:21

- »2024 Observed AM - 2024 Observed, AM
- »2024 Observed PM - 2024 Observed, PM
- »2026 Background AM - 2026 Background, AM
- »2026 Background PM - 2026 Background, PM
- »2026 WD AM - 2026 WD , AM
- »2026 WD PM - 2026 WD , PM
- »2031 Background AM - 2031 Background, AM
- »2031 Background PM - 2031 Background, PM
- »2031 WD AM - 2031 WD , AM
- »2031 WD PM - 2031 WD , PM

Summary of junction performance

AM			
	Queue (Veh)	Delay (s)	RFC
2024 Observed AM - 2024 Observed			
Arm A	0.0	2.39	0.04
Arm B	0.4	4.05	0.27
Arm C	0.2	2.27	0.16

PM			
	Queue (Veh)	Delay (s)	RFC
2024 Observed PM - 2024 Observed			
Arm A	0.2	2.68	0.16
Arm B	0.6	4.60	0.37
Arm C	0.3	2.44	0.23

AM			
	Queue (Veh)	Delay (s)	RFC
2026 Background AM - 2026 Background			
Arm A	0.1	2.63	0.05
Arm B	0.4	4.27	0.30
Arm C	0.4	2.55	0.27

PM			
	Queue (Veh)	Delay (s)	RFC
2026 Background PM - 2026 Background			
Arm A	0.2	2.85	0.17
Arm B	1.3	7.11	0.57
Arm C	0.4	2.64	0.29

AM			
	Queue (Veh)	Delay (s)	RFC
2026 WD AM - 2026 WD			
Arm A	0.1	2.71	0.05
Arm B	1.0	6.35	0.51
Arm C	0.4	2.74	0.30

PM			
	Queue (Veh)	Delay (s)	RFC
2026 WD PM - 2026 WD			
Arm A	0.2	3.12	0.18
Arm B	1.5	7.67	0.60
Arm C	0.6	2.98	0.37

AM			
	Queue (Veh)	Delay (s)	RFC
2031 Background AM - 2031 Background			
Arm A	0.1	2.62	0.05
Arm B	0.5	4.34	0.31
Arm C	0.4	2.58	0.28

PM			
	Queue (Veh)	Delay (s)	RFC
2031 Background PM - 2031 Background			
Arm A	0.2	2.90	0.17
Arm B	1.4	7.44	0.59
Arm C	0.4	2.68	0.30

AM			
	Queue (Veh)	Delay (s)	RFC
2031 WD AM - 2031 WD			
Arm A	0.1	2.70	0.05
Arm B	1.1	6.51	0.52
Arm C	0.4	2.74	0.31

PM			
	Queue (Veh)	Delay (s)	RFC
2031 WD PM - 2031 WD			
Arm A	0.2	3.18	0.19
Arm B	1.6	8.06	0.62

Arm C	0.6	3.03	0.38
-------	-----	------	------

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

File summary

File Description

Title	A5153/Penrhos Industrial Estate East roundabout
Location	Holyhead
Site number	
Date	29/08/2024
Version	v 1
Status	preliminary
Identifier	
Client	Prosperity Parc
Jobnumber	ADC3377
Enumerator	ADC-TOSHIBA-AIOVADC
Description	

Units

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

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2024 Observed	AM	ONE HOUR	08:00	09:30	15	✓
D2	2024 Observed	PM	ONE HOUR	16:15	17:45	15	✓
D3	2026 Background	AM	ONE HOUR	08:00	09:30	15	✓
D4	2026 Background	PM	ONE HOUR	16:15	17:45	15	✓
D5	2026 WD	AM	ONE HOUR	08:00	09:30	15	✓
D6	2026 WD	PM	ONE HOUR	16:15	17:45	15	✓
D7	2031 Background	AM	ONE HOUR	08:00	09:30	15	✓
D8	2031 Background	PM	ONE HOUR	16:15	17:45	15	✓
D9	2031 WD	AM	ONE HOUR	08:00	09:30	15	✓
D10	2031 WD	PM	ONE HOUR	16:15	17:45	15	✓

2024 Observed AM - 2024 Observed, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Include in report	Use specific Demand Set (s)	Specific Demand Set (s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	2024 Observed AM	✓	✓	D1	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A5153/Penrhos Industrial Estate East roundabout	Standard Roundabout		A, B, C	3.10	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	Penrhos Industrial Estate Access	
B	A5153 West	
C	A5153 East	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A	4.34	7.55	7.9	33.6	32.6	19.5	
B	5.71	6.87	4.8	28.3	32.6	25.0	
C	5.86	7.22	3.5	12.5	15.5	15.5	

Slope / Intercept / Capacity

Arm Intercept Adjustments

Arm	Type	Reason	Direct intercept adjustment (PCU/hr)
A	None		
B	Direct	BC Meth Unequal Lane	-706
C	None		

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A	0.700	1834
B	0.724	1284
C	0.735	2000

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	2024 Observed	AM	ONE HOUR	08:00	09:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	62	100.000
B		ONE HOUR	✓	303	100.000
C		ONE HOUR	✓	284	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
	A	B	C	
From	A	0	19	43
	B	31	0	272
	C	95	188	1

Vehicle Mix

Heavy Vehicle Percentages

	To			
	A	B	C	
From	A	0	11	5
	B	3	0	2
	C	6	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A	0.04	2.39	0.0	A	57	85
B	0.27	4.05	0.4	A	278	417
C	0.16	2.27	0.2	A	261	391

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	47	12	142	1621	0.029	47	95	0.0	0.0	2.286	A
B	228	57	33	1233	0.185	227	155	0.0	0.2	3.576	A
C	214	53	23	1907	0.112	213	237	0.0	0.1	2.126	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	56	14	170	1602	0.035	56	113	0.0	0.0	2.327	A
B	272	68	40	1228	0.222	272	186	0.2	0.3	3.766	A
C	255	64	28	1903	0.134	255	284	0.1	0.2	2.184	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	68	17	208	1576	0.043	68	139	0.0	0.0	2.386	A
B	334	83	48	1221	0.273	333	228	0.3	0.4	4.051	A
C	313	78	34	1899	0.165	313	348	0.2	0.2	2.269	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	68	17	208	1576	0.043	68	139	0.0	0.0	2.386	A
B	334	83	48	1221	0.273	334	228	0.4	0.4	4.054	A
C	313	78	34	1899	0.165	313	348	0.2	0.2	2.269	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	56	14	170	1602	0.035	56	113	0.0	0.0	2.328	A
B	272	68	40	1228	0.222	273	186	0.4	0.3	3.769	A
C	255	64	28	1903	0.134	255	284	0.2	0.2	2.184	A

09:15 - 09:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	47	12	142	1621	0.029	47	95	0.0	0.0	2.288	A
B	228	57	33	1233	0.185	228	156	0.3	0.2	3.587	A
C	214	53	23	1907	0.112	214	238	0.2	0.1	2.126	A

2024 Observed PM - 2024 Observed, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Include in report	Use specific Demand Set (s)	Specific Demand Set (s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A2	2024 Observed PM	✓	✓	D2	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A5153/Penrhos Industrial Estate East roundabout	Standard Roundabout		A, B, C	3.36	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	Penrhos Industrial Estate Access	
B	A5153 West	
C	A5153 East	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A	4.34	7.55	7.9	33.6	32.6	19.5	
B	5.71	6.87	4.8	28.3	32.6	25.0	
C	5.86	7.22	3.5	12.5	15.5	15.5	

Slope / Intercept / Capacity

Arm Intercept Adjustments

Arm	Type	Reason	Direct intercept adjustment (PCU/hr)
A	None		
B	Direct	BC Meth Unequal Lane	-597
C	None		

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A	0.700	1834
B	0.724	1393
C	0.735	2000

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
D2	2024 Observed	PM	ONE HOUR	16:15	17:45	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	226	100.000
B		ONE HOUR	✓	417	100.000
C		ONE HOUR	✓	399	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
	A	B	C	
From	A	1	85	140
	B	71	1	345
	C	142	257	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
	A	B	C	
From	A	0	6	1
	B	8	0	2
	C	3	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A	0.16	2.68	0.2	A	207	311
B	0.37	4.60	0.6	A	383	574
C	0.23	2.44	0.3	A	366	549

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	170	43	194	1651	0.103	170	161	0.0	0.1	2.430	A
B	314	78	106	1277	0.246	313	258	0.0	0.3	3.728	A
C	300	75	55	1936	0.155	300	364	0.0	0.2	2.198	A

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	203	51	232	1625	0.125	203	192	0.1	0.1	2.531	A
B	375	94	127	1262	0.297	374	308	0.3	0.4	4.053	A
C	359	90	66	1928	0.186	359	436	0.2	0.2	2.293	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	249	62	284	1590	0.157	249	235	0.1	0.2	2.684	A
B	459	115	155	1242	0.370	458	377	0.4	0.6	4.591	A
C	439	110	80	1916	0.229	439	533	0.2	0.3	2.436	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	249	62	284	1590	0.157	249	236	0.2	0.2	2.684	A
B	459	115	155	1242	0.370	459	378	0.6	0.6	4.598	A
C	439	110	80	1916	0.229	439	534	0.3	0.3	2.437	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	203	51	232	1625	0.125	203	193	0.2	0.1	2.532	A
B	375	94	127	1262	0.297	376	309	0.6	0.4	4.063	A
C	359	90	66	1928	0.186	359	437	0.3	0.2	2.296	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	170	43	194	1651	0.103	170	161	0.1	0.1	2.431	A
B	314	78	106	1277	0.246	314	258	0.4	0.3	3.744	A
C	300	75	55	1936	0.155	301	366	0.2	0.2	2.202	A

2026 Background AM - 2026 Background, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Include in report	Use specific Demand Set (s)	Specific Demand Set (s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A3	2026 Background AM	✓	✓	D3	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A5153/Penrhos Industrial Estate East roundabout	Standard Roundabout		A, B, C	3.21	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	Penrhos Industrial Estate Access	
B	A5153 West	
C	A5153 East	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A	4.34	7.55	7.9	33.6	32.6	19.5	
B	5.71	6.87	4.8	28.3	32.6	25.0	
C	5.86	7.22	3.5	12.5	15.5	15.5	

Slope / Intercept / Capacity

Arm Intercept Adjustments

Arm	Type	Reason	Direct intercept adjustment (PCU/hr)
A	None		
B	Direct	BC Meth Unequal Lane	-719
C	None		

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A	0.700	1834
B	0.724	1271
C	0.735	2000

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
D3	2026 Background	AM	ONE HOUR	08:00	09:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	63	100.000
B		ONE HOUR	✓	332	100.000
C		ONE HOUR	✓	477	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
	A	B	C	
From	A	0	19	44
	B	31	0	301
	C	96	380	1

Vehicle Mix

Heavy Vehicle Percentages

	To			
	A	B	C	
From	A	0	11	5
	B	3	0	2
	C	6	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A	0.05	2.63	0.1	A	58	87
B	0.30	4.27	0.4	A	305	457
C	0.27	2.55	0.4	A	438	657

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	47	12	286	1528	0.031	47	95	0.0	0.0	2.431	A
B	250	62	34	1220	0.205	249	300	0.0	0.3	3.705	A
C	359	90	23	1944	0.185	358	259	0.0	0.2	2.269	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	57	14	342	1491	0.038	57	114	0.0	0.0	2.510	A
B	298	75	40	1215	0.246	298	359	0.3	0.3	3.927	A
C	429	107	28	1940	0.221	429	311	0.2	0.3	2.381	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	69	17	419	1440	0.048	69	140	0.0	0.1	2.626	A
B	366	91	50	1208	0.303	365	439	0.3	0.4	4.269	A
C	525	131	34	1936	0.271	525	381	0.3	0.4	2.551	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	69	17	419	1440	0.048	69	140	0.1	0.1	2.626	A
B	366	91	50	1208	0.303	366	439	0.4	0.4	4.273	A
C	525	131	34	1936	0.271	525	381	0.4	0.4	2.551	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	57	14	343	1490	0.038	57	114	0.1	0.0	2.512	A
B	298	75	40	1215	0.246	299	359	0.4	0.3	3.932	A
C	429	107	28	1940	0.221	429	311	0.4	0.3	2.382	A

09:15 - 09:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	47	12	287	1527	0.031	47	96	0.0	0.0	2.432	A
B	250	62	34	1220	0.205	250	301	0.3	0.3	3.714	A
C	359	90	23	1944	0.185	359	261	0.3	0.2	2.272	A

2026 Background PM - 2026 Background, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Include in report	Use specific Demand Set (s)	Specific Demand Set (s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A4	2026 Background PM	✓	✓	D4	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A5153/Penrhos Industrial Estate East roundabout	Standard Roundabout		A, B, C	4.70	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	Penrhos Industrial Estate Access	
B	A5153 West	
C	A5153 East	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A	4.34	7.55	7.9	33.6	32.6	19.5	
B	5.71	6.87	4.8	28.3	32.6	25.0	
C	5.86	7.22	3.5	12.5	15.5	15.5	

Slope / Intercept / Capacity

Arm Intercept Adjustments

Arm	Type	Reason	Direct intercept adjustment (PCU/hr)
A	None		
B	Direct	BC Meth Unequal Lane	-680
C	None		

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A	0.700	1834
B	0.724	1310
C	0.735	2000

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
D4	2026 Background	PM	ONE HOUR	16:15	17:45	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	229	100.000
B		ONE HOUR	✓	606	100.000
C		ONE HOUR	✓	503	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	1	86	142
	B	72	1	533
	C	144	359	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	6	1
	B	8	0	1
	C	3	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A	0.17	2.85	0.2	A	210	315
B	0.57	7.11	1.3	A	556	834
C	0.29	2.64	0.4	A	462	692

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	172	43	270	1599	0.108	172	163	0.0	0.1	2.523	A
B	456	114	107	1209	0.377	454	335	0.0	0.6	4.750	A
C	379	95	55	1940	0.195	378	506	0.0	0.2	2.303	A

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	206	51	323	1563	0.132	206	195	0.1	0.2	2.652	A
B	545	136	128	1194	0.456	544	401	0.6	0.8	5.528	A
C	452	113	66	1931	0.234	452	606	0.2	0.3	2.433	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	252	63	396	1513	0.167	252	239	0.2	0.2	2.853	A
B	667	167	157	1173	0.569	665	491	0.8	1.3	7.062	A
C	554	138	81	1919	0.289	553	741	0.3	0.4	2.635	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	252	63	396	1513	0.167	252	239	0.2	0.2	2.854	A
B	667	167	157	1173	0.569	667	491	1.3	1.3	7.113	A
C	554	138	81	1919	0.289	554	743	0.4	0.4	2.635	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	206	51	324	1562	0.132	206	195	0.2	0.2	2.656	A
B	545	136	129	1194	0.456	547	401	1.3	0.8	5.578	A
C	452	113	67	1931	0.234	453	609	0.4	0.3	2.435	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	172	43	271	1598	0.108	173	164	0.2	0.1	2.524	A
B	456	114	108	1209	0.377	457	336	0.8	0.6	4.796	A
C	379	95	56	1939	0.195	379	509	0.3	0.2	2.308	A

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Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Include in report	Use specific Demand Set(s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A5	2026 WD AM	✓	✓	D5	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A5153/Penrhos Industrial Estate East roundabout	Standard Roundabout		A, B, C	4.44	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	Penrhos Industrial Estate Access	
B	A5153 West	
C	A5153 East	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A	4.34	7.55	7.9	33.6	32.6	19.5	
B	5.71	6.87	4.8	28.3	32.6	25.0	
C	5.86	7.22	3.5	12.5	15.5	15.5	

Slope / Intercept / Capacity

Arm Intercept Adjustments

Arm	Type	Reason	Direct intercept adjustment (PCU/hr)
A	None		
B	Direct	BC Meth Unequal Lane	-766
C	None		

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A	0.700	1834
B	0.724	1224
C	0.735	2000

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
D5	2026 WD	AM	ONE HOUR	08:00	09:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	63	100.000
B		ONE HOUR	✓	531	100.000
C		ONE HOUR	✓	524	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
	A	B	C	
From	A	0	19	44
	B	31	0	500
	C	96	427	1

Vehicle Mix

Heavy Vehicle Percentages

	To			
	A	B	C	
From	A	0	11	5
	B	3	0	3
	C	6	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A	0.05	2.71	0.1	A	58	87
B	0.51	6.35	1.0	A	487	731
C	0.30	2.74	0.4	A	481	721

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	47	12	321	1498	0.032	47	95	0.0	0.0	2.481	A
B	400	100	34	1163	0.344	398	335	0.0	0.5	4.690	A
C	394	99	23	1900	0.208	393	408	0.0	0.3	2.389	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	57	14	385	1455	0.039	57	114	0.0	0.0	2.573	A
B	477	119	40	1158	0.412	477	401	0.5	0.7	5.275	A
C	471	118	28	1897	0.248	471	489	0.3	0.3	2.524	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	69	17	471	1396	0.050	69	140	0.0	0.1	2.712	A
B	585	146	50	1152	0.508	583	491	0.7	1.0	6.320	A
C	577	144	34	1892	0.305	577	599	0.3	0.4	2.736	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	69	17	471	1396	0.050	69	140	0.1	0.1	2.712	A
B	585	146	50	1152	0.508	585	491	1.0	1.0	6.348	A
C	577	144	34	1892	0.305	577	600	0.4	0.4	2.736	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	57	14	385	1455	0.039	57	114	0.1	0.0	2.574	A
B	477	119	40	1158	0.412	479	401	1.0	0.7	5.305	A
C	471	118	28	1896	0.248	471	491	0.4	0.3	2.528	A

09:15 - 09:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	47	12	322	1497	0.032	47	96	0.0	0.0	2.484	A
B	400	100	34	1163	0.344	400	336	0.7	0.5	4.726	A
C	394	99	23	1900	0.208	395	411	0.3	0.3	2.391	A

2026 WD PM - 2026 WD , PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Include in report	Use specific Demand Set(s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A6	2026 WD PM	✓	✓	D6	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A5153/Penrhos Industrial Estate East roundabout	Standard Roundabout		A, B, C	4.97	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	Penrhos Industrial Estate Access	
B	A5153 West	
C	A5153 East	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A	4.34	7.55	7.9	33.6	32.6	19.5	
B	5.71	6.87	4.8	28.3	32.6	25.0	
C	5.86	7.22	3.5	12.5	15.5	15.5	

Slope / Intercept / Capacity

Arm Intercept Adjustments

Arm	Type	Reason	Direct intercept adjustment (PCU/hr)
A	None		
B	Direct	BC Meth Unequal Lane	-688
C	None		

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A	0.700	1834
B	0.724	1302
C	0.735	2000

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
D6	2026 WD	PM	ONE HOUR	16:15	17:45	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	229	100.000
B		ONE HOUR	✓	633	100.000
C		ONE HOUR	✓	648	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
	A	B	C	
From	A	1	86	142
	B	72	1	560
	C	144	504	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
	A	B	C	
From	A	0	6	1
	B	8	0	1
	C	3	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A	0.18	3.12	0.2	A	210	315
B	0.60	7.67	1.5	A	581	871
C	0.37	2.98	0.6	A	595	892

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	172	43	379	1525	0.113	172	163	0.0	0.1	2.661	A
B	477	119	107	1202	0.397	474	444	0.0	0.7	4.928	A
C	488	122	55	1943	0.251	487	526	0.0	0.3	2.468	A

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	206	51	454	1474	0.140	206	195	0.1	0.2	2.837	A
B	569	142	128	1187	0.480	568	531	0.7	0.9	5.810	A
C	583	146	66	1935	0.301	582	630	0.3	0.4	2.661	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	252	63	556	1405	0.179	252	239	0.2	0.2	3.122	A
B	697	174	157	1166	0.598	695	650	0.9	1.5	7.606	A
C	713	178	81	1923	0.371	713	771	0.4	0.6	2.972	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	252	63	556	1405	0.180	252	239	0.2	0.2	3.123	A
B	697	174	157	1166	0.598	697	651	1.5	1.5	7.674	A
C	713	178	81	1923	0.371	713	773	0.6	0.6	2.975	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	206	51	454	1474	0.140	206	195	0.2	0.2	2.839	A
B	569	142	129	1186	0.480	571	532	1.5	0.9	5.873	A
C	583	146	67	1935	0.301	583	633	0.6	0.4	2.666	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	172	43	380	1524	0.113	173	164	0.2	0.1	2.663	A
B	477	119	108	1201	0.397	478	445	0.9	0.7	4.982	A
C	488	122	56	1943	0.251	488	530	0.4	0.3	2.476	A

2031 Background AM - 2031 Background, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Include in report	Use specific Demand Set (s)	Specific Demand Set (s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A7	2031 Background AM	✓	✓	D7	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A5153/Penrhos Industrial Estate East roundabout	Standard Roundabout		A, B, C	3.26	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	Penrhos Industrial Estate Access	
B	A5153 West	
C	A5153 East	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A	4.34	7.55	7.9	33.6	32.6	19.5	
B	5.71	6.87	4.8	28.3	32.6	25.0	
C	5.86	7.22	3.5	12.5	15.5	15.5	

Slope / Intercept / Capacity

Arm Intercept Adjustments

Arm	Type	Reason	Direct intercept adjustment (PCU/hr)
A	None		
B	Direct	BC Meth Unequal Lane	-716
C	None		

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A	0.700	1834
B	0.724	1274
C	0.735	2000

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
D7	2031 Background	AM	ONE HOUR	08:00	09:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	65	100.000
B		ONE HOUR	✓	346	100.000
C		ONE HOUR	✓	489	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
	A	B	C	
From	A	0	20	45
	B	33	0	313
	C	100	388	1

Vehicle Mix

Heavy Vehicle Percentages

	To			
	A	B	C	
From	A	0	10	4
	B	3	0	2
	C	6	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A	0.05	2.62	0.1	A	60	89
B	0.31	4.34	0.5	A	317	476
C	0.28	2.58	0.4	A	449	673

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	49	12	292	1538	0.032	49	100	0.0	0.0	2.417	A
B	260	65	35	1222	0.213	259	306	0.0	0.3	3.736	A
C	368	92	25	1942	0.190	367	269	0.0	0.2	2.284	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	58	15	350	1499	0.039	58	119	0.0	0.0	2.497	A
B	311	78	41	1217	0.256	311	367	0.3	0.3	3.970	A
C	440	110	30	1939	0.227	439	322	0.2	0.3	2.400	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	72	18	428	1447	0.049	72	146	0.0	0.1	2.616	A
B	381	95	51	1210	0.315	380	449	0.3	0.5	4.336	A
C	538	135	36	1934	0.278	538	395	0.3	0.4	2.579	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	72	18	428	1447	0.049	72	146	0.1	0.1	2.617	A
B	381	95	51	1210	0.315	381	449	0.5	0.5	4.340	A
C	538	135	36	1934	0.278	538	395	0.4	0.4	2.579	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	58	15	350	1499	0.039	58	120	0.1	0.0	2.500	A
B	311	78	41	1217	0.256	311	367	0.5	0.3	3.978	A
C	440	110	30	1939	0.227	440	323	0.4	0.3	2.402	A

09:15 - 09:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	49	12	293	1537	0.032	49	100	0.0	0.0	2.420	A
B	260	65	35	1222	0.213	261	307	0.3	0.3	3.744	A
C	368	92	25	1942	0.190	368	271	0.3	0.2	2.287	A

2031 Background PM - 2031 Background, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Include in report	Use specific Demand Set (s)	Specific Demand Set (s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A8	2031 Background PM	✓	✓	D8	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A5153/Penrhos Industrial Estate East roundabout	Standard Roundabout		A, B, C	4.87	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	Penrhos Industrial Estate Access	
B	A5153 West	
C	A5153 East	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A	4.34	7.55	7.9	33.6	32.6	19.5	
B	5.71	6.87	4.8	28.3	32.6	25.0	
C	5.86	7.22	3.5	12.5	15.5	15.5	

Slope / Intercept / Capacity

Arm Intercept Adjustments

Arm	Type	Reason	Direct intercept adjustment (PCU/hr)
A	None		
B	Direct	BC Meth Unequal Lane	-678
C	None		

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A	0.700	1834
B	0.724	1312
C	0.735	2000

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
D8	2031 Background	PM	ONE HOUR	16:15	17:45	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	239	100.000
B		ONE HOUR	✓	624	100.000
C		ONE HOUR	✓	521	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
	A	B	C	
From	A	1	90	148
	B	75	1	548
	C	150	371	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
	A	B	C	
From	A	0	6	1
	B	8	0	1
	C	3	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A	0.17	2.90	0.2	A	219	329
B	0.59	7.44	1.4	A	573	859
C	0.30	2.68	0.4	A	478	717

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	180	45	279	1593	0.113	179	170	0.0	0.1	2.547	A
B	470	117	112	1208	0.389	467	347	0.0	0.6	4.844	A
C	392	98	58	1938	0.202	391	521	0.0	0.3	2.326	A

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	215	54	334	1555	0.138	215	203	0.1	0.2	2.685	A
B	561	140	134	1192	0.471	560	415	0.6	0.9	5.686	A
C	468	117	69	1929	0.243	468	625	0.3	0.3	2.464	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	263	66	409	1504	0.175	263	248	0.2	0.2	2.899	A
B	687	172	164	1170	0.587	685	508	0.9	1.4	7.384	A
C	574	143	85	1917	0.299	573	764	0.3	0.4	2.679	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	263	66	410	1504	0.175	263	249	0.2	0.2	2.900	A
B	687	172	164	1170	0.587	687	509	1.4	1.4	7.444	A
C	574	143	85	1917	0.299	574	766	0.4	0.4	2.680	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	215	54	335	1555	0.138	215	204	0.2	0.2	2.688	A
B	561	140	134	1192	0.471	563	416	1.4	0.9	5.742	A
C	468	117	69	1929	0.243	469	628	0.4	0.3	2.468	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	180	45	280	1592	0.113	180	170	0.2	0.1	2.551	A
B	470	117	112	1208	0.389	471	348	0.9	0.6	4.892	A
C	392	98	58	1938	0.202	393	525	0.3	0.3	2.331	A

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Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Include in report	Use specific Demand Set(s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A9	2031 WD AM	✓	✓	D9	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A5153/Penrhos Industrial Estate East roundabout	Standard Roundabout		A, B, C	4.52	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	Penrhos Industrial Estate Access	
B	A5153 West	
C	A5153 East	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A	4.34	7.55	7.9	33.6	32.6	19.5	
B	5.71	6.87	4.8	28.3	32.6	25.0	
C	5.86	7.22	3.5	12.5	15.5	15.5	

Slope / Intercept / Capacity

Arm Intercept Adjustments

Arm	Type	Reason	Direct intercept adjustment (PCU/hr)
A	None		
B	Direct	BC Meth Unequal Lane	-764
C	None		

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A	0.700	1834
B	0.724	1226
C	0.735	2000

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
D9	2031 WD	AM	ONE HOUR	08:00	09:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	65	100.000
B		ONE HOUR	✓	545	100.000
C		ONE HOUR	✓	536	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
	A	B	C	
From	A	0	20	45
	B	33	0	512
	C	100	435	1

Vehicle Mix

Heavy Vehicle Percentages

	To			
	A	B	C	
From	A	0	10	4
	B	3	0	3
	C	6	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A	0.05	2.70	0.1	A	60	89
B	0.52	6.51	1.1	A	500	750
C	0.31	2.74	0.4	A	492	738

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	49	12	327	1510	0.032	49	100	0.0	0.0	2.463	A
B	410	103	35	1165	0.352	408	342	0.0	0.5	4.744	A
C	404	101	25	1914	0.211	402	418	0.0	0.3	2.381	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	58	15	392	1466	0.040	58	119	0.0	0.0	2.557	A
B	490	122	41	1160	0.422	489	409	0.5	0.7	5.362	A
C	482	120	30	1910	0.252	482	501	0.3	0.3	2.520	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	72	18	480	1406	0.051	72	146	0.0	0.1	2.697	A
B	600	150	51	1153	0.520	599	501	0.7	1.1	6.477	A
C	590	148	36	1905	0.310	590	613	0.3	0.4	2.737	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	72	18	480	1406	0.051	72	146	0.1	0.1	2.697	A
B	600	150	51	1153	0.520	600	501	1.1	1.1	6.508	A
C	590	148	36	1905	0.310	590	614	0.4	0.4	2.737	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	58	15	392	1466	0.040	58	120	0.1	0.0	2.558	A
B	490	122	41	1160	0.422	491	409	1.1	0.7	5.396	A
C	482	120	30	1910	0.252	482	503	0.4	0.3	2.521	A

09:15 - 09:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	49	12	328	1509	0.032	49	100	0.0	0.0	2.467	A
B	410	103	35	1165	0.352	411	343	0.7	0.5	4.782	A
C	404	101	25	1913	0.211	404	421	0.3	0.3	2.386	A

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Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Include in report	Use specific Demand Set (s)	Specific Demand Set (s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A10	2031 WD PM	✓	✓	D10	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A5153/Penrhos Industrial Estate East roundabout	Standard Roundabout		A, B, C	5.17	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	Penrhos Industrial Estate Access	
B	A5153 West	
C	A5153 East	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A	4.34	7.55	7.9	33.6	32.6	19.5	
B	5.71	6.87	4.8	28.3	32.6	25.0	
C	5.86	7.22	3.5	12.5	15.5	15.5	

Slope / Intercept / Capacity

Arm Intercept Adjustments

Arm	Type	Reason	Direct intercept adjustment (PCU/hr)
A	None		
B	Direct	BC Meth Unequal Lane	-686
C	None		

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A	0.700	1834
B	0.724	1304
C	0.735	2000

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
D10	2031 WD	PM	ONE HOUR	16:15	17:45	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	239	100.000
B		ONE HOUR	✓	651	100.000
C		ONE HOUR	✓	666	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
	A	B	C	
From	A	1	90	148
	B	75	1	575
	C	150	516	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
	A	B	C	
From	A	0	6	1
	B	8	0	1
	C	3	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A	0.19	3.18	0.2	A	219	329
B	0.62	8.06	1.6	A	597	896
C	0.38	3.03	0.6	A	611	917

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	180	45	388	1519	0.118	179	170	0.0	0.1	2.686	A
B	490	123	112	1200	0.408	487	456	0.0	0.7	5.030	A
C	501	125	58	1942	0.258	500	542	0.0	0.3	2.495	A

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	215	54	464	1467	0.146	215	203	0.1	0.2	2.874	A
B	585	146	134	1185	0.494	584	545	0.7	1.0	5.984	A
C	599	150	69	1933	0.310	598	649	0.3	0.4	2.698	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	263	66	569	1396	0.189	263	248	0.2	0.2	3.177	A
B	717	179	164	1163	0.616	714	668	1.0	1.6	7.980	A
C	733	183	84	1920	0.382	733	794	0.4	0.6	3.029	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	263	66	569	1396	0.189	263	249	0.2	0.2	3.178	A
B	717	179	164	1163	0.616	717	668	1.6	1.6	8.064	A
C	733	183	85	1920	0.382	733	796	0.6	0.6	3.032	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	215	54	465	1466	0.147	215	204	0.2	0.2	2.877	A
B	585	146	134	1184	0.494	588	546	1.6	1.0	6.055	A
C	599	150	70	1932	0.310	599	652	0.6	0.5	2.701	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	180	45	390	1518	0.119	180	170	0.2	0.1	2.691	A
B	490	123	112	1200	0.408	491	457	1.0	0.7	5.086	A
C	501	125	58	1941	0.258	502	545	0.5	0.3	2.501	A

APPENDIX Q

A5153/PENRHOS INDUSTRIAL ESTATE EASTERN
ROUNDAABOUT ARCADY

Junctions 9
ARCADY 9 - Roundabout Module
Version: 9.5.0.6896 © Copyright TRL Limited, 2018
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Filename: A5153-Penrhos Industrial Estate East V8.j9
Path: C:\Users\ADC\OneDrive - ADC Infrastructure Limited\ADC Projects\ADC3377 Anglesey Freeport (Prosperity Parc) \Documents\reports\ADC\F. Transport Assessment\Junction Modelling\J8 - Penrhos East Access
Report generation date: 18/10/2024 17:42:51

- »2024 Observed AM - 2024 Observed, AM
- »2024 Observed PM - 2024 Observed, PM
- »2026 Background AM - 2026 Background, AM
- »2026 Background PM - 2026 Background, PM
- »2026 WD AM - 2026 WD , AM
- »2026 WD PM - 2026 WD , PM
- »2031 Background AM - 2031 Background, AM
- »2031 Background PM - 2031 Background, PM
- »2031 WD AM - 2031 WD , AM
- »2031 WD PM - 2031 WD , PM

Summary of junction performance

AM			
	Queue (Veh)	Delay (s)	RFC
2024 Observed AM - 2024 Observed			
Arm A	0.0	2.39	0.04
Arm B	0.4	4.05	0.27
Arm C	0.2	2.27	0.16

PM			
	Queue (Veh)	Delay (s)	RFC
2024 Observed PM - 2024 Observed			
Arm A	0.2	2.68	0.16
Arm B	0.6	4.60	0.37
Arm C	0.3	2.44	0.23

AM			
	Queue (Veh)	Delay (s)	RFC
2026 Background AM - 2026 Background			
Arm A	0.1	2.63	0.05
Arm B	0.4	4.27	0.30
Arm C	0.4	2.55	0.27

PM			
	Queue (Veh)	Delay (s)	RFC
2026 Background PM - 2026 Background			
Arm A	0.2	2.85	0.17
Arm B	1.3	7.11	0.57
Arm C	0.4	2.64	0.29

AM			
	Queue (Veh)	Delay (s)	RFC
2026 WD AM - 2026 WD			
Arm A	0.1	2.71	0.05
Arm B	1.0	6.35	0.51
Arm C	0.4	2.74	0.30

PM			
	Queue (Veh)	Delay (s)	RFC
2026 WD PM - 2026 WD			
Arm A	0.2	3.12	0.18
Arm B	1.5	7.67	0.60
Arm C	0.6	2.98	0.37

AM			
	Queue (Veh)	Delay (s)	RFC
2031 Background AM - 2031 Background			
Arm A	0.1	2.62	0.05
Arm B	0.5	4.34	0.31
Arm C	0.4	2.58	0.28

PM			
	Queue (Veh)	Delay (s)	RFC
2031 Background PM - 2031 Background			
Arm A	0.2	2.90	0.17
Arm B	1.4	7.44	0.59
Arm C	0.4	2.68	0.30

AM			
	Queue (Veh)	Delay (s)	RFC
2031 WD AM - 2031 WD			
Arm A	0.1	2.70	0.05
Arm B	1.1	6.51	0.52
Arm C	0.4	2.74	0.31

PM			
	Queue (Veh)	Delay (s)	RFC
2031 WD PM - 2031 WD			
Arm A	0.2	3.18	0.19
Arm B	1.6	8.06	0.62

Arm C	0.6	3.03	0.38
-------	-----	------	------

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

File summary

File Description

Title	A5153/Penrhos Industrial Estate East roundabout
Location	Holyhead
Site number	
Date	29/08/2024
Version	v 1
Status	preliminary
Identifier	
Client	Prosperity Parc
Jobnumber	ADC3377
Enumerator	ADC-TOSHIBA-AIOVADC
Description	

Units

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

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2024 Observed	AM	ONE HOUR	08:00	09:30	15	✓
D2	2024 Observed	PM	ONE HOUR	16:15	17:45	15	✓
D3	2026 Background	AM	ONE HOUR	08:00	09:30	15	✓
D4	2026 Background	PM	ONE HOUR	16:15	17:45	15	✓
D5	2026 WD	AM	ONE HOUR	08:00	09:30	15	✓
D6	2026 WD	PM	ONE HOUR	16:15	17:45	15	✓
D7	2031 Background	AM	ONE HOUR	08:00	09:30	15	✓
D8	2031 Background	PM	ONE HOUR	16:15	17:45	15	✓
D9	2031 WD	AM	ONE HOUR	08:00	09:30	15	✓
D10	2031 WD	PM	ONE HOUR	16:15	17:45	15	✓

2024 Observed AM - 2024 Observed, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Include in report	Use specific Demand Set (s)	Specific Demand Set (s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	2024 Observed AM	✓	✓	D1	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A5153/Penrhos Industrial Estate East roundabout	Standard Roundabout		A, B, C	3.10	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	Penrhos Industrial Estate Access	
B	A5153 West	
C	A5153 East	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A	4.34	7.55	7.9	33.6	32.6	19.5	
B	5.71	6.87	4.8	28.3	32.6	25.0	
C	5.86	7.22	3.5	12.5	15.5	15.5	

Slope / Intercept / Capacity

Arm Intercept Adjustments

Arm	Type	Reason	Direct intercept adjustment (PCU/hr)
A	None		
B	Direct	BC Meth Unequal Lane	-706
C	None		

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A	0.700	1834
B	0.724	1284
C	0.735	2000

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	2024 Observed	AM	ONE HOUR	08:00	09:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	62	100.000
B		ONE HOUR	✓	303	100.000
C		ONE HOUR	✓	284	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
	A	B	C	
From	A	0	19	43
	B	31	0	272
	C	95	188	1

Vehicle Mix

Heavy Vehicle Percentages

	To			
	A	B	C	
From	A	0	11	5
	B	3	0	2
	C	6	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A	0.04	2.39	0.0	A	57	85
B	0.27	4.05	0.4	A	278	417
C	0.16	2.27	0.2	A	261	391

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	47	12	142	1621	0.029	47	95	0.0	0.0	2.286	A
B	228	57	33	1233	0.185	227	155	0.0	0.2	3.576	A
C	214	53	23	1907	0.112	213	237	0.0	0.1	2.126	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	56	14	170	1602	0.035	56	113	0.0	0.0	2.327	A
B	272	68	40	1228	0.222	272	186	0.2	0.3	3.766	A
C	255	64	28	1903	0.134	255	284	0.1	0.2	2.184	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	68	17	208	1576	0.043	68	139	0.0	0.0	2.386	A
B	334	83	48	1221	0.273	333	228	0.3	0.4	4.051	A
C	313	78	34	1899	0.165	313	348	0.2	0.2	2.269	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	68	17	208	1576	0.043	68	139	0.0	0.0	2.386	A
B	334	83	48	1221	0.273	334	228	0.4	0.4	4.054	A
C	313	78	34	1899	0.165	313	348	0.2	0.2	2.269	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	56	14	170	1602	0.035	56	113	0.0	0.0	2.328	A
B	272	68	40	1228	0.222	273	186	0.4	0.3	3.769	A
C	255	64	28	1903	0.134	255	284	0.2	0.2	2.184	A

09:15 - 09:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	47	12	142	1621	0.029	47	95	0.0	0.0	2.288	A
B	228	57	33	1233	0.185	228	156	0.3	0.2	3.587	A
C	214	53	23	1907	0.112	214	238	0.2	0.1	2.126	A

2024 Observed PM - 2024 Observed, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Include in report	Use specific Demand Set (s)	Specific Demand Set (s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A2	2024 Observed PM	✓	✓	D2	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A5153/Penrhos Industrial Estate East roundabout	Standard Roundabout		A, B, C	3.36	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	Penrhos Industrial Estate Access	
B	A5153 West	
C	A5153 East	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A	4.34	7.55	7.9	33.6	32.6	19.5	
B	5.71	6.87	4.8	28.3	32.6	25.0	
C	5.86	7.22	3.5	12.5	15.5	15.5	

Slope / Intercept / Capacity

Arm Intercept Adjustments

Arm	Type	Reason	Direct intercept adjustment (PCU/hr)
A	None		
B	Direct	BC Meth Unequal Lane	-597
C	None		

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A	0.700	1834
B	0.724	1393
C	0.735	2000

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
D2	2024 Observed	PM	ONE HOUR	16:15	17:45	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	226	100.000
B		ONE HOUR	✓	417	100.000
C		ONE HOUR	✓	399	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
	A	B	C	
From	A	1	85	140
	B	71	1	345
	C	142	257	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
	A	B	C	
From	A	0	6	1
	B	8	0	2
	C	3	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A	0.16	2.68	0.2	A	207	311
B	0.37	4.60	0.6	A	383	574
C	0.23	2.44	0.3	A	366	549

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	170	43	194	1651	0.103	170	161	0.0	0.1	2.430	A
B	314	78	106	1277	0.246	313	258	0.0	0.3	3.728	A
C	300	75	55	1936	0.155	300	364	0.0	0.2	2.198	A

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	203	51	232	1625	0.125	203	192	0.1	0.1	2.531	A
B	375	94	127	1262	0.297	374	308	0.3	0.4	4.053	A
C	359	90	66	1928	0.186	359	436	0.2	0.2	2.293	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	249	62	284	1590	0.157	249	235	0.1	0.2	2.684	A
B	459	115	155	1242	0.370	458	377	0.4	0.6	4.591	A
C	439	110	80	1916	0.229	439	533	0.2	0.3	2.436	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	249	62	284	1590	0.157	249	236	0.2	0.2	2.684	A
B	459	115	155	1242	0.370	459	378	0.6	0.6	4.598	A
C	439	110	80	1916	0.229	439	534	0.3	0.3	2.437	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	203	51	232	1625	0.125	203	193	0.2	0.1	2.532	A
B	375	94	127	1262	0.297	376	309	0.6	0.4	4.063	A
C	359	90	66	1928	0.186	359	437	0.3	0.2	2.296	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	170	43	194	1651	0.103	170	161	0.1	0.1	2.431	A
B	314	78	106	1277	0.246	314	258	0.4	0.3	3.744	A
C	300	75	55	1936	0.155	301	366	0.2	0.2	2.202	A

2026 Background AM - 2026 Background, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Include in report	Use specific Demand Set (s)	Specific Demand Set (s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A3	2026 Background AM	✓	✓	D3	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A5153/Penrhos Industrial Estate East roundabout	Standard Roundabout		A, B, C	3.21	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	Penrhos Industrial Estate Access	
B	A5153 West	
C	A5153 East	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A	4.34	7.55	7.9	33.6	32.6	19.5	
B	5.71	6.87	4.8	28.3	32.6	25.0	
C	5.86	7.22	3.5	12.5	15.5	15.5	

Slope / Intercept / Capacity

Arm Intercept Adjustments

Arm	Type	Reason	Direct intercept adjustment (PCU/hr)
A	None		
B	Direct	BC Meth Unequal Lane	-719
C	None		

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A	0.700	1834
B	0.724	1271
C	0.735	2000

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
D3	2026 Background	AM	ONE HOUR	08:00	09:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	63	100.000
B		ONE HOUR	✓	332	100.000
C		ONE HOUR	✓	477	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
	A	B	C	
From	A	0	19	44
	B	31	0	301
	C	96	380	1

Vehicle Mix

Heavy Vehicle Percentages

	To			
	A	B	C	
From	A	0	11	5
	B	3	0	2
	C	6	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A	0.05	2.63	0.1	A	58	87
B	0.30	4.27	0.4	A	305	457
C	0.27	2.55	0.4	A	438	657

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	47	12	286	1528	0.031	47	95	0.0	0.0	2.431	A
B	250	62	34	1220	0.205	249	300	0.0	0.3	3.705	A
C	359	90	23	1944	0.185	358	259	0.0	0.2	2.269	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	57	14	342	1491	0.038	57	114	0.0	0.0	2.510	A
B	298	75	40	1215	0.246	298	359	0.3	0.3	3.927	A
C	429	107	28	1940	0.221	429	311	0.2	0.3	2.381	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	69	17	419	1440	0.048	69	140	0.0	0.1	2.626	A
B	366	91	50	1208	0.303	365	439	0.3	0.4	4.269	A
C	525	131	34	1936	0.271	525	381	0.3	0.4	2.551	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	69	17	419	1440	0.048	69	140	0.1	0.1	2.626	A
B	366	91	50	1208	0.303	366	439	0.4	0.4	4.273	A
C	525	131	34	1936	0.271	525	381	0.4	0.4	2.551	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	57	14	343	1490	0.038	57	114	0.1	0.0	2.512	A
B	298	75	40	1215	0.246	299	359	0.4	0.3	3.932	A
C	429	107	28	1940	0.221	429	311	0.4	0.3	2.382	A

09:15 - 09:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	47	12	287	1527	0.031	47	96	0.0	0.0	2.432	A
B	250	62	34	1220	0.205	250	301	0.3	0.3	3.714	A
C	359	90	23	1944	0.185	359	261	0.3	0.2	2.272	A

2026 Background PM - 2026 Background, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Include in report	Use specific Demand Set (s)	Specific Demand Set (s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A4	2026 Background PM	✓	✓	D4	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A5153/Penrhos Industrial Estate East roundabout	Standard Roundabout		A, B, C	4.70	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	Penrhos Industrial Estate Access	
B	A5153 West	
C	A5153 East	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A	4.34	7.55	7.9	33.6	32.6	19.5	
B	5.71	6.87	4.8	28.3	32.6	25.0	
C	5.86	7.22	3.5	12.5	15.5	15.5	

Slope / Intercept / Capacity

Arm Intercept Adjustments

Arm	Type	Reason	Direct intercept adjustment (PCU/hr)
A	None		
B	Direct	BC Meth Unequal Lane	-680
C	None		

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A	0.700	1834
B	0.724	1310
C	0.735	2000

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
D4	2026 Background	PM	ONE HOUR	16:15	17:45	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	229	100.000
B		ONE HOUR	✓	606	100.000
C		ONE HOUR	✓	503	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
	A	B	C	
From	A	1	86	142
	B	72	1	533
	C	144	359	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
	A	B	C	
From	A	0	6	1
	B	8	0	1
	C	3	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A	0.17	2.85	0.2	A	210	315
B	0.57	7.11	1.3	A	556	834
C	0.29	2.64	0.4	A	462	692

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	172	43	270	1599	0.108	172	163	0.0	0.1	2.523	A
B	456	114	107	1209	0.377	454	335	0.0	0.6	4.750	A
C	379	95	55	1940	0.195	378	506	0.0	0.2	2.303	A

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	206	51	323	1563	0.132	206	195	0.1	0.2	2.652	A
B	545	136	128	1194	0.456	544	401	0.6	0.8	5.528	A
C	452	113	66	1931	0.234	452	606	0.2	0.3	2.433	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	252	63	396	1513	0.167	252	239	0.2	0.2	2.853	A
B	667	167	157	1173	0.569	665	491	0.8	1.3	7.062	A
C	554	138	81	1919	0.289	553	741	0.3	0.4	2.635	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	252	63	396	1513	0.167	252	239	0.2	0.2	2.854	A
B	667	167	157	1173	0.569	667	491	1.3	1.3	7.113	A
C	554	138	81	1919	0.289	554	743	0.4	0.4	2.635	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	206	51	324	1562	0.132	206	195	0.2	0.2	2.656	A
B	545	136	129	1194	0.456	547	401	1.3	0.8	5.578	A
C	452	113	67	1931	0.234	453	609	0.4	0.3	2.435	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	172	43	271	1598	0.108	173	164	0.2	0.1	2.524	A
B	456	114	108	1209	0.377	457	336	0.8	0.6	4.796	A
C	379	95	56	1939	0.195	379	509	0.3	0.2	2.308	A

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Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Include in report	Use specific Demand Set(s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A5	2026 WD AM	✓	✓	D5	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A5153/Penrhos Industrial Estate East roundabout	Standard Roundabout		A, B, C	4.44	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	Penrhos Industrial Estate Access	
B	A5153 West	
C	A5153 East	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A	4.34	7.55	7.9	33.6	32.6	19.5	
B	5.71	6.87	4.8	28.3	32.6	25.0	
C	5.86	7.22	3.5	12.5	15.5	15.5	

Slope / Intercept / Capacity

Arm Intercept Adjustments

Arm	Type	Reason	Direct intercept adjustment (PCU/hr)
A	None		
B	Direct	BC Meth Unequal Lane	-766
C	None		

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A	0.700	1834
B	0.724	1224
C	0.735	2000

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
D5	2026 WD	AM	ONE HOUR	08:00	09:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	63	100.000
B		ONE HOUR	✓	531	100.000
C		ONE HOUR	✓	524	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
	A	B	C	
From	A	0	19	44
	B	31	0	500
	C	96	427	1

Vehicle Mix

Heavy Vehicle Percentages

	To			
	A	B	C	
From	A	0	11	5
	B	3	0	3
	C	6	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A	0.05	2.71	0.1	A	58	87
B	0.51	6.35	1.0	A	487	731
C	0.30	2.74	0.4	A	481	721

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	47	12	321	1498	0.032	47	95	0.0	0.0	2.481	A
B	400	100	34	1163	0.344	398	335	0.0	0.5	4.690	A
C	394	99	23	1900	0.208	393	408	0.0	0.3	2.389	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	57	14	385	1455	0.039	57	114	0.0	0.0	2.573	A
B	477	119	40	1158	0.412	477	401	0.5	0.7	5.275	A
C	471	118	28	1897	0.248	471	489	0.3	0.3	2.524	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	69	17	471	1396	0.050	69	140	0.0	0.1	2.712	A
B	585	146	50	1152	0.508	583	491	0.7	1.0	6.320	A
C	577	144	34	1892	0.305	577	599	0.3	0.4	2.736	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	69	17	471	1396	0.050	69	140	0.1	0.1	2.712	A
B	585	146	50	1152	0.508	585	491	1.0	1.0	6.348	A
C	577	144	34	1892	0.305	577	600	0.4	0.4	2.736	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	57	14	385	1455	0.039	57	114	0.1	0.0	2.574	A
B	477	119	40	1158	0.412	479	401	1.0	0.7	5.305	A
C	471	118	28	1896	0.248	471	491	0.4	0.3	2.528	A

09:15 - 09:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	47	12	322	1497	0.032	47	96	0.0	0.0	2.484	A
B	400	100	34	1163	0.344	400	336	0.7	0.5	4.726	A
C	394	99	23	1900	0.208	395	411	0.3	0.3	2.391	A

2026 WD PM - 2026 WD , PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Include in report	Use specific Demand Set(s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A6	2026 WD PM	✓	✓	D6	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A5153/Penrhos Industrial Estate East roundabout	Standard Roundabout		A, B, C	4.97	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	Penrhos Industrial Estate Access	
B	A5153 West	
C	A5153 East	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A	4.34	7.55	7.9	33.6	32.6	19.5	
B	5.71	6.87	4.8	28.3	32.6	25.0	
C	5.86	7.22	3.5	12.5	15.5	15.5	

Slope / Intercept / Capacity

Arm Intercept Adjustments

Arm	Type	Reason	Direct intercept adjustment (PCU/hr)
A	None		
B	Direct	BC Meth Unequal Lane	-688
C	None		

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A	0.700	1834
B	0.724	1302
C	0.735	2000

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
D6	2026 WD	PM	ONE HOUR	16:15	17:45	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	229	100.000
B		ONE HOUR	✓	633	100.000
C		ONE HOUR	✓	648	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
	A	B	C	
From	A	1	86	142
	B	72	1	560
	C	144	504	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
	A	B	C	
From	A	0	6	1
	B	8	0	1
	C	3	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A	0.18	3.12	0.2	A	210	315
B	0.60	7.67	1.5	A	581	871
C	0.37	2.98	0.6	A	595	892

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	172	43	379	1525	0.113	172	163	0.0	0.1	2.661	A
B	477	119	107	1202	0.397	474	444	0.0	0.7	4.928	A
C	488	122	55	1943	0.251	487	526	0.0	0.3	2.468	A

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	206	51	454	1474	0.140	206	195	0.1	0.2	2.837	A
B	569	142	128	1187	0.480	568	531	0.7	0.9	5.810	A
C	583	146	66	1935	0.301	582	630	0.3	0.4	2.661	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	252	63	556	1405	0.179	252	239	0.2	0.2	3.122	A
B	697	174	157	1166	0.598	695	650	0.9	1.5	7.606	A
C	713	178	81	1923	0.371	713	771	0.4	0.6	2.972	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	252	63	556	1405	0.180	252	239	0.2	0.2	3.123	A
B	697	174	157	1166	0.598	697	651	1.5	1.5	7.674	A
C	713	178	81	1923	0.371	713	773	0.6	0.6	2.975	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	206	51	454	1474	0.140	206	195	0.2	0.2	2.839	A
B	569	142	129	1186	0.480	571	532	1.5	0.9	5.873	A
C	583	146	67	1935	0.301	583	633	0.6	0.4	2.666	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	172	43	380	1524	0.113	173	164	0.2	0.1	2.663	A
B	477	119	108	1201	0.397	478	445	0.9	0.7	4.982	A
C	488	122	56	1943	0.251	488	530	0.4	0.3	2.476	A

2031 Background AM - 2031 Background, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Include in report	Use specific Demand Set (s)	Specific Demand Set (s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A7	2031 Background AM	✓	✓	D7	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A5153/Penrhos Industrial Estate East roundabout	Standard Roundabout		A, B, C	3.26	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	Penrhos Industrial Estate Access	
B	A5153 West	
C	A5153 East	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A	4.34	7.55	7.9	33.6	32.6	19.5	
B	5.71	6.87	4.8	28.3	32.6	25.0	
C	5.86	7.22	3.5	12.5	15.5	15.5	

Slope / Intercept / Capacity

Arm Intercept Adjustments

Arm	Type	Reason	Direct intercept adjustment (PCU/hr)
A	None		
B	Direct	BC Meth Unequal Lane	-716
C	None		

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A	0.700	1834
B	0.724	1274
C	0.735	2000

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
D7	2031 Background	AM	ONE HOUR	08:00	09:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	65	100.000
B		ONE HOUR	✓	346	100.000
C		ONE HOUR	✓	489	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	20	45
	B	33	0	313
	C	100	388	1

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	10	4
	B	3	0	2
	C	6	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A	0.05	2.62	0.1	A	60	89
B	0.31	4.34	0.5	A	317	476
C	0.28	2.58	0.4	A	449	673

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	49	12	292	1538	0.032	49	100	0.0	0.0	2.417	A
B	260	65	35	1222	0.213	259	306	0.0	0.3	3.736	A
C	368	92	25	1942	0.190	367	269	0.0	0.2	2.284	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	58	15	350	1499	0.039	58	119	0.0	0.0	2.497	A
B	311	78	41	1217	0.256	311	367	0.3	0.3	3.970	A
C	440	110	30	1939	0.227	439	322	0.2	0.3	2.400	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	72	18	428	1447	0.049	72	146	0.0	0.1	2.616	A
B	381	95	51	1210	0.315	380	449	0.3	0.5	4.336	A
C	538	135	36	1934	0.278	538	395	0.3	0.4	2.579	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	72	18	428	1447	0.049	72	146	0.1	0.1	2.617	A
B	381	95	51	1210	0.315	381	449	0.5	0.5	4.340	A
C	538	135	36	1934	0.278	538	395	0.4	0.4	2.579	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	58	15	350	1499	0.039	58	120	0.1	0.0	2.500	A
B	311	78	41	1217	0.256	311	367	0.5	0.3	3.978	A
C	440	110	30	1939	0.227	440	323	0.4	0.3	2.402	A

09:15 - 09:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	49	12	293	1537	0.032	49	100	0.0	0.0	2.420	A
B	260	65	35	1222	0.213	261	307	0.3	0.3	3.744	A
C	368	92	25	1942	0.190	368	271	0.3	0.2	2.287	A

2031 Background PM - 2031 Background, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Include in report	Use specific Demand Set (s)	Specific Demand Set (s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A8	2031 Background PM	✓	✓	D8	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A5153/Penrhos Industrial Estate East roundabout	Standard Roundabout		A, B, C	4.87	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	Penrhos Industrial Estate Access	
B	A5153 West	
C	A5153 East	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A	4.34	7.55	7.9	33.6	32.6	19.5	
B	5.71	6.87	4.8	28.3	32.6	25.0	
C	5.86	7.22	3.5	12.5	15.5	15.5	

Slope / Intercept / Capacity

Arm Intercept Adjustments

Arm	Type	Reason	Direct intercept adjustment (PCU/hr)
A	None		
B	Direct	BC Meth Unequal Lane	-678
C	None		

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A	0.700	1834
B	0.724	1312
C	0.735	2000

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
D8	2031 Background	PM	ONE HOUR	16:15	17:45	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	239	100.000
B		ONE HOUR	✓	624	100.000
C		ONE HOUR	✓	521	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
	A	B	C	
From	A	1	90	148
	B	75	1	548
	C	150	371	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
	A	B	C	
From	A	0	6	1
	B	8	0	1
	C	3	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A	0.17	2.90	0.2	A	219	329
B	0.59	7.44	1.4	A	573	859
C	0.30	2.68	0.4	A	478	717

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	180	45	279	1593	0.113	179	170	0.0	0.1	2.547	A
B	470	117	112	1208	0.389	467	347	0.0	0.6	4.844	A
C	392	98	58	1938	0.202	391	521	0.0	0.3	2.326	A

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	215	54	334	1555	0.138	215	203	0.1	0.2	2.685	A
B	561	140	134	1192	0.471	560	415	0.6	0.9	5.686	A
C	468	117	69	1929	0.243	468	625	0.3	0.3	2.464	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	263	66	409	1504	0.175	263	248	0.2	0.2	2.899	A
B	687	172	164	1170	0.587	685	508	0.9	1.4	7.384	A
C	574	143	85	1917	0.299	573	764	0.3	0.4	2.679	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	263	66	410	1504	0.175	263	249	0.2	0.2	2.900	A
B	687	172	164	1170	0.587	687	509	1.4	1.4	7.444	A
C	574	143	85	1917	0.299	574	766	0.4	0.4	2.680	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	215	54	335	1555	0.138	215	204	0.2	0.2	2.688	A
B	561	140	134	1192	0.471	563	416	1.4	0.9	5.742	A
C	468	117	69	1929	0.243	469	628	0.4	0.3	2.468	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	180	45	280	1592	0.113	180	170	0.2	0.1	2.551	A
B	470	117	112	1208	0.389	471	348	0.9	0.6	4.892	A
C	392	98	58	1938	0.202	393	525	0.3	0.3	2.331	A

2031 WD AM - 2031 WD , AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Include in report	Use specific Demand Set(s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A9	2031 WD AM	✓	✓	D9	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A5153/Penrhos Industrial Estate East roundabout	Standard Roundabout		A, B, C	4.52	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	Penrhos Industrial Estate Access	
B	A5153 West	
C	A5153 East	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A	4.34	7.55	7.9	33.6	32.6	19.5	
B	5.71	6.87	4.8	28.3	32.6	25.0	
C	5.86	7.22	3.5	12.5	15.5	15.5	

Slope / Intercept / Capacity

Arm Intercept Adjustments

Arm	Type	Reason	Direct intercept adjustment (PCU/hr)
A	None		
B	Direct	BC Meth Unequal Lane	-764
C	None		

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A	0.700	1834
B	0.724	1226
C	0.735	2000

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
D9	2031 WD	AM	ONE HOUR	08:00	09:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	65	100.000
B		ONE HOUR	✓	545	100.000
C		ONE HOUR	✓	536	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
	A	B	C	
From	A	0	20	45
	B	33	0	512
	C	100	435	1

Vehicle Mix

Heavy Vehicle Percentages

	To			
	A	B	C	
From	A	0	10	4
	B	3	0	3
	C	6	3	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A	0.05	2.70	0.1	A	60	89
B	0.52	6.51	1.1	A	500	750
C	0.31	2.74	0.4	A	492	738

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	49	12	327	1510	0.032	49	100	0.0	0.0	2.463	A
B	410	103	35	1165	0.352	408	342	0.0	0.5	4.744	A
C	404	101	25	1914	0.211	402	418	0.0	0.3	2.381	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	58	15	392	1466	0.040	58	119	0.0	0.0	2.557	A
B	490	122	41	1160	0.422	489	409	0.5	0.7	5.362	A
C	482	120	30	1910	0.252	482	501	0.3	0.3	2.520	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	72	18	480	1406	0.051	72	146	0.0	0.1	2.697	A
B	600	150	51	1153	0.520	599	501	0.7	1.1	6.477	A
C	590	148	36	1905	0.310	590	613	0.3	0.4	2.737	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	72	18	480	1406	0.051	72	146	0.1	0.1	2.697	A
B	600	150	51	1153	0.520	600	501	1.1	1.1	6.508	A
C	590	148	36	1905	0.310	590	614	0.4	0.4	2.737	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	58	15	392	1466	0.040	58	120	0.1	0.0	2.558	A
B	490	122	41	1160	0.422	491	409	1.1	0.7	5.396	A
C	482	120	30	1910	0.252	482	503	0.4	0.3	2.521	A

09:15 - 09:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	49	12	328	1509	0.032	49	100	0.0	0.0	2.467	A
B	410	103	35	1165	0.352	411	343	0.7	0.5	4.782	A
C	404	101	25	1913	0.211	404	421	0.3	0.3	2.386	A

2031 WD PM - 2031 WD , PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Include in report	Use specific Demand Set (s)	Specific Demand Set (s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A10	2031 WD PM	✓	✓	D10	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A5153/Penrhos Industrial Estate East roundabout	Standard Roundabout		A, B, C	5.17	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	Penrhos Industrial Estate Access	
B	A5153 West	
C	A5153 East	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A	4.34	7.55	7.9	33.6	32.6	19.5	
B	5.71	6.87	4.8	28.3	32.6	25.0	
C	5.86	7.22	3.5	12.5	15.5	15.5	

Slope / Intercept / Capacity

Arm Intercept Adjustments

Arm	Type	Reason	Direct intercept adjustment (PCU/hr)
A	None		
B	Direct	BC Meth Unequal Lane	-686
C	None		

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A	0.700	1834
B	0.724	1304
C	0.735	2000

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
D10	2031 WD	PM	ONE HOUR	16:15	17:45	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	239	100.000
B		ONE HOUR	✓	651	100.000
C		ONE HOUR	✓	666	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
	A	B	C	
From	A	1	90	148
	B	75	1	575
	C	150	516	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
	A	B	C	
From	A	0	6	1
	B	8	0	1
	C	3	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
A	0.19	3.18	0.2	A	219	329
B	0.62	8.06	1.6	A	597	896
C	0.38	3.03	0.6	A	611	917

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	180	45	388	1519	0.118	179	170	0.0	0.1	2.686	A
B	490	123	112	1200	0.408	487	456	0.0	0.7	5.030	A
C	501	125	58	1942	0.258	500	542	0.0	0.3	2.495	A

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	215	54	464	1467	0.146	215	203	0.1	0.2	2.874	A
B	585	146	134	1185	0.494	584	545	0.7	1.0	5.984	A
C	599	150	69	1933	0.310	598	649	0.3	0.4	2.698	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	263	66	569	1396	0.189	263	248	0.2	0.2	3.177	A
B	717	179	164	1163	0.616	714	668	1.0	1.6	7.980	A
C	733	183	84	1920	0.382	733	794	0.4	0.6	3.029	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	263	66	569	1396	0.189	263	249	0.2	0.2	3.178	A
B	717	179	164	1163	0.616	717	668	1.6	1.6	8.064	A
C	733	183	85	1920	0.382	733	796	0.6	0.6	3.032	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	215	54	465	1466	0.147	215	204	0.2	0.2	2.877	A
B	585	146	134	1184	0.494	588	546	1.6	1.0	6.055	A
C	599	150	70	1932	0.310	599	652	0.6	0.5	2.701	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	180	45	390	1518	0.119	180	170	0.2	0.1	2.691	A
B	490	123	112	1200	0.408	491	457	1.0	0.7	5.086	A
C	501	125	58	1941	0.258	502	545	0.5	0.3	2.501	A

APPENDIX R

A5/A5153/TESCO ROUNDABOUT ARCADY

<h1>Junctions 9</h1>
<h2>ARCADY 9 - Roundabout Module</h2>
Version: 9.5.0.6896 © Copyright TRL Limited, 2018
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Filename: A5-A5153-Tesco roundabout V8.j9

Path: C:\Users\ADC\OneDrive - ADC Infrastructure Limited\ADC Projects\ADC3377 Anglesey Freeport (Prosperity Parc) \Documents\reports\ADC\F. Transport Assessment\Junction Modelling\J9 - Tesco Access

Report generation date: 21/10/2024 13:30:53

-
- »Traffic - 2024 Observed, AM
 - »Traffic - 2024 Observed, PM
 - »Traffic - 2026 Background, AM
 - »Traffic - 2026 Background, PM
 - »Traffic - 2026 WD, AM
 - »Traffic - 2026 WD, PM
 - »Traffic - 2031 Background, AM
 - »Traffic - 2031 Background, PM
 - »Traffic - 2031 WD, AM
 - »Traffic - 2031 WD , PM

Summary of junction performance

	AM			PM		
	Queue (Veh)	Delay (s)	RFC	Queue (Veh)	Delay (s)	RFC
Traffic - 2024 Observed						
Arm A	0.4	4.41	0.27	0.5	5.08	0.34
Arm B	0.2	2.50	0.19	0.4	2.90	0.30
Arm C	0.2	3.73	0.15	0.4	4.65	0.29
Arm D	0.5	4.91	0.32	0.6	5.86	0.38
Traffic - 2026 Background						
Arm A	0.7	5.73	0.43	0.7	5.94	0.43
Arm B	0.3	2.55	0.21	0.7	3.47	0.42
Arm C	0.2	3.81	0.15	0.5	5.48	0.33
Arm D	0.6	5.27	0.36	0.8	7.18	0.45
Traffic - 2026 WD						
Arm A	0.9	6.53	0.49	1.5	8.52	0.60
Arm B	0.5	3.11	0.34	0.8	3.62	0.44
Arm C	0.2	4.41	0.17	0.5	5.73	0.34
Arm D	0.8	6.71	0.44	0.9	7.48	0.46
Traffic - 2031 Background						
Arm A	0.8	5.92	0.44	0.8	6.19	0.45
Arm B	0.3	2.60	0.22	0.8	3.57	0.43
Arm C	0.2	3.89	0.16	0.5	5.66	0.35
Arm D	0.6	5.42	0.38	0.9	7.56	0.47
Traffic - 2031 WD						
Arm A	1.0	6.77	0.50	1.6	9.05	0.62
Arm B	0.5	3.14	0.35	0.8	3.74	0.45
Arm C	0.2	4.50	0.18	0.6	5.94	0.36
Arm D	0.8	6.94	0.46	0.9	7.88	0.49

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

File summary

File Description

Title	A5/A5153/Tesco roundabout
Location	Holyhead
Site number	
Date	29/08/2024
Version	v 1
Status	preliminary
Identifier	
Client	Prosperity Parc
Jobnumber	ADC3377
Enumerator	ADC-TOSHIBA-AIO\ADC
Description	

Units

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

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2024 Observed	AM	ONE HOUR	08:00	09:30	15
D2	2024 Observed	PM	ONE HOUR	16:15	17:45	15
D3	2026 Background	AM	ONE HOUR	08:00	09:30	15
D4	2026 Background	PM	ONE HOUR	16:15	17:45	15
D5	2026 WD	AM	ONE HOUR	08:00	09:30	15
D6	2026 WD	PM	ONE HOUR	16:15	17:45	15
D7	2031 Background	AM	ONE HOUR	08:00	09:30	15
D8	2031 Background	PM	ONE HOUR	16:15	17:45	15
D9	2031 WD	AM	ONE HOUR	08:00	09:30	15
D10	2031 WD	PM	ONE HOUR	16:15	17:45	15

Analysis Set Details

ID	Name	Network flow scaling factor (%)
A1	Traffic	100.000

Traffic - 2024 Observed, 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	A5/A5153/Tesco roundabout	Standard Roundabout		A, B, C, D	3.89	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	A5 South	
B	A5153	
C	Tesco Access	
D	A5 North	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A	3.61	4.51	4.0	28.9	46.6	22.0	
B	5.85	8.95	8.1	8.6	46.6	35.0	
C	4.92	4.92	0.0	11.9	46.6	35.0	
D	3.58	4.97	2.3	16.4	46.6	31.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A	0.559	1306
B	0.659	2012
C	0.552	1415
D	0.524	1211

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)
D1	2024 Observed	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	269	100.000
B		✓	316	100.000
C		✓	154	100.000
D		✓	309	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
	A	B	C	D	
From	A	1	88	25	155
	B	68	0	91	157
	C	30	56	0	68
	D	101	139	69	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
	A	B	C	D	
From	A	0	2	4	2
	B	3	0	2	2
	C	3	2	0	6
	D	4	6	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
A	0.27	4.41	0.4	A
B	0.19	2.50	0.2	A
C	0.15	3.73	0.2	A
D	0.32	4.91	0.5	A

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	203	198	1166	0.174	202	0.2	3.730	A
B	238	187	1846	0.129	237	0.1	2.238	A
C	116	286	1206	0.096	116	0.1	3.301	A
D	233	116	1102	0.211	232	0.3	4.133	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	242	237	1144	0.211	242	0.3	3.990	A
B	284	225	1821	0.156	284	0.2	2.341	A
C	138	342	1176	0.118	138	0.1	3.470	A
D	278	139	1090	0.255	277	0.3	4.431	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	296	290	1113	0.266	296	0.4	4.401	A
B	348	275	1788	0.195	348	0.2	2.499	A
C	170	419	1134	0.150	169	0.2	3.732	A
D	340	171	1074	0.317	340	0.5	4.902	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	296	291	1113	0.266	296	0.4	4.406	A
B	348	275	1788	0.195	348	0.2	2.499	A
C	170	419	1134	0.150	170	0.2	3.733	A
D	340	171	1074	0.317	340	0.5	4.908	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	242	238	1143	0.212	242	0.3	3.996	A
B	284	225	1821	0.156	284	0.2	2.344	A
C	138	343	1175	0.118	139	0.1	3.475	A
D	278	139	1090	0.255	278	0.3	4.439	A

09:15 - 09:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	203	199	1165	0.174	203	0.2	3.740	A
B	238	188	1845	0.129	238	0.1	2.240	A
C	116	287	1205	0.096	116	0.1	3.306	A
D	233	117	1101	0.211	233	0.3	4.146	A

Traffic - 2024 Observed, 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	A5/A5153/Tesco roundabout	Standard Roundabout		A, B, C, D	4.45	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2024 Observed	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	331	100.000
B		✓	485	100.000
C		✓	292	100.000
D		✓	348	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A	B	C	D
From	A	0	120	61	150
	B	142	0	161	182
	C	65	141	0	86
	D	140	136	70	2

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	2	2	1
	B	1	0	2	2
	C	2	1	0	5
	D	1	1	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
A	0.34	5.08	0.5	A
B	0.30	2.90	0.4	A
C	0.29	4.65	0.4	A
D	0.38	5.86	0.6	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	249	262	1141	0.218	248	0.3	4.027	A
B	365	212	1839	0.199	364	0.2	2.439	A
C	220	357	1187	0.185	219	0.2	3.716	A
D	262	261	1062	0.247	261	0.3	4.486	A

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	298	313	1112	0.268	297	0.4	4.416	A
B	436	254	1812	0.241	436	0.3	2.615	A
C	263	428	1148	0.229	262	0.3	4.062	A
D	313	313	1035	0.302	312	0.4	4.980	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	364	384	1073	0.340	364	0.5	5.072	A
B	534	311	1775	0.301	534	0.4	2.901	A
C	321	524	1096	0.293	321	0.4	4.643	A
D	383	383	998	0.384	382	0.6	5.841	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	364	384	1073	0.340	364	0.5	5.082	A
B	534	312	1774	0.301	534	0.4	2.902	A
C	321	524	1095	0.293	321	0.4	4.650	A
D	383	383	998	0.384	383	0.6	5.857	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	298	314	1111	0.268	298	0.4	4.430	A
B	436	255	1811	0.241	436	0.3	2.618	A
C	263	428	1148	0.229	263	0.3	4.072	A
D	313	313	1034	0.302	314	0.4	4.999	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	249	263	1140	0.219	250	0.3	4.046	A
B	365	213	1839	0.199	365	0.2	2.443	A
C	220	359	1186	0.185	220	0.2	3.727	A
D	262	262	1061	0.247	262	0.3	4.509	A

Traffic - 2026 Background, 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	A5/A5153/Tesco roundabout	Standard Roundabout		A, B, C, D	4.51	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2026 Background	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	424	100.000
B		✓	345	100.000
C		✓	156	100.000
D		✓	351	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A	B	C	D
From	A	1	241	25	157
	B	89	0	92	164
	C	30	57	0	69
	D	102	179	70	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	1	4	2
	B	2	0	2	2
	C	3	2	0	6
	D	4	4	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
A	0.43	5.73	0.7	A
B	0.21	2.55	0.3	A
C	0.15	3.81	0.2	A
D	0.36	5.27	0.6	A

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	319	229	1156	0.276	318	0.4	4.285	A
B	260	190	1848	0.141	259	0.2	2.264	A
C	117	308	1194	0.098	117	0.1	3.339	A
D	264	133	1102	0.240	263	0.3	4.284	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	381	275	1131	0.337	381	0.5	4.798	A
B	310	227	1823	0.170	310	0.2	2.378	A
C	140	369	1161	0.121	140	0.1	3.525	A
D	316	159	1089	0.290	315	0.4	4.653	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	467	336	1096	0.426	466	0.7	5.709	A
B	380	278	1790	0.212	380	0.3	2.552	A
C	172	452	1116	0.154	172	0.2	3.810	A
D	386	195	1070	0.361	386	0.6	5.257	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	467	337	1095	0.426	467	0.7	5.727	A
B	380	279	1789	0.212	380	0.3	2.553	A
C	172	453	1116	0.154	172	0.2	3.811	A
D	386	195	1070	0.361	386	0.6	5.266	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	381	276	1130	0.337	382	0.5	4.820	A
B	310	228	1823	0.170	310	0.2	2.382	A
C	140	370	1161	0.121	140	0.1	3.530	A
D	316	159	1088	0.290	316	0.4	4.666	A

09:15 - 09:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	319	231	1156	0.276	320	0.4	4.309	A
B	260	191	1847	0.141	260	0.2	2.269	A
C	117	310	1193	0.098	118	0.1	3.348	A
D	264	133	1102	0.240	265	0.3	4.301	A

Traffic - 2026 Background, 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	A5/A5153/Tesco roundabout	Standard Roundabout		A, B, C, D	5.18	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2026 Background	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	414	100.000
B		✓	675	100.000
C		✓	296	100.000
D		✓	373	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A	B	C	D
From	A	0	200	62	152
	B	291	0	163	221
	C	66	143	0	87
	D	142	158	71	2

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	1	2	1
	B	0	0	2	2
	C	2	1	0	5
	D	1	1	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
A	0.43	5.94	0.7	A
B	0.42	3.47	0.7	A
C	0.33	5.48	0.5	A
D	0.45	7.18	0.8	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	312	280	1135	0.275	310	0.4	4.357	A
B	508	215	1848	0.275	507	0.4	2.682	A
C	223	500	1110	0.201	222	0.2	4.049	A
D	281	375	1003	0.280	279	0.4	4.963	A

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	372	336	1104	0.337	372	0.5	4.913	A
B	607	258	1820	0.333	606	0.5	2.964	A
C	266	598	1057	0.252	266	0.3	4.550	A
D	335	449	965	0.348	335	0.5	5.710	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	456	411	1062	0.429	455	0.7	5.919	A
B	743	315	1782	0.417	742	0.7	3.459	A
C	326	732	984	0.331	325	0.5	5.465	A
D	411	550	912	0.450	410	0.8	7.146	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	456	412	1061	0.429	456	0.7	5.943	A
B	743	316	1781	0.417	743	0.7	3.466	A
C	326	733	983	0.332	326	0.5	5.478	A
D	411	550	912	0.450	411	0.8	7.183	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	372	337	1103	0.337	373	0.5	4.937	A
B	607	259	1819	0.334	608	0.5	2.975	A
C	266	600	1056	0.252	267	0.3	4.567	A
D	335	450	964	0.348	336	0.5	5.748	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	312	282	1134	0.275	312	0.4	4.384	A
B	508	216	1847	0.275	509	0.4	2.692	A
C	223	502	1109	0.201	223	0.3	4.065	A
D	281	377	1002	0.280	281	0.4	4.999	A

Traffic - 2026 WD, 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	A5/A5153/Tesco roundabout	Standard Roundabout		A, B, C, D	5.16	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2026 WD	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	477	100.000
B		✓	544	100.000
C		✓	156	100.000
D		✓	380	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A	B	C	D
From	A	1	288	25	163
	B	288	0	92	164
	C	30	57	0	69
	D	131	179	70	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	4	4	2
	B	5	0	2	2
	C	3	2	0	6
	D	3	4	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
A	0.49	6.53	0.9	A
B	0.34	3.11	0.5	A
C	0.17	4.41	0.2	A
D	0.44	6.71	0.8	A

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	359	229	1137	0.316	357	0.5	4.609	A
B	410	194	1817	0.225	408	0.3	2.553	A
C	117	462	1107	0.106	117	0.1	3.632	A
D	286	282	1025	0.279	285	0.4	4.854	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	429	275	1111	0.386	428	0.6	5.266	A
B	489	232	1792	0.273	489	0.4	2.762	A
C	140	553	1057	0.133	140	0.2	3.925	A
D	342	338	995	0.343	341	0.5	5.499	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	525	336	1077	0.488	524	0.9	6.494	A
B	599	284	1758	0.341	598	0.5	3.102	A
C	172	677	989	0.174	172	0.2	4.402	A
D	418	414	955	0.438	417	0.8	6.684	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	525	337	1077	0.488	525	0.9	6.527	A
B	599	285	1758	0.341	599	0.5	3.105	A
C	172	678	989	0.174	172	0.2	4.406	A
D	418	414	955	0.438	418	0.8	6.710	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	429	276	1111	0.386	430	0.6	5.300	A
B	489	234	1791	0.273	490	0.4	2.768	A
C	140	555	1057	0.133	140	0.2	3.930	A
D	342	338	995	0.343	343	0.5	5.527	A

09:15 - 09:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	359	231	1136	0.316	360	0.5	4.645	A
B	410	195	1816	0.226	410	0.3	2.562	A
C	117	464	1106	0.106	118	0.1	3.643	A
D	286	283	1024	0.279	287	0.4	4.885	A

Traffic - 2026 WD, 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	A5/A5153/Tesco roundabout	Standard Roundabout		A, B, C, D	6.14	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2026 WD	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	581	100.000
B		✓	702	100.000
C		✓	296	100.000
D		✓	377	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A	B	C	D
From	A	0	345	62	174
	B	318	0	163	221
	C	66	143	0	87
	D	146	158	71	2

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	1	2	1
	B	0	0	2	2
	C	2	1	0	5
	D	1	1	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
A	0.60	8.52	1.5	A
B	0.44	3.62	0.8	A
C	0.34	5.73	0.5	A
D	0.46	7.48	0.9	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	437	280	1135	0.385	435	0.6	5.122	A
B	529	231	1838	0.288	527	0.4	2.742	A
C	223	536	1090	0.204	222	0.3	4.142	A
D	284	395	993	0.286	282	0.4	5.056	A

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	522	336	1104	0.473	521	0.9	6.162	A
B	631	277	1808	0.349	631	0.5	3.056	A
C	266	642	1033	0.258	266	0.3	4.691	A
D	339	473	952	0.356	338	0.5	5.859	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	640	411	1063	0.602	637	1.5	8.419	A
B	773	339	1767	0.437	772	0.8	3.615	A
C	326	786	955	0.341	325	0.5	5.714	A
D	415	579	897	0.463	414	0.8	7.437	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	640	412	1062	0.602	640	1.5	8.520	A
B	773	340	1766	0.438	773	0.8	3.623	A
C	326	787	954	0.342	326	0.5	5.733	A
D	415	580	896	0.463	415	0.9	7.479	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	522	337	1104	0.473	525	0.9	6.245	A
B	631	279	1807	0.349	632	0.5	3.069	A
C	266	644	1032	0.258	267	0.4	4.710	A
D	339	475	951	0.356	340	0.6	5.900	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	437	282	1134	0.386	439	0.6	5.183	A
B	529	233	1837	0.288	529	0.4	2.753	A
C	223	539	1089	0.205	223	0.3	4.162	A
D	284	397	992	0.286	284	0.4	5.096	A

Traffic - 2031 Background, 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	A5/A5153/Tesco roundabout	Standard Roundabout		A, B, C, D	4.63	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)
D7	2031 Background	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	436	100.000
B		✓	359	100.000
C		✓	163	100.000
D		✓	365	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A	B	C	D
From	A	1	245	26	164
	B	92	0	96	171
	C	32	59	0	72
	D	107	185	73	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	1	4	2
	B	2	0	2	2
	C	3	2	0	6
	D	4	4	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
A	0.44	5.92	0.8	A
B	0.22	2.60	0.3	A
C	0.16	3.89	0.2	A
D	0.38	5.42	0.6	A

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	328	238	1152	0.285	327	0.4	4.356	A
B	270	198	1843	0.147	270	0.2	2.287	A
C	123	321	1187	0.103	122	0.1	3.378	A
D	275	138	1099	0.250	273	0.3	4.351	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	392	285	1125	0.348	391	0.5	4.905	A
B	323	237	1817	0.178	323	0.2	2.409	A
C	147	384	1153	0.127	146	0.1	3.576	A
D	328	165	1085	0.302	328	0.4	4.750	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	480	348	1089	0.441	479	0.8	5.895	A
B	395	290	1782	0.222	395	0.3	2.595	A
C	179	471	1106	0.162	179	0.2	3.882	A
D	402	202	1066	0.377	401	0.6	5.408	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	480	349	1088	0.441	480	0.8	5.916	A
B	395	291	1781	0.222	395	0.3	2.596	A
C	179	471	1106	0.162	179	0.2	3.885	A
D	402	203	1066	0.377	402	0.6	5.419	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	392	286	1124	0.349	393	0.5	4.929	A
B	323	238	1816	0.178	323	0.2	2.410	A
C	147	385	1152	0.127	147	0.1	3.581	A
D	328	166	1085	0.302	329	0.4	4.763	A

09:15 - 09:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	328	239	1151	0.285	329	0.4	4.382	A
B	270	199	1842	0.147	270	0.2	2.290	A
C	123	323	1187	0.103	123	0.1	3.386	A
D	275	139	1099	0.250	275	0.3	4.371	A

Traffic - 2031 Background, 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	A5/A5153/Tesco roundabout	Standard Roundabout		A, B, C, D	5.39	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)
D8	2031 Background	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	428	100.000
B		✓	696	100.000
C		✓	309	100.000
D		✓	388	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A	B	C	D
From	A	0	206	64	158
	B	297	0	170	229
	C	69	149	0	91
	D	148	164	74	2

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	1	2	1
	B	0	0	2	2
	C	1	1	0	4
	D	1	1	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
A	0.45	6.19	0.8	A
B	0.43	3.57	0.8	A
C	0.35	5.66	0.5	A
D	0.47	7.56	0.9	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	322	291	1129	0.285	321	0.4	4.448	A
B	524	223	1842	0.284	522	0.4	2.723	A
C	233	515	1108	0.210	232	0.3	4.104	A
D	292	386	998	0.293	290	0.4	5.080	A

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	385	349	1096	0.351	384	0.5	5.050	A
B	626	267	1813	0.345	625	0.5	3.028	A
C	278	616	1052	0.264	277	0.4	4.645	A
D	349	462	958	0.364	348	0.6	5.897	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	471	427	1053	0.448	470	0.8	6.166	A
B	766	327	1774	0.432	765	0.8	3.567	A
C	340	754	976	0.348	340	0.5	5.646	A
D	427	566	904	0.473	426	0.9	7.511	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	471	428	1052	0.448	471	0.8	6.195	A
B	766	328	1773	0.432	766	0.8	3.574	A
C	340	755	976	0.349	340	0.5	5.662	A
D	427	567	904	0.473	427	0.9	7.556	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	385	351	1095	0.351	386	0.5	5.081	A
B	626	269	1812	0.345	627	0.5	3.040	A
C	278	618	1051	0.264	278	0.4	4.662	A
D	349	464	957	0.364	350	0.6	5.940	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	322	293	1127	0.286	323	0.4	4.476	A
B	524	225	1841	0.285	525	0.4	2.736	A
C	233	517	1106	0.210	233	0.3	4.125	A
D	292	388	997	0.293	293	0.4	5.118	A

Traffic - 2031 WD, 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	A5/A5153/Tesco roundabout	Standard Roundabout		A, B, C, D	5.32	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D9	2031 WD	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	489	100.000
B		✓	558	100.000
C		✓	163	100.000
D		✓	394	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A	B	C	D
From	A	1	292	26	170
	B	291	0	96	171
	C	32	59	0	72
	D	136	185	73	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	4	4	2
	B	4	0	2	2
	C	3	2	0	6
	D	3	4	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
A	0.50	6.77	1.0	A
B	0.35	3.14	0.5	A
C	0.18	4.50	0.2	A
D	0.46	6.94	0.8	A

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	368	237	1132	0.325	366	0.5	4.689	A
B	420	202	1821	0.231	419	0.3	2.565	A
C	123	475	1102	0.111	122	0.1	3.673	A
D	297	287	1023	0.290	295	0.4	4.934	A

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	440	285	1106	0.398	439	0.7	5.391	A
B	502	242	1795	0.279	501	0.4	2.782	A
C	147	569	1050	0.140	146	0.2	3.982	A
D	354	344	993	0.357	354	0.5	5.624	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	538	348	1070	0.503	537	1.0	6.730	A
B	614	297	1760	0.349	614	0.5	3.140	A
C	179	696	981	0.183	179	0.2	4.490	A
D	434	421	953	0.455	433	0.8	6.910	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	538	349	1070	0.503	538	1.0	6.770	A
B	614	297	1759	0.349	614	0.5	3.143	A
C	179	697	980	0.183	179	0.2	4.495	A
D	434	422	952	0.455	434	0.8	6.941	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	440	286	1105	0.398	441	0.7	5.431	A
B	502	243	1794	0.280	502	0.4	2.789	A
C	147	570	1050	0.140	147	0.2	3.988	A
D	354	345	993	0.357	355	0.6	5.655	A

09:15 - 09:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	368	239	1131	0.325	369	0.5	4.726	A
B	420	204	1820	0.231	420	0.3	2.572	A
C	123	477	1100	0.112	123	0.1	3.685	A
D	297	289	1022	0.290	297	0.4	4.969	A

Traffic - 2031 WD , 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	A5/A5153/Tesco roundabout	Standard Roundabout		A, B, C, D	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)
D10	2031 WD	PM	ONE HOUR	16:15	17:45	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		✓	595	100.000
B		✓	723	100.000
C		✓	309	100.000
D		✓	392	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A	B	C	D
From	A	0	351	64	180
	B	324	0	170	229
	C	69	149	0	91
	D	152	164	74	2

Vehicle Mix

Heavy Vehicle Percentages

		To			
		A	B	C	D
From	A	0	1	2	1
	B	0	0	2	2
	C	1	1	0	4
	D	1	1	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
A	0.62	9.05	1.6	A
B	0.45	3.74	0.8	A
C	0.36	5.94	0.6	A
D	0.49	7.88	0.9	A

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	448	291	1129	0.397	445	0.7	5.244	A
B	544	240	1832	0.297	543	0.4	2.787	A
C	233	551	1088	0.214	232	0.3	4.200	A
D	295	407	987	0.299	293	0.4	5.177	A

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	535	349	1097	0.488	534	0.9	6.379	A
B	650	287	1801	0.361	649	0.6	3.124	A
C	278	660	1028	0.270	277	0.4	4.793	A
D	352	487	945	0.373	352	0.6	6.058	A

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	655	427	1053	0.622	652	1.6	8.918	A
B	796	351	1759	0.453	795	0.8	3.732	A
C	340	808	947	0.359	339	0.6	5.914	A
D	432	596	889	0.486	430	0.9	7.830	A

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	655	428	1053	0.622	655	1.6	9.046	A
B	796	352	1758	0.453	796	0.8	3.741	A
C	340	809	947	0.359	340	0.6	5.936	A
D	432	597	888	0.486	432	0.9	7.884	A

17:15 - 17:30

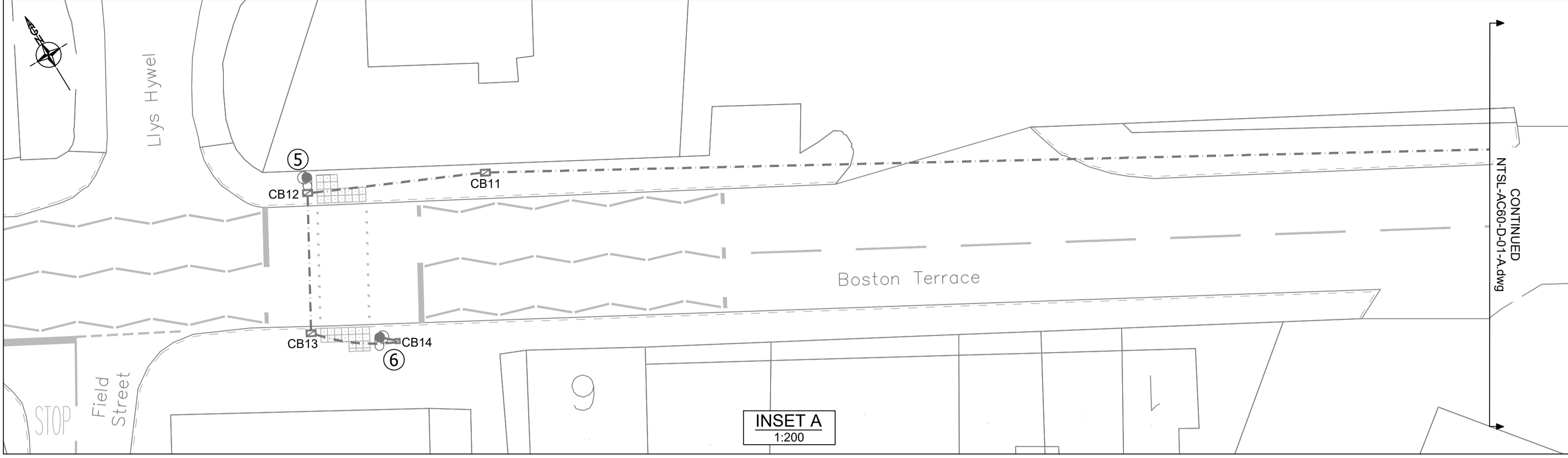
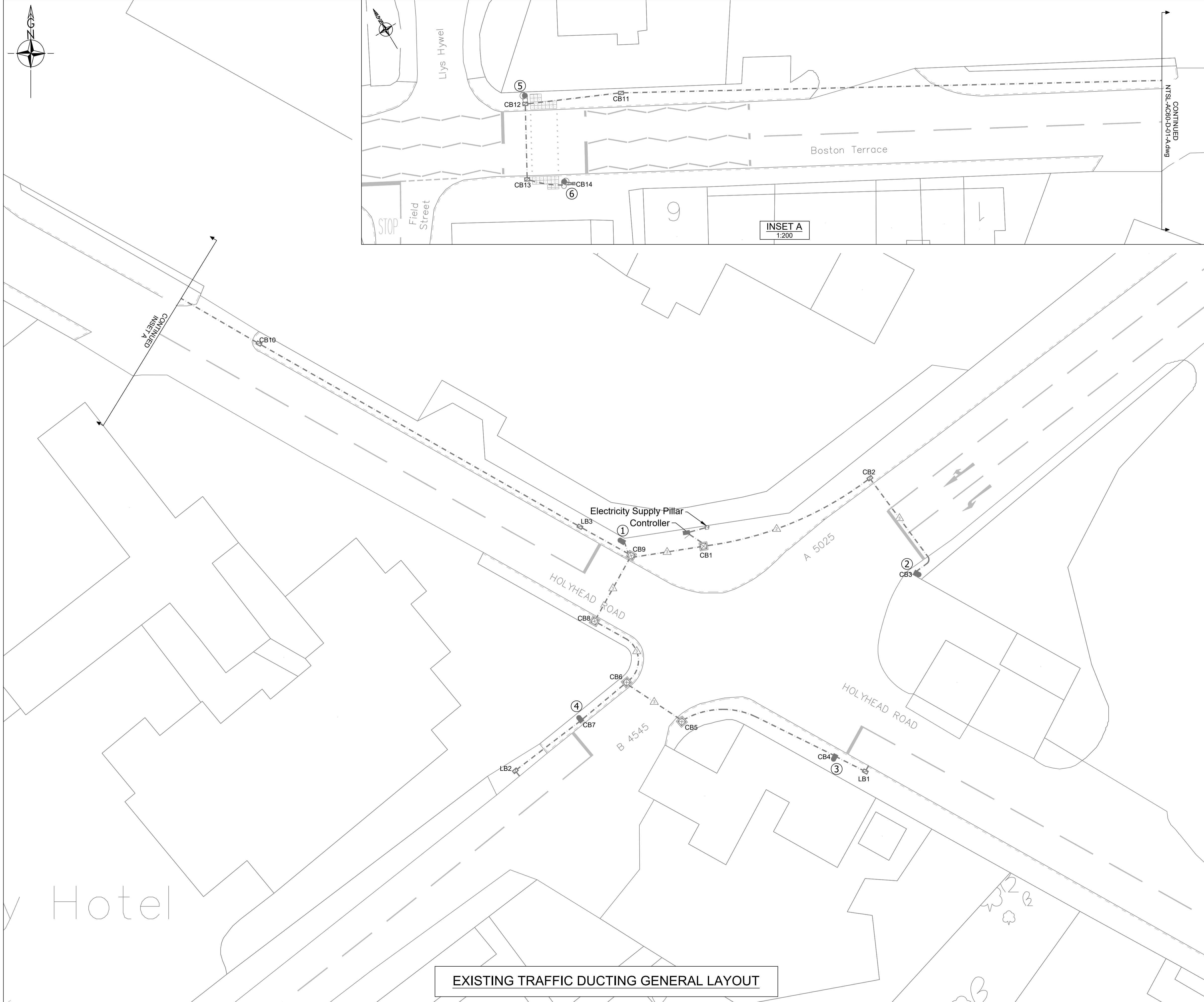
Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	535	351	1096	0.488	538	1.0	6.479	A
B	650	289	1800	0.361	651	0.6	3.135	A
C	278	662	1027	0.271	279	0.4	4.815	A
D	352	488	945	0.373	354	0.6	6.106	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A	448	293	1128	0.397	449	0.7	5.314	A
B	544	242	1831	0.297	545	0.4	2.801	A
C	233	554	1086	0.214	233	0.3	4.222	A
D	295	409	986	0.299	296	0.4	5.222	A

APPENDIX S

A5/A5025 SINGAL CONTROLLED CROSSROAD LINSIG



KEY

- Traffic Signal Controller & Root
- Electricity Supply Pillar
- 4m Straight Steel Traffic Signal Pole
- Swan Neck/Cranked Traffic Signal Pole
- Traffic Signal Pole Reference
- NAL RS115-DF Retention Socket
- 600x600mm Access Chamber
- 450x300mm Access Chamber
- 300x300mm Access Chamber
- Loop Access Chamber Reference
- Cable Box / Access Chamber Reference
- 1 Way Traffic Signals Duct
- 3 Way Traffic Signals Duct
- Tactile Paving

ISSUE	DESCRIPTION	DRN	CHK	DATE

NicheTrafficSolutions Ltd
Your Ideas in Action

DRAWING STATUS

CUSTOMER

CYNGOR SIR YNYS MÔN
ISLE OF ANGLESEY
COUNTY COUNCIL

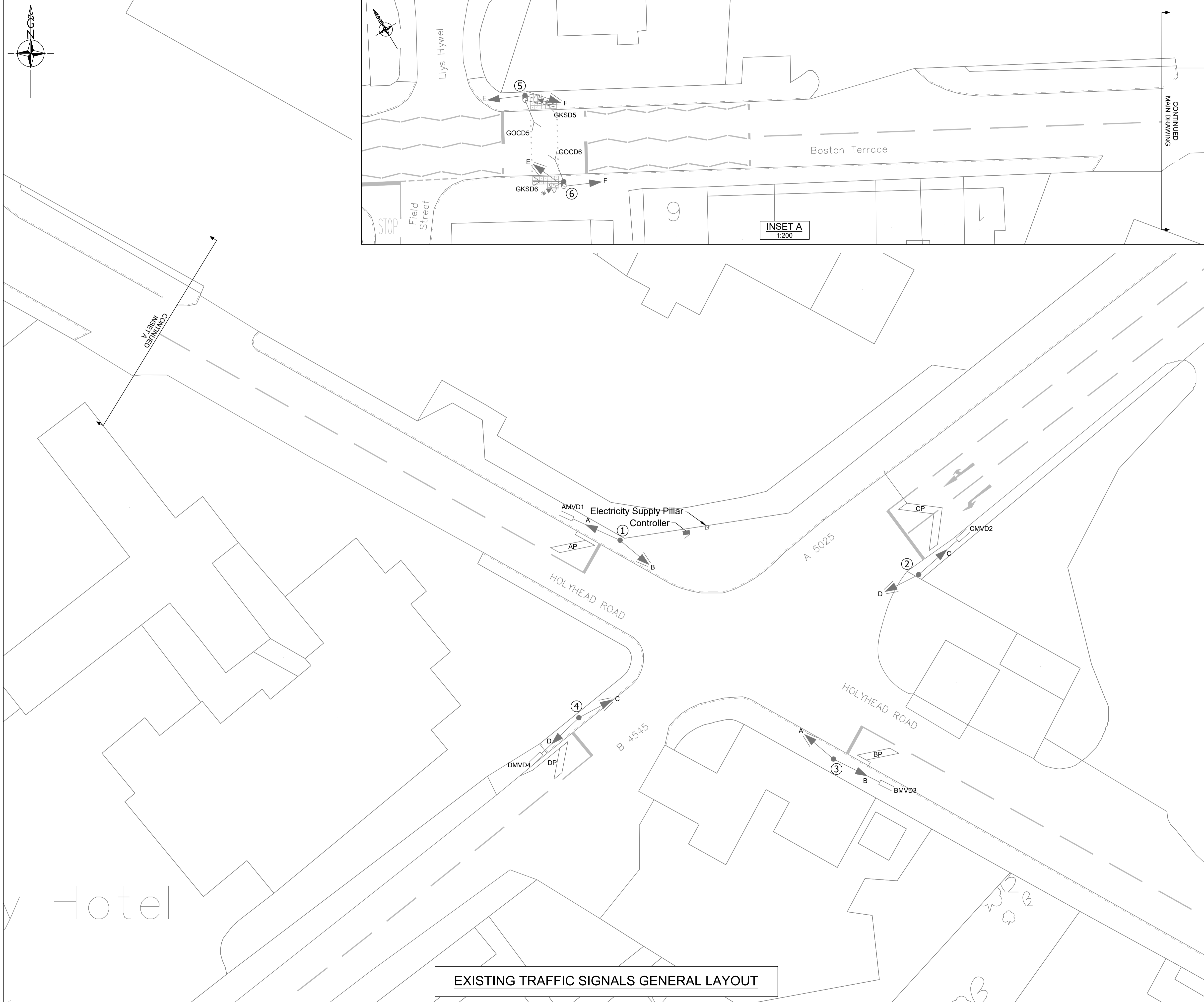
SCHEME TITLE

AS BUILT DUCTING & CIVILS
A5/5025 VALLEY CROSS ROADS
HOLYHEAD
AC60

SCALE: 1:200	DATE: 03/06/2024	DRN: AA	CHKD: TT	APP:
Niche Traffic Solutions Ltd		DRAWING N°: NTSL/AC60/D/02/A		
Tel: 07753103119		DRAWING SIZE: 594 x 841 - A1		
Email: tim@nichetrafficsolutions.co.uk		www.nichetrafficsolutions.com		

EXISTING TRAFFIC DUCTING GENERAL LAYOUT

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KEY

- Traffic Signal Controller & Root
- Electricity Supply Pillar
- 4m Straight Steel Traffic Signal Pole
- Swan Neck/Cranked Traffic Signal Pole
- Traffic Signal Pole Reference
- Primary Traffic Signal Head
- Secondary Traffic Signal Head
- Near Sided PUFFIN Pedestrian Signal with Separate Push Button Demand Unit & Rotating Tactile Device
- Above Ground Microwave Vehicle Detector
- Above Ground Pedestrian 'Kerbside' Detector
- Above Ground Pedestrian 'On-Crossing' Detector
- Photo Electric Cell
- Tactile Paving

ISSUE	DESCRIPTION	DRN	CHK	DATE



NicheTrafficSolutions Ltd
Your Ideas in Action

DRAWING STATUS
APPROVED

CUSTOMER



CYNGOR SIR YNYS MÔN
ISLE OF ANGLESEY COUNTY COUNCIL

SCHEME TITLE
AS BUILT TRAFFIC SIGNALS & DETECTION
A5/5025 VALLEY CROSS ROADS
HOLYHEAD
AC60

SCALE: 1:200	DATE: 03/06/2024	DRN: AA	CHKD: TT	APP:
Niche Traffic Solutions Ltd		DRAWING N°: NTS/AC60/D/01/A		
Tel: 07753103119		DRAWING SIZE: 594 x 841 - A1		
Email: tim@nicetrafficsolutions.co.uk		www.nicetrafficsolutions.com		

EXISTING TRAFFIC SIGNALS GENERAL LAYOUT

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Works Order : 460411744
EM Number : 35169
Engineer : Stuart Mulliner
Intersection : A5 / A5025 - Valley Cross Roads Holyhead Anglesey

Administration

General Specifications

Customer Name	<input type="text" value="Isle Of Anglesey"/>	Customer Order No.	<input type="text"/>
Intersection/ General Description	<input type="text" value="A5 / A5025 - Valley Cross Roads
Holyhead
Anglesey"/>	Controller/ Serial Number	<input type="text"/>
Controller	<input checked="" type="radio"/> New <input type="radio"/> Modification	S.T.S. /EM Number	<input type="text" value="35169"/> Issue <input type="text" value="1"/>
Area Specifications/ Customer Drawings	<input type="text" value="T1071/T711/1001/A"/>	Equipment Installation by	<input type="text" value="Siemens Traffic Solutions"/>
Specification Section	<input type="text"/>	Slot Cutting by	<input type="text"/>
Contract/Tender Ref:	<input type="text"/>	Civil Works by	<input type="text"/>
Quotation No.	<input type="text"/>	Customer's Engineer	<input type="text" value="Arwel Roberts"/>
Works Order No.	<input type="text" value="460411744"/>	Telephone Number	<input type="text"/>

Signal Company Use Only

Signal Engineer	<input type="text" value="Stuart Mulliner"/>	(IF Prom Label as >) Prom Number	<input type="text" value="16771"/>	Prom Variant	<input type="text" value="169"/>
		Configuration Check Value	<input type="text" value="4A 3D F3 A5"/>		

Controller Options

Hardware Firmware Type and Issue Other Options

ST900/ST750 Series Cabinet Options

Cabinet/Rack Kit Type Options UK-Std Non-UK Small Non-UK

Cabinet/Rack Variant Cuckoo Options Gemini Fitted

Mains Supply Volts Hz

Peak Lamp Current Amps Dimming Voltage Answer Issue Date Created

Average Lamp Power Watts Edit Issue

Total Average Power Watts

Power feed fuse rating: requires 30 Amp minimum for controller, 15 Amp minimum for pelican/lightly loaded controller

Works Order : 460411744
EM Number : 35169
Engineer : Stuart Mulliner
Location : A5 / A5025 - Valley Cross Roads Holyhead Anglesey

Streams, Stages, Phases Control

Select Object to Add/Delete/Insert

Streams	
<input type="radio"/>	Current Number of Streams <input type="text" value="2"/>

Phases	
<input type="radio"/>	Current Total Number of Phases <input type="text" value="7"/>
<input checked="" type="radio"/>	Number of Real Phases <input type="text" value="7"/>
<input type="radio"/>	Number of Dummy Phases <input type="text" value="0"/>

Stages	
<input type="radio"/>	Current Number of stages (inc. ALL-RED stages) <input type="text" value="6"/>

Switched Signs	
<input type="radio"/>	Number of Switched Signs <input type="text" value="0"/>

Action	
<input type="button" value="Add At"/>	<input type="button" value="Delete At"/>

Works Order : 460411744
 EM Number : 35169
 Engineer : Stuart Mulliner
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Facilities/Modes Enabled and Mode Priority Levels

Facilities

<input checked="" type="checkbox"/> Manual Control	<input type="checkbox"/> Part Time	<input type="checkbox"/> London IMU	<input checked="" type="checkbox"/> Pelican/Puffin/Toucan Facilities
<input type="checkbox"/> Manual Step On Mode	<input checked="" type="checkbox"/> Master Time Clock		<input type="checkbox"/> Standalone Manual
<input checked="" type="checkbox"/> CLF (Base Time)	<input checked="" type="checkbox"/> RED Lamp Monitoring	<input type="checkbox"/> Extend All Red	<input type="checkbox"/> Holiday Clock
<input type="checkbox"/> CLF (non-Base Time)	<input checked="" type="checkbox"/> Lamp Monitoring	<input type="checkbox"/> Fail To Hardware Flashing	<input type="checkbox"/> Fail to Part Time
<input type="checkbox"/> UTC Facility	<input type="checkbox"/> Linked Fixed Time	<input type="checkbox"/> Ripple Change	<input type="checkbox"/> Serial MOVA
<input type="checkbox"/> Hurry Call Mode	<input checked="" type="checkbox"/> FT To Current MAX	<input type="checkbox"/> Non-UK	<input type="checkbox"/> Serial UTC
<input type="checkbox"/> Priority	<input type="checkbox"/> Speed Measurement		<input type="checkbox"/> Free-Standing OTU
<input type="checkbox"/> Emergency Vehicles	<input type="checkbox"/> Download To Level 3		<input type="checkbox"/> Integral OTU

Starting Intergreen

Mode Priority

PRIORITY	1	2	3	4	5	6	7	8	9	10	11
Part Time	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Emergency Vehicle	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hurry Call	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Selected Man Cntrl	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
UTC	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Manual Step On	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Selected FT or VA or CLF	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cableless Link (CLF)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Priority Vehicle	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Vehicle Actuated	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Fixed Time	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

Configuration Complexity

Low Medium High Maximum

standardPB801.8df

Default PROM data file

Correspondence Monitoring to inc.

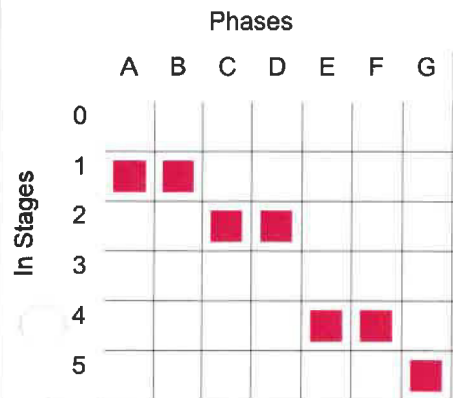
Reds Ambers
 Switched Signs Ignore Reds and Ambers during Fail to Part Time

Flash Rate (ms)

Off On

Works Order : 460411744
EM Number : 35169
Engineer : Stuart Mulliner
Location : A5 / A5025 - Valley Cross Roads Holyhead Anglesey

Phases in Stages



Works Order : 460411744
 EM Number : 35169
 Engineer : Stuart Mulliner
 In section : A5 / A5025 - Valley Cross Roads Holyhead Anglesey

Stages in Streams

Stream Data	0	1	2	3	4	5	6	7
Phase or Stage to revert to in absence of demands/extensions	<input type="checkbox"/>	<input type="checkbox" value="4"/>						
Startup Stage	<input type="checkbox" value="1"/>	<input type="checkbox" value="4"/>						
Part-Time switch off stage								
Standalone Pedestrian	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

NB : For a Stand-Along Stream, the reversion must be to All Red stage or Traffic stage/phase to meet the relevant standard or specification.

Stages

	0	1	2	3	4	5
In Stream	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Works Order : 460411744
 EM Number : 35169
 Engineer : Stuart Mulliner
 In. Section : A5 / A5025 - Valley Cross Roads Holyhead Anglesey

Phase Type and Conditions

Phase Type and Conditions

Phases A to P

Phase	Title	Type	App. Type	Term. Type	Assoc. Phase
A	A5 Southbound	0 - UK Traffic	0	0 - 1	
B	A5 Northbound	0 - UK Traffic	0	0 - 1	
C	A5025 Westbound	0 - UK Traffic	0	0 - 1	
D	A5025 Eastbound	0 - UK Traffic	0	0 - 1	
E	A5 Southbound at Puffin Crossing	0 - UK Traffic	0	0 - 1	
F	A5 Northbound at Puffin Crossing	0 - UK Traffic	0	0 - 1	
G	Pedestrians at Puffin Crossing	3 - UK Near Side Pedestrian	0	0 - 1	

1) App Types: 0 = Always Appears, 1 = Appears if dem'd prior to interstage, 2 = If dem'd, 3 = If dem'd before end of window time

2) Term Types: 0 = Term's at end of stage, 1 = Term's when Assoc phase gains R.O.W, 2 = Term's when Assoc phase loses R.O.W.

3) The HW Fail Flash fields are for information only on all but ST900ELV Controllers. For other controllers, physical switches or links (etc.) select which aspects flash and these need to be set up manually.

Works Order : 460411744
 EM Number : 35169
 Engineer : Stuart Mulliner
 Inf. Section : A5 / A5025 - Valley Cross Roads Holyhead Anglesey

Opposing and Conflicting Phases

Select Stream(s) To Configure

All
 0
 1

Initialise

Amber Conflict Monitoring

To Phase

		A	B	C	D	E	F	G
From Phase	A		o	Co	Co			
	B	o		Co	Co			
	C	Co	Co		o			
	D	Co	Co	o				
	E						o	Co
	F					o		Co
	G					Co	Co	

Works Order : 460411744
 EM Number : 35169
 Engineer : Stuart Mulliner
 Inf. Section : A5 / A5025 - Valley Cross Roads Holyhead Anglesey

Phase Minimums, Maximums, Extensions, Ped. Leaving periods

Phase Minimums, Maximums, Extensions, Ped. Leaving periods

Phases A to P

Phase	Min Green	Min Ped Clr	Extensions	Maximums								Pre-timed
				A	B	C	D	E	F	G	H	
A	7	0	0.0	40	40	55	28	40	40	55	28	<input type="checkbox"/>
B	7	0	0.0	40	40	55	28	40	40	55	28	<input type="checkbox"/>
C	7	0	0.0	25	20	20	20	25	20	20	20	<input type="checkbox"/>
D	7	0	0.0	25	20	20	20	25	20	20	20	<input type="checkbox"/>
E	7	0	0.0	0	0	0	0	0	0	0	0	<input type="checkbox"/>
F	7	0	0.0	0	0	0	0	0	0	0	0	<input type="checkbox"/>
	6	0	0.0	0	0	0	0	0	0	0	0	<input type="checkbox"/>
												<input type="checkbox"/>
												<input type="checkbox"/>
												<input type="checkbox"/>
												<input type="checkbox"/>
												<input type="checkbox"/>
												<input type="checkbox"/>
												<input type="checkbox"/>
												<input type="checkbox"/>
												<input type="checkbox"/>
												<input type="checkbox"/>
												<input type="checkbox"/>
												<input type="checkbox"/>

NB: For Standalone Streams see Help for use of Max. Sets.

Works Order : 460411744
 EM Number : 35169
 Engineer : Stuart Mulliner
 Intersection : A5 / A5025 - Valley Cross Roads Holyhead Anglesey

Phase Intergreen Times

Select Stream(s) To Configure

All
 0
 1

NB: On a Stand Alone Pelican/Toucan/Puffin Stream the Intergreens between Pedestrian and Traffic Phases are controlled by the timings (PBT, PIT, CMX, CDY, CRD and PAR), therefore 0 should be entered for the appropriate intergreen times in grid below

		To Phase						
		A	B	C	D	E	F	G
From Phase	A			6	6			
	B			6	6			
	C	6	6					
	D	6	6					
	E							0
	F							0
	G					0	0	

Works Order : 460411744
EM Number : 35169
Engineer : Stuart Mulliner
In. section : A5 / A5025 - Valley Cross Roads Holyhead Anglesey

Handset Intergreen Limits

HIGH

To Phase

	A	B	C	D	E	F	G
A			6	6			
B			6	6			
C	6	6					
D	6	6					
E							
F							
G							

From Phase

Works Order : 460411744
 EM Number : 35169
 Engineer : Stuart Mulliner
 Intersection : A5 / A5025 - Valley Cross Roads Holyhead Anglesey

Phase Timing Handset Ranges

Phase Timing Handset Ranges

Initialise Min Green Limits

Phase	Min. Green		Phase	Min. Green		
	Min.	Max.		Min.	Max.	
A	7	20	Q			Max. Green Min. <input style="width: 40px;" type="text" value="0"/> Max. <input style="width: 40px;" type="text" value="255"/>
B	7	20	R			Vehicle Extension Min. <input style="width: 40px;" type="text" value="0.0"/> Max. <input style="width: 40px;" type="text" value="10.0"/>
C	7	20	S			Phase Delay Min. <input style="width: 40px;" type="text" value="0"/> Max. <input style="width: 40px;" type="text" value="30"/>
D	7	20	T			Starting I/G Min. <input style="width: 40px;" type="text" value="7"/> Max. <input style="width: 40px;" type="text" value="15"/>
E	7	20	U			Min Ped Clr (PBT) Min. <input style="width: 40px;" type="text" value="1"/> Max. <input style="width: 40px;" type="text" value="5"/>
F	7	20	V			Traffic Phase Leaving Min. <input style="width: 40px;" type="text" value="3.0"/> Max. <input style="width: 40px;" type="text" value="3.0"/>
G	5	20	W			Traffic Phase Red/Amber Min. <input style="width: 40px;" type="text" value="2"/> Max. <input style="width: 40px;" type="text" value="2"/>
H			X			
I			Y			
J			Z			
K			A2			
L			B2			
M			C2			
N			D2			
O			E2			
P			F2			

Works Order : 460411744
 EM Number : 35169
 Engineer : Stuart Mulliner
 In. Section : A5 / A5025 - Valley Cross Roads Holyhead Anglesey

Phase - VA Demand and Extend Definitions

VA Demand and Extend Definitions

Demands

For Unlatched demands precede the name with a #.
 Conditioning MUST be used to specify unlatched demands.

Phase	Demand 1	Demand 2	Demand 3	Demand 4
<input type="checkbox"/> A	MVDA	SLA		
<input type="checkbox"/> B	MVDB	SLB		
<input type="checkbox"/> C	MVDC	SLC		
<input type="checkbox"/> D	MVDD	SLD		
<input type="checkbox"/> E				
<input type="checkbox"/> F				
<input type="checkbox"/> G	PEDG1	PEDG2		

Phases A to P

Extensions

MVDA	SLA		
MVDB	SLB		
MVDC	SLC		
MVDD	SLD		

Works Order : 460411744
 EM Number : 35169
 Engineer : Stuart Mulliner
 In section : A5 / A5025 - Valley Cross Roads Holyhead Anglesey

Phase Internal/Revertive Demands

Phase Internal/Revertive Demands

Start-up Vehicle Responsive Demands

A	<input checked="" type="checkbox"/>	B	<input checked="" type="checkbox"/>	C	<input checked="" type="checkbox"/>	D	<input checked="" type="checkbox"/>	E	<input checked="" type="checkbox"/>	F	<input checked="" type="checkbox"/>	G	<input checked="" type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>

Demands Inserted When Leaving Manual and Fixed Time Modes

A	<input checked="" type="checkbox"/>	B	<input checked="" type="checkbox"/>	C	<input checked="" type="checkbox"/>	D	<input checked="" type="checkbox"/>	E	<input checked="" type="checkbox"/>	F	<input checked="" type="checkbox"/>	G	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>

Unlatched Demands that Start Max Timers

A	<input checked="" type="checkbox"/>	B	<input checked="" type="checkbox"/>	C	<input checked="" type="checkbox"/>	D	<input checked="" type="checkbox"/>	E	<input checked="" type="checkbox"/>	F	<input checked="" type="checkbox"/>	G	<input checked="" type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>
	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>

Revertive Phase Demands

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
<input type="text" value="A"/>	<input type="text" value="B"/>	<input type="text" value="C"/>	<input type="text" value="D"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>									
Q	R	S	T	U	V	W	X	Y	Z	A2	B2	C2	D2	E2	F2

Works Order : 460411744
EM Number : 35169
Engineer : Stuart Mulliner
In. Section : A5 / A5025 - Valley Cross Roads Holyhead Anglesey

Phase - OnCrossing and Kerbside Detector Definitions

On Crossing and Kerbside Input Definitions

Phases A to P

Phase	On Crossing				Kerbside			
A								
B								
C								
D								
E								
F								
G	ONXG1	ONXG2			KSDG1	KSDG2		

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Stream - Pelican/Puffin/Toucan Times

Stream - Pelican/Puffin/Toucan Times										
Pedestrian Enable VA Mode (PEV)										
0	1	2	3	4	5	6	7			
<input type="text" value="2-Forced"/>										
Pedestrian All Red Times (Vehicle to Pedestrian)										
Streams	0	1	2	3	4	5	6	7	Handset Range Limits	
									Min	Max
(PAR n 0) VA Gap Change		<input type="text" value="1"/>								
(PAR n 1) VA Max Change		<input type="text" value="3"/>								
(PAR n 2) FVP Change		<input type="text" value="3"/>							<input type="text" value="1"/>	<input type="text" value="3"/>
(PAR n 3) UTC Change		<input type="text" value="3"/>								
(PAR n 4) Local Link Change		<input type="text" value="3"/>								
Pelican Intergreen times										
(PIT n 0) Veh Red/Ped Flash Green		<input type="text" value="0"/>							<input type="text" value="0"/>	<input type="text" value="0"/>
(PIT n 1) Veh Flash Amber/Ped Flash Green		<input type="text" value="0"/>							<input type="text" value="0"/>	<input type="text" value="0"/>
(PIT n 2) Veh Flash Amber/Ped red		<input type="text" value="0"/>							<input type="text" value="0"/>	<input type="text" value="0"/>
(PIT n 3) Veh Flash Amber/Ped Red Quiescent		<input type="text" value="0"/>							<input type="text" value="0"/>	<input type="text" value="0"/>

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Phase - Pelican Puffin and Toucan Times

Phase - Pelican Puffin and Toucan Times							
Phase	PDD Ped Dem Del	PDX Demand Hold	CMX Ped Clearance Maximum	CDY 0 Clearance Delay Gap Chng	CDY 1 Clearance Delay Max Chng	CRD Clearance Minimum Red	<input checked="" type="radio"/> Phases A to P <input type="radio"/>
A	0	0.0	0	0	0	0	
B	0	0.0	0	0	0	0	<input type="checkbox"/>
C	0	0.0	0	0	0	0	
D	0	0.0	0	0	0	0	<input type="checkbox"/>
E	0	0.0	0	0	0	0	
F	0	0.0	0	0	0	0	
G	1	2.0	12	1	3	0	

Handset Range Limits		
	MIN	MAX
Pedestrian Demand delay PDD	0	3
Pedestrian Demand Hold PDX	0.0	5.0
Pedestrian Clearance CMX	0	15
Pedestrian Clearance Delays CDY 0 and CDY1	0	3
Pedestrian Clearance Delay (Red) CRI	0	0

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IO and Link - Pelican/Puffin/Toucan Times

I/O and Link - Pelican/Puffin/Toucan Times								
Streams	0	1	2	3	4	5	6	7
Computer Control								
PV		<input type="text"/>						
Window Time UIE		<input type="text" value="0"/>						
Local Link								
PV1		<input type="text"/>						
Link Delay Time LKD		<input type="text" value="0"/>						
Link Window Time LKW		<input type="text" value="0"/>						
Link Override Time LKO		<input type="text" value="0"/>						
Kerbside Mat Test Output		<input type="text"/>						

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Pelican, Puffin, Toucan Pushbutton/Kerbside Associations

Pelican, Puffin, Toucan Pushbutton and Kerbside Detector Pair Association

Phase	Demand	KBS	Phase	Demand	KBS	Phase	Demand	KBS	Phase	Demand	KBS
0	G	PEDG1	KSDG1	16			32		48		
1	G	PEDG2	KSDG2	17			33		49		
2				18			34		50		
3				19			35		51		
4				20			36		52		
5				21			37		53		
6				22			38		54		
7				23			39		55		
8				24			40		56		
9				25			41		57		
10				26			42		58		
11				27			43		59		
12				28			44		60		
13				29			45		61		
14				30			46		62		
15				31			47		63		

Note: Any association pushed off the screen will have any previous association blanked

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Stage Internal Demands / Ped. Window Times

Stage Internal Demands / Ped. Window Times

Start-up Vehicle Responsive Demands

0	<input type="checkbox"/>	1	<input type="checkbox"/>	2	<input type="checkbox"/>	3	<input type="checkbox"/>	4	<input type="checkbox"/>	5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>

Demands Inserted When Leaving Manual and Fixed Time Modes

0	<input type="checkbox"/>	1	<input type="checkbox"/>	2	<input type="checkbox"/>	3	<input type="checkbox"/>	4	<input type="checkbox"/>	5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>

Unlatched Demands that Start Maximum Timers

0	<input checked="" type="checkbox"/>	1	<input checked="" type="checkbox"/>	2	<input checked="" type="checkbox"/>	3	<input checked="" type="checkbox"/>	4	<input checked="" type="checkbox"/>	5	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>

Window Times

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text" value="0"/>										
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31

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Fixed Time

Fixed Time

Stage Moves & Times (Not Fixed Time to Current Max)

Current Stage	0	1	2	3	4	5	6	7
Next Stage								
Time								
Current Stage	8	9	10	11	12	13	14	15
Next Stage								
Time								
Current Stage	16	17	18	19	20	21	22	23
Next Stage								
Time								
Current Stage	24	25	26	27	28	29	30	31
Next Stage								
Time								

Phases Demanded and Extended under Fixed Time to Current Max.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Demand	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Extend	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Q	R	S	T	U	V	W	X	Y	Z	A2	B2	C2	D2	E2	F2
Demand	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Extend	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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CLF - Base Time

CLF - Base Time					
Controller Base Date		<input type="text" value="XX/XX/XX"/>			
Controller Base Time		<input type="text" value="02:00:00"/>			
Plan Offset					
	Minutes	Seconds		Minutes	Seconds
Plan 0	<input type="text" value="0"/>	<input type="text" value="0"/>	Plan 8	<input type="text" value="0"/>	<input type="text" value="0"/>
Plan 1	<input type="text" value="0"/>	<input type="text" value="0"/>	Plan 9	<input type="text" value="0"/>	<input type="text" value="0"/>
Plan 2	<input type="text" value="0"/>	<input type="text" value="0"/>	Plan 10	<input type="text" value="0"/>	<input type="text" value="0"/>
Plan 3	<input type="text" value="0"/>	<input type="text" value="0"/>	Plan 11	<input type="text" value="0"/>	<input type="text" value="0"/>
Plan 4	<input type="text" value="0"/>	<input type="text" value="0"/>	Plan 12	<input type="text" value="0"/>	<input type="text" value="0"/>
Plan 5	<input type="text" value="0"/>	<input type="text" value="0"/>	Plan 13	<input type="text" value="0"/>	<input type="text" value="0"/>
Plan 6	<input type="text" value="0"/>	<input type="text" value="0"/>	Plan 14	<input type="text" value="0"/>	<input type="text" value="0"/>
Plan 7	<input type="text" value="0"/>	<input type="text" value="0"/>	Plan 15	<input type="text" value="0"/>	<input type="text" value="0"/>
Handset Range Limits					
	Minutes	Seconds			
Min	<input type="text" value="0"/>	<input type="text" value="0"/>			
Max	<input type="text" value="4"/>	<input type="text" value="59"/>			

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MTC - Time Switch Parameters

MTC - Time Switch Parameters

	Type	Event		Type	Event
0	Alternate Max	MAXSETB	16	No Action	
1	Alternate Max	MAXSETC	17	No Action	
2	Alternate Max	MAXSETD	18	No Action	
3	Alternate Max	MAXSETE	19	No Action	
4	Alternate Max	MAXSETF	20	No Action	
5	Alternate Max	MAXSETG	21	No Action	
6	Alternate Max	MAXSETH	22	No Action	
7	Alternate DFM	ALTDFMB	23	No Action	
8	Alternate DFM	ALTDFMC	24	No Action	
9	Alternate DFM	ALTDFMD	25	No Action	
10	Conditioning	MTCF0	26	No Action	
11	No Action		27	No Action	
12	No Action		28	No Action	
13	No Action		29	No Action	
14	No Action		30	No Action	
15	No Action		31	No Action	

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Master Time Clock - Day Type

Master Time Clock - Day Type							
No.	Mon	Tue	Wed	Thu	Fri	Sat	Sun
0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
8	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
9	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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Master Time Clock - Time Table

Master Time Clock - Time Table					
View Time Table settings					
<input checked="" type="radio"/> 0-15 <input type="radio"/> 16-31 <input type="radio"/> 32-47 <input type="radio"/> 48-63					
Number	Day Type	Time	Introduce Function Required	Function Number	Plan/Parameter
0	9	08:00:00	Maxset B and DFM set B	2	1
1	9	09:30:00	Maxset A and DFM set A	2	0
2	9	16:00:00	Maxset C and DFM set C	2	2
3	9	18:00:00	Maxset A and DFM set A	2	0
4	7	21:00:00	Maxset D and DFM set D	2	3
5	0	08:00:00	Maxset A and Dfm set A	2	0
6	1	10:00:00	Maxset A and Dfm set A	2	0
7	0			0	0
8	0			0	0
9	0			0	0
10	0			0	0
11	0			0	0
12	0			0	0
13	0			0	0
14	0			0	0
15	0			0	0

Function Numbers:

0 = Isolate From CLF

1 = Introduce a CLF Plan

2 = Introduce a Parameter
(Combination of event switches)

3 = Selects an Individual
event switch to be set

4 = Selects an Individual
event switch to be
cleared.

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Master Time Clock - Time Table

Master Time Clock - Time Table					
View Time Table settings					
<input type="radio"/> 0-15 <input checked="" type="radio"/> 16-31 <input type="radio"/> 32-47 <input type="radio"/> 48-63					
Number	Day Type	Time	Introduce Function Required	Function Number	Plan/Parameter
16	7	07:30:00	Audibles Enabled	4	10
17	7	23:00:00	Audibles Disabled	3	10
18	0			0	0
19	0			0	0
20	0			0	0
21	0			0	0
22	0			0	0
23	0			0	0
24	0			0	0
25	0			0	0
26	0			0	0
27	0			0	0
28	0			0	0
29	0			0	0
30	0			0	0
31	0			0	0

Function Numbers:

- 0 = Isolate From CLF
- 1 = Introduce a CLF Plan
- 2 = Introduce a Parameter
(Combination of event switches)
- 3 = Selects an Individual event switch to be set
- 4 = Selects an Individual event switch to be cleared.

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LMU - General

LMU - General

Lamp Monitoring - LMU Voltage

- 200-240
 50-0-50, 100-120 230 CLS

Red Lamp Monitoring

Max Red Bulb Wattage

First Red Lamp Fault Speed

RLF2 Cancels RLM additional Intergreens

RLF2 Only Cleared by RFL = 1

RLF1 Only Cleared by RFL = 1

RLM Additional Intergreen Handset Limits

Minimum

Maximum

Streams with Phase BlackOut on RLF2

- 0 1

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LMU - Sensors

LMU - Sensors

On-Board Sensors				On-Board Sensors				External Sensors			
Sensor Phase	Sensor Type	Bulb Watts	NLM CLS	Sensor Phase	Sensor Type	Bulb Watts	NLM CLS	Sensor Pin	Drive	Sensor Type	Bulb Watts
1 \ A	As Seq.	40	<input type="checkbox"/>	17 \ Q			<input type="checkbox"/>	33 \ b14		Reg. Sign	7
2 \ B	As Seq.	40	<input type="checkbox"/>	18 \ R			<input type="checkbox"/>	34 \ z16		Reg. Sign	7
3 \ C	As Seq.	40	<input type="checkbox"/>	19 \ S			<input type="checkbox"/>	35 \ z14		Reg. Sign	7
4 \ D	As Seq.	40	<input type="checkbox"/>	20 \ T			<input type="checkbox"/>	36 \ z12		Reg. Sign	7
5 \ E	As Seq.	40	<input type="checkbox"/>	21 \ U			<input type="checkbox"/>	37 \ b14			
6 \ F	As Seq.	40	<input type="checkbox"/>	22 \ V			<input type="checkbox"/>	38 \ z16			
7 \ G	None	40	<input type="checkbox"/>	23 \ W			<input type="checkbox"/>	39 \ z14			
8 \ H	None	40	<input type="checkbox"/>	24 \ X			<input type="checkbox"/>	40 \ z12			
9 \ I			<input type="checkbox"/>	25 \ Y			<input type="checkbox"/>	41 \ b14			
10 \ J			<input type="checkbox"/>	26 \ Z			<input type="checkbox"/>	42 \ z16			
11 \ K			<input type="checkbox"/>	27 \ A2			<input type="checkbox"/>	43 \ z14			
12 \ L			<input type="checkbox"/>	28 \ B2			<input type="checkbox"/>	44 \ z12			
13 \ M			<input type="checkbox"/>	29 \ C2			<input type="checkbox"/>	45 \ b14			
14 \ N			<input type="checkbox"/>	30 \ D2			<input type="checkbox"/>	46 \ z16			
15 \ O			<input type="checkbox"/>	31 \ E2			<input type="checkbox"/>	47 \ z14			
16 \ P			<input type="checkbox"/>	32 \ F2			<input type="checkbox"/>	48 \ z12			

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RLM Additional Intergreens

Phases Delayed

	A	B	C	D	E	F	G
A	■						
B		■					
C			■				
D				■			
E					■		
F						■	
G							■

Phases with RLF1

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RLM Phase Inhibits

Phases Inhibited/Blacked-out

	A	B	C	D	E	F	G
A							
B							
C							
D							
E					■	■	■
F					■	■	■
G							

Works Order : 460411744
 EM Number : 35169
 Engineer : Stuart Mulliner
 Ir section : A5 / A5025 - Valley Cross Roads Holyhead Anglesey

Manual Panel

Manual Panel

Stage Buttons and LEDs

Button No.	Title	Called Stage for Stream							
		0	1	2	3	4	5	6	7
0	All Red	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	A5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	A5025	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

General LEDs

	AUX 1	AUX 2	AUX 3	AUX 4 (Hurry Call)	AUX 5 (Higher Priority)
Conditioned	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Manual Mode Enable

- Always
- When Handset Plugged in (Note 1)
- When 'MND' Command Entered

Note 1:
For this to operate
Special Conditioning
is required.

General Buttons

	None	SW1	SW2	SW3
Momentary	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Dim Override	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
RR	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Manual Signals On

- Immediate Signals On
- As Start-Up

Mode Select Switches Disabled

VA Fixed Time CLF

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Special Conditioning

```
; T900 SPECIAL FACILITIES
; -----
DOORSW: :=MNCNT                ; DOOR CLOSED DISABLES MANUAL CONTROL
          :=MSCNT                ; DOOR SWITCH ALSO SENT ALONG SERIAL LINK
          :=ESPTX0              ; MAXSET INFORMATION ALSO SENT ALONG SERIAL LINK
MAXSETB+MAXSETF=ESPTX1
MAXSETC+MAXSETG=ESPTX2
MAXSETD+MAXSETH=ESPTX3
TRUE=ESPTX4                    ; FLAG TO DETECT SERIAL LINK DISCONNECTION

; INTERSTREAM LINKING
; -----
(NOT CNDTMA1).CNDTMA2=PRVST5    ; PREVENT STAGE 5 UNLESS INHIBIT RELEASE TIMER
                                ; IS ACTIVE OR OVERRIDE HAS EXPIRED
IFT (MODE0 EQL <8>)+CNDTMA1 THN ; RESET INHIBIT OVERRIDE DURING START UP MODE
RUN <2>                          ; OR WHEN INHIBIT RELEASE TIMER IS ACTIVE
END
IFT (NOT CNDTMA0).SCRT0 THN     ; START INHIBIT RELEASE TIMER WHEN INHIBIT RELEASE
RUN <1>                          ; DELAY TIMER HAS EXPIRED
  FALSE=.SCRT0
  .ND
IFT TERMA.(NOT SCRT0) THN       ; START INHIBIT RELEASE DELAY TIMER WHEN PHASE A
RUN <0>                          ; LOSES GREEN
TRUE=+SCRT0
END
(LCPHG+UCPHG+UNLPUFG).PRSIMPRG=+UCST2 ; A DEMAND FOR PHASE G WHEN PHASE G RED IS LIT
UCST2.(NOT STAG1)=+UCST1       ; WILL DEMAND STAGES 1 _2 TO ENSURE INHIBIT
                                ; WILL RELEASE

; TIMESWITCHED AUDIBLES
; -----
PHASEE.PHASEF.(NOT MTCF0)=+AUDLQ1 ; AUDIBLE TIME SWITCH CAN ONLY CHANGE STATE WHEN
NOT (PHASEE.PHASEF.MTCF0)=.AUDLQ1 ; PUFFIN IS SHOWING GREEN TO VEHICLES
```

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Special Conditioning Timers

Special Conditioning Timers

Timers

0-31
 32-63
 64-95

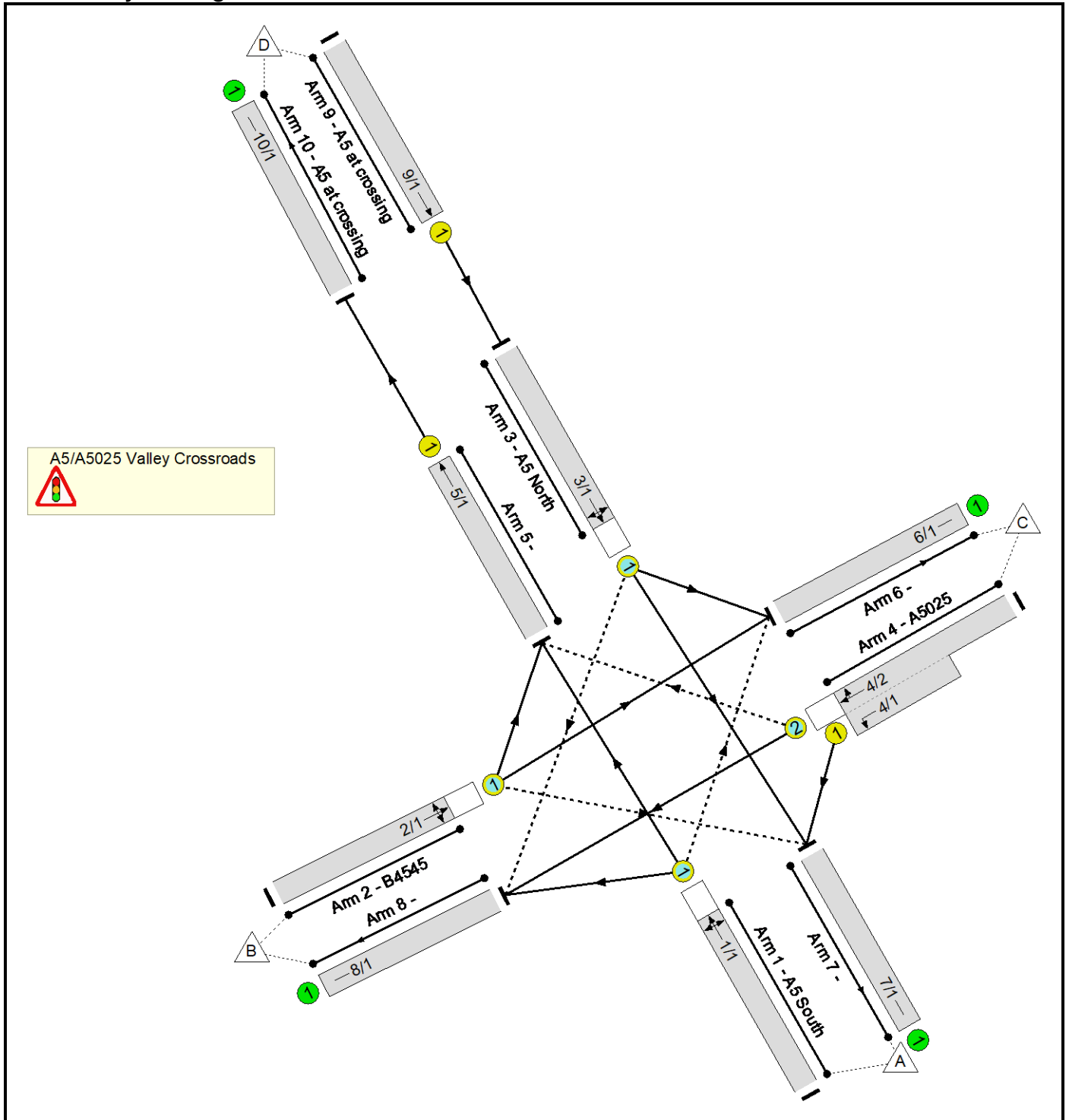
No	Value	Min	Max	200ms	Description	No	Value	Min	Max	200ms	Description
0	5	0	255	<input type="checkbox"/>	Inhibit Release Delay	16		0	255	<input type="checkbox"/>	
1	2	1	255	<input type="checkbox"/>	Inhibit Release Window	17		0	255	<input type="checkbox"/>	
2	100	0	255	<input type="checkbox"/>	Inhibit Override	18		0	255	<input type="checkbox"/>	
3		0	255	<input type="checkbox"/>		19		0	255	<input type="checkbox"/>	
4		0	255	<input type="checkbox"/>		20		0	255	<input type="checkbox"/>	
5		0	255	<input type="checkbox"/>		21		0	255	<input type="checkbox"/>	
6		0	255	<input type="checkbox"/>		22		0	255	<input type="checkbox"/>	
7		0	255	<input type="checkbox"/>		23		0	255	<input type="checkbox"/>	
8		0	255	<input type="checkbox"/>		24		0	255	<input type="checkbox"/>	
9		0	255	<input type="checkbox"/>		25		0	255	<input type="checkbox"/>	
10		0	255	<input type="checkbox"/>		26		0	255	<input type="checkbox"/>	
11		0	255	<input type="checkbox"/>		27		0	255	<input type="checkbox"/>	
12		0	255	<input type="checkbox"/>		28		0	255	<input type="checkbox"/>	
13		0	255	<input type="checkbox"/>		29		0	255	<input type="checkbox"/>	
14		0	255	<input type="checkbox"/>		30		0	255	<input type="checkbox"/>	
15		0	255	<input type="checkbox"/>		31		0	255	<input type="checkbox"/>	

Full Input Data And Results

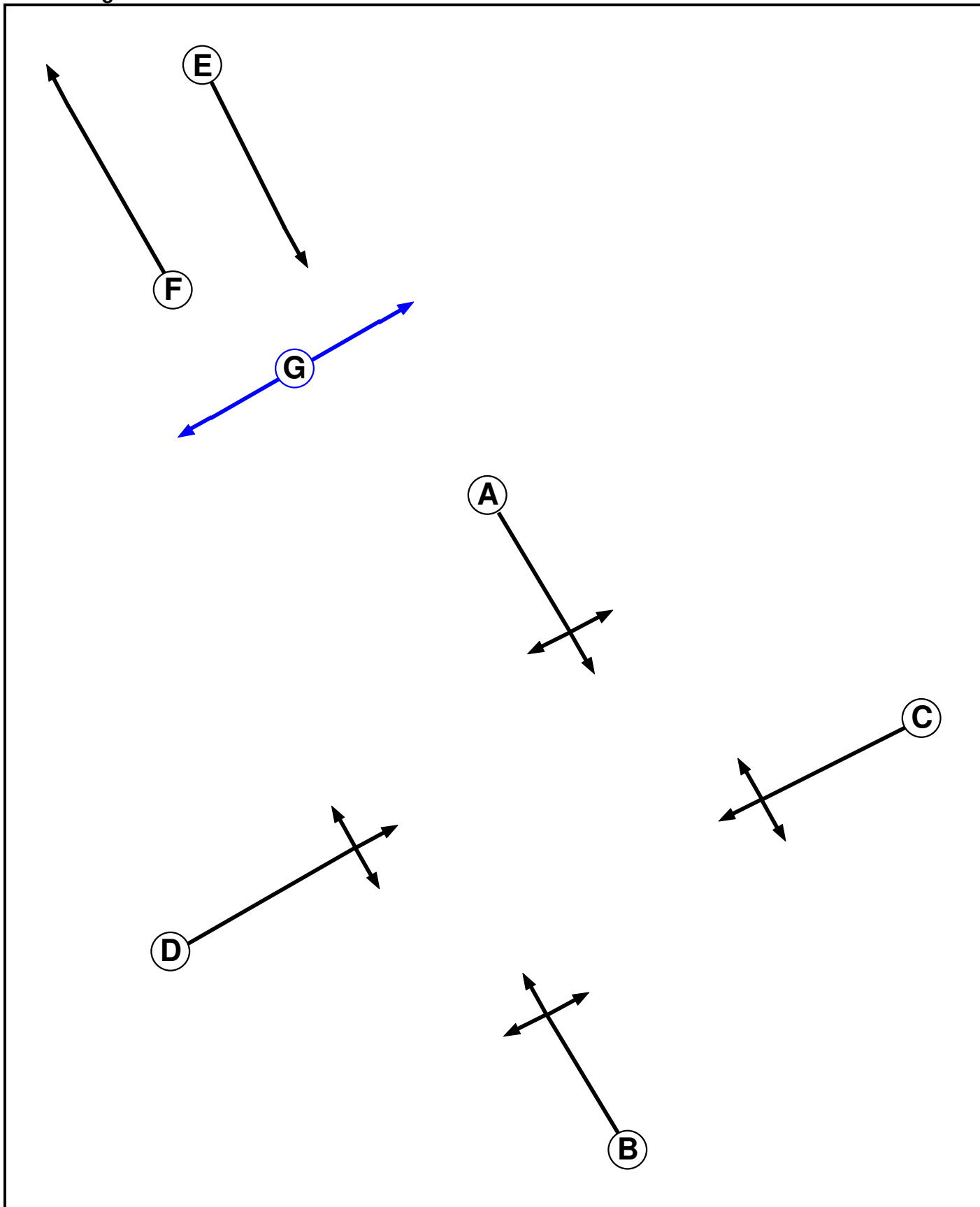
User and Project Details

Project:	ADC3377 Anglesey Freeport
Title:	A5/A5025 Valley Crossroads
Location:	Holyhead
Client:	Prosperity Parc
Site Ref(s):	A5/A5025 Valley Crossroads
Additional detail:	
File name:	A5-A5025 Valley Crossroads.lsg3x
Author:	
Company:	
Address:	

Network Layout Diagram



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	1		7	7
D	Traffic	1		7	7
E	Traffic	2		7	7
F	Traffic	2		7	7
G	Pedestrian	2		6	6

Phase Intergreens Matrix

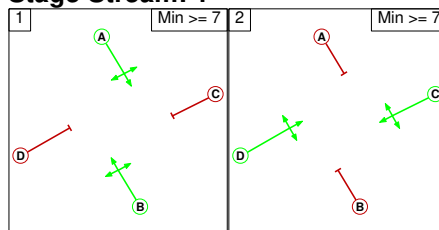
	Starting Phase						
	A	B	C	D	E	F	G
Terminating Phase	A	-	6	6	-	-	-
B	-	-	6	6	-	-	-
C	6	6	-	-	-	-	-
D	6	6	-	-	-	-	-
E	-	-	-	-	-	-	5
F	-	-	-	-	-	-	5
G	-	-	-	-	8	8	-

Phases in Stage

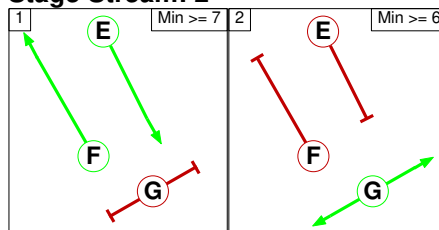
Stream	Stage No.	Phases in Stage
1	1	A B
1	2	C D
2	1	E F
2	2	G

Stage Diagram

Stage Stream: 1



Stage Stream: 2



Full Input Data And Results

Phase Delays

Stage Stream: 1

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

Stage Stream: 2

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

Prohibited Stage Change

Stage Stream: 1

	To Stage	
From Stage	1	2
	1	6
	2	6

Stage Stream: 2

	To Stage	
From Stage	1	2
	1	5
	2	8

Full Input Data And Results

Give-Way Lane Input Data

Junction: A5/A5025 Valley Crossroads											
Lane	Movement	Max Flow when Giving Way (PCU/Hr)	Min Flow when Giving Way (PCU/Hr)	Opposing Lane	Opp. Lane Coeff.	Opp. Mvmnts.	Right Turn Storage (PCU)	Non-Blocking Storage (PCU)	RTF	Right Turn Move up (s)	Max Turns in Intergreen (PCU)
1/1 (A5 South)	6/1 (Right)	1439	0	3/1	1.09	To 6/1 (Left) To 7/1 (Ahead)	2.00	-	0.50	2	2.00
2/1 (B4545)	7/1 (Right)	1439	0	4/1	1.09	All	2.00	-	0.50	2	2.00
				4/2	1.09	To 8/1 (Ahead)					
3/1 (A5 North)	8/1 (Right)	1439	0	1/1	1.09	All	2.00	-	0.50	2	2.00
4/2 (A5025)	5/1 (Right)	1439	0	2/1	1.09	To 5/1 (Left) To 6/1 (Ahead)	2.00	-	0.50	2	2.00

Full Input Data And Results

Lane Input Data

Junction: A5/A5025 Valley Crossroads												
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 (A5 South)	O	B	2	3	60.0	User	1800	-	-	-	-	-
2/1 (B4545)	O	D	2	3	60.0	User	1800	-	-	-	-	-
3/1 (A5 North)	O	A	2	3	26.1	User	1800	-	-	-	-	-
4/1 (A5025)	U	C	2	3	7.3	User	1800	-	-	-	-	-
4/2 (A5025)	O	C	2	3	60.0	User	1800	-	-	-	-	-
5/1	U	F	2	3	26.1	User	1800	-	-	-	-	-
6/1	U		2	3	60.0	Inf	-	-	-	-	-	-
7/1	U		2	3	60.0	Inf	-	-	-	-	-	-
8/1	U		2	3	60.0	Inf	-	-	-	-	-	-
9/1 (A5 at crossing)	U	E	2	3	60.0	User	1800	-	-	-	-	-
10/1 (A5 at crossing)	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2024 Observed AM Peak'	08:15	09:15	01:00	
2: '2024 Observed PM Peak'	16:30	17:30	01:00	
3: '2026 Background AM Peak'	08:15	09:15	01:00	
4: '2026 Background PM Peak'	16:30	17:30	01:00	
5: '2026 with development AM Peak'	08:15	09:15	01:00	
6: '2026 with development PM Peak'	16:30	17:30	01:00	
7: '2031 Background AM Peak'	08:15	09:15	01:00	
8: '2031 Background PM Peak'	16:30	17:30	01:00	
9: '2031 with development AM Peak'	08:15	09:15	01:00	
10: '2031 with development PM Peak'	16:30	17:30	01:00	

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

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	84	109	61	254
	B	123	0	36	16	175
	C	128	26	0	56	210
	D	116	41	118	0	275
	Tot.	367	151	263	133	914

Traffic Lane Flows

Lane	Scenario 1: 2024 Observed AM Peak
Junction: A5/A5025 Valley Crossroads	
1/1	254
2/1	175
3/1	275
4/1 (short)	128
4/2 (with short)	210(In) 82(Out)
5/1	133
6/1	263
7/1	367
8/1	151
9/1	275
10/1	133

Full Input Data And Results

Lane Saturation Flows

Junction: A5/A5025 Valley Crossroads								
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 (A5 South Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
2/1 (B4545 Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (A5 North Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
4/1 (A5025 Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
4/2 (A5025 Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
5/1	This lane uses a directly entered Saturation Flow						1800	1800
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf
9/1 (A5 at crossing Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
10/1 (A5 at crossing Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 2: '2026 Background AM Peak' (FG3: '2026 Background AM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
	A	B	C	D	Tot.	
Origin	A	0	85	166	62	313
	B	125	0	94	16	235
	C	186	30	0	61	277
	D	118	42	185	0	345
	Tot.	429	157	445	139	1170

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 2: 2026 Background AM Peak
Junction: A5/A5025 Valley Crossroads	
1/1	313
2/1	235
3/1	345
4/1 (short)	186
4/2 (with short)	277(In) 91(Out)
5/1	139
6/1	445
7/1	429
8/1	157
9/1	345
10/1	139

Lane Saturation Flows

Junction: A5/A5025 Valley Crossroads								
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 (A5 South Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
2/1 (B4545 Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (A5 North Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
4/1 (A5025 Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
4/2 (A5025 Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
5/1	This lane uses a directly entered Saturation Flow						1800	1800
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf
9/1 (A5 at crossing Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
10/1 (A5 at crossing Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 3: '2026 with development AM Peak' (FG5: '2026 with development AM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
	A	B	C	D	Tot.	
Origin	0	85	243	62	390	
B	125	0	94	16	235	
C	201	30	0	67	298	
D	118	42	215	0	375	
Tot.	444	157	552	145	1298	

Traffic Lane Flows

Lane	Scenario 3: 2026 with development AM Peak
Junction: A5/A5025 Valley Crossroads	
1/1	390
2/1	235
3/1	375
4/1 (short)	201
4/2 (with short)	298(In) 97(Out)
5/1	145
6/1	552
7/1	444
8/1	157
9/1	375
10/1	145

Full Input Data And Results

Lane Saturation Flows

Junction: A5/A5025 Valley Crossroads								
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 (A5 South Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
2/1 (B4545 Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (A5 North Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
4/1 (A5025 Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
4/2 (A5025 Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
5/1	This lane uses a directly entered Saturation Flow						1800	1800
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf
9/1 (A5 at crossing Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
10/1 (A5 at crossing Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 4: '2031 Background AM Peak' (FG7: '2031 Background AM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
	A	B	C	D	Tot.	
Origin	A	0	89	171	64	324
	B	131	0	96	17	244
	C	191	31	0	63	285
	D	123	43	190	0	356
	Tot.	445	163	457	144	1209

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 4: 2031 Background AM Peak
Junction: A5/A5025 Valley Crossroads	
1/1	324
2/1	244
3/1	356
4/1 (short)	191
4/2 (with short)	285(In) 94(Out)
5/1	144
6/1	457
7/1	445
8/1	163
9/1	356
10/1	144

Lane Saturation Flows

Junction: A5/A5025 Valley Crossroads								
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 (A5 South Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
2/1 (B4545 Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (A5 North Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
4/1 (A5025 Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
4/2 (A5025 Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
5/1	This lane uses a directly entered Saturation Flow						1800	1800
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf
9/1 (A5 at crossing Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
10/1 (A5 at crossing Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 5: '2031 with development AM Peak' (FG9: '2031 with development AM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
	A	B	C	D	Tot.	
Origin	A	0	89	248	64	401
	B	131	0	96	17	244
	C	206	31	0	69	306
	D	123	43	220	0	386
	Tot.	460	163	564	150	1337

Traffic Lane Flows

Lane	Scenario 5: 2031 with development AM Peak
Junction: A5/A5025 Valley Crossroads	
1/1	401
2/1	244
3/1	386
4/1 (short)	206
4/2 (with short)	306(In) 100(Out)
5/1	150
6/1	564
7/1	460
8/1	163
9/1	386
10/1	150

Full Input Data And Results

Lane Saturation Flows

Junction: A5/A5025 Valley Crossroads								
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 (A5 South Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
2/1 (B4545 Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (A5 North Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
4/1 (A5025 Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
4/2 (A5025 Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
5/1	This lane uses a directly entered Saturation Flow						1800	1800
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf
9/1 (A5 at crossing Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
10/1 (A5 at crossing Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 6: '2024 Observed PM Peak' (FG2: '2024 Observed PM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	141	151	111	403
	B	65	0	52	54	171
	C	134	51	0	133	318
	D	69	44	92	0	205
	Tot.	268	236	295	298	1097

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 6: 2024 Observed PM Peak
Junction: A5/A5025 Valley Crossroads	
1/1	403
2/1	171
3/1	205
4/1 (short)	134
4/2 (with short)	318(In) 184(Out)
5/1	298
6/1	295
7/1	268
8/1	236
9/1	205
10/1	298

Lane Saturation Flows

Junction: A5/A5025 Valley Crossroads								
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 (A5 South Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
2/1 (B4545 Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (A5 North Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
4/1 (A5025 Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
4/2 (A5025 Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
5/1	This lane uses a directly entered Saturation Flow						1800	1800
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf
9/1 (A5 at crossing Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
10/1 (A5 at crossing Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 7: '2026 Background PM Peak' (FG4: '2026 Background PM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	143	234	112	489
	B	66	0	73	55	194
	C	214	82	0	204	500
	D	70	45	119	0	234
	Tot.	350	270	426	371	1417

Traffic Lane Flows

Lane	Scenario 7: 2026 Background PM Peak
Junction: A5/A5025 Valley Crossroads	
1/1	489
2/1	194
3/1	234
4/1 (short)	214
4/2 (with short)	500(In) 286(Out)
5/1	371
6/1	426
7/1	350
8/1	270
9/1	234
10/1	371

Full Input Data And Results

Lane Saturation Flows

Junction: A5/A5025 Valley Crossroads								
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 (A5 South Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
2/1 (B4545 Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (A5 North Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
4/1 (A5025 Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
4/2 (A5025 Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
5/1	This lane uses a directly entered Saturation Flow						1800	1800
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf
9/1 (A5 at crossing Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
10/1 (A5 at crossing Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 8: '2026 with development PM Peak' (FG6: '2026 with development PM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
	A	B	C	D	Tot.	
Origin	A	0	143	245	112	500
	B	66	0	73	55	194
	C	273	82	0	227	582
	D	70	45	123	0	238
	Tot.	409	270	441	394	1514

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 8: 2026 with development PM Peak
Junction: A5/A5025 Valley Crossroads	
1/1	500
2/1	194
3/1	238
4/1 (short)	273
4/2 (with short)	582(In) 309(Out)
5/1	394
6/1	441
7/1	409
8/1	270
9/1	238
10/1	394

Lane Saturation Flows

Junction: A5/A5025 Valley Crossroads								
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 (A5 South Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
2/1 (B4545 Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (A5 North Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
4/1 (A5025 Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
4/2 (A5025 Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
5/1	This lane uses a directly entered Saturation Flow						1800	1800
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf
9/1 (A5 at crossing Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
10/1 (A5 at crossing Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 9: '2031 Background PM Peak' (FG8: '2031 Background PM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination				
		A	B	C	D	Tot.
Origin	A	0	149	241	117	507
	B	69	0	75	57	201
	C	219	84	0	210	513
	D	73	46	123	0	242
	Tot.	361	279	439	384	1463

Traffic Lane Flows

Lane	Scenario 9: 2031 Background PM Peak
Junction: A5/A5025 Valley Crossroads	
1/1	507
2/1	201
3/1	242
4/1 (short)	219
4/2 (with short)	513(In) 294(Out)
5/1	384
6/1	439
7/1	361
8/1	279
9/1	242
10/1	384

Full Input Data And Results

Lane Saturation Flows

Junction: A5/A5025 Valley Crossroads								
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 (A5 South Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
2/1 (B4545 Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (A5 North Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
4/1 (A5025 Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
4/2 (A5025 Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
5/1	This lane uses a directly entered Saturation Flow						1800	1800
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf
9/1 (A5 at crossing Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
10/1 (A5 at crossing Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 10: '2031 with development PM Peak' (FG10: '2031 with development PM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
	A	B	C	D	Tot.	
Origin	A	0	149	252	117	518
	B	69	0	75	57	201
	C	278	84	0	233	595
	D	73	46	127	0	246
	Tot.	420	279	454	407	1560

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 10: 2031 with development PM Peak
Junction: A5/A5025 Valley Crossroads	
1/1	518
2/1	201
3/1	246
4/1 (short)	278
4/2 (with short)	595(In) 317(Out)
5/1	407
6/1	454
7/1	420
8/1	279
9/1	246
10/1	407

Lane Saturation Flows

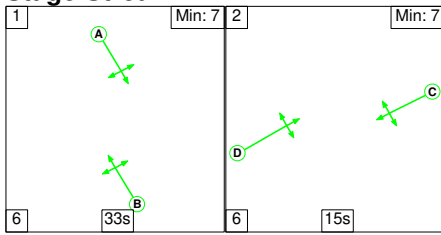
Junction: A5/A5025 Valley Crossroads								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (A5 South Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
2/1 (B4545 Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
3/1 (A5 North Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
4/1 (A5025 Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
4/2 (A5025 Lane 2)	This lane uses a directly entered Saturation Flow						1800	1800
5/1	This lane uses a directly entered Saturation Flow						1800	1800
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf
9/1 (A5 at crossing Lane 1)	This lane uses a directly entered Saturation Flow						1800	1800
10/1 (A5 at crossing Lane 1)	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

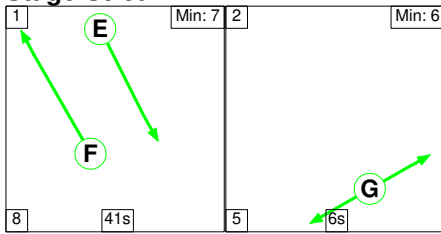
Scenario 1: '2024 Observed AM Peak' (FG1: '2024 Observed AM Peak', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

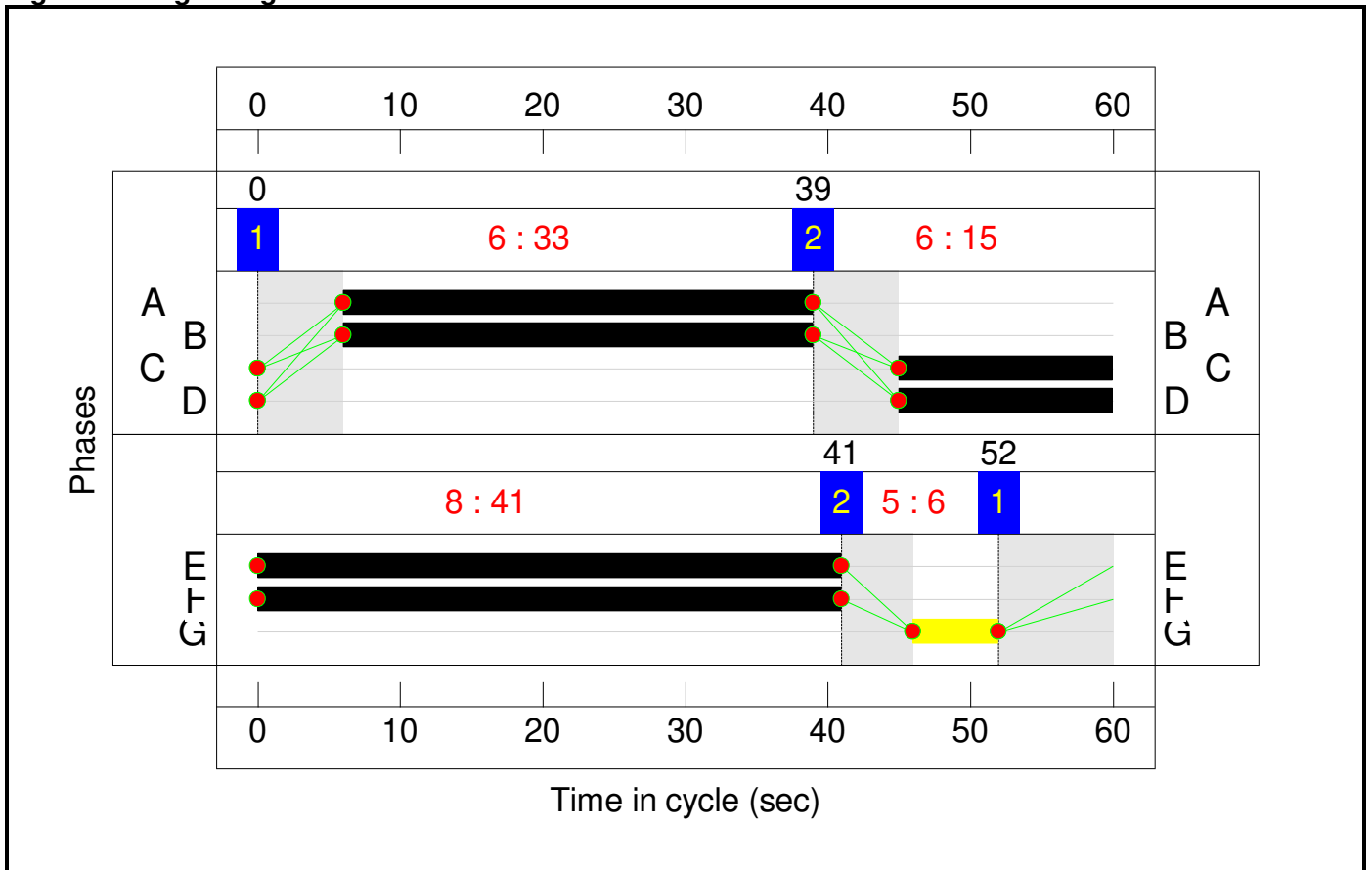
Stage Stream: 1

Stage	1	2
Duration	33	15
Change Point	0	39

Stage Stream: 2

Stage	1	2
Duration	41	6
Change Point	52	41

Signal Timings Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A5/A5025 Valley Crossroads	-	-	N/A	-	-		-	-	-	-	-	-	49.9%
A5/A5025 Valley Crossroads	-	-	N/A	-	-		-	-	-	-	-	-	49.9%
1/1	A5 South Ahead Right Left	O	1	N/A	B		1	33	-	254	1800	786	32.3%
2/1	B4545 Left Ahead Right	O	1	N/A	D		1	15	-	175	1800	351	49.9%
3/1	A5 North Left Ahead Right	O	1	N/A	A		1	33	-	275	1800	856	32.1%
4/2+4/1	A5025 Right Left Ahead	O+U	1	N/A	C		1	15	-	210	1800:1800	772	27.2%
5/1	Ahead	U	2	N/A	F		1	41	-	133	1800	1260	10.6%
6/1		U	N/A	N/A	-		-	-	-	263	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	367	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	151	Inf	Inf	0.0%
9/1	A5 at crossing Ahead	U	2	N/A	E		1	41	-	275	1800	1260	21.8%
10/1	A5 at crossing	U	N/A	N/A	-		-	-	-	133	Inf	Inf	0.0%

Full Input Data And Results

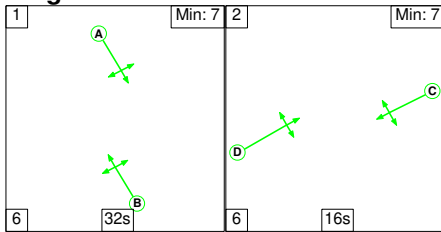
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)	
Network: A5/A5025 Valley Crossroads	-	-	318	0	11	3.0	1.4	0.2	4.5	-	-	-	-	
A5/A5025 Valley Crossroads	-	-	318	0	11	3.0	1.4	0.2	4.5	-	-	-	-	
1/1	254	254	105	0	4	0.5	0.2	0.0	0.7	10.4	2.1	0.2	2.4	
2/1	175	175	119	0	4	0.9	0.5	0.1	1.5	31.1	2.5	0.5	3.0	
3/1	275	275	40	0	1	0.4	0.2	0.0	0.6	7.8	1.1	0.2	1.3	
4/2+4/1	210	210	54	0	2	1.0	0.2	0.0	1.2	20.5	1.7	0.2	1.9	
5/1	133	133	-	-	-	0.0	0.1	-	0.1	2.8	0.4	0.1	0.4	
6/1	263	263	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
7/1	367	367	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
8/1	151	151	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
9/1	275	275	-	-	-	0.2	0.1	-	0.4	5.0	1.6	0.1	1.7	
10/1	133	133	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
			C1 Stream: 1 PRC for Signalled Lanes (%):	80.4					Total Delay for Signalled Lanes (pcuHr):	4.03				Cycle Time (s): 60
			C1 Stream: 2 PRC for Signalled Lanes (%):	312.4					Total Delay for Signalled Lanes (pcuHr):	0.49				Cycle Time (s): 60
			PRC Over All Lanes (%):	80.4					Total Delay Over All Lanes(pcuHr):	4.52				

Full Input Data And Results

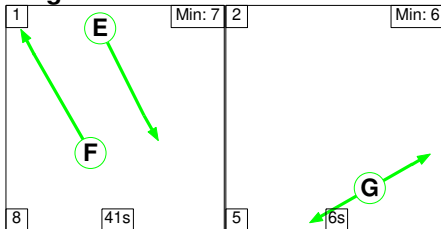
Scenario 2: '2026 Background AM Peak' (FG3: '2026 Background AM Peak', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

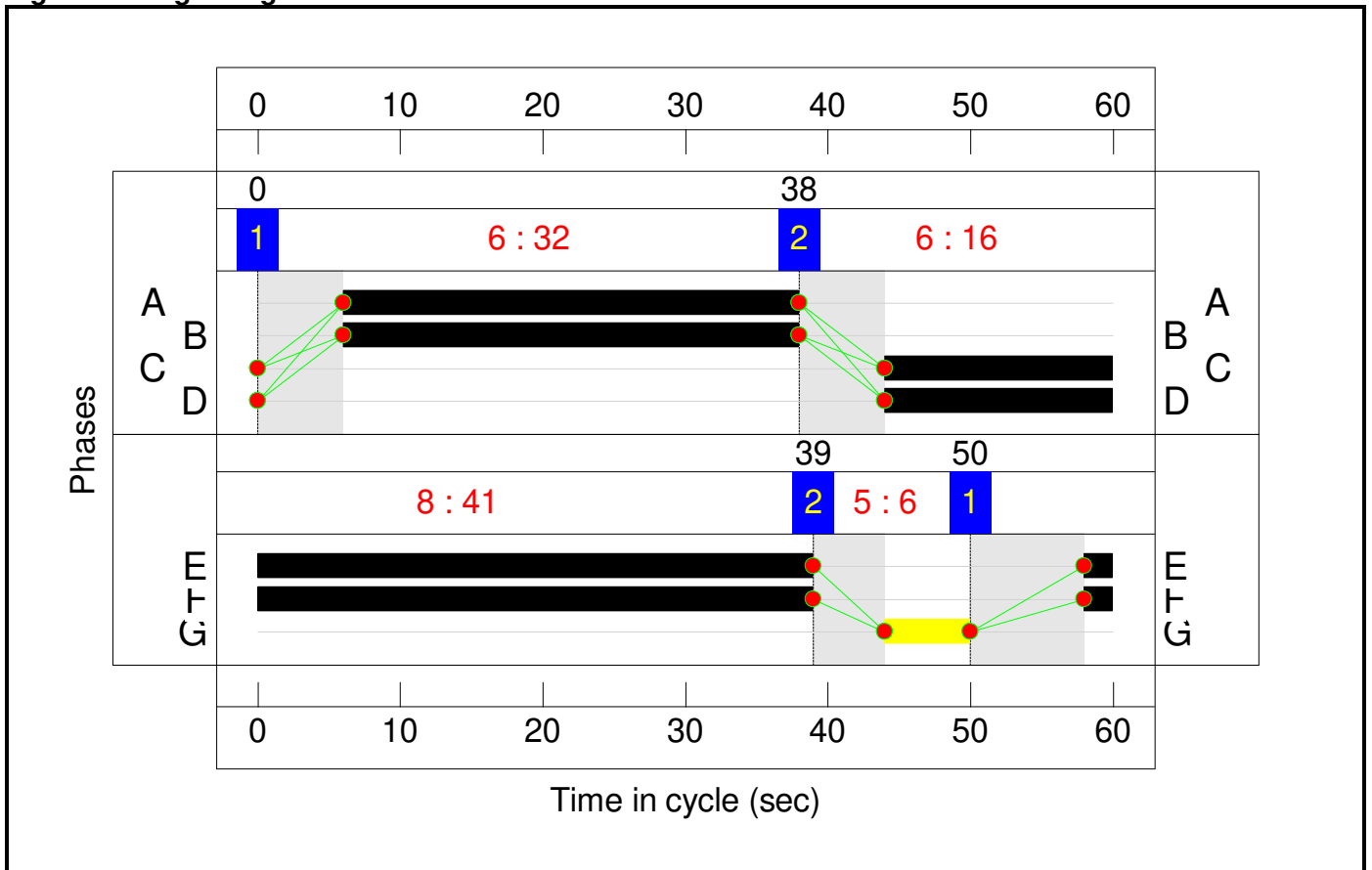
Stage Stream: 1

Stage	1	2
Duration	32	16
Change Point	0	38

Stage Stream: 2

Stage	1	2
Duration	41	6
Change Point	50	39

Signal Timings Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A5/A5025 Valley Crossroads	-	-	N/A	-	-		-	-	-	-	-	-	65.8%
A5/A5025 Valley Crossroads	-	-	N/A	-	-		-	-	-	-	-	-	65.8%
1/1	A5 South Ahead Right Left	O	1	N/A	B		1	32	-	313	1800	662	47.3%
2/1	B4545 Left Ahead Right	O	1	N/A	D		1	16	-	235	1800	357	65.8%
3/1	A5 North Left Ahead Right	O	1	N/A	A		1	32	-	345	1800	743	46.4%
4/2+4/1	A5025 Right Left Ahead	O+U	1	N/A	C		1	16	-	277	1800:1800	736	37.7%
5/1	Ahead	U	2	N/A	F		1	41	-	139	1800	1260	11.0%
6/1		U	N/A	N/A	-		-	-	-	445	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	429	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	157	Inf	Inf	0.0%
9/1	A5 at crossing Ahead	U	2	N/A	E		1	41	-	345	1800	1260	27.4%
10/1	A5 at crossing	U	N/A	N/A	-		-	-	-	139	Inf	Inf	0.0%

Full Input Data And Results

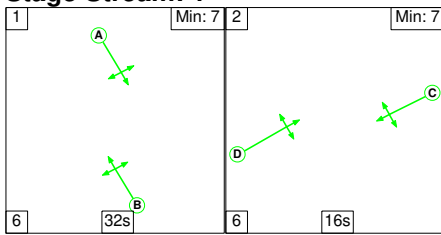
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)																								
Network: A5/A5025 Valley Crossroads	-	-	381	0	13	4.0	2.4	0.2	6.6	-	-	-	-																								
A5/A5025 Valley Crossroads	-	-	381	0	13	4.0	2.4	0.2	6.6	-	-	-	-																								
1/1	313	313	160	0	6	0.6	0.4	0.1	1.2	13.6	2.8	0.4	3.2																								
2/1	235	235	121	0	4	1.3	0.9	0.1	2.3	35.9	3.6	0.9	4.5																								
3/1	345	345	41	0	1	0.4	0.4	0.0	0.9	9.4	1.6	0.4	2.0																								
4/2+4/1	277	277	59	0	2	1.3	0.3	0.0	1.6	20.8	2.4	0.3	2.7																								
5/1	139	139	-	-	-	0.0	0.1	-	0.1	2.8	0.3	0.1	0.4																								
6/1	445	445	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																								
7/1	429	429	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																								
8/1	157	157	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																								
9/1	345	345	-	-	-	0.3	0.2	-	0.5	5.3	2.1	0.2	2.3																								
10/1	139	139	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																								
<table style="width:100%; border:none;"> <tr> <td style="width:15%;"></td> <td style="width:15%;">C1</td> <td style="width:20%;">Stream: 1 PRC for Signalled Lanes (%):</td> <td style="width:10%;">36.9</td> <td style="width:20%;">Total Delay for Signalled Lanes (pcuHr):</td> <td style="width:10%;">6.03</td> <td style="width:20%;">Cycle Time (s):</td> <td style="width:10%;">60</td> </tr> <tr> <td></td> <td>C1</td> <td>Stream: 2 PRC for Signalled Lanes (%):</td> <td>228.7</td> <td>Total Delay for Signalled Lanes (pcuHr):</td> <td>0.62</td> <td>Cycle Time (s):</td> <td>60</td> </tr> <tr> <td></td> <td></td> <td>PRC Over All Lanes (%):</td> <td>36.9</td> <td>Total Delay Over All Lanes(pcuHr):</td> <td>6.65</td> <td></td> <td></td> </tr> </table>															C1	Stream: 1 PRC for Signalled Lanes (%):	36.9	Total Delay for Signalled Lanes (pcuHr):	6.03	Cycle Time (s):	60		C1	Stream: 2 PRC for Signalled Lanes (%):	228.7	Total Delay for Signalled Lanes (pcuHr):	0.62	Cycle Time (s):	60			PRC Over All Lanes (%):	36.9	Total Delay Over All Lanes(pcuHr):	6.65		
	C1	Stream: 1 PRC for Signalled Lanes (%):	36.9	Total Delay for Signalled Lanes (pcuHr):	6.03	Cycle Time (s):	60																														
	C1	Stream: 2 PRC for Signalled Lanes (%):	228.7	Total Delay for Signalled Lanes (pcuHr):	0.62	Cycle Time (s):	60																														
		PRC Over All Lanes (%):	36.9	Total Delay Over All Lanes(pcuHr):	6.65																																

Full Input Data And Results

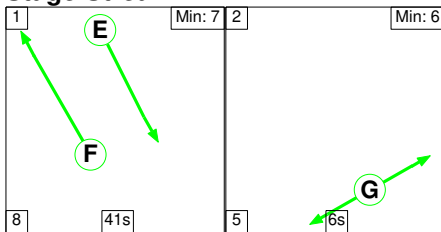
Scenario 3: '2026 with development AM Peak' (FG5: '2026 with development AM Peak', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

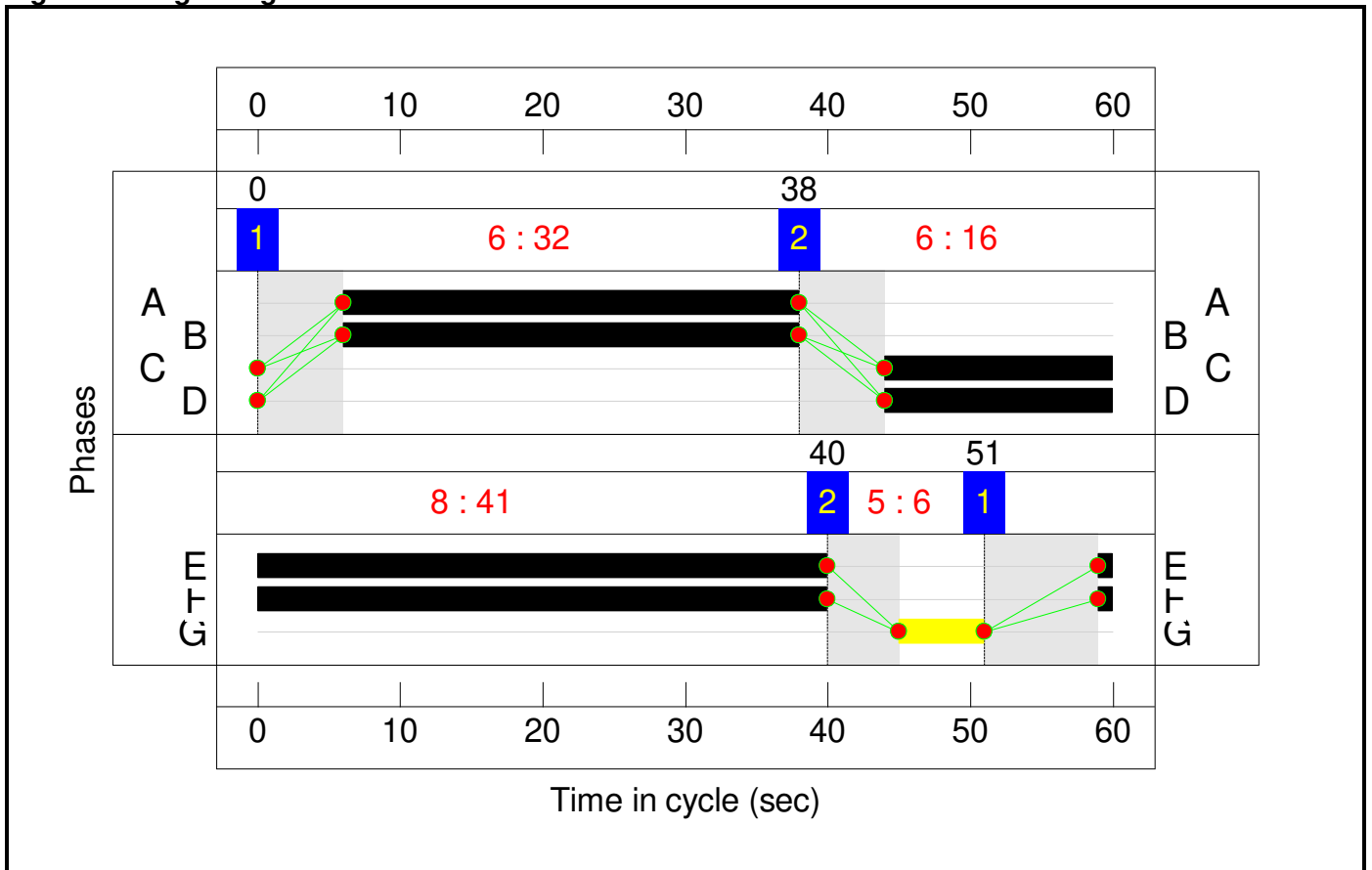
Stage Stream: 1

Stage	1	2
Duration	32	16
Change Point	0	38

Stage Stream: 2

Stage	1	2
Duration	41	6
Change Point	51	40

Signal Timings Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A5/A5025 Valley Crossroads	-	-	N/A	-	-		-	-	-	-	-	-	68.3%
A5/A5025 Valley Crossroads	-	-	N/A	-	-		-	-	-	-	-	-	68.3%
1/1	A5 South Ahead Right Left	O	1	N/A	B		1	32	-	390	1800	614	63.5%
2/1	B4545 Left Ahead Right	O	1	N/A	D		1	16	-	235	1800	344	68.3%
3/1	A5 North Left Ahead Right	O	1	N/A	A		1	32	-	375	1800	647	58.0%
4/2+4/1	A5025 Right Left Ahead	O+U	1	N/A	C		1	16	-	298	1800:1800	733	40.7%
5/1	Ahead	U	2	N/A	F		1	41	-	145	1800	1260	11.5%
6/1		U	N/A	N/A	-		-	-	-	552	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	444	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	157	Inf	Inf	0.0%
9/1	A5 at crossing Ahead	U	2	N/A	E		1	41	-	375	1800	1260	29.8%
10/1	A5 at crossing	U	N/A	N/A	-		-	-	-	145	Inf	Inf	0.0%

Full Input Data And Results

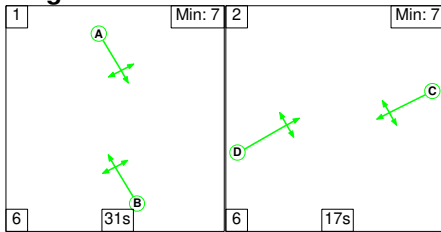
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A5/A5025 Valley Crossroads	-	-	459	0	18	4.5	3.2	0.4	8.1	-	-	-	-
A5/A5025 Valley Crossroads	-	-	459	0	18	4.5	3.2	0.4	8.1	-	-	-	-
1/1	390	390	235	0	8	0.9	0.9	0.2	2.0	18.1	4.3	0.9	5.2
2/1	235	235	119	0	6	1.3	1.1	0.1	2.5	37.9	3.6	1.1	4.6
3/1	375	375	41	0	1	0.5	0.7	0.0	1.2	11.7	1.6	0.7	2.3
4/2+4/1	298	298	65	0	2	1.4	0.3	0.0	1.8	21.2	2.7	0.3	3.0
5/1	145	145	-	-	-	0.1	0.1	-	0.1	3.1	0.6	0.1	0.6
6/1	552	552	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	444	444	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	157	157	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	375	375	-	-	-	0.4	0.2	-	0.6	5.4	2.3	0.2	2.5
10/1	145	145	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 Stream: 1 PRC for Signalled Lanes (%):			31.8	Total Delay for Signalled Lanes (pcuHr):			7.41	Cycle Time (s):		60			
C1 Stream: 2 PRC for Signalled Lanes (%):			202.4	Total Delay for Signalled Lanes (pcuHr):			0.69	Cycle Time (s):		60			
PRC Over All Lanes (%):			31.8	Total Delay Over All Lanes(pcuHr):			8.10						

Full Input Data And Results

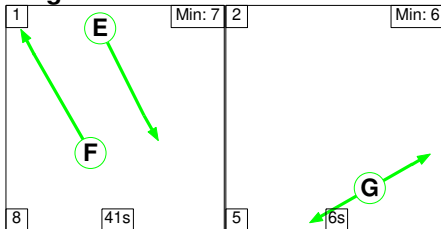
Scenario 4: '2031 Background AM Peak' (FG7: '2031 Background AM Peak', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

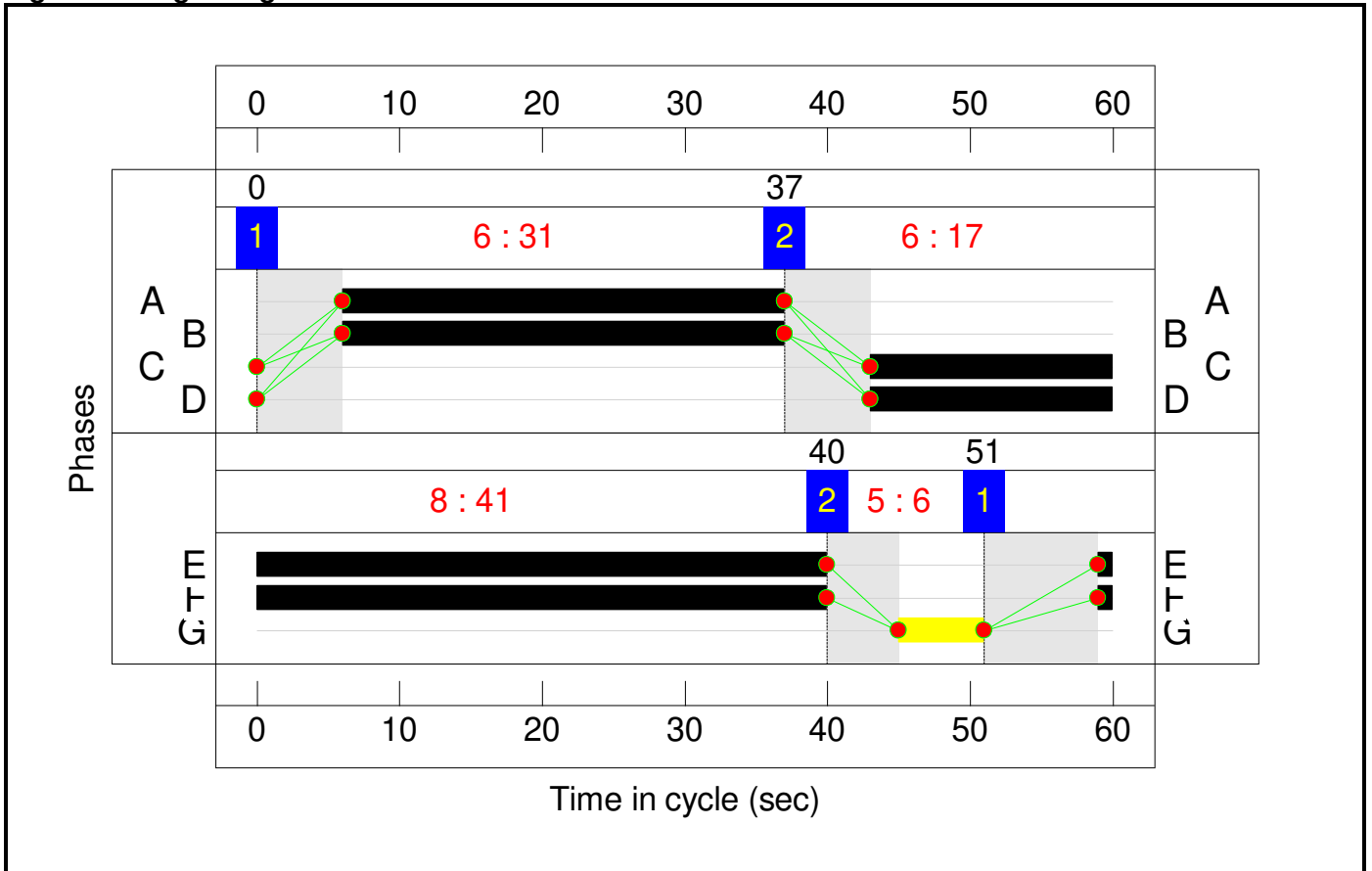
Stage Stream: 1

Stage	1	2
Duration	31	17
Change Point	0	37

Stage Stream: 2

Stage	1	2
Duration	41	6
Change Point	51	40

Signal Timings Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A5/A5025 Valley Crossroads	-	-	N/A	-	-		-	-	-	-	-	-	64.3%
A5/A5025 Valley Crossroads	-	-	N/A	-	-		-	-	-	-	-	-	64.3%
1/1	A5 South Ahead Right Left	O	1	N/A	B		1	31	-	324	1800	627	51.7%
2/1	B4545 Left Ahead Right	O	1	N/A	D		1	17	-	244	1800	380	64.3%
3/1	A5 North Left Ahead Right	O	1	N/A	A		1	31	-	356	1800	681	52.3%
4/2+4/1	A5025 Right Left Ahead	O+U	1	N/A	C		1	17	-	285	1800:1800	767	37.2%
5/1	Ahead	U	2	N/A	F		1	41	-	144	1800	1260	11.4%
6/1		U	N/A	N/A	-		-	-	-	457	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	445	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	163	Inf	Inf	0.0%
9/1	A5 at crossing Ahead	U	2	N/A	E		1	41	-	356	1800	1260	28.3%
10/1	A5 at crossing	U	N/A	N/A	-		-	-	-	144	Inf	Inf	0.0%

Full Input Data And Results

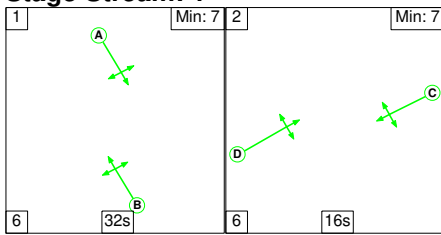
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A5/A5025 Valley Crossroads	-	-	394	0	14	4.2	2.5	0.3	7.0	-	-	-	-
A5/A5025 Valley Crossroads	-	-	394	0	14	4.2	2.5	0.3	7.0	-	-	-	-
1/1	324	324	165	0	6	0.7	0.5	0.1	1.4	15.2	3.2	0.5	3.8
2/1	244	244	127	0	4	1.3	0.9	0.1	2.3	33.8	3.7	0.9	4.5
3/1	356	356	42	0	1	0.5	0.5	0.0	1.1	11.2	1.6	0.5	2.2
4/2+4/1	285	285	61	0	2	1.3	0.3	0.0	1.6	19.9	2.4	0.3	2.7
5/1	144	144	-	-	-	0.1	0.1	-	0.1	3.0	0.6	0.1	0.7
6/1	457	457	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	445	445	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	163	163	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	356	356	-	-	-	0.3	0.2	-	0.5	5.4	2.2	0.2	2.4
10/1	144	144	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 Stream: 1 PRC for Signalled Lanes (%): 40.1						Total Delay for Signalled Lanes (pcuHr): 6.34			Cycle Time (s): 60				
C1 Stream: 2 PRC for Signalled Lanes (%): 218.5						Total Delay for Signalled Lanes (pcuHr): 0.65			Cycle Time (s): 60				
PRC Over All Lanes (%): 40.1						Total Delay Over All Lanes(pcuHr): 6.99							

Full Input Data And Results

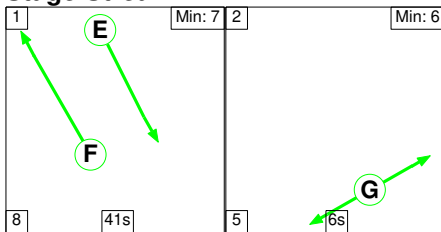
Scenario 5: '2031 with development AM Peak' (FG9: '2031 with development AM Peak', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

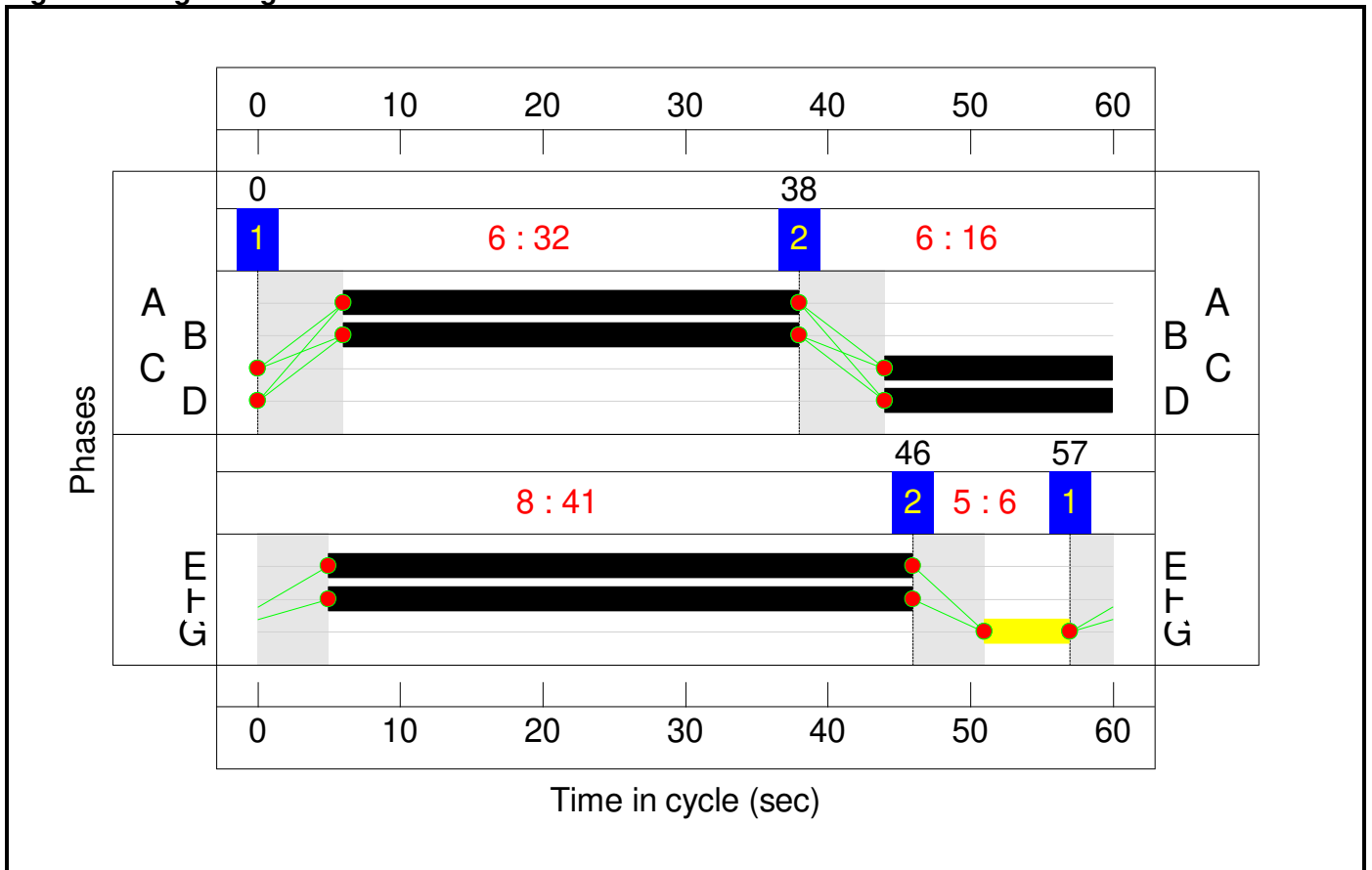
Stage Stream: 1

Stage	1	2
Duration	32	16
Change Point	0	38

Stage Stream: 2

Stage	1	2
Duration	41	6
Change Point	57	46

Signal Timings Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A5/A5025 Valley Crossroads	-	-	N/A	-	-		-	-	-	-	-	-	72.5%
A5/A5025 Valley Crossroads	-	-	N/A	-	-		-	-	-	-	-	-	72.5%
1/1	A5 South Ahead Right Left	O	1	N/A	B		1	32	-	401	1800	600	66.9%
2/1	B4545 Left Ahead Right	O	1	N/A	D		1	16	-	244	1800	337	72.5%
3/1	A5 North Left Ahead Right	O	1	N/A	A		1	32	-	386	1800	641	60.2%
4/2+4/1	A5025 Right Left Ahead	O+U	1	N/A	C		1	16	-	306	1800:1800	734	41.7%
5/1	Ahead	U	2	N/A	F		1	41	-	150	1800	1260	11.9%
6/1		U	N/A	N/A	-		-	-	-	564	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	460	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	163	Inf	Inf	0.0%
9/1	A5 at crossing Ahead	U	2	N/A	E		1	41	-	386	1800	1260	30.6%
10/1	A5 at crossing	U	N/A	N/A	-		-	-	-	150	Inf	Inf	0.0%

Full Input Data And Results

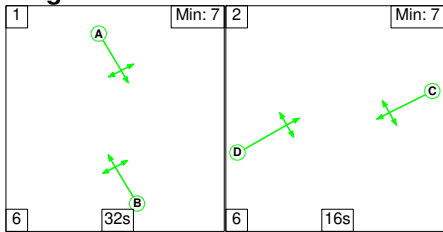
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: A5/A5025 Valley Crossroads	-	-	464	0	27	4.9	3.7	0.4	8.9	-	-	-	-
A5/A5025 Valley Crossroads	-	-	464	0	27	4.9	3.7	0.4	8.9	-	-	-	-
1/1	401	401	240	0	8	0.9	1.0	0.2	2.1	19.0	4.5	1.0	5.5
2/1	244	244	116	0	15	1.3	1.3	0.2	2.8	41.0	3.7	1.3	5.0
3/1	386	386	42	0	1	0.7	0.8	0.0	1.4	13.5	2.2	0.8	2.9
4/2+4/1	306	306	67	0	2	1.5	0.4	0.0	1.8	21.3	2.7	0.4	3.1
5/1	150	150	-	-	-	0.1	0.1	-	0.2	3.9	1.0	0.1	1.1
6/1	564	564	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	460	460	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	163	163	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	386	386	-	-	-	0.4	0.2	-	0.6	5.5	2.4	0.2	2.6
10/1	150	150	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 Stream: 1 PRC for Signalled Lanes (%): 24.2						Total Delay for Signalled Lanes (pcuHr): 8.15			Cycle Time (s): 60				
C1 Stream: 2 PRC for Signalled Lanes (%): 193.8						Total Delay for Signalled Lanes (pcuHr): 0.75			Cycle Time (s): 60				
PRC Over All Lanes (%): 24.2						Total Delay Over All Lanes(pcuHr): 8.90							

Full Input Data And Results

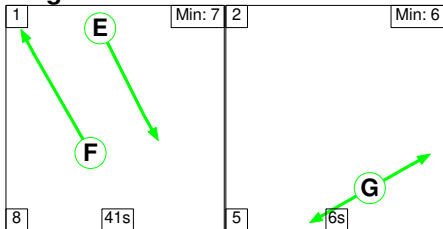
Scenario 6: '2024 Observed PM Peak' (FG2: '2024 Observed PM Peak', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

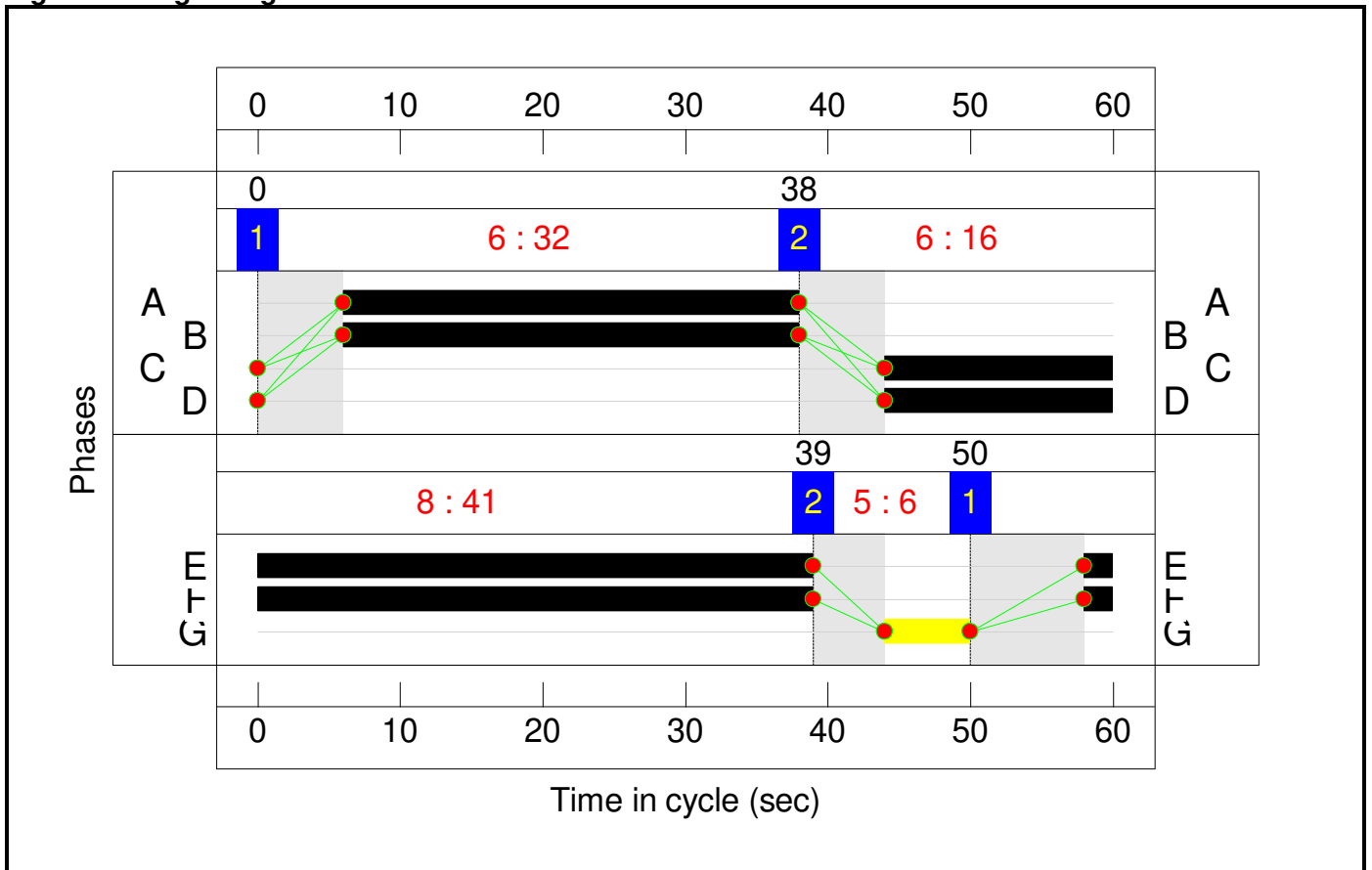
Stage Stream: 1

Stage	1	2
Duration	32	16
Change Point	0	38

Stage Stream: 2

Stage	1	2
Duration	41	6
Change Point	50	39

Signal Timings Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A5/A5025 Valley Crossroads	-	-	N/A	-	-		-	-	-	-	-	-	48.2%
A5/A5025 Valley Crossroads	-	-	N/A	-	-		-	-	-	-	-	-	48.2%
1/1	A5 South Ahead Right Left	O	1	N/A	B		1	32	-	403	1800	836	48.2%
2/1	B4545 Left Ahead Right	O	1	N/A	D		1	16	-	171	1800	383	44.7%
3/1	A5 North Left Ahead Right	O	1	N/A	A		1	32	-	205	1800	688	29.8%
4/2+4/1	A5025 Right Left Ahead	O+U	1	N/A	C		1	16	-	318	1800:1800	689	46.1%
5/1	Ahead	U	2	N/A	F		1	41	-	298	1800	1260	23.7%
6/1		U	N/A	N/A	-		-	-	-	295	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	268	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	236	Inf	Inf	0.0%
9/1	A5 at crossing Ahead	U	2	N/A	E		1	41	-	205	1800	1260	16.3%
10/1	A5 at crossing	U	N/A	N/A	-		-	-	-	298	Inf	Inf	0.0%

Full Input Data And Results

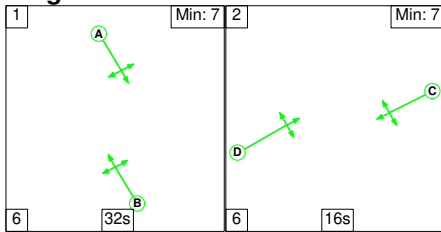
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)	
Network: A5/A5025 Valley Crossroads	-	-	380	0	13	3.8	1.8	0.1	5.7	-	-	-	-	
A5/A5025 Valley Crossroads	-	-	380	0	13	3.8	1.8	0.1	5.7	-	-	-	-	
1/1	403	403	146	0	5	0.9	0.5	0.1	1.4	12.7	4.3	0.5	4.7	
2/1	171	171	63	0	2	0.8	0.4	0.1	1.3	27.4	2.4	0.4	2.8	
3/1	205	205	43	0	1	0.3	0.2	0.0	0.5	8.4	0.7	0.2	1.0	
4/2+4/1	318	318	129	0	4	1.5	0.4	0.0	1.9	22.0	2.4	0.4	2.8	
5/1	298	298	-	-	-	0.1	0.2	-	0.2	2.9	0.6	0.2	0.7	
6/1	295	295	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
7/1	268	268	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
8/1	236	236	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
9/1	205	205	-	-	-	0.2	0.1	-	0.3	4.8	1.1	0.1	1.2	
10/1	298	298	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
			C1 Stream: 1 PRC for Signalled Lanes (%):	86.7				Total Delay for Signalled Lanes (pcuHr):	5.15	Cycle Time (s):		60		
			C1 Stream: 2 PRC for Signalled Lanes (%):	280.5				Total Delay for Signalled Lanes (pcuHr):	0.51	Cycle Time (s):		60		
			PRC Over All Lanes (%):	86.7				Total Delay Over All Lanes(pcuHr):	5.66					

Full Input Data And Results

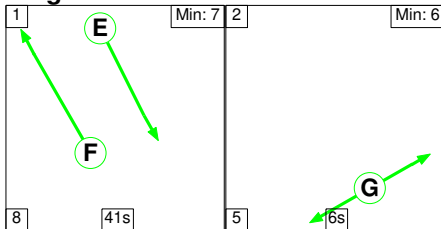
Scenario 7: '2026 Background PM Peak' (FG4: '2026 Background PM Peak', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

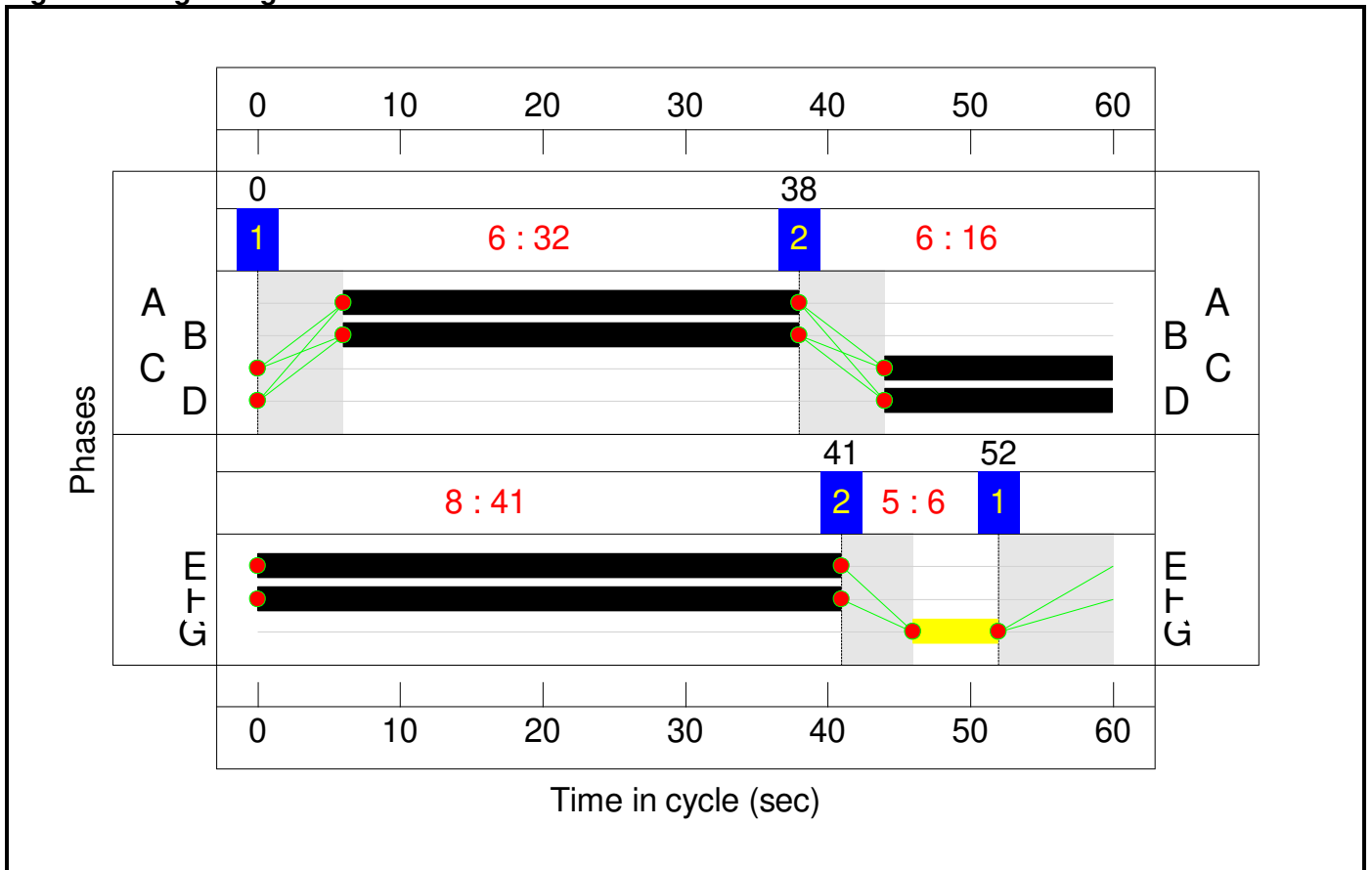
Stage Stream: 1

Stage	1	2
Duration	32	16
Change Point	0	38

Stage Stream: 2

Stage	1	2
Duration	41	6
Change Point	52	41

Signal Timings Diagram



Full Input Data And Results

Network Results

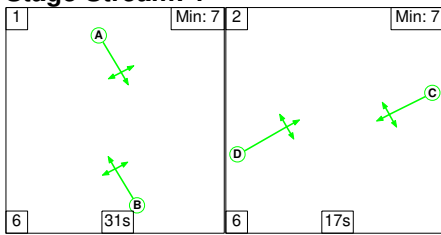
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A5/A5025 Valley Crossroads	-	-	N/A	-	-		-	-	-	-	-	-	71.7%
A5/A5025 Valley Crossroads	-	-	N/A	-	-		-	-	-	-	-	-	71.7%
1/1	A5 South Ahead Right Left	O	1	N/A	B		1	32	-	489	1800	779	62.7%
2/1	B4545 Left Ahead Right	O	1	N/A	D		1	16	-	194	1800	317	61.1%
3/1	A5 North Left Ahead Right	O	1	N/A	A		1	32	-	234	1800	603	38.8%
4/2+4/1	A5025 Right Left Ahead	O+U	1	N/A	C		1	16	-	500	1800:1800	697	71.7%
5/1	Ahead	U	2	N/A	F		1	41	-	371	1800	1260	29.4%
6/1		U	N/A	N/A	-		-	-	-	426	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	350	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	270	Inf	Inf	0.0%
9/1	A5 at crossing Ahead	U	2	N/A	E		1	41	-	234	1800	1260	18.6%
10/1	A5 at crossing	U	N/A	N/A	-		-	-	-	371	Inf	Inf	0.0%

Full Input Data And Results

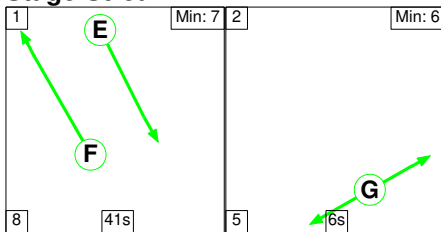
Scenario 8: '2026 with development PM Peak' (FG6: '2026 with development PM Peak', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

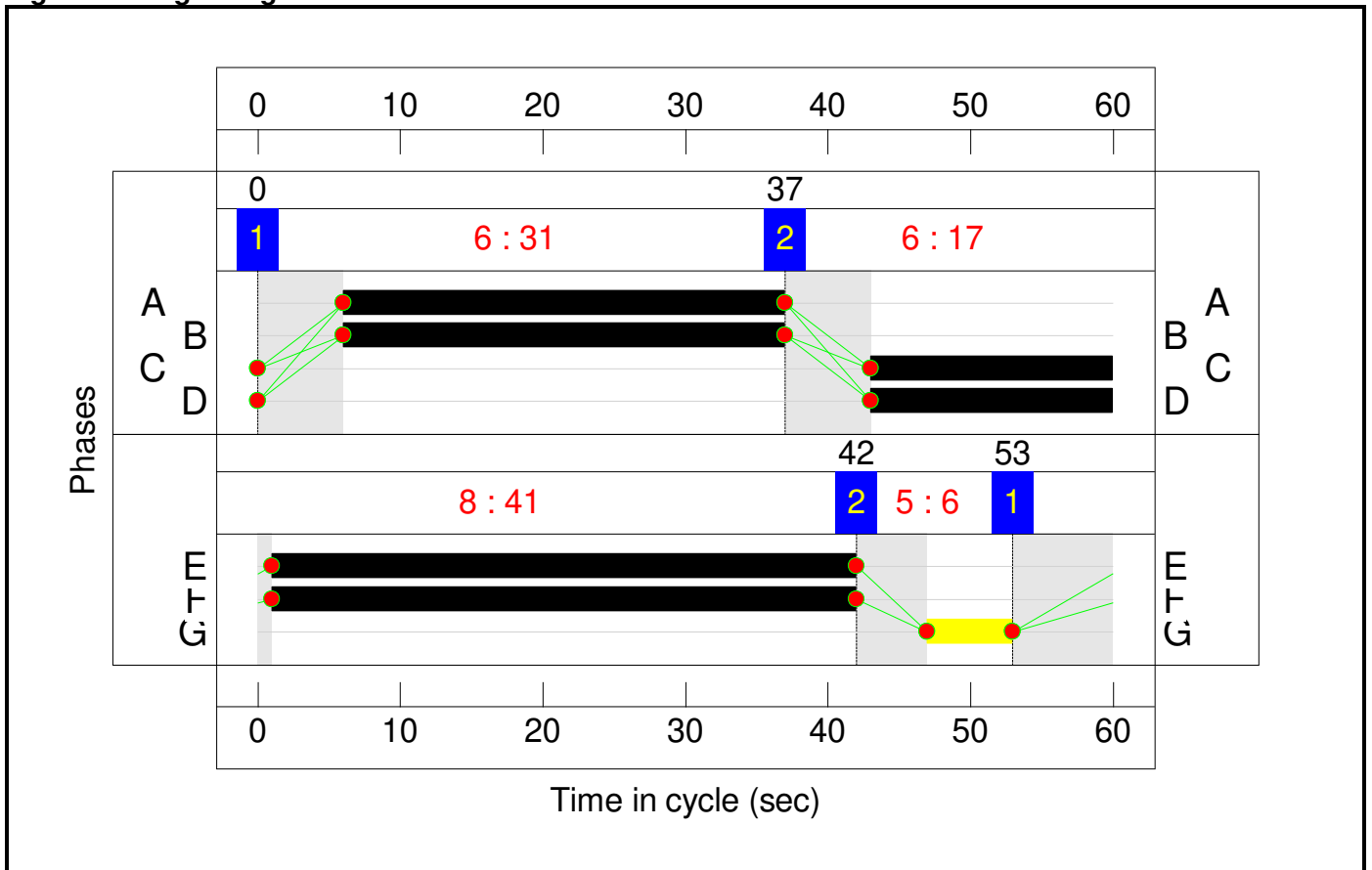
Stage Stream: 1

Stage	1	2
Duration	31	17
Change Point	0	37

Stage Stream: 2

Stage	1	2
Duration	41	6
Change Point	53	42

Signal Timings Diagram



Full Input Data And Results

Network Results

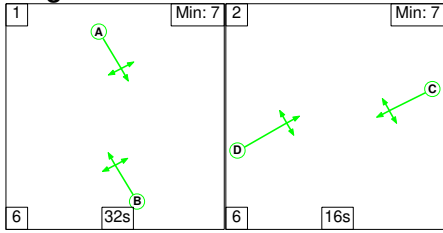
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A5/A5025 Valley Crossroads	-	-	N/A	-	-		-	-	-	-	-	-	70.2%
A5/A5025 Valley Crossroads	-	-	N/A	-	-		-	-	-	-	-	-	70.2%
1/1	A5 South Ahead Right Left	O	1	N/A	B		1	31	-	500	1800	746	67.0%
2/1	B4545 Left Ahead Right	O	1	N/A	D		1	17	-	194	1800	292	66.4%
3/1	A5 North Left Ahead Right	O	1	N/A	A		1	31	-	238	1800	521	45.7%
4/2+4/1	A5025 Right Left Ahead	O+U	1	N/A	C		1	17	-	582	1800:1800	830	70.2%
5/1	Ahead	U	2	N/A	F		1	41	-	394	1800	1260	31.3%
6/1		U	N/A	N/A	-		-	-	-	441	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	409	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	270	Inf	Inf	0.0%
9/1	A5 at crossing Ahead	U	2	N/A	E		1	41	-	238	1800	1260	18.9%
10/1	A5 at crossing	U	N/A	N/A	-		-	-	-	394	Inf	Inf	0.0%

Full Input Data And Results

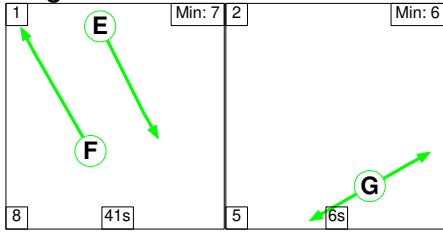
Scenario 9: '2031 Background PM Peak' (FG8: '2031 Background PM Peak', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

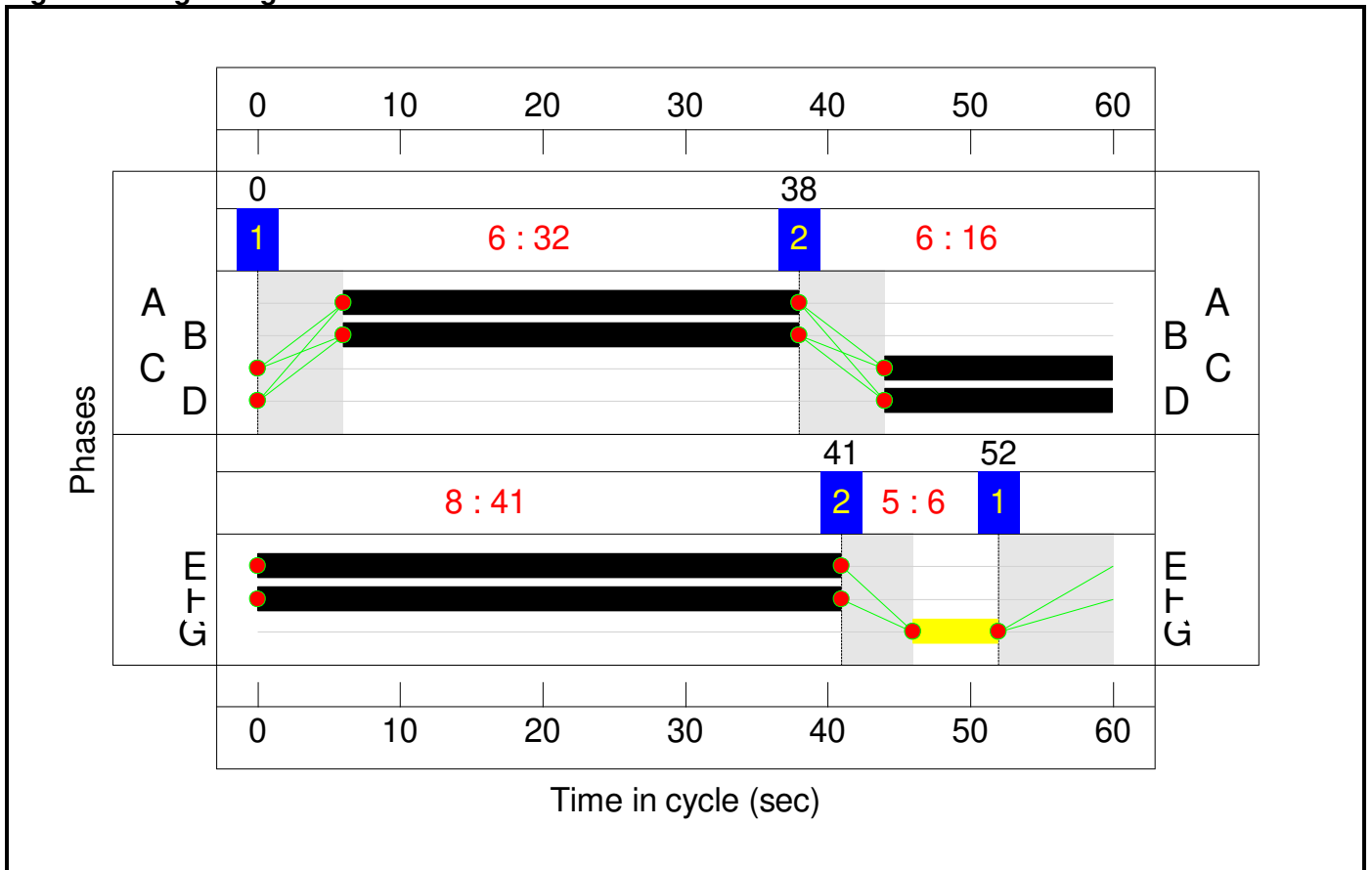
Stage Stream: 1

Stage	1	2
Duration	32	16
Change Point	0	38

Stage Stream: 2

Stage	1	2
Duration	41	6
Change Point	52	41

Signal Timings Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A5/A5025 Valley Crossroads	-	-	N/A	-	-		-	-	-	-	-	-	73.5%
A5/A5025 Valley Crossroads	-	-	N/A	-	-		-	-	-	-	-	-	73.5%
1/1	A5 South Ahead Right Left	O	1	N/A	B		1	32	-	507	1800	770	65.8%
2/1	B4545 Left Ahead Right	O	1	N/A	D		1	16	-	201	1800	316	63.5%
3/1	A5 North Left Ahead Right	O	1	N/A	A		1	32	-	242	1800	573	42.3%
4/2+4/1	A5025 Right Left Ahead	O+U	1	N/A	C		1	16	-	513	1800:1800	698	73.5%
5/1	Ahead	U	2	N/A	F		1	41	-	384	1800	1260	30.5%
6/1		U	N/A	N/A	-		-	-	-	439	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	361	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	279	Inf	Inf	0.0%
9/1	A5 at crossing Ahead	U	2	N/A	E		1	41	-	242	1800	1260	19.2%
10/1	A5 at crossing	U	N/A	N/A	-		-	-	-	384	Inf	Inf	0.0%

Full Input Data And Results

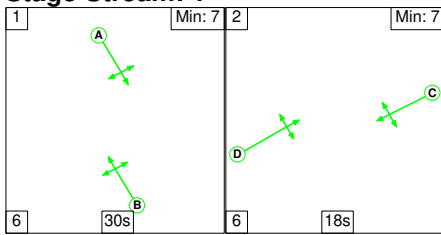
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)	
Network: A5/A5025 Valley Crossroads	-	-	544	0	22	5.6	3.9	0.3	9.8	-	-	-	-	
A5/A5025 Valley Crossroads	-	-	544	0	22	5.6	3.9	0.3	9.8	-	-	-	-	
1/1	507	507	233	0	8	1.3	1.0	0.1	2.4	17.1	5.9	1.0	6.9	
2/1	201	201	67	0	2	1.1	0.9	0.1	2.0	36.0	3.1	0.9	3.9	
3/1	242	242	44	0	2	0.3	0.4	0.0	0.7	10.6	1.0	0.4	1.4	
4/2+4/1	513	513	200	0	10	2.6	1.4	0.1	4.0	28.1	4.2	1.4	5.5	
5/1	384	384	-	-	-	0.1	0.2	-	0.3	3.0	1.1	0.2	1.3	
6/1	439	439	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
7/1	361	361	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
8/1	279	279	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
9/1	242	242	-	-	-	0.2	0.1	-	0.3	4.9	1.3	0.1	1.5	
10/1	384	384	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	
C1 Stream: 1 PRC for Signalled Lanes (%):						22.4	Total Delay for Signalled Lanes (pcuHr):			9.13	Cycle Time (s):			60
C1 Stream: 2 PRC for Signalled Lanes (%):						195.3	Total Delay for Signalled Lanes (pcuHr):			0.65	Cycle Time (s):			60
PRC Over All Lanes (%):						22.4	Total Delay Over All Lanes(pcuHr):			9.78				

Full Input Data And Results

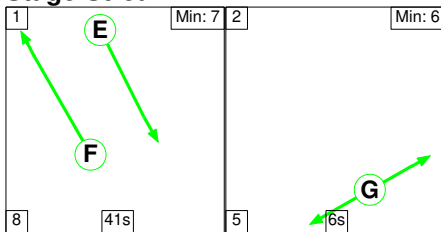
Scenario 10: '2031 with development PM Peak' (FG10: '2031 with development PM Peak', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

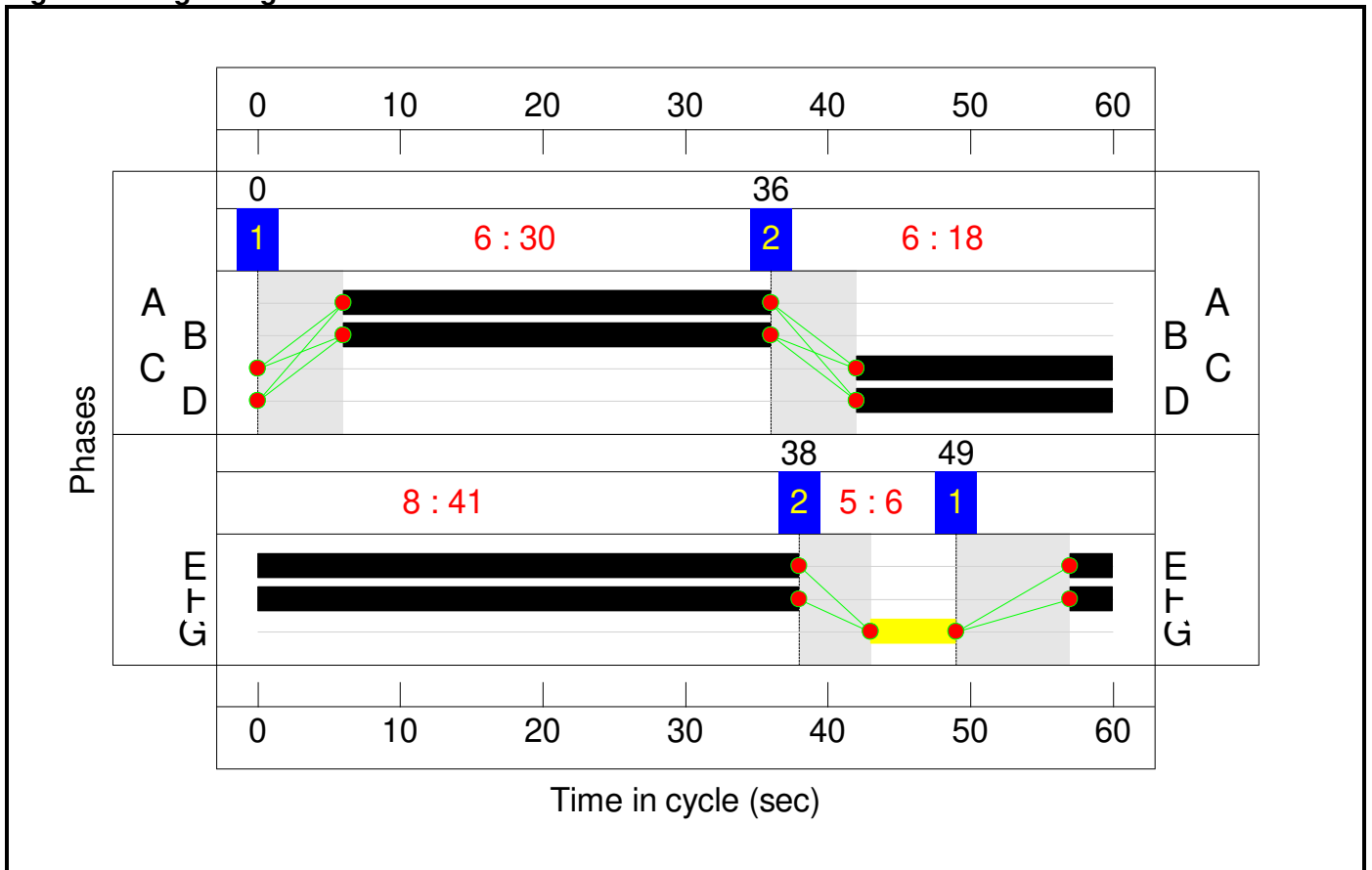
Stage Stream: 1

Stage	1	2
Duration	30	18
Change Point	0	36

Stage Stream: 2

Stage	1	2
Duration	41	6
Change Point	49	38

Signal Timings Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: A5/A5025 Valley Crossroads	-	-	N/A	-	-		-	-	-	-	-	-	73.9%
A5/A5025 Valley Crossroads	-	-	N/A	-	-		-	-	-	-	-	-	73.9%
1/1	A5 South Ahead Right Left	O	1	N/A	B		1	30	-	518	1800	701	73.9%
2/1	B4545 Left Ahead Right	O	1	N/A	D		1	18	-	201	1800	315	63.9%
3/1	A5 North Left Ahead Right	O	1	N/A	A		1	30	-	246	1800	455	54.0%
4/2+4/1	A5025 Right Left Ahead	O+U	1	N/A	C		1	18	-	595	1800:1800	845	70.4%
5/1	Ahead	U	2	N/A	F		1	41	-	407	1800	1260	32.3%
6/1		U	N/A	N/A	-		-	-	-	454	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	420	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	279	Inf	Inf	0.0%
9/1	A5 at crossing Ahead	U	2	N/A	E		1	41	-	246	1800	1260	19.5%
10/1	A5 at crossing	U	N/A	N/A	-		-	-	-	407	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: A5/A5025 Valley Crossroads	-	-	580	0	20	6.2	4.4	0.3	10.9	-	-	-	-																					
A5/A5025 Valley Crossroads	-	-	580	0	20	6.2	4.4	0.3	10.9	-	-	-	-																					
1/1	518	518	244	0	8	1.7	1.4	0.1	3.2	22.4	6.9	1.4	8.3																					
2/1	201	201	67	0	2	1.0	0.9	0.1	2.0	35.5	3.1	0.9	3.9																					
3/1	246	246	44	0	2	0.4	0.6	0.0	1.0	14.2	1.6	0.6	2.1																					
4/2+4/1	595	595	225	0	8	2.8	1.2	0.1	4.0	24.2	4.3	1.2	5.5																					
5/1	407	407	-	-	-	0.2	0.2	-	0.4	3.5	1.2	0.2	1.4																					
6/1	454	454	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
7/1	420	420	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
8/1	279	279	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
9/1	246	246	-	-	-	0.2	0.1	-	0.3	4.9	1.4	0.1	1.5																					
10/1	407	407	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0																					
<table style="width:100%; border:none;"> <tr> <td style="width:20%;"></td> <td style="width:20%;">C1 Stream: 1 PRC for Signalled Lanes (%):</td> <td style="width:20%;">21.9</td> <td style="width:20%;">Total Delay for Signalled Lanes (pcuHr):</td> <td style="width:20%;">10.17</td> <td style="width:20%;">Cycle Time (s):</td> <td style="width:20%;">60</td> </tr> <tr> <td></td> <td>C1 Stream: 2 PRC for Signalled Lanes (%):</td> <td>178.6</td> <td>Total Delay for Signalled Lanes (pcuHr):</td> <td>0.73</td> <td>Cycle Time (s):</td> <td>60</td> </tr> <tr> <td></td> <td>PRC Over All Lanes (%):</td> <td>21.9</td> <td>Total Delay Over All Lanes(pcuHr):</td> <td>10.90</td> <td></td> <td></td> </tr> </table>															C1 Stream: 1 PRC for Signalled Lanes (%):	21.9	Total Delay for Signalled Lanes (pcuHr):	10.17	Cycle Time (s):	60		C1 Stream: 2 PRC for Signalled Lanes (%):	178.6	Total Delay for Signalled Lanes (pcuHr):	0.73	Cycle Time (s):	60		PRC Over All Lanes (%):	21.9	Total Delay Over All Lanes(pcuHr):	10.90		
	C1 Stream: 1 PRC for Signalled Lanes (%):	21.9	Total Delay for Signalled Lanes (pcuHr):	10.17	Cycle Time (s):	60																												
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